z/OS

MVS System Messages Volume 10 (IXC - IZP)

Version 2 Release 2

SA38-0677-04

Note
Before using this information and the product it supports, read the information in "Notices" on page 821.

This edition applies to Version 2 Release 2 of z/OS (5650-ZOS) and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

About this document

MVS™ System Messages primarily describe messages that are issued to the system operator at the system console and system messages that are logged. These include the following messages:

- Operator messages issued by the BCP and DFSMS/MVS.
- Log messages issued by the BCP and DFSMS/MVS.
- Some SYSOUT messages issued by the BCP and DFSMS/MVS. SYSOUT messages are issued by utilities that normally run in batch, such as SPZAP.
- Batch job messages issued by the BCP. Messages issued by JES2 or JES3 for batch jobs are in the JES messages documents.

For the most part, messages issued at interactive terminals (like TSO/E and CICS® terminals) are documented by the specific elements and products that support those terminals.

The titles of the MVS System Messages indicate the range of message prefixes in the documents:

- *z/OS MVS System Messages, Vol 1 (ABA-AOM)*
- *z/OS MVS System Messages, Vol 2 (ARC-ASA)*
- *z/OS MVS System Messages, Vol 3 (ASB-BPX)*
- *z/OS MVS System Messages, Vol 4 (CBD-DMO)*
- *z/OS MVS System Messages, Vol 5 (EDG-GFS)*
- *z/OS MVS System Messages, Vol 6 (GOS-IEA)*
- *z/OS MVS System Messages, Vol 7 (IEB-IEE)*
- *z/OS MVS System Messages, Vol 8 (IEF-IGD)*
- *z/OS MVS System Messages, Vol 9 (IGF-IWM)*
- *z/OS MVS System Messages, Vol 10 (IXC-IZP)*

Here are some of the other types of messages on that bookshelf:

- *z/OS MVS Dump Output Messages*
- *z/OS MVS System Codes*
- *z/OS and z/VM HCD Messages*
- *z/OS JES3 Messages*
- *z/OS TSO/E Messages*
- *z/OS UNIX System Services Messages and Codes*

This document also contains the routing and descriptor codes that IBM assigns to the messages that z/OS components, subsystems, and products issue. Routing and descriptor codes are specified by the ROUTCDE and DESC keyword parameters on WTO and WTOR macros, which are the primary methods that programs use to issue messages. The routing code identifies where a message will be displayed. The descriptor code identifies the significance of the message and the color of the message on operator consoles with color.

Who should use documentation for MVS System Messages

The system messages documents are for people who receive messages from the system. Usually, these people are system operators, system programmers, and application programmers who do any of the following tasks:

- Initialize the operating system and its subsystems
- Monitor system activity
- Keep the system running correctly
- Diagnose and correct system problems
- Diagnose and correct errors in problem programs

How to use these documents

The system messages contain descriptions of messages. See *z/OS MVS System Messages, Vol 1 (ABA-AOM)* for details about z/OS message formats and descriptions.

z/OS information

This information explains how z/OS references information in other documents and on the web.

When possible, this information uses cross document links that go directly to the topic in reference using shortened versions of the document title. For complete titles and order numbers of the documents for all products that are part of z/OS, see *z/OS V2R2 Information Roadmap*.

To find the complete z/OS® library, go to IBM Knowledge Center (http://www.ibm.com/support/knowledgecenter/SSLTBW/welcome).

How to send your comments to IBM

We appreciate your input on this publication. Feel free to comment on the clarity, accuracy, and completeness of the information or provide any other feedback that you have.

Use one of the following methods to send your comments:

1. Send an email to mhvrcfs@us.ibm.com.
2. Send an email from the "Contact us" web page for z/OS (http://www.ibm.com/systems/z/os/zos/webqs.html).

Include the following information:

- Your name and address.
- Your email address.
- Your telephone or fax number.
- The publication title and order number:
  z/OS V2R2 MVS System Messages, Vol 10 (IXC-IZP)
  SA38-0677-04
- The topic and page number that is related to your comment.
- The text of your comment.

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- Contact your IBM service representative.
- Call IBM technical support.
- Visit the IBM Support Portal at z/OS Support Portal (http://www-947.ibm.com/systems/support/z/zos/).

Summary of changes

This information includes terminology, maintenance, and editorial changes. Technical changes or additions to the text and illustrations for the current edition are indicated by a vertical line to the left of the change.

Summary of changes for z/OS MVS System Messages, Vol 10 (IXC-IZP) for Version 2 Release 2 (V2R2) and its updates

The following lists indicate the messages that are new, changed, or no longer issued in z/OS V2R2 and its updates. Messages that have been added, updated, or that are no longer issued in an updated edition of V2R2 are identified by the quarter and year that the message was updated, in parentheses. For example, (4Q2015) indicates that a message was updated in the fourth quarter of 2015.

Message changes for z/OS MVS System Messages, Vol 10 (IXC-IZP)

The following messages are new, changed, or no longer issued in V2R2.

New

The following messages are new.

IXCH0226I
IXCH0227I
IXCH0459E
IXC637I
IXC638I
IXC645E
IXG078I (4Q2015)
IXG320I
IXG321I
IXG322I
IXG323I
IXG324I
IXG325I
IXG326I
IXG327I
IXL017I
IXL057I (4Q2015)

Changed

The following messages are changed.

IXC331I
IXC332I
IXC333I

IXC337I
IXC347I
IXC358I (4Q2015)
IXC359I
IXC357I (4Q2015)
IXC360I
IXC362I
IXC373I (4Q2015)
IXC388I
IXC440E
IXC500I
IXC517I
IXC518I
IXC530I (4Q2015)
IXC538I (4Q2015)
IXC574I
IXC638I (4Q2015)
IXC745I
IXCH0202I
IXCH0206E
IXCH0912I (4Q2015)
IXG016E
IXG058E (4Q2015)
IXG207I (4Q2015)
IXG233I
IXG261E
IXG262A
IXG283I
IXG310I
IXG601I (4Q2015)
IXG607I
IXG651I
IXG652I
IXG653I
IXG661I
IXG662I
IXG735I (4Q2015)
IXL013I
IXL015I
IXL047I
IXL150I

Deleted

The following messages were deleted.

IXCH0265E

IXCH0266I
IXCH0930I

Summary of message changes for z/OS MVS System Messages, Vol 10 (IXC-IZP) for Version 2 Release 1, as updated February 2015

The following messages are new, changed, or no longer issued for z/OS MVS System Messages, Vol 10 (IXC-IZP) in the February 2015 update of z/OS V2R1. For more information, see *z/OS MVS System Messages, Vol 10 (IXC-IZP)* .

Changed

The following messages are changed.

IXL150I - Addition of CS5 and 8X-PCIE3 types.

Summary of changes for z/OS Version 2 Release 1 (V2R1) as updated March 2014

The following changes are made for z/OS Version 2 Release 1 (V2R1) as updated March 2014. In this revision, all technical changes for z/OS V2R1 are indicated by a vertical line to the left of the change.

New

The following messages are added:

IXCH0265E
IXCH0266I
IXCH0930I
IXC592I
IXC593I
IXC594I

Changed

The following messages are changed:

IXC347I
IXC360I
IXC531I
IXC574I
IXC582I
IXC583I
IXC584I
IXG310I
IXL015I

z/OS Version 2 Release 1 summary of changes

See the following publications for all enhancements to z/OS Version 2 Release 1 (V2R1):

- *z/OS V2R2 Migration*
- *z/OS Planning for Installation*
- *z/OS Summary of Message and Interface Changes*
- *z/OS V2R2 Introduction and Release Guide*

Chapter 1. IXC messages

IXC101I SYSPLEX PARTITIONING IN PROGRESS FOR *sysname* **REQUESTED BY** *jobname* **REASON:** *reason*

Explanation: XCF is removing a system from the sysplex.

In the message text:

sysname
The name of the system XCF is removing from the sysplex.

jobname
The name of the job that requested the sysplex partition.

reason
The reason the system is being removed from the sysplex:

LOSS OF COUPLE DATA SET
System *sysname* could not function in the sysplex because of failure(s) of the primary and alternate (if available) couple data set.

LOSS OF CONNECTIVITY
XCF initiated a request to remove system *sysname* from the sysplex because it lost signaling connectivity to one or more other systems in the sysplex.

OPERATOR VARY REQUEST
An operator requested that system *sysname* be removed from the sysplex.

SYSTEM STATUS UPDATE MISSING
XCF initiated a request to remove system *sysname* from the sysplex because XCF detected missing system status updates for *sysname*. This indicates that the system may have failed.

LOSS OF ETR
An operator requested that *sysname* be removed from the sysplex because it lost access to the external time reference (ETR).

SYSTEM ENTERED WAIT STATE
System *sysname* entered a wait state, either initiated by IXCPART or detected by XCF.

SYSTEM DETECTED AS NO LONGER IN SYSPLEX
System *sysname* was removed from the sysplex. XCF could not determine the reason.

POLICY INITIATED REQUEST
XCF processor resource/systems manager (PR/SM™) policy initiated the request to remove the system from the sysplex or the system is PR/SM capable and RESETTIME or DEACTTIME was specified in the SFM policy.

SFM STARTED DUE TO STATUS UPDATE MISSING
System *sysname* was removed from the sysplex as required by the sysplex failure management policy because the system was not updating its status at regular intervals.

SFM INITIATED DUE TO SIGNALLING FAILURE
System *sysname* was removed from the sysplex as required by the sysplex failure management policy because the sysplex had to be reconfigured in order to resolve a signalling connectivity failure in the sysplex.

A NEW SYSTEM IS DETECTED RUNNING ON THE SAME CPC
System *sysname* was removed from the sysplex because it was determined that another MVS system was running on the same CPC image which system *sysname* was previously running.

INCOMPATIBLE LOGICAL PARTITION NUMBER
System *sysname* was removed from the sysplex because it was determined that it could not support the logical partition number of another system in the sysplex.

TIMING NOT SYNCHRONIZED WITH SYSPLEX
System *sysname* was removed from the sysplex because it was determined that it was not synchronized to the same time reference as the other systems in the sysplex.

SYSTEM CAUSING SYMPATHY SICKNESS
The system was removed from the sysplex to alleviate sympathy sickness that was impacting other systems in the sysplex. Message IXC440E might have been issued by the impacted systems. Message IXC631I might have been issued by the removed system to indicate which stalled XCF members were causing the sympathy sickness.

SYSTEM RESET OR NEW IMAGE LOADED
The partition containing system *sysname* has been reset, deactivated, or a new system image has been loaded in the partition that it formerly occupied.

CPC FAILURE
The central processing complex (CPC) on which the system was running has failed.

PARTITION DEACTIVATED
The central processing complex (CPC) LPAR on which the system *sysname* was running has been deactivated.

SYSTEM HAS AN IMPAIRED CRITICAL MEMBER
The system was removed from the sysplex to alleviate a critical member impairment condition that could have been impacting other systems in the sysplex. Message IXC633I and message IXC636I may have been issued by the removed system to indicate which impaired XCF members were causing the impairment condition.

OPERATOR VARY REQUEST WITH REIPL OPTION
An operator requested that system *sysname* be removed from the sysplex and the system be re-IPLed by the AutoIPL function.

OPERATOR VARY REQUEST WITH SADMP OPTION
An operator requested that system *sysname* be removed from the sysplex and that stand-alone dump (SADMP) be IPLed for this system by the AutoIPL function.

OPERATOR VARY REQUEST WITH SADMP AND REIPL OPTIONS
An operator requested that system *sysname* be removed from the sysplex and that stand-alone dump (SADMP) be IPLed for this system by the AutoIPL function, followed by MVS being re-IPLed by SADMP.

System action: The system continues processing without the removed system.

Operator response: If the system programmer requests it, obtain a stand-alone dump.

System programmer response: Look for and correct any problems with the ETR clock, signalling paths, or couple data set.

If the system was removed because it could not support the logical partition number of another system, look for and correct the missing service that will allow the system to support the attributes of the other systems in the sysplex.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM® Support Center. Provide the stand-alone dump.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS4TSK

Routing code: 1,2,10

Descriptor code: 12

IXC102A XCF IS WAITING FOR SYSTEM *sysname* DEACTIVATION. REPLY DOWN WHEN MVS ON *sysname* HAS BEEN SYSTEM RESET.

Explanation: XCF is removing a system from the sysplex. The system which is to be removed must be system reset before the operator replies DOWN to this message.

Note:

1. The system reset is needed to ensure that the system image being removed from the sysplex no longer has the capability to perform I/O to devices which may be shared with other systems that remain active in the sysplex. If this reset is not performed before replying to this message, then severe data integrity problems may result. When the subject system is removed from the sysplex, XCF will clean up resources (such as locks, ENQs, and reserves) which are held by that system, and make them available to other systems in the sysplex. If the subject system is in fact still active, and operating in the belief that it still holds these resources, unpredictable results may occur.
2. When this message appears, it is important that the appropriate system reset action be taken, and that this message be replied to in a timely fashion. While this message is outstanding, XCF must still consider the subject system to be (at least potentially) active in the sysplex, and therefore XCF cannot clean up resources (such as locks, ENQs, and reserves) which are held by that system. These resources will remain unavailable to all other systems in the sysplex until this message is replied to, and the system completes the process of being removed from the sysplex. Extended unavailability of these resources is likely to cause delays, timeouts, or other problems for the other systems in the sysplex.
3. There are instances when this message will be issued and the appropriate action must be taken even though there is an SFM policy active in the sysplex. If SFM cannot successfully isolate the system image being removed, manual intervention will be required. This message will be issued and must be responded to.

In the message text:

sysname
The name of the system XCF is removing from the sysplex.

System action: Processing continues. The system is not removed from the sysplex until the operator performs a system reset and replies DOWN.

Operator response: Before replying **DOWN**, a system reset must be performed on system *sysname*. Perform the hardware SYSTEM RESET or LOAD (IPL) function to ensure that system *sysname* is reset. If system *sysname* is to be dumped (for example, via Standalone Dump), take care to perform a SYSTEM-RESET-NORMAL or LOAD-NORMAL function that does not clear the system storage. Once system *sysname* is system reset, reply **DOWN**.

Note that several acceptable alternatives to SYSTEM RESET or LOAD exist. You may reply **DOWN** after any action or condition listed below occurs for system *sysname*:

- SYSTEM RESET-NORMAL
- LOAD-NORMAL
- INITIATION OF STANDALONE DUMP (via LOAD-NORMAL)
- SYSTEM RESET-CLEAR
- LOAD-CLEAR
- POWER-ON-RESET
- NO POWER® to CPC where system *sysname* resides
- Deactivation of the logical partition where system *sysname* resides
- Reset of the logical partition where system *sysname* resides.
- Processor on which *sysname* is running is in a checkstopped state.

Note: Some of these system-reset alternatives might cause the issuance of messages on remote systems that are connected by the Ficon channel to channel connections to the target system.
Depending on your hardware and your hardware operational procedures, the above functions may be invoked explicitly or implicitly. For example, on an HMC you may implicitly perform one of the above hardware functions by dragging a CPC object or an image object and dropping the object on the ACTIVATE task. The hardware function performed depends on the activation profile associated with the object.

It is important to note that, if system *sysname* is in a disabled wait state, that is not, by itself, sufficient to guarantee that system *sysname* can no longer access I/O devices that may be shared with other active systems in the sysplex. However, if the system is configured so that a system reset is automatically performed when a disabled wait state is entered, then that is sufficient and there is no need to manually reset the system again.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2WTO

Routing code: 1,2

Descriptor code: 4

IXC103I SYSTEM IDENTIFICATION INFORMATION *information*

Explanation: In the message, *information* is:

```
CONNECTION STATUS:    {CONNECTED|NOT CONNECTED}
      SYSTEM NAME:      sysname
    SYSTEM NUMBER:      sysnum
       IMAGE NAME:      image
  NODE DESCRIPTOR:      type.mfg.plant.sequence
 PARTITION NUMBER:      partition
           CPC ID:      cpcid
  NETWORK ADDRESS:      netid.nau
        IPL TOKEN:      ipltoken
```

The message displays the identification information about system status detection partitioning protocol associated with this system. This message is issued when the system performs initialization processing to become enabled to target other systems and be targeted by other systems using the system status detection partitioning protocol. As part of the initialization process, the system establishes a logical application connection to BCPii to issue remote hardware management console API commands against other systems that are eligible targets of the system status detection partitioning protocol.

In the message text:

CONNECTED
The system is connected to the local CPC Image through BCPii callable services.

NOT CONNECTED
The system is not connected to the local CPC image through BCPii callable services. The reason why this system is not connected is listed in message IXC104I or IXC112I, or can be obtained by issuing the DISPLAY XCF,C operator command.

sysname
The name of the local system in the sysplex.

sysnum
The XCF system number assigned to the local system.

image
The image name associated with the logical partition (LPAR) in which the local system was loaded. If the image name is not currently available, `NOT AVAILABLE` is shown for *image*.

type
The *type* field of the node descriptor of the central processor complex (CPC) on which the local system resides.

mfg
Manufacturer ID field of the node descriptor.

plant
Manufacturer *plant ID* field of the node descriptor.

sequence
Node descriptor sequence number.

partition
LPAR number of the partition in which the local system was loaded.

cpcid
ID of the CPC on which the local system resides.

netid
The network ID of the local area network (LAN) connecting the CPCs on which the systems in the sysplex reside. If the network address is not currently available, `NOT AVAILABLE` is shown for *netid.nau*.

nau
The network addressable unit uniquely identifying a CPC as a node on the LAN named by *netid*. If the network address is not currently available, `NOT AVAILABLE` is shown for *netid.nau*.

ipltoken
The IPL token assigned to the local system in the sysplex. The IPL token is uniquely associated with the local system instance of *sysname* in the sysplex. If the system is running on hardware that does not preserve this information or the information is not currently available, NOT AVAILABLE is shown for *ipltoken*.

System action: The system continues processing.

Operator response: If the connection status is NOT CONNECTED, notify the system programmer.

System programmer response: If the connection status is NOT CONNECTED, look for the reason why this system is not connected as listed in message IXC104I or IXC112I, or issue the DISPLAY XCF,C operator command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SBT

Routing code: 2, Note 13

Descriptor code: 4

IXC104I SYSTEM STATUS DETECTION PARTITIONING PROTOCOL ELIGIBILITY:*information*

Explanation: In the message, *information* is:

```
SYSTEM {CAN | CANNOT} TARGET OTHER SYSTEMS.
[REASON: targetotherrsn]
SYSTEM {IS | IS NOT} ELIGIBLE TO BE TARGETED
BY OTHER SYSTEMS.
[REASON: othertargetrsn]
```

The message indicates whether the status detection partitioning protocol is enabled on this system, and to what degree.

In the message text:

SYSTEM {CAN | CANNOT} TARGET OTHER SYSTEMS
Whether this system can employ the system status detection partitioning protocol when removing other systems from the sysplex.

targetotherrsn
The reason that this system cannot use the system status detection partitioning protocol to aid in removing other systems from the sysplex. One of the following reasons apply:

SYSPLEX COUPLE DATA SET NOT FORMATTED TO SUPPORT PROTOCOL
The primary sysplex couple data set was not formatted to support the larger records required by the protocol.

NOT ENABLED BY INSTALLATION
The local system has not enabled the protocol by specifying ENABLE(SYSSTATDETECT) either in the COUPLExx parmlib member FUNCTIONS statement or on a SETXCF FUNCTIONS command.

OPERATING AS VM GUEST
This system is operating as a second-level guest under the VM operating system. In this environment, the system services necessary to exploit the protocol are not available.

BCPII SERVICES NOT AVAILABLE
BCPii services are not available. The system status detection protocol requires BCPii services to determine the status of other systems in the sysplex. When BCPii services are not available, the local system is not connected to any remote CPC images in the sysplex.

SYSTEM OR HARDWARE ERROR
A system or hardware error prevented this system from obtaining and communicating its IPL token, network address, or image name, or connecting to the BCPii hardware management interface.

INSUFFICIENT SAF RESOURCE ACCESS AUTHORITY
The local system has insufficient authorization to access SAF-protected resources associated with BCPii callable services.

UNEXPECTED SYSTEM SERVICE ERROR
An unexpected return code was received from a BCPii callable service, preventing this system from obtaining its IPL token, network address or image name, or connecting to the BCPii hardware management interface.

PROTOCOL NOT APPLICABLE IN MONOPLEX MODE
The local system is running in MONOPLEX mode. A system in MONOPLEX mode is restricted to a single system environment, and has no need for using the system status detection partitioning protocol.

PROTOCOL NOT APPLICABLE IN XCF-LOCAL MODE
The local system is running in XCF-LOCAL mode. A system in XCF-LOCAL mode is restricted to a single system environment, and has no need for using the system status detection partitioning protocol.

SYSTEM {IS | IS NOT} ELIGIBLE TO BE TARGETED BY OTHER SYSTEMS:
Whether other systems can employ the system status detection partitioning protocol when removing this system from the sysplex.

othertargetrsn
The reason that other systems cannot use the system status detection partitioning protocol when removing this system from the sysplex. One of the following reasons apply:

SYSPLEX COUPLE DATA SET NOT FORMATTED TO SUPPORT PROTOCOL
The primary sysplex couple data set was not formatted to support the larger records required by the protocol.

NOT ENABLED BY INSTALLATION
The local system has not enabled the protocol by specifying ENABLE(SYSSTATDETECT) either in the COUPLExx parmlib member FUNCTIONS statement or on a SETXCF FUNCTIONS command.

NOT SUPPORTED BY HARDWARE
The hardware on which this system resides does not support the functions necessary for this system to identify itself within the context of the protocol.

OPERATING AS VM GUEST
This system is operating as a second-level guest under the VM operating system. In this environment, the system cannot uniquely identify itself within the context of the protocol.

SYSTEM OR HARDWARE ERROR
A system or hardware error prevented this system from establishing its unique identity within the context of the protocol.

BCPII SERVICES NOT AVAILABLE
BCPii services are not available. For the local system to be an eligible target of the system status detection partition protocol, the system status detection protocol requires BCPii services to be available on the local system to collect necessary information to publish the local IPL token, CPC network address, and image name needed by other systems.

INSUFFICIENT SAF RESOURCE ACCESS AUTHORITY
The local system has insufficient authorization to access SAF-protected resources associated with BCPii callable services.

UNEXPECTED SYSTEM SERVICE ERROR
An unexpected return code was received from a BCPii callable service, preventing this system from obtaining its IPL token, network address or image name, or connecting to the BCPii hardware management interface.

PROTOCOL NOT APPLICABLE IN MONOPLEX MODE
The local system is running in MONOPLEX mode. A system in MONOPLEX mode is restricted to a single system environment, and has no need for using the system status detection partitioning protocol.

PROTOCOL NOT APPLICABLE IN XCF-LOCAL MODE
The local system is running in XCF-LOCAL mode. A system in XCF-LOCAL mode is restricted to a single system environment, and has no need for using the system status detection partitioning protocol.

System action: The system continues processing. If the system status detection partitioning protocol cannot be used, the system processes partitioning requests using a partitioning protocol based on the sysplex failure management (SFM) policy or default indeterminate status behavior. This message will be re-issued if any factors affecting the protocol eligibility change.

Operator response: None.

System programmer response: If the system status detection partitioning protocol is not enabled, and enablement is required, correct the limiting factor identified in the message as follows:

SYSPLEX COUPLE DATA SET NOT FORMATTED TO SUPPORT PROTOCOL
Format primary and alternate sysplex couple data sets by specifying the following parameters in the input to the IXCL1DSU format utility:

```
ITEM NAME(SSTATDET) NUMBER(1)
```

Bring the new couple data sets into service with the appropriate sequence of SETXCF COUPLE commands.

See *z/OS MVS Setting Up a Sysplex* for information about the syntax of the IXCL1DSU format utility record and the proper sequence of SETXCF COUPLE commands to use to bring a new couple data set into service.

NOT ENABLED BY INSTALLATION
Issue the `SETXCF FUNCTIONS,ENABLE=SYSSTADETECT` command. Update the COUPLExx parmlib member to specify `FUNCTIONS ENABLE(SYSSTADETECT)` to preserve the setting for the next IPL.

BCPII SERVICES NOT AVAILABLE
See *z/OS MVS Programming: Callable Services for High-Level Languages* for information about making BCPii services available on the system.

INSUFFICIENT SAF RESOURCE ACCESS AUTHORITY
See topic "Assigning the RACF® TRUSTED attribute" in *z/OS MVS Initialization and Tuning Reference* for information about using RACF to assign the TRUSTED attribute to the XCF address space. Also see topic "BCPii Setup and Installation" in *z/OS MVS Programming: Callable Services for High-Level Languages* for detailed information about defining a community name in SAF for each CPC that the local system is communicating with.

UNEXPECTED SYSTEM SERVICE ERROR
Message IXC112I is issued when a BCPii callable service returns a failing return code while the local system is attempting to establish a virtual connection to the local CPC and image via BCPii. See message IXC112I for diagnostic information to help correct the problem.

SYSTEM OR HARDWARE ERROR
XCF issues an abend x00C reason x041Dyyyy to initiate internal XCF self verification and other actions to address the situation and capture diagnostic data. If an internal XCF problem is discovered, a dump is taken. An entry in logrec is made to document the situation even if no dump is taken. Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Other factors reported by the message cannot be corrected by the system programmer.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SBT

Routing code: 2, 10

Descriptor code: 4

IXC105I SYSPLEX PARTITIONING HAS COMPLETED FOR *sysname* **- PRIMARY REASON:** *text* **- REASON FLAGS:** *flags*

Explanation: XCF removed a system from the sysplex.

In the message text:

sysname
The name of the system that XCF removed from the sysplex.

flags
Information that IBM might request for diagnosis.

LOSS OF COUPLE DATA SET
System *sysname* could not function in the sysplex because of failure(s) of the primary and alternate (if available) couple data set.

LOSS OF CONNECTIVITY
XCF initiated a request to remove system *sysname* from the sysplex because it lost signalling connectivity to one or more other systems in the sysplex.

OPERATOR VARY REQUEST
An operator requested that system *sysname* be removed from the sysplex.

SYSTEM STATUS UPDATE MISSING
XCF initiated a request to remove system *sysname* from the sysplex because XCF detected missing system status updates for *sysname*. This indicates that the system may have failed.

LOSS OF ETR
An operator requested that *sysname* be removed from the sysplex because it lost access to the external time reference (ETR).

SYSTEM ENTERED WAIT STATE
System *sysname* entered a wait state, either initiated by IXCPART or detected by XCF.

SYSTEM DETECTED AS NO LONGER IN SYSPLEX
System *sysname* was removed from the sysplex. XCF could not determine the reason.

POLICY INITIATED REQUEST
XCF processor resource/systems manager (PR/SM) policy initiated the request to remove the system from the sysplex.

SYSTEM REMOVED BY SYSPLEX FAILURE MANAGEMENT BECAUSE ITS STATUS UPDATE WAS MISSING
System *sysname* was removed from the sysplex as required by the sysplex failure management policy because the system was not updating its status at regular intervals.

SYSTEM REMOVED BY SYSPLEX FAILURE MANAGEMENT BECAUSE OF A SIGNALLING CONNECTIVITY FAILURE IN THE SYSPLEX
System *sysname* was removed from the sysplex as required by the sysplex failure management policy because the sysplex had to be reconfigured in order to resolve a signalling connectivity failure in the sysplex.

SYSTEM REMOVED BECAUSE A NEW MVS SYSTEM WAS DETECTED RUNNING ON THE SAME CPC IMAGE
System *sysname* was removed from the sysplex because it was determined that another MVS system was running on the same CPC image on which system *sysname* was previously running.

SYSTEM REMOVED BECAUSE THE LOGICAL PARTITION NUMBER OF ANOTHER SYSTEM WAS NOT COMPATIBLE
System *sysname* was removed from the sysplex because it was determined that it could not support the logical partition number of another system in the sysplex.

TIMING NOT SYNCHRONIZED WITH SYSPLEX
System *sysname* was removed from the sysplex because it was determined that it was not synchronized to the same time reference as the other systems in the sysplex.

SYSTEM CAUSING SYMPATHY SICKNESS
The system was removed from the sysplex to alleviate sympathy sickness that was impacting other systems in the sysplex. Message IXC440E might have been issued by the impacted systems. Message IXC631I might have been issued by the removed system to indicate which stalled XCF members were causing the sympathy sickness.

SYSTEM RESET OR NEW IMAGE LOADED
The partition containing system *sysname* has been reset, deactivated, or a new system image has been loaded in the partition that it formerly occupied.

CPC FAILURE
The central processing complex (CPC) on which the system *sysname* was running has failed.

PARTITION DEACTIVATED
The central processing complex (CPC) LPAR on which the system *sysname* was running has been deactivated.

SYSTEM HAS AN IMPAIRED CRITICAL MEMBER
The system was removed from the sysplex to alleviate a critical member impairment condition that could have been impacting other systems in the sysplex. Message IXC633I and message IXC636I may have been issued by the removed system to indicate which impaired XCF members were causing the impairment condition.

OPERATOR VARY REQUEST WITH REIPL OPTION
An operator requested that system *sysname* be removed from the sysplex and the system be re-IPLed by the AutoIPL function.

OPERATOR VARY REQUEST WITH SADMP OPTION
An operator requested that system *sysname* be removed from the sysplex and that stand-alone dump (SADMP) be IPLed for this system by the AutoIPL function.

OPERATOR VARY REQUEST WITH SADMP AND REIPL OPTIONS
An operator requested that system *sysname* be removed from the sysplex and that stand-alone dump (SADMP) be IPLed for this system by the AutoIPL function, followed by MVS being re-IPLed by SADMP.

System action: The sysplex continues processing without the removed system.

Operator response: If the system programmer requests it, obtain a stand-alone dump.

System programmer response: Look for and correct any problems with the ETR clock, signalling paths, or couple data sets.

If the system was removed because it could not support the logical partition number of another system, look for and correct the missing service that will allow the system to support the attributes of the other systems in the sysplex.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Provide the stand-alone dump.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS4TSK

Routing code: 1,2,10

Descriptor code: 12

IXC106I **SYSTEM** *sysname status*

Explanation: The local system detected that system *sysname* has the reported *status*.

In the message text:

sysname
The name of the system.

status
One of the following conditions:

ENTERED WAIT STATE
The system was observed to have entered a non-restartable disabled wait state.

RESET OR NEW IMAGE LOADED
The partition containing the system has been reset or a new system image has been loaded in the partition it formerly occupied.

Note:

1. A system can be reset if a non-restartable wait state is loaded and "Automatic input/output (I/O) interface reset" is selected in the Customize Activation Profile from the Customize/Delete Activation Panel on the HMC.
2. A new system image might be loaded when a non-restartable wait state is loaded, and Auto-IPL is enabled.

CPC FAILED
The central processing complex (CPC) on which the system was running has failed.

PARTITION DEACTIVATED
The central processing complex (CPC) LPAR on which the system was running has been deactivated.

System action: The system initiates partitioning to remove the named system from the sysplex. Partitioning might be able to bypass portions of the partitioning protocol because the named system is already known to have failed.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SBT

Routing code: 2, 10

Descriptor code: 4

IXC107E SYSTEM STATUS DETECTION PARTITIONING PROTOCOL CONFIGURATION IS NOT COMPLETE

Explanation: An exception condition has been detected on the local system that prevents the system status partitioning protocol from being used to its fullest capability in the sysplex by the local system. One of the following conditions might exist:

- The BCPii address space and BCPii services are not available.
- The SYSSTATDETECT function is not enabled on the local system.
- The local system is not able to connect to the local CPC and local CPC image or a remote CPC and remote CPC image in the sysplex, although the local system is eligible and enabled to use the system status detection partitioning protocol.

System action: The system continues processing. If the system status detection partitioning protocol cannot be used, the system processes partitioning requests using a partitioning protocol based on the sysplex failure management (SFM) policy or default indeterminate status behavior. This message will be DOMed when the exceptions causing the configuration to be incomplete are corrected.

Operator response: Notify the system programmer.

System programmer response: Issue a DISPLAY XCF,SYSPLEX,ALL command to determine the system status detection partitioning protocol exception conditions that exist on the local system.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SBT

Routing code: 1, 2, 10

Descriptor code: 3

IXC108I SYSPLEX PARTITIONING INITIATING {FENCE|SYSTEM RESET} SYSTEM NAME: *sysname* **SYSTEM NUMBER:** *sysnum* **[SYSTEM IDENTIFIER:** *sysid***] [IMAGE NAME:** *image***] [NETWORK ADDRESS:** *netid.nau***] [IPL TOKEN:** *ipltoken***]**

Explanation: Action is being taken to ensure that a system being partitioned from the sysplex no longer has the capability to perform I/O to devices that can be used by another active system in the sysplex.

In the message text:

FENCE
The action is system isolation by a system fence through coupling facility fencing services. All system in the sysplex may attempt the system fence.

SYSTEM RESET
The action is a SYSTEM RESET-NORMAL through the HWICMD BCPii callable service. Only the local system attempts the reset.

sysname
The name of the system being targeted by the action.

sysnum
The XCF system number of the system being targeted by the action.

sysid
The system identifier used to identify the system being isolated by the FENCE action.

image
The image name used when establishing a logical connection to the LPAR in which the target system was loaded. The logical connection is used to identify the LPAR being targeted by the SYSTEM RESET action.

netid
The network identifier (NETID) used when establishing a logical connection to the LPAR in which the target system was loaded. The logical connection is used to identify the LPAR being targeted by the SYSTEM RESET action.

nau
The network addressable unit (NAU) name used when establishing a logical connection to the LPAR in which the target system was loaded. The logical connection is used to identify the LPAR being targeted by the SYSTEM RESET action.

ipltoken
The IPL token used to identify the system instance being targeted by the SYSTEM RESET action.

System action: The system performs the indicated action. Message IXC109I is issued when the action is complete.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SBT, IXCS2TSK

Routing code: 2, 10, Note 13

Descriptor code: 4

IXC109I {FENCE | SYSTEM RESET} OF SYSTEM *sysname* **{SUCCESSFUL. | RESULTS: | TIMED OUT.} [{HWICMD|HWMCA_EVENT_ COMMAND_RESPONSE} RETURN CODE:** *retcode***]** *text*

Explanation: Action was taken to ensure that a system being partitioned from the sysplex no longer has the capability to perform I/O to devices that can be used by another active system in the sysplex. Message IXC108I was issued when the action was initiated. This message is issued when the results of the action are available or the action times out.

In the message text:

FENCE
The action is system isolation by a system fence through coupling facility fencing services.

SYSTEM RESET
The action is a SYSTEM RESET-NORMAL through the HWICMD BCPii callable service.

sysname
The name of the system targeted by the action.

SUCCESSFUL.
The action completed successfully.

RESULTS:
The action resulted in the indicated return code.

TIMED OUT.
The action did not complete within the allotted time. Processing continues without the result of the action.

HWICMD
The action resulted in the indicated HWICMD BCPii callable service return code.

HWMCA_EVENT_COMMAND_RESPONSE
The action resulted in the indicated ENF68 command response return code.

retcode
The hexadecimal return code from the indicated source.

text
One of the following:

blank
No additional information is provided.

(XCFAS DOES NOT HAVE SAF AUTHORIZATION)
XCFAS does not have SAF authorization to RESET-NORMAL the target system.

System action: When the action was successful, partitioning can complete and message IXC105I will be issued.

When the action was not successful, operator intervention might be required to complete partitioning as indicated by message IXC102A being issued, or another action can be attempted as indicated by message IXC108I being issued. For example, a SYSTEM RESET may be attempted after a FENCE times out.

Operator response: Look for message IXC102A.

System programmer response: If the action was not successful, fix the problem.

Problem determination: When system isolation by a system FENCE is not successful, each system in the sysplex should write a symptom record. A FENCE is likely to time out for the following reasons:

- System reset, new image loaded, or partition deactivated before fencing completed.
- No coupling facility was connected and usable by both the system being partitioned and another active system in the sysplex.

If these reasons did not prevent the FENCE from succeeding, provide the symptom record to the IBM support center for analysis.

There are many factors that could cause a SYSTEM RESET to time out. For return codes from a BCPii callable service, see *z/OS MVS Programming: Callable Services for High-Level Languages* for more information. For return codes from an ENF 68 command response, see *z Systems™ Application Programming Interfaces* for more information.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2MON, IXCS2TSK

Routing code: 2, 10, Note 13

Descriptor code: 4

IXC111I LOGICAL PARTITION REMOTE CONNECTION INFORMATION*information*

Explanation: In the message, *information* is:

```
CONNECTION STATUS:    {CONNECTED | NOT CONNECTED}
SYSTEM NAME:          sysname
SYSTEM NUMBER:        sysnum
IMAGE NAME:           image
NETWORK ADDRESS:      netid.nau
IPL TOKEN:            ipltoken
DIAG INFO:            diaginfo
```

The message displays identification information associated with a system in the sysplex, and the local system connection status to that system for the purposes of employing the system status detection partitioning protocol.

In the message text:

CONNECTED
The local system is connected to remote CPC image *image* through BCPii callable services.

NOT CONNECTED
The local system is not connected to remote CPC image *image* through BCPii callable services. The local system cannot target remote CPC image *image* with the system status detection partitioning protocol.

sysname
The name of the system in the sysplex that the remotely connected status pertains to.

sysnum
The XCF system number assigned to the remote system *sysname*.

image
The image name associated with the remote system *sysname* in the sysplex.

netid
The network ID of the local area network (LAN) connecting CPCs on which the systems in the sysplex reside.

nau
The network addressable unit uniquely identifying an image as a node on the LAN named by *netid*.

ipltoken
The IPL token assigned to system *sysname* in the sysplex. The IPL token uniquely identifies the system instance of *sysname* in the sysplex.

diaginfo
The diagnostic information applicable when the connection status indicates that the local system is not connected to the remote system *sysname* and CPC image *image* through BCPii callable services. The diagnostic data returned by the BCPii callable service can help determine the cause of the failed connection request. The diagnostic information contains the following data:

- The name of the BCPii callable service that failed when the local system attempted to establish a connection to another CPC or image in the sysplex.
- An error return code that was returned by the BCPii callable service that failed while the local system was attempting to establish a connection to a CPC or image. See *z/OS MVS Programming: Callable Services for High-Level Languages* for more information about BCPii services return codes and actions to take in the event of a specific return code.
- A diagnostic data area returned by the BCPii callable service, which contains information related to the BCPii service that failed.

System action: The system continues processing. If the system status detection partitioning protocol cannot be used, the system processes partitioning requests using a partitioning protocol based on the sysplex failure management (SFM) policy or default indeterminate status behavior. XCF will reattempt the failed request after a certain time interval to allow for corrections to be made in the system environment.

Operator response: Notify the system programmer.

System programmer response: If the connection status is NOT CONNECTED, see *z/OS MVS Programming: Callable Services for High-Level Languages* for detailed information about return codes for BCPii callable services. Determine the reason why the BCPii callable service shown in the *diaginfo* returned an unsuccessful return code and make the appropriate corrections.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SBT

Routing code: 2, Note 13

Descriptor code: 4

IXC112I **BCPII SYSTEM ERROR. BCPII CALLABLE SERVICE** *bcpiiservice*
REQUEST: *request*
REQUEST INFO: *requestinfo*
RETURN CODE: *retcode*
DIAG CODE: *diagcode*

Explanation: A BCPii callable service was issued on the local system by XCF in support of the system status detection partitioning protocol, but the BCPii callable service returned a non-zero return code.

In the message text:

bcpiiservice
The name of the BCPii callable service that failed. *bcpiiservice* is one of the following services:

HWICONN
The BCPii HWICONN callable service

HWILIST
The BCPii HWILIST callable service

HWIQUERY
The BCPii HWIQUERY callable service

HWIEVENT
The BCPii HWIEVENT callable service

HWICMD
The BCPii HWICMD callable service

HWIDISC
The BCPii HWIDISC callable service

request
The internal process that was in control at the time of the service failure. *request* is one of the following processes:

LOCAL INITIALIZATION
Local system initialization to connect to the local CPC and CPC image through BCPii.

SYSTEM RESET
System reset processing against a remote target system.

DISCONNECT
Local system disconnect processing from the local CPC and CPC image and remote CPC and CPC images through BCPii.

REMOTE STATUS QUERY
Request to query operating status and IPLTOKEN of a remote CPC and CPC image.

requestinfo
Specific service request identifying information consisting of the system name, XCF system number, CPC name, CPC image name, request data, and BCPii connect token.

retcode
The return code from the BCPii callable service that failed.

diagcode
Diagnostic data that was returned by the *bcpiiservice* to help determine the cause of the service failure.

System action: The system continues processing. If the system status detection partitioning protocol cannot be used, the system processes partitioning requests using a partitioning protocol based on the sysplex failure management (SFM) policy or default indeterminate status behavior.

In most cases where an error is encountered, XCF will reattempt the failed request after a certain time interval to allow for corrections to be made in the system environment.

Operator response: Notify the system programmer.

System programmer response: See *z/OS MVS Programming: Callable Services for High-Level Languages* for detailed information about return codes for BCPii callable services. Determine the reason why BCPii callable service *bcpiiservice* returned an unsuccessful return code and make the appropriate corrections.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SBT

Routing code: 2, Note 13

Descriptor code: 4

IXC113I BCPII CONNECTION TO SYSTEM *sysname* **RELEASED***text*

Explanation: In the message, *text* is:

```
DISCONNECT REASON:    discreason
IMAGE NAME:           image
NETWORK ADDRESS:      netaddr
SYSTEM NUMBER:        sysnum
IPL TOKEN:            ipltoken
```

The local system has released its connection to remote system image *image* using the BCPii HWIDISC callable service for reason *discreason*. The local system can no longer target remote system image *image* with system status detection partitioning protocol commands through BCPii.

In the message text:

sysname
The name of the remote system in the sysplex that the local system has released its virtual connection to.

discreason
The reason that the local system released its BCPii connection to remote system *sysname*. One of the following lines is displayed:

SYSTEM IMAGE REMOVED FROM SYSPLEX
The system image *image* has been removed from the sysplex because of a partition action taken against the system *sysname*.

SYSSTATDETECT DISABLED ON LOCAL SYSTEM
The system status detection partition protocol has been disabled on the local system by a SETXCF FUNCTIONS command. When the function is re-enabled on the local system, it will attempt to connect to other remote systems in the sysplex that are eligible targets of the system status detection partitioning protocol.

image
The name of the image in the sysplex that the local system has released the connection to.

netaddr
The CPC network address of the system that the local system has released the connection to.

sysnum
The system number of the remote system that the local system has released the connection to.

ipltoken
The IPL token assigned to remote system *sysname* in the sysplex that the local system released the connection to.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SBT

Routing code: 2, Note 13

Descriptor code: 4

IXC114I LOGICAL PARTITION REMOTE STATUS INFORMATION*text*

Explanation: In the message, *text* is:

```
SYSTEM NAME:        sysname
SYSTEM NUMBER:      sysnum
CPC:                netaddr
STATUS:             cpchmcstat
OPERSTAT:           cpcoperstat
IMAGE NAME:         imagename
STATUS:             imagehmcstat
OPERSTAT:           imgoperstat
STORED IPL TOKEN:   storedipltoken
RETURNED IPL TOKEN: returnedipltoken
DIAG INFO:          diaginfo
```

When the System Status Detection Partition Protocol is enabled, XCF will obtain status information for CPC *netaddr* and Image Name *imagename* via BCPii APIs in response to a DOWN reply to IXC102A or IXC402D, or when XCF detects missing system status updates for system name *sysname*, to determine if a SYSTEM RESET, LOAD or other acceptable alternative action was performed that results in the reset of system name *sysname*.

In the message text:

sysname
The name of the remote system in the sysplex that the local system requested status for.

sysnum
The XCF system number assigned to remote system *sysname* in the sysplex that the local system requested status for.

netaddr
The CPC network address of the remote system that the local system requested status for.

cpchmcstat
The Hardware Management Console Status returned for CPC *netaddr*. *cpchmcstat* is one of the following:

- OPERATING
- NOT OPERATING
- NO POWER
- OTHER
- N/A

cpcoperstat
The Hardware Management Console Status Value returned for CPC *netaddr*.

imagename
The image name of the remote system that the local system requested status for.

imagehmcstat
The Hardware Management Console Status returned for Image Name *imagename*. *imagehmcstat* is one of the following:

- OPERATING
- NOT ACTIVATED
- NO POWER
- OTHER
- N/A

imgoperstat
The Hardware Management Console Status Value returned for Image Name *imagename*.

storedipltoken
IPL token currently stored by the local system for the remote system instance.

returnedipltoken
IPL token returned by the remote status request for the remote system instance.

diaginfo
Diagnostic data to help determine why remote system status could not be obtained.

System action: The system continues processing. If it is determined that system name *sysname* has not been RESET, message IXC208I is issued stating that a DOWN reply was entered without system name *sysname* being RESET.

If XCF was obtaining status information for system name *sysname* due to detecting a missing system status update and the obtained system status indicates that the system is still operating, XCF takes no action and continues to monitor *sysname*. If the obtained status indicates that Image Name *imagename* has entered a non-restartable disabled wait state, has been reset, or a new system image has been loaded, message IXC106I indicates that partitioning has been initiated to remove *sysname* from the sysplex.

Operator response: If replying DOWN to IXC102A or IXC402D and the returned status for Image Name *imagename* indicates that the image has not been reset, take appropriate action to system reset system name *systemname* and reply DOWN again to message IXC102A or IXC402D. See message IXC102A or IXC402D for acceptable actions that will reset a system.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SBT

Routing code: 2, Note 13

Descriptor code: 4

IXC115I SYSTEM STATUS DETECTION PARTITIONING PROTOCOL CONFIGURATION IS COMPLETE ON *sysname*

Explanation: System *sysname* can employ the System Status Detection Partitioning Protocol when removing any system from the sysplex that is enabled to be targeted by the System Status Detection Partitioning Protocol. Message IXC104I indicates whether the local system is eligible to be targeted by other systems in the sysplex using the System Status Detection Partitioning Protocol.

Message IXC107E will be DOMed when this message is issued, which indicates that the exception(s) that were causing the System Status Detection Partitioning Protocol configuration to be incomplete on the local system have been corrected.

In the message text:

sysname
The system that is connected via BCPii to all other systems in the sysplex that are enabled to be targeted by the System Status Detection Partitioning Protocol.

System action: The system continues processing. The local system will use the System Status Detection Partitioning Protocol when processing partitioning requests for systems in the sysplex that are eligible to be targeted with the System Status Detection Partitioning Protocol.

Operator response: None

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SBT

Routing code: 2

Descriptor code: 4

IXC201A RESPECIFY COUPLE SYSTEM PARAMETER, REPLY COUPLE=*xx*

Explanation: XCF cannot initialize this system into the sysplex because the current COUPLExx parmlib member is unusable. A previous message states why the current COUPLExx parmlib member cannot be used.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

System action: System initialization stops until the operator specifies a new COUPLExx parmlib member.

Operator response: Do one of the following:

- Reply COUPLE*xx*, where *xx* is either:
  - The same suffix to try the same COUPLExx parmlib member again.
  - A different suffix to specify an alternate COUPLExx parmlib member, if there is one available. Then notify the system programmer.
- If there is no alternate COUPLExx parmlib member, notify the system programmer, who will correct the COUPLExx parmlib member. Provide any preceding informational messages.

  After the system programmer corrects the COUPLExx parmlib member, respecify it.

  If it is necessary to reIPL to correct the COUPLExx parmlib member, specify COUPLE=00 to IPL the system in XCF-local mode. Make sure the data set is protected with adequate serialization.
- Have another system that shares access to the SYS1.PARMLIB data set fix any errors in the COUPLExx parmlib member in error. Then reply COUPLE=*xx* to specify the same COUPLExx parmlib member.

System programmer response: Do one of the following:

- If there is an alternate COUPLExx parmlib member available, have the operator specify the alternate. Correct the current COUPLExx parmlib member.
- If there is no alternate COUPLExx parmlib member available, correct the COUPLExx parmlib member before system initialization can continue. Look for a preceding message explaining the problem. When the parmlib member is correct, ask the operator to respecify it.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 4

IXC202I SYSPLEX *sysplex-name* **IS FULL WITH** *nnn* **SYSTEMS**

Explanation: A system is trying to join the sysplex, but the sysplex is full. No more systems can join the sysplex.

The system might also issue this message when:

- The sysplex is waiting for XCF to clean up resources for a system that is leaving the sysplex. In this case, the system also issues message IXC402D.
- A system is trying to join the wrong sysplex.

In the message text:

sysplex-name
The name of the sysplex.

nnn
The number of systems currently defined to the sysplex.

System action: System initialization stops. The system issues message IXC207A to prompt the operator for a new COUPLE=xx parmlib member.

Operator response: If the sysplex is waiting for XCF to clean up resources for a system leaving the sysplex, see the operator response for message IXC402D. Then reply to message IXC207A to respecify the current COUPLExx parmlib member.

Notify the system programmer.

System programmer response: If the system must be added to sysplex *sysplex-name*, one or more systems must first be removed. Enter the command DISPLAY XCF,SYSPLEX to display the name and status of each of the systems in the sysplex. Enter the command VARY XCF, *sysname*, OFFLINE to save a system from the sysplex, if appropriate.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2SEL

Routing code: 1,2

Descriptor code: 12

IXC203I *sysname* **IS CURRENTLY {ACTIVE|IPLING} IN THE SYSPLEX**

Explanation: This system is trying to join the sysplex, but the system name, *sysname*, is already in use in the sysplex. A system name must be unique within a sysplex.

This error may mean that a system is joining the wrong sysplex, or that this system just reIPLed with message IXC402D outstanding on the other systems in the sysplex.

In the message text:

sysname
The system name that is not unique within the sysplex.

ACTIVE
There is already a system *sysname* active in the sysplex.

IPLING
There is already a system *sysname* IPLing into the sysplex.

System action: The system issues message IXC207A to prompt the operator for a new COUPLExx parmlib member.

Operator response: Do one of the following:

- If this system just reIPLed, look for message IXC402D on the other systems in the sysplex. See the operator response for message IXC402D. Then reply to message IXC207A to respecify the current COUPLExx parmlib member.

- Respond to the outstanding replies or notify the system programmer.
- Verify that the system parameter options specified on this IPL were correct. Notify the system programmer.

System programmer response: Look at the DISPLAY command output to determine the name being used by each system in the sysplex. If another system is already correctly using the name, do one of the following:

- Change the SYSNAME system parameter in the IEASYSxx parmlib member to a unique name within the sysplex. Make sure the global resource serialization parameters specify the new name correctly. Then ask the operator to reIPL the system with the updated CONFIG=xx member.
- If this system must have the name *sysname*, remove the other system named *sysname* from the sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2SEL

Routing code: 1,2

Descriptor code: 12

IXC204I I/O ERROR WHILE READING THE COUPLE*xx* PARMLIB MEMBER

Explanation: XCF detected an I/O error while trying to read the COUPLExx parmlib member during system initialization.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

System action: XCF stops using COUPLExx and issues message IXC201A to prompt the operator for a new COUPLExx parmlib member.

Operator response: Notify the system programmer.

System programmer response: Look at the logrec error records for the I/O error.

Correct the I/O error and ask the operator to reIPL, or respond to message IXC201A with a new COUPLExx parmlib member.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2,10.

Descriptor code: 12

IXC205I SYNTAX ERROR IN COUPLE*xx*: *text*

Explanation: The system is being IPLed with the COUPLExx parmlib member. XCF detected a syntax error in the parmlib member with the suffix *xx*.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

statement
The statement in error.

n The line number of the COUPLExx parmlib member in error.

input
Up to ten characters of the line in error.

IMPROPER USE OF COMMENTS
Comment delimiters are not balanced. A significant portion of the data in the parmlib member may be ignored.

PREMATURE END OF FILE DETECTED. INCOMPLETE PCOUPLE KEYWORD IGNORED.
The PCOUPLE keyword is incomplete.

PREMATURE END OF FILE DETECTED. INCOMPLETE ACOUPLE KEYWORD IGNORED.
The ACOUPLE keyword is incomplete.

IMPROPER USE OF RIGHT PARENTHESIS FOR THE VALUE OF KEYWORD IN STATEMENT *statement*. **THE FOLLOWING TEXT IN LINE** *n* **WAS IN ERROR:** *input*.
A right parenthesis was used incorrectly for a keyword value in a *statement* in the COUPLExx parmlib member. The right parenthesis was probably missing. The *statement* containing the incorrect right parenthesis can be:

- COUPLE
- PATHIN
- PATHOUT
- LOCALMSG
- CLASSDEF
- SYNCASYNC

STATEMENT TYPE NOT RECOGNIZED OR NO VALID DELIMITER AFTER STATEMENT TYPE. THE FOLLOWING TEXT IN LINE *n* **WAS IN ERROR:** *input*.
Either an unknown *statement* type was specified or the delimiter after the *statement* is not valid.

KEYWORD NOT RECOGNIZED IN STATEMENT *statement* **OR NO VALID LEFT PARENTHESIS AFTER KEYWORD. THE FOLLOWING TEXT IN LINE** *n* **WAS IN ERROR:** *input*.
Either an unknown keyword was specified or the delimiter after the keyword is not valid.

System action: If one of the following appears in the message text, the system ignores the PCOUPLE or ACOUPLE keyword and continues processing in XCF-local mode.

- **PREMATURE END OF FILE DETECTED. INCOMPLETE PCOUPLE KEYWORD IGNORED**
- **PREMATURE END OF FILE DETECTED. INCOMPLETE ACOUPLE KEYWORD IGNORED**

Otherwise, XCF stops using the COUPLExx parmlib member and issues message IXC210A to prompt the operator for a new one.

Operator response: Notify the system programmer.

System programmer response: Correct the COUPLExx parmlib member and ask the operator to reIPL the system with the same COUPLExx parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 12

IXC206I THE COUPLE*xx text*

Explanation: XCF detected an incorrect keyword value member while a system was being IPLed into the sysplex.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

keyword
The keyword in error.

n The line in the COUPLExx parmlib member containing the error.

dev
The duplicate device number.

keytype
The keyword type in error.

classname
The name of the transport class.

item
The name of the item in error.

name
The name of the transport class or group in error.

strucname
The name of the structure.

parmlib
The name of the parmlib member.

statement
The statement in error.

KEYWORD *keyword* **IS ERRONEOUS: SYSPLEX NAME IS NOT VALID. ERROR IN LINE** *n*.
The sysplex name specified on the SYSPLEX keyword is not a valid sysplex name.

KEYWORD *keyword* **IS ERRONEOUS: PRIMARY DATA SET NAME OR VOLUME IS NOT VALID. ERROR IN LINE** *n*.
On the PCOUPLE keyword, one of the following is incorrect:

- The data set specified is not valid.
- The volume serial specified is not a valid volume serial.

KEYWORD *keyword* **IS ERRONEOUS: DEVICE NUMBER MUST BE THREE OR FOUR HEX DIGITS. ERROR IN LINE** *n*.
The device number(s) for the signalling paths are not valid.

KEYWORD *keyword* **IS ERRONEOUS: ALTERNATE DATA SET NAME OR VOLUME IS NOT VALID. ERROR IN LINE** *n*.
On the ACOUPLE keyword, one of the following is incorrect:

- The data set specified is not valid.
- The volume serial specified is not a valid volume serial.

KEYWORD *keyword* **IS ERRONEOUS: MAXMSG VALUE MUST BE IN RANGE 1 TO 999999. ERROR IN LINE** *n*.
The MAXMSG value is not valid.

KEYWORD *keyword* **IS ERRONEOUS: CLASS NAME IS NOT VALID. ERROR IN LINE** *n*.
The class specified on the CLASS keyword is not a valid class name.

KEYWORD *keyword* **IS ERRONEOUS: TIME INTERVAL MUST BE IN RANGE 3 TO 86400 SECONDS. ERROR IN LINE** *n*.
The time interval specified is not valid.

KEYWORD *keyword* **IS ERRONEOUS: RETRY LIMIT MUST BE IN RANGE 3 TO 255. ERROR IN LINE** *n*.
The RETRY limit value specified is not valid.

KEYWORD *keyword* **IS ERRONEOUS: CLEANUP INTERVAL MUST BE IN RANGE 0 TO 86400 SECONDS. ERROR IN LINE** *n*.
The interval specified for CLEANUP is not valid.

KEYWORD *keyword* **IS ERRONEOUS: CLASSLEN MUST BE IN RANGE 0 TO 62464. ERROR IN LINE** *n*.
The transport class length specified for CLASSLEN is not valid.

KEYWORD *keyword* **IS ERRONEOUS: GROUP NAME IS NOT VALID. ERROR IN LINE** *n*.
The group specified on the GROUP keyword is not a valid group name.

KEYWORD *keyword* **IS ERRONEOUS: DUPLICATE KEYWORD IS SPECIFIED. ERROR IN LINE** *n*.
The indicated keyword was specified more than once.

KEYWORD *keyword* **IS ERRONEOUS: OPNOTIFY VALUE CANNOT BE LESS THAN INTERVAL VALUE. ERROR IN LINE** *n*.
The value specified for OPNOTIFY is less than the value specified for INTERVAL. The system cannot notify the operator of a system failure before the system detects the failure.

KEYWORD *keyword* **IS ERRONEOUS: TOO MANY CLASS DEFINITIONS, LIMIT IS 62 NON DEFAULT CLASSES. ERROR IN LINE** *n*.
Too many transport classes are defined in the COUPLExx parmlib member. The maximum does not include the default class.

KEYWORD *keyword* **IS ERRONEOUS: TOO MANY GROUPS DEFINED, LIMIT IS 2045. ERROR IN LINE** *n*.
There are too many groups assigned to transport classes in the COUPLExx parmlib member.

KEYWORD *keyword* **IS ERRONEOUS: GROUP COULD NOT BE ADDED DUE TO STORAGE CONSTRAINTS. ERROR IN LINE** *n*.
XCF could not obtain the storage needed to add this group.

KEYWORD *keyword* **IS ERRONEOUS: TYPE NAME IS NOT VALID. ERROR IN LINE** *n*.
The type name specified on the TYPE keyword is not valid. The TYPE keyword is associated with the DATA statement.

KEYWORD *keyword* **IS ERRONEOUS: CTRACE PARMLIB MEMBERS MUST BEGIN WITH 'CT' AND CHARACTERS 4-6 MUST BE 'XCF' OR 'XES' AND CHARACTERS 7-8 CAN BE ANY VALID CHARACTERS. ERROR IN LINE** *n***.**
A CTRACE parmlib member name was incorrect. The CTRACE parmlib member name must be in format CTyXCFxx or CTyXESxx.

KEYWORD *keyword* **IS ERRONEOUS: STRUCTURE NAME IS NOT VALID. ERROR IN LINE** *n***.**
The structure name specified on the STRUCTURE keyword is not valid.

KEYWORD *keyword* **IS ERRONEOUS: CFRMOWNEDCFPROMPT VALUE MUST BE YES OR NO. ERROR IN LINE** *n***.**
The CFRMOWNEDCFPROMPT keyword value must be either YES or NO.

KEYWORD *keyword* **IS ERRONEOUS: VMCPUIDTOLERATION VALUE MUST BE YES OR NO**
The VMCPUIDTOLERATION keyword value must be either YES or NO.

KEYWORD *keyword* **IS ERRONEOUS: REQUIRED KEYWORD IS MISSING**
The indicated required keyword was not specified in the parmlib member.

KEYWORD *keyword* **IS ERRONEOUS: DUPLICATE DEVICE SPECIFIED:** *dev***. ERROR IN LINE** *n***.**
Device number, *dev*, was specified more than once in the COUPLExx parmlib member.

KEYWORD TYPE IN DATA IS ERRONEOUS: DUPLICATE TYPE SPECIFIED: *keytype***. ERROR IN LINE** *n***.**
The type name for keyword TYPE has been specified more than once. The TYPE keyword is associated with the DATA statement.

KEYWORD *keyword* **IS ERRONEOUS: DUPLICATE LOCALMSG SPECIFIED FOR CLASS** *classname***. ERROR IN LINE** *n***.**
More than one LOCALMSG statement was coded for a transport class. Only one LOCALMSG statement can be coded per class.

KEYWORD *keyword* **IS ERRONEOUS:** *item name* **IS NOT DEFINED. ERROR IN LINE** *n***.**
A necessary item was not specified on the CLASSDEF statement.

KEYWORD *keyword* **IS ERRONEOUS:** *item name* **IS MULTIPLY DEFINED. ERROR IN LINE** *n***.**
A transport class name was specified on more than one CLASSDEF statement.

KEYWORD *keyword* **IS ERRONEOUS:** *item name* **IS MULTIPLY SPECIFIED. ERROR IN LINE** *n***.**
A group name was specified more than once on the same CLASSDEF statement.

KEYWORD *keyword* **IS ERRONEOUS: DUPLICATE STRUCTURE NAME SPECIFIED:** *strucname***. ERROR IN LINE** *n***.**
Structure name, *strucname*, was specified more than once in the COUPLExx parmlib member.

KEYWORD *keyword* **IS ERRONEOUS: DEVICE AND STRNAME ARE MUTUALLY EXCLUSIVE. ERROR IN LINE** *n***.**
DEVICE and STRNAME cannot be coded on the same PATHOUT or PATHIN statement in the COUPLExx parmlib member.

KEYWORD *keyword* **IS ERRONEOUS: DUPLICATE SPECIFICATION FOR THE** *parmlib***XX PARMLIB MEMBER. ERROR IN LINE** *n***.**
Parmlib member, *parmlib*, was specified more than once.

statement **STATEMENT AT LINE** *n* **IS ERRONEOUS: EITHER THE DEVICE OR STRNAME KEYWORD MUST BE SPECIFIED**
Either the DEVICE or STRNAME keyword must be specified on the indicated statement type.

KEYWORD *keyword* **IS ERRONEOUS: CFRM POLICY NAME IS NOT VALID. ERROR IN LINE** *n*
The CFRM policy name specification for the CFRMPOL keyword was incorrect.

KEYWORD *keyword* **IS ERRONEOUS: OPNOTIFY VALUE IS LESS THAN DERIVED SPIN INTERVAL**
The user-specified OPNOTIFY value is less than the derived spin failure detection interval.

KEYWORD *keyword* **IS ERRONEOUS: FUNCTION NAME IS NOT VALID**
Function names specified with the FUNCTIONS statement ENABLE or DISABLE keywords must be 1-16 characters in length, inclusive. Valid characters are alphabetic, national ($, @, or #), or underscore (_).

KEYWORD *keyword* **is ERRONEOUS: SYNCASYNC THRESHOLD MUST BE 'DEFAULT' OR A NUMERIC VALUE IN THE RANGE 1-10000**
A SYNCASYNC conversion threshold specified by the SIMPLEX, DUPLEX, LOCKSIMPLEX, or LOCKDUPLEX keyword must be either the string 'DEFAULT' (to restore the system-determined default threshold), or a value between 1 and 10,000 microseconds.

System action: If the message contains the text `OPNOTIFY VALUE IS LESS THAN DERIVED SPIN INTERVAL`, XCF records the user-specified OPNOTIFY value. However, the effective OPNOTIFY value actually used by the system is the effective failure detection interval value. The IPL continues. Message IXC470I is issued to document the specified OPNOTIFY value and the effective OPNOTIFY value being used by the system.

For all other cases, XCF stops using the COUPLExx parmlib member. The system issues message IXC201A to prompt the operator for a new COUPLExx parmlib member.

Operator response: Correct the error indicated in the message or notify the system programmer.

System programmer response: If the message contains the text `OPNOTIFY VALUE IS LESS THAN DERIVED SPIN INTERVAL`, use the `DISPLAY XCF,COUPLE` command to determine the effective OPNOTIFY value, the effective failure detection interval and the INTERVAL derived from the excessive spin parameters. The DISPLAY command issues message IXC357I to report this information. Determine whether the values are suitable and take the following actions to change the values when needed:

- Use the SETXCF COUPLE command to dynamically change the OPNOTIFY value; or make similar updates to the COUPLExx parmlib member to have the change become effective at the next IPL.
- Use the SET EXS command to change the excessive spin recovery parameters used to compute the derived spin INTERVAL.

For all other cases, correct the COUPLExx parmlib member or specify a new one. If needed, ask the operator to reIPL the system with the corrected COUPLExx parmlib member or a different one if the wrong parmlib member was specified.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 12

IXC207A XCF INITIALIZATION IS RESTARTED. RESPECIFY COUPLE SYSTEM PARAMETER, REPLY *couple=xx*.

Explanation: Previous message(s) describe why XCF initialization was restarted. The system requires a new COUPLExx parmlib member to restart XCF initialization.

In the message text:

couple=xx
The suffix for the alternate COUPLExx parmlib member.

System action: System initialization stops until the operator specifies a COUPLExx parmlib member.

If XCF initialization is to be restarted for an issue related to signalling connectivity, message IXC207A prompts the operator to respecify the COUPLExx parmlib member. The response to message IXC207A determines whether message IXC305I is displayed on an operator console. If the same COUPLExx parmlib member is specified, message IXC305I will be displayed. If a different COUPLExx parmlib member is specified, message IXC305I will not be displayed on the operator console, but IXC305I will always be displayed on the hardcopy log.

Operator response: Reply **COUPLE=***xx*, where *xx* is either:

- The same suffix to try the same COUPLExx parmlib member again.
- A different suffix to specify an alternate COUPLExx parmlib member, if there is one available. Then notify the system programmer.

  If you are IPLing in order to correct the COUPLExx parmlib member, specify COUPLE=00 to IPL the system in XCF-local mode.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 4

IXC208I THE RESPONSE TO MESSAGE *message* IS INCORRECT: *reply text*

Explanation: The operator entered an incorrect response to a message.

In the message text:

message
The message identifier.

reply
The incorrect response.

text
One of the following:

IS NOT A VALID ACTION
The operator entered an incorrect response to a preceding message.

IS NOT A VALID INTERVAL
The operator entered an incorrect interval in reply to a preceding message.

IS THE CURRENT SYSTEM, DOWN IS NOT VALID
The operator response, DOWN, is not a valid reply to message IXC409D for the current system.

IS NOT ONE OF THE SPECIFIED SYSTEMS
The operator specified an incorrect system in reply to message IXC409D.

IS NOT THE SPECIFIED SYSTEM
The operator specified an incorrect system in reply to message IXC426D.

REPLY ENTERED WITHOUT SYSTEM RESET
The operator replied DOWN, but XCF system status detection determined that the target system has not been through a system reset. Target system must go through a system reset before the DOWN reply can be entered.

System action: The system reissues the message that received an incorrect reply.

Operator response: See the operator response for message *message* and respond accordingly, if applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSI, IXCL1SRV, IXCL2LHN, IXCL2RC, IXCO1VCP, IXCS2IN, IXCS2WTO, IXCT1CON

Routing code: 1,2

Descriptor code: 5 or 12

IXC209I PARMLIB MEMBER COUPLE*xx* IS EMPTY

Explanation: The COUPLExx parmlib member specified contains no text.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

System action: XCF stops using the COUPLExx parmlib member and prompts the operator for a new one with message IXC201A.

Operator response: Notify the system programmer.

System programmer response: Do one of the following:

- Correct the COUPLExx parmlib member.
- Specify a different COUPLExx parmlib member.

Ask the operator to reIPL with the correct or updated COUPLExx parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 12

IXC210I UNKNOWN ERROR WHILE PARSING THE COUPLE*xx* PARMLIB MEMBER

Explanation: An unexpected error occurred while the system was processing the COUPLExx parmlib member.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

System action: XCF stops using the COUPLExx parmlib member and prompts the operator for a new one with message IXC201A.

Operator response: Notify the system programmer. Obtain a stand-alone dump, if the system programmer requests it.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Provide the stand-alone dump. Provide a copy of the COUPLExx parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 12

IXC211A SYNTAX ERROR IN COUPLE SYSTEM PARAMETER. REPLY COUPLE=XX.

Explanation: XCF could not process the specified COUPLExx parmlib member because of an error in the specification. The COUPLExx suffix is not correct.

System action: System initialization stops until the operator specifies a valid COUPLExx parmlib member.

Operator response: Reply COUPLE=*xx* where *xx* is the suffix of the COUPLExx parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 4

IXC212I SYSTEM WILL CONTINUE IPLING IN XCF-LOCAL MODE. NO PCOUPLE KEYWORD OR PRIMARY DATA SET NAME WAS SPECIFIED IN THE COUPLE*xx* PARMLIB MEMBER.

Explanation: A system was trying to join the sysplex, but XCF found no PCOUPLE keyword or primary data set name specified in the COUPLExx parmlib member. The system cannot join the sysplex without these required items. This system can IPL only in XCF-local mode.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

System action: The system IPLs in XCF-local mode.

Operator response: If this system was supposed to IPL in XCF-local mode, no response is needed.

If this system was supposed to join a sysplex, correct the parmlib member to specify a PCOUPLE keyword and a primary couple data set. ReIPL when notified by the system programmer, using the corrected COUPLExx parmlib member.

System programmer response: If necessary, you can prevent the system from IPLing in XCF-local mode by using the PLEXCFG=MULTISYSTEM system parameter. Ask the operator to reIPL the system with the corrected parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 4

IXC213I INTERNAL XCF COMPONENT ERROR

Explanation: XCF encountered an error during system initialization.

System action: System initialization stops.

Operator response: Notify the system programmer. Specify a new COUPLExx parmlib member to initialize the system.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2,10

Descriptor code: 4

IXC214I COUPLE*xx* IS THE CURRENT COUPLE PARMLIB MEMBER

Explanation: COUPLE*xx* is the name of the XCF COUPLE parmlib member.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

System action: XCF uses COUPLE*xx* as the COUPLE parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 12

IXC215I SYSCLONE ID *sysclone_text* IS ALREADY IN USE BY SYSTEM *system_name*

Explanation: The system issues this message during system initialization to indicate that the substitution text for the SYSCLONE system symbol is being used by another system in the sysplex. The system issues this message only once, no matter how many other systems are using the same substitution text for SYSCLONE.

In the message text:

sysclone_text
The substitution text for the SYSCLONE system symbol.

system_name
The name of the system in the sysplex that is using the specified substitution text for the SYSCLONE system symbol.

System action: The system issues messages IXC214I and IXC201A to prompt for a new COUPLExx parmlib member.

System programmer response: Do one of the following:

- Respond to message IXC201A with a suffix of a COUPLExx member that indicates XCF-local mode for the initializing system. (The default member, COUPLE00, specifies XCF-local mode.) After system initialization is complete, correct the value of SYSCLONE in the IEASYMxx parmlib member. Then reIPL the system, using the COUPLExx parmlib member that you specified on the original IPL.
- If the SYS1.PARMLIB data set for this system is accessible from another system that is already initialized (the system may or may not be part of the same sysplex), update the substitution text for SYSCLONE, from the other system, in the IEASYMxx member. Then reIPL this system.

Otherwise, no action is necessary.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PH2

Routing code: 1,2

Descriptor code: 12

IXC216I SYSPLEX NAME *sysplex_loadxx* **FROM COUPLExx IS NOT THE SAME AS THE SYSPLEX NAME SPECIFIED IN LOADxx,** *sysplex_couplexx*

Explanation: The system issues this message during system initialization to indicate that the sysplex name specified in the LOADxx parmlib member is not the same as the sysplex name specified in the COUPLExx parmlib member.

In the message text:

sysplex_loadxx
The sysplex name specified on the SYSPLEX statement in the LOADxx parmlib member.

sysplex_couplexx
The sysplex name specified on the SYSPLEX statement in the COUPLExx parmlib member.

System action: The system issues messages IXC214I and IXC207A to prompt for a new COUPLExx parmlib member.

System programmer response: Respond to message IXC207A with the suffix of a valid COUPLExx parmlib member. Ensure that the SYSPLEX statement in the COUPLExx member specifies the same sysplex name that is specified on the SYSPLEX statement in LOADxx.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 12

IXC218I SYSTEM STATUS FOR SYSPLEX *plexname* **AT** *currdate currtime***:** *sysname1 hh.mm.ss state*

Explanation: This message displays the systems in the sysplex that this system was attempting to join.

In the message text:

plexname
Name of the sysplex this system is attempting to join.

currdate
Date when this system attempted to join the sysplex.

currtime
Time at which this system attempted to join the sysplex.

sysname1
A system in the sysplex.

hh.mm.ss
Timestamp of its last status update.

state
One of the following:

BEING REMOVED
XCF is removing the system from the sysplex. This can mean:

- A VARY XCF,*sysname* command was entered to remove the system from the sysplex.
- The system lost signalling connectivity to the other systems in the sysplex.
- The system lost access to the common clock being used by the sysplex.

MNTR DETECT STOP
The system has not updated its status on the couple data set within the time interval specified on that system's COUPLExx parmlib member. This can mean:

- The system is issuing an SVC dump.
- The system is going through reconfiguration.

- A spin loop is occurring.
- The operator pressed stop.
- The system is in a restartable wait state.
- The system lost access to the couple data set.

BEING CLEANED UP
XCF is in the process of removing a system from the sysplex.

ACTIVE
The system is running and has updated its status on the couple data set within the last time interval as defined in the system's COUPLExx parmlib member.

System action: The system issues prompt IXC207A.

Operator response: If this system is listed among the systems in IXC218I, XCF has determined that a system by that name is already in the sysplex. This could mean two things:

1. This system was IPLed with a system name that duplicates an active system
2. The other system with this system's name was intended to be removed from the sysplex prior to this system's IPL.

Either re-IPL this system with a different system name or partition the other system and reset it. At that point, you can respecify your COUPLExx parmlib member in response to IXC207A and bring that system into the sysplex.

System programmer response: Issue D R,R from another system.

- If IXC102A is outstanding, this would indicate that the partitioning process has started, but is waiting for the operator to confirm that it is finished before allowing the system to rejoin the sysplex.
- If IXC102A is not outstanding, then the IPLing system duplicates an active system. Either it must be partitioned and reset, or the IPLing system must be re-IPLed with a different name.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1,2

Descriptor code: 12

IXC219E *typename* **COUPLE DATA SET** *dsname* **ON VOLSER** *volser* **DEVN** *devnum recordname* **RECORD NUMBER** *recordnum* **WAS INCOMPLETELY WRITTEN BY SYSTEM** *sysname.* **[***text***]**

Explanation: While attempting to read the specified record in the named primary couple data set, the issuing system detected that a previous write to the record did not complete successfully. The most likely cause is an I/O delay or period of unresponsiveness experienced by the writing system, allowing the reading system to observe the incomplete write.

In the message text:

typename
The type of data contained in the data set.

dsname
The name of the couple data set.

volser
The DASD volume on which the data set resides.

devnum
The device number of the volume on which the data set resides.

recordname
The name of the partially written record.

recordnum
The occurrence number of the affected record.

sysname
The name of the system which last attempted to update the affected record. A value of '********' means that the writing system could not be identified.

text
One of the following:

READ IS WAITING FOR REPAIR.
The issuing system is waiting for the named system to complete its write. This message line is issued when the incomplete write is first recognized.

READ HAS BEEN WAITING FOR REPAIR FOR *delaysec* **SECONDS.**
The issuing system is waiting for the named system to complete its write. This message is issued to report the length of time the incomplete write condition has persisted.

delaysec
The number of seconds since the incomplete write was detected.

System action: The issuing system will continue attempting to read the couple data set record for up to 5 minutes, allowing the writing system an opportunity to complete the write. If the read has not succeeded within that time, or if the issuing system determines that the corrupted record cannot be repaired, the issuing system removes the data set from use.

Operator response: Notify the system programmer.

System programmer response: Examine the system logs for the named system to identify any problems that may be preventing the completion of the write. Of particular interest are I/O-related problems that affect the volume on which the couple data set resides, or problems causing system unresponsiveness, such as dumping or looping. Take corrective action as appropriate.

Note that partitioning the named system will cause the issuing system to remove the data set from use.

If the data set is removed, the SETXCF COUPLE,ACOUPLE operator command should be used to install a new alternate for the affected type as soon as possible.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1IOR

Routing code: 2,10

Descriptor code: 11,12

IXC220W XCF IS UNABLE TO CONTINUE: WAIT STATE CODE: *www* **REASON CODE:** *reason-code*, *text*

Explanation: XCF found a severe error.

In the message text:

www
The wait state code.

reason-code
The reason code describing the error.

task-id
The task-id of the failing task

text
One of the following:

AN OPERATOR REQUESTED PARTITIONING WITH THE VARY XCF COMMAND
The operator entered a VARY XCF command for this system.

LOSS OF CONNECTIVITY WAS DETECTED
The last signalling path between this system and one or more others in the sysplex failed. The operator requested that this system be removed from the sysplex in response to IXC409D.

XCF also issues message IXC467I or message IXC307I, or both messages, on either this system or the other system where connectivity was lost. Messages IXC467I and IXC307I describe reasons for the signalling path loss.

LOSS OF COUPLE DATA SET WAS DETECTED
The system found an error in the primary couple data set. Either no alternate couple data set was available or the alternate also failed. The couple data set must be preserved and dumped. XCF also issues message IXC253I or IXC257I.

SYSPLEX PARTITIONING OCCURRED DURING IPL
This system could not join the sysplex because of errors found during the initialization process. Other messages accompany this message to explain the error.

AN XCF ERROR IN SYSPLEX PARTITIONING, THIS SYSTEM WAS TARGETED
An unexpected error occurred while XCF was trying to remove this system from the sysplex.

THIS SYSTEM RECOGNIZED THAT IT WAS REMOVED FROM THE SYSPLEX
The system record could not be used because XCF is removing the system from the sysplex.

THE SYSTEM MONITOR DISABLED INTERRUPT EXIT COULD NOT BE ESTABLISHED
XCF was not able to establish the system monitor disabled interrupt exit. The needed clock was probably not available.

THE SYSTEM MONITOR STATUS TABLE (SMST) WAS DESTROYED
An internal error damaged system data in the SMST.

THE SYSTEM WAS RUNNING IN ETR SYNCHRONIZATION MODE WITH A PARTICULAR ETRID AND NOW A NEW ETRID IS IN USE
The system changed from external time reference (ETR) synchronous mode to ETR-local mode and back to ETR synchronous mode, but the new ETR clock identifier (ETRID) does not match the old one. The system does not allow another system to go into ETR synchronization mode if the clock identifiers do not match.

AN ETR FAILURE ON ANOTHER SYSTEM HAS OCCURRED. THE OPERATOR HAS RESTARTED THAT SYSTEM. ALL OTHER SYSTEMS ARE STOPPED.
Another system is removing this system from the sysplex because of an external time reference (ETR) failure. When there is an ETR failure, only one system can remain in the sysplex. The remaining system removes all others from the sysplex.

ONE OF THE XCF DATA SPACES WAS OUT OF STORAGE
An XCF data space ran out of storage.

COUPLE DATA SET SWITCH ERROR OCCURRED DURING INITIALIZATION
XCF found an unrecoverable error while switching couple data sets during initialization of this system into the sysplex. The couple data set must be preserved and dumped.

NONE OF THE VALID CONFIGURATIONS IS PERMITTED
XCF encountered an unrecoverable error. As a result, the system will not allow any of the sysplex configurations specified on the PLEXCFX system parameter.

THIS SYSTEM IS TRYING TO JOIN A SYSPLEX THAT IS NOT ACCEPTING MORE SYSTEMS
This system is trying to join a sysplex that contains an active system that will not let other systems join. This can be caused by one of the following:

- The active system is not running with the external time reference (ETR) hardware facility, so no other systems can join because of the lack of ETR synchronization. The only way for this system to join the sysplex is to connect the active system to an ETR clock in synchronization mode. Then the operator can reIPL this system.
- The active system was IPLed in MONOPLEX mode. The only way for this system to join this sysplex is to reIPL the active system in multisystem mode. The operator can then reIPL this system.

EXTERNAL CALLER REQUESTED WAIT STATE TO BE LOADED
XCF issues this wait state for a non-XCF program that requested XCF services to remove a system from the sysplex.

THIS SYSTEM WAS REMOVED FROM THE SYSPLEX AS REQUIRED BY THE PR/SM POLICY
XCF issues this wait state when automatic action to remove a system from the sysplex was initiated in accordance with information specified in the PR/SM policy.

SYSPLEX PARTITIONING OF THIS SYSTEM WAS REQUESTED BY SYSPLEX FAILURE MANAGEMENT BECAUSE OF A SYSTEM STATUS UPDATE MISSING CONDITION
XCF issues this wait state when automatic action to remove a system from the sysplex was initiated because the system was not updating its system status at regular intervals.

THIS SYSTEM WAS REMOVED FROM THE SYSPLEX AS REQUIRED BY THE SYSPLEX FAILURE MANAGEMENT POLICY BECAUSE ITS STATUS UPDATE WAS MISSING
XCF issues this wait state when automatic action to remove a system from the sysplex was initiated in accordance with information specified in the Sysplex Failure Management policy, because the system was not updating its system status at regular intervals.

THIS SYSTEM WAS REMOVED FROM THE SYSPLEX AS REQUIRED BY THE SYSPLEX FAILURE MANAGEMENT POLICY BECAUSE OF A SIGNALLING CONNECTIVITY FAILURE IN THE SYSPLEX
XCF issues this wait state when automatic action to remove a system from the sysplex was initiated in accordance with information specified in the Sysplex Failure Management policy, in response to a signalling connectivity failure in the sysplex.

LOSS OF COUPLE DATA SET FOR CFRM WAS DETECTED
The system found an error in the primary couple data set for CFRM. Either no alternate couple data was available or the alternate also failed. The couple data set must be preserved and dumped. The couple data set for CFRM must be preserved and dumped. XCF may also issue message IXC253I or IXC257I.

UNKNOWN REASON CODE
An unknown reason code was received, this is the result of an internal error.

A TASK IN THE XCFAS ADDRESS SPACE HAS FAILED AND CANNOT BE RECOVERED. TASK IDENTIFIER: *task-id*.
An XCF task *task-id* failed and cannot be recovered.

SYSTEM CAUSING SYMPATHY SICKNESS
The system was removed from the sysplex to alleviate sympathy sickness that was impacting other systems in the sysplex. Message IXC440E might have been issued by the impacted systems. Message IXC631I might have been issued by the removed system to indicate which stalled XCF members were causing the sympathy sickness.

AN OPERATOR REQUESTED PARTITIONING WITH THE VARY XCF COMMAND WITH THE REIPL OPTION
The operator entered a VARY XCF command for this system. At the conclusion of partitioning processing for this system, the AutoIPL function will re-IPL the system.

AN OPERATOR REQUESTED PARTITIONING WITH THE VARY XCF COMMAND WITH THE SADMP OPTION
The operator entered a VARY XCF command for this system. At the conclusion of partitioning processing for this system, the AutoIPL function will IPL SADMP for this system.

AN OPERATOR REQUESTED PARTITIONING WITH THE VARY XCF COMMAND WITH THE SADMP AND REIPL OPTIONS
The operator entered a VARY XCF command for this system. At the conclusion of partitioning processing for this system, the AutoIPL function will IPL SADMP for this system followed by a re-IPL of the system.

TERMINATING STRUCTURE CONNECTOR TO RESOLVE HANG
The system removed itself from the sysplex in order to terminate a CF structure connector because a structure-related process is hung waiting for a response from the connector, and either the connector specified IXLCONN TERMLEVEL=SYSTEM or previous attempts to terminate the connector in a less disruptive manner failed to relieve the hang.

TERMINATING STRUCTURE CONNECTOR DUE TO INTERNAL ERROR
The system removed itself from the sysplex because the system encountered an internal error requiring connector termination and the connector specified IXLCONN TERMLEVEL=SYSTEM or is a connector to an XCF signaling structure.

SYSTEM HAS AN IMPAIRED CRITICAL MEMBER
The system was removed from the sysplex to alleviate a critical member impairment condition that could have been impacting other systems in the sysplex. Message IXC633I and message IXC636I may have been issued by the removed system to indicate which impaired XCF members were causing the impairment condition.

System action: The system enters a non-restartable wait state. The system issues other messages that explain the problem before entering the wait state.

Operator response: Notify the system programmer. If the system programmer requests it, obtain a stand-alone dump, specifying:

```
DUMP DATASPACES OF ASID('XCFAS')
DUMP RANGE(ALL) IN ASID('XCFAS')
```

ReIPL the system.

If one of the following appears in the message text, dump the couple data set.

- COUPLE DATA SET SWITCH ERROR OCCURS DURING INITIALIZATION
- LOSS OF COUPLE DATA SET WAS DETECTED
- LOSS OF COUPLE DATA SET FOR CFRM WAS DETECTED

  For this message text, the couple data set for CFRM should be preserved and dumped. Use the ADRDSSU utility.

To dump the couple data set, use the ADRDSSU utility in the following JCL:

```
//DUMP JOB MSGLEVEL=(1,1)
//STEP1 EXEC PGM=ADRDSSU,REGION=4M
//SYSPRINT DD SYSOUT=*
//DD1 DD DISP=SHR,VOL=SER=SHR001,UNIT=3380
//SYSIN DD *
     PRINT DATASET(SYS1.PRIMARY) INDDNAME(DD1)
/*
```

See *z/OS DFSMSdfp Storage Administration* for more information on the ADRDSSU utility.

System programmer response: See the system programmer response for other messages preceding this message.

Format the stand-alone dump with the IPCS COUPLE commands, including the exception parameters.

Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Provide the IPCS COUPLE reports and the stand-alone dump.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCM2LWT

Routing code: 1,2,10

Descriptor code: 1

IXC221D REPLY C TO USE COUPLE DATA SETS SPECIFIED IN COUPLExx OR R TO RESPECIFY COUPLEXX

Explanation: This system detected an inconsistency in the couple data sets specified in COUPLExx. The system was unable to resolve the inconsistency and is attempting to revert to the couple data set configuration specified by COUPLExx. The system cannot determine whether there are other active systems using a different couple data set configuration. Message IXC275I has been issued to identify the couple data sets specified by COUPLExx.

System action: System initialization processing stops until the operator replies to message IXC221D.

Operator response: Choose one of the following replies:

C To continue initialization processing with the couple data sets that were specified in COUPLExx.

Note: Choose this option only if one of the following is true:

- There are no other active systems in the sysplex.

  When other active systems exist and are using another couple data set configuration, responding 'C' might cause those systems to fail. The IPLing system will reinitialize function couple data sets, such as CFRM, ARM, SFM, etc. that are described in COUPLExx because it will conclude that no other system is using them. The reinitialization will prevent the active systems from using them, causing WAIT 0A2 reason code 9C on any system on which CFRM is in use.
- You are intentionally initializing a separate sysplex.

  To avoid the same problem described in the preceding bullet, ensure that the COUPLExx member describes function couple data sets that are not in use by the existing sysplex.

R To request that XCF be reinitialized. XCF will stop using the current couple data sets and issue message IXC207A to prompt the operator for a new COUPLExx parmlib member.

If an incorrect reply is entered, the system issues message IXC208I to notify the operator of the error. The system then reissues message IXC221D.

Notify the system programmer.

System programmer response: This message indicates that the COUPLExx parmlib member specifies a sysplex couple data set configuration that is not the configuration currently or most recently used by the sysplex. This could be caused by the removal of a primary or an alternate or by the addition of a new alternate couple data set. Updating the COUPLExx parmlib member to describe the in-use or last-used couple data set configuration should eliminate this message.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSI

Routing code: 1,2

Descriptor code: 2

IXC222D REPLY U TO USE RESOLVED DATA SETS OR R TO RESPECIFY COUPLEXX

Explanation: This system encountered an error while attempting to access the couple datsets specified in COUPLExx. The system was able to determine a candidate couple data set configuration, but could not determine whether there are other active systems using a different couple data set configuration. Message IXC275I has been issued to identify the candidate configuration.

System action: System initialization processing stops until the operator replies to message IXC222D.

Operator response: Choose one of the following replies:

U To continue initialization processing using the candidate couple data set configuration described by IXC275I.

Note: Choose this option only if there are no other active systems in the sysplex. When other active systems exist and are using another couple data set configuration, responding 'U' might cause those systems to fail. The IPLing system will reinitialize function couple data sets, such as CFRM, ARM, SFM, etc. that are described in COUPLExx because it will conclude that no other system is using them. The reinitialization will prevent the active systems from using them, causing WAIT 0A2 reason code 9C on any system on which CFRM is in use.

R To request that XCF be reinitialized. XCF will stop using the current couple data sets and issue message IXC207A to prompt the operator for a new COUPLExx parmlib member.

If an incorrect reply is entered, the system issues message IXC208I to notify the operator of the error. The system then reissues message IXC222D.

Notify the system programmer.

System programmer response: This message indicates that the COUPLExx parmlib member specifies a sysplex couple data set configuration that is not the configuration currently or most recently used by the sysplex. This could be caused by the removal of a primary or an alternate or by the addition of a new alternate couple data set. Updating the COUPLExx parmlib member to describe the in-use or last-used couple data set configuration should eliminate this message.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSI

Routing code: 1,2

Descriptor code: 2

IXC230I WAITING FOR SYSTEM *sysname* TO BE PARTITIONED FROM THE SYSPLEX

Explanation: While this system was trying to join the sysplex it detected that it is running on the same CPC image as the active system *sysname*. It has attempted to initiate the partition of that system. It will wait for the partition to complete and attempt to join the sysplex again.

Note that this message might be issued if you have altered the TOD clock or sysplex timer to a time earlier than the system previously was using. If either the TOD clock or the sysplex timer has been regressed, you can avoid this message by waiting the amount of regressed time before re-IPLing or by reformatting the sysplex couple data set.

In the message text:

sysname
The system name of the system that was previously running on the same CPC image as the current system.

System action: The system will wait for the partition to complete. If the partition completes, the system will join the sysplex. If the partition does not complete in a timely manner, then the system issues message IXC231I.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2RIP

Routing code: 1,2

Descriptor code: 12

IXC231I TIMED OUT WAITING FOR SYSTEM *sysname* TO BE PARTITIONED FROM THE SYSPLEX

Explanation: This system has stopped waiting for system *sysname* to be partitioned from the sysplex. This system will not be able to join the sysplex until system *sysname* has been partitioned out of the sysplex.

Note that this message might be issued if you have altered the TOD clock or sysplex timer to a time earlier than the system previously was using. If either the TOD clock or the sysplex timer has been regressed, you can avoid this message by waiting the amount of regressed time before re-IPLing or by reformatting the sysplex couple data set.

In the message text:

sysname
The system name of the system that was previously running on the same CPC image as the current system.

System action: The system issues prompt IXC207A requesting that you specify a new COUPLExx parmlib member to restart XCF initialization. The system also issues IXC218I and IXC203I, which give additional information about the system and the sysplex.

Operator response: Respond to message IXC207A, specifying the new COUPLExx parmlib member. IXC218I and IXC203I contain information that can be used to respond to IXC207A.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2RIP

Routing code: 1,2

Descriptor code: 12

IXC232I *typename* FUNCTION NOT ACTIVATED: *process* IN PROGRESS

Explanation: This system was unable to initiate use of the named function because the couple data set configuration was changing. Either permanent error (couple data set removal) or ACOUPLE was in progress.

In the message text:

typename
The couple data set function type that could not be activated.

process
One of the following:

PERMANENT ERROR
Permanent error is in progress for the named function.

ACOUPLE
ACOUPLE is in progress for the named function.

System action: If this message is issued during XCF initialization, the system prompts with messages IXC239A and IXC252D. If it is issued after XCF initialization is complete, the system continues running without access to the named function.

Operator response: Wait until the permanent error or ACOUPLE process has completed on the systems that are using the named function. If prompted with IXC239A / IXC252D, reply 'R' to IXC252D to retry couple data set allocation. If not prompted, issue the SETXCF COUPLE,PCOUPLE command to bring the named function into use.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AFN

Routing code: 1,2

Descriptor code: 12

IXC239A UNABLE TO ACTIVATE COUPLE DATA SET(S) FOR *typename*

Explanation: The system was unable to activate the same couple data set configuration that is in use by the other systems in the sysplex for the named function. Message IXC255I has been issued to describe specific allocation problems encountered.

In the message text:

typename
The type of data contained in the data set.

System action: The system will prompt the operator to determine whether it is acceptable to IPL without use of the specified function. This message is followed by message IXC252D.

Operator response: Respond to message IXC252D as directed by the system programmer.

System programmer response: If it is not acceptable to continue the IPL without access to the specified function, then either correct the problems that prevent this system from activating the current sysplex couple data set configuration, or use the SETXCF COUPLE command on some other system in the sysplex to modify the current configuration to one that this system can attain.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AFN

Routing code: 1,2,10

Descriptor code: 2

IXC240I IF XCF-LOCAL MODE INITIALIZATION IS DESIRED, *text*

Explanation: XCF could not process the COUPLExx parmlib member because of an error. This message is issued to inform the operator that either a reply of COUPLE=** to the message or a reIPL with a specification of COUPLE=** and PLEXCFG=XCFLOCAL will allow the system to initialize using the IBM-supplied XCF defaults. This may be needed to correct any parmlib errors that otherwise cause the IPL to fail. Note that the XCF defaults will configure the system for XCF-local mode only if permitted by the PLEXCFG system initialization specification and any other system component specifications that need to be set to allow XCF-local mode. The COUPLE=** specification will also allow the sysplex name specified in LOADxx to be used.

In the message text:

REPLY 'COUPLE=' TO THE FOLLOWING PROMPT**
A reply of COUPLE=** is suggested because PLEXCFG will allow XCF-local mode.

RE-IPL WITH 'PLEXCFG=XCFLOCAL' AND 'COUPLE='**
The COUPLE=** specification attempts to configure the system in XCF-local mode, and the PLEXCFG specification prevented XCF-local mode.

RE-IPL WITH 'PLEXCFG=XCFLOCAL' AND 'COUPLE='' ALONG WITH ANY OTHER SPECIFICATIONS NEEDED TO SUPPORT XCF-LOCAL MODE**
The COUPLE=** specification attempts to configure the system in XCF-local mode, and a system component prevented XCF-local mode.

System action: XCF issues message IXC201A, IXC207A, or IXC211A at which point initialization stops and waits for a valid reply.

Operator response: Either re-IPL the system or reply to message IXC201A, IXC207A, or IXC211A when issued.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 12

IXC241I UNABLE TO PROCESS 'COUPLE=' SPECIFICATION BECAUSE** *text*

Explanation: XCF could not process the COUPLE=** specification because the resultant XCF-local mode system configuration was prevented. The message text indicates whether a system component or the PLEXCFG specification prevented XCF-local mode. If COUPLE=** is still desired and the message text indicates that PLEXCFG is the reason, then a re-IPL with a PLEXCFG specification that allows XCF-local mode will likely succeed. If a system component prevented XCF-local mode, then changing the initialization parameters for the component to allow XCF-local mode may be needed along with COUPLE=** and PLEXCFG=XCFLOCAL.

In the message text, *text* is one of the following:

THE PLEXCFG SPECIFICATION PREVENTED XCF-LOCAL MODE
The COUPLE=** specification attempts to configure the system in XCF-local mode, and the PLEXCFG specification prevented XCF-local mode.

A SYSTEM COMPONENT PREVENTED XCF-LOCAL MODE
The COUPLE=** specification attempts to configure the system in XCF-local mode, and a system component prevented XCF-local mode.

OF AN UNKNOWN REASON
The reason that COUPLE=** was not accepted could not be determined.

System action: XCF issues message IXC201A, IXC207A, or IXC211A at which point system initialization stops and waits for a valid reply.

Operator response: Either re-IPL the system or respond to message IXC201A, IXC207A, or IXC211A when issued.

System programmer response: None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM

Routing code: 1,2

Descriptor code: 12

IXC242I XCF UNABLE TO BUILD SAF AUTHORIZATION PROFILES UNDER THE FACILITY CLASS FOR APPLICATION *applname* **SECURITY AUTHORIZATION FACILITY RETURNED RC =** *saf-return-code* **THE SECURITY PRODUCT RETURNED RC =** *product-return-code* **RS =** *product-reason-code*

Explanation: XCF has attempted to have in-storage security profiles built. SAF returned an unsuccessful return code.

In the message text:

applname
The name of the application requesting the authorization checking.

saf-return-code
The return code from the SAF call.

product-return-code
The return code from the security product.

product-reason-code
The reason code from the security product.

System action: XCF will continue its initialization. XCF does not attempt to build the security profiles again.

Operator response: Notify the system programmer.

System programmer response: See the appropriate security products messages and codes documentation for detailed information.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2JST

Routing code: 2,10

Descriptor code: 2

IXC244E XCF CANNOT USE {PRIMARY | ALTERNATE} SYSPLEX COUPLE DATA SET *dsname*, **{ON VOLSER** *volser*, **| VOLSER N/A,}** *text*

Explanation: XCF could not open the data set indicated and will attempt to continue to IPL the system without it.

b

In the message text:

dsname
The name of the couple data set.

volser
The DASD volume where the data set resides, if known. (It may be unknown when the master catalog is used to determine the volser, but the data set has not been cataloged.)

text
One of the following:

CONTINUING THE IPL USING SPECIFIED ALTERNATE AS PRIMARY
XCF is attempting to use the data set that was specified as the Alternate in the COUPLExx parmlib member as the Primary Sysplex couple data set, because the specified Primary could not be opened.

CONTINUING THE IPL WITHOUT AN ALTERNATE
XCF could not open the data set specified as the Alternate in the COUPLExx parmlib member, and is continuing without it.

System action: XCF issues message IXC255I, giving the details of the OPEN error which occurred for the specified data set and attempts to continue the IPL without it.

Operator response: Contact the system programmer.

System programmer response: Determine why the open of the specified data set failed. If the name or volume serial of the data set is incorrect in the COUPLExx parmlib member, correct it before the next IPL. If the data set name and volser are valid, but the data set is on a volume that is inaccessible, format a new Sysplex couple data set on another volume, update the COUPLExx parmlib member, and use the SETXCF COUPLE,ACOUPLE command to add it to the current sysplex.

While the sysplex is running with only one Sysplex couple data set, it is exposed to errors on that device that could bring down the entire sysplex.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1,2

Descriptor code: 2

IXC245I INITIALIZATION OF SYSPLEX COUPLE DATA SET *dsname* **ON VOLSER** *volser* **DEVICE** *device* **IS** *nnn*% **COMPLETE. TIME:** *time* **SECONDS, DIAG:** *x*

Explanation: One minute has passed since initialization of the indicated sysplex couple data set began or since the last IXC245I message was issued. The message indicates the amount of initialization progress that has been made. Note that the percentage complete is an estimate and may not be an exact value.

In the message text:

dsname
The name of the sysplex couple data set that is being initialized.

volser
The volume serial number of the direct access storage device (DASD) on which the sysplex couple data set resides.

device
The device address of the direct access storage device (DASD) on which the sysplex couple data set resides.

nnn
Percentage of initialization complete.

time
The amount of time, in seconds, that has been spent so far initializing the specified sysplex couple data set.

x Diagnostic data.

System action: The system continues initialization of the sysplex couple data set.

Operator response: This is an information message for which no response is expected. However, if initialization of the sysplex couple data set is taking longer that expected, you might want to notify the system programmer.

System programmer response: There are many factors that contribute to the amount of time required to initialize a sysplex couple data set. If the initialization time is longer than expected, check for changes that might have caused it. (For example, increases in the size of the sysplex couple data set, changes to DASD, changes to the DASD control unit, or volume contention might increase initialization time.)

If the elapsed time is seen as a problem, search problem reporting data bases for a possible problem in XCF couple data set initialization. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSX

Routing code: 2,10

Descriptor code: 4,12

IXC246E *typename* **COUPLE DATA SET** *dsname* **ON VOLSER** *volser*, **DEVN***devnum*, **HAS BEEN EXPERIENCING I/O DELAYS FOR** *delaysec* **SECONDS.**

Explanation: XCF has been attempting to read or write to the couple data set of the type specified for the number of seconds stated. However, the I/O has not completed within the time allotted by the I/O timing facility. Currently, this time is set to one-third of the effective system failure detection interval (INTERVAL) value when the couple data set was first brought into service, or 15 seconds, whichever is smaller.

In the message text:

typename
The type of data contained in the data set.

dsname
The name of the couple data set.

volser
The DASD volume where the data set resides.

devnum
The DASD device number where the data set resides.

delaysec
The number of seconds of delay.

System action: XCF will attempt to retry the failing I/O for five minutes. If no I/O completes to the data set in that time, XCF removes the data set from use.

Operator response: Notify the system programmer.

System programmer response: If the device on which the couple data set is experiencing an expected delay, no action may be necessary. However, the I/O which is being delayed is critical to the health of the sysplex, and the delay may cause performance problems for users of sysplex services. If the delay is not expected, device or control unit diagnostics should be examined to remove the cause of the delay. If no I/O completes to the data set within five minutes, XCF will remove the data set from use. If BOTH primary and alternate data sets are removed, that function will be unavailable to the sysplex. For Sysplex and CFRM couple data sets, the loss of both data sets will cause every system in the sysplex to load a non-restartable wait state. If a data set is removed, the SETXCF COUPLE,ACOUPLE operator command should be used to install a new alternate for that type as soon as possible.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1SIO

Routing code: 1,10

Descriptor code: 11,12

IXC247D REPLY U to ACCEPT USE OR D TO DENY USE OF THE COUPLE DATA SET FOR *typename*.

Explanation: This system attempted to initialize a couple data set for the specified type and determined that the data set might be in use by another sysplex. Message IXC248E, which precedes this message, indicates the name of the data set that is possibly in use by another sysplex.

In the message text:

typename
The type of data contained in the couple data set.

System action: Initialization of the couple data set stops until the operator replies to message IXC247D.

Operator response: Choose one of the following replies:

U To continue initialization of the couple data set.

Allowing initialization to continue on a couple data set that is in use by another sysplex causes the other sysplex to lose access to the data set, which might cause the system(s) in that sysplex to enter a wait state.

D To stop initialization of the couple data set.

If initialization is stopped, either the data set will not be brought on as an alternate couple data set or the type will not be started.

If an incorrect reply is entered, the system issues message IXC208I to notify the operator of the error. The system then reissues message IXC247D.

Notify the system programmer.

System programmer response: This message occurs because the couple data set is or was being used by another sysplex, or the couple data set was previously used by this sysplex but there is no longer a record of its use.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1OWN

Routing code: 1,2

Descriptor code: Either 2 or 5

IXC248E COUPLE DATA SET *dsname* ON VOLSER *volser* FOR *typename* MAY BE IN USE BY ANOTHER SYSPLEX.

Explanation: XCF tried to initialize a data set as a primary or alternate function couple data set, but found that it contains sysplex ownership information inconsistent with the ownership information in the sysplex couple data set. This may indicate that the incoming data set is currently in use by another sysplex. However, it may simply indicate that the incoming data set has been previously used and is not part of the last known couple data set configuration for the specified type, as recorded in the sysplex couple data set. For example:

- The data set may have been in use as the primary couple data set, been removed by a SETXCF COUPLE,PSWITCH command, and is now being brought back into use as the alternate via a SETXCF COUPLE,ACOUPLE command.
- The data set may have been in use as the primary couple data set, and is still named in COUPLExx as the primary couple data set, but the current IPL is using different sysplex couple data sets that have no record of the data set's previous usage.

In the message text:

dsname
The name of the couple data set.

volser
The DASD volume where the couple data set resides.

typename
The type of data contained in the couple data set.

System action: Message IXC247D follows this message; XCF prompts the operator to see if it is acceptable to use this couple data set for the specified type.

Operator response: Notify the system programmer.

System programmer response: Determine whether the incoming data set is in use by another sysplex. If so, direct the operator to reply 'D' to message IXC247D to deny use of the data set.

Take steps to prevent inadvertent use of a couple data set by two sysplexes. Change the COUPLExx member so that it does not reference the same couple data set for both sysplexes, or ensure that the operator does not specify the wrong couple data set on the SETXCF command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1OWN

Routing code: 2,10

Descriptor code: Either 11 or 5

IXC249I **ERROR PROCESSING COUPLE DATA SET** *dsname* **ON VOLSER** *volser* **FOR** *typename*:
INCONSISTENT DATA FOR *recordname*,*record-occurrence number*,*subrecordname*,*subrecord-occurrence number*,*errorcode*

Explanation: XCF tried to initialize a data set as a primary or alternate couple data set, but found a problem with the data set.

In the message text:

dsname
The name of the couple data set.

volser
The DASD volume where the data set resides.

typename
The type of data contained in the data set.

INCONSISTENT DATA FOR
Data was read from the couple data set which is not consistent.

recordname
The name of the record which could not be read.

record-occurrence number
The number of the recordname in error.

subrecordname
The name of the subrecord which could not be read.

subrecord-occurrence number
The number of the subrecord name in error.

errorcode
A code identifying the type of error.

System action: If this is a primary couple data set, XCF will attempt to resolve the inconsistency by repairing the data from information contained on the alternate couple data set. If there is no alternate or if this error was on an alternate couple data set, then XCF will not be able to repair the inconsistency. If the inconsistency is not repaired, the couple data set is not placed into use. If the inconsistency is repaired, the couple data set is placed into use and initialization continues.

Operator response: If the couple data set was placed into use then no further action is required. If the couple data set was not placed into use use then notify the system programmer and dump the couple data set. See the operator response to message IXC220W for the correct JCL to dump the couple data sets.

System programmer response: If the couple data set was placed into use then no further action is required. Otherwise IBM service should be contacted. A dump of the the failing couple data set should be provided along with the information in the above message. One possible cause of the problem is a system reset of a system that had I/O active to the couple data set. Once all diagnostic information has been collected, the couple data set may be reformatted.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AAR

Routing code: 1,2,10

Descriptor code: 12

IXC250I ALTERNATE COUPLE DATA SET REQUEST FAILED FOR DATA SET *dsname* **FOR** *typename*: *reason*

Explanation: XCF could not make a data set available as an alternate couple data. In the message text:

dsname
The name of the data set.

typename
The type of data contained in the data set.

reason
One of the following:

ANOTHER ALTERNATE COUPLE DATA SET REQUEST IS CURRENTLY BEING PROCESSED
The system is already trying to make a couple data set available as the alternate couple data set.

THE NEW ALTERNATE DATA SET COULD NOT BE OPENED
The system was unable to open data set *dsname*. The data set cannot be used.

THE NEW ALTERNATE DATA SET IS CURRENTLY IN USE AS THE PRIMARY DATA SET
Data set *dsname* is already in use as the primary couple data set. It cannot be used as the alternate couple data set.

THE NEW ALTERNATE DATA SET IS CURRENTLY IN USE AS THE ALTERNATE DATA SET
Data set *dsname* is already in use as the alternate couple data set. The request is ignored.

COULD NOT WRITE SYSTEM STATUS RECORD(S) OR LOCK BLOCK(S)
The system was unable to initialize *dsname* by writing the system status record(s) or lock block(s) to it. The data set cannot be used.

COULD NOT CLEAR THE RECOVERY LOCK BLOCKS ON THE NEW ALTERNATE DATA SET
The system was unable to initialize *dsname* by clearing the recovery lock blocks. The data set cannot be used.

COULD NOT CLEAR THE SYSPLEX LOCK BLOCKS ON THE NEW ALTERNATE DATA SET
The system was unable to initialize *dsname* by clearing the sysplex lock blocks. The data set cannot be used.

COULD NOT CLEAR THE LOCK BLOCKS ON THE NEW ALTERNATE DATA SET
The system was unable to initialize *dsname* by clearing the sysplex lock blocks. The data set cannot be used.

COULD NOT WRITE A SEQUENCE NUMBER TO THE NEW ALTERNATE DATA SET
The system was unable to initialize *dsname* by writing a sequence number to it. The data set cannot be used.

THE NEW ALTERNATE DATA SET COULD NOT BE SYNCHRONIZED WITH THE PRIMARY DATA SET
The system was unable to initialize *dsname* by synchronizing it with the primary data set. The data set cannot be used.

REQUIRED RECORDS COULD NOT BE READ FROM THE NEW ALTERNATE DATA SET
The system was unable to read required records from data set *dsname*. The data set cannot be used.

CONSISTENCY CHECKING FAILED FOR THE NEW ALTERNATE DATA SET
Data set *dsname* failed consistency checking. The data set cannot be used.

THE FORMAT TOD IN THE NEW ALTERNATE DATA SET IS INCORRECT
The format time-of-day (TOD) stamp in alternate couple data set *dsname* does not match the format TOD stamp for the primary couple data set. The data set cannot be used.

THE SYSTEM IS IN XCF-LOCAL MODE
The system is in XCF-local mode, and cannot use couple data sets. The request is rejected.

THE CAUSE OF THE FAILURE IS UNKNOWN
XCF could not determine why the couple data set request failed.

PERMANENT ERROR PROCESSING IS CURRENTLY ACTIVE FOR THIS DATA TYPE
XCF is currently processing a permanent error for this data type.

COULD NOT GAIN OWNERSHIP OF THE DATA
The system was unable to gain ownership of the data for type *typename* within *dsname*. The data set cannot be used.

COULD NOT CLEAR UPLEVEL RECORDS ON THE NEW ALTERNATE DATA SET
The system was unable to clear uplevel records on the new alternate couple data set for type *typename* within *dsname*. The data set cannot be used.

ORIGINATING SYSTEM DID NOT COMPLETE INITIALIZATION
The system on which the ACOUPLE request originated did not complete the necessary initialization of the new alternate couple data set. This indicates a maintenance mismatch. The issuing system requires an initialization protocol in which the originating system is not capable of participating.

UNABLE TO SERIALIZE ACOUPLE PROCESS
The issuing system was unable to access the primary sysplex couple data set to serialize the ACOUPLE request, probably due to an I/O timeout.

OWNERSHIP INDICATORS INCONSISTENT
The data ownership indicator in the new alternate couple data set as read by a participating system does not match the information provided by the system initiating the ACOUPLE request. This indicates that the two systems are not using the same data set, probably because the volume serial specified or implied by the ACOUPLE command refers to different devices on the two systems.

PRIMARY DATA SET EXPERIENCING I/O DELAYS
It is currently unsafe to remove the existing alternate couple data set because the primary couple data set is experiencing I/O delays. If the alternate were removed, it could result in the loss of both couple data sets for the named type if the primary does not return to normal operation in a timely manner.

System action: XCF may already have removed from use the old alternate couple data set for the specified type of data, so the sysplex may be running without an alternate couple data set.

Operator response: If the message text contains ORIGINATING SYSTEM DID NOT COMPLETE INITIALIZATION, reissue the SETXCF COUPLE,ACOUPLE command from any system that issued this message.

If the message text contains UNABLE TO SERIALIZE ACOUPLE PROCESS or PRIMARY COUPLE DATA SET EXPERIENCING I/O DELAYS, check for indications of I/O delays affecting the primary sysplex couple data set. Reissue the ACOUPLE command after correcting any problems.

Otherwise, notify the system programmer.

System programmer response: Make a different alternate data set available, or delete and reformat data set *dsname* to make it available.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AA

Routing code: 1,2

Descriptor code: 4

IXC251I NEW ALTERNATE DATA SET *dsname* **FOR** *typename* **HAS BEEN MADE AVAILABLE**

Explanation: A new alternate couple data set, *dsname*, was successfully defined.

In the message text:

dsname
The name of the data set that XCF made available.

typename
The type of data contained in the data set.

System action: XCF is using data set *dsname* as the alternate couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AA

Routing code: 1,2

Descriptor code: 4

IXC252D REPLY C TO CONTINUE IPL WITHOUT THE *typename* FUNCTION, OR R TO RETRY DATA SET ALLOCATION

Explanation: The system was unable to activate the same couple data set configuration that is in use by the other systems in the sysplex for the named function. This message was preceded by message IXC239A.

In the message text:

typename
The type of data contained in the data set.

System action: Activation of the named function stops until the operator replies to message IXC252D.

Operator response: As directed by the system programmer, do one of the following:

- Reply 'C' to continue the IPL. The named function will be inactive on the IPLing system, until some subsequent action is taken to correct the problem.
- Reply 'R' to cause the system to attempt allocation of the couple data set(s) again.

System programmer response: Determine whether the condition that prevented the IPLing system from allocating the necessary couple data sets can be corrected before continuing with the IPL. If so, correct the condition and attempt allocation of the couple data sets again. If not, continue with the IPL, correct the condition after the IPL completes, and issue SETXCF COUPLE commands as necessary to restore the use of the named function on the affected system and achieve the desired couple data set configuration.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AFN

Routing code: 1,2

Descriptor code: 2

IXC253I {PRIMARY|ALTERNATE} COUPLE DATA SET *dsname* FOR *typename* IS BEING REMOVED BECAUSE OF *errortype* DETECTED BY SYSTEM *sysname* [ERROR CASE: *errorcase*] [DATA SET TAKEN OVER BY SYSTEM *stealsys* AT *stealtime*]

Explanation: A couple data set failed. XCF is removing it from the sysplex.

Each system affected by the failure of the couple data set issues IXC253I to report its removal. The system detecting the error may also issue the ERROR CASE line(s) to provide additional detail about the failure.

In the message text:

PRIMARY
XCF is removing the primary couple data set from the sysplex.

ALTERNATE
XCF is removing the alternate couple data set from the sysplex.

dsname
The name of the couple data set that XCF is removing from the sysplex.

typename
The type of data contained in the data set.

errortype
One of the following:

AN UNKNOWN ERROR
An error that cannot be determined.

AN I/O ERROR
I/O error on the couple data set.

INCONSISTENT INFORMATION
Inconsistent information in the couple data set.

A SETXCF COUPLE,PSWITCH OPERATOR COMMAND
Initiated by operator command SETXCF,COUPLE with the PSWITCH option.

A SETXCF COUPLE,ACOUPLE OPERATOR COMMAND
Initiated by operator command SETXCF,COUPLE with the ACOUPLE option.

sysname
The name of the system that initiated the request or detected the error.

errorcase
One of the following:

PERMANENT ERROR
An I/O operation has failed with a permanent I/O error.

UNRESOLVED I/O TIMEOUT
Attempts to initiate I/O have timed out repeatedly, and the system has been unable to complete an I/O request within the 5 minute retry period.

TAKEOVER BY ANOTHER SYSPLEX
Another sysplex has taken ownership of the couple data set because the operator incorrectly replied 'U' to IXC248E / IXC247D while the couple data set was still in use by the sysplex of which the issuing system is a member.

UNABLE TO IDENTIFY WRITING SYSTEM
The system that left the couple data set partially written did not record its identity before beginning the write. The writing system may not have the partial write recovery support introduced by APAR OW51741 or z/OS V1R5.

WRITING SYSTEM NO LONGER ACTIVE
The system that left the couple data set partially written was partitioned from the sysplex before it could complete the repair of the affected record.

TIME LIMIT FOR REPAIR EXPIRED
The maximum time limit for repair of a partially written record has elapsed.

stealsys
The name of the system from which the operator replied to IXC247D to allow ownership of the couple data set to be taken over.

stealtime
The date/time when ownership of the couple data set was taken over, in the format mm/dd/yyyy hh:mm:ss.ffffff.

System action: The system stops using the couple data set.

If the failing couple data set was the primary, XCF tries to switch to the alternate couple data set. Any work in progress will be restarted once the switch is made. If no alternate couple data set is available, the function associated with this couple data set type becomes unavailable. If the affected couple data set is sysplex or CFRM, XCF removes the issuing system from the sysplex.

If the failing couple data set was the alternate, the alternate becomes unusable. XCF informs all other systems in the sysplex of the failure.

Operator response: If the reason for the couple data set removal was:

- AN I/O ERROR with error case PERMANENT ERROR
- INCONSISTENT INFORMATION

then dump the couple data set. See the operator response to message IXC220W for the correct JCL to dump the couple data set. Otherwise, notify the system programmer.

System programmer response: Allocate and format a new alternate couple data set. Ask the operator to enter the SETXCF COUPLE,ACOUPLE command to make the new alternate couple data set available to XCF. The command should only be entered on one system in the sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1SWT, IXCL1IOC, IXCL1IOR, IXCL1SIO, IXCO1ASY

Routing code: 1,2,10

Descriptor code: 4

IXC254I DATA SET *dsname* **IS CURRENTLY IN USE AS THE {PRIMARY|ALTERNATE} COUPLE DATA SET**

Explanation: XCF is using *dsname* as the primary or alternate couple data set.

In the message text:

dsname
The name of the couple data set that XCF is using as the primary or alternate couple data set.

PRIMARY
XCF is using the couple data set as the primary couple data set in the sysplex.

ALTERNATE
XCF is using the couple data set as the alternate couple data set in the sysplex.

System action: Couple data set *dsname* is used by XCF as the primary or alternate couple data set.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1,2

Descriptor code: 11

IXC255I UNABLE TO USE DATA SET *dsname* **AS THE {PRIMARY|ALTERNATE} FOR** *typename*: *text*
[RELEVANT*typename* **COUPLE DATA SET FORMAT INFORMATION**
PRIMARY
FORMAT LEVEL: *fmtlevel*
FORMAT KEYWORDS: *fmtinfo*
ALTERNATE
FORMAT LEVEL: *fmtlevel*
FORMAT KEYWORDS: *fmtinfo***]**

Explanation: XCF tried to initialize a data set as a primary or alternate couple data set but was unsuccessful.

If the system issues a message while attempting to bring a new alternate couple data set into service, and the message text is one of the following:

- ALLOWABLE NUMBER SIZE OF *record-type* RECORDS IS LESS THAN CURRENT PRIMARY
- DOES NOT CONTAIN record-type RECORDS

the system determined that the incoming alternate was formatted with less capacity than the existing primary couple data set. In this case, the lines beginning with RELEVANT *typename* COUPLE DATA SET FORMAT INFORMATION might be included. These lines compare the existing primary and incoming alternate to allow the installation to determine how to reformat the new alternate couple data set. The component owning the *typename* couple data set supplies the interpretive information displayed in these lines. The additional lines are displayed only when the owning component provides the necessary information.

In the message text:

dsname
The name of the data set that XCF could not use as a couple data set for the sysplex.

PRIMARY
XCF was trying to use the data set as the primary couple data set for the sysplex.

ALTERNATE
XCF was trying to use the data set as an alternate couple data set for the sysplex.

typename
The type of data contained in the data set. This name corresponds to the TYPE= specification on the SETXCF command.

text
One of the following:

ALLOWABLE NUMBER OF GROUPS IS LESS THAN CURRENT PRIMARY
The maximum number of groups allowed for the alternate couple data set is less than the maximum defined for the primary data set. The alternate couple data set must support at least as many groups as the primary couple data set.

CAPACITY INSUFFICIENT FOR PRACTICAL USE
The data set has less capacity than the minimum supported by XCF. The couple data set must be dumped.

MAXMEMBER VALUE IS LESS THAN THAT OF THE CURRENT PRIMARY
The alternate couple data set has a maximum number of members value, MAXMEMBER, less than that of the current primary data set. The alternate must support at least as many members as the primary.

MULTI-VOLUME DATA SETS ARE NOT SUPPORTED
The data set is a multi-volume data set, which is not supported by XCF.

DATA SET MUST RESIDE ON DASD
The data set does not reside on direct access storage device (DASD). Couple data sets must reside on DASD.

MULTIPLE EXTENTS ARE NOT SUPPORTED
The data set has more than one extent, which is not supported by XCF.

UNABLE TO OPEN DATA SET
The data set could not be opened.

MULTIPLE EXPOSURE DEVICES ARE NOT SUPPORTED
The data set resides on a multiple exposure device, which is not supported by XCF.

AN INCOMPLETE RECORD WAS FOUND
The data set is unusable because it contains an incomplete record. The couple data set must be dumped.

THE ALTERNATE AND PRIMARY DATA SETS ARE THE SAME
The alternate data set has the same name and volser as the primary data set. The primary and alternate data sets must be unique.

IT WAS CREATED AT A FORMAT LEVEL HIGHER THAN THIS SYSTEM CAN USE
This system is not using the level of MVS required for the couple data set.

I/O TO DEVICE HAS BEEN STOPPED
I/O to the device on which the data set resides has been stopped as the result of an IOACTION STOP command.

DATA SET NOT FOUND - LOCATE RETURN CODE *rc*
The system could not find the data set.

ERROR TRYING TO READ DSCB - RETURN CODE *rc*
An I/O error occurred while trying to obtain volume or data set information for the new couple data set.

ALLOCATION ERROR *errcode*, *infocode*
The system could not allocate the data set. XCF returns two reason codes.

DASD VOLUME *volser* **NOT MOUNTED**
The DASD volume, *volser* where the data set resides is not mounted. The data set cannot be used.

ALLOWABLE {NUMBER|SIZE} OF *record-type* **RECORDS IS LESS THAN CURRENT PRIMARY**
XCF cannot use the data set as an alternate couple data set because it does not have enough of one of the record or subrecord types, or because one of the record or subrecord types is smaller than the corresponding record or subrecord types in the primary couple data set. An alternate couple data set must have as many as or more records of each type than the primary couple data set, and they must be at least as large as those in the primary.

SYSPLEX NAME *sysname* **DOES NOT MATCH THE SYSPLEX NAME IN USE**
XCF cannot use the data set as a couple data set because the sysplex name does not match the sysplex name in use.

DOES NOT CONTAIN *record-type* **RECORDS**
XCF cannot use the data set as a couple data set because either of the following conditions occurs:

- For sysplex couple data sets only, the data set does not contain all the required record types.
- For incoming alternates only, the data set is missing a record or subrecord that is present in the primary.

REJECTED by *typename*
XCF cannot use the data set as a couple data set because its use was rejected by the specified type.

IT WAS FORMATTED AT A LEVEL BELOW THE MINIMUM REQUIRED BY THIS SYSTEM. MINIMUM REQUIRED LEVEL: *fmtlevel*
The couple data set was formatted by a format utility (IXCL1DSU) at a release or maintenance level too low for use by the issuing system.

rc The return code.

errcode
The allocation error code.

infocode
The allocation information return code.

volser
The DASD volume where the data set resides.

record-type
The record which is not correct. The *record-type* is based on the *typename*. The *record-type* may not directly correspond to the item name(s) used when the couple data set for *typename* was formatted. For the *typename*, each item name must have a number specified as equal to or greater than the value in primary couple data set.

sysname
The sysplex name that does not match the sysplex name in use.

fmtlevel
The minimum level of the format utility that must be used to format couple data sets of the specified type.

fmtinfo
Keywords specified as input to the IXCL1DSU format utility when formatting the couple data set. One or more lines might appear.

When the *typename* is BPXMCDS, the *fmtinfo* line displays the MOUNT parameter value and the AMTRULES parameter value that is found in the BPXMCDS couple data set:

```
MOUNTS(mounts) AMTRULES(amtrules)
```

System action: The system does not use the data set as a couple data set. If the system detects the error during XCF initialization, it issues message IXC207A to prompt the operator for a new COUPLExx parmlib member.

Operator response: If one of the following messages appears in the message text, dump the couple data set:

- AN INCOMPLETE RECORD WAS FOUND
- CAPACITY INSUFFICIENT FOR PRACTICAL USE
- DOES NOT CONTAIN *record-type* RECORDS

See the operator response to message IXC220W for the correct JCL to dump the couple data set. In all cases, notify the system programmer if a dump had to be taken.

When directed by the system programmer, bring the reformatted alternate couple data set into service using the SETXCF COUPLE,TYPE=typename,ACOUPLE command.

System programmer response: Depending on the message text, do one of the following:

MAXMEMBER VALUE IS LESS THAN THAT OF THE CURRENT PRIMARY
Use an alternate couple data set which supports an equal or larger number of members than the primary couple data set. Enter the DISPLAY XCF,COUPLE command to display the MAXMEMBER value.

ALLOWABLE NUMBER OF GROUPS IS LESS THAN CURRENT PRIMARY
Use an alternate data set which supports an equal or larger number of groups than the primary couple data set. Enter the DISPLAY XCF,COUPLE command to display the current status of the couple data sets.

ALLOWABLE NUMBER|SIZE OF *record-type* **RECORDS IS LESS THAN THE CURRENT PRIMARY**
If the lines beginning with RELEVANT *typename* COUPLE DATA SET FORMAT INFORMATION are present, evaluate the differences between the existing primary and incoming alternate couple data sets. If the interpretive information is not provided, see the documentation for the type of couple data set in question to determine how format keywords or version affect the named record. Reformat the alternate with capacity equal to or greater than that of the primary. Consider to run IXCMIAPU utility program with DATA TYPE(ARM|CFRM|SFM|LOGR) REPORT(YES) to find out the capacity from current primary CDS.

DOES NOT CONTAIN *record-type* **RECORDS**
Same as the preceding case.

IT WAS FORMATTED AT A LEVEL BELOW THE MINIMUM REQUIRED BY THIS SYSTEM
Reformat the data set using the format utility provided by a release at or above the level required by the issuing system.

For any other *text*:

- Enter the DISPLAY XCF,COUPLE command to display the current status of the couple data sets.
- Look for and correct any errors in the couple data sets.
- Make sure the COUPLExx parmlib member specifies the correct data sets.
- Enter a new COUPLExx parmlib member in response to message IXC207A.
- Re-IPL the system with the new COUPLExx parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PRM, IXCL1DSC, IXCL1DSO, IXCL1RIP, IXCL1SRV

Routing code: 1.2.10

Descriptor code: 12

IXC256A REMOVAL OF {PRIMARY|ALTERNATE} COUPLE DATA SET *dsname* **FOR** *typename* **CANNOT FINISH THE {ACTION|COMPLETE} PHASE UNTIL THE FOLLOWING SYSTEM(S) ACKNOWLEDGE THE REMOVAL:** *syslist*

Explanation: XCF is removing a primary or alternate couple data set from the sysplex. Not all systems have responded to the request to switch couple data sets.

This problem can occur when one or more of the following problems exist on the systems listed in the message:

- A system is in a wait state.
- A system is in a loop.
- Signalling communication between systems has been lost.
- A problem occurred preventing a system from dispatching work normally.

In the message text:

PRIMARY
XCF is removing a primary couple data set from the sysplex.

ALTERNATE
XCF is removing an alternate couple data set from the sysplex.

dsname
The name of the data set that XCF is removing from the sysplex.

typename
The type of data contained in the data set.

ACTION
The couple data set removal protocol is in the Action phase.

COMPLETE
The couple data set removal protocol is in the Complete phase.

syslist
The list of systems XCF is waiting on to complete the removal of the data set.

System action: XCF requests requiring the couple data set are delayed until the switch is made. Processing does not complete until one of the following occur:

- All systems acknowledge the removal of the couple data set.
- XCF removes failed systems from the sysplex.

While this condition continues, the performance and workload of all the systems may be negatively affected.

Operator response: Enter the DISPLAY XCF,SYSPLEX,ALL command to display the status of all the systems in the sysplex to determine why one or more systems have not acknowledged the removal of the couple data set. Depending on the state of each system, do the following to correct the problem:

Disabled wait state
Either perform a SYSTEM RESET to clear all active I/O or obtain a stand-alone dump.

Restartable wait state
Either resolve the wait state and restart the system, or perform a SYSTEM RESET.

Signalling loss
Enter a DISPLAY R,L to look for outstanding IXC messages. See the explanation for the messages. If a message involves removing a system from the sysplex, perform a SYSTEM RESET on that system.

System is looping or running abnormally
Either wait for the automated spin loop time out facility to take action or else try to resolve the problem. If the condition cannot be resolved, either perform a SYSTEM RESET or obtain a stand-alone dump.

After a system has been reset, remove the system from the sysplex by issuing a VARY XCF command. If the affected couple data set type is SYSPLEX, and partitioning does not complete after the VARY XCF command, issue a second VARY XCF command with the FORCE option. Issue both VARY commands from the same system.

System programmer response: If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1SWT

Routing code: 1,2,10

Descriptor code: 11

IXC257I PRIMARY COUPLE DATA SET *dsname1* FOR *typename* IS BEING REPLACED BY *dsname2* DUE TO OPERATOR REQUEST

Explanation: An operator entered the SETXCF COUPLE,PSWITCH command to replace the primary couple data set with the alternate one.

In the message text:

dsname1
The primary couple data set that XCF is replacing.

typename
The type of data contained in the data set.

dsname2
The alternate couple data set that is replacing the primary couple data set.

System action: The system uses the alternate couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1SWT

Routing code: 1,2

Descriptor code: 4

IXC258I COUPLE DATA SET *dsname* WAS CREATED AT A FORMAT LEVEL HIGHER THAN THIS SYSTEM CAN USE

Explanation: One of the following occurred:

1. The system IPLing into the sysplex was attempting to use an XCF couple data set, but the level of the data set had an improper structure for the current IPLing system.
2. The operator issued a SETXCF command to activate an alternate XCF couple data set, but the level of the data set had an improper structure for the current system.

In the message text:

dsname
The data set name.

System action: For explanation 1, the system restarts initialization of XCF after prompting the operator for a new COUPLExx parmlib member.

For explanation 2, the system continues running with either:

- the alternate couple data set that existed before this message was issued
- without an alternate couple data set.

Operator response: For explanation 1, respond to the system request with a new COUPLExx parmlib member (if one is available). Notify the system programmer if a new COUPLExx parmlib member is not available.

For explanation 2, you can issue another SETXCF command, with an alternate XCF couple data set that is formatted for the currently running system. Notify'.'the system programmer.

System programmer response: If the XCF couple data set should have been formatted at a level higher than the system that detected the error, the detecting system should not be in the sysplex. Replace the detecting system with a higher-level system. Otherwise, you must reformat the XCF couple data set to be compatible with the lower-level system and then do the following:

- For explanation 1, initiate an IPL of all systems in the sysplex to replace the higher-level XCF couple data set with one that is compatible with the detecting system.
- For explanation 2, have the operator issue the SETXCF command with the reformatted XCF couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSC

Routing code: 1,2

Descriptor code: 4

IXC259I I/O ERROR ON DATA SET *dsname* FOR *typename*, VOLSER *volser*, *modname*,*post-code*,*text*

Explanation: An I/O error occurred on a couple data set when an execute channel program (EXCP) module failed.

In the message text:

dsname
The name of the couple data set on which the I/O error occurred.

typename
The type of data contained in the data set.

volser
The direct access storage device (DASD) volume on which the couple data set resides.

modname
The name of the EXCP channel program that failed.

post-code
The returned post code.

status-bytes
The returned status information.

commandcode
The EXCP channel program command code.

sense-bytes
The returned hardware information.

status-bytes,*commandcode*,*sense-bytes*
The error information contains both the commandcode and sense bytes.

status-bytes,*commandcode*
The error information contains only the commandcode.

status-bytes,,*sense-bytes*
The error information contains only the sense bytes.

status-bytes
The error information contains neither the commandcode nor the sense bytes.

System action: The system issues message IXC207A to prompt the operator for a new COUPLExx parmlib member. The system restarts initialization of XCF when a new COUPLExx parmlib member is specified.

Operator response: Dump the couple data set. See the operator response to message IXC220W for the correct JCL to dump the couple data set. If the problem persists, contact hardware support.

System programmer response: If necessary, correct the COUPLExx parmlib member to specify a different couple data set.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1,2,10

Descriptor code: 3

IXC260I ALTERNATE COUPLE DATA SET REQUEST FROM SYSTEM *sysname* **FOR** *typename* **IS NOW BEING PROCESSED. DATA SET:** *dsname*

Explanation: XCF received a request to make a data set available as an alternate couple data set.

In the message text:

sysname
The name of the system making the request.

typename
The type of data contained in the data set.

dsname
The name of the data set that system *sysname* wants to use as an alternate couple data set.

System action: The system tries to make the data set available as the alternate couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AA

Routing code: 1,2

Descriptor code: 4

IXC261I ALTERNATE COUPLE DATA SET REQUEST REJECTED BY SYSTEM *sysname* **FOR** *typename* **DATA SET NAME:** *dsname*

Explanation: The data set *dsname* cannot be used as the alternate data set. A system rejected the request.

In the message text:

sysname
The name of the system rejecting the request.

typename
The type of data contained in the data set.

dsname
The name of the data set that XCF is trying to make available as an alternate couple data set.

System action: The data set *dsname* cannot be used as the alternate data set. XCF may already have removed the old alternate couple data set from use, so the sysplex may be running without an alternate couple data set.

Operator response: Notify the system programmer.

System programmer response: Make a different alternate data set available, or delete and reformat data set *dsname* to make it available.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AA

Routing code: 1,2

Descriptor code: 4

IXC262I ALTERNATE COUPLE DATA SET REQUEST FROM SYSTEM *sysname* **FOR** *typename* **IGNORED. IT IS A DUPLICATE REQUEST. DATA SET NAME:** *dsname***.**

Explanation: A system requested a data set for use as an alternate couple data set, but the system is already processing the same request from another system in the sysplex.

In the message text:

sysname
The name of the system that already requested data set *dsname* for use as an alternate couple data set.

typename
The type of data contained in the data set.

dsname
The name of the data set that system *sysname* requested as an alternate couple data set.

System action: The system ignores the duplicate couple data set request and processes the previous request.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AA

Routing code: 1,2

Descriptor code: 4

IXC263I REMOVAL OF THE {PRIMARY|ALTERNATE} COUPLE DATA SET *dsname* **FOR** *typename* **IS COMPLETE**

Explanation: XCF removed a couple data set from the sysplex in response to an operator command or because the data set appeared to be damaged.

In the message text:

PRIMARY
XCF removed the primary couple data set.

ALTERNATE
XCF removed the alternate couple data set.

dsname
The name of the couple data set XCF removed.

typename
The type of data contained in the data set.

System action: The sysplex continues processing with another couple data set.

Operator response: Enter the SETXCF COUPLE,ACOUPLE=(*dsname*, *volser*) to make a new alternate couple data set available.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1SWT

Routing code: 1,2

Descriptor code: 4

IXC264I ALLOCATION ERROR ON {PRIMARY|ALTERNATE} COUPLE DATA SET *dsname* **FOR** *typename*: *errcode*, *infocode*. **XCF WILL CONTINUE TO USE THE DATA SET, AND WILL ATTEMPT REALLOCATION PERIODICALLY.**

Explanation: XCF was unable to allocate one of the couple data sets to reserve it for XCF's use.

In the message text:

PRIMARY
XCF could not allocate a primary couple data set.

ALTERNATE
XCF could not allocate an alternate couple data set.

dsname
The name of the couple data set with an allocation error.

typename
The type of data contained in the data set.

errcode
The dynamic allocation error reason code.

infocode
The dynamic allocation information reason code.

System action: The system continues to use the couple data set, but tries to reallocate it periodically.

Operator response: Notify the system programmer.

System programmer response: See the return codes for dynamic allocation.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1CMD

Routing code: 1,2,10.

Descriptor code: 4

IXC265I XCF HAS SUCCEEDED IN ALLOCATING {PRIMARY|ALTERNATE} COUPLE DATA SET *dsname* **FOR** *typename*

Explanation: XCF allocated a couple data set after a previous attempt failed. In the message text:

PRIMARY
XCF allocated the primary couple data set.

ALTERNATE
XCF allocated the alternate couple data set.

dsname
The name of the couple data set that XCF allocated.

typename
The type of data contained in the data set.

System action: The system uses the data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1CMD

Routing code: 1,2,10

Descriptor code: 4

IXC266I PSWITCH REQUEST FOR TYPE *typename* **WAS REJECTED BECAUSE:** *reason*

Explanation: The system cannot process a SETXCF COUPLE,PSWITCH command to replace the primary couple data set with the alternate.

typename
The type of data contained in the data set.

reason
One of the following values:

COUPLE DATA SET REMOVAL IS ALREADY IN PROGRESS
The system is already processing another request to remove the primary couple data set.

THERE IS NO SYNCHRONIZED ALTERNATE COUPLE DATA SET
There is no synchronized alternate couple data set to take the place of the primary.

ALTERNATE COUPLE DATA SET EXPERIENCING I/O DELAYS
It is currently unsafe to remove the existing primary couple data set because the alternate couple data set is experiencing I/O delays. If the primary were removed, it could result in the loss of both couple data sets for the named type if the alternate does not return to normal operation in a timely manner.

System action: The system ignores the SETXCF COUPLE,PSWITCH command.

Operator response: If the message text contains ALTERNATE COUPLE DATA SET EXPERIENCING I/O DELAYS, check for indications of I/O delays affecting the alternate couple data set. Reissue the PSWITCH command after correcting any problems.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1SWT

Routing code: 1,2

Descriptor code: 4

IXC267E PROCESSING WITHOUT AN ALTERNATE COUPLE DATA SET FOR *typename***. ISSUE SETXCF COMMAND TO ACTIVATE A NEW ALTERNATE.**

Explanation: There is no alternate couple data set defined for XCF. If the primary couple data set fails, XCF will have no backup couple data set and might enter a wait state.

In the message text:

typename
The type of data contained in the data set.

System action: Processing continues.

Operator response: Enter the SETXCF COUPLE,ACOUPLE=(*dsname*, *volser*) command to activate a new alternate couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AA, IXCL1SWT

Routing code: 1,2

Descriptor code: 2

IXC268I THE COUPLE DATA SETS SPECIFIED IN COUPLE*xx* ARE IN AN INCONSISTENT STATE

Explanation: This system found the couple data sets specified in COUPLExx to be in an inconsistent state. The data sets either are not currently in use by the systems in the sysplex or, if there are no systems active in the sysplex, are not the couple data sets last used by the sysplex. An example of an inconsistency would be if COUPLExx specified a primary of SYS1.DS1 and no alternate but the systems in the sysplex are currently using SYS1.DS1 as the primary and SYS1.DS2 as the alternate couple data set.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

System action: The system will attempt to resolve the inconsistency by trying to determine the correct couple data sets to use. The couple data sets determined from this attempt will either be the couple data sets currently in use by the systems in the sysplex or those last used by the sysplex.

Operator response: Notify the system programmer.

System programmer response: Check the COUPLExx specification to determine if the couple data sets have been specified correctly. To avoid unnecessary processing during XCF initialization, COUPLExx should specify the couple data sets currently in use by the systems in the sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSI

Routing code: 1,2,10

Descriptor code: 12

IXC269D REPLY U TO USE RESOLVED DATA SETS, C TO USE COUPLE DATA SETS SPECIFIED IN COUPLE*xx*, OR R TO RESPECIFY COUPLEXX

Explanation: This system detected an inconsistency in the couple data sets specified in COUPLExx. This system has resolved the inconsistency and has found a consistent primary and alternate couple data set. However, it does not appear that any active systems are using those data sets. Message IXC275I has been issued to identify the couple data sets specified by COUPLExx, as well as the resolved couple data sets that this system has determined to be consistent.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

System action: System initialization processing stops until the operator replies to message IXC269D.

Operator response: Choose one of the following replies:

U To continue initialization with the resolved couple data sets that XCF has determined to be the most recently used configuration.

C To continue initialization processing with the couple data sets that were specified in COUPLExx.

R To request that XCF be reinitialized. XCF will stop using the current couple data sets and issue message IXC207A to prompt the operator for a new COUPLExx parmlib member.

If an incorrect reply is entered, the system issues message IXC208I to notify the operator of the error. The system then reissues message IXC269D.

Notify the system programmer.

System programmer response: This message indicates that the COUPLExx parmlib member specifies a sysplex couple data set configuration that is not the configuration currently or most recently used by the sysplex. This could be caused by the removal of a primary or an alternate or by the addition of a new alternate couple data set. Updating the COUPLExx parmlib member to describe the in-use or last-used couple data set configuration should eliminate this message.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSI

Routing code: 1,2

Descriptor code: 2

IXC270I XCF ATTEMPTING TO CONTINUE INITIALIZATION PROCESSING WITH THE COUPLE DATA SETS SPECIFIED IN COUPLE*xx*

Explanation: XCF encountered an error while trying to resolve a couple data set inconsistency with the data sets specified in COUPLExx.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

System action: XCF will attempt to continue initialization processing with the couple data sets specified in COUPLExx.

Operator response: Notify the system programmer.

System programmer response: Determine which couple data sets are correct and update the COUPLExx parmlib member to contain the correct specification.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSI

Routing code: 1,2,10.

Descriptor code: 12

IXC272I XCF WAS UNABLE TO RESOLVE THE COUPLE DATA SETS

Explanation: XCF attempted to resolve a couple data set inconsistency but was unable to. An error was encountered while processing one of the couple data sets needed to complete the resolution, or one of the couple data sets indicates that a couple data set transition is in progress (the sysplex is processing a couple data set PSWITCH or ACOUPLE).

System action: XCF will attempt to continue initialization with the COUPLExx specified couple data sets, if they are usable. If they are not usable, XCF will issue message IXC207A to prompt the operator for a new COUPLExx parmlib member specification.

Operator response: Notify the system programmer.

System programmer response: The couple data sets may need to be reformatted. If they do need reformatting then reformat them and re-IPL this system.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSI

Routing code: 1,2,10

Descriptor code: 12

IXC273I XCF ATTEMPTING TO RESOLVE THE COUPLE DATA SETS

Explanation: The couple data sets specified in COUPLExx are either in an inconsistent state or an error was detected with one of the couple data sets. One or more messages describing the error have proceeded this message.

System action: XCF will attempt to resolve the inconsistency or to run without the couple data set which had the error.

Operator response: Notify the system programmer.

System programmer response: Address the problems reported by the previous messages.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSI

Routing code: 1,2,10

Descriptor code: 12

IXC274I PRIMARY DATA SET CONTAINS RECORD *record* **WHICH DOES NOT APPEAR IN THE ALTERNATE**

Explanation: XCF found that the primary and alternate couple data set do not match.

In the message text:

record
The couple data set record missing in the alternate.

System action: Processing continues. The system continues to use the alternate data set.

Operator response: Dump both the primary and alternate couple data sets. See the operator response to message IXC220W for the correct JCL to dump the couple data sets.

System programmer response: Make sure the correct alternate couple data set is defined, or correct the contents of the alternate couple data set.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1,2

Descriptor code: 4

IXC275I {RESOLVED COUPLE DATA SETS | COUPLE DATA SETS SPECIFIED IN COUPLE*xx***} ARE PRIMARY:** *primdsname* **ON VOLSER** *privolser* **ALTERNATE: [***altdsname***] {ON VOLSER | NONE USED | NONE SPECIFIED} [***altvolser***]**

Explanation: XCF has detected an inconsistency in the sysplex couple data sets specified in COUPLExx. This message lists the primary and alternate couple data sets as specified either in the COUPLExx parmlib member or the resolved couple data sets as determined by XCF to be those currently or last in use as the sysplex couple data sets.

In the message text:

RESOLVED COUPLE DATA SETS
The primary and alternate couple data sets have been resolved.

COUPLE DATA SETS SPECIFIED IN COUPLE*xx*
The primary and alternate couple data sets specified in the COUPLExx parmlib member.

primdsname
The name of the primary couple data set.

privolser
The DASD volume where the primary data set resides. A volser of 'N/A' indicates that the volser is not available. It was not specified in COUPLExx, and the system was not able to locate the data set in the catalogue.

altdsname
The name of the alternate couple data set.

ON VOLSER
The volser on which the data set resides.

NONE USED
No alternate data set was used.

NONE SPECIFIED
No alternate data set was specified.

altvolser
The DASD volume where the alternate data set resides. A volser of 'N/A' indicates that the volser is not available. It was not specified in COUPLExx, and the system was not able to locate the data set in the catalogue.

System action: XCF is trying to determine the correct set of couple data sets to use for this system's initialization

Operator response: Notify the system programmer.

System programmer response: Update COUPLExx to reflect the couple data sets that should be used by the sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSI

Routing code: 1,2,10

Descriptor code: 12

IXC276I ERROR PROCESSING DATA SET *dsname*: *text*

Explanation: XCF tried to process an offline (not currently in use by the system) couple data set when an error occurred.

In the message text:

dsname
The name of the couple data set that cannot be processed.

rc The error return code from OBTAIN.

r The dynamic allocation return code.

eeeeiiii
The dynamic allocation error reason code, information reason code.

recordname
The name of the record which could not be read.

record-occurrence number
The number of the recordname in error.

subrecordname
The name of the subrecord which could not be read.

subrecord-occurrence number
The number of the subrecord name in error.

UNABLE TO OPEN DATA SET
The system was unable to open the data set. The data set cannot be used.

OBTAIN ERROR *rc*
An internal failure occurred.

DYNAMIC ALLOCATION ERROR *r-eeeeiiii*
An error occurred while trying to allocate or unallocate the couple data set.

If the error code is 4-02100000, and the DSN is added to the IXCMIAPU job, try removing the DSN and run the job again.

INCONSISTENT DATA FOR *recordname*,*record-occurrence number*,*subrecordname*,*subrecord-occurrence number*
Data was read from the couple data set which is not consistent.

LOCATE ERROR *rc*
An internal failure occurred.

MULTI-VOLUME DATA SETS ARE NOT SUPPORTED
The data set is a multi-volume data set, which is not supported by XCF.

DATA SET MUST RESIDE ON DASD
The data set does not reside on direct access storage device (DASD). Couple data sets must reside on DASD.

System action: Processing is terminated.

Operator response: Notify the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1CDC, IXCL1CDO, IXCL1CDR

Routing code: 1,2,10

Descriptor code: 12

IXC277I I/O ERROR WHILE READING OR WRITING *dsname*, *postcode*,*status-bytes*, [*commandcode*],[*sense-bytes*]

Explanation: An I/O error occurred while XCF was reading or writing an offline couple data set. An execute channel program (EXCP) failed.

In the message text:

dsname
The name of the couple data set where the I/O error occurred.

postcode
The returned post code.

status-bytes
The returned status information.

commandcode
The EXCP command code.

sense-bytes
The returned hardware information.

System action: Processing of the specified couple data set is terminated.

Operator response: Notify the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1CDO

Routing code: 1,2

Descriptor code: 5

IXC278I COUPLE DATA SET DATA DEFINITION FOR *typename text*

Explanation: XCF couple data set format utility program ended because of a problem with the specified data definition.

In the message text:

typename
The type of data contained in the data set.

CONTAINS INVALID DATA
The data definition specified does not contain correct data. It may not be a data definition module.

WAS CREATED AT A FORMAT LEVEL HIGHER THAN THIS SYSTEM CAN USE
The data definition was formatted with a level that this system cannot use.

System action: The system ends the XCF couple data set format utility program.

Operator response: Notify the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSU

Routing code: 1,2

Descriptor code: 5

IXC279D REPLY R TO USE *altdsname* ON *altvolser* TO REPAIR DATA FOR *typename* OR S TO STOP

Explanation: The system has detected a problem with the primary couple data set. Initialization using the primary couple data set can not continue. XCF was unable to determine automatically that the alternate couple data set can be used to recover the primary couple data set. The name of the primary couple data set with the error was printed in message IXC249I.

In the message text:

altdsname
The name of the alternate couple data set.

altvolser
The DASD volume where the alternate data set resides.

typename
The type of data contained in the data set.

System action: Couple data set initialization and possibly system initialization processing stops until the operator replies to this message.

Operator response: Choose one of the following replies:

R To allow XCF to attempt to repair the primary couple data set from the information contained on the alternate couple data set. This action should only be selected if it is known that the alternate listed in this message and the primary listed in message IXC249I are the last ones used by the sysplex and have not been reformatted or restored since they were last used.

S To stop XCF from repairing the primary couple data set. This response will prevent XCF from completing the couple data set initialization.

If an incorrect reply is entered, the system issues message IXC208I to notify the operator of the error. The system then reissues message IXC279D.

System programmer response: The reason for XCF having to take this repair action should be determined and action taken to correct the cause. See the system programmer response for message IXC249I.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AAR

Routing code: 1,2

Descriptor code: 2

IXC280I DATA SET *dsname*, VOLSER *volser*, IS NOT ON THE SAME PHYSICAL VOLUME AS THE DATA SET THAT IS IN USE BY THE SYSPLEX FOR *typename*

Explanation: The volume used by both systems is not the same physical volume.

In the message text:

dsname
The name of the couple data set.

volser
The DASD volume where the data set resides.

typename
The type of data contained in the data set.

System action: System Action: If this message is issued during XCF initialization, the system prompts with messages IXC239A and IXC252D. If it is issued after XCF initialization is complete, the system continues running without access to the named function.

Operator response: Notify the system programmer. When directed by the system programmer, respond to the IXC252D prompt, if applicable, or issue the SETXCF COUPLE, PCOUPLE command to bring the named function into use.

System programmer response: Make sure all systems are sharing the same physical volume.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AFN

Routing code: 1,2

Descriptor code: 12

IXC281I DATA SET *dsname*, **VOLSER** *volser*, **CANNOT BE USED FOR** *typename* **BY THIS SYSTEM. THE SYSTEM CAPACITY IS TOO SMALL (***nnn***).**

Explanation: This system attempted to initiate use of the data but was unable to make the data available because the couple data set was not formatted with enough system capacity to support this system.

In the message text:

dsname
The name of the couple data set.

volser
The DASD volume where the data set resides.

typename
The type of data contained in the data set.

nnn
The minimum number of systems that the data set must be formatted with to support the current system.

System action: If this message is issued during XCF initialization, the system prompts with messages IXC239A and IXC252D. If it is issued after XCF initialization is complete, the system continues running without access to the named function.

Operator response: Notify the system programmer. When directed by the system programmer, respond to the IXC252D prompt, if applicable, or issue the SETXCF COUPLE, PCOUPLE command to bring the named function into use.

System programmer response: Make a couple data set available for the data type which has been formatted with enough system capacity to support this system. The MAXSYSTEM parameter on the DEFINEDS statement for the XCF couple data set format utility must specify at least *nnn*.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AFN

Routing code: 1,2

Descriptor code: 12

IXC282I *typename* **DATA CANNOT BE ACTIVATED.** *text*

Explanation: The data cannot be activated as indicated by the text.

In the message text:

typename
The type of data contained in the data set.

dsname
The name of the couple data set.

volser
The DASD volume where the data set resides.

number
The maximum number of types that can be supported by the sysplex.

COUPLE DATA SET *dsname*, **VOLSER** *volser* **DOES NOT SUPPORT THE ACTIVATION.**
The sysplex couple data set was formatted with a prior release.

THE LIMIT OF *number* **HAS BEEN REACHED.**
The maximum number of types has been reached.

THE SYSTEM IS IN XCF-LOCAL MODE.
Couple data sets of any type cannot be activated in XCF-local mode.

System action: A function which requires the type of data contained in a couple data set was not activated.

Operator response: Notify the system programmer.

System programmer response: Do one of the following, depending on the message text:

COUPLE DATA SET *dsname*, **VOLSER** *volser* **DOES NOT SUPPORT THE ACTIVATION**
Format a new sysplex couple data set with the current level of the format utility and activate the data set with the SETXCF command.

THE LIMIT OF *number* **HAS BEEN REACHED.**
Contact the IBM Support Center.

THE SYSTEM IS IN XCF-LOCAL MODE.
ReIPL in non XCF-local mode.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AFN

Routing code: 1,2

Descriptor code: 4

IXC283I COUPLE DATA SET *dsname*,**VOLSER** *volser*, **NOT AVAILABLE FOR** *typename*. **DATA SET IN USE BY ANOTHER SYSPLEX.**

Explanation: The same couple data set cannot be shared by systems in different sysplexes.

In the message text:

dsname
The name of the couple data set.

volser
The DASD volume where the data set resides.

typename
The type of data contained in the data set.

System action: The specified type of data contained in *dsname* was not activated on the system.

Operator response: Notify the system programmer.

System programmer response: Make a couple data set available for this data type which has been formatted for this sysplex. The SYSPLEX parameter on the DEFINEDS statement for the XCF couple data set format utility must specify the name of this sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1FDX, IXCL1OWN

Routing code: 1,2

Descriptor code: 4

IXC284I UNABLE TO LOAD *routine* **FOR** *typename*

Explanation: The exit routine associated with the specified type could not be loaded.

In the message text:

routine
The exit routine that could not be loaded.

typename
The type of data contained in the data set.

System action: Processing is terminated.

Operator response: Notify the system programmer.

System programmer response: This system might have experienced problems while trying to load processing routines for a type of couple data set that was introduced at a later level of MVS. The processing routines would not be present on this level of MVS.

If this is not the problem, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AFN, IXCL1FDX

Routing code: 1,2

Descriptor code: 4

IXC285I **COUPLE DATA SET** *dsname*, **VOLSER** *volser*, **IS ALREADY IN USE FOR** *typename* **ON SYSTEM** *sysname*

Explanation: The specified couple data set is already in use by this system for this *typename*.

In the message text:

dsname
The name of the couple data set.

volser
The DASD volume where the data set resides.

typename
The type of data contained in the data set.

sysname
The name of the XCF system.

System action: The system continues to use the previously activated type.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AFN

Routing code: 1,2

Descriptor code: 4

IXC286I **COUPLE DATA SET** *dsname*, **VOLSER** *volser*, **HAS BEEN ADDED AS THE {PRIMARY|ALTERNATE} FOR** *typename* **ON SYSTEM** *sysname*

Explanation: Data set *dsname* has been activated on this system for the specified type.

In the message text:

dsname
The name of the couple data set.

volser
The DASD volume where the data set resides.

PRIMARY
XCF is adding the primary couple data set to the sysplex.

ALTERNATE
XCF is adding the alternate couple data set to the sysplex.

typename
The type of data contained in the data set.

sysname
The system on which the activation occurred.

System action: The primary and/or alternate couple data set has been made available on this system.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1AFN

Routing code: 1,2

Descriptor code: 4

IXC287I THE COUPLE DATA SETS SPECIFIED IN COUPLE*xx* ARE INCONSISTENT WITH THOSE LAST USED FOR *typename*

Explanation: This system found the couple data sets specified in COUPLExx are not the same couple data sets last used by the sysplex for this data type. Since no systems are currently using this data type, XCF cannot determine if it should use the data sets which are specified in COUPLExx or those last used by the sysplex.

In the message text:

xx The suffix identifying the COUPLE parmlib member.

typename
The type of data contained in the data set.

When *typename* is LOGR, see LOGR Couple Data Set Use Considerations in *z/OS MVS Setting Up a Sysplex* for more information.

System action: The system will list the data sets specified in COUPLExx and those last used by the sysplex and then prompt the operator to choose between the two sets.

Operator response: Notify the system programmer.

System programmer response: Check the COUPLExx specification to determine if the couple data sets have been specified correctly. To avoid unnecessary processing during XCF initialization, COUPLExx should specify the couple data sets currently in use by the systems in the sysplex or those last used by the sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1SRV

Routing code: 1,2,10

Descriptor code: 12

IXC288I COUPLE DATA SETS {LAST USED|SPECIFIED IN COUPLE*xx*} FOR *typename*ARE PRIMARY: *primdsname* ON VOLSER *privolser* ALTERNATE: [*altdsname*] {ON VOLSER|NONE SPECIFIED} [*altvolser*]

Explanation: XCF has detected an inconsistency in the couple data sets specified in COUPLExx. This message lists the primary and alternate couple data sets as specified in the COUPLExx parmlib member or the primary and alternate couple data sets determined by XCF to be those currently or last in use by the sysplex (the resolved couple data sets.

In the message text:

LAST USED
The specified *typename* is not currently active on any of the systems in the sysplex. The data sets in use the last time this type was used, will be used.

SPECIFIED IN COUPLE*xx*
The data sets were used by the COUPLExx parmlib member.

typename
The type of data contained in the data set.

primdsname
The name of the primary couple data set.

privolser
The DASD volume where the primary data set resides.

altdsname
The name of the alternate couple data set.

ON VOLSER
The volser on which the data set resides.

NONE SPECIFIED
No alternate data set was specified.

altvolser
The DASD volume where the alternate data set resides.

System action: XCF is trying to determine the correct set of couple data sets to use for this system's initialization. This message is followed by message IXC289D.

Operator response: Notify the system programmer.

System programmer response: Update COUPLExx to reflect the couple data sets that should be used by the sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1SRV

Routing code: 1,2,10

Descriptor code: 12

IXC289D REPLY U TO USE THE DATA SETS LAST USED FOR *typename* OR C TO USE THE COUPLE DATA SETS SPECIFIED IN COUPLE*xx*

Explanation: XCF has detected an inconsistency in the couple data sets specified in COUPLExx. This system found the couple data sets specified in COUPLExx are not the same couple data sets last used by the sysplex for this data type. The system has listed, via message IXC288I, those data sets last used by the sysplex and also those specified in COUPLExx. The operator is to indicate which is the correct set of couple data sets to be used for further processing.

In the message text:

typename
The type of data contained in the data set.

When *typename* is LOGR, see LOGR Couple Data Set Use Considerations in *z/OS MVS Setting Up a Sysplex* for more information.

xx The suffix identifying the COUPLE parmlib member.

System action: System initialization processing stops until the operator replies to message IXC289D.

Operator response: Choose one of the following replies:

U To continue initialization with the primary and alternate sysplex data sets that were last used by the sysplex, which are not the same couple data sets specified in COUPLExx. This could have been caused by the removal of a primary or an alternate couple data set, or as the result of the addition of a new alternate couple data set after the sysplex was IPLed. A normal re-IPL should choose this option.

C To continue initialization processing with the couple data sets as specified in COUPLExx and not choose the sysplex couple data sets that were last in use by the sysplex.

Attention: This option should only be chosen if the sysplex couple data sets specified in the COUPLExx member are still valid since these are NOT the couple data sets last in use by the sysplex.

If an incorrect reply is entered, the system issues message IXC208I to notify the operator of the error. The system then reissues message IXC289D.

System programmer response: This message resulted from a possibly down level specification of the couple data sets in the COUPLExx parmlib member. This could be caused by the removal of a primary or an alternate couple data set or as the result of the addition of a new alternate couple data set. Updating the COUPLExx parmlib member should eliminate this message.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1SRV

Routing code: 1,2

Descriptor code: 2

IXC290I COUPLE DATA SET UTILITY ENDED ABNORMALLY: *text*

Explanation: The XCF couple data set format utility program ended because of problems in the JCL.

In the message text:

UNABLE TO OPEN SYSIN
An error occurred while the system tried to open the SYSIN file. The SYSIN DD control statement may be missing.

I/O ERROR ON SYSIN
An I/O error occurred while the system read from the SYSIN data set.

NO SYSIN CONTROL STATEMENTS
No DEFINEDS control statements were provided in the SYSIN data set.

UNKNOWN ERROR WHILE PARSING THE SYSIN STATEMENTS
The parser found an error.

System action: The system ends the XCF couple data set format utility program.

Operator response: Notify the system programmer.

System programmer response: Correct the JCL and rerun the program.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSU

Routing code: 1,2

Descriptor code: 5

IXC291I *text*

Explanation: The XCF couple data set format utility program encountered an error in the DEFINEDS statement in the JCL for the program. The data set might not have been formatted.

In the message text:

sysplex-name
The name of the sysplex.

dsname
The name of the data set.

volser
The volume serial number.

value
The maximum group value.

maxmem
The maximum member value.

type
The value specified for the type keyword on the data statement of the XCF couple data set format utility.

name
The value specified for the name keyword on the item statement of the XCF couple data set format utility.

number
The value specified for the number keyword on the item statement of the XCF couple data set format utility.

information
The extraneous information that is being ignored.

keyword
The keyword in error.

routine
The name of the exit routine.

data-type
The name of the data type.

item-name
The name of the item.

unit
The unit device type.

CONTROL STATEMENT NOT VALID
The control statement preceding this message was incorrect. It was not a DEFINEDS statement.

ITEM STATEMENT OUT OF SEQUENCE
The Item Statement preceding this message is out of sequence. It must be preceded by a DATA statement.

DATA STATEMENT OUT OF SEQUENCE
The Data Statement preceding this message is out of sequence. It must be preceded by a DEFINEDS or a DATA statement.

INVALID SYSPLEX NAME, *sysplex-name*
The listed sysplex name was not valid.

INVALID DATA SET NAME, *dsname*
The listed data set name was not valid.

INVALID VOLSER, *volser*
The listed *volser* name was not valid.

MAXIMUM GROUP VALUE, *value*
The listed maximum group value was not valid.

INVALID MAXIMUM MEMBER VALUE, *maxmem*
The listed maximum member value was not valid.

INCORRECT DATA TYPE VALUE, *type*
The listed data type value was not valid.

INCORRECT ITEM NAME, *name*
The listed item name value was not valid.

INCORRECT ITEM NUMBER, *number*
The listed item number value was not valid.

EXTRANEOUS INFORMATION WAS IGNORED, *information*
A keyword was too long. The system ignored some of the values. *information* displays the data the system ignored.

NO VALUE FOR KEYWORD, *keyword*
No value was found for a keyword that must have a value.

INVALID KEYWORD, *keyword*
The specified keyword is not valid for the DEFINEDS statement.

REQUIRED KEYWORD NOT SPECIFIED, *keyword*
A required keyword was not specified.

EXIT ROUTINE NOT FOUND, *routine*
The exit routine specified could not be found.

DATA TYPE NOT FOUND, *data-type*
The data type specified was not found.

ITEM NAME NOT DEFINED, *item-name*
The item name specified is not defined for the data type being formatted.

ITEM NAME CANNOT BE MODIFIED, *item-name*
The specified item name cannot be modified by the XCF couple data set format utility.

INVALID MAXIMUM SYSTEM VALUE, *value*
The listed maximum system value was not valid.

INVALID UNIT, *unit*
The listed *unit* name was not valid.

INVALID NUMBER VALUE, *number*
The listed number value is out of range.

MAXGROUP INCOMPATIBLE WITH DATA TYPE(SYSPLEX)
MAXGROUP is deprecated and should not be used with DATA TYPE(SYSPLEX). Use ITEM NAME(GROUP) instead.

MAXMEMBER INCOMPATIBLE WITH DATA TYPE(SYSPLEX)
MAXMEMBER is deprecated and should not be used with DATA TYPE(SYSPLEX). Use ITEM NAME(MEMBER) instead.

ITEM NAME(GROUP) VALUE OVERRIDES MAXGROUP VALUE
The value specified for ITEM NAME(GROUP) has overridden the value specified for MAXGROUP. The data set will still be formatted.

ITEM NAME(MEMBER) VALUE OVERRIDES MAXMEMBER VALUE
The value specified for ITEM NAME(MEMBER) has overridden the value specified for MAXMEMBER. The data set will still be formatted.

System action: The XCF couple data set format utility program continues checking other parameters of the control statement. The program might not format this couple data set.

System programmer response: Correct the problem and rerun the program.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSU, IXCL1FMT

Routing code: 1,2

Descriptor code: 5

IXC292I *text*

Explanation: The XCF couple data set format utility program successfully formatted a couple data set.

In the message text:

tttt
The number of tracks allocated to this couple data set.

volser
Volume serial on which the data set was allocated.

xxxx
The number of records supported by this couple data set.

rectype
The name of the record.

yyyy
The number of items per record supported by this couple data set.

itemtype
The name of the item contained within *rectype*.

DATA SET FORMATTING COMPLETE: DATA SET REQUIRES *tttt* **TRACKS ON VOLSER** *volser*
It required *tttt* tracks to format the data set.

xxxx **[***rectype***] RECORDS FORMATTED WITH** *yyyy itemtype* **ITEMS EACH**
xxxx records with *yyyy* items each have been successfully formatted.

xxxx rectype **RECORDS FORMATTED**
xxxx records of type *rectype* have been successfully formatted.

System action: The program continues with the next DEFINEDS control statement.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1FMT

Routing code: 1,2

Descriptor code: 5

IXC293I **I/O ERROR WHILE FORMATTING THE DATA SET** *dsname*, **VOLSER** *volser*, *modname*,*postcode*,*status-bytes*, **[***commandcode***],[***sense-bytes***]**

Explanation: An I/O error occurred while XCF was formatting the couple data set. An execute channel program (EXCP) failed.

In the message text:

dsname
The name of the couple data set where the I/O error occurred.

volser
The direct access storage device (DASD) volume where the couple data set resides.

modname
The name of the EXCP that failed.

postcode
The returned post code.

status-bytes
The returned status information.

commandcode
The EXCP command code.

sense-bytes
The returned hardware information.

System action: The XCF couple data set format utility program stops processing the couple data set. The program continues processing the next DEFINEDS control statement.

Operator response: Contact hardware support for the failing device.

System programmer response: Rerun the XCF couple data set format utility to format the couple data set on a different device.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1,2

Descriptor code: 5

IXC294I *text*

Explanation: The XCF couple data set format utility program could not format the couple data set because of a processing error.

In the message text:

ttt
The number of tracks.

r The dynamic allocation return code.

eeee
The dynamic allocation error reason code.

iiii
The information reason code.

rc The error return code.

UNABLE TO OPEN DATA SET
The XCF couple data set format utility could not open the couple data set.

MULTIPLE EXPOSURE DEVICES ARE NOT SUPPORTED
The volume specified was a multiple exposure device, which is not supported by the XCF couple data set format utility. To avoid serialization problems, the couple data set cannot reside on a multiple exposure device.

DASD VOLUME NOT MOUNTED
The couple data set must reside on a direct access storage device (DASD). Either the specified volume was not associated with any DASD device, or the allocation failed.

DATA SET NOT NEW
The couple data set to be formatted must be new.

MULTIPLE EXTENTS ARE NOT SUPPORTED
The couple data set may not be a multiple extent data set.

UNABLE TO ALLOCATE *ttt* **CONTIGUOUS TRACKS, DYNAMIC ALLOCATION ERROR** *r-eeeeiiii*
An error occurred while the XCF couple data set format utility tried to allocate the couple data set.

UNABLE TO UNALLOCATE DATA SET, DYNAMIC ALLOCATION ERROR *r-eeeeiiii*
An error occurred while the XCF couple data set format utility tried to unallocate the couple data set.

OBTAIN ERROR *rc*
An internal failure occurred.

DATA SET UNALLOCATION VIA DYNAMIC ALLOCATION RETURNED INFORMATIONAL CODE *iiii*
The XCF couple data set format utility unallocated the couple data set. The unallocate was successful, but Dynamic Allocation returned an informational reason code. Any messages returned by Dynamic Allocation were written to the joblog.

System action: The program stops processing the couple data set at the current DEFINEDS control statement.

Operator response: Notify the system programmer.

System programmer response: If they appear in the message see the return codes for dynamic allocation. Correct the problem and rerun the program.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1FMT

Routing code: 1,2

Descriptor code: 5

IXC295I ERROR ENCOUNTERED DURING FORMAT. THE COUPLE DATA SET MAY NOT HAVE BEEN FORMATTED OR CATALOGUED AS REQUESTED.

Explanation: The XCF couple data set format utility program encountered an error, either while formatting or cataloging the data set. Error messages with problem details were issued by XCF (prefixed with "IXC") or by Dynamic Allocation (prefixed with "IKJ").

System action: The program continues processing the couple data set with the next DEFINEDS control statement.

Operator response: Notify the system programmer.

System programmer response: Correct the problem and rerun the program.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSU

Routing code: 1,2M

Descriptor code: 5

IXC296I COUPLE DATA SET NOT FORMATTED DUE TO AN ABEND

Explanation: XCF encountered an error while formatting a couple data set with the XCF couple data set format utility program.

System action: The XCF couple data set format utility does not format the couple data set.

Operator response: Notify the system programmer.

System programmer response: Resubmit the job, requesting a SYSUDUMP or SYSMDUMP abend dump this time. Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Provide the abend dump.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1FMT

Routing code: 1,2

Descriptor code: 5

IXC297I NO ESTAE ESTABLISHED

Explanation: XCF encountered an error while formatting a couple data set with the XCF couple data set format utility program. There is no recovery established for the program.

System action: The XCF format utility program continues processing the couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1FMT

Routing code: 1,2

Descriptor code: 5

IXC298I COUPLE DATA SET NOT FORMATTED. UNABLE TO OBTAIN A *byte*-BYTE WORK AREA.

Explanation: XCF attempted to obtain a work area to format the couple data set, but was unsuccessful.

In the message text:

byte
The number of bytes that the system tried to obtain to format the couple data set.

System action: Formatting of the current couple data set is terminated. The next data set will be formatted.

Operator response: Notify the system programmer.

System programmer response: Specify a larger region parameter on the JOB or EXEC statement of the JCL used to run the XCF couple data set format utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1FMT

Routing code: 1,2

Descriptor code: 5

IXC299I *typename* MAY NOT BE PLACED INTO COUPLE DATA SET WITH OTHER TYPES OF DATA

Explanation: The specified *typename* data cannot be placed into a couple data set which contains other types of data.

In the message text:

typename
The type of data that may not be mixed with other types.

System action: XCF terminates processing.

Operator response: Notify the system programmer.

System programmer response: Specify a data set that contains only the one type of data.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL1DSU

Routing code: 1,2

Descriptor code: 5

IXC300I THE SETXCF COMMAND COULD NOT BE PROCESSED: *text*

Explanation: The cross-system coupling facility (XCF) found incorrect syntax or options on the SETXCF command. The message text shows the syntax error.

In the message text:

userdata
Incorrect user data. The data will be truncated after the first 16 characters.

name
The device number, structure name, coupling facility name, or connection name which is a duplicate.

MAXMSG MUST BE A NUMERIC VALUE IN THE RANGE 1 - 999999
The MAXMSG value is not valid.

RETRY MUST BE A NUMERIC VALUE IN THE RANGE 3 - 255
The retry limit value is not valid.

INTERVAL MUST BE A NUMERIC VALUE IN THE RANGE 3 - 86400 SECONDS
The time interval specified is not valid.

OPNOTIFY MUST BE A NUMERIC VALUE IN THE RANGE 3 - 86400 SECONDS
The user-specified absolute OPNOTIFY value is not valid.

INTERVAL MUST BE LESS THAN OR EQUAL TO OPNOTIFY
The value specified for INTERVAL is greater than the user-specified absolute value for OPNOTIFY. The system cannot notify the operator of a system failure before the system detects the failure.

OPNOTIFY MUST BE GREATER THAN OR EQUAL TO EFFECTIVE INTERVAL
The absolute value specified for OPNOTIFY is less than the effective failure detection interval (INTERVAL). The system cannot notify the operator of a system failure before the system detects the failure.

RELATIVE OPNOTIFY VALUE MUST BE IN THE RANGE 0 - 86400 SECONDS
The user-specified relative OPNOTIFY value is not valid.

PCOUPLE DATA SET NAME IS NOT VALID
The primary couple data set name specified is not valid.

PCOUPLE DATA SET VOLUME IS NOT VALID
The volume serial specified for the primary couple data set is not valid.

ACOUPLE DATA SET NAME IS NOT VALID
The alternate couple data set name specified is not valid.

ACOUPLE DATA SET VOLUME IS NOT VALID
The volume serial specified for the alternate couple data set is not valid.

INSUFFICIENT COMMAND AUTHORITY
Authority is insufficient for the command. The command requires MASTER console authority. See *z/OS MVS Planning: Operations*for information on planning console security.

CLEANUP MUST BE A NUMERIC VALUE IN THE RANGE 0 - 86400 SECONDS
The cleanup interval specified is not valid.

CLASSLEN MUST BE A NUMERIC VALUE IN THE RANGE 0 - 62464
The transport class length is not valid.

NO CHANGES REQUESTED
The SETXCF command entered indicates no changes are requested.

SFM POLICY HAS ALREADY BEEN STARTED
A SETXCF PRSMPOLICY command was entered. The command could not be processed because an SFM policy has already been started on this system. Note that if a PR/SM policy was active at the time the SFM policy was started, then the PR/SM policy was deactivated at that time.

SIZE MUST BE A NUMERIC VALUE IN THE RANGE 0 - 999999999 WITH AN OPTIONAL SIZE UNIT OF K, M, G OR T AND NOT GREATER THAN 1T
The specified SIZE value is not valid. It must be specified in an integer with the size unit *u*, where the integer is a numeric value between 0 and 999999999 inclusive, and *u* is K (kilobytes), M (megabytes), G (gigabytes), or T (terabytes). If a size unit value is not specified, the default is K. Maximum size allowed is 1T.

userdata **IS NOT A VALID DEVICE NUMBER**
The device number for the signalling path is not valid.

userdata **IS NOT A VALID GROUP NAME**
The group specified on the GROUP keyword is too long or contains characters that are not valid.

userdata **IS NOT A VALID STRUCTURE NAME**
The structure name specified on the STRNAME keyword is too long or contains characters that are not valid.

userdata **IS NOT A VALID TYPE**
The type specified on the SETXCF command is not valid.

userdata **IS NOT A VALID CONNECTION NAME**
The connection name specified on the CONNAME keyword is too long or contains characters that are not valid.

userdata **IS NOT A VALID POLICY NAME**
The policy name specified on the POLNAME keyword is too long or contains characters that are not valid.

userdata **IS NOT A VALID CLASS NAME**
The class name specified on the CLASS keyword is too long or contains characters that are not valid.

userdata **IS NOT A VALID COUPLING FACILITY NAME**
The coupling facility name specified on the CFNAME keyword is too long or contains characters that are not valid.

userdata **IS NOT A VALID STRUCTURE DUMP IDENTIFIER**
The structure dump identifier specified on the STRDUMPID keyword is too long or contains characters that are not valid.

userdata **IS NOT A VALID ARM ELEMENT NAME**
The element name specified on the ELEMENT keyword is too long or contains characters that are not valid.

userdata **IS NOT A VALID STRUCTURE NAME PATTERN**
The structure name pattern specified on the STRNAME keyword is too long or contains characters that are not valid.

name **IS A DUPLICATE STRUCTURE NAME**
The structure name is a duplicate.

name **IS A DUPLICATE DEVICE NAME**
The device name is a duplicate.

name **IS A DUPLICATE COUPLING FACILITY NAME**
The coupling facility name is a duplicate.

name **IS A DUPLICATE CONNECTION NAME**
The connection name is a duplicate.

CFRM COUPLE DATA SET IS NOT AVAILABLE
The CFRM active policy could not be read because the couple data set supporting CFRM is not accessible to this system.

NO STRUCTURES MATCH THE SPECIFIED CRITERIA
No structures in the CFRM active policy matched the provided structure name pattern.

SYNCASYNC THRESHOLD MUST BE 'DEFAULT' OR A NUMERIC VALUE IN THE RANGE 1-10000
A SYNCASYNC conversion threshold specified by the SIMPLEX, DUPLEX, LOCKSIMPLEX, or LOCKDUPLEX keyword must be either the string "DEFAULT" (to restore the system-determined default threshold), or a value between 1 and 10,000 microseconds.

XES FUNCTION NOT AVAILABLE
The SETXCF command could not be processed because hardware functions necessary to exploit coupling facilities are not available.

System action: SETXCF command processing ends.

Operator response: Reenter the command with the correct options. If the command fails a second time and the syntax is correct, notify the system programmer.

System programmer response: If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY, IXCO1SCP, IXCT1MOD

Routing code: 1, 2

Descriptor code: 5

IXC301I **{SETXCF START|START}** *dir* **REQUEST FOR** *pathname* **REJECTED:** *text*

Explanation: The request to start an XCF signalling path was rejected by the system.

In the message text:

SETXCF START
An operator entered a SETXCF START path command.

START
The system initiated a start path request in response to some event or circumstance. System initiated start requests do not cause paths to become defined to XCF for signalling, but are otherwise functionally equivalent to SETXCF START path commands entered by an operator.

dir
The path direction specified for the rejected start request. An inbound signalling path is used to receive signals from another system in the sysplex. An outbound signalling path is used to send signals to another system in the sysplex.

PATHIN
Indicates the path was to be started for inbound signal traffic.

PATHOUT
Indicates the path was to be started for outbound signal traffic.

PATH Indicates the path direction was not specified or could not be determined. For system initiated requests, the existing XCF path definition was to be used to determine the direction(s) in which to start the path.

pathname
The name of the signalling path.

DEVICE *dev*
Indicates the CTC device with device number *dev*.

STRUCTURE *strname*
Indicates the XES list structure whose name is *strname*. A list structure can contain one or more individual list signalling paths.

STRUCTURE *strname* **LIST** *num* **TO COMMUNICATE WITH SYSTEM** *sysname*
Indicates the list signalling path using list number *num* within the XES list structure named *strname* to communicate with the system named *sysname*. The list number is zero if the path was not yet assigned a list within the structure, or if the initiator of the request could not determine which list was assigned for the path.

classnm
The name of the transport class.

minimum
The minimum value for the MAXMSG specification.

PATH ALREADY STARTED AS OUTBOUND
The path is already defined to XCF for signalling in the outbound direction.

If the START command specified PATHOUT, the indicated path was already started for outbound signal traffic. In the case of a list structure, there was no need to start or restart any list paths.

If the START command specified PATHIN, the signalling path cannot be used in different directions by the same system.

PATH ALREADY STARTED AS INBOUND
The path is already defined to XCF for signalling in the inbound direction.

If the START command specified PATHIN, the indicated path was already started for inbound signal traffic. In the case of a list structure, there was no need to start or restart any list paths.

If the START command specified PATHOUT, the signalling path cannot be used in different directions by the same system.

PATH START IN PROGRESS
The path is already defined to XCF for signalling in the requested direction. The path is in the midst of start processing.

SYSTEM IS IN XCF-LOCAL MODE
The system on which the START command was entered is running in XCF-local mode. A system in XCF-local mode is restricted to a single system sysplex, and has no need to use XCF signalling paths for intersystem communication.

PATH STOP IN PROGRESS
The path is already defined to XCF for signalling in the requested direction. The path is in the midst of stop processing. The signalling path cannot be started until stop processing completes.

PATH IS RUNNING
The path is already defined to XCF for signalling in the requested direction. The path is either in the midst of attempting to establish signalling connectivity, or has already done so.

SYSTEM IS IN MONOPLEX MODE
The system where the start command was entered is running in MONOPLEX mode. A system in MONOPLEX mode is restricted to a single system sysplex, and has no need to use XCF signalling paths for intersystem communication.

UNEXPECTED ERROR
An unexpected error occurred. Diagnostic data is provided to help IBM service personnel with problem determination.

NOT DEFINED TO XCF
A system initiated start request was made for a path that is not currently defined to XCF for signalling. A system initiated start request is not permitted to define a new path to XCF for signalling. Paths are defined for signalling via the COUPLExx parmlib member or as a result of a SETXCF START path operator command.

IGNORING EXPECTED EVENT
An event occurred that caused the system to initiate a start path request. However, this event was generated as a result of normal processing performed for the signalling path. XCF rejects the start request initiated as a result of this expected event.

INTERVENTION REQUIRED
The signalling path is currently inoperative. XCF will automatically start the signalling path once it receives notification that the circumstances that caused the path to be placed in the inoperative state are resolved. This start request is rejected because it was not made as a result of such a resolution. For example, a start request initiated to resolve a loss of signalling connectivity would be rejected for a CTC signalling path placed in an inoperative state because the device is not online.

STRUCTURE NOT DEFINED FOR PATHOUT
The start of the outbound list path is rejected because the indicated XES list structure is no longer defined to XCF for outbound use. Between the time that the start list path request was created and the time it was processed, the associated list structure was stopped in the outbound direction.

STRUCTURE NOT DEFINED FOR PATHIN
The start of the inbound list path is rejected because the indicated XES list structure is no longer defined to XCF

for inbound use. Between the time that the start list path request was created and the time it was processed, the associated list structure was stopped in the inbound direction.

STOP PATHOUT FOR STRUCTURE IN PROGRESS
The start of the outbound list path is rejected because the indicated XES list structure is in the midst of being stopped for outbound use. Between the time that the start list path request was created and the time it was processed, the associated list structure was stopped in the outbound direction.

STOP PATHIN FOR STRUCTURE IN PROGRESS
The start of the inbound list path is rejected because the indicated XES list structure is in the midst of being stopped for inbound use. Between the time that the start list path request was created and the time it was processed, the associated list structure was stopped in the inbound direction.

STRUCTURE INOPERATIVE FOR PATHOUT
The start of the outbound list path is rejected because the indicated XES list structure has been stopped in the outbound direction. Between the time that the start list path request was created and the time it was processed, the associated list structure was stopped in the outbound direction.

STRUCTURE INOPERATIVE FOR PATHIN
The start of the inbound list path is rejected because the indicated XES list structure has been stopped in the inbound direction. Between the time that the start list path request was created and the time it was processed, the associated list structure was stopped in the inbound direction.

STRUCTURE NAME MUST BEGIN WITH LETTERS IXC
The start request for the list structure is rejected because the name of the structure does not begin with the characters 'IXC'. Any list structure to be used by XCF for signalling must have a name that begins with the letters IXC. This convention is intended to help prevent the XCF signalling service from connecting to a XES structure used by some other application as a result of a typographical error on a start request..

DIAG037=*n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

DIAG074=*n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

RC,RSN=*n n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

TRANSPORT CLASS *classnm* **NOT DEFINED**
The operator entered a start command to start an outbound signalling path, but the transport class name, *classname*, is not defined to the system.

MAXMSG MUST BE AT LEAST *minimum*
The MAXMSG value specified on the start command was not large enough for messages in the indicated transport class.

The MAXMSG value for any outbound signalling path must provide enough message buffer space for at least one message as long as the class length for the transport class to which the signalling path is assigned. If the CLASS keyword was not explicitly coded, the signalling path was assigned to the default transport class. To start a signalling path in the indicated transport class, the MAXMSG value must be greater than or equal to *minimum*.

System action: The system ignores the start path request. The requested path does not become defined to XCF for signalling. Processing continues.

A system initiated start request for a path that is already defined to XCF may be preserved for future processing even though the start request is initially rejected. For example, a signalling path could be in the midst of stop processing as a result of some hardware failure. If the hardware failure was resolved before completion of stop path processing, a system initiated start path request would be rejected due to 'PATH STOP IN PROGRESS'. However, the start path request is preserved and reissued upon completion of stop path processing (provided that the path remains defined to XCF for signalling).

Operator response: Depending on the message text, do one of the following:

PATH ALREADY STARTED AS OUTBOUND
If the signalling path should be outbound, no action is needed.

If PATHIN was specified on the START command, the path cannot be used in different directions by the same system. If the signalling path should be used exclusively for inbound signal traffic, enter a SETXCF

STOP,PATHOUT command to stop the signalling path. After the stop completes successfully, enter a SETXCF START,PATHIN command to start the signalling path in the inbound direction.

PATH ALREADY STARTED AS INBOUND
If the signalling path should be inbound, no action is needed.

If PATHOUT was specified on the START command, the path cannot be used in different directions by the same system. If the signalling path should be used exclusively for outbound signal traffic, enter a SETXCF STOP,PATHIN command to stop the signalling path. After the stop completes successfully, enter a SETXCF START,PATHOUT command to start the signalling path in the outbound direction.

PATH STOP IN PROGRESS
Enter the SETXCF START path command after stop processing for the path has completed. Either message IXC307I or message IXC308I is issued when the stop path request is complete (although the message may appear only in the system log). Enter a DISPLAY XCF,*dir* command specifying the indicated path to determine the state of the signalling path. If message IXC356I indicates that the status of the signalling path is INOPERATIVE, or if the path is not found, stop processing completed.

UNEXPECTED ERROR
Enter the DISPLAY XCF,*dir* specifying the indicated signalling path to get detailed information concerning the indicated path. Note that information will only be displayed if the path is defined to XCF for signalling. Enter the SETXCF START command again. If the command continues to be rejected with this response, inform the system programmer. Provide the result of the DISPLAY XCF command if the path was defined to XCF for signalling, as well as any diagnostic data presented as part of this start rejected message.

STRUCTURE NAME MUST BEGIN WITH LETTERS IXC
Enter the SETXCF START,STRUCTURE command specifying a structure name to be used by the XCF signalling service. Any structure name defined by the system programmer for signalling must begin with the characters IXC.

TRANSPORT CLASS *classname* **NOT DEFINED**
The transport class must be defined to XCF before any signalling paths can be started in that class. Enter the DISPLAY XCF,CLASSDEF command to obtain a list of the transport classes currently defined to the system. If needed, use the SETXCF START,CLASSDEF command to define the transport class. Then enter the SETXCF START,PATHOUT command with a valid transport class name.

MAXMSG MUST BE AT LEAST *minimum*
There is a mismatch between the MAXMSG value specified for the signalling path and the class length defined for the transport class to which the path was to be assigned. If a transport class was not specified, the transport class named DEFAULT was assumed. Either the MAXMSG value should be increased, the class length for the transport class should be decreased, or the path should be assigned to a different transport class. Consult the system programmer as needed to determine which action is appropriate.

If the MAXMSG value should be increased, enter the SETXCF START,PATHOUT command with a MAXMSG value that is greater than or equal to *minimum*. Note that the MAXMSG value chosen by the system programmer usually exceeds the indicated *minimum* value in order to ensure reasonable performance for signal delivery. If the transport class definition should be changed, enter a SETXCF MODIFY,CLASSDEF command to change the class length of the transport class. If the path should be assigned to a different transport class, enter the SETXCF START,PATHOUT command with the appropriate transport class specified.

For any other *text*, no action is needed.

System programmer response: Examine the listed operator responses for an appropriate action.

Ensure that the path is defined to the XCF signalling service correctly. Verify that the direction and the MAXMSG value are correctly specified. For an outbound path, verify that the transport class is correctly specified and that the transport class definition is consistent with the path definition.

In the case of an *UNEXPECTED ERROR*, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Supply any diagnostic data presented as part of the start rejected message, any output from the DISPLAY XCF command issued for the signalling path, and the XCF component trace table. The trace table must be obtained within 30 seconds of completion of the command if XCF detail tracing is enabled, and within a few minutes if just XCF default tracing is in effect. Default tracing is sufficient to resolve this problem.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1FSR, IXCT1FSS, IXCT1MOD

IXC302I

Routing code: 1,2

Descriptor code: 5

IXC302I **{SETXCF STOP|STOP}** *dir* **REQUEST FOR** *pathname* **REJECTED:** *text*

Explanation: The request to stop an XCF signalling path was rejected by the system.

In the message text:

SETXCF STOP
An operator entered a SETXCF STOP path command.

STOP
The system initiated a stop path request in response to some event or circumstance. System initiated stop requests do not cause paths to become undefined to XCF for signalling, but are otherwise functionally equivalent to SETXCF STOP path commands entered by an operator.

dir
The path direction specified for the rejected stop request. An inbound signalling path is used to receive signals from another system in the sysplex. An outbound signalling path is used to send signals to another system in the sysplex.

PATHIN
Indicates the path was to be stopped for inbound signal traffic.

PATHOUT
Indicates the path was to be stopped for outbound signal traffic.

PATH Indicates the path direction was not specified or could not be determined. For system initiated requests, the existing XCF path definition was to be used to determine the direction(s) in which to stop the path.

pathname
The name of the signalling path.

DEVICE *dev*
Indicates the CTC device with device number *dev*.

STRUCTURE *strname*
Indicates the XES list structure whose name is *strname*. A list structure can contain one or more individual list signalling paths.

STRUCTURE *strname* **LIST** *num* **TO COMMUNICATE WITH SYSTEM** *sysname*
Indicates the list signalling path using list number *num* within the XES list structure named *strname* to communicate with the system named *sysname*. The list number is zero if the path was not yet assigned a list within the structure, or if the initiator of the request could not determine which list was assigned for the path.

USE PATHOUT TO STOP OUTBOUND PATH
The request specified PATHIN to stop an outbound signalling path. The path can be defined for signalling in only one direction.

USE PATHIN TO STOP INBOUND PATH
The request specified PATHOUT to stop an inbound signalling path. The path can be defined for signalling in only one direction.

NOT IN USE AS OUTBOUND PATH
The request specified PATHOUT to stop an inbound signalling path. The path can be defined for signalling in both directions simultaneously, but is not currently defined as an outbound path.

NOT IN USE AS INBOUND PATH
The request specified PATHIN to stop an outbound signalling path. The path can be defined for signalling in both directions simultaneously, but is not currently defined as an inbound path.

LAST PATH TO SYSTEM
The system will not process a SETXCF STOP command to stop the last operational signalling path to a system, because it would cause a loss of signalling connectivity.

STOP ALREADY IN PROGRESS
A stop path request for the indicated direction has already been accepted. The request is not yet complete.

FIRST USE STOP WITH UNCOND=NO
The request specified UNCOND=YES, which the system does not accept unless there is an outstanding stop request for the signalling path.

UNKNOWN DEVICE
The request specified a device not defined to XCF.

SYSTEM IS IN XCF-LOCAL MODE
The system on which the stop command was entered is running in XCF-local mode. A system in XCF-local mode is restricted to a single system sysplex, and cannot use XCF signalling paths for intersystem communication.

SYSTEM IS IN MONOPLEX MODE
The system on which the stop command was entered is running in MONOPLEX mode. A system in MONOPLEX mode is restricted to a single system sysplex, and cannot use XCF signalling paths for intersystem communication.

UNKNOWN STRUCTURE
The stop request specified a structure not in use by XCF.

UNKNOWN PATH
The stop request specified a path not in use by XCF.

UNEXPECTED ERROR
An unexpected error occurred. Diagnostic data is provided to help IBM service personnel with problem determination.

DIAG037=*n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

DIAG074=*n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

RC,RSN=*n n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: The system ignores the stop path request. Processing continues.

Operator response: Depending on the message text, do one of the following:

USE PATHOUT TO STOP OUTBOUND PATH
NOT IN USE AS INBOUND PATH
If the path should be defined for inbound use, no action is needed. If the path should be stopped for outbound use, enter a SETXCF STOP,PATHOUT command.

USE PATHIN TO STOP INBOUND PATH
NOT IN USE AS OUTBOUND PATH
If the path should be defined for outbound use, no action is needed. If the path should be stopped for inbound use, enter a SETXCF STOP,PATHIN command.

FIRST USE STOP WITH UNCOND=NO
Enter SETXCF STOP command without the UNCOND=YES specification to stop the signalling path. One can specify UNCOND=NO explicitly or omit the UNCOND specification since UNCOND=NO is the default.

LAST PATH TO SYSTEM
To remove the system from the sysplex, enter the VARY command. If the system is to remain in the sysplex, start additional signalling paths before stopping this one. Enter a DISPLAY XCF path command for the signalling path to determine the system to which the path is connected.

UNKNOWN DEVICE
UNKNOWN STRUCTURE
UNKNOWN PATH
If the signalling path was correctly specified, it has already been stopped and is no longer defined to XCF. No further action is needed.

If the signalling path was not correctly specified, enter a SETXCF STOP path command for the correct signalling path. Enter the DISPLAY XCF,PATHIN command to list the signalling paths defined to XCF for inbound use. Enter the DISPLAY XCF,PATHOUT command to list the signalling paths defined to XCF for outbound use.

UNEXPECTED ERROR
Enter a DISPLAY XCF path command to obtain detailed information for the signalling path. Record the display output for the path along with any diagnostic data contained in this message in case the system programmer must contact IBM service personnel for problem determination. Then try entering the SETXCF STOP path command again.

System programmer response: Examine the listed operator responses for an appropriate action.

In the case of an *UNEXPECTED ERROR*, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Supply any diagnostic data presented as part of the stop rejected message, any output from the DISPLAY XCF command issued for the signalling path, and the XCF component trace table. The trace table must be obtained within 30 seconds of completion of the command if XCF detail tracing is enabled, and within a few minutes if just XCF default tracing is in effect. Default tracing is sufficient to resolve this problem.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1FSP, IXCT1FSS

Routing code: 1,2

Descriptor code: 5

IXC303I SETXCF MODIFY *dir* **REQUEST** *text*

Explanation: An operator entered a SETXCF MODIFY command to modify a signalling path or a LOCALMSG parameter, but the command was rejected by the system.

In the message text:

dir
The path direction specified for the rejected modify command. An inbound signalling path is used to receive signals from another system in the sysplex. An outbound signalling path is used to send signals to another system in the sysplex.

PATHIN
Indicates that the inbound path definition was to be modified.

PATHOUT
Indicates that the outbound path definition was to be modified.

PATH Indicates the path direction was not specified or could not be determined.

pathname
The name of the signalling path.

DEVICE *dev*
Indicates the CTC device with device number *dev*.

STRUCTURE *strname*
Indicates the XES list structure whose name is *strname*. A list structure can contain one or more individual list signalling paths.

STRUCTURE *strname* **LIST** *num* **TO COMMUNICATE WITH SYSTEM** *sysname*
Indicates the list signalling path using list number *num* within the XES list structure named *strname* to communicate with the system named *sysname*. The list number is zero if the path was not yet assigned a list within the structure, or if the initiator of the request could not determine which list was assigned for the path.

classname
The name of a transport class.

minimum
Minimum length of maxmsg.

FOR *pathname* **REJECTED: USE PATHOUT TO MODIFY OUTBOUND PATH**
The request specified PATHIN to modify an outbound signalling path. The path can be defined for signalling in only one direction.

FOR *pathname* **REJECTED: USE PATHIN TO MODIFY INBOUND PATH**
The request specified PATHOUT to modify an inbound signalling path. The path can be defined for signalling in only one direction.

FOR *pathname* **REJECTED: NOT IN USE AS OUTBOUND PATH**
The request specified PATHOUT to modify an inbound signalling path. The path can be defined for signalling in both directions simultaneously, but is not currently defined as an outbound path.

FOR *pathname* **REJECTED: NOT IN USE AS INBOUND PATH**
The request specified PATHIN to modify an outbound signalling path. The path can be defined for signalling in both directions simultaneously, but is not currently defined as an inbound path.

FOR *pathname* **REJECTED: PATH STOPPED**
The SETXCF MODIFY command was entered for a signalling path that was being stopped.

FOR *pathname* **REJECTED: UNKNOWN DEVICE**
The SETXCF MODIFY command specified a device not in use by XCF.

FOR *pathname* **REJECTED: SYSTEM IS IN XCF-LOCAL MODE**
The system on which the modify command was entered is running in XCF-local mode. A system in XCF-local mode is restricted to a single system sysplex, and cannot use XCF signalling paths for intersystem communication.

FOR *pathname* **REJECTED: SYSTEM IS IN MONOPLEX MODE**
The system on which the modify command was entered is running in MONOPLEX mode. A system in MONOPLEX mode is restricted to a single system sysplex, and cannot use XCF signalling paths for intersystem communication.

FOR *pathname* **REJECTED: UNKNOWN STRUCTURE**
The SETXCF MODIFY command specified a structure not in use by XCF.

FOR *pathname* **REJECTED: UNEXPECTED ERROR**
An unexpected error occurred. Diagnostic data is provided to help IBM service personnel with problem determination.

FOR *pathname* **REJECTED: UNKNOWN PATH**
The MODIFY command specified a path not in use by XCF.

FOR *pathname* **REJECTED: DIAG037=***n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

FOR *pathname* **REJECTED: DIAG074=***n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

FOR *pathname* **REJECTED: RC,RSN=***n n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

FOR *pathname* **REJECTED: TRANSPORT CLASS** *classname* **NOT DEFINED**
The operator entered a SETXCF MODIFY command to modify an outbound signalling path, but the transport class name, *classname*, is not defined to the system.

FOR *pathname* **REJECTED: MAXMSG MUST BE AT LEAST** *minimum*
The MAXMSG specified on the SETXCF MODIFY command was not large enough for the transport class.

The MAXMSG value for any outbound signalling path must provide enough message buffer space for at least one message as long as the class length for the transport class to which the signalling path is assigned. If the CLASS keyword was not explicitly coded, the signalling path was assigned to the default transport class. To modify a signalling path in the indicated transport class, the MAXMSG value must be greater than or equal to *minimum*.

REJECTED: TRANSPORT CLASS *classname* **NOT DEFINED**
The operator entered a SETXCF MODIFY command to modify an outbound signalling path, but the transport class name, *classname*, is not defined to the system.

REJECTED: MAXMSG MUST BE AT LEAST *minimum*
The MAXMSG specified on the MODIFY command was not large enough for the transport class.

The MAXMSG value for any outbound signalling path or LOCALMSG parameter must provide enough message buffer space for at least one message as long as the class length for the transport class to which the signalling path or LOCALMSG parameter is assigned. To modify a signalling path or LOCALMSG parameter, the MAXMSG value must be greater than or equal to *minimum*.

System action: The system ignores the modify command. Processing continues.

Operator response: Depending on the message text, do one of the following:

USE PATHOUT TO MODIFY OUTBOUND PATH
NOT IN USE AS INBOUND PATH
Enter the SETXCF MODIFY,PATHOUT command to modify the outbound path definition.

USE PATHIN TO MODIFY INBOUND PATH
NOT IN USE AS OUTBOUND PATH
Enter the SETXCF MODIFY,PATHIN command to modify the inbound path definition.

UNKNOWN DEVICE
UNKNOWN STRUCTURE
UNKNOWN PATH
If the signalling path was not correctly specified, enter a SETXCF MODIFY path command for the correct signalling path. Enter the DISPLAY XCF,PATHIN command to list the signalling paths defined to XCF for inbound use. Enter the DISPLAY XCF,PATHOUT command to list the signalling paths defined to XCF for outbound use.

UNEXPECTED ERROR
Enter the DISPLAY XCF specifying the indicated signalling path or LOCALMSG as appropriate to get detailed information concerning the indicated object. Note that information will only be displayed if the object is defined to XCF for signalling. Enter the SETXCF MODIFY command again. If the command continues to be rejected with this response, inform the system programmer. Provide the result of the DISPLAY XCF command if the object is defined to XCF for signalling, as well as any diagnostic data presented as part of this modify rejected message.

TRANSPORT CLASS *classname* **NOT DEFINED**
The transport class must be defined to XCF before any signalling paths or LOCALMSG parameters can be assigned to that class. Enter the DISPLAY XCF,CLASSDEF command to obtain a list of the transport classes currently defined to the system. If needed, use the SETXCF START,CLASSDEF command to define the transport class. Then enter the SETXCF MODIFY command with a valid transport class name.

System programmer response: Examine the listed operator responses for an appropriate action.

In the case of an *UNEXPECTED ERROR*, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Supply any diagnostic data presented as part of the modify rejected message, any output from the DISPLAY XCF command issued for the object, and the XCF component trace table. The trace table must be obtained within 30 seconds of completion of the command if XCF detail tracing is enabled, and within a few minutes if just XCF default tracing is in effect. Default tracing is sufficient to resolve this problem.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1FSS, IXCT1MOD

Routing code: 1,2

Descriptor code: 5

IXC304I GROUP NAME FILTER NOT ACCEPTED: *value reason*

Explanation: XCF found incorrect syntax specified on the TRACE CT command for GRPNAME filtering.

In the message text:

value
Identifies a GRPNAME (group name) or character that is not valid.

reason
Describes the reason why *value* is not valid. *reason* can be one of the following:

EXCEEDS THE MAXIMUM LENGTH OF 8 CHARACTERS
value must not exceed eight (8) characters in length.

IS AN INVALID CHARACTER FOR A GROUP NAME
value identifies a character that is not valid for a group name. A valid group name can contain A-Z, 0-9 and national (@,#,$) characters

INVALID DELIMITER SPECIFIED OR DELIMITER MISSING
The GRPNAME keyword was entered with a missing delimiter or a delimiter that is not valid. The options and list of group names must be enclosed within parenthesis. For example:

```
options=(grpname=(grp1,grp2)),end
```

System action: The system ignores the modify command. Processing continues.

Operator response: Notify the system programmer.

System programmer response: Correct the input specified for the GRPNAME filter option and re-enter the TRACE CT command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCC1TCP

Routing code: 1,2

Descriptor code: 5

IXC305I {SETXCF START|START} *dir* **REQUEST FOR** *pathname* **WAS NOT SUCCESSFUL:** *text*

Explanation: The request to start an XCF signalling path was not successful.

During XCF initialization, message IXC305I may or may not be displayed on an operator console when a CTC device cannot be started as a signalling path.

- The message is not displayed on an operator console the first time XCF initialization runs during an IPL.
- If XCF initialization is to be restarted for an issue not related to signalling connectivity problems, the message is not displayed on an operator console.
- If XCF initialization is to be restarted for an issue related to signalling connectivity, message IXC207A prompts the operator to respecify the COUPLExx parmlib member. The response to message IXC207A determines whether message IXC305I is displayed on an operator console. If the same COUPLExx parmlib member is specified, message IXC305I will be displayed. If a different COUPLExx parmlib member is specified, message IXC305I will not be displayed on the operator console, but IXC305I will always be displayed on the hardcopy log.

In the message text:

SETXCF START
An operator entered a SETXCF START path command.

START
The system initiated a start path request in response to some event or circumstance. System initiated start requests do not cause paths to become defined to XCF for signalling, but are otherwise functionally equivalent to SETXCF START path commands entered by an operator.

dir
The path direction specified for the unsuccessful start request. An inbound signalling path is used to receive signals from another system in the sysplex. An outbound signalling path is used to send signals to another system in the sysplex.

PATHIN
Indicates the path was to be started for inbound signal traffic.

PATHOUT
Indicates the path was to be started for outbound signal traffic.

PATH Indicates the path direction was not specified or could not be determined. For system initiated requests, the existing XCF path definition was to be used to determine the direction(s) in which to start the path.

pathname
The name of the signalling path.

DEVICE *dev*
Indicates the CTC device with device number *dev*.

STRUCTURE *strname*
Indicates the XES list structure whose name is *strname*. A list structure can contain one or more individual list signalling paths.

STRUCTURE *strname* **LIST** *num* **TO COMMUNICATE WITH SYSTEM** *sysname*
Indicates the list signalling path using list number *num* within the XES list structure named *strname* to communicate with the system named *sysname*. The list number is zero if the path was not yet assigned a list within the structure, or if the initiator of the request could not determine which list was assigned for the path.

UNABLE TO ALLOCATE DEVICE
XCF was unable to allocate a device, probably because it is allocated to another component, such as global resource serialization, JES3, or Virtual Telecommunications Access Method (VTAM®). XCF will not use a device that is already allocated.

INVALID DEVICE NUMBER
The device number in the message text is not defined to the system.

DEVICE IS NOT A CTC ADAPTER
The unit type for the device is not a channel to channel (CTC) adapter. The unit type must be a CTC adapter in order for XCF to use the device as a signalling path.

STOP IS REQUESTED
A stop path command was initiated for the signalling path by either the operator or XCF. All processing for the start request is ended.

CHANNEL PATH VERIFICATION FAILED
An unrecoverable error interrupted XCF's verification process for the device.

I/O TIMEOUT DURING CHANNEL PATH VERIFICATION
The command failed during verification for the device's channel paths because of an I/O timeout.

NO CHANNEL PATHS LOGICALLY DEFINED FOR DEVICE
The command failed because the device has no logical channel paths leading to it.

NO CHANNEL PATHS PHYSICALLY DEFINED TO DEVICE
The command failed because the device has no usable physical channel paths leading to it.

DEVICE IS IN A PERMANENT ERROR STATE
The command failed because the device is in a permanent error state.

DEVICE NOT CONNECTED TO ANY SUBCHANNEL
The command failed because the device is not connected to a subchannel.

DEVICE IS NOT ONLINE
The device must be online if it is to be used by XCF for signalling. Start path processing was unable to vary the device online. If the device is varied online, XCF automatically attempts to start the signalling path.

SENSE ID CHANNEL PROGRAM FAILED
A request for sense data from the device failed. XCF must have the sense data to operate the CTC adapter correctly.

UNSUPPORTED CTC DEVICE TYPE
The device is not a CTC adapter type supported by XCF.

PATH UNCONDITIONALLY STOPPED
A stop command with UNCOND=YES was entered for the signalling path. The unconditional stop path request was initiated by either the operator or the system. All processing for the start command is ended.

UNEXPECTED ERROR
An unexpected failure occurred while processing the command.

NO CONNECTIVITY TO COUPLING FACILITY
The system processing the start command does not have connectivity to the coupling facility containing the specified structure. This situation could be due to operator commands such as VARY PATH OFFLINE, CONFIG CHP OFFLINE or hardware errors such as facility or path failures.

NO CONNECTION AVAILABLE FOR XCF
XCF was unable to connect to the structure. There was no connection available for XCF to use. Possible explanations include:

- The maximum number of connectors to a structure has been reached for the CFRM active policy.
- The model dependent limit on the maximum number of connectors to a list structure has been reached for the coupling facility that contains the list structure.
- Some non-XCF connector is connected to the structure. A non-XCF connector can prevent XCF from connecting to a structure even though not all the connections are in use.

IXLCONN SERVICE COULD NOT CONNECT
An unexpected return and reason code was returned by the IXLCONN service when XCF attempted to connect to the structure.

DELAYED UNTIL STOP COMPLETES
A system initiated start command is delayed until stop path processing completes. The system will automatically start the path upon successful completion of the stop, provided the path remains defined to XCF for signalling.

UNABLE TO ALLOCATE A LIST FOR A SIGNALLING PATH
An unexpected error occurred while attempting to allocate a specific list within the structure for the list signalling path to use.

REMOTE SYSTEM NO LONGER USING STRUCTURE
The system to which the list path was to establish signalling connectivity is no longer using the structure for signalling.

STRUCTURE FAILURE
The structure failed.

SYSTEMS NO LONGER USING STRUCTURE IN OPPOSITE DIRECTIONS
The system with which the list path was to establish signalling connectivity is no longer using the structure for signalling in the opposite direction. List paths are established between those pairs of systems for which the structure has been defined for outbound use on one system and inbound use on the other system.

TOO FEW LISTS IN STRUCTURE
A list could not be allocated for the list path. Either the list structure was not allocated with enough lists for all the desired list paths or there is a list path in the midst of stop processing that has not yet deallocated its list.

LIST NOTIFICATION VECTOR TOO SMALL
The list notification vector for the list structure is not large enough for all the lists that need to be monitored for list transitions. There was not enough storage available in the Hardware System Area (HSA) for a larger vector.

REMOTE SYSTEM STOPPED USING LIST
The system to which the list path was to establish signalling connectivity is stopping its side of the list path.

DELAYED UNTIL STRUCTURE UNQUIESCED
The system processing the start command has quiesced all I/O operations to the structure. The start of the list path is delayed until I/O to the structure is again permitted.

UNEXPECTED HARDWARE ERROR
The signalling path could not be started due to an unexpected hardware error.

STRUCTURE NOT DEFINED IN ACTIVE POLICY
The indicated structure name is not defined in the CFRM active policy. The structure must be defined in the active policy in order to connect to the structure.

NEW CONNECTIONS TO STRUCTURE BEING PREVENTED
New connections to the requested structure are being prevented at this time for one of the following reasons:

- All active connectors have confirmed the rebuild quiesce event. New connections will not be permitted until the rebuild or rebuild stop is completed
- The structure is allocated in a coupling facility that is failed. New connections will not be permitted until the structure is rebuilt, or all connections disconnect causing the structure to be deallocated.
- The coupling facility containing the structure is not available for use because policy reconciliation is in progress. New connections will not be permitted until policy reconciliation is complete.
- New structure allocations for this structure name are not permitted because there is a pending policy change for this structure. New connections will not be permitted until the change is complete.

UNABLE TO DEFINE LOCAL LIST NOTIFICATION VECTOR
The list notification vector used to monitor list transitions could not be defined. The situation is most likely caused by a lack of storage in the Hardware System Area (HSA).

OTHER SYSTEMS USING STRUCTURE INCOMPATIBLY
Some other system is using the structure in ways that are not compatible with the protocols used by the system that processed the start command. The signalling path is stopped to avoid interfering with those systems.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system. In order to connect to structures, the couple data set for CFRM must be available.

For a system that is IPLing into an existing sysplex, this failure also arises when the indicated structure is not defined in the CFRM active policy.

DELAYED UNTIL STRUCTURE DUMP COMPLETES
The connect to the structure could not complete because SVC Dump holds serialization on the structure.

STRUCTURE'S DISPOSITION IS KEEP
The structure already exists but was created with a disposition that allows it to persist (remain allocated) when there are no defined connections. Since the system that processed the start command does not use persistent structures, the structure is being used in ways that are not compatible with its protocols. The signalling path is stopped to avoid interfering with the other systems using the structure.

STRUCTURE'S LIST ENTRY SIZE TOO SMALL
The structure already exists but was created with a maximum size list entry that is not large enough to contain 65536 bytes of data. Since the system that processed the start command creates list entries containing up to 65536 bytes of data, the structure is being used in ways that are not compatible with its protocols. The signalling path is stopped to avoid interfering with the other systems using the structure.

STRUCTURE DOES NOT USE ADJUNCT DATA
The structure already exists but does not use adjunct data. Since the system that processed the start command uses adjunct data for its list entries, the structure is being used in ways that are not compatible with its protocols. The signalling path is stopped to avoid interfering with the other systems using the structure.

STRUCTURE DOES NOT USE DATA ELEMENTS
The structure already exists but does not use data elements. Since the system that processed the start command uses list entries containing data elements, the structure is being used in ways that are not compatible with its protocols. The signalling path is stopped to avoid interfering with the other systems using the structure.

STRUCTURE DOES NOT COUNT LIST ENTRIES
The structure already exists but does maintain list counts on a list entry basis. Since the system that processed the start command uses list entry counts, the structure is being used in ways that are not compatible with its protocols. The signalling path is stopped to avoid interfering with the other systems using the structure.

IPLING SYSTEM UNABLE TO WRITE STRUCTURE
XCF connected to the structure before the IPLing system became active in the sysplex. It is not possible to make any updates to the structure until after the system becomes active in the sysplex. However, once the IPLing system became active in the sysplex, it still could not make updates.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This situation can arise when the hardware necessary to provide XES functions is not present.

STRUCTURE IN USE BY A NON-XCF CONNECTOR
The structure already exists, but one or more of the connectors is not XCF. Since it appears that the structure is in use by some other application, XCF disconnects from the structure to avoid interfering with that application. Structures to be used by XCF for signalling should be dedicated exclusively to XCF in order to ensure correct operation of the signalling service. Message IXC452I is issued to identify the non-XCF connectors.

DELAYED UNTIL REBUILD COMPLETES
The structure already exists, but there is a rebuild in progress. The system processing the start command elected not to participate in the rebuild.

DELAYED UNTIL AN ACTIVE SYSTEM ALLOCATES STRUCTURE
An system cannot allocate a structure for signalling until after the system is active in the sysplex and XES

services are available. Systems attempting to IPL into a sysplex may be able to connect to an existing structure in use by XCF for signalling, but cannot create such a structure. The indicated structure does not yet exist.

USER SYNC POINT SET
The structure already exists, but there is a user sync point set. Sync points are set during rebuild processing, but are otherwise unexpected. If there is a rebuild in progress,'the start is delayed until the rebuild completes. If there is no rebuild in progress, an unexpected error has occurred. The error could be caused by a non-XCF connector using the structure.

STRUCTURE IN USE BY ANOTHER SYSPLEX
The structure already exists, but appears to be in use by systems in a different sysplex. Signalling paths are only permitted between systems participating in the same sysplex.

NOT ENOUGH FREE SPACE IN STRUCTURE FOR SIGNALLING
There is not enough space available in the structure for XCF to use it for signalling. After connecting to the structure, XCF verifies that there is enough space available to manage the structure and to be able to send at least one signal of the maximum supported message length. If the size of the structure is greater than or equal to the maximum structure size defined in the CFRM active policy, the size specified in the policy must be increased so that a larger structure can be allocated. If the allocated structure size is less than the size defined in the policy for the structure, the coupling facility containing the structure did not have enough space available to allocate the structure as large as the policy allowed. Either more space needs to be made available in the coupling facility, or the structure needs to be allocated in a coupling facility that can accommodate it.

UNABLE TO ALLOCATE STRUCTURE
Structure could not be allocated. Message IXC463I is written to the system log to explain why the allocation failed in each of the coupling facilities that was tried. The preference list and exclusion list in the CFRM active policy determines which coupling facilities are allowed to contain the structure.

DIAG073=*n n n n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

RC=*n***, RSN=***n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: The signalling path remains defined to XCF as a signalling path (provided the system has not processed a SETXCF STOP path operator command). The signalling path is considered to be in an INOPERATIVE state' If the problems that prevent the path from starting are resolved, a new start command can be entered. In many cases, the system is able to detect circumstances for which the problems may have been resolved and automatically initiates a new start request. In the case of a list structure, the system may attempt to rebuild the structure.

Operator response: If the path was specified incorrectly, enter a SETXCF STOP path command so that the path is no longer defined to XCF for signalling. The stop prevents the system from using resources to manage the path definition and prevents attempts to start a path that is not intended to be used for signalling. Then enter a SETXCF START path command with the path specified correctly.

For a path that was correctly specified, any hardware, definitional, or capacity problems must be resolved before the path can be used for signalling. In some cases these problems are resolved automatically by the system. For other cases, manual intervention is required. The type of manual intervention needed varies according to the message text. After the problem is resolved, it is often the case that no further action is necessary as the system automatically starts the path again. If needed or desired, enter a SETXCF START path command to manually reinitiate start processing for the path' If the problem persists, do the following:

1. Record the name of the signalling path, the text explaining why the start was not successful, and any diagnostic data presented with this message. The system programmer will need this information if it becomes necessary to contact IBM service for problem resolution.
2. Enter the display commands appropriate to the particular type of signalling path' Record the results of the display commands to assist with problem determination.
3. Contact hardware support as needed.
4. Contact the system programmer as needed.

The following commands are useful for investigating unsuccessful start path requests for devices:

- DISPLAY U,CTC,ALLOC,*dev* to display the allocation information for a CTC device with device number *dev*.
- DISPLAY U,CTC,,*dev* to display the status of the device.
- Enter a DISPLAY M=DEV(*dev*) to display the state of the channel paths to the device with device number *dev*.

The following commands are useful for investigating unsuccessful start path requests for structures and list paths. In some cases, it may be helpful to enter these commands on systems in the sysplex other than the one that was processing the start path request.

- DISPLAY XCF,PATHOUT,STRNAME=*strname* to display detailed information about the use of the structure for signalling, including the state of the outbound list paths that have been started.
- DISPLAY XCF,PATHIN,STRNAME=*strname* to display detailed information about the use of the structure for signalling, including the state of the inbound list paths that have been started.
- DISPLAY XCF,STRUCTURE to display summary information about the structures defined in this sysplex.
- DISPLAY XCF,STRUCTURE,STRNAME=*strname* to display detailed information about the indicated structure.
- DISPLAY XCF,CF to display summary information about the coupling facilities defined in this sysplex.
- DISPLAY XCF,CF,CFNAME=*cfname* to display detailed information about the indicated coupling facility as defined to the sysplex.
- DISPLAY CF to display summary hardware information about the coupling facilities connected to a system.
- DISPLAY CF,CFNAME=*cfname* to display detailed hardware information about the indicated coupling facility connected to a system.
- DISPLAY M=CHP(*chp*) to display the state of the channel paths connecting a system to a coupling facility.

Depending on the message text, do the following manual intervention:

UNABLE TO ALLOCATE DEVICE
Display the allocation information for the device by entering the DISPLAY U,CTC,ALLOC,*dev* command. If appropriate, deallocate the device from the indicated user.

If the device is used by global resource serialization and is to be made available to XCF, deallocate it by entering the VARY *dev*,OFFLINE,FORCE command. Enter the command from both systems attached to that device.

NO CHANNEL PATHS PHYSICALLY DEFINED TO DEVICE
Enter the VARY command to make sure there are channel paths online for this device.

DEVICE IS NOT ONLINE
Enter the VARY command to vary the device online.

NO CONNECTIVITY TO COUPLING FACILITY
Enter a DISPLAY XCF,STRUCTURE,STRNAME=*strname* for information about which coupling facility contains the indicated structure. Enter a DISPLAY CF,CFNAME=*cfname* command to display the status of that coupling facility and the channel paths that connect the system to it, (*cfname* is the name of the coupling facility that contains the structure).

Enter a CONFIG CHP command to configure channel paths to the coupling facility, if needed. Enter a VARY PATH command to vary the channel paths online to the system, if needed.

NO CONNECTION AVAILABLE FOR XCF
Enter a DISPLAY XCF,STRUCTURE,STRNAME=*strname* command for information about the connectors to the structure. Enter a DISPLAY XCF,POLICY,TYPE=CFRM command for information about the CFRM active policy. Consult the system programmer as needed to determine whether to:

- Perform the steps needed to activate a CFRM policy that has been formatted to support more connectors.
- Enter a SETXCF START,REBUILD command to rebuild the structure in a coupling facility that supports more connectors.
- Perform the steps needed to cause the non-XCF connector to disconnect from the structure.

LIST NOTIFICATION VECTOR TOO SMALL
UNABLE TO DEFINE LOCAL LIST NOTIFICATION VECTOR
Enter a DISPLAY XCF,STR command to determine which structures are in use' For each structure that is in use, enter a DISPLAY,XCF,STR,STRNAME=*inusestr*, where *inusestr* is the name of an in use structure, to determine which applications are connected to the structure from this system. Consult the system programmer as needed to determine whether to reduce the number of connectors connected to structures from the system that processed the start command, or to modify the way in which the connectors are using the structure, or to perform the steps needed to increase the amount of storage in the Hardware System Area (HSA).

STRUCTURE NOT DEFINED IN ACTIVE POLICY
Consult the system programmer as needed to determine which CFRM policy should be made active. Enter a SETXCF START,POLICY,TYPE=CFRM,POLNAME=*polname* to activate the policy named *polname* which defines the structure.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
Enter a DISPLAY XCF,COUPLE,TYPE=CFRM command to list the couple data set in use for CFRM. Consult the system programmer as needed to determine which coupling data set should be made available for CFRM. As needed, enter a SETXCF COUPLE command for a couple data set to be used for CFRM.

DELAYED UNTIL STRUCTURE DUMP COMPLETES
The system automatically starts the path again when the dump completes. However, if the dump does not complete within a reasonable time, enter a DISPLAY,XCF,STRNAME=*strname* command for information about the structure dump. To force the dump serialization to be released, enter a SETXCF FORCE,STRDUMPSERIAL command. Note however, that the requested structure dump may then fail to contain the data needed for problem determination.

DELAYED UNTIL REBUILD COMPLETES
The system automatically starts the path again when rebuild completes. However, if the rebuild does not complete within a reasonable time, enter a DISPLAY,XCF,STRNAME=*strname* command for information about the state of the structure and rebuild processing. One possible source of rebuild delay is a connector failing to respond to a rebuild event. Ensure that all connectors are operational and that there is signalling connectivity between all the systems in the sysplex so that responses can be processed. It may be necessary to force a connector to disconnect, which causes an implicit response to be made. Use the SETXCF STOP path command for each applicable direction to force XCF to disconnect from the structure on the system that processes the stop path command.

DELAYED UNTIL AN ACTIVE SYSTEM ALLOCATES STRUCTURE
Usually, no action is needed since the system automatically starts the path again once the system becomes active in the sysplex and XES services become available. So if an IPLing system is able to establish signalling connectivity with the other systems in the sysplex, no action is needed.

If an IPLing system is not able to establish signalling connectivity with the other systems in the sysplex, action may be needed on one or more of the systems already active in the sysplex before the IPL can proceed. Message IXC454I lists the systems for which signalling connectivity cannot be established. Consult the system programmer as needed to determine which of the these systems are to use the indicated structure to establish signalling connectivity with the IPLing system. The structure must be started as an XCF signalling path on those systems. If the active systems are themselves IPLing, the indicated structure will be started as a consequence of being defined as a signalling path in the COUPLExx parmlib member. If not, enter a SETXCF START path command on the active systems as needed to start the structure for signalling in the appropriate directions. Message IXC306I is issued when the structure is successfully started for signalling. After the active systems successfully start the structure for signalling, respond to message IXC455D on the IPLing system that needs to establish signalling connectivity.

System programmer response: Do the following:

1. Examine the information provided by the operator.
2. Ensure that the signalling path is correctly defined to XCF.
3. Ensure that the hardware is correctly configured, defined to the system, and operational.
4. Perform the actions suggested below for the indicated message text.
5. Examine logrec error records for I/O errors or other hardware problems related to the signalling path.
6. Examine the system log for other messages related to the signalling path. In the case of a list structure, messages IXC452I, IXC457I, and IXC463I are especially relevant.
7. Obtain the following additional diagnostic information as appropriate for problem determination:
   - The XCF component trace table. The trace table must be obtained within 30 seconds of completion of the command if XCF detail tracing is enabled, and within a few minutes if just XCF default tracing is in effect. Default tracing is sufficient to resolve this problem.
   - For list structures, the XES component trace tables. Obtain both the global trace buffer and the connection related trace buffer.
   - A GTF I/O trace of the device.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Supply any diagnostic data presented as part of the start failed message, any output from the DISPLAY commands issued while investigating the problem, the system log(s), and any of the traces that were obtained.

Depending on the message text, the following actions are appropriate:

ALL CONNECTIONS TO STRUCTURE ARE IN USE
If the maximum number of connectors to a structure has been reached for the CFRM active policy, use the XCF couple data set format utility to create a new couple data set that supports more connectors. Run the XCF Administrative Data Utility to recreate the CFRM policy in the new couple data set. Have the operator make this couple data set available to the sysplex.

If the model dependent limit on the maximum number of connectors to a list structure has been reached for the coupling facility that contains the list structure, have the operator rebuild the structure into some other coupling facility that can support the required number of connectors. If so, consider modifying the preference list in the CFRM policy so that the structure is allocated in coupling facilities that can support the required number of connectors. If no suitable coupling facility is available, consider defining more list structures for signalling so that each list structures provides signalling connectivity for a subset of systems in the sysplex. The structures together can provide for full signalling connectivity but the number of connectors need not exceed the model dependent limits on the number of connectors.

If some non-XCF connector is connected to the structure, take whatever steps are needed to force that connector to disconnect.

LIST NOTIFICATION VECTOR TOO SMALL
UNABLE TO DEFINE LOCAL LIST NOTIFICATION VECTOR
There was not enough storage available in the Hardware System Area (HSA) of the system that processed the start command to allow a list notification vector of the required length to be defined. Either reduce the amount of storage being used in the HSA, or increase the amount of storage available in the HSA for creating list notification vectors. Reduce the amount of HSA storage being used by decreasing the number of connectors or changing the way connectors make use of their structure. For example, the size of the list notification vector required by the XCF signalling service is determined by the number of inbound list paths to be started. As another example, changing the number of buffers associated with a XES cache structure changes the amount of HSA storage required by the connector.

STRUCTURE NOT DEFINED IN ACTIVE POLICY
A CFRM policy containing a definition for the structure must be made active' As needed, run the XCF Administrative Data Utility to define the structure in a policy. Have the operator enter a SETXCF START,POLICY command to activate a policy that defines the structure.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
Use the XCF format utility program to format a couple data set for CFRM. Ensure that the couple data set formatted for CFRM is available to the system.

NOT ENOUGH FREE SPACE IN STRUCTURE FOR SIGNALLING
If the size of the structure is greater than or equal to the maximum structure size defined in the CFRM active policy, use the XCF Administrative Data Utility to increase the structure size specified in a policy. Have the operator activate the updated policy.

If the allocated structure size is less than the size defined in the policy for the structure, the coupling facility containing the structure did not have enough space available to allocate the structure as large as the policy allowed. Either more space needs to be made available in the coupling facility, or the structure needs to be allocated in a coupling facility that can accommodate it. More space can be made available in a coupling facility by causing structures to be deallocated from that facility, or by decreasing the amount of space reserved for structure dumps. It may be necessary to modify the preference list or the exclusion list defined in the CFRM policy to allow the structure to be allocated in a more suitable coupling facility. Alternatively, it may be necessary to make a new coupling facility available for the sysplex to use.

UNABLE TO ALLOCATE STRUCTURE
Examine the system log for instances of message IXC463I for explanations of why the structure could not be allocated. Message IXC463I is issued for each coupling facility that was considered. Resolve the problems indicated by message IXC463I or make a suitable coupling facility available for use.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1FSR, IXCT1FSS, IXCT1ISS, IXCT1PCC

Routing code: 1,2

Descriptor code: 5,12.

IXC306I {SETXCF START|START} *dir* **REQUEST FOR** *pathname* **COMPLETED SUCCESSFULLY:** *text*

Explanation: The signalling path was successfully started. This means that the signalling path appears to be suitable for use. It does not mean that the signalling path is engaged in signal delivery.

In the message text:

SETXCF START
An operator entered a SETXCF START path command.

START
The system initiated a start path request in response to some event or circumstance. System initiated start requests do not cause paths to become defined to XCF for signalling, but are otherwise functionally equivalent to SETXCF START path commands entered by an operator.

dir
The path direction specified for the start request. An inbound signalling path is used to receive signals from another system in the sysplex. An outbound signalling path is used to send signals to another system in the sysplex.

PATHIN
Indicates the path was started for inbound signal traffic.

PATHOUT
Indicates the path was started for outbound signal traffic.

PATH Indicates the path direction was not specified or could not be determined. For system initiated requests, the existing XCF path definition was used to determine the direction(s) in which to start the path.

pathname
The name of the signalling path.

DEVICE *dev*
Indicates the CTC device with device number *dev*.

STRUCTURE *strname*
Indicates the XES list structure whose name is *strname*. A list structure can contain one or more individual list signalling paths.

STRUCTURE *strname* **LIST** *num* **TO COMMUNICATE WITH SYSTEM** *sysname*
Indicates the list signalling path using list number *num* within the XES list structure named *strname* to communicate with the system named *sysname*.

sysname might contain a value of *nnssssss* where *nn* is a system number and *ssssss* is a system sequence number that is assigned by XCF to system *sysname*. If the start path request is being initiated when system *sysname* is IPLing, it is possible that system *sysname* is currently known to other systems in the sysplex by the system number and system sequence number assigned by XCF during system initialization. When the start path request completes and signalling connectivity is established with system *sysname*, message IXC466I is written to the system log and contains the actual name of system *sysname*.

PARMLIB SPECIFICATION
The signalling path was started because it was defined in the COUPLExx parmlib member used to initialize XCF when the system IPLed.

DEVICE CAME ONLINE
The signalling path was started because the device was varied online.

DEVICE BECAME AVAILABLE TO MVS
The signalling path was started because the device became available to the system. For example, a logical path to the device may have been established, or the device may have become connected to a subchannel.

DEFERRED UNTIL STOP COMPLETED
The path was stopped before start processing could complete. The system automatically starts the path again upon successful completion of stop processing, provided the path remains defined to XCF for signalling and the circumstances that caused the stop are resolved.

PATH TO DEVICE CAME ONLINE
The signalling path was started because a channel path to the device was varied online.

NEEDED SIGNALLING CONNECTIVITY
The system lost signalling connectivity with some other system in the sysplex. In an attempt to re-establish signalling connectivity, the path is started.

SYSTEM STARTED TO USE STRUCTURE
This system detected that system *sysname* intends to use the structure for signalling in the opposite direction. The list path was started in order to establish signalling connectivity via the list structure.

SYSTEM SIGNALLED USE OF STRUCTURE
This system received a signal from system *sysname* requesting that signalling path(s) be started through list structure *strname*.

STRUCTURE NOW AVAILABLE
Event code 35 was presented by the Event Notification Facility (ENF). Structure *strname* is available for use.

COUPLING FACILITY RESOURCES AVAILABLE
Event code 35 was presented by the Event Notification Facility (ENF). New coupling facility resources are available to this system.

DIAG037: *n*
Diagnostic data provided to assist IBM service personnel with problem determination.

System action: The system initiates restart processing for the signalling path.

For a CTC signalling path or a list signalling path, restart processing attempts to establish signalling connectivity via the path. Message IXC466 is written to the system log when the path establishes signalling connectivity and becomes capable of transferring signals.

For a list structure, restart processing determines which systems are using the structure for signalling and starts or stops list signalling paths as needed.

Operator response: None required. To determine the status of the path, enter a DISPLAY XCF path command for the indicated path.

System programmer response: If the signalling path was not defined to XCF at IPL time, update the COUPLExx parmlib member(s) so that this path is defined to XCF when the system next IPLs.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1PCC

Routing code: 1,2

Descriptor code: 5

IXC307I **{SETXCF STOP|STOP}** *dir* **{UNCOND=YES} REQUEST FOR** *pathname* **COMPLETED SUCCESSFULLY:** *text*

Explanation: XCF successfully stopped a signalling path.

In the message text:

SETXCF STOP
An operator entered a SETXCF STOP path command.

STOP
The system initiated a stop path request in response to some event or circumstance. System initiated stop requests do not cause paths to become undefined to XCF for signalling, but are otherwise functionally equivalent to SETXCF STOP path commands entered by an operator.

dir
The path direction specified for the stop request. An inbound signalling path is used to receive signals from another system in the sysplex. An outbound signalling path is used to send signals to another system in the sysplex.

PATHIN
Indicates the path was stopped for inbound signal traffic.

PATHOUT
Indicates the path was stopped for outbound signal traffic.

PATH Indicates the path direction was not specified or could not be determined. For system initiated requests, the existing XCF path definition is used to determine the direction(s) in which to stop the path.

UNCOND=YES
UNCOND=YES was coded on the SETXCF command, indicating that the stop was performed unconditionally. An unconditional stop may have abnormally terminated other tasks in the midst of processing requests (such as a stop) for the indicated path. An unconditional stop attempts to force stop path processing to run to completion, and may not wait for an orderly shutdown of the signalling path. For example, an unconditional stop could prevent XCF from delivering a signal to its intended target.

pathname
The name of the signalling path.

DEVICE *dev*
Indicates the CTC device with device number *dev*.

STRUCTURE *strname*
Indicates the XES list structure whose name is *strname*. A list structure can contain one or more individual list signalling paths.

STRUCTURE *strname* **LIST** *num* **TO COMMUNICATE WITH SYSTEM** *sysname*
Indicates the list signalling path using list number *num* within the XES list structure named *strname* to communicate with the system named *sysname*.

RETRY LIMIT EXCEEDED
The retry count for the signalling path exceeded the retry limit. The path is stopped because it is considered to be non-operational. The problem can be:

- I/O errors occurred on the path.
- An incorrect COUPLExx parmlib member was specified.
- The specified COUPLExx parmlib member had signalling path definition errors. For instance, the retry limit can be exceeded if both sides of a signalling path were started in the same direction. See the explanation for the message text **OTHER SIDE IS SAME DIRECTION**.

SYSPLEX PARTITIONING OF LOCAL SYSTEM
The path was stopped because the local system is no longer in the sysplex. If the local system was active in the sysplex, it enters a wait-state upon completion of sysplex partitioning. If the system was attempting to IPL into a sysplex but never became active, all paths are stopped before the operator is prompted by message IXC207A to respecify a new COUPLExx parmlib member.

SYSPLEX PARTITIONING OF REMOTE SYSTEM
The system to which the path had last established signalling connectivity is being removed from the sysplex. The initiator of the partitioning request specifies whether the systems remaining in the sysplex are to retain the signalling paths used to communicate with the removed system. If the paths are not to be retained, this path becomes undefined to XCF for signalling upon completion of the stop. To redefine the path to XCF for signalling, the operator must enter a SETXCF START path command. If the paths are to be retained after the system is removed from the sysplex, this path remains defined to XCF for signalling.

OTHER SIDE IS SAME DIRECTION
XCF tried to establish signalling connectivity between two systems, but the signalling path was defined in the same direction on both systems. A signalling path must have an outbound side and an inbound side. If both sides are defined in the same directions, messages cannot travel between the two systems involved.

Either of the two systems involved can detect the problem. However the message appears only on one system. No response or acknowledgment is provided about this condition to the other system involved.

SUBCHANNEL NOT OPERATIONAL FOR RESUME
The subchannel is not operational for one of the following reasons:

- No subchannel is provided.
- The subchannel did not have a valid device number assigned.
- The subchannel is not enabled.

START REQUEST FAILED
A request to start a signalling path failed. Message IXC305I explains why the start request failed.

CONNECTED TO NON-XCF SIGNALLER
The other end of this signalling path is not under XCF control. Either the signalling path is not connected to a system in the sysplex, or another application is trying to use the signalling path. A signalling path can only be used for communication between two systems active in the same sysplex and both ends of the path must be under XCF's exclusive control in order to ensure correct operation of the signalling service.

NON-XCF SIGNALLER USING PATH
A non-XCF application tried to use this system's signalling path. Paths used by XCF must be dedicated exclusively to XCF in order to ensure correct operation of the signalling service.

HALT I/O FAILED
The system tried to stop all I/O through this path, but the request failed. For a CTC signalling path, The CTC device is probably in a permanent error state.

PURGE I/O FAILED
An attempt to remove all I/O queued for the signalling path failed.

CONTROL OPERATION FAILED
XCF performs various to read and write operations to manage use of a list structure for signalling. One of these control operations failed.

INTERNAL ERROR
An XCF internal error occurred.

CONNECT TOKEN NO LONGER VALID
The connect token used when invoking XES services to access the list structure is no longer valid. The connect token is returned by the IXLCONN service.

LOST CONNECTIVITY TO STRUCTURE
This system lost connectivity to the coupling facility that contains the structure.

STRUCTURE FAILURE
Use of the list structure for signalling is stopped due to a structure failure.

PROPAGATING STOP OF STRUCTURE
A stop request is in progress for a list structure. All the associated list paths must be stopped as well.

OTHER SYSTEM STOPPING ITS SIDE OF PATH
The other system to which the signalling path is connected is stopping its side of the path. Since the path is no longer needed, this system also stops its side of the path. For example, if a system stops using a list structure for outbound signal traffic, all the systems using the structure for inbound signal traffic can stop their inbound list paths.

NO LIST AVAILABLE FOR USE
A list path no longer has a list allocated within the list structure for it to use. For example, a rebuilt structure may not have a list for the list path to use, whereas the original structure did.

REBUILD FAILED, UNABLE TO USE ORIGINAL
A structure rebuild was initiated. The rebuild attempt failed and this system is unable to use the original list structure.

NOT DEFINED AS PATHOUT OR PATHIN
The list structure is defined for neither outbound signal traffic nor inbound signal traffic. XCF disconnects from the structure.

UNABLE TO START LIST MONITORING
XCF was unable to start monitoring a list for from empty to non-empty. The signalling service cannot deliver signals without the ability to monitor list transitions. Depending on the list involved, failure to establish monitoring may impact a particular list path or use of the whole structure.

UNABLE TO USE REBUILT STRUCTURE
The list structure has been rebuilt, but this system cannot use the rebuilt structure. Although this system may lose signalling capacity by stopping its use of the list structure, it does not lose signalling connectivity. So the other systems in the sysplex are permitted to continue on with the rebuilt structure, and this system disconnects from the structure.

UNABLE TO START REBUILD
The list structure is not usable. An attempt was made to rebuild the structure, but the rebuild could not be started.

NO SIGNALLING CONNECTIVITY
A signalling path in the midst of stop processing was unconditionally stopped due to a lack of signalling connectivity. The unconditional stop forces stop processing to complete so that the path can be started again. It is hoped that the path will re-establish signalling connectivity after it is started. Such an unconditional stop is performed only if the path would remain defined to XCF upon completion of the stop and only if the path is connected to a system running MVS/ESA SP510 (or later).

STOP STRUCTURE PROCESSING
A stop request is in progress for a list structure, so all the associated list signalling paths must be stopped. An unconditional stop request was already initiated for the list path. To ensure the stop structure processing completes, a new unconditional stop request is initiated for the list path.

CONNECTOR HANG RESOLUTION
A structure-related process associated with this list structure appears to be hung because of failure to receive a connector response. The system has stopped signaling paths through the structure to cause XCF to disconnect and thereby relieve the hang.

REASON UNKNOWN
XCF cannot determine why the signalling path was stopped.

DIAG039: *n*
Diagnostic data provided to assist IBM service personnel with problem determination.

DIAG040: *n*
Diagnostic data provided to assist IBM service personnel with problem determination.

System action: The signalling path is not used for delivering signals. For an operator initiated stop command, the signalling path is no longer defined to XCF in the indicated direction(s). For a system initiated stop request, the signalling path remains defined to XCF in an INOPERATIVE state. Since a list signalling path is implicitly defined to XCF by virtue of how other systems use the list structure for signalling, it is placed in an INOPERATIVE state only to highlight the failure of a path that should be in use. If the list path is stopped as the result of normal processing, it becomes undefined.

If the path remains defined to XCF for signalling the system may automatically start the path again as a result of various events or circumstances. This applies to list paths that are implicitly defined as well.

Operator response: Depending on the message text, do one of the following:

SUBCHANNEL NOT OPERATIONAL FOR RESUME
HALT I/O FAILED
PURGE I/O FAILED
Contact hardware support.

OTHER SIDE SAME DIRECTION
Correct the signalling path that is going in the wrong direction as follows:

- If the path is not defined to XCF, enter a SETXCF START path command to start the path in the correct direction.
- To correct a signalling path that is still defined to XCF, enter a SETXCF STOP path command to stop the path. Then enter a a SETXCF START path command to start the path in the correct direction.

If the path was stopped due to a failure, enter a SETXCF START path command to try starting the path again. If the problem persists, notify the system programmer.

System programmer response: For each of the systems that were to use the signalling path:

- Make sure that the signalling path is correctly defined to XCF. The path was defined either in the COUPLExx parmlib member used to initialize XCF, or with a SETXCF START path operator command.
- Make sure that the correct COUPLExx parmlib member was specified.
- Make sure that the path is being used only by XCF.
- Examine the logrec error records for I/O errors related to this path.
- Examine the system log for other messages related to this path.
- Ask the operator to enter DISPLAY XCF path commands to obtain detailed status information about the signalling path.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Provide XCF component trace data, any logrec error records, and the system logs. Provide any dump taken as the result of an internal XCF error.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1FSP, IXCT1FSS, IXCT1PCC

Routing code: 1,2

Descriptor code: 5

IXC308I **{SETXCF STOP|STOP}** *dir* **{UNCOND=YES} REQUEST FOR** *pathname* **WAS NOT SUCCESSFUL:** *text*

Explanation: A request to stop a signalling path used by XCF was not successful.

In the message text:

SETXCF STOP
An operator entered a SETXCF STOP path command.

STOP
The system initiated a stop path request in response to some event or circumstance. System initiated stop requests do not cause paths to become undefined to XCF for signalling, but are otherwise functionally equivalent to SETXCF STOP path commands entered by an operator.

dir
The path direction specified for the unsuccessful stop request. An inbound signalling path is used to receive signals from another system in the sysplex. An outbound signalling path is used to send signals to another system in the sysplex.

PATHIN
Indicates the path was to be stopped for inbound signal traffic.

PATHOUT
Indicates the path was to be stopped for outbound signal traffic.

PATH Indicates the path direction was not specified or could not be determined. For system initiated requests, the existing XCF path definition is used to determine the direction(s) in which to stop the path.

UNCOND=YES
UNCOND=YES was coded on the SETXCF command, indicating that the stop was to be performed unconditionally. An unconditional stop may cause the abnormal termination of other tasks currently in the midst of processing requests (such as a stop) for the indicated path. An unconditional stop attempts to force stop path processing to run to completion, and may not wait for an orderly shutdown of the signalling path. For example, an unconditional stop could prevent XCF from delivering a signal to its intended target.

pathname
The name of the signalling path.

DEVICE *dev*
Indicates the CTC device with device number *dev*.

STRUCTURE *strname*
Indicates the XES list structure whose name is *strname*. A list structure can contain one or more individual list signalling paths.

STRUCTURE *strname* **LIST** *num* **TO COMMUNICATE WITH SYSTEM** *sysname*
Indicates the list signalling path using list number *num* within the XES list structure named *strname* to communicate with the system named *sysname*. The list number is zero if the path was not yet assigned a list within the structure, or if the initiator of the request could not determine which list was assigned for the path.

AN UNCONDITIONAL STOP PREEMPTED THIS REQUEST
An unconditional stop request for this path ended the stop request. The unconditional stop request will complete stop path processing.

AN UNEXPECTED ERROR OCCURRED
XCF experienced an unexpected error. Diagnostic data is provided to help IBM service personnel with problem determination.

NO LONGER IN USE
The indicated path is no longer in use by XCF for signalling in the indicated direction. Between the time this stop request was created and the time it was processed, the signalling path was stopped as the result of some other stop request.

PURGE I/O FAILED
Stop path processing could not ensure that all I/O on the signalling path had stopped.

PURGE I/O FAILED, DID STOP ANYWAY
Stop path processing could not ensure that all I/O on the signalling path had stopped. However processing continued so that the path was stopped despite the failure.

STOP NOTIFICATION FAILED
Stop path processing could not ensure that other systems would recognize that this system is stopping its use of the structure for signalling in the indicated direction.

STOP NOTIFICATION FAILED, DID STOP ANYWAY
Stop path processing could not ensure that other systems would recognize that this system is stopping its use of the structure for signalling in the indicated direction. However processing continued so that the path was stopped despite the failure.

This failure can occur normally for a system that must disconnect from a structure that it cannot use.

STOP LIST PATHS FAILED
Stop structure processing could not stop one or more of the list paths started through the structure.

DIAG037=*n n n n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: Processing of the stop request terminates.

For preempted requests, the unconditional stop request will force the signalling path to stop. Message IXC307I is issued upon successful completion of the preempting unconditional stop request.

In the case of an unexpected error, the path may or may not have been stopped successfully. If not, the state of the path is unpredictable.

If the signalling path is no longer in use, no further action is needed.

If the stop was performed despite the failure, the system was able to complete the request. However, resources may still be associated with the signalling path. Although stop processing completed, it is considered unsuccessful because these resources were not released. For shared resources, other systems in the sysplex may release the resources. For local resources, the system continues to monitor the associated resources and releases them when they are no longer in use. For operator initiated stop requests, the path is no longer defined to XCF for signalling in the indicated direction. For system initiated stop requests, the path remains defined to XCF, and may be started anew automatically as a result of various events or circumstances.

For other failures, the signalling path is left in a STOPFAILED state. It remains in this state until successfully stopped.

Operator response: Depending on the message text, do one of the following:

AN UNCONDITIONAL STOP PREEMPTED THIS REQUEST
If message IXC307I is issued to indicate that the unconditional stop completed successfully, no action is needed.

Otherwise enter a DISPLAY XCF path command to obtain detailed information for the signalling path. If the signalling path is not listed in the display output, it has been removed from service and no further action is needed.

If the signalling path status displayed by message IXC356I indicates STOPPING, allow additional time for the stop to complete. Completion of the stop could be delayed if the system to which the stopping path is connected is non-operational, or if signalling connectivity with that system has been lost. If needed, use the SETXCF START path command to start additional signalling paths to establish signalling connectivity or use the VARY XCF command to remove the non-operational system from the sysplex. Alternatively, enter a SETXCF STOP path command specifying UNCOND=YES to force completion of stop processing for the STOPPING path.

If the signalling path status displayed by message IXC356I indicates STOPFAILED, enter a SETXCF STOP command to try stopping the path again. Note that for a list path, the SETXCF STOP command can only be applied to the structure as a whole, so the stop command should be issued only if the intent is to stop the system from using the structure for signalling in the indicated direction.

For any other signalling path status, no action is needed.

AN UNEXPECTED ERROR OCCURRED

Enter a DISPLAY XCF path command to obtain detailed information for the signalling path. Record the display output for the path along with any diagnostic data contained in this message in case the system programmer must contact IBM service personnel for problem determination.

If the signalling path is not listed in the display output, it has been removed from service and no further action is needed.

If the signalling path status displayed by message IXC356I indicates STOPPING enter a SETXCF STOP path command specifying UNCOND=YES to force completion of stop processing for the STOPPING path.

If the signalling path status displayed by message IXC356I indicates STOPFAILED enter a SETXCF STOP path command to try stopping the path again. Note that for a list path, the SETXCF STOP path command can only be applied to the structure as a whole, so the stop command should be issued only if the intent is to stop the system from using all of its list paths through the structure in the indicated direction.

If unable to stop the signalling path after several attempts, try entering a SETXCF STOP path command on the system(s) to which the signalling path is connected in order to stop the other side of the path. Successfully stopping the other side of the path is one way to ensure that I/O is no longer in progress. After the other side of the path is stopped, try entering the SETXCF STOP path command again. If the path stop again fails due to an unexpected error, try stopping the path unconditionally by entering a SETXCF STOP path command with the UNCOND=YES specification. The unconditional stop should be tried at least twice.

If the signalling path status displayed by message IXC356I is anything other than STOPPING or STOPFAILED no action is needed.

PURGE I/O FAILED
STOP NOTIFICATION FAILED
STOP LIST PATHS FAILED

Enter a SETXCF STOP path command to try stopping the path again. Note that for a list path, the SETXCF STOP path command can only be applied to the structure as a whole, so the stop command should be issued only if the intent is to stop the system from using all of its list paths through the structure in the indicated direction.

If unable to stop the signalling path after several attempts, try entering a SETXCF STOP path command on the system(s) to which the signalling path is connected in order to stop the other side of the path. Successfully stopping the other side of the path is one way to ensure that I/O is no longer in progress. After the other side of the path is stopped, try entering the SETXCF STOP path command again. If the path stop again fails due to an unexpected error, try stopping the path unconditionally by entering a SETXCF STOP path command with the UNCOND=YES specification. The unconditional stop should be tried at least twice.

For any other *text*, no action is needed.

System programmer response: Examine the listed operator responses for an appropriate action.

In the case of failures, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Supply any diagnostic data presented as part of the start rejected message, any output from the DISPLAY XCF command issued for the signalling path, and the XCF component trace table. The trace table must be obtained within 30 seconds of completion of the command if XCF detail tracing is enabled, and within a few minutes if just XCF default tracing is in effect. Default tracing is sufficient to resolve this problem.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1PCC

Routing code: 1,2

Descriptor code: 5,12

IXC309I SETXCF COUPLE,*text*

Explanation: XCF successfully processed a SETXCF COUPLE command to change a couple data set option in the COUPLExx parmlib member.

In the message text:

typename
The type for which the SETXCF COUPLE command was processed.

INTERVAL REQUEST WAS ACCEPTED
The failure detection interval for the system was updated to the value specified on the SETXCF COUPLE command.

Note:

1. If USERINTERVAL function is set or defaulted to be disabled, the effective failure detection interval is the greater one of the spin failure detection interval derived from the EXSPATxx parameters, and the user-specified INTERVAL (if any). If USERINTERVAL function is enabled, XCF uses the user-specified INTERVAL as the effective failure detection interval.
2. Changes to EXSPATxx parameters cause new spin failure detection interval to be computed, and then might cause the effective failure detection interval to change.

CLEANUP REQUEST WAS ACCEPTED
XCF updated the time interval that the sysplex removing process will wait for sysplex members to perform cleanup functions.

OPNOTIFY REQUEST WAS ACCEPTED
XCF updated the time interval that the system will use to determine when to notify the operator when a system appears inoperative.

If an absolute OPNOTIFY value (*nnnnn*) was specified, the effective OPNOTIFY interval used for this system is the specified value. If a relative OPNOTIFY value (+*nnnnn*) was specified, the effective OPNOTIFY interval used for this system is the sum of the effective failure detection interval and the specified relative value (but no more than 86400).

MAXMSG REQUEST WAS ACCEPTED
XCF updated the default maxmsg value. This value is used if the MAXMSG keyword is not specified on the SETXCF START command.

RETRY REQUEST WAS ACCEPTED
XCF updated the default retry limit used by the system to monitor a signalling path. This value is used if the RETRY keyword is not specified on the SETXCF START command.

CLASSLEN REQUEST WAS ACCEPTED
XCF updated the default CLASSLEN value. This value is used if the CLASSLEN keyword is not specified on the SETXCF START,CLASSDEF command.

PCOUPLE REQUEST FOR *typename* **WAS ACCEPTED**
XCF defines a data set to be used as the primary couple data set for the specified type. If the type is already operational in the sysplex, then the data set specified is ignored and message IXC285I is issued.

ACOUPLE REQUEST FOR *typename* **WAS ACCEPTED**
XCF defines a data set as an alternate couple data set. The system issues message IXC251I when the switch to the new alternate couple data set is complete.

PSWITCH REQUEST FOR *typename* **WAS ACCEPTED**
If the request is successful, XCF makes the alternate couple data set the primary one, and stops using the current primary couple data set.

System action: XCF changed the option as requested.

For option **ACOUPLE** and **PSWITCH**, the system issues IXC251I when the switch to the new alternate couple data set is complete.

For option **PSWITCH**, the system issues:

- Message IXC386I, if there is no alternate couple data set defined.
- Message IXC253I, if a primary or alternate couple data set failed or is no longer in the sysplex.

Operator response: Notify the system programmer.

System programmer response: Update the COUPLExx parmlib member to reflect the SETXCF request.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY

Routing code: 1,2

Descriptor code: 5

IXC310I SETXCF MODIFY *option* **REQUEST COMPLETED SUCCESSFULLY** *pathname*

Explanation: The system successfully processed a SETXCF MODIFY command to change an XCF resource.

In the message text:

option
The option specified for the completed modify request. *Option* is one of the following:

PATHIN
Indicates the definition of a signalling path used for inbound signal traffic was modified. An inbound signalling path is used to receive signals from another system in the sysplex.

PATHOUT
Indicates the definition of a signalling path used for outbound signal traffic was modified. An outbound signalling path is used to send signals to another system in the sysplex.

LOCALMSG
Indicates that the definition of signalling resources used for local signal traffic was modified. Local signal traffic is sent and received within the same system.

SYNCASYNC
Indicates that a heuristic threshold for converting synchronous coupling facility requests to run asynchronously was modified.

pathname
The name of the signalling path, if applicable.

FOR DEVICE *dev*
Indicates the CTC device with device number *dev*.

FOR STRUCTURE *strname*
Indicates the XES list structure whose name is *strname*. A list structure can contain one or more individual list signalling paths.

System action: XCF made the requested changes.

System programmer response: Update the COUPLExx parmlib member to reflect the changes, if appropriate.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1FSS, IXCT1MOD

Routing code: 1,2

Descriptor code: 5

IXC311I SETXCF START CLASSDEF REQUEST FOR TRANSPORT CLASS *classname* **IS REJECTED:** *text*

Explanation: A SETXCF START,CLASSDEF command to start a transport class was unsuccessful.

In the message text:

classname
The name of the transport class.

minimum
The minimum usable value for MAXMSG.

DEFINITION ALREADY EXISTS
The transport class *classname* is already defined.

MAXIMUM NUMBER OF DEFINITIONS (62) EXIST
This command request would bring the total number of transport classes past the allowable maximum of 62 non-default class definitions.

INSUFFICIENT SPACE
XCF could not get the storage needed to create the transport class definition requested in the command.

MAXIMUM NUMBER OF GROUPS (2045) ASSIGNED
The command requested that one or more groups be assigned to transport class *classname* but this would bring the total number of groups past the allowable maximum of 2045.

MAXMSG MUST BE AT LEAST *minimum*
The MAXMSG value defined for transport class *classname* is not large enough. MAXMSG must be large enough to provide for at least one message as large as the class length. For this transport class, the MAXMSG value must be greater than or equal to *minimum*.

System action: SETXCF command processing ends.

Operator response: Depending on the message text, do one of the following:

DEFINITION ALREADY EXISTS
Enter DISPLAY XCF,CLASSDEF to list the transport classes currently defined to the system. Make sure the correct class name was entered. If so, enter SETXCF MODIFY,CLASSDEF to change the definition.

MAXIMUM NUMBER OF DEFINITIONS (62) EXIST
Enter the SETXCF STOP,CLASSDEF command to delete an existing definition if necessary.

MAXMSG MUST BE AT LEAST *minimum*
If MAXMSG or CLASSLEN was not specified, the values used were the current default MAXMSG and CLASSLEN values. Enter the DISPLAY XCF,COUPLE command to list the current default values for these parameters.

INSUFFICIENT SPACE
Do one of the following:

- Reenter the command. The storage constraint will probably resolve itself.
- Enter the SETXCF MODIFY,CLASSDEF command with the DELGROUP keyword to delete an explicitly assigned group from each transport class. This may alleviate the storage problem.

MAXIMUM NUMBER OF GROUPS (2045) ASSIGNED
Enter the SETXCF MODIFY,CLASSDEF command with the DELGROUP keyword to delete an explicitly assigned group from each transport class to which it is assigned to reduce the total number of explicitly assigned groups. Then try reissuing the SETXCF START,CLASSDEF command.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY, IXCO1SCP

Routing code: 1,2

Descriptor code: 5

IXC312I SETXCF STOP CLASSDEF REQUEST FOR TRANSPORT CLASS *classname* **IS REJECTED:** *text*

Explanation: The system could not successfully process a SETXCF,STOP CLASSDEF command to stop a transport class.

In the message text:

classname
The name of the transport class.

NOT DEFINED
The transport class, *classname*, is not defined to XCF.

DEFAULT CLASS CANNOT BE STOPPED
The command was entered for the default transport class. The system does not allow the default transport class to be stopped.

FIRST REMOVE ALL SIGNALLING PATHS FROM CLASS
When a transport class has signalling paths assigned to it, the system does not allow it to be stopped.

System action: The status of the class definition is not changed by the command.

Operator response: Depending on the message text, do one of the following

NOT DEFINED
Enter the DISPLAY XCF,CLASSDEF command to list the names of the transport classes currently defined.

FIRST REMOVE ALL SIGNALLING PATHS FROM CLASS
Enter SETXCF STOP,PATHOUT commands to stop all the signalling paths in the class, or enter SETXCF MODIFY,PATHOUT commands to reassign the signalling paths to a different class. Then reenter the SETXCF STOP,CLASSDEF command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY

Routing code: 1,2

Descriptor code: 5

IXC313I SETXCF MODIFY CLASSDEF REQUEST FOR TRANSPORT CLASS *classname* **IS REJECTED:** *text*

Explanation: XCF could not successfully process a SETXCF,MODIFY CLASSDEF command to change a transport class definition.

In the message text:

classname
The name of the transport class.

minimum
The minimum usable value for MAXMSG.

NOT DEFINED
The transport class, *classname*, is not defined to XCF.

MAXMSG MUST BE AT LEAST *minimum*
The MAXMSG value defined for transport class *classname* is not large enough. MAXMSG must provide enough message buffer space for at least one message as long as the class length. For this transport class, the MAXMSG value must be greater than or equal to *minimum*.

The system issues this *text* only if one or both of the MAXMSG and CLASSLEN keywords was specified on the command. If one of the keywords was not specified, the value used to test the condition was the current value for the transport class.

OUTBOUND PATHS MUST HAVE MAXMSG OF AT LEAST *minimum*
The command specified a larger CLASSLEN value for the transport class, but there are one or more outbound signalling paths with a MAXMSG value too small for the larger class length. Each outbound signalling path assigned to this class must have a MAXMSG value equal to or greater than *minimum*. Note that using the *minimum* value for MAXMSG may not provide sufficient buffer space for good signalling performance.

System action: The system ignores the SETXCF MODIFY,CLASSDEF command.

Operator response: Depending on the message text, do one of the following:

NOT DEFINED
Enter the DISPLAY XCF,CLASSDEF command to list the names of the transport classes currently defined. Reenter the command with the correct class name.

MAXMSG MUST BE AT LEAST *minimum*
Enter the DISPLAY XCF,CLASSDEF,CLASS=(*classname*) command to display the values of the unspecified parameters for the transport class.

To change the transport class definition to the desired class length, the MAXMSG value must be equal to or greater than *minimum*.

OUTBOUND PATHS MUST HAVE MAXMSG OF AT LEAST *minimum*
Enter the DISPLAY XCF,PATHOUT,CLASS=(*classname*) command to list the MAXMSG values for all the outbound signalling paths assigned to this class. Each signalling path listed must have a MAXMSG value greater than or equal to *minimum* before the CLASSLEN can be set to the requested value. Use the SETXCF MODIFY,PATHOUT command to change the MAXMSG values for any signalling paths that are not equal to or greater than *minimum*.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY, IXCO1SCP

Routing code: 1,2

Descriptor code: 5

IXC314I REQUEST TO ASSIGN GROUP *groupname* **TO TRANSPORT CLASS** *classname* **IS REJECTED:** *text*

Explanation: XCF could not successfully process a SETXCF MODIFY,CLASSDEF command to assign a group to a transport class.

In the message text:

groupname
The name of the group being assigned to this transport class.

classname
The name of the transport class to which the group is being added.

GROUP ALREADY ASSIGNED
The group is already assigned to this transport class.

INSUFFICIENT SPACE
XCF was unable to obtain the storage to assign the group to the transport class.

MAXIMUM NUMBER OF GROUPS (2045) ASSIGNED
Adding the requested group would bring the total above the allowable maximum number of groups assignable to transport classes. At most, 2045 unique groups can be explicitly assigned to all the transport classes.

System action: The system does not assign the group to the transport class.

Operator response: Depending on the message text, do one of the following:

GROUP ALREADY ASSIGNED
Enter the DISPLAY XCF,CLASSDEF command with the CLASS keyword to list the groups currently assigned to the transport class.

INSUFFICIENT SPACE
Do one of the following:

- Repeat the command. The storage constraint may have been resolved.
- Enter the SETXCF MODIFY,CLASSDEF command with the DELGROUP keyword to delete an explicitly assigned group from each transport class. This might alleviate the storage problem.

MAXIMUM NUMBER OF GROUPS (2045) ASSIGNED
Enter the SETXCF MODIFY,CLASSDEF command with the DELGROUP keyword to delete an explicitly assigned group from each transport class to reduce the total number of explicitly assigned groups. Then repeat the SETXCF MODIFY,CLASSDEF command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY, IXCO1SCP

Routing code: 1,2

Descriptor code: 5

IXC315I REQUEST TO DELETE GROUP *groupname* **FROM TRANSPORT CLASS** *classname* **IS REJECTED:** *text*

Explanation: The system rejected a request to delete a group from a transport class.

In the message text:

groupname
The name of the group being deleted from a transport class.

classname
The name of the transport class.

GROUP NOT CURRENTLY ASSIGNED
The group is not assigned to this transport class. This result may mean that the command tried to delete a specific undesignated group from a transport class. Undesignated groups cannot be individually deleted. Enter a DISPLAY XCF,CLASSDEF,CLASS=(*classname*) command to determine the groups currently assigned to the class.

NO GROUPS EXPLICITLY ASSIGNED
The indicated transport class has no groups explicitly assigned to it. In such cases, the class is considered to have all the undesignated groups assigned to it. The collection of all undesignated groups, **UNDESIG**, cannot be deleted unless there is some other group explicitly assigned to the class.

System action: The system does not change the status of the transport class definition.

Operator response: If **GROUP NOT CURRENTLY ASSIGNED** appears in the message text, enter the DISPLAY XCF,CLASSDEF,CLASS=(*classname*) command to display the groups assigned to the class.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY

Routing code: 1,2

Descriptor code: 5

IXC316I {START|STOP|MODIFY} CLASSDEF FOR TRANSPORT CLASS *classname* **COMPLETED SUCCESSFULLY**

Explanation: XCF successfully processed a command entered for a transport class. All groups specified were successfully assigned to or deleted from the transport class.

In the message text:

START
The command entered was to start a transport class.

STOP
The command entered was to stop a transport class.

MODIFY
The command entered was to modify a transport class.

classname
The name of the transport class.

System action: The system completed the service requested.

Operator response: Notify the system programmer.

System programmer response: Update the COUPLExx parmlib member to reflect the SETXCF command to make sure the change is in effect after the next IPL, if appropriate.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY, IXCO1SCP

Routing code: 1,2

Descriptor code: 5

IXC317I SETXCF COMMAND SYNTAX ERROR IN OPTIONS SPECIFIED. COULD NOT RECOGNIZE THE FOLLOWING: *keyword*.

Explanation: XCF found a syntax error in the options specified on the SETXCF command. The message text shows the syntax error.

In the message text:

keyword
The unrecognized string specified. The string will be truncated after the first 16 characters.

System action: SETXCF command processing ends.

Operator response: Reenter the command with the correct syntax. If the command fails a second time notify the system programmer.

System programmer response: If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP, IXCO1STL

Routing code: #

Descriptor code: 5

IXC318I SETXCF SYNTAX ERROR, COULD NOT RECOGNIZE: *option*. **ONE OF THE FOLLOWING WAS EXPECTED:** *keyword keyword keyword keyword keyword keyword keyword keyword keyword keyword*

Explanation: XCF found a syntax error in the options specified on the SETXCF command. The message text shows the syntax error.

In the message text:

option
The unrecognized string specified. The string will be truncated after the first 16 characters.

keyword
An acceptable keyword or symbol that could be specified.

System action: SETXCF command processing ends.

Operator response: Reenter the command with the correct syntax. If the command fails a second time notify the system programmer.

System programmer response: If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1STL

Routing code: #

Descriptor code: 5

IXC319I MORE THAN 4 SERVER NAME PATTERNS SPECIFIED

Explanation: While processing the TRACE CT command, the system found more than four server name patterns specified for the SRVNAME XCF Component trace option. You can only specify up to four server name patterns with the SRVNAME option.

System action: The system rejects the TRACE CT command.

Operator response: Notify the system programmer.

System programmer response: Enter the TRACE CT command again with four or less server name patterns specified for the SRVNAME option.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCC1TCP

Routing code: 1, 2

Descriptor code: 5

IXC320I SETXCF PRSMPOLICY IS ONLY SUPPORTED UNDER PR/SM WITH THE CROSS LPAR FUNCTION INSTALLED. POLICY IGNORED.

Explanation: An operator entered a SETXCF command to define the XCF processor resource/systems manager (PR/SM) POLICY parmlib member, XCFPOLxx. However, the system does not have PR/SM cross logically partitioned mode (LPAR) support. XCF cannot process any PR/SM policy actions.

System action: The SETXCF command ends without changing any XCF processing.

Operator response: Notify the system programmer.

System programmer response: Make sure the system has cross logically partitioned mode (LPAR) support installed for PR/SM.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: #

Descriptor code: 5

IXC321I XCF PR/SM POLICY *memname* IS NOW IN EFFECT

Explanation: The operator entered a SETXCF PRSMPOLICY,ACTIVATE=*memname* command to specify the XCF PR/SM POLICY parmlib member. Parmlib member *memname* was successfully processed and is now active.

In the message text:

memname
The name of the parmlib member.

System action: The new XCF PR/SM POLICY parmlib member is now in effect.

Operator response: If necessary, enter the DISPLAY XCF,PRSMPOLICY command to confirm the name of the new parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2PIT

Routing code: #

Descriptor code: 5

IXC322I XCF PR/SM POLICY HAS BEEN DEACTIVATED

Explanation: The operator successfully entered a SETXCF PRSMPOLICY,DEACTIVATE command to specify that the XCFPOLxx parmlib member be deactivated.

System action: Processing continues without the XCFPOLxx parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2PIT

Routing code: #

Descriptor code: 5

IXC323I SYNTAX ERROR IN LINE *nn* OF XCF PR/SM PARMLIB MEMBER *memname*: *text*

Explanation: The operator entered a SETXCF PRSMPOLICY,ACTIVATE=*memname* command to activate the XCFPOLxx parmlib member, but the syntax of the parmlib member was in error.

In the message text:

nn The line in the parmlib member containing the error.

memname
The name of the parmlib member containing a syntax error.

keyword
The duplicate keyword.

FAILSYS FOR A NOSTATUS STATEMENT WAS NOT VALID
The system name specified was incorrect.

RESETTIME WAS NOT VALID
The RESETTIME value must be in the range of 0-86400 seconds.

DEACTTIME WAS NOT VALID
The DEACTTIME value must be in the range 0-86400 seconds.

KEYWORD WAS NOT VALID
One of the keywords was unrecognizable.

FAILSYS FOR A SYSGONE STATEMENT WAS NOT VALID
The system name specified in the SYSGONE keyword was incorrect.

SYSNAME(SYSNAME) WAS NOT VALID
The system name specified in the SYSTEM keyword was incorrect.

DEACTIVATE(OTHERSYS) WAS NOT VALID
The system name specified was incorrect.

STORE VALUE WAS NOT VALID
The value specified in the STORE keyword is incorrect. YES or NO are the only allowed options.

ESTORE VALUE WAS NOT VALID
The value specified in the ESTORE keyword is incorrect. YES or NO are the only allowed options.

MISSING PARENTHESIS
A closing parenthesis was expected but not found.

IMPROPER USE OF COMMENTS
Comments encountered in the parmlib member were incorrect.

RESETTIME AND DEACTTIME CANNOT BOTH BE SPECIFIED
NOSTATUS statements can have only one DEACTTIME or RESETTIME specified.

MISSING REQUIRED RESETTIME OR DEACTTIME
NOSTATUS statements requires a RESETTIME or DEACTTIME.

A DUPLICATE NOSTATUS STATEMENT WAS FOUND
Only one NOSTATUS statement is allowed for a system name within a policy member.

MAXIMUM NUMBER OF SYSTEMS FOR POLICY EXCEEDED
The maximum number of systems allowed in a policy is 16.

A SYSTEM CANNOT DEACTIVATE ITSELF FROM SYSGONE
A SYSGONE statement was detected where the sysname specified on the SYSTEM keyword and the DEACTIVATE keyword were the same.

A SYSTEM CANNOT TAKE ACTION FOR ITSELF ON SYSGONE
A SYSGONE statement was detected where the system name specified on the SYSTEM keyword was the same as the failing system.

A SYSGONE STATEMENT WAS MISSING REQUIRED KEYWORDS
SYSGONE requires both the SYSTEM and DEACTIVATE keywords.

KEYWORD *keyword* **IS A DUPLICATE KEYWORD.**
Keyword *keyword* is a duplicate for a NOSTATUS or SYSGONE statement.

System action: The SETXCF command ends. The specified XCFPOLxx parmlib member is not activated.

Operator response: Fix the syntax of the policy parmlib member and reenter the command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2PIT

Routing code: #

Descriptor code: 5

IXC324I ERROR WHILE PROCESSING XCF PR/SM PARMLIB MEMBER *memname*: *text*

Explanation: The operator entered a SETXCF PRSMPOLICY,ACTIVATE=XCFPOL*xx* command to activate the XCF processor resource/systems manager (PR/SM) POLICY parmlib member. XCF encountered an error while processing the parmlib member.

In the message text:

memname
The XCF PR/SM parmlib member.

PARMLIB READ ROUTINE COULD NOT BE LOADED
The system could not read the PR/SM POLICY parmlib member.

I/O ERROR
The system encountered an I/O error while processing the PR/SM POLICY parmlib member.

UNEXPECTED ERROR
The system encountered an unexpected error while processing the PR/SM POLICY parmlib member.

MEMBER IS EMPTY
The PR/SM POLICY parmlib member contains no data.

MEMBER COULD NOT BE FOUND
The system could not find the specified parmlib member XCFPOL*xx*.

System action: The SETXCF command ends. The PR/SM POLICY parmlib member is not activated.

Operator response: If the parmlib member was empty or could not be found, fix the parmlib member and reenter the command. Otherwise notify the system programmer.

System programmer response: If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2PIT

Routing code: #

Descriptor code: 5

IXC326I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

[WARNING: INFORMATION MAY NOT BE CURRENT]
MEMBER *membername* **IS NOT DEFINED TO GROUP** *groupname*

In response to a DISPLAY XCF command, this message displays the status of a member in a specific group. The message indicates that the specified group does not contain the specified member.

If the **WARNING: INFORMATION MAY NOT BE CURRENT** message appears in the message text, the system was unable to obtain the most current data from the sysplex couple data set. The system uses a local copy of the sysplex couple data set information instead, which may not have the most current data. The data will be current for members on the system where the DISPLAY command was issued.

When the WARNING message appears, you can still obtain current information for a particular member by issuing the DISPLAY command from the system that the member is on. To find which system the member is on, use one of the DISPLAY XCF,GROUP commands to display the system corresponding to the member. This display may also not have the most current data.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

membername
The name of the member that cannot be found in group *groupname.*

groupname
The name of the group specified.

System action: The system ends the processing of the DISPLAY command.

Operator response: Enter the DISPLAY XCF,GROUP,*groupname* command without a member name to display the names of the members within a group.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC327I *hh.mm.ss* **DISPLAY XCF DISPLAY COMMAND FAILED:** *text*

Explanation: The DISPLAY XCF command failed for one of the following reasons.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

text
is one of the following:

INTERNAL XCF COMPONENT ERROR
An XCF error caused the failure.

ERROR IN DISPLAY XCF PROCESSING
A requested system service returned a nonzero return code.

UNEXPECTED PARSING ERROR
An error occurred during the parsing of the command syntax.

System action: The system ends processing of the DISPLAY command.

Operator response: If **UNEXPECTED PARSING ERROR** appears in the text, check the command syntax and enter the command again.

If the problem persists, notify the system programmer.

System programmer response: If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP, IXCO1DC2, IXCO1DC3, IXCO1DC4

Routing code: #M

Descriptor code: 5,8,9

IXC328I XCF SYNTAX IS NOT VALID: *text*

Explanation: XCF detected incorrect syntax or options on the DISPLAY command. The message text shows the syntax error.

In the message text:

ILLEGAL DEVICE NUMBER SPECIFIED: *n*
An incorrect device number was specified on the DISPLAY XCF command. The error message text contains the incorrect device number.

ILLEGAL DEVICE RANGE SPECIFIED: *n*
An incorrect range was specified on the DISPLAY XCF command. The error message text contains the incorrect range.

ILLEGAL GROUP NAME SPECIFIED: *n*
An incorrect group name was specified on the DISPLAY XCF command. The error message text contains the incorrect group name.

ILLEGAL MEMBER NAME SPECIFIED: *n*
An incorrect member name was specified on the DISPLAY XCF command. The error message text contains the incorrect member name.

ILLEGAL SYSTEM NAME SPECIFIED: *n*
An incorrect system name was specified on the DISPLAY XCF command. The error message text contains the incorrect system name.

ILLEGAL TYPE NAME SPECIFIED: *n*
An incorrect type name was specified on the DISPLAY XCF command. The error message text contains the incorrect type name.

ILLEGAL COUPLING FACILITY NAME SPECIFIED: *n*
An incorrect coupling facility name was specified on the DISPLAY XCF command. The error message text contains the incorrect coupling facility name.

ILLEGAL STRUCTURE NAME SPECIFIED: *n*
An incorrect structure name was specified on the DISPLAY XCF command. The error message text contains the incorrect structure name.

ILLEGAL CLASS NAME SPECIFIED: *n*
An incorrect class name was specified on the DISPLAY XCF command. The error message text contains the incorrect class name.

ILLEGAL ELEMENT NAME SPECIFIED: *n*
An incorrect element name was specified on the DISPLAY XCF command. The error message text contains the incorrect element name.

ILLEGAL RESTART GROUP NAME SPECIFIED: *n*
An incorrect restart group name was specified on the DISPLAY XCF command. The error message text contains the incorrect restart group name.

ILLEGAL JOB NAME SPECIFIED: *n*
An incorrect job name was specified on the DISPLAY XCF command. The error message text contains the incorrect job name.

ILLEGAL CONNECTION NAME SPECIFIED: *n*
An incorrect connection name was specified on the DISPLAY XCF command. The error message text contains the incorrect connection name.

SERVER INSTANCE NUMBER NOT VALID: *n*
An incorrect server instance number was specified on the DISPLAY XCF command. The error message text contains the incorrect server instance number.

STATUS=WORKING REQUIRES TYPE=INSTANCE
An incorrect combination of the STATUS and TYPE parameters was specified on the DISPLAY XCF command.

SERVER NAME INPUT NOT VALID: *n*
An incorrect server name pattern was specified on the DISPLAY XCF command. The error message text contains the incorrect server name.

NOTE PAD NAME INPUT NOT VALID: *n*
An incorrect note pad name or note pad name pattern was specified on the DISPLAY XCF command. The error message text contains the incorrect note pad name or note pad name pattern.

System action: The system ends the processing of the DISPLAY command.

Operator response: Correct the error indicated in the message text and reenter the DISPLAY command. If the problem persists after the syntax is corrected, notify the system programmer.

System programmer response: If the DISPLAY command syntax is correct and the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5

IXC330I *hh.mm.ss* **DISPLAY XCF**
SYSTEM *sysname* **IS NOT DEFINED TO THIS SYSPLEX**

Explanation: The operator entered a DISPLAY XCF command to display information about a specific system, but the system is not a member of the sysplex.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

sysname
The name of system that was to be displayed.

System action: The system continues processing.

Operator response: Make sure that the system name was specified correctly in the DISPLAY command. Enter the command again. If the DISPLAY command was correct, notify the system programmer.

System programmer response: If the DISPLAY command was entered correctly, make sure the system is specified to the sysplex correctly.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC331I *hh.mm.ss* **DISPLAY XCF**
[WARNING: INFORMATION MAY NOT BE CURRENT]
[*INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM]
text

Explanation: In the message, *text* is:

```
GROUPS(SIZE): groupname(size)   groupname(size)   groupname(size)
               groupname(size)   groupname(size)   groupname(size)
⋮
```

In response to a DISPLAY XCF command, this message displays group data. The system repeats the display lines as many times as necessary to provide all known group names.

In the message text:

WARNING: INFORMATION MAY NOT BE CURRENT
The system was unable to obtain the most current data from the sysplex couple data set. The system uses a local copy of the sysplex couple data set information instead, which may not have the most current data. The data will be current for members on the system where the DISPLAY command was issued.

*** INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM**
This line appears when there is a group with a member that is considered having problems. Groups that have a troubled member will be flagged with an asterisk. If the problems become severe, the group will also be flagged with an exclamation point.

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

groupname
The name of each group defined to the sysplex.

- A group will not be flagged with an asterisk if all of its members are running normally.
- A group will be flagged with an asterisk if it has a member that XCF considers to be having problems, for example, if one or more of its exits are stalled or if its status exit is reporting abnormal status, or if it is message isolated.
- A group will be flagged with an exclamation point if it has a member that XCF considers to be having severe problems, for example, if it appears to be stalled and causing sympathy sickness, if it appears to be impaired and impacting the normal operation of the member function, or if it is message isolated and messages sent to this member are being delayed or rejected.

size
The number of members defined to the group.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC332I *hh.mm.ss* **DISPLAY XCF**
[WARNING: INFORMATION MAY NOT BE CURRENT]
[* INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM]
GROUP *groupname***:**
memname memname memname.....
memname memname memname.....

Explanation: In response to a DISPLAY XCF command, this message displays information about sysplex members for a specific group. The system displays up to three members per line.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

WARNING: INFORMATION MAY NOT BE CURRENT
The system was unable to obtain the most current data from the sysplex couple data set. The system uses a local copy of the sysplex couple data set information instead, which may not have the most current data. The data will be current for members on the system where the DISPLAY command was issued.

When the WARNING message appears, you can still obtain current information for a particular member by issuing the DISPLAY command from the system that the member is on. To find which system the member is on, use one of the DISPLAY XCF,GROUP commands to display the system corresponding to the member. This display may also not have the most current data.

*** INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM**
This line appears when there is a group with a member that is considered having problems. Members that are having problems will be flagged with an asterisk. If the problems become severe, the member will also be flagged with an exclamation point.

groupname
The group specified in the DISPLAY XCF command.

memname
A member of the specified group.

- A member is not flagged with an asterisk if it is running normally.
- A member is flagged with an asterisk if it is having problems. For example, one or more of its exits is stalled, or if its status exit is reporting abnormal status, or if the member is message isolated.
- A member is flagged with an exclamation point if it is having severe problems. For example, it appears to be stalled and causing sympathy sickness, or it appears to be impaired and impacting the normal operation of the member function, or it is (or was) message isolated and messages sent to the member are being delayed or rejected by XCF.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC333I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text*

```
{INFORMATION FOR GROUP groupname
WARNING: INFORMATION FOR GROUP groupname MAY NOT BE CURRENT}
{ * INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM}

MEMBER NAME:  SYSTEM:  JOB ID:   STATUS:
memname          sysname  jobid   status

INFO for GROUP grpname MEMBER memname {ON SYSTEM sysname }

FUNCTION: mem_function

 [* INDICATES PROBLEM, ! INDICATES SERVERE PROBLEM]
 MEMTOKEN: memtoken1 memtoken2 ASID: asid  {SYSID: sysid}
     INFO: currtext

 [ATTRIBUTES        {JOINED | CREATED}: mm/dd/yyyy hh:mm:ss.dddddd
                    [{FAILED | QUIESCED}: mm/dd/yyyy hh:mm:ss.dddddd]
  attributes]
 SIGNALLING SERVICE
  MSGO ACCEPTED: msgoaccepted NOBUFFER: msgonobuffer
  MSGO XFER CNT:     msgoxfer LCL CNT:  msgolocal BUFF LEN: msgoblen
```

```
                SENDPND  RESPPND COMPLTD  MOSAVED  MISAVED
  MESSAGE TABLE: sendpnd  respnd  compltd  mosaved  misaved
  CRITICAL:       crtsnd  crtresp crtcmp  crtmosv crtmisv
  MSGI RECEIVED:    msgirecv PENDINGQ  msgipendq
  MSGI XFER CNT: msgixfercnt XFERTIME: msgixfertm
                IO BUFFERS       DREF   PAGEABLE  CRITICAL
  MSGI PENDINGQ: io buffers drefnnnnnn   pageable  critical
  [! *]SYMPATHY SICK:    ssbuff sscrit
  ! IMPACTED SYS: sysname   sysname   sysname  sysname
 [*] EXIT msgxtkn: extime efc eytime
 [*] ITEM itemtkn: ixtime ifc SEQ: iseqn
[!*] MISO isosysnm: misoStartTime MI SEQ: windowSeq#
[! ] MISO isosysnm: misoStartTime MI misoDuration
     SIMP impsysnm: impactStarted dr NUM: #delay #reject
     SIMP impsysnm: impactStarteddr impactDuration
[CRITICAL
 [*]EXIT crtxtkn: crtextime crtefc crteytime
 [*]ITEM crtitemtkn: crtixtime crtifc SEQ: crtiseqn ]
[GROUP SERVICE
    EVNT RECEIVED: grpereceived PENDINGQ: grpependingq
[*] EXIT grpxtkn: grextime grefc greytime
[*] ITEM grpitemtkn: grpixtime grpifc SEQ: grpiseqn]
[MONITOR SERVICE
   STAT INTERVAL: statinterval STATUS: status
   STAT DETECTED: mm/dd/yyyy hh:mm:ss.dddddd
   LAST VERIFIED: mm/dd/yyyy hh:mm:ss.dddddd
[*]EXIT stxtkn: stxtime stxfc stxtime]
```

In response to a DISPLAY XCF command, this message displays member information for one or more members in a specific group. The system displays one line of data per member.

In the message text:

hh.mm.ss
: The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

WARNING: INFORMATION FOR GROUP *groupname* **MAY NOT BE CURRENT**
: The system was unable to obtain the most current data from the sysplex couple data set. The system uses a local copy of the sysplex couple data set information instead, which may not have the most current data. The data will be current for members on the system where the DISPLAY command was issued.

  When the WARNING message appears, you can still obtain current information for a particular member by issuing the DISPLAY command from the system that the member is on. To find which system the member is on, use the DISPLAY XCF,GROUP command that yielded this message to display the system corresponding to the member. This display may also not have the most current data.

*** INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM**
: This line appears when one or more members are considered having problems. Members that are having problems will be flagged with an asterisk. If the problem becomes severe, the members will also be flagged with an exclamation point.

groupname
: The name of the group being displayed.

memname
: The name of a group member.

  - A member will not be flagged with an asterisk if it is running normally.
  - A member that XCF considers to be having problems will be flagged with an asterisk. A member is considered to be having problems, for example, if one or more of its exits are stalled, or if its status exit is reporting abnormal status, or if the member is message isolated.
  - A member that XCF considers to be having severe problems will be flagged with an exclamation point. A member is considered to be having severe problems, for example, if it appears to be stalled and causing

sympathy sickness, or if it appears to be impaired and impacting the normal operation of the member function, or if it is (or was) message isolated and messages sent to the member are being delayed or rejected by XCF.

sysname
The system on which the member was last running. If the member is in the created state, this field is left blank.

jobid
The MVS job name. If the member is in the created state, this field is left blank.

status
One of the following:

ACTIVE
A member running normally on the specified system.

CREATED
A member that has never been active in the sysplex but is predefined in the group.

STOPPED DUE TO SYSTEM
This member is on a system that is running abnormally. This can mean that:

- The system is issuing an SVC dump.
- The system is going through reconfiguration.
- A spin loop is occurring.
- The operator pressed stop.
- The system is in a restartable wait state.
- The system lost access to the couple data set.

CONFIRMED STATUS MISSING
The member's status exit indicates that the member is not operating normally and is considered to be in a status update missing condition.

DETECTED STATUS MISSING
The member's status exit did not execute in a timely fashion, and XCF deems the member to be in a status update missing condition.

SYSTEM TERMINATING
A member on a system that XCF is removing from the sysplex. XCF will eventually end all members on this system.

QUIESCED
A member that has voluntarily given up control and is in a dormant state.

FAILED
A member that the system ended without performing normal cleanup procedures.

DEACTIVATING
An active member that is being terminated.

SFM TERMINATING MEMBER
An active member that is being terminated per the SFM Policy MEMSTALLTIME specification. The member appeared to be stalled and this stall condition was causing sympathy sickness for one or more systems in the sysplex. SFM initiated termination of the member in an attempt to resolve the sympathy sickness. Messages IXC430E, IXC431I, IXC615I, IXC631I, and IXC640E may have been issued by the system on which the stalled member resided. Message IXC440E may have been issued by each impacted system in the sysplex.

CONFIRMED IMPAIRED
The member is considered to be confirmed impaired. A member is confirmed impaired if the member is in a confirmed status update missing condition long enough to impact the normal operation of the member.

DEEMED IMPAIRED
The member is considered to be deemed impaired. A member is deemed impaired if all of its exits processing user-related requests appear to be stalled and impacting the normal operation of the member function.

MESSAGE ISOLATED
The member is message isolated. Messages sent to this member will either be delayed or rejected by XCF.

IMPACTFUL MISO
The member was message isolated but is no longer. However, there appears to be a residual impact. One or more systems who have been delaying or rejecting messages targeted to this member have not yet recognized that the member is no longer being isolated.

IMPACTED BY MISO
The member is being impacted by one or more members who are (or were) message isolated. Messages sent by the impacted member to an isolated member have been delayed or rejected by XCF.

INFO for GROUP *grpname* **MEMBER** *memname* **{ON SYSTEM** *sysname* **}**
Identifies the group and member that is the subject of the detailed information.

grpname
Name of the XCF group

memname
Name of the member

sysname
Name of the system that provided the detailed information. The member resides on this system.

FUNCTION: *mem_function*
Identifies the description of the function, service, or application associated with the member. If no description was provided by the member, `Not Specified` will appear.

*** INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM**
This line appears when the member is having problems. A member having problems is flagged with an asterisk. If the problem is severe, the member is also flagged with an exclamation point.

memtoken1
XCF Member token part 1

memtoken2
XCF Member token part 2

asid
Hexadecimal ASID of the address space from which the member joined the XCF group.

sysid
The XCF system ID of the system where the member resides

INFO: *currtext*
One of the following:

INFO: CURRENT COLLECTED: *mm/dd/yyyy hh:mm:ss.dddddd*
The detailed member data is current as of the display.

INFO: IS NOT CURRENT COLLECTED: *mm/dd/yyyy hh:mm:ss.dddddd*
The detailed member data being reported was collected prior to the display. It may not be current.

INFO: ONLY AVAILABLE ON SYSTEM *sysname*
Detailed member data must be gathered from some other system in the sysplex, but the system does not support the protocol. To get detailed data for the member, reissue an appropriate DISPLAY XCF command on the indicated system or install the necessary software.

INFO: NOT RECEIVED FROM SYSTEM *sysname*
Detailed member data must be gathered from some other system in the sysplex but the necessary data was not received in time. To get detailed data for the member, retry the command or issue an appropriate DISPLAY XCF command on the indicated system.

INFO: UNAVAILABLE, NO RESOURCES ON SYSTEM *sysname*
Detailed member could not be collected due to lack of resources on the indicated system. To get detailed data for the member, retry the command or issue an appropriate DISPLAY XCF command from some other system.

INFO: UNAVAILABLE, NOT READY FOR SYSTEM *sysname*
Detailed member data must be gathered from some other system in the sysplex but the necessary data could

not be collected because the systems are not yet ready to do so. To get detailed data for the member, retry the command after allowing time for the systems to complete the necessary initialization.

INFO: LIMITED, MEMBER NO LONGER ACTIVE
Only limited member data is available because the member is no longer active.

INFO: LIMITED, CREATED MEMBER
Only limited member data is available because this is a created member.

INFO: UNAVAILABLE, IXCMG RC=*xx* **RS=***xxxxxxxx* **ON SYSTEM** *sysname*
Detailed member data is unavailable due to an unexpected error. The indicated IXCMG return and reason code provides information about the error.

ATTRIBUTES {JOINED | CREATED} : *mm/dd/yyyy hh:mm:ss.dddddd*
{QUIESCED | FAILED}: *mm/dd/yyyy hh:mm:ss.dddddd attributes*
The member attributes specified on the IXCJOIN macro when the member joined the group. This appears only when the member is not a created member and the data is available.

JOINED: *mm/dd/yyyy hh:mm:ss.dddddd*
The date and time when the member joined the group. This line appears only if this member is not a created member.

CREATED: *mm/dd/yyyy hh:mm:ss.dddddd*
The date and time when the member was created. This line appears only if the member is in a created state.

QUIESCED: *mm/dd/yyyy hh:mm:ss.dddddd*
The date and time when the member was placed in a quiesced state. This line appears only if the member is in a quiesced state.

FAILED: *mm/dd/yyyy hh:mm:ss.dddddd*
The date and time when the member was placed in a failed state. This line appears only if the member is in a failed state.

attributes
One or more of the following lines:

JOIN TASK ASSOCIATION
This line appears if MEMASSOC=TASK was specified on the IXCJOIN invocation that caused the member to become active. The active member is associated with the task under which IXCJOIN was issued.

JOB STEP ASSOCIATION
This line appears if MEMASSOC=JOBSTEP was specified on the IXCJOIN invocation that caused the member to become active. The active member is associated with the job step task under which IXCJOIN was issued.

ADDRESS SPACE ASSOCIATION
This line appears if MEMASSOC=ADDRSPACE was specified on the IXCJOIN invocation that caused the member to become active. The active member is associated with the address space under which IXCJOIN was issued.

LASTING MEMBER
This line appears if LASTING=YES was specified on the IXCJOIN invocation that caused the member to become active. XCF preserves status information for lasting members that fail.

SYSTEM CLEANUP PARTICIPANT
This line appears if SYSCLEANUPMEM=YES was specified on the IXCJOIN invocation that caused the member to become active. XCF must wait for the member to clean up resources associated with a failed system before automatic resource management (ARM) can restart the batch jobs and started tasks that were previously running on the failed system.

RECOVERY MANAGER
This line appears if RECOVERYMGR=YES was specified on the IXCJOIN invocation that caused the member to become active. A member that acts as a recovery manager is responsible for coordinating sysplex-wide recovery processes.

CRITICAL MEMBER
This line appears if CRITICAL=YES was specified on the IXCJOIN invocation that caused the member

to become active. A critical member performs functions or provides services that are critical to the overall operation of the member's group. By extension, such functions or services can be critical to the overall operation of the system. If these functions or services are impaired long enough, the member may be terminated. Such termination can cause the system to be removed from the sysplex.

LOCAL CLEANUP NOT NEEDED
This line appears if LOCALCLEANUP=CONTINUE was specified on the IXCJOIN invocation that caused the member to become active. This indicates that the member will not need time to perform additional cleanup when the system on which it resides is being removed from the sysplex. XCF will not wait for the member to cleanup and will proceed to partitioning the system as soon as possible.

TERMLEVEL IS *termlevel*
The first member-specific termination action to be taken by XCF against the member when it is necessary to terminate the member. For any member, the indicated termination action will be applied if the SFM policy MEMSTALLTIME specification for the system on which the member is active allows XCF to take action to alleviate a sympathy sickness condition caused by the member. For critical members, the indicated action can also be applied if the member appears to be impaired. *termlevel* is one of the following values:

TASK
XCF will terminate the task from which the member invoked the IXCJOIN macro.

JOBSTEP
XCF will terminate the job step task from which the member invoked the IXCJOIN macro

ADDRSPACE
XCF will terminate the address space from which the member invoked the IXCJOIN macro.

SYSTEM
The system on which the member resides will enter into wait state and be removed from the sysplex.

MEMSTALL RESOLUTION IS *memstallaction*
The first member-specific action to be taken by XCF to resolve a member stall or impairment condition. For any member, the indicated termination action will be applied if the SFM policy MEMSTALLTIME specification for the system on which the member is active allows XCF to take action to alleviate a sympathy sickness condition caused by the member. For critical members, the indicated action can also be applied if the member appears to be impaired. *memstallaction* is one of the following actions:

NO ACTION
XCF will not take any action to resolve the member stall or impairment condition.

JOIN TASK TERMINATION AFTER *memstalltime* **SECONDS**
XCF will terminate the task from which the stalled or impaired member invoked the IXCJOIN macro.

JOB STEP TERMINATION AFTER *memstalltime* **SECONDS**
XCF will terminate the job step task from which the stalled or impaired member invoked the IXCJOIN macro.

ADDRESS SPACE TERMINATION AFTER *memstalltime* **SECONDS**
XCF will terminate the address space from which the stalled or impaired member invoked the IXCJOIN macro.

SYSTEM TERMINATION AFTER *memstalltime* **SECONDS**
The system on which the stalled or impaired member resides will be placed into wait state and be removed from the sysplex.

memstalltime
The amount of time XCF will wait before taking the indicated termination action.

EXITS DEFINED: *exits*
The user exits defined when the member invoked IXCJOIN to join its group. *exits* is one or more of the following:

NONE
No user exits were defined when the member joined the group.

MESSAGE
The member defined a message exit when it joined the group.

GROUP
The member defined a group exit when it joined the group.

NOTIFY
The member defined a notify exit when it joined the group.

STATUS
The member defined a status exit when it joined the group.

SIGNALLING SERVICE
The data that follows describes the use of the XCF Signalling Service by the member. One such line will appear for each different signal size used by the member.

msgoaccepted
Count of the number of IXCMSGOX or IXCMSGO requests issued by this member that were accepted by XCF for delivery. This number may wrap.

msgonobuffer
Count of the number of IXCMSGOX or IXCMSGO requests issued by this member that were rejected due to a lack of a signal buffer. Since applications may repeatedly reissue the IXCMSGOX or IXCMSGO request when rejected, this count may not accurately portray the number of messages that were impacted by the lack of buffers. This number may wrap.

msgoxfer
Count of the number of signals of the indicated size that were sent to other systems on behalf of the IXCMSGOX or IXCMSGO requests issued by the member. The number of signals sent may differ from the number of IXCMSGOX or IXCMSGO requests accepted because, for example, more than one signal may be sent for a particular message. Also the number of IXCMSGOX or IXCMSGO requests accepted includes messages sent to target members that reside on the same system. If the member starts sending messages before XCF is ready to accumulate the signal counts, they will not be included in the signal counts though they will be included in the IXCMSGOX or IXCMSGO request count. Discrepencies can also arise because the counts are not serialized (due to performance concerns). This number may wrap.

msgolocal
Count of the number of signals of the indicated size that were sent to the local system on behalf of the IXCMSGOX or IXCMSGO requests issued by the member. The number of signals sent may differ from the number of IXCMSGOX or IXCMSGO requests accepted because, for example, more than one signal may be sent for a particular message. Also the number of IXCMSGOX or IXCMSGO requests accepted includes messages sent to target members that reside on other systems. If the member starts sending messages before XCF is ready to accumulate the signal counts, they will not be included in the signal counts though they will be included in the IXCMSGOX or IXCMSGO request count. Discrepancies can also arise because the counts are not serialized (due to performance concerns). This number may wrap.

msgoblen
Indicates the signal buffer size used for the signals. The buffer length denotes the maximum number bytes of message data that signal buffers of this size can transfer.

MESSAGE TABLE
This line indicates the number of managed messages in various states. A message sent by the IXCMSGOX or IXCMSGO service is a managed message if the TIMEOUT keyword was specified and there is some aspect of the processing that is still pending. A message saved by the IXCMSGC SAVEMSG service is also a managed message.

sendpnd
Count of the number of managed messages that are in a pending state because a message still needs to be sent to one or more targets.

respnd
Count of the number of managed messages that are in a pending state because an expected response has not yet been received from one or more targets. There are no sends pending, only responses.

compltd
Count of the number of managed messages that are considered complete. There are no sends pending, and if applicable no responses pending.

mosaved
Count of the number of managed messages currently saved by the user notify exit routine.

misaved
Count of the number of managed messages currently saved by the user message exit routine. The count also includes responses currently saved by the user notify exit routine.

msgirecv
Count of the number of messages that were received on behalf of the member. This number may wrap.

msgipendq
Indicates the number of work items currently pending for the member. Generally these work items are signals containing message data to be delivered to the member. The items can also include internal work items that XCF performs to manage message delivery on behalf of the member.

msgixfercnt
Count of the number of signals received on behalf of the member from other systems. The number of signals received may differ from the number of messages received because, for example, more than one signal may be sent for a particular message. Also the number of messages received includes messages sent by members that reside on the same system. Discrepancies can also arise because the counts are not serialized (due to performance concerns). This number may wrap.

msgixfertm
The average signal transfer time, in microseconds, for signals recently received on behalf of the member from some other system in the sysplex. Signal transfer is measured from the time that XCF accepts the message for delivery to the time that the signal(s) arrive on the target system. For messages that require multiple signals, each signal contributes individually to the average (they are not aggregated to provide one single transfer time for the message as a whole). The transfer time does not include the time spent on the receiving system after the signal arrives but before the message is presented to the signal exit routine of the target member.

Up to 64 of the latest signals received are considered when computing the average transfer time. Signals received more than a minute ago are excluded from the average. For an infrequent receiver, excluding old signals can make it appear that its transfer time is changing even though it is not receiving any new signals. N/A is displayed if no data is available (no signals recently received or the sending system does not provide the necessary data). Average transfer times in excess of one second are displayed as 999999.

MSGI PENDINGQ:
Shows the distribution of these queued signals across the various buffers that XCF uses for message delivery.

io buffer
Count of the number of messages on the pending delivery queue that are consuming an I/O buffer. Failure to process these messages in a timely fashion could impact the ability of XCF to send and receive other signals.

drefnnnnnn
Count of the number of messages on the pending delivery queue that are consuming a DREF message buffer.

pageable
Count of the number of messages on the pending delivery queue that are consuming a pageable message buffer.

critical
Count of the number of messages on the pending delivery queue that are critical.

[! *]SYMPATHY SICK: *ssbuff sscrit*
The stalled member appears to be contributing to a sympathy sickness problem. If the member does not appear to be contributing to a sympathy sickness problem, `SYSMPATH SICK: 0 0` is displayed.

!* The line is flagged with an asterisk and an exclamation point to indicate that the stalled member appears to be contributing to a sympathy sickness problem

ssbuff
Count of the number of I/O buffers currently consumed by the member. Use of these buffers could be

contributing to the sympathy sickness. The count will be zero if the data is not available, or if the member does not appear to be contributing to sympathy sickness.

sscrit
Count of the number of stalled critical signals that are contributing to the sympathy sickness. The count will be zero if the data is not available, or if the member does not appear to be contributing to sympathy sickness.

! IMPACTED SYS: *sysname sysname sysname sysname*
Displays the names of the systems impacted by sympathy sickness. If the information is not available, or if the member is not contributing to sympathy sickness, this line is not displayed.

[*]EXIT
The exit routines are displayed in one the following formats:

EXIT
An exit routine that is not considered stalled by XCF will not be flagged.

***EXIT**
An exit routine that is considered stalled by XCF will be flagged with an asterisk. An exit is considered stalled if it has not made progress in a reasonable amount of time.

msgxtkn
Hexadecimal token used by XCF to identify an exit routine.

extime
The date and time when XCF most recently started some phase of exit processing (`mm/dd/yyyy hh:mm:ss:dddddd`). Usually this time will be when XCF last called the exit routine. If the exit is PENDING, this time indicates when XCF scheduled an SRB to give control to the exit routine. If the exit is PREPARING, this time indicates when XCF started doing setup work prior to calling the exit routine. If the exit is RUNNING, this time indicates when XCF called the exit routine. If XCF has not initiated processing for the exit routine, a dash will appear.

efc
A mnemonic code indicating the function that the exit routine is to perform. These codes have significance to IBM Service personnel.

- ME - standard message delivery
- OM - ordered message delivery
- CR - response collection
- MC - notification of message completion
- CX - recall signal exit per user request
- SP - large signal delivery (send)
- RP - large signal delivery (receive)

eytime
If the exit routine has completed, the amount of time the exit routine spent processing the work item (hh:mm:ss:dddddd) is shown. If the time spent exceeds 24 hours, the time spent is listed as "--over 24 hrs--". If the exit routine has not finished processing, then one of the following will be listed:

- PENDING to indicate that the work unit for the exit routine has not received control. For example, an SRB routine was scheduled to call the user message exit routine but has not yet been dispatched.
- PREPARING to indicate that the work unit is running but XCF is doing setup work needed for processing the work item.
- RUNNING to indicate that the exit routine is currently processing the work item.

If the processing state is not known, a dash will appear.

ITEM
A work item that is not considered stalled by XCF will not be flagged with an asterisk. A work item that is considered stalled by XCF will be flagged with an asterisk. A work item is considered stalled if it has been pending for an unreasonable amount of time.

Not all pending work items will necessarily appear in the display. If more than one work item is pending, at least the first and last work items will be shown.

itemtkn
Hexadecimal token used by XCF to identify the work item.

ixtime
The date and time when XCF created the work item (mm/dd/yyyy hh:mm:ss:dddddd).

ifc
A mnemonic code indicating the function of the work item. These codes have significance to IBM Service personnel. The codes directly related to delivery of a message are:

- ME - standard message delivery
- OM - ordered message delivery
- CR - response collection
- MC - notification of message completion
- CX - recall signal exit per user request
- SP - large signal delivery (send)
- RP - large signal delivery (receive)

iseqn
Sequence number assigned to the work item.

[!*] MISO
The message isolation (MISO) record documents a message isolation window. The record is reported in one of the following forms:

MISO
The member was message isolated, but not anymore. Messages targeted to this member are not being delayed or rejected due to message isolation. This record documents the duration of the isolation window. As applicable, system impact records (SIMP) are shown to document the duration of the impact windows.

! MISO
The member was message isolated, but not anymore. However, at least one system still appears to be residually impacted by the isolation window. A symptom impact record (SIMP) describes the impact. Impacted systems that have recognized the closing of the isolation window provide a SIMP record documenting the duration of the impact window.

***MISO**
The member is currently message isolated. There does not appear to be any impact as a result of the isolation. However, so long as the member remains message isolated, messages sent to the member can be delayed or rejected.

!*MISO
The member is currently message isolated. One or more members have been impacted by the isolation. One or more messages targeted to the member have been delayed or rejected by XCF. A system impact record (SIMP) describes the impact.

isosysnm
The name of the system that hosts the member that was message isolated.

misoStartTime
The date and time when XCF most recently isolated the member (mm/dd/yyyy hh:mm:ss.dddddd

windowSeq#
A sequence number that can be used to identify the isolation window for the member. XCF increments this member isolation sequence number each time a new isolation window is opened for the member.

misoDuration
If the isolation window has closed, the amount of time the member was message isolated (hh:mm:ss.dddddd). If the message isolation window exceeds 24 hours, the duration of the window is listed as "–over 24 hours".

SIMP
The system impact (SIMP) record documents the impact to a system that was affected by message isolation of the subject member. Requests by one or more members residing on the indicated system had messages delayed or rejected by XCF when attempting to send to the isolated member.

impsysnm
The name of the system whose members were impacted by isolation of the target member.

impactStarted
The date and time when XCF most recently started an impact window on system *impsysnm* (mm/dd/yyyy hh:mm:ss.dddddd) due to the message isolation of the subject member. After a system recognizes that a target member is message isolated, an impact window is opened when the first message sent to the isolated member is delayed or rejected by XCF. In general, impact windows and isolation windows will coincide fairly closely in time. But this need not always be the case. An impact window might never open or it might open long after the isolation window opens. For example, it might be the case that no member tries to send a message to the target member during its isolation window, or that the first attempt to send a message to the target member occurs long after the isolation window opens. Alternatively, the fact that a target member is message isolated might not be recognized in a timely manner. Thus, the sending system might continue to send messages to the isolated target member long after the isolation window closes if the sending system fails to recognize the closure of the isolation window in a timely manner. Indeed, a given impact window might span multiple isolation windows.

dr A two character mnemonic intended to succinctly describe the impact. The first character will either be a "D" or a "-" to respectively indicate whether or not the impact includes delayed messages. The second character will either be an "R" or a "-" to respectively indicate whether or not the impact includes rejected messages.

#delayed
The number of messages that were delayed due to message isolation. For values in excess of 9999, the counts are expressed in units of 1K, 1M, or 1G (roughly thousands, millions or billions). A value reported as 34K implies that somewhere between 34816 (=34k) and 35839(=35K-1) messages were delayed.

#rejected
The number of messages that were rejected due to message isolation. For values in excess of 9999, the counts are expressed in units of 1K, 1M, or 1G (roughly thousands, millions or billions).

impactDuration
If the impact window has closed, the amount of time the window was open (hh:mm:ss.dddddd). If the impact window exceeds 24 hours, the duration of the window is listed as "–over 24 hours". Typically, an impact window is closed when system *impsysnm* recognizes that the subject target member is no longer message isolated. The impact window is also closed if the target member becomes not active, or if all of the impacted sending members on system *impsysnm* become not active.

CRITICAL
The data that follows describes the managed critical messages being processed by the member. This line appears only if one or more critical messages are being processed.

[*]EXIT
The exit routines are displayed in one the following formats:

EXIT
An exit routine that is not considered stalled by XCF will not be flagged.

***EXIT**
An exit routine that is considered stalled by XCF will be flagged with an asterisk. An exit is considered stalled if it has not made progress in a reasonable amount of time.

crtxtkn
Hexadecimal token used by XCF to identify an exit routine.

crtextime
The date and time when XCF most recently started some phase of exit processing (`mm/dd/yyyy hh:mm:ss:dddddd`). Usually this time will be when XCF last called the exit routine. If the exit is PENDING, this time indicates when XCF scheduled an SRB to give control to the exit routine. If the exit is PREPARING, this time indicates when XCF started doing setup work prior to calling the exit routine. If the exit is RUNNING, this time indicates when XCF called the exit routine. If XCF has not initiated processing for the exit routine, a dash will appear.

crtefc
A mnemonic code indicating the function that the exit routine is to perform. These codes have significance to IBM service personnel.

ME Standard message delivery

OM Ordered message delivery

CR Response collection

RP Large signal delivery (receive)

crteytime
If the exit routine has completed, the amount of time the exit routine spent processing the work item (hh:mm:ss:dddddd) is shown. If the time spent exceeds 24 hours, the time spent is listed as "--over 24 hrs--". If the exit routine has not finished processing, then one of the following will be listed:

- PENDING to indicate that the work unit for the exit routine has not received control. For example, an SRB routine was scheduled to call the user message exit routine but has not yet been dispatched.
- PREPARING to indicate that the work unit is running but XCF is doing setup work needed for processing the work item.
- RUNNING to indicate that the exit routine is currently processing the work item.

If the processing state is not known, a dash will appear.

ITEM
A work item that is not considered stalled by XCF will not be flagged with an asterisk. A work item that is considered stalled by XCF will be flagged with an asterisk. A work item is considered stalled if it has been pending for an unreasonable amount of time.

crtitemtkn
Hexadecimal token used by XCF to identify the work item.

crtixtime
The date and time when XCF created the work item (`mm/dd/yyyy hh:mm:ss:dddddd`).

crtifc
A mnemonic code indicating the function that the exit routine is to perform. These codes have significance to IBM service personnel.

ME Standard message delivery

OM Ordered message delivery

CR Response collection

RP Large signal delivery (receive)

crtiseqn
Sequence number assigned to the work item.

GROUP SERVICE
The data that follows describes the use of the XCF Group Service by the member. Pending events will not necessarily appear in the display, regardless of how many are queued for delivery. This line appears only if a user group exit was specified at join time.

grpereceived
Count of the number of events that were received on behalf of the member. This number may wrap.

grpependingq
Indicates the number of group events that are currently pending delivery to the member.

[*]EXIT
The exit routines are displayed in one the following formats:

EXIT
An exit routine that is not considered stalled by XCF will not be flagged.

***EXIT**
An exit routine that is considered stalled by XCF will be flagged with an asterisk. An exit is considered stalled if it has not made progress in a reasonable amount of time.

grpxtkn
Hexadecimal token used by XCF to identify an exit routine.

grextime
The date and time when XCF most recently started some phase of exit processing (mm/dd/yyyy hh:mm:ss:dddddd). Usually this time will be when XCF last called the exit routine. If the exit is PENDING, this time indicates when XCF scheduled an SRB to give control to the exit routine. If the exit is PREPARING, this time indicates when XCF started doing setup work prior to calling the exit routine. If XCF has not initiated processing for the exit routine, a dash will appear.

grefc
A mnemonic code indicating the function that the exit routine is to perform. These codes correspond to the group event numbers defined in the macro IXCYGEPL for the GEPLTYPE field.

greytime
If the exit routine has completed, the amount of time the exit routine spent processing the work item (hh:mm:ss:dddddd) is shown. If the time spent exceeds 24 hours, the time spent is listed as "--over 24 hrs--". If the exit routine has not finished processing, then one of the following will be listed:

- PENDING to indicate that the work unit for the exit routine has not received control. For example, an SRB routine was scheduled to call the user message exit routine but has not yet been dispatched.
- PREPARING to indicate that the work unit is running but XCF is doing setup work needed for processing the work item.
- RUNNING to indicate that the exit routine is currently processing the work item.

If the processing state is not known, a dash will appear.

ITEM
A work item that is not considered stalled by XCF will not be flagged with an asterisk. A work item that is considered stalled by XCF will be flagged with an asterisk. A work item is considered stalled if it has been pending for an unreasonable amount of time.

grpitemtkn
Hexadecimal token used by XCF to identify the work item.

grpixtime
The date and time when XCF created the work item (mm/dd/yyyy hh:mm:ss:dddddd).

grpifc
A hexadecimal code indicating the function of the work item. These codes correspond to the group event numbers defined in the macro IXCYGEPL for the GEPLTYPE field.

grpiseqn
Sequence number assigned to the work item.

MONITOR SERVICE
The data that follows describes the use of the XCF monitoring service by the member.

statinterval
The member status-checking interval expressed in seconds. This value is derived from the INTERVAL keyword on the IXCJOIN macro, or as subsequently modified using the IXCMOD macro.

status
The status of the member reported by the XCF monitoring service. One of the following conditions apply:

CONFIRMED MISSING
The member status exit routine indicated that the member is in a status update missing condition.

DETECTED MISSING
XCF deemed the member to be status update missing because the member status exit did not respond within a reasonable amount of time.

MONITOR REMOVED
XCF is no longer monitoring the member status field because the status exit failed repeatedly or because the status field is inaccessible.

NORMAL
The member is operating normally.

STAT DETECTED: *mm/dd/yyyy hh:mm:ss.dddddd*
The date and time when XCF first detected that the member status had changed to the indicated status.

LAST VERIFIED: *mm/dd/yyyy hh:mm:ss.dddddd*
The date and time when XCF most recently verified the member status.

[*]EXIT *stxtkn*: *stxtime stxfc stxtime*
The exit routines are displayed in one the following formats:

EXIT
An exit routine that is not considered stalled by XCF will not be flagged.

***EXIT**
An exit routine that is considered stalled by XCF will be flagged with an asterisk. An exit is considered stalled if it has not made progress in a reasonable amount of time.

stxtkn
Hexadecimal token used by XCF to identify an exit routine.

stxtime
The date and time when XCF most recently started some phase of exit processing (`mm/dd/yyyy hh:mm:ss:dddddd`). Usually this time will be when XCF last called the exit routine.

- If the exit is PENDING, this time indicates when XCF scheduled an SRB to give control to the exit routine.
- If the exit is PREPARING, this time indicates when XCF started doing setup work before calling the exit routine.
- If the exit is RUNNING, this time indicates when XCF called the exit routine.
- If XCF has not initiated processing for the exit routine, a dash will appear.

stxfc
A mnemonic code indicating the function that the exit routine is to perform.

SR The exit routine is to check for status update resumed.

SM The exit routine is to check for status update missing.

– XCF has not initiated processing for the exit routine.

stxtime

- If the exit routine has completed, the amount of time the exit routine spent processing the work item (hh:mm:ss:dddddd) is shown.
- If the time spent exceeds 24 hours, the time spent is listed as "--over 24 hrs--".
- If the exit routine has not finished processing, one of the following will be listed:

  PENDING
  The work unit for the exit routine has not received control. For example, an SRB routine was scheduled to call the user status exit routine but has not yet been dispatched.

  PREPARING
  The work unit is running but XCF is doing setup work needed for processing the work item.

  RUNNING
  The exit routine is currently processing the work item.

  FAILED
  The exit routine has failed.

  DEACTIVATED
  The status monitoring was removed because the exit routine failed repeatedly or because the status field is inaccessible.
- If the processing state is not known, a dash will appear.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC334I *hh.mm.ss* **DISPLAY XCF SYSPLEX** *sysplex-name*: *sysname sysname sysname sysname*
SYSPLEX INITIALIZATION TIME: *time*

Explanation: In response to a DISPLAY XCF command, this message displays sysplex data. This message lists all the systems known within the sysplex.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

sysplex-name
The sysplex being displayed.

sysname
The system in the sysplex.

time
The date and time that the sysplex was initialized.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC336I *hh.mm.ss* **DISPLAY XCF** *text*
SYSTEM TYPE SERIAL LPAR STATUS TIME SYSTEM STATUS
sysname type serial lpar m/dd/yyyy status
SYSTEM STATUS DETECTION PARTITIONING PROTOCOL CONNECTION EXCEPTIONS:
local_limit **SYSTEM EXCEPTION** *conn_sys conn_exception*
DIAG INFO: *bcpiiservice faileddatetime retcode*
SYSTEM ABEND CODE: *abendcode* **ABEND REASON CODE:** *abendrsncode*
TIME OF FAILURE: *abenddatetime*
SYSPLEX INITIALIZATION TIME: *time*

Explanation: In response to a DISPLAY XCF command, this message displays sysplex data for a specific system or all systems.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

sysplex-name
The sysplex being displayed.

sysname
The system being displayed.

type
The type of the system being displayed.

serial.
The last four hexadecimal digits of the machine serial number of the machine on which the system being displayed is running

lpar
The LPAR number of the system being displayed.

mm/dd/yyyy hh:.mm:.ss
The last time stamp recorded for status monitoring on this system.

status
One of the following: :

BEING REMOVED
XCF is removing the system from the sysplex. This can mean that:

- A VARY XCF command was entered to remove the system from the sysplex.
- The system lost signalling connectivity to the other systems in the sysplex.
- The system lost access to the common clock being used by the sysplex.

msysname is the system name of the system that is monitoring the removal of system *msysname*from the sysplex. If the monitoring system cannot be determined, *msysname* appears as N/A

MONITOR-DETECTED STOP
The system has not updated its status on the couple data set within the time interval specified on that COUPLExx parmlib member of the system. This can mean that:

- The system is issuing an SVC dump.
- The system is going through reconfiguration.
- A spin loop is occurring.
- The operator pressed stop.
- The system is in a restartable wait state.
- The system lost access to the couple data set.

XCF-LOCAL MODE
The system is running in XCF-local mode. No other systems can join a sysplex in XCF-local mode. The sysplex is not using couple data sets.

XCF-LOCAL MODE TM=SIMETR
The system is running in XCF-local mode. No other systems can join a sysplex in XCF-local mode. The sysplex is not using couple data sets. The TOD clock of this system is synchronized by simulated ETR.

XCF-LOCAL MODE TM=ETR
The system is running in XCF-local mode. No other systems can join a sysplex in XCF-local mode. The sysplex is not using couple data sets. The TOD clock of this system is synchronized by stepping to the ETR Sysplex Timer.

XCF-LOCAL MODE TM=STP
The system is running in XCF-local mode. No other systems can join a sysplex in XCF-local mode. The sysplex is not using couple data sets. The TOD clock of this system is synchronized by steering to the ETR Sysplex Timer or to the STP Facility.

XCF-LOCAL MODE TM=LOCAL
The system is running in XCF-local mode. No other systems can join a sysplex in XCF-local mode. The sysplex is not using couple data sets. The TOD clock of this system is not synchronized to any external time source.

MONOPLEX MODE
The system is running in monoplex mode which prevents any other systems from joining this sysplex. The sysplex is using couple data sets.

MONOPLEX MODE TM=SIMETR
The system is running in monoplex mode which prevents any other systems from joining this sysplex. The sysplex is using couple data sets. The TOD clock of this system is synchronized by simulated ETR.

MONOPLEX MODE TM=ETR
The system is running in monoplex mode which prevents any other systems from joining this sysplex. The sysplex is using couple data sets. The TOD clock of this system is synchronized by stepping to the ETR Sysplex Timer.

MONOPLEX MODE TM=STP
The system is running in monoplex mode which prevents any other systems from joining this sysplex. The sysplex is using couple data sets. The TOD clock of this system is synchronized by steering to the ETR Sysplex Timer or to the STP Facility.

MONOPLEX MODE TM=LOCAL
The system is running in monoplex mode which prevents any other systems from joining this sysplex. The sysplex is using couple data sets. The TOD clock of this system is not synchronized to any external time source.

PARTITIONING CLEANUP
XCF is in the process of removing a system from the sysplex.

ACTIVE
The system is running and has updated its status on the couple data set within the last time interval as defined in the system's COUPLExx parmlib member.

ACTIVE TM=ETR
The system is running and has updated its status on the couple data set within the last time interval as defined in the system's COUPLExx parmlib member. The TOD clock of this system is synchronized by stepping to the ETR Sysplex Timer.

ACTIVE TM=SIMETR
The system is running and has updated its status on the couple data set within the last time interval as defined in the system's COUPLExx parmlib member. The TOD clock of this system is synchronized by simulated ETR.

ACTIVE TM=STP
The system is running and has updated its status on the couple data set within the last time interval as defined in the system's COUPLExx parmlib member. The TOD clock of this system is synchronized by steering to the ETR Sysplex Timer or to the STP Facility.

ACTIVE TM=LOCAL
The system is running and has updated its status on the couple data set within the last time interval as defined in the system's COUPLExx parmlib member. The TOD clock of this systemk is not synchronized to any external time source.

local_limit
The reason the local system cannot establish connection to any CPC images in the sysplex through BCPii callable services. *local_limit* is one of the following:

SYSPLEX COUPLE DATA SET NOT FORMATTED FOR THE SSD PROTOCOL
The primary sysplex couple data set was not formatted to support the larger records required by the system status detection partitioning protocol.

SSD NOT ENABLED BY LOCAL SYSTEM INSTALLATION
The local system installation has not enabled the system status detection partitioning protocol by specifying ENABLE(SYSSTATDETECT) either in the COUPLExx parmlib member FUNCTIONS statement or on a SETXCF FUNCTIONS command.

OPERATING AS VM GUEST
This system is operating as a second-level guest under the VM operating system. In this environment, the system services necessary to make the connections are not available.

BCPII SERVICES NOT AVAILABLE
The BCPii service is not available. The system requires BCPii services to connect to any image.

PROTOCOL NOT APPLICABLE IN MONOPLEX MODE
The local system is running in MONOPLEX mode. A system in MONOPLEX mode is restricted to a single system sysplex, and has no need for using the system status detection partitioning protocol.

PROTOCOL NOT APPLICABLE IN XCF-LOCAL MODE
The local system is running in XCF-LOCAL mode. A system in XCF-LOCAL mode is restricted to a single system, and has no need for using the system status detection partitioning protocol.

NONE
The local system is connected to one or more target systems through the BCPii callable services.

conn_sys
The name of the system to which the local image failed to connect.

conn_exception
The reason the local system cannot establish a connection to the target CPC image through BCPii callable services. *conn_exception* is one of the following:

NOT SUPPORTED BY OPERATING SYSTEM RELEASE
The target system is at a system level earlier than z/OS V1R11. A system at these earlier z/OS release levels does not publish its network information required for another system to connect to it.

SSD NOT ENABLED BY REMOTE SYSTEM INSTALLATION
The remote system installation has not enabled the system status detection partitioning protocol by specifying ENABLE(SYSSTATDETECT) either in the COUPLExx parmlib member FUNCTIONS statement or on a SETXCF FUNCTIONS command.

INSUFFICIENT SAF RESOURCE ACCESS AUTHORITY
The local system has insufficient authorization to access SAF-protected resources associated with BCPii callable services.

REMOTE SYSTEM NETWORK INFORMATION NOT AVAILABLE
The target system never published its network identification information required for the local system to establish a connection. The required information includes the IPL token, image name, and network address. Possible reasons the target system fails to publish this information include:

- The CPC on which this system resides does not support the functions necessary for the target system to communicate its IPL token.
- The BCPii callable services are not available on the target system.

UNEXPECTED SYSTEM SERVICE ERROR
An unexpected return code was received from a BCPii callable service preventing the local system from connecting to the target system.

CONNECTION IN PROGRESS
The local image is attempting to connect to the target system, but a connection has not been established yet.

BCPII SERVICES NOT AVAILABLE
BCPii services are not available. The system status detection partition protocol requires BCPii services to be available on the local system to connect to the target system and to collect necessary information to publish the local IPL Token, CPC network address and image name.

N/A

NOT SUPPORTED BY HARDWARE
The CPC on which this system resides does not support the functions necessary for this system to communicate its IPL token.

SYSTEM OR HARDWARE ERROR
A system or hardware error prevented this system from obtaining and communicating its IPL token, network address or image name or connecting to the BCPii Hardware Management Interface.

bcpiiservice
The name of the BCPii callable service that failed *bcpiiservice* is one of the following services:

- HwiConn
- HwiList
- HwiQuery
- HwiEvent
- HwiCmd
- HwiDisc

faileddatetime
The date and time when the failed BCPii callable service was invoked (mm/dd/yyyy hh:ss:dddddd).

retcode
The return code from the BCPii callable service that failed. This is diagnostic data that might be of use to IBM.

diagdata
Diagnostic data that was returned by *bcpiiservice* to help determine the cause of the service failure.

abendcode
The system abend code that occurred when attempting to connect to system *conn_sys*.

abendrsncode
The abend reason code associated with the *abendcode*.

abenddatetime
The time and date when the system abend occurred in mm/dd/yyyy hh:mm:ss:dddddd format.

time
The date and time that the sysplex was initialized.

System action: The system continues processing.

Operator response: Not Applicable.

System programmer response: Not Applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5, 8, 9

IXC337I *hh.mm.ss* **DISPLAY XCF**
SYSPLEX *sysplex-name* **MODE:** *plex_mode*
SYSTEM *system-name* **STATUS:** *system-status*
system-status
BEING REMOVED - *monitorsystem*
TIMING: *system-timing*
STATUS TIME: *activetime*
JOIN TIME: *jointime*
SYSTEM NUMBER: *system-number*
SYSTEM IDENTIFIER: *system-identifier1 system-identifier2*
SYSTEM TYPE: *system-type* **SERIAL:** *system-serial* **LPAR:** *lpar*
NODE DESCRIPTOR: *type.mfg.plant.sequence*
PARTITION: *partition side* **CPCID:** *cpcid*
RELEASE: *nam ver.rel.mod*
SYSTEM STATUS DETECTION PARTITIONING PROTOCOL CONNECTION EXCEPTIONS:
[*local_limit* **| NONE]**
[SYSTEM EXCEPTION *conn_sys con_exception***]**
[DIAG INFO: *bcpiiservice faileddatetime* **RC=***retcode diagdata***]**
[SYSTEM ABEND CODE: *abendcode***] [ABEND REASON CODE:** *abendrsncode***]**
[TIME OF FAILURE: *abenddatetime***]**
SYSPLEX INITIALIZATION TIME: *time*

Explanation: In response to a DISPLAY XCF command, this message displays sysplex data for a specific system or all systems.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

sysplex-name
The sysplex being displayed.

plex_mode
The mode that the sysplex is running. *plex_mode* is one of the following:

XCF-LOCAL
The sysplex is running in XCF-LOCAL mode.

MONOPLEX
The sysplex is running in MONOPLEX mode.

MULTISYSTEM-CAPABLE
The sysplex is running in MULTISYSTEM-CAPABLE mode.

system-name
The system being displayed.

system-status
The status of the system being displayed.

monitorsysname
The system name of the system that is monitoring'the removal of the system being removed.

system-timing
The sysplex timing method on the system.

activetime
The date and time when the system saved status.

jointime
TThe date and time when the system became active in the sysplex.

system-number
System number used to identify the system in a sysplex.

system-identifier1

system-identifier2
System identifier used to identify a system in the sysplex.

system-type
The system type being displayed.

system-serial
The last four hexadecimal digits of the machine serial number of the machine on which the system being displayed is running

lpar
The LPAR number of the system being displayed N/A if the system is not an LPAR PR/SM system or is running under VM.

NODE DESCRIPTOR
The displaying of NODE DESCRIPTOR information is dependent on the availability of that information for a system in the sysplex couple data set. When available, extended NODE DESCRIPTOR information will be displayed.

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The system is on SIDE 0 of a partitionable CPC.

SIDE: 1
The system is on SIDE 1 of a partitionable CPC.

⌂ The system is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

RELEASE
This information is available under the following conditions:

- For the system from which the DISPLAY XCF,SYSPLEX command was issued, the information is always available.

- For other systems, the information is available when the primary sysplex couple data set is formatted to support the system status detection protocol (SSTATDET).

N/A indicates that the information is not available for *system-name*.

nam
Product name (see ecvtpnam in IHAECVT).

ver
Product version (see ecvtpver in IHAECVT).

rel
Product release (see ecvtprel in IHAECVT).

mod
Product mod level (see ecvtpmod in IHAECVT).

local_limit
The reason the local system cannot establish connection to any CPC images in the sysplex through BCPii callable services. *local_limit* is one of the following:

SYSPLEX COUPLE DATA SET NOT FORMATTED FOR THE SSD PROTOCOL
The primary sysplex couple data set was not formatted to support the larger records required by the system status detection partitioning protocol.

SSD NOT ENABLED BY LOCAL SYSTEM INSTALLATION
The local system installation has not enabled the system status detection partitioning protocol by specifying ENABLE(SYSSTATDETECT) either in the COUPLExx parmlib member FUNCTIONS statement or on a SETXCF FUNCTIONS command.

OPERATING AS VM GUEST
This system is operating as a second-level guest under the VM operating system. In this environment, the system services necessary to make the connections are not available.

BCPII SERVICES NOT AVAILABLE
The BCPii service is not available. The system requires BCPii services to connect to any image.

PROTOCOL NOT APPLICABLE IN MONOPLEX MODE
The local system is running in MONOPLEX mode. A system in MONOPLEX mode is restricted to a single system sysplex, and has no need for using the system status detection partitioning protocol.

PROTOCOL NOT APPLICABLE IN XCF-LOCAL MODE
The local system is running in XCF-LOCAL mode. A system in XCF-LOCAL mode is restricted to a single system, and has no need for using the system status detection partitioning protocol.

NONE
The local system is connected to one or more target systems through the BCPii callable services.

conn_sys
The name of the system to which the local image failed to connect.

conn_exception
The reason the local system cannot establish a connection to the target CPC image through BCPii callable services. *conn_exception* is one of the following:

NOT SUPPORTED BY OPERATING SYSTEM RELEASE
The target system is at a system level earlier than z/OS V1R11. A system at these earlier z/OS release levels does not publish its network information required for another system to connect to it.

SSD NOT ENABLED BY REMOTE SYSTEM INSTALLATION
The remote system installation has not enabled the system status detection partitioning protocol by specifying ENABLE(SYSSTATDETECT) either in the COUPLE*xx* parmlib member FUNCTIONS statement or on a SETXCF FUNCTIONS command.

INSUFFICIENT SAF RESOURCE ACCESS AUTHORITY
The local system has insufficient authorization to access SAF-protected resources associated with BCPii callable services.

REMOTE SYSTEM NETWORK INFORMATION NOT AVAILABLE
The target system never published its network identification information required for the local system to

establish a connection. The required information includes the IPL token, image name, and network address. Possible reasons the target system fails to publish this information include:

- The CPC on which this system resides does not support the functions necessary for the target system to communicate its IPL token.
- The BCPii callable services are not available on the target system.

UNEXPECTED SYSTEM SERVICE ERROR
An unexpected return code was received from a BCPii callable service preventing the local system from connecting to the target system.

CONNECTION IN PROGRESS
The local image is attempting to connect to the target system, but a connection has not been established yet.

BCPII SERVICES NOT AVAILABLE
BCPii services are not available. The system status detection partition protocol requires BCPii services to be available on the local system to connect to the target system and to collect necessary information to publish the local IPL Token, CPC network address and image name.

NOT SUPPORTED BY HARDWARE
The CPC on which this system resides does not support the functions necessary for this system to communicate its IPL token.

SYSTEM OR HARDWARE ERROR
A system or hardware error prevented this system from obtaining and communicating its IPL token, network address, or image name; or connecting to the BCPii Hardware Management Interface.

bcpiiservice
The name of the BCPii callable service that failed. *bcpiiservice* is one of the following services:

- HwiConn
- HwiList
- HwiQuery
- HwiEvent
- HwiCmd
- HwiDisc

faileddatetime
The date and time when the failed BCPii callable service was invoked (mm/dd/yyyy hh:ss:dddddd).

retcode
The return code from the BCPii callable service that failed. This is diagnostic data that might be of use to IBM.

diagdata
Diagnostic data that was returned by bcpii service to help determine the cause of the service failure.

abendcode
The system abend code that occurred when attempting to connect to system *conn_sys*.

abendrsncode
The abend reason code associated with the *abendcode*.

abenddatetime
The time and date when the system abend occurred in mm/dd/yyyy hh:mm:ss:dddddd format.

time
The date and time that the sysplex was initialized.

System action: The system continues processing.

Operator response: Not Applicable.

System programmer response: Not Applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5, 8, 9

IXC338I SERVER NAME FILTER NOT ACCEPTED: *value reason*

Explanation: XCF found incorrect syntax specified on the TRACE CT command for SRVNAME filtering. *reason* in the message text describes the error.

In the message text:

value
Identifies a SRVNAME or character that is not valid.

reason
Describes the reason why *value* is not valid. *reason* is one of the following:

EXCEEDS THE MAXIMUM LENGTH
value must not exceed thirty-seven (37) characters in length.

IS AN INVALID CHARACTER FOR A SERVER NAME
value identifies a character that is not valid for a server name. To be valid, a server name must meet the following format criteria:

- Server names can consist of four 8 byte sections separated by a period (.).
- Each 8 byte section must be left justified, padded on the right with EBCDIC blanks as needed.
- Each section can contain any alphanumeric (A-Z, a-z, 0-9), national (@,#,$), or underscore (_) character.
- Any section but the first can be entirely blank.
- Any section can contain the asterisk (*) wild card character that can be used to match zero (0) or more characters (for example, ABC*.*).
- If the server name contains case sensitive characters (that is, lower case a-z), the *value* can be entered within single quotes ('...'). The single quotes count as two input characters.

INVALID DELIMITER SPECIFIED OR DELIMITER MISSING
The SRVNAME keyword was entered with a missing delimiter or a delimiter that is not valid. The options and list of server names must be enclosed within parenthesis. For example:

```
options=(srvname=(ABC*.*,a.b)),end
```

System action: XCF ignores the incorrect SRVNAME input. The TRACE CT command is not successful.

Operator response: Notify the system programmer.

System programmer response: Correct the input specified for the SRVNAME filter option and re-enter the TRACE CT command.

Module: IXCC1TCP

Routing code: 1, 2

Descriptor code: 5

IXC339I *hh.mm.ss* **DISPLAY XCF [WARNING: INFORMATION MAY NOT BE CURRENT] THERE ARE NO GROUPS DEFINED TO THIS SYSPLEX**

Explanation: A DISPLAY XCF,GROUP command was entered to display the groups in this sysplex, but no groups are defined to this sysplex.

If the **WARNING: INFORMATION MAY NOT BE CURRENT** message appears in the message text, the system was unable to obtain the most current data from the sysplex couple data set. The system uses a local copy of the sysplex couple data set information instead, which may not have the most current data. The data will be current for members on the system where the DISPLAY command was issued.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC340I *hh.mm.ss* **DISPLAY XCF [WARNING: INFORMATION MAY NOT BE CURRENT] GROUP** *groupname* **IS NOT DEFINED TO THIS SYSPLEX**

Explanation: A DISPLAY XCF,GROUP,*groupname* command was entered to display a specific group. The requested group is not defined to XCF.

If the **WARNING: INFORMATION MAY NOT BE CURRENT** message appears in the message text, the system was unable to obtain the most current data from the sysplex couple data set. The system uses a local copy of the sysplex couple data set information instead, which may not have the most current data. The data will be current for members on the system where the DISPLAY command was issued.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

groupname
The group name specified in the DISPLAY command.

System action: The system continues processing.

Operator response: Enter a DISPLAY XCF,GROUP command to get a list of groups currently defined to the sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC341I *hh.mm.ss* **DISPLAY XCF LOCALMSG CLASS MAXMSG** *classname maxmsg*

Explanation: In response to a DISPLAY XCF command, this message displays signalling resources for the local system.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

CLASS *classname*
The transport class.

MAXMSG *maxmsg*
The current amount of message buffer space, in kilobytes, provided in addition to the default defined for local message traffic in this class.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP, IXCO1DC2

Routing code: #.

Descriptor code: 5,8,9

IXC343I *hh.mm.ss* **DISPLAY XCF TRANSPORT CLASS:***classname* **....***classname* **....**

Explanation: In response to a DISPLAY XCF command, this message displays the transport classes currently defined to the sysplex. This message lists all the transport class names.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

classname
The transport class name.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP, IXCO1DC2

Routing code: #

Descriptor code: 5,8,9

IXC344I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

```
TRANSPORT  CLASS   DEFAULT  ASSIGNED
CLASS      LENGTH  MAXMSG   GROUPS
classname  classln maxmsg   groupname ....
                            groupname ....
                            groupname ....
tclassname TRANSPORT CLASS USAGE FOR SYSTEM
sysname SUM: MAXMSG: maxmsgavail IN USE:
maxmsginuse NOBUFF: msgnobuffer
```

In response to a DISPLAY XCF,CLASSDEF command, this message displays detailed data for specific transport classes.

If the GROUP keyword was used with the DISPLAY XCF,CLASSDEF command, but the requested group name was not explicitly assigned to a transport class, then the classes for the undesignated groups are displayed. **UNDESIG** appears as one of the assigned groups for each of the transport classes listed.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

TRANSPORT CLASS *classname*
The transport class name.

CLASS LENGTH *classln*
The current length, in bytes, of messages allowed for this transport class. *classln* is defined either when the transport class is defined or with the SETXCF MODIFY,CLASSDEF command.

DEFAULT MAXMSG *maxmsg*
The amount of space, in kilobytes, of message buffer space defined for this transport class.

ASSIGNED GROUPS *groupname*
A group that has been assigned to this transport class. The **UNDESIG** is used in place of group names for all the undesignated groups assigned to the class.

tclassname **TRANSPORT CLASS USAGE FOR SYSTEM** *sysname*
Identifies the transport class and target system that is the subject of the detailed information. The following information will appear for each class and possible target system where the D XCF,CLASSDEF,... was issued.

tclassname
Name of the XCF Transport Class

sysname
Name of the target system

SUM: MAXMSG: *maxmsgavail* **IN USE:** *maxmsginuse* **NOBUFF:** *msgnobuffer*
Summarizes the buffer use for each system. The following information will appear for each target system.

maxmsgavail
Amount of message buffer space in 1K units that can be used for messages targeted to the indicated system.

maxmsginuse
Amount of message buffer space in 1K units that is currently in use.

msgonobuffer
Count of the number of IXCMSGOX or IXCMSGO requests that attempted to use this transport class but were rejected due to a lack of a signal buffer. Since applications may repeatedly reissue the IXCMSGOX or IXCMSGO request when rejected, this count may not accurately portray the number of messages that were impacted by the lack of buffers. This number may wrap.

SEND CNT: *signalcnt* **BUFFLEN (***bufftype***):** *msgobufflen*
One such line will appear for each different signal size that was used. A line appears for the defined transport class size, even if it was not used.

signalcnt
Count of the number of signals of the indicated size that were sent to the indicated target system on behalf of IXCMSGOX or IXCMSGO requests issued by an XCF member. The number of signals sent may differ from the number of IXCMSGOX or IXCMSGO requests accepted because, for example, more than one signal may be sent for a particular message. This number may wrap.

bufftype
One of the following:

- SML - Signal size is smaller than the defined transport class size.
- FIT - Signal size is the defined transport class size.
- BIG - Signal size is bigger than the defined transport class size.

msgobufflen
Indicates the signal buffer size used for the signals. The buffer length denotes the maximum number bytes of message data that signal buffers of this size can transfer. Note that the classification of the buffer length as SML, FIT, or BIG is determined by the current transport class definition. If the CLASSLEN specification for the transport class is modified, the buffer classification may change. Changes to the classification do not affect the counts for a particular buffer size.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP, IXCO1DC2

Routing code: #

Descriptor code: 5,8,9

IXC345I *hh.mm.ss* **DISPLAY XCF SPECIFIED TRANSPORT CLASSESNOT DEFINED TO XCF**

Explanation: The operator entered a DISPLAY XCF command to display transport classes, but the transport classes requested were not defined to XCF.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

System action: The system continues processing.

Operator response: Enter the DISPLAY XCF,CLASSDEF command without specifying transport classes to display the transport classes defined to XCF.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC346I *hh.mm.ss* **DISPLAY XCF SPECIFIED GROUP IS NOTASSIGNED TO ANY TRANSPORTCLASSES**

Explanation: The operator entered a DISPLAY XCF,CLASSDEF command, but the group requested is not assigned to any of the transport classes.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

System action: The system continues processing.

Operator response: If the response is unexpected, reenter the DISPLAY command with the correct group name. If the problem persists after the name is corrected, notify the system programmer.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP, IXCO1DC2

Routing code: #

Descriptor code: 5,8,9

IXC347I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

```
 [THE REALLOCATE PROCESS STARTED ON mm/dd/yyyy AT hh:mm:ss.dd.]
 [THE REALLOCATE STOP WAS REQUESTED ON mm/dd/yyyy AT hh:mm:ss.dd.]
 [THE REALLOCATE PROCESS IS IN PROGRESS. |
  THE REALLOCATE PROCESS IS STOPPING. |
  THE REALLOCATE PROCESS ENDED ON mm/dd/yyyy AT hh:mm:ss.dd.]

 [COUPLING FACILITY STRUCTURE ANALYSIS PERFORMED FOR REALLOCATE TEST.]
 [-----------------------------------------------------------------]
 [STRUCTURE(S) WITH AN ERROR/EXCEPTION CONDITION]
 [STRUCTURE(S) WITH A WARNING CONDITION]
 [STRUCTURE(S) REALLOCATED SUCCESSFULLY]
 [STRUCTURE(S) ALREADY ALLOCATED IN PREFERRED CF(S)]

 [NONE]

[STRNAME: strname                          INDEX: strnum]

  [PENDING POLICY CHANGE - CHANGE]
  [PENDING POLICY CHANGE - DELETE]

  [SIMPLEX STRUCTURE ALLOCATED IN CF(S) NAMED: cfname01]
  [DUPLEXED STRUCTURE ALLOCATED IN CF(S) NAMED: cfname01 cfname02]
  [ACTIVE POLICY INFORMATION USED.]
  [PENDING POLICY INFORMATION USED.]
  [ACTIVE POLICY INFORMATION USED BUT EXCLUSION LIST WAS IGNORED.]
  [PENDING POLICY INFORMATION USED BUT EXCLUSION LIST WAS IGNORED.]

  [CFNAME     STATUS/FAILURE REASON
   --------   ----------------------------------------------------]
  [cfname    strcfrsn

|                          [INFO110: hexdata hexdata hexdata hexdata]
|                                   [hexdata hexdata hexdata hexdata]


  [0 REALLOCATE STEP(S): NOT ATTEMPTED BECAUSE
   strrsn [hexrsn]]
  [1 REALLOCATE STEP(S): REBUILD]
  [1 REALLOCATE STEP(S): KEEP=OLD]
  [1 REALLOCATE STEP(S): KEEP=NEW]
  [1 REALLOCATE STEP(S): DUPLEX]
  [2 REALLOCATE STEP(S): KEEP=OLD, DUPLEX]
```

```
  [2 REALLOCATE STEP(S): KEEP=NEW, DUPLEX]
  [2 REALLOCATE STEP(S): KEEP=OLD, REBUILD]
  [2 REALLOCATE STEP(S): KEEP=NEW, REBUILD]
  [2 REALLOCATE STEP(S): REBUILD, DUPLEX]
  [3 REALLOCATE STEP(S): KEEP=OLD, REBUILD, DUPLEX]
  [3 REALLOCATE STEP(S): KEEP=NEW, REBUILD, DUPLEX]


  [REALLOCATE EVALUATION PENDING]
  [TARGET OF REALLOCATE PROCESS]
  [REALLOCATE STEP(S) INCOMPLETE WHEN REALLOCATE PROCESS ENDED]

  [ERROR ON SYSTEM system ON mm/dd/yyyy AT hh:mm:ss.dd
   THE REQUIRED {REBUILD|DUPLEXING REBUILD} WAS NOT STARTED BECAUSE
   strrsn]

  [EXCEPTION ON SYSTEM system ON mm/dd/yyyy AT hh:mm:ss.dd
   THE REQUIRED {REBUILD|DUPLEXING REBUILD} WAS STOPPED DUE TO
   strrsn]

  [COMPLETED ON SYSTEM system ON mm/dd/yyyy AT hh:mm:ss.dd]

  [EVALUATED ON SYSTEM system ON mm/dd/yyyy AT hh:mm:ss.dd]

  [POLICY CHANGE MADE]

 ...

 [COUPLING FACILITY STRUCTURE ANALYSIS OUTPUT FOR REALLOCATE TEST]

 [CFNAME: cfname_a
   COUPLING FACILITY     :   type.mfg.plant.sequence
                             PARTITION: partition side CPCID: cpcid

  [ALLOCATION NOT PERMITTED]
     [MAINTENANCE MODE]
     [POLICY CHANGE PENDING - DELETE]
     [COUPLING FACILITY FAILED]
     [COUPLING FACILITY IN CLEANUP]

  [NO SYSTEMS ARE CONNECTED TO THIS COUPLING FACILITY]
  [CONNECTED SYSTEM(S):]
   sysname sysname sysname sysname sysname sysname sysname]

  [NO ACTIVE STRUCTURES ARE ALLOCATED IN THIS COUPLING FACILITY]
  [ACTIVE STRUCTURE(S):
   strnamestat strnamestat strnamestat]

  [strcnt STRUCTURE(S) PENDING DEALLOCATION DUE TO DUMP IN PROGRESS]

 ]
 ...

[REALLOCATE {TEST|PROCESSING} RESULTED IN THE FOLLOWING:]
[   numadj1  STRUCTURE(S) REALLOCATED — SIMPLEX
    numadj2  STRUCTURE(S) REALLOCATED — DUPLEXED
    numpol1  STRUCTURE(S) POLICY CHANGE MADE — SIMPLEX
    numpol2  STRUCTURE(S) POLICY CHANGE MADE — DUPLEXED
     numok1  STRUCTURE(S) ALREADY ALLOCATED IN PREFERRED CF - SIMPLEX
     numok2  STRUCTURE(S) ALREADY ALLOCATED IN PREFERRED CF — DUPLEXED
    numnotp  STRUCTURE(S) NOT PROCESSED
    numnota  STRUCTURE(S) NOT ALLOCATED
    numnotd  STRUCTURE(S) NOT DEFINED
   --------
   numtotal  TOTAL

    numerrs  STRUCTURE(S) WITH AN ERROR/EXCEPTION CONDITION
```

]

[numrana STRUCTURE(S) MISSING PREVIOUS REALLOCATE DATA]

In response to a DISPLAY XCF,REALLOCATE command, this message provides details of the most recent REALLOCATE process or what can be expected of the subsequent REALLOCATE processing.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

THE REALLOCATE PROCESS STARTED ON *mm/dd/yyyy* **AT** *hh:mm:ss.dd*.
The information in the message is for a real REALLOCATE process and is provided for the DISPLAY XCF,REALLOCATE,REPORT system command. Message IXC543I is issued at the indicated date and time to identify the start of the REALLOCATE process.

THE REALLOCATE STOP WAS REQUESTED ON *mm/dd/yyyy* **AT** *hh:mm:ss.dd*.
The information in the message is for a real REALLOCATE process. Message IXC543I is issued at the indicated date and time to identify a request to stop the REALLOCATE process.

THE REALLOCATE PROCESS IS IN PROGRESS.
The information in the message is for a real REALLOCATE process. The REALLOCATE process is initiated by the SETXCF START,REALLOCATE operator command. When started, the REALLOCATE process examines each allocated structure to determine whether the location of any instance needs to be adjusted or a pending policy needs to be activated. The evaluation process uses the XCF allocation algorithm that factors in the CFRM active policy information and current set of active connections to make the determination.

THE REALLOCATE PROCESS IS STOPPING.
The information in the message is for a real REALLOCATE process. The REALLOCATE process is stopped by the SETXCF STOP,REALLOCATE operator command. When stopped, the structure that is the current target of the REALLOCATE process completes the relocation steps before ending the REALLOCATE process.

THE REALLOCATE PROCESS ENDED ON *mm/dd/yyyy* **AT** *hh:mm:ss.dd*.
The information in the message is for a real REALLOCATE process. Message IXC543I is issued at the indicated date and time to identify the completion the REALLOCATE process.

COUPLING FACILITY STRUCTURE ANALYSIS PERFORMED FOR REALLOCATE TEST.
The information in the message is not for a real REALLOCATE process. Instead, the data is from analysis done to perform a simulated REALLOCATE process and is provided for the DISPLAY XCF,REALLOCATE,TEST system command.

STRUCTURE(S) WITH AN ERROR/EXCEPTION CONDITION
Following this header is information about structures that REALLOCATE processing could not process successfully. This includes structures not processed, errors encountered starting a rebuild process for a REALLOCATE step, and exceptions for a REALLOCATE step being stopped.

STRUCTURE(S) WITH A WARNING CONDITION
Following this header is information about structures that REALLOCATE processing has not processed completely. This includes structures with reallocate evaluation pending, target of reallocate process, and structures that REALLOCATE changed from duplex to simplex.

STRUCTURE(S) REALLOCATED SUCCESSFULLY
Following this header is information about structures that REALLOCATE processing targeted successfully. This includes structures that were relocated and structures that were rebuilt to resolve a pending policy change.

STRUCTURE(S) ALREADY ALLOCATED IN PREFERRED CF(S)
Following this header is information about structures that REALLOCATE processing did not need to target. This includes simplex and duplexed structures that were already allocated in the most preferred CF(s).

strname
The name of a structure from the CFRM active policy.

strnum
The zero-based index of the structure in a table of all structures. Structures are processed by REALLOCATE processing in ascending index order.

PENDING POLICY CHANGE - CHANGE
An administrative policy change is pending for this structure. The pending change is to change the policy definition for the structure.

PENDING POLICY CHANGE - DELETE
An administrative policy change is pending. The pending policy change is to delete the policy definition for the structure.

cfname01
The name of the coupling facility from the CFRM active policy. For a simplex structure, this is the name of the coupling facility in which the only instance is allocated. For a duplexed structure, this is the name of the coupling facility in which the old instance is allocated.

cfname02
The name of the coupling facility from the CFRM active policy. For a simplex structure, this is blank. For a duplexed structure, this is the name of the coupling facility in which the new instance is allocated.

ACTIVE POLICY INFORMATION USED.
The current active policy definition is used for evaluation. If there are no pending policy changes for the structure, the active policy definition will be used for evaluation but this line will not be displayed.

PENDING POLICY INFORMATION USED.
The pending policy definition is used for evaluation.

ACTIVE POLICY INFORMATION USED BUT EXCLUSION LIST WAS IGNORED.
The current active policy definition for the structure is used for evaluation but the exclusion list was ignored.

PENDING POLICY INFORMATION USED BUT EXCLUSION LIST WAS IGNORED.
The pending policy definition for the structure is used for evaluation but the exclusion list was ignored.

CFNAME STATUS/FAILURE REASON
Following this header is information about evaluation based on the coupling facilities in the structure preference list.

cfname
The name of the coupling facility in the structure preference list.

strcfrsn
One of the following:

SYSTEM(S) NOT CONNECTED
The coupling facility is not connected to the required systems.

COUPLING FACILITY NOT IN ACTIVE POLICY
The coupling facility is not listed in the CFRM active policy so it is not viable until the policy is changed.

COUPLING FACILITY FAILURE
The coupling facility has failed.

PARAMETER ERROR
The requested structure attributes are inconsistent with the model-dependent attributes of the coupling facility. Contact the IBM Support Center.

INVALID STRUCTURE SIZE
The target structure size is too small to allocate the structure with the attributes specified. If the allocation failed, the CONAFACILITYMINREQSIZE field of the ConaFacilityArray section of the LOGREC symptom record provided with message IXC573I is set to the minimum size of the structure if it were to be allocated in the coupling facility with the requested attributes. The amount of storage required by the structure also increases as a function of the CFRM policy SCMMAXSIZE specification. Requesting a large amount of storage-class memory can significantly increase the minimum structure size. Increase the maximum structure size specified in the CFRM policy.

Use the CFSIZER tool to determine the structure SIZE and INITSIZE attributes that should be specified in the CFRM policy. The CFSIZER tool is available at http://www.ibm.com/systems/support/z/cfsizer.

ALLOCATION NOT PERMITTED
New structures cannot be allocated in the coupling facility according to the CFRM active policy.

XCF COMPONENT ERROR
An XCF component error has occurred. Contact the IBM Support Center.

UNKNOWN HARDWARE ERROR
An unknown hardware error has occurred. Contact the IBM Support Center.

INSUFFICIENT SPACE
There is not sufficient space in the coupling facility to allocate the structure. If structure allocation failed, examine the ConaFacilityArray section of the LOGREC symptom record provided with message IXC573I. CONAFACILITYMINREQSIZE is set to the minimum size of the structure in this coupling facility if allocated with the requested attributes. The amount of storage required by the structure also increases as a function of the CFRM policy SCMMAXSIZE specification. Requesting a large amount of storage-class memory can significantly increase the minimum structure size. Some amount of additional storage, over and above the structure size, may also be required to support storage-class memory. Make sure that in the structure preference list of the structure, there is a coupling facility with sufficient space.

RESTRICTED BY SAMESITEONLY
SAMESITEONLY was specified for the DUPLEX parameter on the structure definition. This allocation is for a duplexing rebuild and the CF is NOT defined as being at the same site as the CF containing the structure.

INSUFFICIENT CONNECTIVITY
The coupling facility does not provide connectivity at least equivalent to the connectivity provided by the coupling facility in which the original structure resided.

PREFERRED CF ALREADY SELECTED
The system does not select the coupling facility because a preferable coupling facility is already selected. When the coupling facility status is PREFERRED CF ALREADY SELECTED or PREFERRED CF 2, one of the following subreason lines is displayed that provides the primary reason why this coupling facility has a lower eligibility than the previous coupling facility in the eligibility queue. Because of the way MVS weighs different eligibility requirements for coupling facilities, this information does not imply that all coupling facilities that are higher in the eligibility queue meet the requirement.

CONNECTIVITY REQUIREMENT MET BY PREFERRED CF
At least one connector to the current (old) structure does not have connectivity to this coupling facility, and there is at least one coupling facility to which all connectors do have connectivity.

CFLEVEL REQUIREMENT MET BY PREFERRED CF
Another coupling facility was found with a more appropriate CF level.

FAILURE ISOLATION FOR DUPLEXING MET BY PREFERRED CF
This coupling facility is not failure isolated for duplexing, this is a duplexing rebuild, and at least one coupling facility exists that is failure-isolated for duplexing.

SPACE AVAILABLE FOR REQUESTED SIZE IN PREFERRED CF
This coupling facility does not have enough free space to meet the requested structure size, and at least one coupling facility exists that does have enough free space to allocate the structure at the requested size.

SPACE AVAILABLE FOR MINIMUM SIZE IN PREFERRED CF
This coupling facility does not have enough free space to meet the minimum required structure size to allocate the new structure instance based on the current object counts, and at least one coupling facility exists that does have enough free space to allocate the structure at the minimum size.

SPACE AVAILABLE FOR CHANGED DATA IN PREFERRED CF
This coupling facility does not have enough free space to meet the minimum required structure size to allocate the new structure instance based on the current in-use and changed object counts, and at least one coupling facility exists that does have enough free space to allocate the structure but with changed data only.

MORE SPACE AVAILABLE IN PREFERRED CF
This coupling facility does not have enough free space to allocate the structure at the requested size, and at least one coupling facility exists that also does not have enough free space but does have more space than this one.

STORAGE-CLASS MEMORY REQUIREMENT MET BY PREFERRED CF
This coupling facility does not have enough free storage-class memory to allocate the structure based on the current object counts, and there is at least one coupling facility that does have sufficient

storage-class memory. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

SCMMAXSIZE REQUIREMENT MET BY PREFERRED CF
This coupling facility does not have enough total storage-class memory to accommodate the CFRM policy SCMMAXSIZE specification for this structure and there is another coupling facility which does. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

MORE STORAGE-CLASS MEMORY AVAILABLE IN PREFERRED CF
This coupling facility does not have enough storage-class memory to allocate the structure with the amount specified by the CFRM policy and there is another coupling facility that also does not have enough storage-class memory but has more than this one. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

MORE STORAGE-CLASS MEMORY CONFIGURED IN PREFERRED CF
This coupling facility does not have enough total storage-class memory to accommodate the CFRM policy SCMMAXSIZE specification for this structure, and there is another coupling facility that also does not have enough total storage-class memory but has more than this one. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

NON-VOLATILITY REQUIREMENT MET BY PREFERRED CF
This coupling facility is volatile, non-volatility was requested, and at least one coupling facility exists coupling facility that is non-volatile.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a non-volatile coupling facility.

FAILURE ISOLATION REQUIREMENT MET BY PREFERRED CF
This coupling facility is not failure-isolated from all connectors, non-volatility was requested, and at least one coupling facility exists that is failure-isolated from all connectors.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the failure isolation requirement.

STAND-ALONE REQUIREMENT MET BY PREFERRED CF
This coupling facility is not stand-alone, non-volatility was requested, and at least one coupling facility exists that is stand-alone.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the failure isolation requirement.

EXCLLIST REQUIREMENT FULLY MET BY PREFERRED CF
This coupling facility contains a structure from the EXCLLIST, and at least one coupling facility exists that does not contain any structures from the EXCLLIST.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that fully satisfies the EXCLLIST requirement.

EXCLLIST REQUIREMENT MET BY PREFERRED CF
This coupling facility contains a simplex structure from the EXCLLIST, and at least one coupling facility exists that contains only old or new structure instances from the EXCLLIST.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the EXCLLIST requirement.

CROSSSITE DUPLEXING PREFERENCE MET BY PREFERRED CF
This coupling facility does not satisfy the CROSSSITE DUPLEX preference according to the CFRM active policy, and at least one coupling facility exists that does satisfy the CROSSSITE DUPLEX preference.

SAMESITE DUPLEXING PREFERENCE MET BY PREFERRED CF
This coupling facility does not satisfy the SAMESITE DUPLEX preference according to the CFRM active policy, and at least one coupling facility exists that does satisfy the SAMESITE DUPLEX preference.

CFLEVEL FOR POTENTIAL DUPLEXING MET BY PREFERRED CF
Duplexing rebuild is a possibility for the structure, and another CF was found with a potential duplex target which has a more appropriate CF level for a duplexing rebuild.

SPACE REQUIREMENT MET BY PREFERRED CF
The following conditions exist:

- System-managed duplexing rebuild is a possibility for the structure.
- The coupling facility is not connected by CF-to-CF links to any other coupling facilities in the PREFLIST that have adequate space to allocate the structure if a duplexing rebuild is to be started.
- At least one coupling facility exists that is connected by CF-to-CF links to a coupling facility that does have adequate space to allocate the structure.

REMOTE FACILITY REQUIREMENT MET BY PREFERRED CF
The following conditions exist:

- System-managed duplexing rebuild is a possibility for the structure.
- This coupling facility is not connected by CF-to-CF links to any other coupling facilities in the PREFLIST,
- At least one coupling facility exists that is connected by CF-to-CF links to a remote facility, but the remote facility does not have adequate space to allocate the structure if a duplexing rebuild is to be started.

PREFERRED CF HIGHER IN PREFLIST
This coupling facility is lower in the PREFLIST than another coupling facility that is suitable for allocation.

ENFORCEORDER(YES) AND PREFERRED CF HIGHER IN PREFLIST
This coupling facility is lower in the PREFLIST than another coupling facility that is suitable for allocation; because ENFORCEORDER(YES) was also specified for the structure in the CFRM policy, XCF did not re-order the PREFLIST.

GREATER SFM WEIGHT CALCULATED FOR PREFERRED CF
This coupling facility has a lower SFM weight than another coupling facility that is suitable for allocation.

RESTRICTED BY OPERATOR STOP OF DUPLEXING REBUILD
The system does not select the coupling facility because the operator has previously stopped the duplexing rebuild and the structure that was not kept was allocated in this coupling facility.

INSUFFICIENT CFLEVEL FOR CONNECTOR EXPLOITATION
The coupling facility CFLEVEL is below the minimum required level for the current set of active and failed-persistent connectors.

INSUFFICIENT CFLEVEL FOR SYSTEM-MANAGED PROCESSING
The coupling facility CFLEVEL is below the minimum required level for a system-managed process.

INSUFFICIENT MAXIMUM NUMBER OF CONNECTIONS
The maximum number of users that can connect to a structure in this facility is less than the maximum number that can connect to the original instance of the structure.

RESTRICTED BY STRUCTURE LIMITS
Maximum values for some structure attributes are limited by the coupling facility in which they reside. At least one of these structure limits for structures in this coupling facility is less than the corresponding limit on the original instance of the structure.

COMPUTED STRUCTURE SIZE WAS NOT VALID
When the structure size is computed from the required object counts (for example, entries, elements, list headers, and so on), the command failed, or the computed maximum structure size required is larger than the policy specified SIZE value plus a toleration amount. If the CFRM policy specifies SCMMAXSIZE for the affected structure, this text may also indicate that the coupling facility could not provide sufficient storage-class memory for overflow of in-use structure objects that cannot be contained within the structure itself.

NO CF-TO-CF CONNECTIVITY FROM THE PRIMARY TO THIS CF
When CF-to-CF link information was obtained from the coupling facility containing the rebuild old (primary) structure, this coupling facility did not have connectivity (through CF-to-CF link) to the CF containing the rebuild old structure as required for system-managed duplexing rebuild.

NO CF-TO-CF CONNECTIVITY FROM THIS CF TO THE PRIMARY
When CF-to-CF link information was obtained from this coupling facility, the coupling facility containing the rebuild old (primary) structure did not have connectivity (through CF-to-CF link) to this coupling facility as required for system-managed duplexing rebuild.

PREFERRED CF 1
Using the XCF allocation criteria, the system selects this coupling facility as the first coupling facility. REALLOCATE evaluation compares this coupling facility to the coupling facility containing the only instance for a simplex structure or to the coupling facility containing the old instance for a duplexed structure.

PREFERRED CF 2
Using the XCF allocation criteria for a structure with no CF SITE duplexing preference, the system selects this coupling facility as the second coupling facility. REALLOCATE evaluation compares this coupling facility to the coupling facility containing the new instance for a duplexed structure.

PREFERRED SAMESITE CF
Using the XCF allocation criteria for a structure with SAMESITE specified on the CFRM policy DUPLEX keyword, the system selected this coupling facility as the second CF. When evaluating the structure, the REALLOCATE process will compare this CF to the CF containing the new instance for a duplexed structure.

PREFERRED SAMESITEONLY CF
Using the XCF allocation criteria for a structure with SAMESITEONLY specified on the CFRM policy DUPLEX keyword, the system selected this coupling facility as the second CF. When evaluating the structure, the REALLOCATE process will compare this CF to the CF containing the new instance for a duplexed structure.

PREFERRED CROSSSITE CF
Using the XCF allocation criteria for a structure with CROSSSITE specified on the CFRM policy DUPLEX keyword, the system selected this coupling facility as the second CF. When evaluating the structure, the REALLOCATE process will compare this CF to the CF containing the new instance for a duplexed structure.

When the coupling facility status is PREFERRED CF ALREADY SELECTED, PREFERRED CF2, PREFERRED SAMESITE CF, PREFERRED SAMESITEONLY CF or PREFERRED CROSSSITE CF, the message displays one of the following lines that gives the primary reason why this coupling facility was placed lower than the previous one in the eligibility queue. Because of how different requirements are weighted, this information does not imply that all coupling facilities higher in the eligibility queue meet the requirement:

CONNECTIVITY REQUIREMENT MET BY PREFERRED CF
At least one connector to the current (old) structure does not have connectivity to this coupling facility, and there is at least one coupling facility to which all connectors do have connectivity.

CFLEVEL REQUIREMENT MET BY PREFERRED CF
Another coupling facility was found with a more appropriate CF level.

FAILURE ISOLATION FOR DUPLEXING MET BY PREFERRED CF
This coupling facility is not failure isolated for duplexing, this is a duplexing rebuild, and at least one coupling facility exists that is failure-isolated for duplexing.

SPACE AVAILABLE FOR REQUESTED SIZE IN PREFERRED CF
This coupling facility does not have enough free space to meet the requested structure size, and at least one coupling facility exists that does have enough free space to allocate the structure at the requested size.

SPACE AVAILABLE FOR MINIMUM SIZE IN PREFERRED CF
This coupling facility does not have enough free space to meet the minimum required structure size to allocate the new structure instance based on the current object counts, and at least one coupling facility exists that does have enough free space to allocate the structure at the minimum size.

SPACE AVAILABLE FOR CHANGED DATA IN PREFERRED CF
This coupling facility does not have enough free space to meet the minimum required structure size to allocate the new structure instance based on the current in-use and changed object counts, and at least one coupling facility exists that does have enough free space to allocate the structure but with changed data only.

MORE SPACE AVAILABLE IN PREFERRED CF
This coupling facility does not have enough free space to allocate the structure at the requested size, and at least one coupling facility exists that also does not have enough free space but does have more space than this one.

STORAGE-CLASS MEMORY REQUIREMENT MET BY PREFERRED CF
This coupling facility does not have enough free storage-class memory to allocate the structure based on the current object counts, and there is at least one coupling facility that does have sufficient storage-class memory. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

SCMMAXSIZE REQUIREMENT MET BY PREFERRED CF
This coupling facility does not have enough total storage-class memory to accommodate the CFRM policy SCMMAXSIZE specification for this structure, and there is another coupling facility which does. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

MORE STORAGE-CLASS MEMORY AVAILABLE IN PREFERRED CF
This coupling facility does not have enough storage-class memory to allocate the structure with the amount specified by the CFRM policy and there is another coupling facility that also does not have enough storage-class memory but has more than this one. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

MORE STORAGE-CLASS MEMORY CONFIGURED IN PREFERRED CF
This coupling facility does not have enough total storage-class memory to accommodate the CFRM policy SCMMAXSIZE specification for this structure, and there is another coupling facility that also does not have enough total storage-class memory but has more than this one. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

NON-VOLATILITY REQUIREMENT MET BY PREFERRED CF
This coupling facility is volatile, non-volatility was requested, and at least one coupling facility exists that is non-volatile.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a non-volatile coupling facility.

FAILURE ISOLATION REQUIREMENT MET BY PREFERRED CF
This coupling facility is not failure-isolated from all connectors, non-volatility was requested, and at least one coupling facility exists that is failure-isolated from all connectors.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the failure isolation requirement.

STAND-ALONE REQUIREMENT MET BY PREFERRED CF
This coupling facility is not stand-alone, non-volatility was requested, and at least one coupling facility exists that is stand-alone.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the failure isolation requirement.

EXCLLIST REQUIREMENT FULLY MET BY PREFERRED CF
This coupling facility contains a structure from the EXCLLIST, and at least one coupling facility exists that does not contain any structures from the EXCLLIST.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that fully satisfies the EXCLLIST requirement.

EXCLLIST REQUIREMENT MET BY PREFERRED CF
This coupling facility contains a simplex structure from the EXCLLIST, and at least one coupling facility exists that contains only old or new structure instances from the EXCLLIST.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the EXCLLIST requirement.

CROSSSITE DUPLEXING PREFERENCE MET BY PREFERRED CF
This coupling facility does not satisfy the CROSSSITE DUPLEX preference according to the CFRM active policy, and at least one coupling facility exists that does satisfy the CROSSSITE DUPLEX preference.

SAMESITE DUPLEXING PREFERENCE MET BY PREFERRED CF
This coupling facility does not satisfy the SAMESITE DUPLEX preference according to the CFRM active policy, and at least one coupling facility exists that does satisfy the SAMESITE DUPLEX preference.

CFLEVEL FOR POTENTIAL DUPLEXING MET BY PREFERRED CF
Duplexing rebuild is a possibility for the structure, and another CF was found with a potential duplex target which has a more appropriate CF level for a duplexing rebuild.

SPACE REQUIREMENT MET BY PREFERRED CF
The following conditions exist:

- System-managed duplexing rebuild is a possibility for the structure.
- The coupling facility is not connected by CF-to-CF links to any other coupling facilities in the PREFLIST that have adequate space to allocate the structure if a duplexing rebuild is to be started.
- At least one coupling facility exists that is connected by CF-to-CF links to a coupling facility that does have adequate space to allocate the structure.

REMOTE FACILITY REQUIREMENT MET BY PREFERRED CF
The following conditions exist:

- System-managed duplexing rebuild is a possibility for the structure.
- This coupling facility is not connected by CF-to-CF links to any other coupling facilities in the PREFLIST,
- At least one coupling facility exists that is connected by CF-to-CF links to a remote facility, but the remote facility does not have adequate space to allocate the structure if a duplexing rebuild is to be started.

PREFERRED CF HIGHER IN PREFLIST
This coupling facility is lower in the PREFLIST than another coupling facility that is suitable for allocation.

ENFORCEORDER(YES) AND PREFERRED CF HIGHER IN PREFLIST
This coupling facility is lower in the PREFLIST than another coupling facility that is suitable for allocation; because ENFORCEORDER(YES) was also specified for the structure in the CFRM policy, XCF did not re-order the PREFLIST.

GREATER SFM WEIGHT CALCULATED FOR PREFERRED CF
This coupling facility has a lower SFM weight than another coupling facility that is suitable for allocation. For a structure without any active connectors, the SFM weight of each coupling facility is the sum of the SFM weights of all systems connected to that coupling facility. For a structure with active connectors, only systems with active connectors are used to determine the SFM weight of the coupling facility. Note that all systems are considered to have equal SFM weight if no SFM policy is active.

RESTRICTED BY REBUILD USERS
The coupling facility was not selected for rebuild because it does not support the highest in-use CONID.

MAX STRUCTURES ALLOCATED
All available structure slots in this coupling facility are already being used.

INSUFFICIENT STORAGE-CLASS MEMORY
The old structure has objects in SCM and the CF can allocate objects in SCM but cannot allocate all in-use objects (staying within the SIZE policy constraint), given the total amount of SCM configured to the CF.

COMPUTED OBJECT COUNTS UNACCEPTABLE
The old structure has objects in SCM and calculations show that the CF cannot allocate all in-use objects and remain within the SIZE and SCMMAXSIZE policy constraints.

hexdata
See documentation for message IXC574I.

strrsn
The failure reason. One of the following:

STRUCTURE NOT ALLOCATED
When starting a rebuild process, the structure is found to no longer be allocated in a coupling facility.

CONNECTOR HANG
The rebuild is stopped in an attempt to relieve a connector hang during the processing of a rebuild-related event. The system has issued message IXL040E or IXL041E to report the failure of the connector to provide an expected response to the event. The SFM policy specifies a value of CFSTRHANGTIME that permits the system to take automatic action to relieve connector hangs.

DUMP SERIALIZATION HELD ON STRUCTURE
The rebuild is stopped because dump serialization prevented access to either the old or the new structure instance.

DEALLOCATION OF THE STRUCTURE
The rebuild is stopped because the structure was deallocated (for example, the last connector disconnected from a non-persistent structure).

CONNECTOR DISCONNECTED FROM STRUCTURE
The rebuild is stopped in response to a connection disconnecting from the structure. A user-managed rebuild cannot continue after the last connector disconnects, even if the structure persists.

FAILURE OF A SYSTEM-MANAGED PROCESS PHASE
A phase of a system-managed process is unsuccessful.

FAILURE OF THE STRUCTURE
The rebuild is stopped because of structure failure of either the new or the old structure.

LOSS OF CONNECTIVITY TO THE STRUCTURE
The rebuild is stopped because of loss of connectivity to either the coupling facility where the old structure is allocated or the coupling facility where the new structure is allocated.

A CHANGE IN THE CFRM ACTIVE POLICY FOR THE STRUCTURE
The rebuild is stopped because of a change in either the CFRM active policy DUPLEX specification for the structure or a change in the structure preference list, which causes that the facility in which either the old or new structure is allocated is no longer in the preference list. When the CFRM active policy DUPLEX specification for a structure is changed to DUPLEX(DISABLED) for a change policy request, duplexing rebuild is stopped by MVS when the change is processed. Duplexing rebuild is also stopped when the facility in which the old or new structure is allocated is removed from the preference list.

REQUEST FROM AN OPERATOR
The rebuild is stopped because the operator issues the SETXCF STOP,REBUILD command.

CONNECTOR SPECIFIC REASON
The rebuild is stopped because of the reason provided by the issuer of IXLREBLD. IXLREBLD is the programming interface for structure rebuild processing.

FAILURE OF THE NEW STRUCTURE
The rebuild is stopped because of structure failure of the new structure.

FAILURE OF THE OLD STRUCTURE
The rebuild is stopped because of structure failure of the old structure.

LOSS OF CONNECTIVITY TO THE NEW STRUCTURE
The rebuild is stopped because of loss of connectivity to the coupling facility where the new structure was located.

LOSS OF CONNECTIVITY TO THE OLD STRUCTURE
The rebuild is stopped because of loss of connectivity to the coupling facility where the old structure was located.

THE CFRM ACTIVE POLICY INDICATES REALLOCATE NOT ALLOWED
The structure is bypassed by REALLOCATE processing because ALLOWREALLOCATE(NO) is specified in the CFRM active policy.

A CFRM ACTIVE POLICY DATA AREA COULD NOT BE OBTAINED
A system-managed process (for example, rebuild) cannot be initiated because the necessary CFRM active policy data area cannot be obtained.

STRUCTURE WITH NO CONNECTORS HAS NEVER BEEN SYSTEM-MANAGED DUPLEXED
A system-managed duplexing rebuild cannot be initiated because there are no connections to the structure and the structure has not previously been duplexed using system-managed processing.

THE CFRM CDS DOES NOT SUPPORT SYSTEM-MANAGED PROCESS
The CFRM couple data set does not support system-managed process (for example, rebuild), because the CFRM couple data set is not formatted at or above the minimum version for the system-managed process requested. Use the DISPLAY XCF,COUPLE,TYPE=CFRM command to determine the format of the CFRM couple data set. To support system-managed rebuild the CFRM couple data set should be formatted

specifying `ITEM NAME(SMREBLD) NUMBER(1)`. For system-managed duplexing rebuild, `ITEM NAME(SMDUPLEX) NUMBER(1)` implicitly formats a CFRM couple data set that supports both system-managed rebuild and system-managed duplexing rebuild.

AT LEAST ONE CONNECTOR HAS LOST CONNECTIVITY
A system-managed process (for example, rebuild) cannot be initiated because one or more of the connectors to the target structure has lost connectivity.

CONNECTORS DO NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure has at least one active connector, and at least one of the connectors (active or failed-persistent) does not specify IXLCONN ALLOWAUTO=YES when connecting.

NO SUITABLE COUPLING FACILITY IN PREFERENCE LIST
The requested system-managed process cannot be initiated for one or more of the following reasons:

- The preference list is empty.
- The preference list contains no other coupling facility at or above the minimum CFLEVEL required for the current process.
- The structure already exists in the only suitable coupling facility. The same coupling facility can only be selected as the target for the system-managed rebuild if a CFRM policy change is pending. Either the policy changes does not involve updates to the SIZE or INITSIZE values, or the policy change does involve updates to SIZE or INITSIZE and all the structure connectors specify IXLCONN ALLOWALTER=YES.
- A potentially suitable coupling facility does not permit structure allocation.

ALLOCATION OF DUPLEXING REBUILD NEW STRUCTURE NOT FEASIBLE
Allocation of the rebuild new structure instance in support of a duplexing rebuild is not feasible. Message IXC574I contains additional diagnostic information.

THE STRUCTURE DOES NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure does not support system-managed processes (for example, rebuild) for one of the following reasons:

- The structure is not allocated in a coupling facility at or above the minimum CFLEVEL required for the current process by a system supporting system-managed processing.
- The structure has connections that have not been reconciled into the CFRM active policy.

Structure cleanup is in progress for the structure.

A DUPLEXING REBUILD IS NOT ALLOWED FOR THE STRUCTURE
The structure does not support duplexing rebuild for one of the following reasons:

- DUPLEX(DISABLED) is specified or defaulted to in the CFRM active policy for the structure.
- There are failed-persistent connections that are unavailable until a larger CFRM couple data set is made available.
- A user-managed duplexing rebuild cannot be started because either user-managed duplexing rebuilds are not supported for the structure type, or at least one active or failed-persistent connection specifies or defaults to IXLCONN ALLOWDUPREBLD=NO.
- A system-managed duplexing rebuild cannot be started because either the structure has at least one active connector, and none of the connectors (active or failed-persistent) specifies IXLCONN ALLOWAUTO=YES when connecting, or a system-managed duplexing rebuild is not supported when a CFRM policy change is pending for the structure.

NO COUPLING FACILITY PROVIDED BETTER OR EQUIVALENT CONNECTIVITY
No other facility has better connectivity than the current one. The rebuild will cause a degradation in connectivity as determined by SFM system weights, if accepted.

NO SUITABLE COUPLING FACILITY FOR REBUILD WITH LOCATION=OTHER
A rebuild start request will be rejected because LOCATION=OTHER is necessary and no other eligible coupling facility is found in the preference list.

AT LEAST ONE CONNECTOR DOES NOT SUPPORT REBUILD
At least one of the active connectors to the structure does not support rebuild.

A REBUILD STOP IS IN PROGRESS FOR THE STRUCTURE
Rebuild stop is in progress for the structure.

THE STRUCTURE HAS FAILED
The rebuild start request is rejected for one of the following reasons:

- The request is to start a duplexing rebuild and the structure has failed. Duplexing rebuild is not allowed when the structure is in the failed state.
- The rebuild start request is to result in a system-managed rebuild. System-managed rebuild is not allowed when the structure is in the failed state.

A STRUCTURE REBUILD PROCESS IS IN PROGRESS
The structure rebuild process is already in progress for the structure. The structure rebuild process type can be either rebuild or duplexing rebuild. For a duplexing rebuild, the in-progress processing can be in one of the following status:

- The structure is duplexed. For a user-managed duplexing rebuild, only one instance is allocated because the last user connected to both instances has disconnected in between another user's IXLCONN and IXLCONN REBUILD requests.
- Process is in progress but has not reached duplexing established.
- Process has been stopped with KEEP=OLD.
- Process has been stopped with KEEP=NEW.

OF AN UNEXPECTED ERROR WHEN BUILDING THE LIST OF ELIGIBLE CFS
An unexpected error is encountered while building the list of a coupling facilities where an instance of the structure can be allocated. When this processing accesses an allocated instance to determine the structure parameters, either connectivity to the CF is lost or the command to the CF fails unexpectedly.

THERE IS NO CONNECTIVITY TO COUPLING FACILITY
A CF in which the structure is allocated is not connected to all the required systems.

OF A PENDING POLICY CHANGE TO SIZE/INITSIZE BUT ALTER NOT ALLOWED
An administrative policy change is pending. The pending policy change includes a change to the SIZE or INITSIZE specifications. At least one of the active or failed-persistent connections to the structure does not allow alter processing and system-managed rebuild is required, so the structure rebuild process cannot be used to make the pending policy changes active.

OF A PENDING POLICY CHANGE TO DELETE THE STRUCTURE DEFINITION
An administrative policy change is pending. The pending policy change is to delete the policy definition for the structure. The change is to delete the structure from the CFRM active policy, so the structure rebuild process cannot be used to make the pending policy changes active.

UNEXPECTED ERROR OCCURRED
An unexpected error occurred. Contact the IBM Support Center.

hexrsn
Used only with REASON UNKNOWN, can be provided to IBM Support to help identify the problem.

REALLOCATE EVALUATION PENDING
The REALLOCATE process is in progress and the allocated structure is pending evaluation of its current location. The REALLOCATE process examines each allocated structure to determine whether the location of any of the instances needs to be adjusted or a pending policy needs to be activated.

TARGET OF REALLOCATE PROCESS
The REALLOCATE process is in progress or stopping and the structure is selected by the REALLOCATE process to have its location adjusted or pending policy activated. After being marked as the target of the REALLOCATE process, the structure remains the target until one of the following occurs:

- The REALLOCATE process evaluates the next structure or ends.
- The structure is reduplexed, deallocated, or forced.

REALLOCATE STEP(S) INCOMPLETE WHEN REALLOCATE PROCESS ENDED
A request to force the REALLOCATE process to stop caused the REALLOCATE process to end before the targeted structure completed all required REALLOCATE steps.

ERROR ON SYSTEM *system* **ON** *mm/dd/yyyy* **AT** *hh:mm:ss.dd*
The message indicates a failure to initiate a rebuild process for a REALLOCATE step. Message IXC546I is issued by the indicated system at the indicated date and time.

EXCEPTION ON SYSTEM *system* **ON** *mm/dd/yyyy* **AT** *hh:mm:ss.dd*
The message indicates a failure to complete a REALLOCATE step due the stop of a rebuild process. Message IXC522I is issued by the indicated system at the indicated date and time. When the rebuild process is stopped for connector specific reason or failure of a system-managed process phase, IXC522I can provide additional diagnostic data that may help IBM Support personnel with problem determination.

COMPLETED ON SYSTEM *system* **ON** *mm/dd/yyyy* **AT** *hh:mm:ss.dd*
The message indicates the successful completion of the REALLOCATE steps. Message IXC521I or IXC577I is issued by the indicated system at the indicated date and time.

EVALUATED ON SYSTEM *system* **ON** *mm/dd/yyyy* **AT** *hh:mm:ss.dd*
The message indicates that REALLOCATE did not attempt any steps. Message IXC544I is issued by the indicated system at the indicated date and time.

POLICY CHANGE MADE
The structure is allocated in the preferred coupling facility and the pending policy change is made. The policy change is made immediately because the structure is allocated in the preferred coupling facility according to the pending policy and the pending policy does not affect the structure size.

COUPLING FACILITY STRUCTURE ANALYSIS OUTPUT FOR REALLOCATE TEST
Following this header is CF-oriented information reflecting the results of the simulated REALLOCATE process. This section is only provided if the simulated REALLOCATE process finds a structure that needs relocation or a pending policy change activated.

cfname_a
The name of coupling facility from the CFRM active policy.

type
Node type used to identify the coupling facility (See ndetype in IXLYNDE)

mfg
Node manufacturer ID used to identify coupling facility (See ndemfg in IXLYNDE)

plant
Node manufacturer plant ID used to identify coupling facility (See ndeplant in IXLYNDE)

sequence
Node sequence number used to identify coupling facility (See ndesequence in IXLYNDE)

partition
Node LPAR partition number used to identify coupling facility (See ndepartition in IXLYNDE)

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the side value used to identify the coupling facility. Value and meaning are as follows:

- SIDE: 0 means the coupling facility is on SIDE 0 of a partitionable CPC.
- SIDE: 1 means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node central processor complex (CPC) ID used to identify coupling facility.

sysname
The name of a system connected to the coupling facility. This means both that the system has a physical hardware connection to the coupling facility, and that the policy definition considers the system to be connected. More lines may be used to list more names. If there are no connected systems, `NO SYSTEMS ARE CONNECTED TO THIS COUPLING FACILITY` is displayed. This might be the result of a configuration error.

strnamestat
The name of a structure allocated in this coupling facility, and optionally, structure status information. The structure status information is included only if the structure is not a normal active allocated structure instance. The structure status information can be one of the following:

- (OLD) -- old instance during structure rebuild
- (NEW) -- new instance during structure rebuild

More lines may be used to list more names. If there are no active allocated structures, the previous line displays `NO ACTIVE STRUCTURES ARE ALLOCATED IN THIS COUPLING FACILITY.`

strcnt
The number of structures in the coupling facility pending deallocation because of dump in progress.

numadj1
The number of simplex structures for which reallocation is initiated. Structure rebuild processing is used to adjust the structure location. For user-managed process, message IXC52nI is issued to track processing. For system-managed process, messages IXC57nI and IXC52nI are issued to track processing. Reallocation of simplex structures may also have activated pending policy changes.

numadj2
The number of duplexed structures for which reallocation is initiated. Structure rebuild processing is used to adjust the structure location. For user-managed process, message IXC52nI is issued to track processing. For system-managed process, messages IXC57nI and IXC52nI are issued to track processing. Reallocation of duplexed structures may also have activated pending policy changes.

numpol1
The number of simplex structures for which reallocation is initiated only to activate a pending policy change. Structure rebuild processing is used to make a pending policy change active. For user-managed process, message IXC52nI is issued to track processing. For system-managed process, messages IXC57nI and IXC52nI are issued to track processing.

numpol2
The number of duplexed structures for which reallocation is initiated only to activate a pending policy change. Structure rebuild processing is used to make a pending policy change active. For user-managed process message IXC52nI is issued to track processing. For system-managed process, messages IXC57nI and IXC52nI are issued to track processing.

numok1
The number of simplex structures that are already allocated in the preferred coupling facility, or that are already allocated in the preferred coupling facility and have the pending policy change made. Message IXC544I is issued indicating that the structure instance is allocated in the coupling facility selected by the XCF allocation algorithm and indicating whether the policy change was made.

numok2
The number of duplexed structures that are already allocated in the preferred coupling facilities, or that are already allocated in the preferred coupling facilities and have the pending policy change made. Message IXC544I is issued indicating that the structure instances are allocated in the coupling facilities selected by the XCF allocation algorithm and indicating whether the policy change was made.

numnotp
The number of structures that are not processed. Message IXC544I is issued for each bypassed structure to provide the reason for not processing the structure.

numnota
The number of structures that are not processed since the structure is not currently allocated in a coupling facility. No additional message is issued.

numnotd
The number of structures for which a name has not been defined but the CFRM couple data set has been formatted to support additional structure definitions. No additional message is issued.

numtotal
The total number of structures examined by the REALLOCATE process. If the REALLOCATE process completes without being stopped, the total number of examined structures should equal the number of structures that the primary CFRM couple data set is formatted to support. If the REALLOCATE process is stopped, processing completes for current target structure and any structures pending evaluation are not processed. There are no additional messages for these bypassed structures and they will not be reflected in the total. Use the DISPLAY XCF,COUPLE,TYPE=CFRM operator command to show the format data for the CFRM couple data set.

numerrs
The number of structures for which exception information is stored. This may include the number of structures for which IXC546I is issued or some other exception occurred. The REALLOCATE process predetermines the necessary steps and if one or more of these steps cannot start structure rebuild, IXC546I is issued to provide the reason and type of structure rebuild process.

numrana
The number of structures for which REALLOCATE information is not found. This may occur for structures that

are processed by a system without the support to store REALLOCATE information. Most likely, this occurs because a structure has been deleted from the CFRM active policy since the most recent REALLOCATE process.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC3

Routing code: #

Descriptor code: 5,8,9

IXC348I *hh.mm.ss* **DISPLAY XCF XCF PR/SM POLICY IS NOT ACTIVE**

Explanation: The operator entered a DISPLAY XCF,PRSMPOLICY command to display the XCF processor resource/systems manager (PR/SM) parmlib member in use, however there is no XCF PR/SM parmlib member in use.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

System action: Processing continues.

Operator response: Enter the SETXCF PRSMPOLICY,ACTIVATE=*memname* to activate a XCF PR/SM parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC349I *hh.mm.ss* **DISPLAY XCF CURRENT ACTIVE XCF PR/SM POLICY IS** *memname*

Explanation: The operator entered a DISPLAY XCF,PRSMPOLICY command to display the XCF PR/SM parmlib member currently in use.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

memname
The name of the parmlib member currently in use.

System action: Processing continues.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC351I DISPLAY XCF COMMAND SYNTAX ERROR IN OPTIONS SPECIFIED. COULD NOT RECOGNIZE THE FOLLOWING: *string***.**

Explanation: In response to a DISPLAY XCF command, this message indicates that a certain keyword or symbol had been expected, but that instead a string that was not expected in this context was found.

In the message text:

string
The unrecognized string specified. The string will be truncated after the first 16 characters.

System action: The system continues processing.

Operator response: Find the expected keyword or symbol and reenter the command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP, IXCO1DC2

Routing code: #

Descriptor code: 5

IXC352I DISPLAY XCF SYNTAX ERROR, COULD NOT RECOGNIZE: *option*. **ONE OF THE FOLLOWING WAS EXPECTED:** *keywords*

Explanation: In response to a DISPLAY XCF command, this message indicates that one of a group of keywords or symbols has been expected, but that instead a string that was not expected in this context was found.

In the message text:

option
The unrecognized string specified. The string will be truncated after the first 16 characters.

keywords
Acceptable keywords and symbols that could be specified.

System action: The system continues processing.

Operator response: Find the appropriate keyword or symbol and reenter command.

System programmer response: If the DISPLAY command syntax is correct and the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: #

Descriptor code: 5

IXC353I THE SETXCF FORCE REQUEST FOR STRUCTURE *strname* **WAS {COMPLETED | REJECTED | ACCEPTED}:** *text*

Explanation: An operator entered a SETXCF FORCE,STRUCTURE command to delete a structure from a coupling facility. This message displays the results of the command.

In the message text:

strname
The name of the structure.

COMPLETED
The system completed the SETXCF FORCE command to delete a structure.

REJECTED
The system rejected the SETXCF FORCE command and could not delete the structure.

ACCEPTED
The request to force the structure was accepted.

USER DOES NOT HAVE SAF AUTHORIZATION
The user trying to delete the structure did not have the required SAF authorization.

STRUCTURE NOT DEFINED IN THE CFRM ACTIVE POLICY
The structure is not defined in the CFRM active policy and therefore is not allocated in a coupling facility.

STRUCTURE NOT ALLOCATED OR IS PENDING DEALLOCATION
The structure is either not allocated in any coupling facility or is pending deallocation.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during force processing.

STRUCTURE WAS DELETED
The system successfully deleted the structure.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware necessary to provide XES functions is not present.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

REQUEST WILL BE PROCESSED ASYNCHRONOUSLY
One or more of the coupling facility operations resulting from this SETXCF FORCE request cannot be performed immediately. These operations will remain pending until XCF is able to process them from some system in the sysplex.

STRUCTURE HAS CONNECTIONS PENDING REBUILD INTO POLICY
The structure cannot be deleted because it still has connections that are pending rebuild into the policy.

STRUCTURE CONTAINS ACTIVE CONNECTIONS
The structure cannot be deleted because it still has connections that are defined as 'active'.

REBUILD IN PROGRESS
The structure is being rebuilt. A structure cannot be deleted while rebuild is in progress.

STRUCTURE DELETED BUT ALSO RESULTED IN DELETED CONNECTION(S)
The structure was deleted. Additionally, all failed-persistent connections were deleted.

System action: The SETXCF FORCE command was completed, rejected or accepted. This message displays the results of the command.

Operator response: If the SETXCF FORCE command was rejected, then use the DISPLAY XCF command with the STRUCTURE or CF options to verify the name and state of the structure you want to delete.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RHT, IXCO1SCP

Routing code: #

Descriptor code: 5

IXC354I THE SETXCF FORCE REQUEST FOR CONNECTION *conname* **IN STRUCTURE** *strname* **WAS {COMPLETED | REJECTED | ACCEPTED}:** *text*

Explanation: An operator entered a SETXCF FORCE, CONNECTION command to delete a connection. This message displays the results of the command.

In the message text:

conname
The name of the connection.

strname
The name of the structure.

COMPLETED
The system successfully deleted the connection.

REJECTED
The system rejected the SETXCF FORCE command to delete the connection.

ACCEPTED
The request to force the connection was accepted.

USER DOES NOT HAVE SAF AUTHORIZATION
The user trying to delete the connection did not have the required SAF authorization.

STRUCTURE NOT DEFINED IN THE CFRM ACTIVE POLICY
The structure is not defined in the CFRM active policy.

STRUCTURE NOT ALLOCATED OR IS PENDING DEALLOCATION
The structure is either not allocated in any coupling facility or is pending deallocation.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during force processing.

CONNECTION WAS DELETED
The system successfully deleted the connection.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware necessary to provide XES functions is not present.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

REQUEST WILL BE PROCESSED ASYNCHRONOUSLY
One or more of the coupling facility operations resulting from this SETXCF FORCE request cannot be performed immediately. These operations will remain pending until XCF is able to process them from some system in the sysplex.

CONNECTION DELETED BUT ALSO RESULTED IN STRUCTURE DEALLOCATION
The connection was deleted. Additionally, the structure was deallocated because this was the last connection to a non-persistent structure.

CONNECTION NOT DEFINED
The connection is not defined in the active policy.

REBUILD IN PROGRESS
The specified structure is being rebuilt. A connection cannot be deleted while rebuild is in progress.

ACTIVE CONNECTION SPECIFIED
The connection specified is in the active state. A connection must be in the failed-persistent state to be deleted.

RECOVERY PROCESSING IN PROGRESS FOR CONNECTION
Recovery processing has not completed for the specified connection. All related connections have not provided an Event Exit Response for the connection's failure event.

FORCE CONNECTION NOT PERMITTED FOR PERSISTENT LOCK OR SERIALIZED LIST
For a persistent lock or serialized list structure, forcing a failed-persistent connection is not permitted because undetected loss of data can occur.

System action: The SETXCF FORCE command was completed, rejected or accepted.

Operator response: If the SETXCF FORCE command was rejected, use the DISPLAY XCF command with the STRUCTURE or CF options to verify the name and state of connections to the structure.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: #

Descriptor code: 5

IXC355I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

```
direction    sysname
DEVICE (LOCAL/REMOTE): ldev/rdev ldev/rdev ldev/rdev
ldev/rdev
STRNAME: structurename
[NO SIGNALLING PATHS MATCH THE SPECIFIED CRITERIA]
[THERE ARE NO bound PATHS DEFINED TO THIS SYSTEM]
```

IXC356I

In response to a DISPLAY XCF command, this message displays signalling paths leading to and from systems in a sysplex. The system repeats this message text as many times as necessary to report all available signalling paths.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

direction
One of the following:

PATHIN FROM SYSNAME:
Inbound paths will be displayed for the given sysname.

PATHOUT TO SYSNAME:
Outbound paths will be displayed for the given sysname.

sysname
The name of the system being displayed.

- For inbound signalling paths, *sysname* is the source system.
- For outbound signalling paths, *sysname* is the destination system.
- For new signalling paths, *sysname* is ???????? because they have not established a connection to a system.

ldev
The device number for the inbound or outbound signalling path on the local system.

rdev
The device number for the associated inbound or outbound signalling path on the remote system. Question marks are listed if unknown, that is, if there is no associated remote system.

structurename
Users system is connected to this system via the named structure.

bound
One of the following:

INBOUND
Inbound paths were specified, but none are defined.

OUTBOUND
Outbound paths were specified, but none are defined.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: #

Descriptor code: 5,8,9

IXC356I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

```
LOCAL DEVICE REMOTE  PATHIN  REMOTE               LAST      MXFER
PATHIN       SYSTEM  STATUS  PATHOUT RETRY MAXMSG RECVD     TIME
ldev         sysname status  rdev    retry maxmsg lastrcvd  xfertime

LOCAL  REMOTE  REMOTE  PATHIN DELIVRY BUFFER MSGBUF SIGNL
PATHIN PATHOUT SYSTEM  STATUS PENDING LENGTH IN USE NUMBR   NOBUF
ldev   rdev    sysname status pndmsg  bflen  in-use sgnl#   nobuf

LOCAL DEVICE REMOTE  PATHOUT REMOTE               TRANSPORT
PATHOUT      SYSTEM  STATUS  PATHIN  RETRY MAXMSG CLASS
ldev         sysname status  rdev    retry maxmsg classname

LOCAL   REMOTE  REMOTE  PATHOUT TRANSFER BUFFER MSGBUF SIGNL  MXFER
```

```
PATHOUT PATHIN  SYSTEM  STATUS  PENDING  LENGTH IN USE NUMBR  TIME
ldev    rdev    sysname status  pndmsg   bflen  in-use sgnl#  ioxfr

STRNAME      REMOTE  PATHIN  UNUSED               LAST      MXFER
PATHIN       SYSTEM  STATUS  PATHS   RETRY MAXMSG RECVD     TIME
strname      sysname status  numopen retry maxmsg lastrcvd  xfertime

STRNAME        REMOTE  PATHIN DELIVRY BUFFER MSGBUF SIGNL
PATHIN  LIST   SYSTEM  STATUS PENDING LENGTH IN USE NUMBR   NOBUF
strnm  listnbr sysname status pndmsg  bflen  in-use sgnl#   nobuf

STRNAME      REMOTE  PATHOUT UNUSED               TRANSPORT
PATHOUT      SYSTEM  STATUS  PATHS   RETRY MAXMSG CLASS
strname      sysname status  numopen retry maxmsg classname

STRNAME        REMOTE  PATHOUT TRANSFER BUFFER MSGBUF SIGNL  MXFER
PATHOUT LIST   SYSTEM  STATUS  PENDING  LENGTH IN USE NUMBR  TIME
strnm  listnbr sysname status  pndmsg   bflen  in-use sgnl#  ioxfr


[NO SIGNALLING PATHS MATCH THE SPECIFIED CRITERIA]

[THERE ARE NO bound PATHS DEFINED TO THIS SYSTEM]

[pathtype REQUESTED BUT NOT SHOWN
ARE NOT DEFINED TO XCF AS bound
optionaltrailer]

[TRANSPORT CLASSES REQUESTED BUT NOT SHOWN
DO NOT HAVE DEVICES OR STRUCTURES ASSIGNED TO
THEM, OR ARE NOT DEFINED]
```

In response to a DISPLAY XCF command, this message displays detailed signalling path data for specific signalling path(s). The Device and Structure tables above are shown for both Pathin and Pathout, although we will not see both in one display. A selection type query of Device or Structure will yield only the one appropriate table, while listing both Device and Structure will in general yield two tables. Listing neither Device nor Structure, but listing Class (for Pathout), will in general yield two tables. If, for example, no devices meet the collective criteria, then we may see the structure table but no devices. If no paths at all meet the criteria, we see that reflected in the first trailer message above. If, irrespective of other criteria, there are no paths in the requested direction, the second trailer message appears.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

ldev
The device number for the inbound or outbound signalling path on the local system.

sysname
The name of the system connected to the signalling path. If the system is not known, ???????? is displayed for the system name.

status
One of the following:

STARTING
The system is verifying that the signalling path is suitable for XCF.

RESTARTING
XCF is restarting a failed signalling path.

WORKING
The signalling path is capable of message transfer.

STOPPING
XCF is removing the signalling path from the signalling service.

LINKING
XCF is establishing communication links between systems for this signalling path.

INOPERATIVE
The signalling path is defined to XCF but not usable until hardware and/or definition problems are resolved.

STOPFAILED
XCF was removing the signalling path from the signalling service, but there was a failure during removal.

REBUILDING
Rebuild has been initiated for the associated list structure.

QUIESCING
The signalling path is operational but no new I/O operations are being initiated. I/O operations may or may not have completed.

QUIESCED
The signalling path is operational but all I/O operations have completed and no new I/O operations are being initiated.

STALL-IOPND
The signalling path appears to be capable of message transfer in that it has established connectivity with the remote system. However, the path has pending I/O that does not appear to be completing in a timely manner. If the condition persists, the path will be restarted for a stalled I/O condition.

Stalled I/O is often caused by no buffer conditions on the inbound side of the path, which in turn are often caused by XCF group members failing to process signals in a timely fashion (refer the explanation of message IXC431I for possible reasons why). Stalled I/O can also be caused by system delays on the inbound side as well as problems, issues, or errors with the underlying hardware for the signalling path.

STALL-INOP
The signalling path appears to be capable of message transfer in that it has established connectivity with the remote system. However, the path is not considered viable. For example, the inbound side may be experiencing no buffer conditions and signals therefore cannot be transferred. If the conditions that make the path not viable are resolved, the path will once again be used for transferring signals. If not, the path may be restarted for a stalled I/O condition.

STALL-SS?
The signalling path appears to be capable of message transfer in that it has established connectivity with the remote system. However, the path is not considered viable and is being monitored for potential sympathy sickness impact. In particular, the inbound side is experiencing no buffer conditions that appear to be caused, at least in part, by one or more stalled XCF group members that have failed to process signals in a timely manner. If these delays persist, the outbound side may be impacted as well. If the conditions that make the path not viable are resolved, the path will once again be used for transferring signals. If not, the path may be restarted for a stalled I/O condition.

STALL-SS
The signalling path appears to be capable of message transfer in that it has established connectivity with the remote system. However, the path is not considered viable. The outbound side is suffering from sympathy sickness since there are signals that cannot be transferred to the inbound side. Signals for the target system are being delayed and/or rejected because the inbound side is experiencing no buffer conditions that appear to be caused by one or more stalled XCF group members that have failed to process signals in a timely manner. The actual impact is difficult to predict since it will depend on the set of applications and subsystems whose signals are being delayed or rejected. In general, processing of work is likely to hang. The impact may be isolated to signals in a particular transport class. In some cases the impact can spread to other transport classes. In the worst case, all signals from the outbound side to the inbound side could be impacted.

XCF issues messages IXC440E and IXC640E when such sympathy sickness is detected. XCF may be able to alleviate the sympathy sickness condition if the current Sysplex Failure Management (SFM) policy MEMSTALLTIME specification for the target system permits such action. Message IXC615I is issued to indicate such action, or to request operator intervention if automatic action is not permitted.

rdev
The device number for the associated inbound or outbound signalling path on the remote system. If the device number is not known, question marks are listed.

retry
The retry limit for the path. The retry limit is used to determine whether a signalling path should be removed.

maxmsg
The amount of space, in kilobytes, of message buffer space defined to the signalling service for the path.

lastrcvd
Signal number of the last signal received over the signalling path. As each signal is queued for transfer over a signalling path, it is assigned an over increasing number (subject to wrap). That signal number, modulo 100,000 is displayed for the latest signal to be received. Signal numbers may be reset to lower values when the signalling path is restarted.

xfertime
The average transfer time, in microseconds, for signals recently received over the signalling path. Up to 64 of the latest signals received over the path are considered when computing the average transfer time. Signals received more than a minute ago are excluded from the average. For a seldom used path, excluding old signals can make it appear that its transfer time is changing even though it is not receiving any new signals. A dash is displayed if no data is available (no signals recently received or the sending system does not provide the necessary data). Average transfer times in excess of a tenth of a second are displayed as 99999. The transfer time shown is recomputed using the data that is current at the time the display command is processed.

pndmsg
For an outbound path, indicates the number of signals queued to the path for which I/O transfer appears to be pending. Since notification of I/O completion is asynchronous to the actual I/O transfer, the signals may in fact have been transferred to the target system even though the count is not zero.

For an inbound path, indicates the number of signal buffers associated with the path that are engaged in some stage of message dilivery. An idle inbound CTC path will usually have four signals pending. An idle inbound list path will usually have no signals pending. Delivery counts will be greater than the idle values when the signal buffers are in the midst of delivering a message to a user signal exit routine. Delivery counts smaller than the idle value (for a CTC path) may be indicative of a signal buffer shortage, which in turn could cause signalling performance degradation. Note that some combinations of current buffer length and MAXMSG specifications can cause a CTC path to run idle with fewer than four buffers.

For an inbound path, the number of signal buffers that are pending delivery may be less than the number of work items pending delivery to the XCF group members (as shown by the DISPLAY XCF,GROUP,grpname,memname command). The difference arises from the fact that messages are not the only work items that can be queued for a member. Also, XCF does not necessarily use signal I/O buffers to queue messages for delivery.

bflen
The maximum number of bytes of message data that will fit in the size signal buffer that is currently in use by the signalling path. The buffer length used by the signalling path is adjusted dynamically by XCF in response to the message traffic load.

in_use
The amount of message buffer space, in kilobytes, currently associated with the signalling path.

Note that for an outbound path, this value may exceed the MAXMSG value specified for the path since outbound buffer pools are not managed on a path basis but on a transport class basis. The current path value may also include signal buffers from other transport classes that do not have their own signalling paths. Signal buffers for internal XCF signals, which are managed separately from customer defined transport classes may also be included.

sgnl#
Each signal sent over a signalling path is assigned a signal number (subject to wrap). That signal number, modulo 100,000 is displayed.

For an outbound signalling path, this value will be the signal number of the last signal queued for transfer over the path. For an inbound signalling path, this value will be the signal number of the latest signal received over the path. The signal number of the outbound side of a path can be compared to the signal number of the inbound side of the path to gauge activity of the signalling path.

Signal numbers may be reset to lower values when the signalling path is started, restarted, or stopped.

nobuff
For an inbound path, indicates the number of times (modulo 100,000) that lack of a signal buffer prevented a

new read operation from being initiated over the path. This count is cumulative for the life of the path so a nonzero value does not imply that the path is currently experiencing a buffer shortage. The value should be compared to the data from a subsequent display command to determine whether the path had buffer shortages recently.

classname
The name of the transport class to which this signalling path is assigned. *classname* is only displayed for outbound signalling paths, and only if a signalling path is assigned to the class. Transport classes without devices assigned are not displayed.

strname
Name of structure defined for use as a signalling path.

numopen
Number of lists in the list structure that are available for use as signalling paths.

ioxfr
For an outbound path, indicates the transfer time value that is currently being used to determine which outbound signalling paths are most likely to provide the fastest signal delivery. The average transfer time is measured by the inbound side of the path and periodically sent back to the system on the outbound side. The value shown in the display is the average transfer time that was most recently received from the inbound side. In contrast, the transfer time displayed for an inbound path is recomputed each time the display command is issued.

A dash is displayed if no data is available (no signals recently received or the sending system does not provide the necessary data). Average transfer times in excess of a tenth of a second are displayed as 99999.

listnbr
The decimal list number of the list being used for the signalling path.

bound
One of the following:

INBOUND
Inbound paths were specified, but none are defined.

OUTBOUND
Outbound paths were specified, but none are defined.

PATHIN
Inbound paths were specified, but were not displayed.

PATHOUT
Outbound paths were specified, but were not displayed.

pathtype
One of the following:

DEVICES
Devices were specified.

STRUCTURES
Structures were specified.

optionaltrailer
One of the following:

OR ARE NOT IN REQUESTED TRANSPORT CLASS
Specified paths may not have been displayed because they were not in the requested transport class.

OR DO NOT HAVE REQUESTED STATUS
Specified paths may not have been displayed because they did not have the requested status.

ARE NOT IN REQUESTED TRANSPORT CLASS, OR DO NOT HAVE REQUESTED STATUS
Specified paths may not have been displayed either because they were not in the requested transport class or because they did not have the requested status.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP, IXCO1DC2

Routing code: #

Descriptor code: 5,8,9

IXC357I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

```
SYSTEM sysname DATA
 INTERVAL  OPNOTIFY  MAXMSG  CLEANUP  RETRY  CLASSLEN
 interval  opnotify  maxmsg  cleanup  retry  classlen


 SSUM ACTION  SSUM INTERVAL  SSUM LIMIT  WEIGHT   MEMSTALLTIME
      action    sfminterval   ssumlimit  weight   memstalltime

 CFSTRHANGTIME
   cfstrhangtime
 ufdisrc USER INTERVAL:  uuuuu
 DERIVED SPIN INTERVAL:  sssss
 uonisrc USER OPNOTIFY: [+]ooooo

 MAX SUPPORTED CFLEVEL:  maxcflevel

 MAX SUPPORTED SYSTEM-MANAGED PROCESS LEVEL: maxprocesslevel

[SYNC/ASYNC CONVERSION THRESHOLDS NOT APPLICABLE]

   SYNC/ASYNC CONVERSION         THRESHOLD -SOURCE-  DEFAULT
SIMPLEX SYNC/ASYNC THRESHOLD:      thresh  [source defthresh]
DUPLEX SYNC/ASYNC THRESHOLD:       thresh  [source defthresh]
SIMPLEX LOCK SYNC/ASYNC THRESHOLD: thresh  [source defthresh]
DUPLEX LOCK SYNC/ASYNC THRESHOLD:  thresh  [source defthresh]

 SIMPLEX SYNC/ASYNC THRESHOLD: thresh1
 DUPLEX SYNC/ASYNC THRESHOLD:  thresh2
 SIMPLEX LOCK SYNC/ASYNC THRESHOLD: thresh3
 DUPLEX LOCK SYNC/ASYNC THRESHOLD:  thresh4

 CF REQUEST TIME ORDERING FUNCTION: {NOT-INSTALLED | INSTALLED}

COUPLING THIN INTERRUPTS: {ENABLED | NOT-ENABLED | NOT-INSTALLED}
 SYSTEM STATUS DETECTION PARTITIONING PROTOCOL ELIGIBILITY:
 SYSTEM {CAN | CANNOT} TARGET OTHER SYSTEMS.
  [REASON: targetotherrsn]
 SYSTEM {IS | IS NOT} ELIGIBLE TO BE TARGETED BY OTHER SYSTEMS.
  [REASON: othertargetrsn]

 SYSTEM NODE DESCRIPTOR:  type.mfg.plant.sequence
      PARTITION: partition side  CPCID: cpcid
 SYSTEM IDENTIFIER: sysid

 NETWORK ADDRESS: netid.nau

 PARTITION IMAGE NAME: image

 IPL TOKEN: ipltoken
COUPLEXX PARMLIB MEMBER USED AT IPL:  COUPLExx

   OPTIONAL FUNCTION STATUS:
      FUNCTION NAME               STATUS            DEFAULT
      funname       {ENABLED|DISABLED} {ENABLED|DISABLED}
```

A DISPLAY XCF,COUPLE command was entered to display the following information:

- Information about the primary and alternate data sets
- Information about sysplex failure management (SFM)
- Information about the system parameters set by the COUPLE statement in the COUPLExx parmlib member
- Information related to the system status detection partitioning protocol
- Status of optional functions

The DATA SET BEING REMOVED message may appear for the primary couple data set because of an error with the data set or because the SETXCF command with the PSWITCH keyword was entered by the operator, causing the alternate couple data set to become the primary couple data set. The message may appear for the alternate couple data set because of an error with the data set or because the SETXCF command with the ACOUPLE keyword was entered by the operator, causing the alternate couple data set to be replaced.

The presence of couple data set information in the display output does not necessarily imply that the system can access the couple data set. A couple data set may be physically inaccessible (such as no paths to it available from the displaying system), but the system does not become aware of the problem until an attempt is made to perform I/O to the data set. The frequency of I/O varies with couple data set type. The sysplex couple data set is updated every few seconds, but functional couple data sets may be accessed only infrequently. For example, some types of functional couple data sets are only accessed when a new policy is started.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

sysname
The name of the system that issued the command

interval
The system failure detection interval in seconds. This interval is the time XCF lets elapse without a status update before assuming that the system failed.

opnotify
The time, in seconds, XCF waits before notifying the operator of a potential system problem.

maxmsg
The default value for the maximum amount, in kilobytes, of message buffer space. This default value is used when MAXMSG is not specified on SETXCF START commands.

cleanup
The time, in seconds, XCF waits for cleanup of members.

retry
The default value for the retry limit. This value is used when the RETRY keyword is not specified on SETXCF START commands.

classlen
The default length, in bytes, of messages allowed for a transport class. This value is used when CLASSLEN is not specified on the SETXCF START CLASSDEF command.

action
Define action. *action* can be one of the following:

- ISOLATE
- DEACTIVATE
- RESET
- PROMPT
- N/A

sfminterval
The SSUM interval as specified in the current SFM policy. This interval is the time elapsed after a system has become status update missing before the SSUM action is attempted.

ssumlimit
The SSUMLIMIT value from the SFM active policy.

The value of *ssumlimit* can be one of the following values:

seconds When a system detects SSUM but XCF signal traffic is produced by this system, *seconds* elapse before the SSUM ACTION is automatically attempted. Message IXC446I will be issued to indicate the action will be taken to remove the SSUM system that is producing XCF signal traffic.

NONE This value indicates that message IXC426D will prompt the operator to remove a system that is producing XCF signal traffic. Automatic action is not taken when message IXC426D (and IXC427A) is issued.

N/A This value indicates that either an SFM policy is not active or an SSUM ACTION of PROMPT is used.

weight
The SSUM weight as specified in the current SFM policy. This weight is used in sysplex reconfigurations after a signalling connectivity failure.

memstalltime
The MEMSTALLTIME value as specified in the current SFM policy, which determines whether and when SFM is to take action against a stalled XCF group member that is causing sympathy sickness on other systems in the sysplex.

- NO indicates SFM will not take action.
- N/A indicates that an SFM policy is not active, in which case the system behaves as if NO is specified.
- An integer value indicates the number of seconds that SFM is to wait before taking action to alleviate a sympathy sickness condition caused by a stalled member. SFM actions could include terminating the stalled member or removing a system from the sysplex.

cfstrhangtime
The CFSTRHANGTIME value as specified in the current SFM policy, which determines whether and when the system is to take action against a coupling facility structure connector that has not provided an expected response to an event associated with an on-going structure-related activity, such as rebuild. The value and meaning are as follows:

- NO indicates that the system will not take action.
- N/A indicates that an SFM policy is not active on the system from which the DISPLAY command is issued, in which case the system behaves as if NO is specified.
- An integer value indicates the number of seconds that the system is to permit the response to remain outstanding after a hang has been reported by message IXL040E or IXL041E. If the response is still outstanding when the specified interval elapses, the system will initiate corrective actions to alleviate the hang. These may include stopping a rebuild, or terminating the task, address space, or system associated with the unresponsive connector.

ufdisrc
The source of the INTERVAL value being used by the system:

SETXCF
The value is set by the SETXCF COUPLE,INTERVAL command.

PARMLIB
The value is explicitly set in the COUPLExx parmlib member during IPL.

DEFAULT
The default value that is derived from the excessive spin parameters that are currently defined for the system. This value changes dynamically in response to the SET EXS command.

CLUSTER
The value is set by cluster management instrumentation software.

uuuuu
The user-specified INTERVAL value, whether explicitly or by default.

sssss
The INTERVAL derived from the spin loop recovery specifications. This value equals `(N+1)*SpinTime+5` where N is the number of excessive spin recovery actions, +1 indicates the implicit SPIN action, and `SpinTime` is the excessive spin loop timeout interval.

uonisrc
The source of the OPNOTIFY value used by the system:

SETXCF
The value is set by the SETXCF COUPLE,OPNOTIFY command.

PARMLIB
The value is explicitly set in the COUPLExx parmlib member during IPL.

DEFAULT
The default OPNOTIFY value is a relative value of three seconds. Thus the effective OPNOTIFY value used for this system is three seconds more than the effective failure detection interval value (INTERVAL), but not more than the maximum value of 86400.

[+]*ooooo*
The OPNOTIFY value specified by the user, whether explicitly or by default. The value is displayed as *+ooooo* for a relative OPNOTIFY value, *ooooo* for an absolute OPNOTIFY value.

maxcflevel
The maximum CFLEVEL supported by this system.

maxprocesslevel
The maximum level of system-managed process, if any, supported by the system. For a system to participate in system-managed processing (for example, rebuild) against a structure, this value must be greater than or equal to the level required by that structure as reported (for allocated structures) by IXC360I in response to a D XCF,STR command.

This value is meaningful only if the CFRM couple data set is formatted to support system-managed processes.

SYNC/ASYNC CONVERSION THRESHOLDS NOT APPLICABLE
The system configuration does not support processing of coupling facility requests.

thresh
The synchronous to asynchronous conversion threshold, in microseconds, for the specified request type.

For these thresholds, when the system observes actual CF request service times for the indicated types of CF requests that exceed the indicated thresholds, it might start to convert requests from CPU-synchronous execution to asynchronous execution, to avoid using excessive amounts of processor time that would otherwise be needed to perform the CF accesses in a CPU-synchronous manner.

source
One of the following:

SYSTEM
The indicated threshold was determined by the system.

SETXCF
The indicated threshold was set in response to a SETXCF MODIFY,SYNCASYNC command.

PARMLIB
The indicated threshold was set in response to parameters specified in the COUPLE*xx* parmlib member used to IPL the system.

***REPAIR**
The indicated threshold was set as the result of repairs made to corrupted system data. If the value is not the current system default, it will be reset to the system default. If the system default is not appropriate for use, issue the SETXCF MODIFY,SYNCASYNC command to set an appropriate value.

defthresh
The default sync/async conversion threshold value that would have been used if the system-determined default value was in effect. The value is expressed in microseconds. The text "IN USE" appears if the indicated threshold value is being set in accordance with the system determined default.

thresh1
The synchronous to asynchronous conversion threshold, in microseconds, for simplex non-locking CF requests.

thresh2
The synchronous to asynchronous conversion threshold, in microseconds, for duplexed non-locking CF requests.

thresh3
The synchronous to asynchronous conversion threshold, in microseconds, for simplex locking CF requests.

thresh4
The synchronous to asynchronous conversion threshold, in microseconds, for duplexed locking CF requests.

For these thresholds, when the system observes actual CF request service times for the indicated types of CF requests that exceed the indicated thresholds, it might start to convert requests from CPU-synchronous execution to asynchronous execution, to avoid using excessive amounts of processor time that would otherwise be needed to perform the CF accesses in a CPU-synchronous manner.

CF REQUEST TIME ORDERING FUNCTION: NOT-INSTALLED
The CF request time ordering function is not installed on this machine. Operations to the CF may not request time ordering.

CF REQUEST TIME ORDERING FUNCTION: INSTALLED
The CF request time ordering function is installed on this machine. Operations to the CF may request time ordering.

COUPLING THIN INTERRUPTS: ENABLED
Support for processing coupling thin interrupts is installed on the central processor complex (CPC) and enabled on this LPAR.

COUPLING THIN INTERRUPTS: NOT-ENABLED
Support for processing coupling thin interrupts is installed on the CPC but not enabled on this LPAR. See message IXL163I for diagnostic information.

COUPLING THIN INTERRUPTS: NOT-INSTALLED
Support for processing coupling thin interrupts is not installed on the CPC.

SYSTEM {CAN | CANNOT} TARGET OTHER SYSTEMS
Whether this system can employ the system status detection partitioning protocol when removing other systems from the sysplex.

If the system status detection partitioning protocol is not enabled, and enablement is needed, refer to the description for message IXC104I, which lists the required action to correct the limiting factor.

targetotherrsn
The reason that this system cannot use the system status detection partitioning protocol to aid in removing other systems from the sysplex:

SYSPLEX COUPLE DATA SET NOT FORMATTED TO SUPPORT PROTOCOL
The primary sysplex couple data set was not formatted to support the larger records required by the protocol.

NOT ENABLED BY INSTALLATION
The installation has not enabled the protocol by specifying ENABLE(SYSSTATUSDETECT) either in the COUPLExx parmlib member FUNCTIONS statement or on a SETXCF FUNCTIONS command.

OPERATING AS VM GUEST
This system is operating as a second-level guest under the VM operating system. In this environment, the system services necessary to exploit the protocol are not available.

BCPII SERVICES NOT AVAILABLE
BCPii services are not available. The system status detection protocol requires BCPii services to determine the status of other systems in the sysplex. When BCPii services are not available, the local system is not connected to any remote CPC images in the sysplex.

SYSTEM OR HARDWARE ERROR
A system or hardware error prevented this system from communicating its IPL token, obtaining its network address, or connecting to the BCPii hardware management interface.

INSUFFICIENT SAF RESOURCE ACCESS AUTHORITY
The local system has insufficient authorization to access SAF-protected resources associated with BCPii callable services.

UNEXPECTED SYSTEM SERVICE ERROR
An unexpected return code was received on a system service preventing this system from communicating its IPL token, obtaining its network address or image name, or connecting to the BCPii hardware nanagement interface.

Message IXC112I is issued when a BCPii callable service returns a failing return code while the local system is attempting to connect to the BCPii hardware management interface (HWI) and collect the necessary information to publish the local CPC network address and image name for other systems in the sysplex to use. See message IXC112I for diagnostic information to help correct the problem causing the failure.

SYSTEM {IS | IS NOT} ELIGIBLE TO BE TARGETED BY OTHER SYSTEMS
Whether other systems can employ the system status detection partitioning protocol when removing this system from the sysplex.

If the system status detection partitioning protocol is not enabled, and enablement is needed, refer to the description for message IXC104I, which lists the required action to correct the limiting factor.

othertargetrsn
The reason that other systems cannot use the system status detection partitioning protocol to aid in removing this system from the sysplex:

SYSPLEX COUPLE DATA SET NOT FORMATTED TO SUPPORT PROTOCOL
The primary sysplex couple data set was not formatted to support the larger records required by the protocol.

NOT ENABLED BY INSTALLATION
The installation has not enabled the protocol by specifying ENABLE(SYSSTATUSDETECT) either in the COUPLExx parmlib member FUNCTIONS statement or on a SETXCF FUNCTIONS command.

NOT SUPPORTED BY HARDWARE
The CPC on which this system resides does not support the functions necessary for this system to communicate its IPL token.

OPERATING AS VM GUEST
This system is operating as a second-level guest under the VM operating system. In this environment, the system services necessary to exploit the protocol are not available.

SYSTEM OR HARDWARE ERROR
A system or hardware error prevented this system from communicating its IPL token, obtaining its network address, or connecting to the BCPii hardware management interface.

BCPII SERVICES NOT AVAILABLE
For the local system to be an eligible target of the system status detection partition protocol, the system status detection protocol requires BCPii services to be available on the local system to collect necessary information to publish the local IPL token, CPC network address, and image name needed by other systems.

INSUFFICIENT SAF RESOURCE ACCESS AUTHORITY
The local system has insufficient authorization to access SAF-protected resources associated with BCPii callable services.

UNEXPECTED SYSTEM SERVICE ERROR
An unexpected return code was received on a system service preventing this system from communicating its IPL token, obtaining its network address or image name, or connecting to the BCPii hardware management interface.

Message IXC112I is issued when a BCPii callable service returns a failing return code while the local system is attempting to connect to the BCPii hardware management interface (HWI) and collect the necessary information to publish the local CPC network address and image name for other systems in the sysplex to use. See message IXC112I for diagnostic information to help correct the problem causing the failure.

type
Node type (see ndetype in IXLYNDE)

mfg
Node manufacturer ID (see ndemfg in IXLYNDE)

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE)

sequence
Node sequence number (see ndesequence in IXLYNDE)

partition
Node LPAR partition number (see ndepartition in IXLYNDE)

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

- **SIDE: 0** - The coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** - The coupling facility is SIDE 1 of a partitionable CPC.
- blank - The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID. (see ndecpcid in IXLYNDE.)

sysid
The system identifier used to identify the system at the sender end of a CF link.

netid.nau
The network address uniquely identifying the CPC on which this system resides, as a node on the LAN.

netid.nau is available when the local system was able to obtain its netid.nau using BCPii APIs.

N/A indicates the information is not currently available because of limiting environmental conditions on the local system. See message IXC104I for information about limiting environmental conditions associated with using BCPii APIs and the system status detection partitioning protocol.

image
The image name associated with the logical partition (LPAR) in which the local system is loaded.

image is available when the local system was able to obtain its image name using BCPii APIs.

N/A indicates the information is not currently available because of limiting environmental conditions on the local system. See message IXC104I for information about limiting environmental conditions associated with using BCPii APIs and the system status detection partitioning protocol.

ipltoken
The IPL token associated with this system instance and the LPAR in which it resides.

ipltoken is available when the local system was able to obtain its IPL token using BCPii APIs.

N/A indicates the information is not currently available because of limiting environmental conditions on the local system. See message IXC104I for information about limiting environmental conditions associated with using BCPii APIs and the system status detection partitioning protocol.

xx COUPLExx parmlib member *xx* value used for the current IPL.

STATUS
The current status of the named function on the system from which the display command was issued.

DEFAULT
The default status of the named function.

funname
Name of XCF/XES optional function. See *z/OS MVS Setting Up a Sysplex* for descriptions of the listed function names. *funname* is one of the following values:

- DUPLEXCF16
- SYSSTATDETECT
- USERINTERVAL
- CRITICALPAGING
- DUPLEXCFDIAG
- CFLCRMGMT
- COUPLINGTHININT
- MSGISO

ENABLED
The system will exploit the named function, subject to the establishment of any other prerequisites that may be required for its use.

DISABLED
The system will not exploit the named function.

System action: The system continues processing.

Operator response: If the display indicates that the sysplex needs a larger maximum number of groups or members, or a larger maximum number of members possible in a group, then notify the system programmer.

System programmer response: Do one of the following:

- If the sysplex needs a larger maximum number of members possible in a group, format a new, larger sysplex couple data set. Then ask the operator to make the new sysplex couple data set the alternate using the SETXCF COUPLE,ACOUPLE command, and perform a data set switch with the SETXCF COUPLE,PSWITCH command. If more groups are also desired, allocate more space to the data set.
- If the peak number of groups, *peakgrp*, is close to the value of MAXGROUPS, a larger sysplex couple data set might be needed to contain growth.
- If the peak number of members, *peakmem*, is close to the value of MAXMEMBERS, a larger sysplex couple data set might be needed to contain growth.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC358I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

```
SYSPLEX COUPLE DATA SETS
PRIMARY DSN: dsname
    VOLSER: prisysvol     DEVN: prisysdev
    FORMAT TOD            MAXSYSTEMMAXGROUP(PEAK)   MAXMEMBER(PEAK)
    mm/dd/yyy hh:mm:ss    maxsys  maxgroup(peakgrp) maxmember(peakmem)
    ADDITIONAL INFORMATION:
     sysplexfunction

ALTERNATE DSN: dsname
          VOLSER: altsysvol  DEVN: altsysdev
          FORMAT TOD         MAXSYSTEM  MAXGROUP        MAXMEMBER
          mm/dd/yyy hh:mm:ss maxsys     maxgroup        maxmember
          ADDITIONAL INFORMATION:
            sysplexfunction

cdstype COUPLE DATA SETS
PRIMARY   DSN: dsname
          VOLSER: privol  DEVN: pridev
          FORMAT TOD       MAXSYSTEM
          mm/dd/yyy hh:mm:ss maxsys
          ADDITIONAL INFORMATION:
            typeinfo

         [DATA SET BEING REMOVED]

ALTERNATE DSN: dsname
          VOLSER: altvol    DEVN: altdev
          FORMAT TOD         MAXSYSTEM
          mm/dd/yyy hh:mm:ss maxsys
          ADDITIONAL INFORMATION:
            typeinfo


   [SYNCHRONIZATION WITH PRIMARY IN PROGRESS]
```

```
   [DATA SET BEING REMOVED]
[cdstype IN USE BY ALL SYSTEMS]

[SYSTEMS USING cdstype:
  sysname sysname sysname sysname sysname sysname sysname]

[SYSTEMS NOT USING cdstype:
  sysname sysname sysname sysname sysname sysname sysname]

[SYSTEMS processtype FOR cdstype:
   sysname2 sysname2 sysname2 sysname2 sysname2 sysname2]

[THERE ARE NO COUPLE DATA SETS DEFINED TO THE SYSPLEX]

[THE FOLLOWING REQUESTED TYPES
ARE NOT DEFINED TO THE SYSPLEX:
  ndeftype ndeftype ndeftype ndeftype ndeftype ndeftype ndeftype]

[cdstype NOT IN USE BY ANY SYSTEM]
```

A DISPLAY XCF,COUPLE command was entered to display detailed information about couple data sets. Information about the primary and alternate data sets is displayed.

The DATA SET BEING REMOVED message may appear for the primary couple data set because of an error with the data set or because the SETXCF command with the PSWITCH keyword was entered by the operator, causing the alternate couple data set to become the primary couple data set. The message may appear for the alternate couple data set because of an error with the data set or because the SETXCF command with the ACOUPLE keyword was entered by the operator, causing the alternate couple data set to be replaced.

If one or more types are used by ALL systems, the list of all systems in the sysplex may be displayed by issuing the DISPLAY XCF,SYSPLEX command.

The presence of couple data set information in the display output does not necessarily imply that the system can access the couple data set. A couple data set may be physically inaccessible (no paths to it available from the displaying system), but the system does not become aware of the problem until an attempt is made to perform I/O to the data set. The frequency of I/O varies with couple data set type. The sysplex couple data set is updated every few seconds. Functional couple data sets, on the other hand, may be accessed only infrequently (for example, when a new policy is started), so the system attempts to drive I/O to them approximately once per minute to verify their continued accessibility.

In the message text:

hh.mm.ss
: The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

dsname
: The name of the couple data set. The primary sysplex couple data set must be defined to XCF via the COUPLExx parmlib member. All other couple data sets can be defined via the COUPLExx parmlib member or the SETXCF command.

prisysvol
: The volume on which the primary sysplex couple couple data set resides.

prisysdev
: The device address of the device on which the primary sysplex couple data set resides.

mm/dd/yyyy
: The date when the primary couple data set was formatted. The date is in months (01-12), days (01-31), and years.

hh:mm:ss
: The time when the primary couple data set was formatted. The time is in hours (00-23), minutes (00-59), and seconds (00-59). This is used to guarantee data set uniqueness.

maxsys
: The maximum number of systems that the couple data set can support.

maxgroup
The maximum number of groups that the couple data set can support.

peakgrp
The peak number of groups ever in use in the sysplex.

maxmember
The maximum number of members per group that the primary couple data set can support in one group.

peakmem
The greatest number of members ever in use in the largest group in the sysplex.

ADDITIONAL INFORMATION:
The lines following this header are supplied by the component owning the couple data set.

sysplexfunction
The level of function for which the couple data set is formatted. *sysplexfunction* has the following format:

- One of the following two statements appears:

  SYSPLEX-ONLY COUPLE DATA SET SUPPORTED
  The couple data set supports only the use of the sysplex couple data set itself.

  ALL TYPES OF COUPLE DATA SETS ARE SUPPORTED
  The couple data set supports the use of additional couple data sets such as CFRM, SFM, etc.

- One or more of the following lines may also appear:

  GRS STAR MODE IS SUPPORTED
  The couple data set supports GRS star mode operations.

  CLUSTER RESOURCE MANAGEMENT IS SUPPORTED
  The couple data set supports cluster resource management operations.

  SYSTEM STATUS DETECTION PROTOCOL IS SUPPORTED
  The couple data set supports the system status detection partitioning protocol.

altsysvol
The volume on which the alternate sysplex couple data set resides.

altsysdev
The device address of the device on which the alternate sysplex couple data set resides.

cdstype
The type name associated with the couple data sets.

privol
The volume on which the primary couple data set resides.

pridev
The device address of the device on which the primary couple data set resides. A value of 'N/A' means that the device address is not available on the displaying system, either because the function is not active on that system, or because the data set is being removed due to PSWITCH or an I/O error.

altvol
The volume on which the alternate couple data set resides.

altdev
The device address of the device on which the alternate couple data set resides. A value of 'N/A' means that the device address is not available on the displaying system because the function is not active on that system.

typeinfo
Additional information provided by the component owning the couple data set. It may describe, for example, the level of specialized function for which the couple data set is formatted.

- *typeinfo* displays the following for any *cdstype* :

  NOT PROVIDED
  The component that owns the couple data set did not supply additional information, or the system is not using the couple data set.

Component-supplied information
Information supplied by the component that owns the couple data set. See the documentation associated with the owning component for an explanation.

- **If** *cdstype* **is ARM,** *typeinfo* has the following format:

```
 FORMAT DATA
VERSION version, formatlvl
POLICY(policy) MAXELEM(maxelem)
TOTELEM(totelem)
```

version
Indicates the version of the couple data set.

formatlvl
One of the following:

HBB5520 SYMBOL TABLE SUPPORT
This is the initial or base ARM couple data set format level and is created when the ARM couple data set is formatted using a version of IXCL1DSU prior to z/OS V1R4.

HBB7707 SYMBOL TABLE SUPPORT
This format level is created when the ARM couple data set is formatted using a version of IXCL1DSU at z/OS V1R4 or higher.

HBB77A0 SYMBOL TABLE SUPPORT
This format level is created when the ARM couple data set is formatted using a version of IXCL1DSU at z/OS V2R2 or higher.

POLICY(*policy***) MAXELEM(***maxelem***) TOTELEM(***totelem***)**
This line represents the IXCL1DSU control statements that were used to format the couple data set.

- **If** *cdstype* **is BPXMCDS,** *typeinfo* has the following format:

```
ADDITIONAL INFORMATION:
FORMAT DATA
VERSION(version)
MOUNTS(mounts) AMTRULES(amtrules)
```

The *typeinfo* lines display the CDS version, the MOUNT parameter value, and the AMTRULES parameter value found in the BPXMCDS couple data set.

- **If** *cdstype* **is CFRM,** *typeinfo* has the following format:

```
FORMAT DATA
 POLICY(n)  CF(n)  STR(n)   CONNECT(n)
 [SMREBLD(1) [SMDUPLEX(1) [MSGBASED(1)]]]
```

The FORMAT DATA lines represent the IXCL1DSU control statements that would be required to format a couple data set equivalent to the one described.

- **If** *cdstype* **is LOGR,** *typeinfo* has the following format:

```
LOGR COUPLE DATA SET FORMAT LEVEL: formatlvl
LSR(lsrnum) LSTRR(lstrrnum) DSEXTENT(dsextentnum)
SMDUPLEX(smduplexnum)
```

The *typeinfo* lines indicate the format level, the type, and the number of records found in the LOGR couple data set, where:

formatlvl
Indicates the format level of this couple data set.

HBB7705
Indicates that this LOGR CDS was formatted at any z/OS V2R2 or higher release level when the ITEM NAME(SMDUPLEX) specification is not provided, or any z/OS V1R2 or higher release level with option NUMBER(1) specified for the ITEM NAME(SMDUPLEX).

HBB6603
Indicates that this LOGR CDS was formatted at any OS/390 V1R3 or higher release level through OS/390 V2R10 and z/OS V1R1, or any z/OS V1R2 or higher release level through z/OS V2R1

without option NUMBER(1) for ITEM NAME(SMDUPLEX), or any z/OS V1R2 or higher release level with option NUMBER(0) specified for the ITEM NAME(SMDUPLEX).

HBB5220
Indicates that this LOGR CDS was formatted at a release level prior to z/OS V1R3.

See "LOGR couple data set versioning - new format levels" in *z/OS MVS Setting Up a Sysplex* for considerations for the system logger functions that are supported using the different LOGR CDS format levels.

lsrnum
Indicates the number of LSR type records formatted in this LOGR couple data set.

lstrrnum
Indicates the number of LSTRR type records formatted in this LOGR couple data set.

dsextentnum
Indicates the number of DSEXTENT type records formatted in this LOGR couple data set. This type of record is supported with a LOGR CDS format level of at least HBB6603.

smduplexnum
Specifies whether Logger should support XES system-managed structure duplexing:

- 0 indicates Logger will not support system-managed structure duplexing. Results in LOGR CDS format level of HBB6603.
- 1 indicates Logger will support system-managed structure duplexing. Results in LOGR CDS format level of HBB7705.

- **If** *cdstype* **is SFM,** *typeinfo* has the following format:

```
FORMAT DATA
 POLICY(policy) SYSTEM(system) RECONFIG(reconfig)
```

The POLICY(*policy*) SYSTEM(*system*) RECONFIG(*reconfig*) line represents the IXCL1DSU control statements that were used to format the couple data set.

sysname
The name of the system using, or not using, a type. If a type is used by all systems, or by no systems, then this line is not displayed. Instead, the preceding line will be replaced by cdstype IN USE BY ALL SYSTEMS or by cdstype NOT IN USE BY ANY SYSTEM, whichever is appropriate.

processtype
One of the following:

REMAINING IN PERMANENT ERROR
A permanent error process (removal of one or both couple data sets) is in progress for the named couple data set type. The named systems have not yet reported their participation in the process.

PARTICIPATING IN ACOUPLE
An ACOUPLE is in progress for the named couple data set type. The named systems are participating in the process.

sysname2
The name of a system participating or expected to participate in the permanent error or ACOUPLE process.

ndeftype
Name of a requested type which is not defined to the sysplex.

System action: The system continues processing.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP

Routing code: #

Descriptor code: 5,8,9

IXC359I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

```
[CF LOSSCONN RECOVERY MANAGEMENT IS IN PROGRESS.]
[LARGER CFRM COUPLE DATA SET REQUIRED.
FORMAT A NEW COUPLE DATA SET
FOR CFRM USING AT LEAST THE FOLLOWING:
     ITEM NAME(STR) NUMBER(str#)
     ITEM NAME(CONNECT) NUMBER(conn#)]

[THE COUPLE DATA SET
FOR CFRM SUPPORTS THE MAXIMUM NUMBER OF STR
RECORDS.  totalstr
STRUCTURE(S) MUST BE DELETED FROM THE POLICY TO
ACCOMMODATE STRUCTURES ALLOCATED IN THE
COUPLING FACILITY.]

[totalstr STRUCTURE(S) MUST ALSO
BE DELETED FROM THE POLICY TO
ACCOMMODATE STRUCTURES ALLOCATED IN THE
COUPLING FACILITY.]
[THE REALLOCATE PROCESS IS IN PROGRESS.]
[THE REALLOCATE PROCESS IS STOPPING.]
STRNAME         ALLOCATION TIME              STATUS         TYPE
strname         mm/dd/yyyy hh:mm:ss          status         strtype


[THE CFRM ACTIVE POLICY IS EMPTY]


[NO STRUCTURES MATCH THE SPECIFIED CRITERIA]

[MANAGEMENT LEVEL: msgbasedlevel]
```

A DISPLAY XCF,STRUCTURE command was entered to display summary information about the structures defined in the CFRM active policy that is used by this sysplex. The system will repeat the message text to report all requested structures. The status of a single structure might also extend to several message lines. Additionally, a message will be displayed to provide the CFRM event management protocol that is used by this sysplex.

If no structures are displayed, then one of the trailer messages shown above will be displayed instead to explain the absence of structures.

If the CFRM Couple Data Set needs to be reformatted, then a message will be displayed before any structures are listed. This message will specify the minimum numbers to be used in reformatting the data set.

If the REALLOCATE process has been initiated, then a message is displayed before any structures are listed. This message indicates the current state of the REALLOCATE process. The REALLOCATE process is in progress if a SETXCF START,REALLOCATE operator command has been issued. The REALLOCATE process is stopping if a SETXCF STOP,REALLOCATE operator command has been issued. Once started, the REALLOCATE process evaluates each allocated structure to determine the need for activation of a pending policy and/or location adjustment of instance(s) allocated in CF(s). REALLOCATE processing ends either when all allocated structures have been evaluated with appropriate action taken or when the REALLOCATE process was stopped and relocation steps for the current target structure have finished.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

CF LOSSCONN RECOVERY MANAGEMENT IS IN PROGRESS
A loss of connectivity to a coupling facility occurred that required connector recovery.

str#
The STR number to be used in reformatting the CFRM Couple Data Set. If the current number is adequate, then this line will not be displayed.

conn#
The CONNECT number to be used in reformatting the CFRM Couple Data Set. If the current number is adequate, then this line will not be displayed.

totalstr
The total number of structures that should be deleted from the CFRM active policy.

THE REALLOCATE PROCESS IS IN PROGRESS.
The REALLOCATE process is initiated by the SETXCF START,REALLOCATE operator command. Once started, the REALLOCATE process examines each allocated structure to determine whether the location of any instance needs to be adjusted and/or a pending policy activated. The evaluation process uses the XCF allocation algorithm which factors in the CFRM active policy information and current set of active connections to make the determination.

THE REALLOCATE PROCESS IS STOPPING.
The REALLOCATE process is stopped by the SETXCF STOP,REALLOCATE operator command. Once stopped, the structure, which is the current target of the REALLOCATE process, will complete the relocation steps prior to ending the REALLOCATE process.

strname
The name of a structure.

mm/dd/yyyy
The date when the structure was allocated. The date is in months (01-12), days (01-31), and years (0000-9999). If the structure is not allocated, dashes are displayed instead.

hh:mm:ss
The time when the structure was allocated. The time is in hours (00-23), minutes (00-59), and seconds (00-59). This is used to guarantee structure uniqueness. If the structure is not allocated, dashes are displayed instead.

status
One or more of the following:

ALLOCATED
The structure is allocated in a coupling facility.

NOT ALLOCATED
The structure is not allocated.

ALLOCATED (NEW)
A structure rebuild process is in progress and two instances of the structure are allocated. This is the new instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

ALLOCATED (OLD)
A structure rebuild process is in progress and two instances of the structure are allocated. This is the old instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

CFNAME: *cfname*
cfname is the name of the CF in which the instance of the structure currently resides.

DEALLOCATION PENDING:
Possible reasons for structure deallocation pending are:

DEALLOCATING SYSTEM LOST CONNECTIVITY
The system that attempts to deallocate the structure lost connectivity to the coupling facility that contains the structure. The structure deallocation might remain pending if the coupling facility that contains the structure is not connected to any system. Use either the DISPLAY XCF,CF or the DISPLAY CF command to show the connectivity status of the coupling facility.

STRUCTURE DUMP EXISTS WITH STRUCTURE DUMP ID *nnnn*
Deallocation is pending for this structure because a structure dump is associated with this structure. The structure deallocation remains pending until the structure dump is either forced or written to a dump data set. The structure dump id *nnnn* is given for use in the SETXCF FORCE,STRDUMP command.

TRANSITIONING: CONNECT OR DISCONNECT IN PROGRESS
The structure is either being allocated in a coupling facility or deallocated from a coupling facility. The structure deallocation may remain pending if the coupling facility containing the structure is not connected to any system. Use the DISPLAY XCF,CF or DISPLAY CF command to show the connectivity status of the coupling facility.

STRUCTURE FAILED
The structure has failed.

POLICY CHANGE PENDING - CHANGE
There is an administrative policy change pending. The pending change is to change the policy definition for the structure.

POLICY CHANGE PENDING - DELETE
There is an administrative policy change pending. The pending change is to delete the policy definition for the structure.

STRUCTURE NOT DEFINED IN POLICY
The structure is not defined in the active policy and therefore cannot be connected to. This scenario can only occur when all instances of the structure are either deallocation pending or in transition.

FAILED-PERSISTENT CONNECTIONS UNAVAILABLE DUE TO LARGER CFRM COUPLE DATA SET REQUIRED
The CFRM Couple Data Set must be reformatted to correct this unavailability.

STRUCTURE DUMP EXISTS WITH STRUCTURE DUMP ID *nnnn*
There is a structure dump associated with this structure, and the structure dump ID *nnnn* is given for use in the SETXCF FORCE,STRDUMP command.

ALTER IN PROGRESS
Structure alter has been initiated.

ALTER STOP IN PROGRESS
Structure alter stop has been initiated.

POPULATECF REBUILD PENDING FOR *cfname*
The structure is pending rebuild for the current PopulateCF rebuild. *cfname* is the name of the coupling facility specified for the PopulateCF rebuild request.

POPULATECF REBUILD IN PROGRESS FOR *cfname*
The structure is being rebuild for the current PopulateCF rebuild. *cfname* is the name of the coupling facility specified for the PopulateCF rebuild request.

REALLOCATE EVALUATION PENDING
The allocated structure is pending evaluation of its current location. The REALLOCATE process initiated by the SETXCF START,REALLOCATE operator command examines each allocated structure to determine whether the location of any of the instance(s) needs to be adjusted and/or a pending policy activated. The evaluation process uses the XCF allocation algorithm, which factors in the CFRM active policy information and current set of connections, to make the determination.

TARGET OF REALLOCATE PROCESS
The structure was selected by the REALLOCATE process to have its location adjusted and/or pending policy activated. The REALLOCATE process was initiated by the SETXCF START,REALLOCATE operator command. Once marked as the target of the REALLOCATE process, the structure remains the target until one of the following occurs:

- The REALLOCATE process evaluates the next structure or completes.
- The structure is reduplexed, deallocated, or forced.

REBUILDING
The structure rebuild process type is rebuild.

REBUILD STOPPING
The structure rebuild process type is rebuild. The process is being stopped.

DUPLEXING REBUILD
The structure rebuild process type is duplexing rebuild.

DUPLEXING REBUILD STOPPING
The structure rebuild process type is duplexing rebuild. The process is being stopped to fall back to the old structure.

DUPLEXING REBUILD SWITCHING
The structure rebuild process type is duplexing rebuild. The process is being stopped to switch to the new structure.

METHOD: *method*
The method used to manage the current process (for example, rebuilding, rebuild stopping, or duplexing rebuild) is one of the following:

SYSTEM-MANAGED
The system is managing the process.

USER-MANAGED
The connected users are managing the process.

PHASE: *phase*
The phase of the current process (for example, rebuilding, rebuild stopping, or duplexing rebuild) is one of the following:

WAITING FOR QUIESCE
The structure rebuild process is in the quiesce phase.

WAITING FOR COMPLETE
The structure rebuild process is in the complete phase.

WAITING FOR CLEANUP
The structure rebuild process is in the cleanup phase.

DUPLEX STARTUP
The structure rebuild process is in the startup phase.

DUPLEX ESTABLISHED
The structure rebuild process is in the duplex established phase.

DUPLEX SWITCHING
The structure rebuild process is in the duplex switching phase.

STARTUP
The structure rebuild process is in the startup phase.

ALLOCATE
The structure rebuild process is in the allocate phase.

ATTACH
The structure rebuild process is in the attach phase.

COPY
The structure rebuild process is in the copy phase.

COPY STOP
The structure rebuild process is in the copy stop phase.

QUIESCE FOR STOP
The structure rebuild process is in the quiesce for stop phase.

STOP
The structure rebuild process is in the stop phase.

START ALTER NOT PERMITTED
CF structure alter processing has been disabled; start alter is not permitted.

strtype
One of the following:

LOCK
The structure type is lock.

SLIST
The structure type is serialized list.

LIST
The structure type is list.

CACHE
The structure type is cache.

blank
The structure type is only applicable when the status is one of the following:
- ALLOCATED
- ALLOCATED (NEW)
- ALLOCATED (OLD)

EVENT MANAGEMENT:
The CFRM event management protocol according to the CFRM active policy. Except for XCF signaling structures, message-based processing can be used for any allocated structure. When the CFRM event management protocol is message-based, message-based processing is enabled for an allocated structure during event processing. When the CFRM event management protocol is policy-based, event processing is policy-based for all allocated structures.

evtmgmt
One of the following:

POLICY-BASED
For the sysplex, event management for an allocated structure is controlled on each system that has a structure connection and the CFRM active policy is accessed to obtain event data.

MESSAGE-BASED MANAGER SYSTEM NAME: *mgrsysname*
For the sysplex, allocated structures that are enabled for message-based processing have event processing managed by an event manager system using messages sent through XCF signaling for communication with the participant system(s). The manager system updates the CFRM active policy once all participant system(s) distribute the event to active connections. The event manager system is identified by *mgrsysname*.

MESSAGE-BASED TRANSITIONING TO NEW MANAGER
For the sysplex, allocated structures that are enabled for message-based processing have event processing managed by an event manager system, but the sysplex is transitioning to a new manager system. When the new manager system is assigned, the name of the event manager system can be displayed. The sysplex changes to a new manager system as the result of removing the prior manager system from the sysplex.

msgbasedlevel
The level of message-based event processing being used by CFRM. Message-based processing can be restarted by the system if a system in the sysplex does not support this level. Message-based processing can also be restarted by the system to increase this level. There may be functions that require a particular level. For example, the CFLCRMGMT function requires a level that is not supported by levels of z/OS lower than V2R1. See "Comparing message-based processing and policy-based processing" in *z/OS MVS Setting Up a Sysplex* for more information on the CFLCRMGMT function,.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC3

Routing code: #

Descriptor code: 5,8,9

IXC360I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

```
[CF LOSSCONN RECOVERY MANAGEMENT IS IN PROGRESS]
[LARGER COUPLE DATA SET FOR CFRM REQUIRED.
FORMAT A NEW COUPLE DATA SET FOR CFRM
USING AT LEAST THE FOLLOWING:
  ITEM NAME(STR) NUMBER(str#)
```

```
  ITEM NAME(CONNECT) NUMBER(conn#)]

[THE COUPLE DATA SET
FOR CFRM SUPPORTS THE MAXIMUM NUMBER OF STR
RECORDS.  totalstr
STRUCTURE(S) MUST BE DELETED FROM THE POLICY TO
ACCOMMODATE STRUCTURES ALLOCATED IN THE COUPLING FACILITY.]

[totalstr STRUCTURE(S) MUST ALSO
BE DELETED FROM THE POLICY TO
ACCOMMODATE STRUCTURES ALLOCATED IN THE
COUPLING FACILITY.]

[THE REALLOCATE PROCESS IS IN PROGRESS.]

[THE REALLOCATE PROCESS IS STOPPING.]STRNAME: strname
STATUS:                   status
EVENT MANAGEMENT:         strem
TYPE:                     strtype
POLICY INFORMATION:
 POLICY SIZE:             policysize u
 POLICY INITSIZE:         policyinitsize u
 POLICY MINSIZE:          policyminsize u
 [SCMMAXSIZE:              policyscmmaxsize u]
 [SCMALGORITHM:            scmalgorithm]
 FULLTHRESHOLD:           fullthreshold
 ALLOWAUTOALT:            allowautoalt
 REBUILD PERCENT:         rebuildpercent
 DUPLEX:                  duplexstatus
 ALLOWREALLOCATE:         allowrealloc
 PREFERENCE LIST:         pref-cf pref-cf pref-cf pref-cf pref-cf
 ENFORCEORDER:            enforceorder
 EXCLUSION LIST:          excl-str excl-str excl-str
[POLICY RECPRTY:          recprty]
[SUBNOTIFYDELAY:           subnotifydelay]
[PENDING POLICY INFORMATION:]
```

[header]

```
[  REASON PENDING : pendrsn ]
[  REASON IN TRANSITION: CONNECT OR DISCONNECT IN PROGRESS]
[  STRUCTURE DUMP EXISTS WITH STRUCTURE DUMP ID dumpid]
[  STRUCTURE FAILED]

ALLOCATION TIME:   mm/dd/yyyy hh:mm:ss
CFNAME:     cfname  [NO SYSTEMS CONNECTED TO COUPLING FACILITY]
COUPLING FACILITY:      type.mfg.plant.sequence
                        PARTITION: partition side  CPCID: cpcid

[STORAGE CONFIGURATION NOT AVAILABLE]
 STORAGE CONFIGURATION    ALLOCATED         MAXIMUM      %
  ACTUAL SIZE:            actualsize u         maxsize u  pct
 [AUGMENTED SPACE:           iuaugspc u      emxaugspc u  pct]
 [STORAGE-CLASS MEMORY:         iuscm u         maxscm u  pct]
  [ENTRIES:                    scment        emxscment    pct]
  [ELEMENTS:                  scmelem       emxscmelem    pct]
For list, serialized list, and lock structures with record data:
   SPACE USAGE      IN-USE        TOTAL     %
 ENTRIES:          iuent       totent   iupct
[ELEMENTS:       iuelem     totelem   iupct]
[EMCS:            iuemc       totemc   iupct]
[LOCKS:                      totlock]

For lock structures without record data:
   SPACE USAGE                  TOTAL
    LOCKS:                     totlock
```

```
For cache structures:
   SPACE USAGE      IN-USE         TOTAL     %      CHANGED       %
    ENTRIES:         iuent       totent    iupct     chgdent   chgdpct
    ELEMENTS:      iuelem      totelem    iupct   chgdelem   chgdpct
 [ACTUAL SUBNOTIFYDELAY:   actualsubnotifydelay]
LOGICAL VERSION:         logicalver1 logicalver2
PHYSICAL VERSION:        physicalver1 physicalver2
SYSTEM-MANAGED PROCESS LEVEL:  processlevel
XCF GRPNAME:             xcfgrpname
DISPOSITION:             disp
ACCESS TIME:             accesstime
NUMBER OF RECORD DATA LISTS PER CONNECTION:   rdatalistspercon
MAX CONNECTIONS:         maxconns
# CONNECTIONS:           conns
STR ALTER STATE:         alterstate   [ALTER SYSTEM NAME: altersys]
STR ALLOW RATIO:         strratio
STR MINENTRY:            strminentry
STR MINELEMENT:          strminelement
STR MINEMC:              strminemc
COMPLETED USYNC          usynccompleted
EVENT:
COMPLETED USYNC          completedcode
COMPCODE:
COMPLETED USYNC          completedinfo
STATE :
NEXT USYNC EVENT:        usyncnext
NEXT USYNC               nextcompcode
COMPCODE :
NEXT USYNC STATE:        usyncnextinfo
SYSTEM RECPRTY:  sysrecprty
* ASTERISK DENOTES  asterisk
& AMPERSAND DENOTES CONNECTOR WHO LOST CONNECTIVITY TO STRUCTURE

CONNECTION NAME ID   VERSION   SYSNAME   JOBNAME   ASID STATE
----------------------------------------------------------------
connection-name id   version   sysname   jobname   asid constate
CONNECTION NAME:   connection-name
ID:                id
VERSION:           version
CONNECT DATA:      condata
DISCONNECT DATA:   discdata
SYSNAME:           connsysname
JOBNAME:           jobname
ASID:              asid
STATE:             constate
CONNECTOR HAS LOST PHYSICAL CONNECTIVITY additionalinfo
moreinfo
CONNECTION ID(S) OWING A RESPONSE FOR THIS CONNECTION
                   connectionids
REBUILD WAIT:      rebldwait
CONNECT LEVEL      connect-level1 connect-level2
INFO LEVEL:        info-level
CFLEVEL REQ:       cflevel
NONVOLATILE REQ:   nonvolrequest
CONDISP:           condisp
ALLOW REBUILD:     allowrebld
ALLOW DUPREBUILD:  allowduprebld
ALLOW AUTO:        allowauto
   SUSPEND:        autosuspend
TERMLEVEL:         termlevel
CRITICAL:          critical
ALLOW ALTER:       allowalter
   USER ALLOW RATION: userratio
   USERMINENTRY:      userminentry
   UNSERMINELEMENT:   userminelement
   UNSERMINEMC:       userminemc
USYNCH WAIT:       usyncwait
```

```
[NUMUSERS numusers]
[MAXCONN({USER | DEFAULT}): maxconn]
[THE CFRM ACTIVE POLICY IS EMPTY]
[NO STRUCTURES MATCH THE SPECIFIED CRITERIA]
[STRUCTURE NAMES REQUESTED BUT NOT SHOWN ARE NOT DEFINED]

[CONNECTION NAMES REQUESTED BUT NOT SHOWN ARE NOT DEFINED]
[SYSTEM-MANAGED PROCESS STATE INFORMATION NOT AVAILABLE FOR THIS SYSTEM]

SYSTEM NAME   SYSTEM TOKEN  SYSTEM-MANAGED PROCESS STATE  COPY ID
-----------  -----------  ---------------------------  -------
sysname       systoken      processstate                 processcopyid
[ENABLED FOR EXPEDITED DUPLEX COMPLETION PROTOCOL]
[DIAGNOSTIC INFORMATION:  STRNUM: strnum  STRSEQ: strseq]

[            MANAGER SYSTEM ID: mgrsysid]

[NAME/MGR     #QUEUED  1STQESN  LASTQESN  CMPESN  NOTIFYESN]
-----------  -------  -------  --------  ------  ---------
sysnameormgr  #queued  hESN     tESN      dESN    nESN

EVENT MANAGEMENT: evtmgmt
[MANAGEMENT LEVEL: msgbasedlevel]
```

A DISPLAY XCF, STRUCTURE command was entered to display detailed information about the structures defined in the CFRM active policy in use by this sysplex. The system will repeat the message text to report all requested structures. The status of a single structure may also extend to several message lines. Additionally, a message will be displayed to provide the CFRM event management protocol in use by this sysplex.

For structures that are not allocated, deallocation pending, rebuild old, or in transition, some of the lines displayed in the general case are not applicable, and will not be displayed.

For structures that are rebuilding or rebuild stopping, information will be displayed for both the rebuild new and rebuild old structures, if the rebuild new structure has been allocated.

If no structures are displayed, one of the trailer messages shown above will be displayed instead to explain the absence of structures.

If the CFRM Couple Data Set needs to be reformatted, a message will be displayed before any structures are listed. This message will specify the minimum numbers to be used in reformatting the data set.

If the REALLOCATE process has been initiated, then a message is displayed before any structures are listed. This message indicates the current state of the REALLOCATE process. The REALLOCATE process is in progress if a SETXCF START,REALLOCATE operator command has been issued. The REALLOCATE process is stopping if a SETXCF STOP,REALLOCATE operator command has been issued. Once started, the REALLOCATE process evaluates each allocated structure to determine the need for activation of a pending policy and/or location adjustment of instance(s) allocated in CF(s). REALLOCATE processing ends either when all allocated structures have been evaluated with appropriate action taken or when the REALLOCATE process was stopped and relocation steps for the current target structure have finished.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

CF LOSSCONN RECOVERY MANAGEMENT IS IN PROGRESS
A loss of connectivity to a coupling facility occurred that required connector recovery.

str#
The STR number to be used in reformatting the CFRM Couple Data Set. If the current number is adequate, then this line will not be displayed.

conn#
The CONNECT number to be used in reformatting the CFRM Couple Data Set. If the current number is adequate, then this line will not be displayed.

totalstr
The total number of structures that should be deleted from the CFRM active policy.

THE REALLOCATE PROCESS IS IN PROGRESS.
The REALLOCATE process is initiated by the SETXCF START,REALLOCATE operator command. Once started, the REALLOCATE process examines each allocated structure to determine whether the location of any instance needs to be adjusted and/or a pending policy activated. The evaluation process uses the XCF allocation algorithm which factors in the CFRM active policy information and current set of active connections to make the determination.

THE REALLOCATE PROCESS IS STOPPING.
The REALLOCATE process is stopped by the SETXCF STOP,REALLOCATE operator command. Once stopped, the structure, which is the current target of the REALLOCATE process, will complete the relocation steps prior to ending the REALLOCATE process.

structure-name
The name of a structure.

status
One or more of the following:

ALLOCATED
The structure is allocated in a coupling facility.

NOT ALLOCATED
The structure is not allocated.

REASON SPECIFIED WITH REBUILD START:
Possible reasons structure rebuild has been initiated are:

STRUCTURE FAILURE
The user who initiated the rebuild has indicated that the structure should be rebuilt because structure failure has occurred. Note that structure failure might or might not have occurred. Rebuild processing does NOT verify the reason indicated by the user.

CONNECTIVITY LOST TO STRUCTURE
The user who initiated the rebuild has indicated that the structure should be rebuilt because loss of connectivity has occurred. Note that loss of connectivity might or might not have occurred. Rebuild processing does NOT verify the reason indicated by the user. If rebuild was initiated by the system based on the CFRM administrative policy, the following additional text also appears:

- **REBUILD LOSSCONN PERCENTAGE**: *pctlossconn* - where *pctlossconn* is the percentage loss of connectivity which caused the system to initiate a rebuild for the structure.

OPERATOR INITIATED
The user who initiated the rebuild or rebuild stop has indicated that he is the operator. Note that the user who initiated the rebuild / rebuild stop might or might not be the operator. Rebuild processing does NOT verify the reason indicated by the user.

POLICY-INITIATED
A duplexing rebuild has been initiated by the system based on the contents of the CFRM administrative policy.

CONNECTOR REASON: *user reason*
A connector-initiated rebuild, and supplied reason *user reason*.

REASON SPECIFIED WITH REBUILD STOP:
Possible reasons structure rebuild has been stopped are:

OLD STRUCTURE FAILURE
The user who initiated the rebuild stop has indicated that the rebuild should be stopped because the old structure has failed. Note that the old structure may or may not have failed. Rebuild processing does NOT verify the reason indicated by the user.

CONNECTIVITY LOST TO OLD STRUCTURE
The user who initiated the rebuild stop has indicated that the rebuild should be stopped because connectivity to the old structure has been lost. Note that loss of connectivity may or may not have occurred. Rebuild processing does NOT verify the reason indicated by the user.

CONNECTIVITY LOST TO NEW STRUCTURE
The user who initiated the rebuild stop has indicated that the rebuild should be stopped because connectivity to the new structure has been lost. Note that loss of connectivity may or may not have occurred. Rebuild processing does NOT verify the reason indicated by the user.

CONNECTIVITY LOST TO STRUCTURE
The duplexing rebuild is being stopped because one or more connectors lost connectivity to a coupling facility containing the structure. Structure rebuild may have been stopped by the system or a user. Note that loss of connectivity may or may not have occurred when a user initiated the rebuild stop. Rebuild processing does NOT verify the reason indicated by the user.

OPERATOR INITIATED
The user who initiated the rebuild or rebuild stop has indicated that he is the operator. Note that the user who initiated the rebuild / rebuild stop may or may not be the operator. Rebuild processing does NOT verify the reason indicated by the user.

CONNECTOR REASON: *user reason*
A connector initiated rebuild stop, and supplied reason *user reason*.

CONNECTIVITY LOST TO STRUCTURE
The duplexing rebuild is being stopped because one or more connectors lost connectivity to a coupling facility containing the structure. Structure rebuild may have been stopped by the system or a user. Note that loss of connectivity may or may not have occurred when a user initiated the rebuild stop. Rebuild processing does NOT verify the reason indicated by the user.

XES INITIATED REBUILD STOP:
XES has stopped the structure rebuild for the following reason:

NEW STRUCTURE FAILED
The new structure has failed.

NO COUPLING FACILITY PROVIDED BETTER CONNECTIVITY
No other coupling facility has better connectivity than the current one. The rebuild, which was initiated due to a loss of connectivity, would cause a further degradation in connectivity if accepted.

NO COUPLING FACILITY PROVIDED BETTER OR EQUIVALENT CONNECTIVITY
No other coupling facility has better or equivalent connectivity than the current one. The rebuild would cause a degradation in connectivity as determined by SFM system weights, if accepted.

INSUFFICIENT CONNECTIVITY DUE TO CHANGE IN THE SET OF CONNECTORS
A duplexing rebuild was stopped because a connector did not have connectivity to the new structure instance.

POLICY-INITIATED
A duplexing rebuild has been stopped by the system based on the contents of the CFRM administrative policy.

FAILURE OF A SYSTEM-MANAGED PROCESS PHASE
During a system-managed process, a phase was unsuccessful. When the system-managed process was stopped, message IXC522I was issued and supplied a *SYSTEM CODE*. The *SYSTEM CODE* is an internal value indicating the reason for the stop, and is diagnostic data provided to help IBM service personnel with problem determination. Message IXC573I may have been issued to the hardcopy log to provide additional information.

DUMP SERIALIZATION HELD ON STRUCTURE
During a system-managed process, dump serialization prevented access to either the old or the new instance of the structure.

FAILURE OF A DUPLEXED REQUEST
During a system-managed duplexing rebuild, a duplexed request failed. When the system-managed

process was stopped, message IXC522I was issued and supplied a *SYSTEM CODE*. The *SYSTEM CODE* is an internal value indicating the reason for the stop, and is diagnostic data provided to help IBM personnel with problem determination.

DETECTION OF A DUPLEX OUT OF SYNCH CONDITION
During a system-managed duplexing rebuild, a duplex out of synch condition was detected. The condition is detected by a duplexed request issued during the duplex established phase of a system-managed duplexing rebuild. When the system-managed process was stopped, message IXC522I was issued and supplied a *SYSTEM CODE*. The *SYSTEM CODE* is an internal value indicating the reason for the stop, and is diagnostic data provided to help IBM personnel with problem determination.

CONNECTOR HANG
The system is stopping the rebuild to try to alleviate a hang of a structure-related process caused by failure of a connector to provide an expected response.

NO AVAILABLE CONIDS
The system is stopping the duplexing rebuild because a structure instance did not have any available connection identifiers.

USER DID NOT ALLOW USER LIMIT CHANGES
The system is stopping the duplexing rebuild because the structure instances had different facility user-id limits, and a connector did not specify MAXCONN on the IXLCONN invocation.

POLICY CHANGE PENDING — CHANGE
There is an administrative policy change pending for this structure. The pending change is to change the policy definition for the structure. Each policy item that has a different value in the pending policy compared to the active policy will be highlighted in the PENDING POLICY INFORMATION section of the display. Note that there is a period of time during a structure rebuild process where the pending policy information has already been copied over into the active policy, and yet the structure is still marked as policy change pending. In such cases, the PENDING POLICY INFORMATION section of the display will not be provided, since no policy items differ between the active and pending policies at that time.

POLICY CHANGE PENDING - DELETE
There is an administrative policy change pending. The pending policy change is to delete the policy definition for the structure.

STRUCTURE NOT DEFINED IN POLICY
The structure is not defined in the active policy and therefore cannot be connected to. This scenario can only occur when all instances of the structure are either deallocation pending or in transition.

FAILED-PERSISTENT CONNECTIONS UNAVAILABLE DUE TO LARGER CFRM COUPLE DATA SET REQUIRED
The CFRM Couple Data Set must be reformatted to correct this unavailability.

{ALTER IN PROGRESS | ALTER STOP IN PROGRESS}
Structure alter has been initiated and is in progress or stopping. The message text indicates how the alter was initiated:

startsrc [ALTER, STOP REQUESTED stopsrc]

startsrc One of the following:

OPERATOR INITIATED
The operator has initiated structure alter via a SETXCF START,ALTER command.

PROGRAM INITIATED
A program initiated structure alter via an IXLALTER REQUEST=START invocation.

SYSTEM INITIATED
The system initiated structure alter. A system-initiated alter (automatic alter) for an eligible structure will begin when structure full monitoring determines that a structure contains monitored objects that are at or above the structure full threshold specified in the policy by FULLTHRESHOLD. ALLOWAUTOALT(YES) is specified in the policy.

CF INITIATED
The coupling facility initiated reapportionment.

stopsrc One of the following:

BY OPERATOR
The operator requested alter stop via a SETXCF STOP,ALTER command.

BY PROGRAM
A program requested alter stop via an IXLALTER REQUEST=STOP invocation.

BY SYSTEM
The system requested alter stop.

FOR REBUILD
The system requested alter stop because a structure rebuild was started.

The message text indicates the target values specified when the alter was initiated.

TARGET SIZE: *targetsize u*
The target size for the structure alter. The size was specified either by a program or by the operator, or by the system. This size is expressed in *u*.

u The integer size unit specification. One of the following:

- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: In the message output, the size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding.

TARGET RATIO: *targetratio*
The target ratio in form entry:element when the entry-to-element ratio is changing. The ratio was specified by a program or by the system.

TARGET EMC STORAGE PERCENT: *targetEMCpct*
The EMC storage target as a percentage of total structure storage when the EMC storage percent is changing. The percentage was specified by a program or by the system.

POPULATECF REBUILD PENDING FOR *cfname*
The structure is pending rebuild for the current PopulateCF rebuild. *cfname* is the name of the coupling facility specified for the PopulateCF rebuild request.

POPULATECF REBUILD IN PROGRESS FOR *cfname*
The structure is being rebuilt for the current PopulateCF rebuild. *cfname* is the name of the coupling facility specified for the PopulateCF rebuild request.

STRUCTURE CLEANUP IN PROGRESS
A lock structure is being cleared of residual information.

REALLOCATE EVALUATION PENDING
The allocated structure is pending evaluation of its current location. The REALLOCATE process initiated by the SETXCF START,REALLOCATE operator command examines each allocated structure to determine whether the location of any of the instance(s) needs to be adjusted and/or a pending policy activated. The evaluation process uses the XCF allocation algorithm, which factors in the CFRM active policy information and current set of connections, to make the determination.

TARGET OF REALLOCATE PROCESS
The structure was selected by the REALLOCATE process to have its location adjusted and/or pending policy activated. The REALLOCATE process was initiated by the SETXCF START,REALLOCATE operator command. Once marked as the target of the REALLOCATE process, the structure remains the target until one of the following occurs:

- The REALLOCATE process evaluates the next structure or completes.
- The structure is reduplexed, deallocated, or forced.

REBUILDING
The structure rebuild process type is rebuild.

REBUILD STOPPING
The structure rebuild process type is rebuild. The process is being stopped.

DUPLEXING REBUILD
The structure rebuild process type is duplexing rebuild.

DUPLEXING REBUILD STOPPING
The structure rebuild process type is duplexing rebuild. The process is being stopped to fall back to the old structure.

DUPLEXING REBUILD SWITCHING
The structure rebuild process type is duplexing rebuild. The process is being stopped to switch to the new structure.

METHOD: *method*
The method used to manage the current process (for example, rebuilding, rebuild stopping, or duplexing rebuild) is one of the following:

SYSTEM-MANAGED
The system is managing the process.

AUTO VERSION: *procid1 procid2*
The version number of the system-managed process. Used to correlate messages and XCF component trace records associated with the current system-managed process. *procid1* is the first half of the auto version and *procid2* is the second half.

USER-MANAGED
The connected users are managing the process.

PHASE: *phase*
The phase of the current process (for example, rebuilding, rebuild stopping, or duplexing rebuild) is one of the following:

WAITING FOR QUIESCE
The structure rebuild process is in the quiesce phase.

WAITING FOR COMPLETE
The structure rebuild process is in the complete phase.

WAITING FOR CLEANUP
The structure rebuild process is in the cleanup phase.

DUPLEX STARTUP
The structure rebuild process is in the startup phase.

DUPLEX ESTABLISHED
The structure rebuild process is in the duplex established phase.

DUPLEX SWITCHING
The structure rebuild process is in the duplex switching phase.

STARTUP
The structure rebuild process is in the startup phase.

ALLOCATE
The structure rebuild process is in the allocate phase.

ATTACH
The structure rebuild process is in the attach phase.

COPY
The structure rebuild process is in the copy phase. This line is followed by additional text:

COPY SUBPHASE: *subphase*
where subphase is one of the following:

INITIALIZATION
Phase initialization.

ATTACH
Connection of users to the new instance of the structure.

EXIT
Phase completion

CASTOUT CLASS
Copying cache structure directory entries.

WRITE WITH CASTOUT
Copying cache structure directory entries.

STORAGE CLASS REGISTRATION
Copying cache structure storage class directory entry registration information.

STORAGE CLASS COUNTERS
Copying cache structure storage class statistical information.

LIST
Copying list or lock structure data.

LOCK
Copying lock data for a list or lock structure.

LOCK CLEANUP
Copying lock data for a list or lock structure.

EVENT QUEUE
Copying list structure event and monitoring event queue data.

NOT AVAILABLE
Subphase information not available.

UNKNOWN
Unknown subphase.

COPY STOP
The structure rebuild process is in the copy stop phase.

QUIESCE FOR STOP
The structure rebuild process is in the quiesce for stop phase.

STOP
The structure rebuild process is in the stop phase.

START ALTER NOT PERMITTED
CF structure alter processing has been disabled; start alter is not permitted.

EVENT MANAGEMENT:
The CFRM event management protocol according to the CFRM active policy. Except for XCF signaling structures, message-based processing can be used for any allocated structure. When the CFRM event management protocol is message-based, message-based processing is enabled for an allocated structure during event processing. When the CFRM event management protocol is policy-based, event processing is policy-based for all allocated structures.

strem
One of the following:

POLICY-BASED
Event management for an allocated structure is controlled on each system having a structure connection and the CFRM active policy is accessed to obtain event data.

After the message-based protocol is selected for CFRM as a whole, an individual structure may continue to use policy-based processing until in flight events are completely processed. *strem* will continue to show structure using the policy-based protocol until the next event occurs for that structure, which may be quite some time. So even if the sysplex is using message-based protocols, a particular structure could be using either protocol. A structure used for XCF Signalling always uses policy-based protocols.

MESSAGE-BASED
Event management for the allocated structure is controlled by an event manager system using messages sent by XCF to provide event data and to communicate among the system(s). The manager system updates the CFRM active policy once all participant system(s) distribute the event to active connections.

TYPE:
When the allocated instance displayed is ACTIVE, REBUILD OLD/NEW, or DUPLEXING REBUILD OLD/NEW, the structure type is from the CFRM active policy.

strtype
One of the following:

LOCK The structure type is a lock.

SERIALIZED LIST
The structure type is a serialized list.

LIST The structure type is a list.

CACHE
The structure type is cache.

policysize u
The size of the structure as specified in the active policy. This size is expressed in *u*.

u The integer size unit specification. One of the following:
- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, a *policysize* of 1048576K may be converted to *policysize* of 1G for the purpose of messages; a *policysize* of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

policyinitsize u
The INITSIZE for the structure as specified in the policy. This size is expressed in *u*. If no INITSIZE was specified in the policy, N/A will be displayed.

policyminsize u
The MINSIZE for the structure as specified or defaulted to in the policy. This size is expressed in *u*.

policyscmmaxsize u
The SCMMAXSIZE for the structure as specified or defaulted to in the policy. This size is expressed in *u*. This message line appears only if the policy specifies SCMMAXSIZE.

scmalgorithm
The SCMALGORITHM for the structure as specified or defaulted to in the policy. This message line appears only if the policy specifies SCMMAXSIZE.

fullthreshold
The FULLTHRESHOLD for the structure as specified or defaulted to in the policy, expressed as a percentage.

allowautoalt
One of the following:

YES System-initiated alter (automatic alter) of the structure is allowed. For structure alter processing to be started for the structure, connections must also allow alter.

NO System-initiated alter (automatic alter) of the structure is not allowed.

rebuildpercent
The REBUILDPERCENT for the structure as specified in the policy. If no REBUILDPERCENT was specified in the policy, then N/A will be displayed.

recprty
The RECPRTY for the structure as specified in the policy. If no RECPRTY was specified in the policy, then the line will not be displayed.

sysrecprty
The RECPRTY for the structure determined by the system. Value of 0 implies RECPRTY is not supported for the structure and it will not participate in lossconn recovery management. For more information about lossconn recovery management see *z/OS MVS Setting Up a Sysplex*.

duplexstatus
One of the following:

ENABLED *[dupsite]*
The CFRM administrative policy specifies DUPLEX(ENABLED) for this structure.

ALLOWED *[dupsite]*
The CFRM administrative policy specifies DUPLEX(ALLOWED) for this structure.

DISABLED
The CFRM administrative policy specifies or defaults to DUPLEX(DISABLED) for this structure.

dupsite
May be one of the following:

ANYSITE
The CFRM administrative policy specifies the ANYSITE keyword on the DUPLEX parameter for this structure.

CROSSSITE
The CFRM administrative policy specifies the CROSSSITE keyword on the DUPLEX parameter for this structure.

SAMESITE
The CFRM administrative policy specifies the SAMESITE keyword on the DUPLEX parameter for this structure.

SAMESITEONLY
The CFRM administrative policy specifies the SAMESITEONLY keyword on the DUPLEX parameter for this structure.

[blank]
The CFRM administrative policy does not specify any of the above keywords on the DUPLEX parameter for this structure, causing ANYSITE default behavior.

allowrealloc
One of the following:

YES
REALLOCATE processing is allowed for the structure.

NO REALLOCATE processing is not allowed for the structure. REALLOCATE processing will evaluate the structure but will not start a rebuild when the evaluation indicates that a rebuild is needed. REALLOCATE processing starts a duplexing rebuild when the structure is not duplexed but DUPLEX(ENABLED) is specified.

pref-cf
The name of a coupling facility in the preference list. The coupling facility names are listed in order of preference (most preferred first). Additional lines may be used to list more names. If the list is empty, the message PREFERENCE LIST IS EMPTY will be displayed instead.

enforceorder
One of the following:

YES The order of the preference list is to be enforced.

NO The system may reorder the preference list.

EXCLUSION LIST*excl-str*
The name of a structure in the exclusion list. Additional lines may be used to list more names. If the list is empty, the message EXCLUSION LIST IS EMPTY will be displayed instead.

SUBNOTIFYDELAY *subnotifydelay*
The SUBNOTIFYDELAY value for the structure as specified in the policy, expressed in microseconds.

Header
One of the following:

ACTIVE STRUCTURE
The structure is active.

REBUILD NEW STRUCTURE
The structure is being rebuilt. This is the rebuild new structure.

REBUILD OLD STRUCTURE
The structure is being rebuilt. This is the rebuild old structure.

STRUCTURE PENDING DEALLOCATION
Deallocation is pending for this structure. The structure deallocation may remain pending if the coupling facility containing the structure is not connected to any system. Use the DISPLAY XCF,CF or DISPLAY CF command to show the connectivity status of the coupling facility.

STRUCTURE IN TRANSITION
The structure is either being allocated in a coupling facility or deallocated from a coupling facility. The structure deallocation may remain pending if the coupling facility containing the structure is not connected to any system. Use the DISPLAY XCF,CF or DISPLAY CF command to show the connectivity status of the coupling facility.

DUPLEXING REBUILD NEW STRUCTURE
The structure is undergoing a duplexing rebuild. This is the rebuild new structure.

DUPLEXING REBUILD OLD STRUCTURE
The structure is undergoing a duplexing rebuild. This is the rebuild old structure.

pendrsn
One of the following:

DEALLOCATING SYSTEM LOST CONNECTIVITY
Deallocation is pending for this structure and cannot complete due to a loss of connectivity.

STRUCTURE DUMP EXISTS WITH STRUCTURE DUMP ID *nnnn*
Deallocation is pending for this structure and cannot complete due to the existence of a structure dump. The structure dump id *nnnn* is given for use in the SETXCF FORCE,STRDUMP command.

REASON IN TRANSITION: CONNECT OR DISCONNECT IN PROGRESS
The structure is either being allocated in a coupling facility or being deallocated in a coupling facility.

STRUCTURE DUMP EXISTS WITH STRUCTURE DUMP ID
There is a structure dump associated with this structure, and the structure dump ID is given for use in the SETXCF FORCE,STRDUMP command.

dumpid
There is a structure dump associated with this structure, and the structure dump id is given for use in the SETXCF FORCE,STRDUMP command.

STRUCTURE FAILED
The structure has failed.

mm/dd/yyyy
The date when the structure was allocated. The date is in months (01-12), days (01-31), and years. If the structure is not allocated, dashes are displayed instead.

hh:mm:ss
The time when the structure was allocated. The time is in hours (00-23), minutes (00-59), and seconds (00-59). This is used to guarantee structure uniqueness. If the structure is not allocated, dashes are displayed instead.

cfname
Name of coupling facility in which the structure is allocated in. This name is from the CFRM active policy. If the structure is not allocated, this line is not displayed.

NO SYSTEMS CONNECTED TO COUPLING FACILITY
No systems have connectivity to this coupling facility.

COUPLING FACILITY:
The coupling facility which this system is able to use is identified by the node descriptor. See mapping IXLYNDE. The format xxxxxx.xxx.xx.xxxxxxxxxxxx gives the type, manufacture ID, manufacture plant ID, and sequence number.

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Side is one of the following:

- **SIDE: 0** - The coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** - The coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID.

actualsize u
The actual size of the structure, if available. This size is expressed in *u*.

u The integer size unit specification. One of the following:

- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: In the message output, the size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding.

maxsize u
The maximum size of the structure, expressed in *u*.

pct
The percentage of the maximum value (allocated / maximum).

iuaugspc u
The amount of augmented space currently in use to support the use of storage-class memory by this structure. The value is expressed in *u*. This message line appears only if the structure is allocated with support for storage-class memory.

emxaugspc u
The estimated maximum amount of augmented space required to support the use of storage-class memory by this structure. The value is expressed in *u*.

iuscm u
The amount of storage-class memory currently in use by the structure. The value is expressed in *u*. This message line appears only if the structure is allocated with support for storage-class memory.

maxscm u
The maximum amount of storage-class memory that can be used by the structure.

iuscment
The number of entries currently stored in the storage-class memory associated with this structure. This message line appears only if the structure is allocated with support for storage-class memory.

emxscment
Estimated maximum number of entries that can be stored in the storage-class memory associated with this structure.

iuscmelem
The number of elements currently stored in the storage-class memory associated with this structure. This message line appears only if the structure is allocated with support for storage-class memory.

emxscmelem
Estimated maximum number of elements that can be stored in the storage-class memory associated with this structure.

iuent
The number of in-use entries residing in CF real storage (i.e., not including entries residing in storage-class memory). For cache structures, this includes both changed and unchanged entries.

totent
The total number of entries allocated in CF real storage.

iupct
The percentage of objects that are in-use relative to the total count (in-use/total).

iuelem
The number of in-use elements residing in CF real storage (i.e., not including elements residing in storage-class memory). For cache structures, this includes both changed and unchanged elements.

totelem
The total number of elements allocated in CF real storage.

iuemc
The number of in-use EMCs.

totemc
The total number of EMCs.

totlock
The total number of lock entries.

chgdent
The number of changed entries.

chgdelem
The number of changed elements.

chgdpct
The percentage full value for changed entries or elements (changed/total).

ACTUAL SUBNOTIFYDELAY *actualsubnotifydelay*
The actual SUBNOTIFYDELAY value, expressed in microseconds, for the structure as returned from the CF where the structure is allocated. In most cases the actual and the policy SUBNOTIFYDELAY value will be the same. They may differ if the DISPLAY XCF command is issued after a policy change has processed but before the system has updated the SUBNOTIFYDELAY value in the CF.

While a structure is duplexed, the actual SUBNOTIFYDELAY value that applies to the duplexed structure is the value associated with the old (primary) structure instance. The value associated with the new (secondary) structure instance is not used to determine the structure's sublist notification delay until/unless that structure instance becomes the old (primary) or simplex instance of the structure.

LOGICAL VERSION
Logical structure version number that is used for diagnostic purposes.

logicalver1
First half of the logical structure version number.

logicalver2
Second half of the logical structure version number.

PHYSICAL VERSION
Physical version for the structure. Changes when a new instance of the structure is allocate, as in a user-managed or system-managed rebuild, and there is at least one active connector to observe the allocation.

physicalver1
First half of the physical structure version number.

physicalver2
Second half of the physical structure version number.

processlevel
The level of support required by this structure in order to participate in a system-managed process (for example, rebuild). Certain phases of system-managed processes (for example, allocation and copy processing) can only occur on systems that support a system-managed process level greater than or equal to the level specified here. The DISPLAY XCF,COUPLE command (message IXC357I) displays the level of support provided by a given system.

processlevel will appear as NOT APPLICABLE if any of the following are true:

- The structure resides in a coupling facility of CFLEVEL less than 8. The CFLEVEL can be determined by issuing the DISPLAY CF command for the coupling facility named on the CFNAME line.
- The structure is a list structure used for XCF signalling.
- The structure is a list structure or a lock structure with record data, and was allowed by a system at a release that does not support system-managed processes.

processlevel will appear as NOT AVAILABLE if the system is unable to access the necessary information.

xcfgrpname
The XCF groupname associated with a serialized list or lock structure.

disp
One of the following:

KEEP
The structure disposition is Keep.

DELETE
The structure disposition is Delete.

accesstime
The length of time that the connector can tolerate not having access to the structure. Access will be denied to connectors when SVC Dump obtains serialization in order to dump data in the structure. The access time is defined by the connector which allocates the structure, and will either be in decimal tenths of seconds, or will be NOLIMIT (indicating that serialization may be held for as long as is required to capture all data requested).

NUMBER OF RECORD DATA LISTS PER CONNECTION
The number of lists per connection for a lock structure with record data. This line is displayed only for a lock structure with record data, which was allocated to support more than one record data list per connection.

rdatalistspercon
The number of lists per connection for this structure.

maxconns
The maximum number of connections for this structure.

conns
The current number of connections for this structure.

strratio
STR ALLOW RATIO will only be displayed when structure alter is in progress. *strratio* is one of the following:

YES
The current set of connectors have indicated that they will permit changes to the entry-to-element ratio.

NO The current set of connectors have indicated that they will not permit changes to the entry-to-element ratio.

alterstate
One of the following:

IN PROGRESS
This instance of the structure is currently being altered.

DEFERRED
The alter of this instance of the duplexed structure is deferred, waiting for the alter of the other instance to complete.

STOPPING
Alter is stopping for this instance of the structure.

SCM OR AUS IN USE
The alter of this instance of the duplexed structure is in progress but cannot complete until all structure objects for the structure instance have been migrated from storage-class memory back into coupling facility real storage and all associated augmented space has been released.

MONITORING
The alter was initiated by the CF and the system is monitoring for completion.

altersys
The name of the system responsible for structure alter processing.

strminentry
Maximum for all connections of the connector-specified percentage of currently in-use list or currently in-use-and-changed cache entries that must be available for use at the end of structure alter processing. STR MINENTRY will only be displayed when structure alter is in progress.

strminelement
Maximum for all connections of the connector-specified percentage of currently in-use list or currently in-use-and-changed cache elements that must be available for use at the end of structure alter processing. STR MINELEMENT will only be displayed when structure alter is in progress.

strminemc
Maximum for all connections of the connector-specified percentage of structure storage to be used as Event Monitor Controls that must be available for use at the end of structure alter processing. STR MINEMC will only be displayed when structure alter is in progress.

usynccompleted
Completed user synch point event. Will only be displayed if USYNC processing has been invoked for this structure and has completed.

completedcode
Completed user synch point completion code. Will only be displayed if USYNC processing has been invoked for this structure and has completed.

completedinfo
Completed user synch point user state information. Will only be displayed if USYNC processing has been invoked for this structure and has completed.

usyncnext
Next user synch point event. Will only be displayed if USYNC has been invoked for this structure.

nextcompcode
Next user synch point completion code. Will only be displayed if USYNC processing has been invoked for this structure and has completed.

usyncnextinfo
Next user synch point user state information. Will only be displayed if USYNC processing has been invoked for this structure.

connectionids
Connection ID(s) of users who have not yet provided an event exit response (confirmation) for this disconnecting or failing connector. This connector will remain in the disconnecting or failing state until such responses are received from all connectors that owe them.

asterisk
One of the following:

CONNECTOR WITH OUTSTANDING REBUILD RESPONSE
Rebuild processing is waiting for a response from this connector.

OUTSTANDING REBUILD PROCESSING FOR CONNECTOR
A system-managed rebuild is waiting for a response from the system on behalf of the connector.

connection-name
The name of a connection. The system will repeat the connection message text to report all connections. If there are no connections, then no connection table will be displayed.

id The connection identifier.

version
The connection version number.

connsysname
The name of the system owning the connection.

jobname
The name of the job owning the connection.

asid
The identifier of the address space owning the connection.

constate
One of the following:

FAILED-PERSISTENT
The connection is in the failed-persistent state.

DISCONNECTING
The connection is in the process of disconnecting.

FAILING
The connection is in the process of abnormally ending.

ACTIVE
This connection is in the active state.

ACTIVE &
This connection is in the active state but this connector has physically lost connectivity to the structure.

ACTIVE OLD
The structure is being rebuilt. This connector is connected to the old structure.

ACTIVE &OLD
The structure is being rebuilt. This connector has connected to the old structure but has physically lost connectivity to the structure.

ACTIVE NEW,OLD
The structure is being rebuilt. This connector is connected to both the old structure and the new structure.

ACTIVE NEW,&OLD
The structure is being rebuilt. This connector has connected to both the old structure and the new structure but has physically lost connectivity to the old structure.

ACTIVE &NEW,OLD
The structure is being rebuilt. This connector has connected to both the old structure and the new structure but has physically lost connectivity to the new structure.

ACTIVE &NEW,&OLD
The structure is being rebuilt. This connector has connected to both the old structure and the new structure but has physically lost connectivity to both structures.

REBUILD ACTIVE OLD
The structure is being rebuilt. This connector is connected to the rebuild old structure.

REBUILD ACTIVE NEW
The structure is being rebuilt. This connector is connected to the rebuild new structure.

DUPLEX REBUILD ACTIVE OLD
The structure is in a duplexing rebuild. This connector is connected to the duplexing rebuild old structure.

DUPLEX REBUILD ACTIVE NEW
The structure is in a duplexing rebuild. This connector is connected to the rebuild new structure.

condata
Data that is specified by the connector and is provided to the connection's exits.

discdata
Data that is specified by the connector and is provided to the connection's exits.

additionalinfo
One of the following:

TO STRUCTURE
The connector has lost physical connectivity to the structure.

TO NEW STRUCTURE
The connector has lost physical connectivity to the rebuild new structure.

TO OLD STRUCTURE
The connector has lost physical connectivity to the rebuild old structure.

moreinfo
One of the following:

FAILURE ISOLATED FROM CF
The system from which this user has connected is failure isolated from this structure.

NOT FAILURE ISOLATED FROM CF
The system from which this user has connected is not failure isolated from this structure.

rebldwait
REBUILD WAIT will only be displayed when structure rebuild is in progress. *rebldwait* is one of the following:

YES - USER
Rebuild processing is waiting on this connector for a response.

NO This connector has already responded to the current rebuild event.

YES - SYSTEM
Rebuild processing is waiting for the system to respond on behalf of this connector.

connect-level1
First half of user-specified connection version/release level.

connect-level2
Second half of user-specified connection version/release level.

info-level
Level of information returned for the connection.

cflevel
Requested coupling facility level.

nonvolrequest
One of the following:

YES
User connected with NONVOLREQ=YES.

NO User connected with NONVOLREQ=NO.

condisp
One of the following:

KEEP
User connected with CONDISP=KEEP.

DELETE
User connected with CONDISP=DELETE.

allowrebld
One of the following:

YES
Connector specified or defaulted to ALLOWREBUILD=YES

NO Connector specified ALLOWREBUILD=NO

allowduprebld
One of the following:

YES
Connector specified ALLOWDUPREBLD=YES.

NO Connector specified or defaulted to ALLOWDUPREBLD=NO.

allowauto
One of the following:

YES
Connector specified ALLOWAUTO=YES.

NO Connector specified or defaulted to ALLOWAUTO=NO.

autosuspend
One of the following:

YES
User connected with ALLOWAUTO=YES and SUSPEND=YES.

NO User connected with ALLOWAUTO=YES and SUSPEND=NO.

FAIL
User connected with ALLOWAUTO=YES and SUSPEND=FAIL.

termlevel
The first level at which the system is to take action if it becomes necessary to terminate the connector. One of the following:

TASK
The system will terminate the task from which the connector connected.

ADDRSPACE
The system will terminate the connector's home address space.

SYSTEM
The connector's system will partition itself from the sysplex.

XCFSIG
The system will take a sequence of actions specific to XCF signaling connectors, stopping at the first successful action:

- Stop signaling paths through the affected structure
- Force a disconnect
- Partition itself from the sysplex

Note: Depending on the nature of the problem, the system might take other actions not listed here before attempting to terminate the connector.

critical
One of the following:

YES
Connector has indicated that it considers itself a critical connector.

NO Connector does not consider itself a critical connector.

allowalter
One of the following:

YES
Connector has indicated that it can support structure alter being initiated against this structure.

NO Connector has indicated that it cannot support structure alter being initiated against this structure.

userratio
USER ALLOW RATIO will only be displayed when the connector permits structure alter. *userratio* is one of the following:

YES
Connector has indicated that it permits changes to the entry-to-element ratio.

NO Connector has indicated that it does NOT permit changes to the entry-to-element ratio.

userminentry
Connector-specified percentage of currently in-use list or currently in-use-and-changed cache entries that must be available for use at the end of structure alter processing. USER MINENTRY will only be displayed when the connector permits structure alter.

userminelement
Connector-specified percentage of currently in-use list or currently in-use-and-changed cache elements that must be available for use at the end of structure alter processing. USER MINELEMENT will only be displayed when the connector permits structure alter.

userminemc
Connector-specified percentage of currently in-use event monitor control storage that must be available for use at the end of structure alter processing. USER MINEMC will only be displayed when the connector permits structure alter.

usyncwait
USYNC WAIT will only be displayed when USYNC is in progress. *usyncwait* is one of the following:

YES
USYNC processing is waiting on this connector for a response.

NO This connector has already responded to the current USYNC event.

evtmgmt
The CFRM event management protocol according to the CFRM active policy. Except for XCF signaling structures, message-based processing can be used for any allocated structure. When the CFRM event management protocol is message-based, message-based processing is enabled for an allocated structure during event processing. When the CFRM event management protocol is policy-based, event processing is policy-based for all allocated structures.

POLICY-BASED
For the sysplex, event management for an allocated structure is controlled on each system having a structure connection and the CFRM active policy is accessed to obtain event data.

MESSAGE-BASED MANAGER SYSTEM NAME: *mgrsysname*
For the sysplex, allocated structures enabled for message-based processing have event processing managed by an event manager system using message sent by XCF signaling for communication with the participant system(s). The manager system updates the CFRM active policy once all participant system(s) distribute the event to active connections.

The event manager system is identified by *mgrsysname*.

MESSAGE-BASED TRANSITIONING TO NEW MANAGER
For the sysplex, allocated structures enabled for message-based processing have event processing managed by an event manager system but the sysplex is transitioning to a new manager system. Once the new manager system is assigned, the name of the event manager system can be displayed. The sysplex changes to a new manager system as the result of removing the prior manager system from the sysplex.

msgbasedlevel
The level of message-based event processing being used by CFRM. Message-based processing can be restarted by the system if a system in the sysplex does not support this level. Message-based processing can also be restarted by the system to increase this level.

maxconns
The maximum number of connections for this structure.

numusers
Number of users specified by the connection.

MAXCONN({USER | DEFAULT})
USER indicates that MAXCONN was specified by the connector on the IXLCONN invocation. DEFAULT indicates that MAXCONN was not specified by the connector on the IXLCONN invocation.

maxconn
Number of users specified or defaulted to by the connection.

mgrsysname
When event processing is policy-based, no system name is displayed. When event processing is message-based, the message-based manager system name (*mgrsysname*) is displayed. When transitioning to a new manager system, no system name is displayed.

msgbasedlevel.
The level of message-based event processing that is being used by CFRM. Message-based processing can be restarted by the system if a system in the sysplex does not support this level. Message-based processing can also be restarted by the system to increase this level

SYSTEM-MANAGED PROCESS STATE
The specified structure is undergoing a system-managed process (for example, rebuild). The current process phase is being coordinated by the listed systems on behalf of the connected users.

sysname
The name of the system participating in the system-managed process.

systoken
The token of the system participating in the system-managed process.

processstate
One of the following:

ALLOCATING
The system is in the process of allocating the new structure during the allocate phase of a system-managed process (for example, rebuild).

ATTACHING
The system is in the process of attaching connectors to the new structure during the attach phase of a system-managed process (for example, rebuild).

ATTACHED
The system has successfully attached connectors to the new structure during the attach phase of a system-managed process (for example, rebuild).

COPY WORKING
The system is participating in the copy phase of a system-managed process (for example, rebuild).

COPY WAITING
The system is waiting for working systems to complete the copy phase of a system-managed process (for example, rebuild).

COPY FAILED
The system was participating in the copy phase of a system-managed process (for example, rebuild), but has failed.

COPY STOPPING
The system is waiting for working systems to complete the copy phase of a system-managed process (for example, rebuild), but is now stopping.

COPY STOPPED
The system was participating in the copy phase of a system-managed process (for example, rebuild), but has stopped.

processcopyid
Identifier assigned to this system while participating in the copy phase of a system-managed process. Applicable only when the phase is COPY or COPY STOP.

DIAGNOSTIC INFORMATION
The diagnostic data is provided to help IBM service personnel with problem determination.

strnum
The number associated with the structure in the CFRM active policy.

strseq
The sequence number for the allocated structure from the CFRM active policy.

mgrsysid
The system slot and sequence number of the event manager system as viewed by this system only. A value of zero indicates that this system is using policy-based event management.

sysnameormgr
The name of the system for participant data or "MGR SYS" indicating event manager data. Data is only displayed for allocated structures. "MGR SYS" data is only displayed when the command is issued on the event manager system.

#queued
The number of events queued. It is a substantially correct count of current number of events on the queue.

hESN
Event sequence number of first event on the queue.

tESN
Event sequence number of last event on the queue.

dESN
Discard event sequence number.

nESN
Notify event sequence number.

ENABLED FOR EXPEDITED DUPLEX COMPLETION PROTOCOL
This text is displayed when the structure being duplexed through system-managed duplexing protocols is enabled for the expedited duplex completion protocol. This text is not displayed if the statement does not apply or if this system is not able to access the necessary information.

System action: The system continues processing.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DCP, IXCO1DC2, IXCO1DC3

Routing code: #

Descriptor code: 5,8,9

IXC361I *hh.mm.ss* **DISPLAY XCF**

Explanation:

[CF LOSSCONN RECOVERY MANAGEMENT IS IN PROGRESS]
[LARGER CFRM COUPLE DATA SET REQUIRED. FORMAT A NEW
CFRM USING AT LEAST THE FOLLOWING:
ITEM NAME(STR) NUMBER(*str#*)
ITEM NAME(CONNECT) NUMBER(*conn#*)]

[THE COUPLE DATA SET FOR CFRM SUPPORTS THE MAXIMUM NUMBER
OF STR RECORDS. *totalstr* **STRUCTURE(S) MUST BE DELETED FROM THE POLICY**
TO ACCOMMODATE STRUCTURES ALLOCATED IN THE COUPLING FACILITY.]

[*totalstr* **STRUCTURE(S) MUST ALSO BE DELETED FROM THE POLICY**
TO ACCOMMODATE STRUCTURES ALLOCATED IN THE COUPLING FACILTY.]

[THE REALLOCATE PROCESS IS IN PROGRESS.]

[THE REALLOCATE PROCESS IS STOPPING.]

CFNAME COUPLING FACILITY SITE
***cfname type.mfg.plant.sequence sitename* [- RECOVERY SITE]**
PARTITION: *partition* **[SIDE:** *side* **] CPCID:** *cpcid*

[ALLOCATION NOT PERMITTED]
[MAINTENANCE MODE]

```
  [POLICY CHANGE PENDING - DELETE]
  [COUPLING FACILITY FAILED]
  [COUPLING FACILITY IN CLEANUP]
 [POPULATECF REBUILD IN PROGRESS]
[THE CFRM ACTIVE POLICY IS EMPTY]
```

A DISPLAY XCF,CF command was entered to display summary information about the coupling facilities defined in this sysplex. The system will repeat the message text to report all coupling facilities.

If no coupling facilities are displayed, then the trailer message shown above will be displayed instead to explain the absence of coupling facility names.

If the CFRM Couple Data Set needs to be reformatted, then a message will be displayed before any coupling facility names are listed. This message will specify the numbers to be used in reformatting the data set.

If the REALLOCATE process has been initiated, then a message will be displayed before any structures are listed. This message will indicate the current state of the REALLOCATE process. The REALLOCATE process will be in progress if a SETXCF START,REALLOCATE operator command has been issued. The REALLOCATE process will be stopping if a SETXCF STOP,REALLOCATE operator command has been issued. Once started, the REALLOCATE process will evaluate each allocated structure to determine the need for activation of a pending policy and/or location adjustment of instance(s) allocated in CF(s). REALLOCATE processing will end either when all allocated structures have been evaluated with appropriate action taken or when the REALLOCATE process was stopped and relocation steps for the current target structure have finished.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

CF LOSSCONN RECOVERY MANAGEMENT IS IN PROGRESS
A loss of connectivity to a coupling facility occurred that required connector recovery.

str#
The STR number to be used in reformatting the CFRM Couple Data Set. If the current number is adequate, then this line will not be displayed.

conn#
The CONNECT number to be used in reformatting the CFRM Couple Data Set. If the current number is adequate, then this line will not be displayed.

totalstr
Total number of structures that should be deleted from the CFRM active policy.

THE REALLOCATE PROCESS IS IN PROGRESS.
The REALLOCATE process is initiated by the SETXCF START,REALLOCATE operator command. Once started, the REALLOCATE process examines each allocated structure to determine whether the location of any instance needs to be adjusted and/or a pending policy activated. The evaluation process uses the XCF allocation algorithm which factors in the CFRM active policy information and current set of active connections to make the determination.

THE REALLOCATE PROCESS IS STOPPING.
The REALLOCATE process is stopped by the SETXCF STOP,REALLOCATE operator command. Once stopped, the structure which is the current target of the REALLOCATE process will complete the relocation steps prior to ending the REALLOCATE process.

COUPLING FACILITY
The coupling facility which this system is able to use is identified by the node descriptor. See mapping IXLYNDE. The format xxxxxx.xxx.xx.xxxxxxxxxxxx gives the type, manufacturer ID, manufacturer plant ID, and sequence number.

cfname
Name of coupling facility from the CFRM active policy

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

sitename
The name of the site from the CFRM active policy. If the Recovery Manager is active and the site is the recovery site, " - RECOVERY SITE" will appear after the site name.

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID.

ALLOCATION NOT PERMITTED
Structure allocation is not permitted in the specified coupling facility.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC3

Routing code: #

Descriptor code: 5,8,9

IXC362I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

```
[CF LOSSCONN RECOVERY MANAGEMENT IS IN PROGRESS]
[LARGER CFRM COUPLE DATA SET REQUIRED.
FORMAT A NEW COUPLE DATA SET
FOR CFRM USING AT LEAST THE FOLLOWING:
     ITEM NAME(STR) NUMBER(str#)
     ITEM NAME(CONNECT) NUMBER(conn#)]

[THE COUPLE DATA SET FOR CFRM SUPPORTS THE MAXIMUM NUMBER
OF STR RECORDS. totalstr STRUCTURE(S) MUST BE DELETED FROM THE POLICY
TO ACCOMMODATE STRUCTURES ALLOCATED IN THE COUPLING FACILITY.]

[totalstr STRUCTURE(S) MUST ALSO BE DELETED
FROM THE POLICY TO ACCOMMODATE STRUCTURES
STRUCTURES ALLOCATED IN THE COUPLING FACILITY.]

[THE REALLOCATE PROCESS IS IN PROGRESS.]

[THE REALLOCATE PROCESS IS STOPPING.]
 CFNAME:  cfname
  COUPLING FACILITY     :type.mfg.plant.sequence
     PARTITION: partition [SIDE: side] CPCID: cpcid
   SITE               :sitename [- RECOVERY SITE]
 POLICY DUMP SPACE SIZE: size u
 ACTUAL DUMP SPACE SIZE:{size u | N/A}
 STORAGE INCREMENT SIZE:{stgincrement u | N/A}
```

```
[ALLOCATION NOT PERMITTED]
 [MAINTENANCE MODE]
 [POLICY CHANGE PENDING - DELETE]
 [COUPLING FACILITY FAILED]
 [COUPLING FACILITY IN CLEANUP]
[POPULATE REBUILD IN PROGRESS]

| [ AUTHORITY DATA        :   plexname mm/dd/yyyy hh:mm:ss.ffffff]
| [ CFRM AUTHORITY        :   plexnam2 mm/dd/yyyy hh:mm:ss.ffffff]

[NO SYSTEMS ARE CONNECTED TO THIS COUPLING FACILITY]
CONNECTED SYSTEMS:
    sysname sysname sysname sysname sysname sysname sysname

| MONITORING SYSTEM: {*NONE*|monsysname}

[NO STRUCTURES ARE IN USE BY THIS SYSPLEX IN THIS COUPLING FACILITY]
STRUCTURES:
    strnamestat strnamestat strnamestat
[THE CFRM ACTIVE POLICY IS EMPTY]
[NO COUPLING FACILITIES MATCH THE SPECIFIED CRITERIA]
[COUPLING FACILITY NAMES REQUESTED BUT
NOT SHOWN ARE NOT DEFINED]
```

A DISPLAY XCF,CF command was entered to display detail information about the coupling facilities defined in this sysplex. The system will repeat the message text to report all requested coupling facilities.

If no coupling facilities are displayed, then one of the trailer messages shown above will be displayed to explain the absence of coupling facility names.

If the CFRM Couple Data Set needs to be reformatted, then a message will be displayed before any coupling facility names are listed. This message will specify the numbers to be used in reformatting the data set.

If the REALLOCATE process has been initiated, then a message will be displayed before any structures are listed. This message will indicate the current state of the REALLOCATE process. The REALLOCATE process will be in progress if a SETXCF START,REALLOCATE operator command has been issued. The REALLOCATE process will be stopping if a SETXCF STOP,REALLOCATE operator command has been issued. Once started, the REALLOCATE process will evaluate each allocated structure to determine the need for activation of a pending policy and/or location adjustment of instance(s) allocated in CF(s). REALLOCATE processing will end either when all allocated structures have been evaluated with appropriate action taken or when the REALLOCATE process was stopped and relocation steps for the current target structure have finished.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

CF LOSSCONN RECOVERY MANAGEMENT IS IN PROGRESS
A loss of connectivity to a coupling facility occurred that required connector recovery.

str#
The STR number to be used in reformatting the CFRM Couple Data Set. If the current number is adequate, then this line will not be displayed.

conn#
The CONNECT number to be used in reformatting the CFRM Couple Data Set. If the current number is adequate, then this line will not be displayed.

totalstr
Total number of structures that should be deleted from the CFRM active policy.

THE REALLOCATE PROCESS IS IN PROGRESS.
The REALLOCATE process is initiated by the SETXCF START,REALLOCATE operator command. Once started, the REALLOCATE process examines each allocated structure to determine whether the location of any instance

needs to be adjusted and/or a pending policy activated. The evaluation process uses the XCF allocation algorithm which factors in the CFRM active policy information and current set of active connections to make the determination.

THE REALLOCATE PROCESS IS STOPPING.
The REALLOCATE process is stopped by the SETXCF STOP,REALLOCATE operator command. Once stopped, the structure which is the current target of the REALLOCATE process will complete the relocation steps prior to ending the REALLOCATE process.

cfname
Name of coupling facility from the CFRM active policy

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID.

sitename
The name of the site from the CFRM active policy. If the Recovery Manager is active and the site is the recovery site, " - RECOVERY SITE" will appear after the site name.

size u
The size of the dump space as specified in the policy or allocated in the coupling facility. This size is expressed in *u*. If the dump space size from the coupling facility is unavailable, N/A will be displayed.

u The integer size unit specification. One of the following:

- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, a policy dump space size of 1048576K may be converted to a policy dump space size of 1G for the purpose of messages. Policy dump space size of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

stgincrement u
Storage increment size for this facility, if available. This size is expressed in *u*. If the storage increment size is not available, N/A will be displayed.

ALLOCATION NOT PERMITTED
Structure allocation is not permitted in the specified coupling facility.

sysname
The name of a system connected to a coupling facility. This means both that the system has a physical hardware connection to the coupling facility, and that the policy definition considers the system to be connected. More

lines may be used to list more names. If there are no connected systems, NO SYSTEMS ARE CONNECTED TO THIS COUPLING FACILITY will be displayed. This might be the result of a configuration error.

MONITORING SYSTEM
The name of the system that is responsible for monitoring the coupling facility. The following values are possible:

NONE
Monitoring is not yet claimed for this coupling facility.

monsysname
The system named *monsysname* is responsible for monitoring this coupling facility, for example, structure full monitoring.

strnamestat
The name of a structure allocated in this coupling facility, and optionally, structure status information. The structure status information is included only if the structure is other than a normal active allocated simplex structure instance. The structure status information can be one of the following:

- (OLD) - old instance during rebuild or duplexing
- (NEW) - new instance during rebuild or duplexing
- (TRN) - structure in transition since it is being allocated or deallocated
- (PND) - deallocation is pending due to a structure dump in progress or loss of connectivity to the coupling facility

More lines may be used to list more names. If there are no allocated structures, the previous line will display NO STRUCTURES ARE IN USE BY THIS SYSPLEX IN THIS COUPLING FACILITY.

plexname mm/dd/yyyy hh:mm:ss.ffffff
Authority data from the coupling facility: sysplex name, date, and time. The time is in hours (00-23), minutes (00-59), seconds (00-59), and fractions of seconds (000000-999999).

plexnam2 mm/dd/yyyy hh:mm:ss.ffffff
Authority data from the coupling facility last saved by CFRM: sysplex name, date, and time. The time is in hours (00-23), minutes (00-59), seconds (00-59), and fractions of seconds (000000-999999).

System action: The system continues processing.

User response: If NO SYSTEMS ARE CONNECTED TO THIS COUPLING FACILITY is displayed, see in *z/OS MVS Setting Up a Sysplex* for a list of steps for Coupling Facility Reconfiguration Guidelines.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC3

Routing code: #

Descriptor code: 5,8,9

IXC363I THE SETXCF FORCE FOR ALL CONNECTIONS FOR STRUCTURE *strname* **WAS {COMPLETED | REJECTED | ACCEPTED}:** *text*

Explanation: An operator entered a SETXCF FORCE, CONNECTION,STRNAME=strname, CONNAME=ALL command.

In the message text:

strname
The name of the structure.

COMPLETED
All failed-persistent connections were deleted.

REJECTED
All failed-persistent connections could not be deleted.

ACCEPTED
The request to force all connections was accepted.

USER DOES NOT HAVE SAF AUTHORIZATION
The connections could not be deleted by a user without proper authorization.

STRUCTURE NOT DEFINED IN THE CFRM ACTIVE POLICY
The structure is not defined in the CFRM active policy.

STRUCTURE NOT ALLOCATED OR IS PENDING DEALLOCATION
The structure is either not allocated in any coupling facility or is pending deallocation.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during force processing.

ALL FAILED-PERSISTENT CONNECTIONS WERE DELETED
All failed-persistent connections were successfully deleted.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware necessary to provide XES functions is not present.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

REQUEST WILL BE PROCESSED ASYNCHRONOUSLY
One or more of the coupling facility operations resulting from this SETXCF FORCE request cannot be performed immediately. These operations will remain pending until XCF is able to process them from some system in the sysplex.

CONNECTIONS DELETED BUT ALSO RESULTED IN STRUCTURE DEALLOCATION
All failed-persistent connections were deleted, but it also resulted in structure deallocation because the last connection to the structure was deleted.

NO FAILED-PERSISTENT CONNECTIONS DEFINED
No failed-persistent connections exist for the specified structure.

REBUILD IN PROGRESS
The specified structure is being rebuilt. Connections cannot be deleted while rebuild is in progress.

FORCE CONNECTION NOT PERMITTED FOR PERSISTENT LOCK OR SERIALIZED LIST
For a persistent lock or serialized list structure, forcing a failed-persistent connection is not permitted because undetected loss of data can occur.

System action: The SETXCF FORCE command was completed, rejected or accepted.

Operator response: If the SETXCF FORCE command was rejected, use the DISPLAY XCF command with the STRUCTURE or CF options to verify the name and state of connections to the structure.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: #

Descriptor code: 5,8,9

IXC364I *hh.mm.ss* **DISPLAY XCF**

Explanation:

```
TYPE: type
POLNAME:             {polname | POLICY DEFAULTS ARE IN EFFECT }
STARTED:              mm/dd/yyyy hh:mm:ss
LAST UPDATED:     mm/dd/yyyy hh:mm:ss
{SYSPLEX FAILURE MANAGEMENT IS ACTIVE | POLICY NOT ACTIVE ON ALL SYSTEMS}
[     INTERNAL XCF COMPONENT ERROR]
[     COUPLE DATA SET NOT ACCESSIBLE FROM THIS SYSTEM]
[     POLICY NOT STARTED]
[     NOT SUPPORTED BY DISPLAY XCF,POLICY]
[     STOP POLICY IN PROGRESS]
```

[STOP POLICY COMPLETE]
[LOAD FAILED: EXIT ROUTINE FOR *type* **NOT FOUND]**
[NO TYPE DATA SETS ARE ACCESSIBLE FROM THIS SYSTEM]
[POLICY CHANGE(S) PENDING]

A DISPLAY XCF command was entered to display information about active policies. See the Displaying Cross System Coupling Facility (XCF) Information of *z/OS MVS System Commands* for more information on the syntax of the DISPLAY XCF command.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF,POLICY command.

type
The type name associated with the policy displayed.

polname
The name of the policy displayed.

POLICY DEFAULTS ARE IN EFFECT
Indicates that the ARM policy defaults are active.

mm/dd/yyyy
The date when the policy was started. The date is in months (01-12), days (01-31), and years.

hh:mm:ss
The time when the policy displayed was started. The time is in hours (00-23), minutes (00-59), and seconds (00-59).

SYSPLEX FAILURE MANAGEMENT IS ACTIVE
Sysplex failure management is active.

POLICY NOT ACTIVE ON ALL SYSTEMS
Not all systems have access to the sysplex failure management policy. Use the DISPLAY XCF,COUPLE,TYPE=SFM command to show systems in the sysplex with access to the SFM couple data sets. Systems that have no access to the SFM couple data sets cannot access the SFM policy.

INTERNAL XCF COMPONENT ERROR
XCF has encountered an internal error while processing the display command for the specified type.

COUPLE DATA SET NOT ACCESSIBLE FROM THIS SYSTEM
The couple data for the specified type is not accessible from this system.

POLICY NOT STARTED
A policy has not been started for the specified type.

NOT SUPPORTED BY DISPLAY XCF,POLICY
Either TYPE=ALL was specified on the DISPLAY XCF,POLICY command, or this type was specified explicitly on the command. This type is not supported by the DISPLAY XCF,POLICY command. This text can be displayed because of one of the following conditions:

- This type does not exist in the sysplex
- This type exists in the sysplex but is not known to this system
- This type exists in the sysplex but does not use DISPLAY XCF,POLICY as a mechanism to display policy information.

STOP POLICY IN PROGRESS
A stop policy is in progress.

STOP POLICY COMPLETE
The policy has been stopped.

NOT FOUND
The policy exit routine for the requested type could not be loaded.

NO TYPE DATA SETS ARE ACCESSIBLE FROM THIS SYSTEM
No type data sets are accessible from this system.

POLICY CHANGE(S) PENDING
Indicates that the policy change is in progress. For CFRM, use the DISPLAY XCF,CF and the DISPLAY XCF,STR commands to determine if the changes for coupling facilities and/or structures have completed. For CFRM, message IXC512I provides the number of policy change(s) pending, and message IXC513I indicates the completion of change policy processing.

System action: The system continues processing.

Operator response: Not Applicable.

System programmer response: Not Applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC3

Routing code: #

Descriptor code: 5,8,9

IXC365I THE SETXCF FORCE STRDUMP REQUEST FOR STRUCTURE *strname* **WAS {COMPLETED | REJECTED | ACCEPTED}:** *text*

Explanation: An operator entered a SETXCF FORCE,STRDUMP, STRNAME=strname command.

In the message text:

strname
The name of the structure.

COMPLETED
The dump associated with the specified structure was deleted.

REJECTED
The dump associated with the specified structure was not deleted.

ACCEPTED
The request to force the structure dump was accepted.

USER DOES NOT HAVE SAF AUTHORIZATION
The structure dump could not be deleted by a user without proper authorization.

STRUCTURE NOT DEFINED IN THE CFRM ACTIVE POLICY
The structure is not defined in the CFRM active policy.

STRUCTURE NOT ALLOCATED
The structure is not allocated in any coupling facility.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during force processing.

STRUCTURE DUMP WAS DELETED
The dump associated with the specified structure was successfully deleted.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware necessary to provide XES functions is not present.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

REQUEST WILL BE PROCESSED ASYNCHRONOUSLY
One or more of the coupling facility operations resulting from this SETXCF FORCE request cannot be performed immediately. These operations will remain pending until XCF is able to process them from some system in the sysplex.

NO STRUCTURE DUMP ASSOCIATED WITH CURRENT VERSION OF THE REQUESTED STRUCTURE
No structure dump is associated with the current version of the requested structure. If there are version(s) of the structure that are pending deallocation, then there may be structure dumps associated with these versions of the

structure. To delete a structure dump which is associated with a version of a structure that is pending deallocation, you must specify the structure dump identifier. The structure dump identifier can be obtained by issuing the DISPLAY XCF,STR operator command.

NO STRUCTURE DUMP EXISTS WITH REQUESTED STRDUMPID
No structure dump with a matching structure dump identifier is associated with the requested structure.

System action: The SETXCF FORCE command was accepted, rejected or completed.

Operator response: If the SETXCF FORCE command was rejected then use the DISPLAY XCF command with the STRUCTURE option to verify the structure name and, if you specified the STRDUMPID keyword, to verify the structure dump identifier.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RHT, IXC01SCP

Routing code: #

Descriptor code: 5

IXC366I THE SETXCF FORCE STRDUMPSERIAL REQUEST FOR STRUCTURE *strname* **WAS {COMPLETED | REJECTED | ACCEPTED}:** *text*

Explanation: An operator entered a SETXCF FORCE,STRDUMPSERIAL, STRNAME=strname command.

In the message text:

strname
The name of the structure.

COMPLETED
Dumping serialization was released for the requested structure.

REJECTED
The request to force structure dump serialization was rejected.

ACCEPTED
The request to force structure dump serialization was accepted.

USER DOES NOT HAVE SAF AUTHORIZATION
Structure dump serialization could not be deleted by a user without proper authorization.

STRUCTURE NOT DEFINED IN THE CFRM ACTIVE POLICY
The structure is not defined in the CFRM active policy.

STRUCTURE NOT ALLOCATED OR IS PENDING DEALLOCATION
The structure is either not allocated in any coupling facility or is pending deallocation.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during force processing.

STRUCTURE DUMP SERIALIZATION WAS RELEASED OR WAS NOT HELD
Dumping serialization, if held, was released for the requested structure.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware necessary to provide XES functions is not present.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

REQUEST WILL BE PROCESSED ASYNCHRONOUSLY
One or more of the coupling facility operations resulting from this SETXCF FORCE request cannot be performed immediately. These operations will remain pending until XCF is able to process them from some system in the sysplex.

NO STRUCTURE DUMP ASSOCIATED WITH CURRENT VERSION OF THE REQUESTED STRUCTURE
No structure dump is associated with the current version of the requested structure. If there are version(s) of the structure that are pending deallocation, then there may be structure dumps associated with these versions of the

structure. Since there are no active connectors to a version of a structure which is pending deallocation, dump serialization is not impacting any connectors and there is no need to release dump serialization.

NO STRUCTURE DUMP EXISTS WITH REQUESTED STRDUMPID FOR THE CURRENT VERSION OF THE REQUESTED STRUCTURE
No structure dump with a matching structure dump identifier is associated with the current version of the requested structure. If there are version(s) of the structure that are pending deallocation, then there may be a structure dump with the requested structure dump identifier associated with a version of the structure that is pending deallocation. Since there are no active connectors to a version of a structure which is pending deallocation, dump serialization is not impacting anyone. Therefore, there is no need to release dump serialization.

System action: The SETXCF FORCE command was accepted, rejected, or completed.

Operator response: If the SETXCF FORCE command was rejected then use the DISPLAY XCF command with the STRUCTURE option to verify the structure name and, if you specified the STRDUMPID keyword, to verify the structure dump identifier.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RHT, IXCO1SCP

Routing code: #

Descriptor code: 5

IXC367I THE SETXCF {START|STOP} REBUILD REQUEST FOR {STRUCTURE|COUPLING FACILITY} *name* **WAS {ACCEPTED.|REJECTED:}** *reason*

Explanation: An operator entered a SETXCF START/STOP REBUILD or a SETXCF START/STOP REBUILD,DUPLEX command to start or stop structure rebuild processing, but the command was not successful.

In the message text:

START
The request was to start structure rebuild processing.

STOP
The request was to stop structure rebuild processing.

STRUCTURE
The request was for a structure.

COUPLING FACILITY
The request was for a coupling facility.

name
The name of the structure or coupling facility.

ACCEPTED.
The request was accepted.

REJECTED:
The request was rejected.

reason
One of the following:

STRUCTURE NOT DEFINED IN THE CFRM ACTIVE POLICY
The structure is not defined in the CFRM active policy and therefore is not allocated in any coupling facility.

STRUCTURE NOT ALLOCATED
The structure is not allocated in any coupling facility.

REBUILD HAS ALREADY BEEN INITIATED FOR THE STRUCTURE
The structure rebuild process is already in progress for the structure. Use the DISPLAY XCF,STR command to determine the type (rebuild or duplexing rebuild) and method (user-managed or system-managed) of the structure rebuild process.

REBUILD STOP HAS ALREADY BEEN INITIATED FOR THE STRUCTURE
Stop has already been initiated for the structure rebuild processing.

AT LEAST ONE ACTIVE CONNECTION INDICATED THAT REBUILD IS NOT ALLOWED
Rebuild not permitted because IXLCONN with ALLOWREBLD=NO was specified by at least one active connection.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

NO ACTIVE CONNECTIONS TO THE STRUCTURE
The rebuild request would have resulted in a user-managed rebuild, but the structure has no active connectors to participate in rebuild.

REBUILD STOP IS IN PROGRESS FOR THE STRUCTURE
Rebuild stop is in progress for the structure.

STRUCTURE NOT IN REBUILD PROCESS
The structure is not in the rebuild process.

CLEANUP HAS BEGUN, REBUILD CANNOT BE STOPPED NOW
Rebuild has entered the cleanup phase. Rebuild cannot be stopped now.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware necessary to provide XES functions is not present.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during rebuild processing.

NO ELIGIBLE STRUCTURES FOUND IN COUPLING FACILITY
On a rebuild start request, no structures eligible for rebuild were found in the coupling facility specified. On a rebuild stop request, no structures eligible for rebuild stop were found in the coupling facility specified.

COUPLING FACILITY NOT DEFINED IN THE CFRM ACTIVE POLICY
The coupling facility is not defined in the CFRM active policy.

NO COUPLING FACILITY PROVIDED BETTER CONNECTIVITY
No other facility has better connectivity than the current one. The rebuild, which was initiated due to a loss of connectivity, would cause a further degradation in connectivity if accepted. The system evaluated the set of active connections that lost connectivity to the current structure as compared with the set of active connections which would not be able to connect to the rebuild new structure. The system terminates structure rebuild processing because the result of the rebuild would cause additional active connections to lose connectivity.

NO COUPLING FACILITY PROVIDED BETTER OR EQUIVALENT CONNECTIVITY
No other facility has better connectivity than the current one. The rebuild would cause a degradation in connectivity as determined by SFM system weights, if accepted.

Note: When this reason is received for an operator initiated rebuild by STRNAME or CFNAME and the installation needs to rebuild the structures. You can use a SETXCF START,REBUILD command that specifies LESSCONN=CONTINUE to force the rebuild to continue despite this condition. Because this might cause active connections to the structure to lose connectivity to the structure, do not use LESSCONN=CONTINUE unless you understand the impact to the application or subsystem. Consult the application or subsystem documentation for recommendations.

A POPULATECF REBUILD OR REALLOCATE PROCESS IS ALREADY IN PROGRESS
An attempt to start a POPULATECF rebuild was rejected for one of the following reasons:

- A POPULATECF rebuild is in progress.
- A REALLOCATE process is in progress or stopping.

Only one POPULATECF rebuild or REALLOCATE process is supported at a time. Use DISPLAY XCF,STR,STATUS=ALLOCATED to identify the process.

NO STRUCTURES SELECTED FOR THE POPULATECF REQUEST
On a POPULATECF rebuild start request, no structures eligible for rebuild were found to participate in the POPULATECF request. Refer to message IXC540I which lists the structures with a reason for not being selected for a rebuild.

NO POPULATECF REBUILD IS IN PROGRESS
An attempt to stop a POPULATECF rebuild was rejected for one of the following reasons:

- No POPULATECF rebuild for the specified coupling facility is in progress.
- A REALLOCATE process is in progress or stopping. The in progress REALLOCATE process can be stopped with the SETXCF STOP,REALLOCATE command. Use DISPLAY XCF,STR,STATUS=ALLOCATED to identify the structure(s) in the REALLOCATE process.

COUPLING FACILITY HAS FAILED
An attempt to start a POPULATECF rebuild was rejected since the specified coupling facility has failed. The specified coupling facility must be repaired before it can be used for allocating structures.

COUPLING FACILITY IS IN CLEANUP
An attempt to start a POPULATECF rebuild was rejected since the specified coupling facility is in cleanup processing. When cleanup processing has completed, the specified coupling facility can be used for allocating structures.

COUPLING FACILITY IS BEING REMOVED
An attempt to start a POPULATECF rebuild was rejected since the specified coupling facility is being removed from the active policy.

COUPLING FACILITY IS IN MAINTENANCE MODE
An attempt to start a POPULATECF rebuild was rejected since the specified coupling facility is in maintenance mode.

COUPLING FACILITY STRUCTURE ALLOCATION NOT PERMITTED
An attempt to start a POPULATECF rebuild was rejected. Structure allocation is prevented in the specified coupling facility.

DUPLEXING REBUILD NOT ALLOWED FOR THE STRUCTURE
The structure does not support duplexing rebuild for one of the following reasons:

- DUPLEX(DISABLED) was specified or defaulted to in the CFRM active policy for the structure.
- There are failed persistent connections that are unavailable until a larger CFRM couple data set is made available.
- A user-managed duplexing rebuild could not be started because:
  - User-managed duplexing rebuilds are not supported for the structure type.
  - At least one active or failed-persistent connection specified or defaulted to IXLCONN ALLOWDUPREBLD=NO.
- A system-managed duplexing rebuild could not be started because:
  - The structure has at least one active connector, and none of the connectors (active or failed-persistent) specified IXLCONN ALLOWAUTO=YES when connecting.
  - A system-managed duplexing rebuild is not supported when a CFRM policy change is pending for the structure.

TYPE OF STOP REQUEST DOES NOT MATCH TYPE OF REBUILD IN PROGRESS
Either SETXCF STOP,REBUILD was requested to stop a duplexing rebuild or SETXCF STOP,REBUILD,DUPLEX was requested to stop a non-duplexing rebuild. The SETXCF STOP,REBUILD command must be used to stop non-duplexing rebuilds and the SETXCF STOP,REBUILD,DUPLEX command must be used to stop duplexing rebuilds.

DUPLEXING NOT ESTABLISHED, CANNOT STOP TO KEEP NEW STRUCTURE
SETXCF STOP,REBUILD,DUPLEX,KEEP=NEW was requested and the rebuild has not yet entered the duplex established phase. Stop requests to switch to the new structure are not excepted until the rebuild enters the duplex established phase.

STRUCTURE HAS FAILED.
The rebuild start request was rejected for one of the following reasons:

- SETXCF START,REBUILD,DUPLEX was requested and the structure has failed. Duplexing rebuild is not allowed when the structure is in the failed state.
- The rebuild start request would result in a system-managed rebuild. System-managed rebuild is not allowed when the structure is in the failed state.

NO OTHER COUPLING FACILITY FOUND IN PREFERENCE LIST.
SETXCF START,REBUILD was requested and LOCATION=OTHER was either specified on the rebuild request or defaulted to for STARTREASON=LOSSCONN or for a request to start a duplexing rebuild. In addition to avoiding the facility in which the structure is currently allocated, when a duplexing rebuild is stopped by the operator and DUPLEX(ENABLED) is specified in the active policy, the subsequent duplexing request initiated due to DUPLEX(ENABLED) will avoid the coupling facility in which the previous instance of the structure was allocated when the duplexing rebuild was stopped.

ALREADY STOPPING IN THE OTHER DIRECTION
The IXLREBLD STOP DUPLEX request was not processed because duplex rebuild stop has already been initiated for this structure name in the other direction. Either KEEP=OLD was requested and KEEP=NEW type of duplex rebuild stop is in progress or KEEP=NEW was requested and KEEP=OLD type of duplex rebuild stop is in progress.

STRUCTURE DOES NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure does not support system-managed processes (for example, rebuild) for one of the following reasons:

- The structure was not allocated in a coupling facility at or above the minimum CFLEVEL required for the current process by a system supporting system-managed processing.
- The structure has connections that have not been reconciled into the CFRM active policy.
- Structure cleanup is in progress for the structure.

CONNECTORS DO NOT SUPPORT SYSTEM-MANAGED PROCESSES
The requested system-managed process cannot be initiated for one of the following reasons:

- The structure has at least one active connector, and at least one of the connectors (active or failed-persistent) did not specify IXLCONN ALLOWAUTO=YES when connecting.
- A duplexing rebuild cannot be initiated for a structure that has only failed-persistent connectors, and at least one of the failed-persistent connectors did not specify IXLCONN ALLOWAUTO=YES when connecting.

NO SUITABLE COUPLING FACILITY IN PREFERENCE LIST
The requested system-managed process cannot be initiated for one or more of the following reasons:

- The preference list is empty.
- The preference list contains no other coupling facility at or above the minimum CFLEVEL required for the current process.
- The structure already exists in the only suitable coupling facility. The same coupling facility can only be selected as the target for the system-managed process if a CFRM policy change is pending for the structure and one of the following is true:
  - The policy change does not affect the SIZE or INITSIZE parameters.
  - The policy change affects the SIZE or the INITSIZE parameter and all of the structure connectors specified IXLCONN ALLOWALTER=YES.
- A potentially suitable coupling facility does not permit structure allocation.

AT LEAST ONE CONNECTOR HAS LOST CONNECTIVITY TO THE STRUCTURE
The requested system-managed process (for example, rebuild) cannot be initiated because one or more of the connectors has lost connectivity to the target structure.

CFRM COUPLE DATA SET DOES NOT SUPPORT SYSTEM-MANAGED PROCESS
The CFRM couple data set does not support the requested system-managed process (for example, rebuild), because the CFRM couple data set was not formatted at or above the minimum version for the system-managed process requested. Use the DISPLAY XCF,COUPLE,TYPE=CFRM command to determine the format of the CFRM couple data set. To support system-managed rebuild, the CFRM couple data set should be formatted specifying "ITEM NAME(SMREBLD) NUMBER(1)". For system-managed duplexing rebuild, "ITEM NAME(SMDUPLEX) NUMBER(1)" should also be specified when formatting a CFRM couple data set. Specifying "ITEM NAME(SMDUPLEX) NUMBER(1)" implicitly formats a CFRM couple data set that supports both system-managed rebuild and system-managed duplexing rebuild.

STRUCTURE WITH NO CONNECTORS HAS NEVER BEEN SYSTEM-MANAGED DUPLEXED
A system-managed duplexing rebuild cannot be initiated because there are no connections to the structure and the structure has not previously been duplexed using system-managed processing.

ALLOCATION OF REBUILD NEW STRUCTURE FOR DUPLEXING REBUILD NOT FEASIBLE
Allocation of the rebuild new structure instance in support of a duplexing rebuild is not feasible. Message IXC574I contains additional diagnostic information.

STRUCTURE OBJECTS IN STORAGE-CLASS MEMORY
The duplexing rebuild could not be started because structure objects are currently residing in storage-class memory.

System action: The system ignores the command.

Operator response: Use the DISPLAY XCF command with the STRUCTURE or CF options to verify the name and state of the structure to be rebuilt. If the reason for refusing the rebuild is a perceived degradation in connectivity and this is acceptable, issue a SETXCF START,REBUILD command specifying LESSCONN=CONTINUE. LESSCONN=CONTINUE can be used to initiate a rebuild that will force the rebuild to continue despite this condition. Because this action might cause active connections to the structure to lose connectivity to the structure, do not use LESSCONN=CONTINUE unless you understand the impact on the application or subsystem. Some connectors will stop the rebuild if a loss of connectivity is observed but most will disconnect from the structure to allow the rebuild to complete. Depending on the exploiter, disconnecting from the structure is likely to result in losing the exploiter's sysplex-related functionality on that system (for example, loss of data sharing capability) and for critical system exploiters. This might result in a system wait state. Before proceeding with this action, consult the documentation for the exploiting application or subsystem.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: #

Descriptor code: 5

IXC368I UNEXPECTED ERROR ENCOUNTERED PROCESSING SETXCF COMMAND, REASON = *reason-code*

Explanation: XCF encountered an unexpected error while processing the SETXCF command. The message text contains the reason code associated with the error. This reason code should be provided to IBM for diagnostic purposes.

In the message text:

reason-code
The reason code associated with the error.

System action: SETXCF command processing ends.

Operator response: Notify the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY, IXCO1SCP

Routing code: #

Descriptor code: 5

IXC369I THE SETXCF START | STOP MAINTMODE REQUEST FOR COUPLING FACILITY *cfname* **WAS SUCCESSFUL | REJECTED:** *reason*

Explanation: An operator entered a SETXCF START MAINTMODE or SETXCF STOP MAINTMODE command to start or stop the maintenance mode for a coupling facility. When a coupling facility is in maintenance mode, it is not eligible for structure allocation purposes. Furthermore, a coupling facility in maintenance mode is considered an undesirable location for the structure instances that it already contains, so that a rebuild, duplexing failover, or REALLOCATE process will tend to remove those structures from the coupling facility.

In the message text:

START
The request was to start maintenance mode.

STOP
The request was to stop maintenance mode.

cfname
The name of the coupling facility.

SUCCESSFUL
The request was successful.

REJECTED
The request was rejected.

reason
The reason why the request was rejected, which can be one of the following conditions:

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

POPULATECF REQUEST IN PROGRESS FOR THE COUPLING FACILITY
A PopulateCf rebuild request is in progress for the specified coupling facility. The coupling facility is not available for maintenance mode.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during processing of the maintenance mode request.

COUPLING FACILITY NOT DEFINED IN THE CFRM ACTIVE POLICY
The coupling facility is not defined in the CFRM active policy.

System action: When the command succeeds, the system has processed the request for the CF and either placed the coupling facility into the requested state, or found that the coupling facility was already in the requested state and therefore made no change.

When the command is rejected, the system ignores the request for the CF and makes no changes to the state of the CF.

Operator response: You can use the DISPLAY XCF,CF command to verify the state of the CF with respect to maintenance mode.

- If maintenance mode has been started for a CF, you might want to initiate actions, such as structure rebuild or REALLOCATE processes, to remove structure instances from the CF before taking the CF down for maintenance.
- If maintenance mode has been stopped for a CF, you might want to initiate actions, such as structure rebuild or REALLOCATE processes, to relocate structure instances from other CFs into this CF.

System programmer response: Provide directions to the operator as to the maintenance procedure being undertaken on the CF, and the proper use of the SETXCF START or STOP MAINTMODE command in carrying out that procedure.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: -

Descriptor code: 5

IXC370I THE VARY XCF COMMAND COULD NOT BE PROCESSED: *text*

Explanation: XCF found incorrect syntax or options specified on the VARY XCF command. The message text shows the syntax error.

In the message text:

reason-code
The reason code.

SYSTEM NAME SPECIFIED IS NOT VALID
The system name specified is incorrect.

THE ONLY ALLOWABLE OPTIONS ARE OFFLINE, RETAIN, REIPL, SADMP AND FORCE
The option specified is incorrect.

THE ONLY ALLOWABLE OPTIONS FOR RETAIN ARE YES OR NO
The option specified for RETAIN is incorrect.

OFFLINE MUST BE SPECIFIED
OFFLINE was not specified on the command.

INSUFFICIENT COMMAND AUTHORITY
Authority is insufficient for the command.

REQUEST WAS CANCELLED BY THE OPERATOR
The VARY XCF command was cancelled by the operator.

VARY REQUEST IS NOT VALID
The VARY XCF command request is incorrect.

THE SYSTEM IS CURRENTLY IN XCF-LOCAL MODE
The system is running in XCF-local mode.

FORCE OPTION IS NOT ACCEPTABLE AT THIS TIME
The operator must remove a system with the VARY XCF command before entering a VARY XCF,FORCE command.

THE CURRENT SYSTEM IS IN PARTITIONING
The operator entered the VARY XCF command on this system to remove another system from the sysplex. However, the system on which the command was entered is already being removed from the sysplex, and so cannot remove another system.

REIPL NOT ALLOWED WHEN SPECIFYING RETAIN=NO
The definitions of the devices for signaling paths to the removed system must be retained if an automatic re-IPL of the removed system is requested. Do not specify RETAIN=NO if a re-IPL of the removed system is required.

REIPL OR SADMP NOT ALLOWED WHEN SPECIFYING FORCE
You cannot request an automatic re-IPL or automatic stand-alone dump of a system on a VARY command that specifies the FORCE keyword. Issue the VARY command without the SADMP or REIPL keywords.

DUPLICATE KEYWORD SPECIFIED
The keyword specified is a duplicate.

FORCE OPTION USED WITHOUT SYSTEM RESET
The FORCE option was specified, but XCF system status detection determined that the target system has not been through a system reset. Target system must go through a system reset before the FORCE option can be used.

AN UNEXPECTED ERROR OCCURRED, REASON=*reason-code*
An unexpected error occurred during the processing of the VARY XCF command. A reason code is returned.

System action: The VARY command ends.

Operator response: If necessary, reenter the command with the correct syntax.

System programmer response: If **AN UNEXPECTED ERROR OCCURRED. REASON=***reason-code* appears in the message text, or if the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1VCP

Routing code: 1, 2

Descriptor code: 5

IXC371D CONFIRM REQUEST TO VARY SYSTEM *sysname* **OFFLINE. REPLY SYSNAME=***sysname* **TO REMOVE** *sysname* **OR C TO CANCEL.**

Explanation: The system issues this message to confirm a VARY XCF command to vary a system out of the sysplex.

In the message text:

sysname
The name of the system specified on the VARY command for removal from the sysplex.

System action: The system waits for the operator to enter a valid reply.

Operator response: Choose one of the following replies:

SYSNAME=*sysname*
To confirm that system *sysname* should be removed from the sysplex.

C To cancel the request to remove system *sysname* from the sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1VCP

Routing code: 1, 2

Descriptor code: 5

IXC372I VARY REJECTED, SYSTEM *sysname text*

Explanation: The VARY XCF command cannot be issued against system *sysname* for the reason described by *text*.

In the message text:

sysname
The name of the system specified on the VARY command for removal from the sysplex.

IS NOT PART OF THE SYSPLEX OR IS IPLING
The system specified on the VARY XCF command is not defined to the sysplex, or is IPLing into the sysplex.

DOES NOT SUPPORT THE REQUESTED AUTOIPL OPTIONS
The system specified on the VARY XCF command is not configured to support the AutoIPL options requested on the VARY XCF command.

System action: The system rejects the VARY XCF command.

Operator response: When the VARY XCF command is rejected because the system specified on the VARY XCF command is not defined to the sysplex or is IPLing into the sysplex, take the following steps:

- Enter DISPLAY XCF,SYSPLEX,ALL or DISPLAY XCF,SYSPLEX,*sysname* to display the status of the systems in the sysplex. If the system specified on the VARY XCF command is not shown in the output from the DISPLAY XCF command, the system is not part of the sysplex and you do not need to issue the VARY XCF command.

When the VARY XCF command is rejected because the system specified on the VARY XCF command does not support the requested AutoIPL options, take the following steps:

- Enter a DISPLAY DIAG command on system *sysname* to display the current options that have been set through DIAGxx parmlib members to determine if the system is configured to support AutoIPL.

System programmer response: A DIAGxx member containing AUTOIPL syntax must be processed successfully on system *sysname* to activate an AutoIPL policy. For more information about AUTOIPL policy statements and content, see the chapter that describes DIAGxx parmlib member processing in *z/OS MVS Initialization and Tuning Reference*.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1VCP

Routing code: 1, 2

Descriptor code: 5

IXC373I XCF/XES OPTIONAL FUNCTIONS *action*: *function*

Explanation: A COUPLExx parmlib member FUNCTIONS statement or a SETXCF FUNCTIONS command specified that one or more installation-controllable optional functions are to be enabled or disabled. This message reports the results of that request.Optional functions reported as NOT RECOGNIZED are not defined at the same release or service level of the issuing system. Possible reasons are as follows:

- A COUPLExx parmlib member is shared between systems at different levels.
- A SETXCF command is routed to systems at different levels.
- An optional function name is misspelled.

Optional functions reported as NOT SUPPORTED FOR SETXCF COMMAND cannot be enabled and/or disabled dynamically using the SETXCF FUNCTIONS command. For example, the SETXCF FUNCTIONS command can be used to disable the CRITICALPAGING function but cannot be used to enable it.

In the message text:

action
One of the following actions:

ENABLED
The named optional functions have been enabled on the issuing system.

DISABLED
The named optional functions have been disabled on the issuing system.

NOT RECOGNIZED
The named optional functions are not defined at this release or maintenance level.

NOT SUPPORTED FOR SETXCF COMMAND
The SETXCF command cannot be used to take the specified action for the named optional functions.

function
The optional XES/XCF functions:

- DUPLEXCF16
- SYSSTATDETECT
- USERINTERVAL
- DUPLEXCFDIAG
- CRITICALPAGING
- CFLCRMGMT
- COUPLINGTHININT
- MSGISO

For descriptions of the listed function names, see topic "The FUNCTIONS Statement" in *z/OS MVS Setting Up a Sysplex*.

System action: The system begins exploiting functions that have been enabled (subject to the establishment of any other prerequisites that are required for their use), or stops exploiting functions that have been disabled. The system takes no action with respect to unrecognized or unsupported functions.

Operator response: Take the following actions if any optional functions are reported as NOT RECOGNIZED:

- If the message was issued in response to a SETXCF FUNCTIONS command, verify that the reported function names have been spelled correctly. If not, reissue the command if not. If all functions are spelled correctly, contact the system programmer.
- If the message was issued in response to a COUPLExx FUNCTIONS statement, contact the system programmer.

System programmer response: If any optional functions are reported as NOT RECOGNIZED, verify their applicability to the system issuing the message. Correct the COUPLExx parmlib member if necessary. No action is required if the parmlib member or command was simply processed by a downlevel system.

If any optional functions are reported as NOT SUPPORTED FOR SETXCF COMMAND, update the COUPLExx parmlib member FUNCTIONS statement to enable or disable the functions on subsequent IPL.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP, IXCI2PRM

Routing code: 2, 10

Descriptor code: 5, 12

IXC374I SERVER NAME PATTERN *srvname* FORMAT IS NOT VALID

Explanation: XCF found a server name pattern, *srvname* , specified on the TRACE CT command that is not syntactically valid. To be valid, a server name pattern must meet the following format criteria:

- Server name pattern may consist of four 8 byte sections separated by a period (.).
- Each 8 byte section must be left justified, padded on the right with EBCDIC blanks as needed.
- Each section can contain any alphanumeric (A-Z, a-z, 0-9), national (@,#,$), or underscore (_) character.
- Any section but the first can be entirely blank.
- Any section can contain the asterisk (*) wild card character which is used to match zero (0) or more characters (ABC*.*)

In the message text:

srvname
The server name pattern.

System action: XCF ignores the incorrect server name pattern value. The TRACE CT command was not successful.

Operator response: Notify the system programmer.

System programmer response: Correct the server name pattern value specified for the SRVNAME filter option and re-enter the TRACE CT command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCC1TCP

Routing code: 1, 2

Descriptor code: 5

IXC375I TRACE SYNTAX IS NOT VALID: ALLOWABLE OPTIONS ARE SERIAL, GROUP, SIGNAL, STATUS, STORAGE, GRPNAME, CFRM, SFM, ARM, SRVNAME, SERVER, MODID, VECTOR, NOTEPAD AND NPNAME

Explanation: XCF found incorrect option(s) on the TRACE command.

System action: The TRACE command ends.

Operator response: Reenter the command with the correct options. If the command fails a second time, notify the system programmer.

System programmer response: Correct the trace options.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCC1TCP

Routing code: 1, 2

Descriptor code: 5

IXC377I MORE THAN 8 GROUPS SPECIFIED

Explanation: While processing the TRACE CT command, the system found more than eight groups specified on the GROUPNAME XCF component trace option. You can only specify up to eight groups with the GROUPNAME option.

System action: The system rejects the TRACE CT command.

Operator response: Notify the system programmer.

System programmer response: Enter the TRACE CT command again with eight or less groups specified on the GROUPNAME option.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCC1TCP

Routing code: 1, 2

Descriptor code: 5

IXC378I A NEW SYSXCF CTRACE PARMLIB MEMBER WAS SPECIFIED - TRACE WILL BE REDEFINED WITH NEW OPTIONS AND DATA PREVIOUSLY WRITTEN TO SYSXCF'S TRACE BUFFER WILL NOT BE SAVED

Explanation: The system issues this message during initialization when the following occurs:

1. XCF encounters an error while processing a COUPLExx member and prompts the operator for a new COUPLExx member.
2. The operator replies with a COUPLExx member that names a different CTRACE parmlib member.

System action: The system does not save previously defined trace data in the trace buffer. XCF component trace continues tracing with the options specified in the new parmlib member.

Operator response: Verify that the options pointed to by the current COUPLExx member are the desired options. Options can be changed using the TRACE CT command. Options and buffer size can be changed by reinitializing the system.

System programmer response: Ensure that the COUPLExx member points to the correct CTIXCFxx parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1, 2

Descriptor code: 12

IXC379I CTRACE DEFINE FOR SYSXCF FAILED - TRACING WILL BE INITIALIZED USING DEFAULT OPTIONS

Explanation: XCF encountered an error during initialization while defining component trace or XCF. This can occur because XCF finds an error while reading the component trace parmlib member, CTyXCFxx, or another error in component trace processing.

System action: XCF continues component tracing with the default options defined in the default component trace parmlib member, CTIXCF00. The system issues component trace messages explaining the error.

Operator response: See the operator response for message ITT010I, if the system issues it, or other component trace messages.

System programmer response: See the system programmer response for message ITT010I, if it is issued, or other component trace messages.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1, 2

Descriptor code: 12

IXC380I CTRACE DEFINE FOR SYSXCF FAILED - TRACING COULD NOT BE INITIALIZED

Explanation: XCF tried to initialize component tracing for XCF using default options, either because the COUPLExx parmlib member didn't name a component trace parmlib member or because the previous component trace initialization failed. However, the default component trace initialization for XCF also failed. The system is now running without component tracing for XCF.

System action: Initialization continues without component tracing for XCF. The system issues component trace messages (prefix ITT) explaining the problem.

Operator response: See the operator response for the component trace messages (prefix ITT) accompanying this message.

System programmer response: See the system programmer response for component trace messages (prefix ITT) accompanying this message.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1, 2

Descriptor code: 12

IXC381I SYSXCF COMPONENT TRACE FAILED FOR PARMLIB MEMBER *memname*. **DIAG1:** *diag1a diag1b* **DIAG2:** *diag2* **TRACING WILL BE INITIALIZED USING {CTIXCF00|DEFAULT TRACE OPTIONS}.**

Explanation: XCF encountered an error during initialization while defining component trace for XCF. This can occur because XCF finds an error while reading the component trace parmlib member, CTIXCFxx, or in component trace processing.

In the message text:

memname
Name of the failing XCF parmlib member.

diag1a
Used by IBM for problem determination.

diag1b
Used by IBM for problem determination.

diag2
Used by IBM for problem determination.

CTIXCF00
XCF will continue processing with parmlib CTIXCF00.

DEFAULT TRACE OPTIONS
XCF will continue processing with default trace options.

System action: XCF continues component tracing with the default options defined in the default component trace parmlib member, CTIXCF00, or default trace options, depending on the action specified in message IXC381I. The system issues component trace messages explaining the error.

Operator response: See the operator response for message ITT010I, if the system issues it, or other component trace messages.

System programmer response: See the system programmer response for message ITT010I, if it is issued, or other component trace messages.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCC1DEF

Routing code: 1, 2

Descriptor code: 12

IXC382I SYSXCF COMPONENT TRACE FAILED FOR DEFAULT TRACE OPTIONS. DIAG1: *diag1a diag1b* **DIAG2:** *diag2* **NO TRACING IN EFFECT.**

Explanation: XCF tried to initialize component tracing for XCF using default options. The system is now running without component tracing for XCF.

In the message text:

diag1a
Used by IBM for problem determination.

diag1b
Used by IBM for problem determination.

diag2
Used by IBM for problem determination.

System action: Initialization continues without component tracing for XCF. The system issues component trace messages (prefix ITT) explaining the problem.

Operator response: See the operator response for the component trace messages (prefix ITT) accompanying this message.

System programmer response: See the system programmer response for component trace messages (prefix ITT) accompanying this message.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCC1DEF

Routing code: 1, 2

Descriptor code: 12

IXC383I SETXCF START OR STOP POLICY REJECTED. UNABLE TO PROCESS POLICY CHANGE FOR *typename*. *text*

Explanation: The operator attempted to activate a new policy. The policy change was unsuccessful.

In the message text:

typename
The name of the type whose policy is to change.

diag093
An internal diagnostic code that IBM might request.

COUPLE DATASET LOST.
The policy change cannot complete on this system because the couple data set for the specified *typename* has been lost.

NOT ENOUGH STORAGE AVAILABLE.
The policy change cannot complete because not enough virtual storage is available.

ADMINISTRATIVE RECORD IS EMPTY.
The policy change cannot complete because the administrative record is empty. No administrative policies have been defined.

COUPLE DATA SET IS NOT AVAILABLE.
The policy change cannot complete because the couple data set for specified *typename* is not available to this system.

THIS TYPE IS NOT SUPPORTED BY SETXCF.
The policy change cannot complete because the type indicated in the message is not supported by the SETXCF START/STOP,POLICY command. This can be due to one of following conditions:

- This type does not exist in the sysplex
- This type exists in the sysplex but is not known to this system
- This type exists in the sysplex but does not use SETXCF as a mechanism to start and stop policies.

SOFTWARE FAILURE EXPERIENCED WHILE PROCESSING THE REQUEST. DIAG093: *diag093*
The policy change cannot complete because of an unexpected software failure.

System action: System processing continues. This system does not complete the policy change. In the case that the couple data set for the *typename* was lost, other systems may attempt to continue processing the policy change.

Operator response: Notify the system programmer.

System programmer response: Depending on the message text, do one of the following:

NOT ENOUGH STORAGE AVAILABLE.
Define a larger amount of virtual storage and retry the request.

ADMINISTRATIVE RECORD IS EMPTY.
Use IXCMIAPU to define policies for the specified *typename*. Enter the SETXCF START command to activate the policy.

COUPLE DATASET LOST.
COUPLE DATA SET IS NOT AVAILABLE.
THIS TYPE IS NOT SUPPORTED BY SETXCF.
Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Contact the IBM Support Center. Provide the diagnostic code.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN, IXCA3SAP, IXCL2POL, IXCL2TSK, IXCO1SCP

Routing code: #

Descriptor code: 5

IXC384I SETXCF START POLICY REJECTED. ADMINISTRATIVE POLICY *polname* **FOR** *typename* **NOT FOUND.**

Explanation: The administrative policy named on the SETXCF command was not found in the administrative record.

In the message text:

polname
The name of the policy to be activated.

typename
The name of the type whose policy is to change.

System action: System processing continues. No policy change takes place.

Operator response: Reenter the SETXCF command with the name of a policy defined in the administrative record.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN, IXCA3SAP, IXCL2POL

Routing code: #

Descriptor code: 5

IXC385I SETXCF STOP POLICY REJECTED. THERE IS NO ACTIVE POLICY IN EFFECT FOR *typename***.** *text*

Explanation: No policy is currently active.

In the message text:

typename
The name of the type whose policy is to be stopped.

EITHER NO POLICY HAS BEEN ACTIVATED OR A PREVIOUS STOP HAS BEEN COMPLETED.
There is no active policy to stop. Either a policy has never been activated or a SETXCF STOP was already issued immediately preceding this one.

System action: System processing continues.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2TSK, IXCA3SAP, IXCL2POL

Routing code: #

Descriptor code: 5

IXC386I SETXCF COUPLE,PSWITCH REQUIRES A SYNCHRONIZED ALTERNATE COUPLE DATA SET FOR *type*

Explanation: The operator entered a SETXCF COUPLE,PSWITCH command to request that the alternate couple data set be made the primary couple data set, but no alternate data set is available.

In the message text:

type
The type name for which the SETXCF COUPLE command was processed.

System action: The system ignores the incorrect SETXCF COUPLE command. The primary couple data will not be affected by this command.

Operator response: Notify the system programmer.

System programmer response: Before a primary couple data set can be removed, an alternate must be formatted and defined to XCF using the SETXCF COUPLE,ACOUPLE command. Then, enter the SETXCF COUPLE,PSWITCH command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY, IXCO1SCP

Routing code: #

Descriptor code: 5

IXC387I SETXCF COUPLE,{PCOUPLE | ACOUPLE | PSWITCH} FOR *type* **IS NOT VALID IN XCF-LOCAL MODE**

Explanation: An operator entered a SETXCF COUPLE command to change an option for the couple data set, but the command failed. The system on which the COUPLE command was entered is running in XCF-local mode. A system in XCF-local mode cannot use or specify XCF couple data sets.

In the message text:

PCOUPLE
The option PCOUPLE was specified on the failing command.

ACOUPLE
The option ACOUPLE was specified on the failing command.

PSWITCH
The option PSWITCH was specified on the failing command.

type
The type name for which the SETXCF COUPLE command was processed.

System action: The system ignores the SETXCF COUPLE command.

Operator response: Notify the system programmer.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY, IXCO1SCP

Routing code: #

Descriptor code: 5

IXC388I SETXCF COUPLE,{ACOUPLE|PSWITCH} REQUIRES TYPE *type* **TO BE ACTIVE ON THIS SYSTEM**

Explanation: An operator entered a SETXCF COUPLE command to change an option for the couple data set, but the command failed. The operator requested either that a new alternate couple data be brought into service or that the current alternate couple data set be made the primary couple data. The specified couple data type was either not defined or was not active on this system.

In the message text:

ACOUPLE
The option ACOUPLE was specified on the failing command.

PSWITCH
The option PSWITCH was specified on the failing command.

type
The type name for which the SETXCF COUPLE command was processed.

System action: The system ignores the incorrect SETXCF COUPLE command. The couple data set configuration remains unchanged.

Operator response: Verify that the TYPE specified on the command is one of the valid values listed in *z/OS MVS System Commands* for the SETXCF COUPLE command. If TYPE was specified correctly, notify the system programmer.

System programmer response: Before the SETXCF COUPLE command can be processed, the specified type must be active on this system.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY, IXCO1SCP

Routing code: #

Descriptor code: 5

IXC389I SETXCF COUPLE,PCOUPLE NOT VALID FOR *type*

Explanation: The operator entered a SETXCF COUPLE,PCOUPLE command to define a data set to be used as a primary couple data set. The SETXCF COUPLE,PCOUPLE command is not valid for this type. The type is given in the message text.

In the message text:

type
The type name for which the SETXCF COUPLE command was processed.

System action: The system ignores the incorrect SETXCF COUPLE command. The primary couple data will not be affected by this command.

Operator response: Notify the system programmer.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1ASY, IXCO1SCP

Routing code: #

Descriptor code: 5

IXC390I SETXCF *text*

Explanation: An operator entered a SETXCF command to start or stop a policy or modify thresholds for coupling facility requests, but the command was rejected. The system on which the SETXCF command was entered is running in XCF-local mode. A system in XCF-local mode cannot start or stop policies or manage coupling facilities.

In the message text:

START,POLICY IS NOT VALID IN XCF-LOCAL MODE
The SETXCF START,POLICY command was rejected.

STOP,POLICY IS NOT VALID IN XCF-LOCAL MODE
The SETXCF STOP,POLICY command was rejected.

PRSMPOLICY,ACTIVATE IS NOT VALID IN XCF-LOCAL MODE
The PRSMPOLICY,ACTIVATE command was rejected.

PRSMPOLICY,DEACTIVATE IS NOT VALID IN XCF-LOCAL MODE
The PRSMPOLICY,DEACTIVATE command was rejected.

MODIFY,SYNCASYNC IS NOT VALID IN XCF-LOCAL MODE
The MODIFY,SYNCASYNC command was rejected.

System action: The system ignores the SETXCF command.

Operator response: Notify the system programmer.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: #

Descriptor code: 5

IXC391I *hh.mm.ss* **DISPLAY XCF THE DISPLAY COMMAND COULDNOT BE PROCESSED:***text*

Explanation: The DISPLAY XCF command could not be processed due to the reason given in the message text.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

text
is one of the following:

SUFFICIENT STORAGE UNAVAILABLE
The system was unable to supply the storage needed for processing the command.

CFRM COUPLE DATA SET IS NOT AVAILABLE
The CFRM active policy could not be read because the couple data set supporting CFRM is not accessible to this system.

A CFRM POLICY HAS NOT BEEN STARTED
A CFRM policy has not been started.

ARM COUPLE DATA SET IS NOT AVAILABLE
The active automatic restart management policy could not be read because the couple data set supporting automatic restart management is not accessible to this system.

NO ALLOCATED STRUCTURES EXIST FOR REALLOCATE TO EVALUATE
An attempt to display a REALLOCATE test was rejected because there are no allocated structures to evaluate. The REALLOCATE process is only applicable for allocated structures with instances that are displayed as the active, rebuild old, rebuild new, duplexing rebuild old, or duplexing rebuild-new structure.

NO PREVIOUS REALLOCATE DATA EXISTS
An attempt to report on a REALLOCATE process was rejected because a REALLOCATE process has not been started since the CFRM CDS was initialized for the sysplex.

A REALLOCATE PROCESS OR POPULATECF REBUILD IS IN PROGRESS
An attempt to display a REALLOCATE test was rejected for one of the following reasons:

- A REALLOCATE process is in progress or stopping.
- A POPULATECF rebuild is in progress.

Use DISPLAY XCF,STR,STATUS=ALLOCATED to identify the process.

System action: The system ends processing of the DISPLAY command.

Operator response: If **type COUPLE DATA SET IS NOT AVAILABLE** appears in the message text, enter the SETXCF COUPLE,TYPE=type, PCOUPLE=(*dsname*, *volser*) to activate a primary couple data set for the given type. If **A CFRM POLICY HAS NOT BEEN STARTED** appears in the message text, enter the SETXCF START,POLICY,TYPE=CFRM,POLNAME=(*polname*) to start a CFRM policy.

If the problem persists, notify the system programmer.

System programmer response: If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

IXC392I

Module: IXCO1DCP, IXCO1DC2, IXCO1DC3, IXCO1DC4

Routing code: #

Descriptor code: 5,8,9

IXC392I *hh.mm.ss* **DISPLAY XCF** *text*

Explanation: In the message, *text* is:

```
  ARM RESTARTS ARE status


-------------- ELEMENT STATE SUMMARY --------------  -TOTAL-  -MAX-
STARTING  AVAILABLE  FAILED  RESTARTING  RECOVERING

numstart  numavail   numfailed numrestart numrecov   totalelem maxelem

RESTART GROUP:restartgroup         PACING  :pacing    FREECSA:csabelow
                                                     csaabove


 ELEMENT NAME  STATE   CURR     INIT    JOBNAME  ASID  LEVEL
                       SYS      SYS
 elementname   state   currsys  initsys job      asid  level


ELEMENT NAME :elementname    JOBNAME :job       STATE   :state
  CURR SYS :currsys          JOBTYPE :jobtype   ASID    :asid
  INIT SYS :initsys          JESGROUP:jesgrp    TERMTYPE:termtype
  EVENTEXIT:exitname         ELEMTYPE:elementtyp LEVEL   :level


  TOTAL RESTARTS :totrestart INITIAL START:regdate regtime
  RESTART THRESH :   thresh  FIRST RESTART:frstdate [frsttime]
  RESTART TIMEOUT:restimeint LAST  RESTART:lrstdate lrsttime

  assocelemtext assocelemname

[NO ARM ELEMENTS MATCH THE SPECIFIED CRITERIA]
[NO ARM ELEMENTS ARE DEFINED]
```

A DISPLAY XCF,ARMSTATUS command was entered to display information about jobs or started tasks registered as batch elements of the automatic restart manager. The system repeats the message text to report on each requested element along with some general information about automatic restart management.

For elements currently in the FAILED or RESTARTING state, the ASID and JOBNAME fields will contain N/A.

For elements currently in the FAILED state, the CURR SYS contains the system where the element recently was running, even though the system may have been removed from the sysplex.

If no elements are displayed, then one of the trailer messages shown above will be displayed instead to explain the absence of elements.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) when the DISPLAY XCF command was entered.

status
One of the following:

ENABLED
Automatic restart manager restarts are enabled in the sysplex. A SETXCF START command has been issued to enable automatic restart manager restarts.

NOT ENABLED
Automatic restart manager restarts are not enabled in the sysplex. Either a SETXCF STOP command has been issued or a SETXCF START command was never issued.

numstart
The total number of batch jobs and started tasks that are currently registered as elements of automatic restart manager that meet the DISPLAY filtering and are in STARTING state

numavail
The total number of batch jobs and started tasks that are currently registered as elements of automatic restart manager that meet the DISPLAY filtering, and are in AVAILABLE state. This also includes elements listed in AVAILABLE-TO state.

numfailed
The total number of batch jobs and started tasks that are currently registered as elements of automatic restart manager that meet the DISPLAY filtering, and are in FAILED state.

numrestart
The total number of batch jobs and started tasks that are currently registered as elements of automatic restart manager that meet the DISPLAY filtering and are in RESTARTING state.

numrecov
The total number of batch jobs and started tasks that are currently registered as elements of automatic restart manager that meet the DISPLAY filtering and are in RECOVERING state.

totalelem
The total number of batch jobs and started tasks that are currently registered as elements of automatic restart manager and meet the DISPLAY filtering.

maxelem
The maximum number of elements that can register. This information is determined by the TOTELEM value when the ARM couple data set was formatted.

restartgroup
The name of the restart group to which the elements listed belong, based on the active policy. If restarts are not enabled or the automatic restart manager's default policy parameters are active, then the restart group's name is DEFAULT.

pacing
The restart pacing interval used between the restart of each element in the restart group. The pacing interval is determined by the RESTART_PACING parameter of the automatic restart management policy.

csabelow
The number of kilobytes (KB) of CSA that must be available on a target system for this restart group to be restarted. The number of kilobytes is determined by the FREE_CSA parameter of the automatic restart management policy.

csaabove
The number of kilobytes (KB) of ECSA that must be available on a target system for this restart group to be restarted. The number of kilobytes is determined by the FREE_CSA parameter of the automatic restart management policy.

elementname
The name that the element specified when the element issued the IXCARM macro to register.

state
One of the following:

STARTING
The element issued the IXCARM macro to register but is not ready to accept work.

AVAILABLE
The element is ready to accept work. The element issued the IXCARM macro to indicate it is ready to accept work.

AVAILABLE-TO
The element is ready to accept work. The automatic restart manager placed the element in AVAILABLE state

when the element did not issue the IXCARM macro to make itself ready within the ready timeout interval. The ready timeout interval is determined by the READY_TIMEOUT parameter of the automatic restart manager policy.

FAILED
The element has ended abnormally, or the system on which the element was running is leaving the sysplex, and MVS has not yet restarted the element.

RESTARTING
The element has been restarted but has not yet issued the IXCARM macro to reregister.

RECOVERING
The element has been restarted and has reregistered but is not yet ready to accept work.

currsys
The system on which the element is running or, for a failed element, the system where the element most recently was running.

initsys
The system on which the element initially registered by issuing the IXCARM macro. Initial registration is either the first registration, or the first registration after the element deregistered itself or was deregistered by MVS.

job
The name of the job or started task associated with this element. N/A appears if the element is in FAILED or RESTARTING state.

asid
The address space identifier for the address space in which the element is currently running. N/A appears if the element is in FAILED or RESTARTING state.

level
The level of the element used to determine the order in which elements are restarted. The level is determined by the element type and LEVEL parameter of the automatic restart management policy.

jobtype
Either JOB or STC, which indicate whether the element is a batch job or a started task.

jesgrp
The name of the JES XCF group to which the element is associated.

termtype
One of the following:

ELEMTERM
Specifies that the element should be restarted only if the element itself unexpectedly fails. It should not be restarted if the system on which it is running unexpectedly fails.

ALLTERM
Specifies that the element should be restarted if the element unexpectedly fails or if the system on which it is running unexpectedly fails.

exitname
The name of the element's event exit, which was specified when the element issued the IXCARM macro to register. If no event exit was specified on the register request, *NONE* appears.

elementtype
The element type specified when the element issued the IXCARM macro to register. If no element type was specified on the register request, *NONE* appears.

totrestart
The total number of restarts for the specified element.

regdate
The date of the initial registration request. The date appears as mm/dd/yyyy, where mm is the month (01-12), dd is the day (01-31), and yyyy is the year.

regtime
The time of the initial registration request. The time appears as hh.mm.ss, where hh is hours (00-23), mm is minutes (00-59), and ss is seconds (00-59).

thresh
The restart threshold value. The restart threshold value appears as n OF m, where n is the number of restarts that have occurred within a given time interval and m is the maximum number of restarts allowed within that time interval. The maximum number of restarts and the time interval are determined by the RESTART_ATTEMPTS parameter of the automatic restart manager policy. When automatic restart manager restarts are not enabled, N/A appears

frstdate
The date when the first restart of this element occurred. The date appears as mm/dd/yyyy, where mm is the month (01-12), dd is the day (01-31), and yyyy is the year. If there have been no restarts of this element, *NONE* appears.

frsttime
The time when the first restart of this element occurred. The time appears as hh.mm.ss, where hh is hours (00-23), mm is minutes (00-59), and ss is seconds (00-59). If there have been no restarts of this element, blanks appear.

restimeint
The restart timeout interval. The maximum amount of time, in seconds, that the element is expected to take to reregister with the automatic restart manager after being restarted. The interval is determined by the RESTART_TIMEOUT parameter in the automatic restart manager policy or by the RESTARTTIMEOUT parameter on the IXCARM macro. When automatic restart manager restarts are not enabled, N/A appears.

lrstdate
The date when the most recent restart of this element occurred. The date appears as mm/dd/yyyy, where mm is the month (01-12), dd is the day (01-31), and yyyy is the year. If there have been no restarts of this element, *NONE* appears.

lrsttime
The time when the most recent restart of this element occurred. The time appears as hh.mm.ss, where hh is hours (00-23), mm is minutes (00-59), and ss is seconds (00-59). If there have been no restarts of this element, blanks appear.

assocelemtext
One of the following:

ELEM BACKED BY :
The element *assocelemname* identified *elementname* as its backup by issuing the IXCARM macro with the ASSOCIATE,TELEMENT=*elementname*.

ELEM BACKING :
The element *elementname* identified *assocelemname* as its backup by issuing the IXCARM macro with the ASSOCIATE,TELEMENT=*assocelemname*.

assocelemname
The name that the element *elementname* specified as its backup, or associated, element when it issued the IXCARM macro.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC4

Routing code: #

Descriptor code: 5,8,9

IXC393I THE SETXCF FORCE TO DEREGISTER ARM ELEMENT *elementname* **WAS [COMPLETED | REJECTED]:** *text*

Explanation: An operator entered a SETXCF FORCE,ARMDEREGISTER command.

In the message text:

elementname
The name of the ARM element.

text
One of the following:

- ARM FUNCTION NOT AVAILABLE
  ARM functions are not available.
- COUPLE DATA SET FOR ARM NOT AVAILABLE
  The couple data set for ARM is not available to this system.
- ELEMENT DEREGISTERED
  The ARM element was successfully deregistered.
- ELEMENT NOT REGISTERED
  The element is not registered with ARM.
- ELEMENT IN USE BY THIS SYSTEM
  The ARM element is currently in use by this system. Deregistration was not confirmed.
- ELEMENT IN USE BY DIFFERENT SYSTEM
  The ARM element is currently in use by an active system. Deregistration must be requested on the system on which the element is registered.
- AN UNEXPECTED ERROR OCCURRED
  An unexpected error occurred during FORCE processing.

System action: The request to deregister has been completed or rejected.

Operator response: If the command was rejected, use the DISPLAY SCF,ARMSTATUS command with the ELEMENT option to verify the name and state of the element. Reply Y to the prompt to continue with the deregistration of the ARM element or N if the element is not to be deregistered.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: 2

Descriptor code: 5

IXC394A ARM ELEMENT IN USE. REPLY Y TO CONFIRM THAT *elementname* SHOULD BE DEREGISTERED OR N TO CANCEL

Explanation: A SETXCF FORCE,ARMDEREGISTER command requested an element to be deregistered that may be in use. Confirmation is needed to deregister the element.

In the message text:

elementname
The name of the ARM element.

System action: The system waits for the operator to reply. If the operator confirms that the element should be deregistered, the element will be deregistered without checking to see if it is still in use.

Operator response: Use the DISPLAY XCF,ARMSTATUS with the ELEMENT option to verify the name and state of the element. Reply Y to the prompt to deregister the element regardless of its in-use status, or reply N to cancel deregistration.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: -

Descriptor code: 5

IXC395I *hh.mm.ss* **DISPLAY XCF**
[WARNING: INFORMATION MAY NOT BE COMPLETE]
[* INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM]
SERVER NAME #INSTANCES
[!*]*srvname* *#inst*

Explanation: In response to a DISPLAY XCF command, this message displays summary server information. The system repeats the display lines as many times as necessary to provide all of the data.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

WARNING: INFORMATION MAY NOT BE COMPLETE
The local system was unable to retrieve data from all target systems because of system delays or errors.

*** INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM**
This line appears when there is a server that is considered having problems. Servers that have problems will be flagged with an asterisk. If the problems become severe, the server will also be flagged with an exclamation point.

srvname
The name of the server. Consider following:

- A server that has no stalled server instances or work items will not be flagged with an asterisk.
- A server that has a server instance or work item that XCF considers to be stalled will be flagged with an asterisk.
- A server that has a stalled server instance or work item that appears to be causing sympathy sickness will be flagged with an exclamation point.

#inst
Number of server instances defined in this server.

System action: The system continues processing.

Operator response: None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: #

Descriptor code: 5, 8, 9

IXC396I *hh.mm.ss* **DISPLAY XCF**
[WARNING: INFORMATION MAY NOT BE COMPLETE]
[* INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM]
INFO FOR SERVER *srvname*
SYSNAME #INSTANCES #PROCESSED #PENDING #ACTIVE[!*]
sysname *#inst* *#processed* *#pending* *#active*
INFO FOR SERVER *srvname* **ON** *sysname*
WORK ITEMS SEQ# FC TOD STATE
[*]*swiseqn* *switoken* *wi_fc* *switod* *swistatus*

Explanation: In response to a DISPLAY XCF command, this message displays detailed server information for one or more servers. The system repeats the display lines as many times as necessary to provide all data..

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

WARNING: INFORMATION MAY NOT BE COMPLETE
The local system was unable to retrieve data from all target systems because of system delays or errors.

*** INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM**
This line appears when there is a server that is considered having problems. Troubled servers and work items will be flagged with an asterisk. If the problems become severe, the server will also be flagged with an exclamation point.

srvname
The name of the server. Consider following:

- A server that has no stalled server instances or work items will not be flagged with an asterisk.
- A server that has a server instance or work item that XCF considers to be stalled will be flagged with an asterisk.
- A server that has a stalled server instance or work item that appears to be causing sympathy sickness will be flagged with an exclamation point.

sysname
The name of the system on which one or more of the server instance resides.

#inst
Total number of server instances residing on the system.

#processed
Total number of requests processed by this server.

#pending
Total number of requests pending to be processed by the server.

#active
Total number of requests currently being processed by the server.

WORK ITEMS
The data that follows describes the work items bound to some server instance for processing, plus the first and last queued work items (if not otherwise included by virtue of being bound to a server instance). Each work item represents a client request.

swiseqn
Hexadecimal sequence number assigned to the work item. Consider the following:

- A work item that is not considered stalled by XCF will not be flagged.
- A work item that is considered stalled by XCF will be flagged with an asterisk. A work item is considered stalled if it has not been processed within a reasonable amount of time.

switoken
Hexadecimal token used by XCF to identify the work item.

wi_fc
A mnemonic code indicating the type of the work item. wi_fc is one of the following:

RQ The work item is a client request.

??
The work item type is unknown.

switod
The date and time when the request was received by the target system (mm/dd/yyyy hh:mm:ss:dddddd).

swistatus
One of the following:

PENDING
The work item has been queued for a server but has not been assigned to a server instance for processing.

WORKING
The work item is currently being processed by a server instance.

PREPARING
The work item has been assigned to a server instance, but the server exit has not been presented with the work item yet.

COMPLETING
The work item has been assigned to a server instance, and the server exit has finished processing the request. XCF is performing completion processing for the work item.

UNKNOWN
XCF was unable to determine the status of the work item.

System action: The system continues processing.

Operator response: None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: #

Descriptor code: #

IXC397I *hh.mm.ss* **DISPLAY XCF**
[WARNING: INFORMATION MAY NOT BE COMPLETE]
[* INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM]
INFO FOR SERVER *srvname*

SYSNAME	**#INSTANCES**	**#PROCESSED**	**STATUS**	**TOD**
[!*]*sysname*	*#inst*	*#processed*	*status*	*tod*

Explanation: In response to a DISPLAY XCF command, this message displays summary information for one or more server instances. The system repeats the display lines as many times as necessary to provide all data.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

WARNING: INFORMATION MAY NOT BE COMPLETE
The local system was unable to retrieve data from all target systems because of system delays or errors.

*** INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM**
This line appears when there is a server instance that is considered having problems. Server instances that are considered having problems will be flagged with an asterisk. A server instance is considered having problems, for example, if its server exit is stalled. The exclamation point indicates that the problems are critical.

srvname
The name of the system on which the server instance resides. See *inst*# for how a server instance or work item is flagged.

sysname
The name of the system on which one or more of the server instance resides.

inst#
Decimal instance number that identifies the server instance. This instance number along with the server name can be used in a DISPLAY XCF,SERVER command to show data related only to the particular server instance. Consider following:

- A server instance that is not considered stalled will not be flagged.
- A server instance that XCF considers to be stalled will be flagged with an asterisk.
- A stalled server instance that appears to be causing sympathy sickness will be flagged with an exclamation point.

#processed
Number of requests processed by the server instance.

status
One of the following:

STARTING
The exit routine for the server instance is performing the initialization process.

IDLE
The server instance is waiting for work.

WORKING
The server instance is processing a request.

PENDING
Server instance action is pending. A persistent pending state could indicate server instance dispatch problems.

STOPPING
The server instance is stopping.

UNKNOWN
XCF was unable to determine the status of the server instance.

tod
The date and time when the server instance entered the indicated state (mm/dd/yyyy hh:mm:ss:dddddd). This value indicates the date and time when the last server instance activity was recorded.

System action: The system continues processing.

Operator response: None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: #

Descriptor code: #

IXC398I *hh.mm.ss* **DISPLAY XCF**
[WARNING: INFORMATION MAY NOT BE COMPLETE]
[* INDICATESPROBLEM, ! INDICATES SEVERE PROBLEM]
INFO FOR SERVER *srvname* **ON** *sysname*
[!*]INSTANCE# inst#
DESCRIPTION: *srv_function*
STATUS: *si_status* **(***diagcode***)**
[STOPPING MODE: *stop_mode* **REASON:** *whystop***]**
JOBNAME: *jobname* **ASID:** *asid* **TCB ADDRESS:** *tcb_addr*
SYSID: *sysid* **EXIT ADDRESS:** *exit_addr*
RESPONSE BIND: *respbind***[(***respbind_diag***)]nFDI:** *fdi*
SUPPORTED SERVER LEVELS: *minsrvlvl - maxsrvlvl*
SUPPORTED CLIENT LEVELS: *minclvl - maxclvl*
SUPPORTED FEATURES: *si_featlvl si_featflag*
SERVER ID: *si_id*
#PROCESSED: #*reqs*
COLLECTED: *collecttod*
STARTED: *starttod*
IDLE: *idletod*
NOTIFIED: *releasetod*
AWAKENED: *awakentod*
[STOP ACCEPTED: *stoptod***]**
[*]CURRENT WORK
WORK DESCRIPTION: *wi_description*
WORK FUNCTION: *wifunc_hex* **|** *wifunc_ebcdic*
MSG ID: *msgid_hex1***|***msgid_ebcdic1***|***msgid_hex2* **|***msgid_ebcdic2*
CLIENT LEVEL: *swi_clvl*
SERVER LEVELS: *swi_minslvl - swi_maxslvl*
SERVER FEATURES: *swi_featlvl swi_featflag*
WORK ITEM TYPE: *swi_fc* **(***fc_short***)**
WORK ITEM TOKEN: *swi_token* **SEQ#:** *swiseqn* **STATE:** *wi_state*
WORK ARRIVED: *swi_arvtod*
WORK ASSIGNED: *swi_asgntod* **(***elapsedtime_asgn***)**
PREP COMPLETED: *swi_prepdonetod* **(***elapsedtime_prep***)**

EXIT CALLED: *swi_calledtod* **(***elapsedtime_called***)**
EXIT RETURNED: *swi_returntod* **(***elapsedtime_returned***)**

Explanation: In response to a DISPLAY XCF command, this message displays detailed information for one or more server instances. The system repeats the display lines as many times as necessary to provide all the data.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

WARNING: INFORMATION MAY NOT BE COMPLETE
The local system was unable to retrieve data from all target systems because of system delays or errors.

*** INDICATES PROBLEM, ! INDICATES SEVERE PROBLEM**
This line appears when there is a server instance that is considered having problems. Server instances that are considered having problems will be flagged with an asterisk. A server instance is considered having problems, for example, if its server exit is stalled. The exclamation point indicates that the problems are critical.

srvname
The name of the system on which the server instance resides. Consider following:

sysname
The name of the system on which the server being displayed resides.

inst#
Decimal instance number that identifies the server instance. Consider the following:

- A server instance that is not considered stalled will not be flagged.
- A server instance that XCF considers to be stalled will be flagged with an asterisk.
- A stalled server instance that appears to be causing sympathy sickness will be flagged with an exclamation point.

srv_function
The description of the server instance.

si_status
One of the following:

STARTING
The exit routine for the server instance is performing the initialization process.

IDLE
The server instance is waiting for work.

WORKING
The server instance is processing a request.

PENDING
Server instance action is pending. A persistent pending state could indicate server instance dispatch problems.

STOPPING
The server instance is stopping.

UNKNOWN
XCF was unable to determine the status of the server instance.

diagcode
Hexadecimal code corresponding to the status code constants (ixcysrvr_kIrxxxx) defined in the IXCYSRVR macro.

STOPPING
A stop request has been queued for this server instance.

stop_mode
One of the following:

IMMEDIATE
The server instance is stopping as soon as it finishes processing its current work item, if any. The server instance is not allowed to process any pending requests.

NORMAL
The server instance is allowed to finish processing its current work item, if any, plus any work that was already queued for processing when the stop was accepted. It is not allowed to process any work items queued after the stop request.

whystop
Hexadecimal code used by XCF to identify the reason the server instance is stopping, including one of the following:

01 Server stop initiated through IXCSRVR REQTYPE=STOP request

03 Server exit initiated the stop request

0B XCF stopped the server instance due to a lack of system resources

All others
The server instance was stopped because of an error or failure

jobname
Jobname associated with the server instance.

asid
Hexadecimal ASID of the address space associated with the server instance.

tcb_addr
Address of the TCB for the task associated with the server instance.

sysid
The XCF system ID of the system on which the server instance resides.

exit_addr
The address of the exit routine associated with the server instance.

respbind
One of the following:

INSTANCE
The server instance is responsible for sending responses. If the server instance is stopped or terminated, XCF is to cancel any outstanding responses that the server instance was expected to provide.

ADDRSPACE
The responsibility for sending responses is assigned to the address space the server instance is running in. When the address space terminates, XCF cancels any out standing responses that the server instance was expected to provide.

SYSTEM
The responsibility for sending responses is assigned to the system the server instance is running on. When the system terminates, XCF cancels any outstanding responses that the server instance was expected to provide.

UNKNOWN
The responsibility for sending responses cannot be determined.

respbind_diag
Internal diagnostic code. This code appears when RESPONSE BIND is UNKNOWN.

fdi
The number of seconds that the server instance can appear to be unresponsive before the system deems it to have failed.

minsrvlvl
The minimum server level supported by this server instance.

maxsrvlvl
The maximum server level supported by this server instance.

minclvl
The smallest client level that is acceptable to the server instance.

maxclvl
The largest client level that is acceptable to the server instance.

si_featlvl
The feature level supported by the server instance.

si_featflag
The set of features supported by the server instance.

si_id
Server ID that uniquely identifies the server instance.

#reqs
Number of requests processed by the server instance.

collecttod
The date and time when the server information was collected (mm/dd/yyyy hh:mm:ss:dddddd).

starttod
The date and time when the server instance was started (mm/dd/yyyy hh:mm:ss:dddddd).

idletod
The date and time when the server instance last entered an idle state waiting for more work (mm/dd/yyyy hh:mm:ss:dddddd).

releasetod
The date and time when the server instance was last notified that work items were available for processing (mm/dd/yyyy hh:mm:ss:dddddd).

awakentod
The date and time when the server instance last began searching for new work items to process (mm/dd/yyyy hh:mm:ss:dddddd).

stoptod
The date and time when a stop request was first accepted for the server instance (mm/dd/yyyy hh:mm:ss:dddddd). This line appears when a stop request has been accepted by the server instance.

CURRENT WORK
The work item currently being processed by the server instance. Applicable only when the server instance is in the WORKING state. Consider the following:

- A work item that is not considered stalled will not be flagged.
- A work item that XCF considers to be stalled will be flagged with an asterisk.

See *inst#* for how a server instance or work item is flagged.

wi_description
Description of the work item.

wifunc_hex
The FUNCTION of the work item provided by the sender when IXCSEND was invoked to send this request in hexadecimal format.

wifunc_ebcdic
The FUNCTION of the work item provided by the sender when IXCSEND was invoked to send this request in EBCDIC format.

msgid_hex1
First half of the MSGID provided by the sender when IXCSEND was invoked to send this request in hexadecimal format.

msgid_ebcdic1
First half of the MSGID provided by the sender when IXCSEND was invoked to send this request in EBCDIC format.

msgid_hex2
Second half of the MSGID provided by the sender when IXCSEND was invoked to send this request in hexadecimal format.

msgid_ebcdic2
Second half of the MSGID provided by the sender when IXCSEND was invoked to send this request in EBCDIC format.

swi_clvl
The level of the client that made the request.

swi_minslvl
The minimum server level required to process the request.

swi_maxslvl
The maximum server level that is suitable for processing the request.

swi_featlvl
The feature level that the server must support in order to process the request.

swi_featflag
The set of features that the server must support in order to process the request.

swi_fc
The type of the work item. *swi_fc* is one of the following::

REQUEST
The work item is a client request.

UNKNOWN
The work item type is unknown.

fc_short
A mnemonic code indicating the type of the work item. If the work item type is unknown, an internal diagnostic code is printed.

swi_token
Hexadecimal token used by XCF to identify the work item.

swiseqn
Hexadecimal sequence number assigned to the work item.

wi_state
One of the following:

WORKING
The work item is currently being processed.

PREPARING
The work item has been assigned to a server instance, but the server exit has not been presented with the work item yet.

COMPLETING
The work item has been assigned to a server instance, and the server exit has finished processing the request. XCF is performing completion processing for the work item.

UNKNOWN
XCF was unable to determine the status of the work item at this time.

swi_arvtod
The date and time when the request was received by the target system (mm/dd/yyyy hh:mm:ss:dddddd).

swi_asgntod
The date and time when the request was bound to the server instance for processing (mm/dd/yyyy hh:mm:ss:dddddd).

elapsedtime_asgn
The amount of time the work item spent on the message queue waiting to be assigned to a server instance. If the elapsed time exceeds 24 hours, the elapsed time is listed as "--over 24 hrs--".

swi_prepdonetod
The date and time when the server instance completed setup work needed to process the request (mm/dd/yyyy hh:mm:ss:dddddd).

elapsedtime_prep
The amount of time elapsed after the work item was assigned to the server instance and before the server instance completed setup work. If the elapsed time exceeds 24 hours, the elapsed time is listed as "--over 24 hrs--".

swi_calledtod
The date and time when the server exit routine was invoked to perform setup work or to process the work item (mm/dd/yyyy hh:mm:ss:dddddd). If the server exit routine has not been invoked, a dash will appear.

elapsedtime_called
The amount of time elapsed between the completion of the previous processing phase and the invocation of the server exit routine. If the server exit routine has not been invoked, the data collection TOD is used to calculate the elapsed time. If the elapsed time exceeds 24 hours, the elapsed time is listed as "--over 24 hrs--".

swi_returntod
The date and time when the server exit routine returned from doing setup work or from processing the work item (mm/dd/yyyy hh:mm:ss:dddddd). If the server exit routine has not returned, a dash will appear.

elapsedtime_returned
The amount of time the server exit routine spent doing setup work or processing the work item. If the server exit routine has not returned, the data collection TOD is used to calculate the elapsed time. If the elapsed time exceeds 24 hours, the elapsed time is listed as "--over 24 hrs--".

System action: The system continues processing.

Operator response: None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: #

Descriptor code: #

IXC399I *hh.mm.ss* **DISPLAY XCF**
[WARNING: INFORMATION MAY NOT BE COMPLETE]
NO SERVERS MATCH THE SPECIFIED CRITERIA

Explanation: A DISPLAY XCF command was entered to display server information, but no servers that match the specified criteria were found.

If the WARNING: INFORMATION MAY NOT BE COMPLETE message appears in the message text, the system was unable to retrieve data from all target systems, which might be why a suitable server has not been found.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

WARNING: INFORMATION MAY NOT BE COMPLETE
The local system was unable to retrieve data from all target systems because of system delays or errors.

NO SERVERS MATCH THE SPECIFIED CRITERIA
A server that matches the specified filtering criteria cannot be found.

System action: The system continues processing.

Operator response: None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: #

Descriptor code: 5, 8, 9

IXC401I ANOTHER SYSTEM HAS REPLACED THIS SYSTEM AS IPLING IN THE SYSPLEX

Explanation: Two systems tried to IPL into the sysplex at the same time. This system was preempted by another one, which is now IPLing.

System action: The XCF initialization for this system ends. XCF issues message IXC207A to prompt the operator to specify a new COUPLExx parmlib member.

Operator response: After the other system completes initialization, specify a new COUPLExx parmlib member for this system in reply to message IXC207A.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2PAC

Routing code: 1, 2

Descriptor code: 12

IXC402D *sysname* **LAST OPERATIVE AT** *hh:mm:ss***. REPLY DOWN AFTER SYSTEM RESET OR INTERVAL=SSSSS TO SET A REPROMPT TIME.**

Explanation: XCF determined that a system in the sysplex appears to be inoperative. The operator may choose to remove the system from the sysplex, or may specify a time interval to defer removal of the system.

If the system is to be removed from the sysplex, then the system must be system reset before the operator replies DOWN to this message.

Note:

1. The system reset is needed to ensure that the system image being removed from the sysplex no longer has the capability to perform I/O to devices which may be shared with other systems that remain active in the sysplex. If this reset is not performed before replying to this message, then severe data integrity problems may result. When the subject system is removed from the sysplex, XCF will clean up resources (such as locks, ENQs, and reserves) which are held by that system, and make them available to other systems in the sysplex. If the subject system is in fact still active, and operating in the belief that it still holds these resources, unpredictable results may occur.
2. When this message appears, it is important that the appropriate system reset action be taken, and that this message be replied to in a timely fashion. While this message is outstanding, XCF must still consider the subject system to be (at least potentially) active in the sysplex, and therefore XCF cannot clean up resources (such as locks, ENQs, and reserves) which are held by that system. These resources will remain unavailable to all other systems in the sysplex until this message is replied to, and the system completes the process of being removed from the sysplex. Extended unavailability of these resources is likely to cause delays, timeouts, or other problems for the other systems in the sysplex.

In the message text:

sysname
The name of the inoperative system in the sysplex.

hh:mm:ss
The last time XCF could detect that the system was functioning. The time is in hours (00-23), minutes (00-59), and seconds (00-59).

System action: Processing continues. If the operator performs a system reset for system *sysname* and then replies **DOWN**, XCF starts removing system *sysname* from the sysplex. The system is not removed from the sysplex until the operator performs a system reset and replies DOWN. If the system once again appears to be operative, the message will be deleted before it is answere.

Operator response: Choose one of the following replies:

DOWN
To specify that XCF remove system *sysname* from the sysplex. Before replying **DOWN**, a system reset must be performed on system *sysname*. Perform the hardware SYSTEM RESET or LOAD (IPL) function to ensure that system *sysname* is reset. If system *sysname* is to be dumped (for example, via Standalone Dump), take care to perform a SYSTEM-RESET-NORMAL or LOAD-NORMAL function that does not clear the system storage. Once system *sysname* is system reset, reply **DOWN**.

Note that several acceptable alternatives to SYSTEM RESET or LOAD exist. You may reply **DOWN** after any action or condition listed below occurs for system *sysname*:

- SYSTEM RESET-NORMAL
- LOAD-NORMAL
- INITIATION OF STANDALONE DUMP (via LOAD-NORMAL)
- SYSTEM RESET-CLEAR
- LOAD-CLEAR
- POWER-ON-RESET
- NO POWER to the CPC where system *sysname* resides
- Deactivation of the Logical Partition where system *sysname* resides
- Reset of the Logical Partition where system *sysname* resides
- Processor on which *sysname* is running is in a checkstopped state.

Note: Some of these system-reset alternatives might cause the issuance of messages on remote systems that are connected by the Ficon channel to channel connections to the target system.
Depending on your hardware and your hardware operational procedures, the above functions may be invoked explicitly or implicitly. For example, on an HMC you may implicitly perform one of the above hardware functions by dragging a CPC object or an image object and dropping the object on the ACTIVATE task. The hardware function performed depends on the activation profile associated with the object.

It is important to note that, if system *sysname* is in a disabled wait state, that is not, by itself, sufficient to guarantee that system *sysname* can no longer access I/O devices which may be shared with other active systems in the sysplex. However, if the system is configured so that a system reset is automatically performed when a disabled wait state is entered, then that is sufficient, and there is no need to manually reset the system again.

INTERVAL=*sssss*
To request that system monitoring continue and the operator be reprompted, if system *sysname* does not become active within the specified interval. The interval, *sssss*, must be in seconds and in the range of 0 to 86400 seconds (24 hours).

If the reply is incorrect, the system issues message IXC208I to notify the operator of the error. Then the system issues message IXC402D again.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2WTO

Routing code: 1, 2

Descriptor code: 2

IXC403D *sysname* **STARTED INITIALIZATION AT** *hh:mm:ss***. REPLY W TO WAIT FOR** *sysname* **OR I TO COMPLETE INITIALIZATION.**

Explanation: XCF determined that the system initializing the sysplex has not completed initialization. No other systems can IPL into the sysplex until the initialization system completes cleanup of the couple data set.

The system initializing the sysplex started clearing the couple data set, but has not completed for one of the following reasons:

- The system failed and the IPL ended.
- The system is running slowly because of a system or hardware problem.
- The system is running as a guest on a Virtual Machine (VM) and is not receiving sufficient service units to complete the cleanup.
- The couple data sets are large and take a while to clear.

In the message text:

sysname
The system that started sysplex initialization.

hh:mm:ss
The time that system *sysname* started sysplex initialization. The time is in hours (00-23), minutes (00-59), and seconds (00-59).

System action: This system temporarily stops until the operator enters a reply. If the operator replies incorrectly, the system issues message IXC208I and reissues message IXC403D.

Operator response: Choose one of the following replies:

W To request that this system wait for system *sysname* to complete sysplex initialization by clearing the couple data set.

I To request that this system should take over sysplex initialization. If system *sysname* is still running, it will eventually detect that another system has taken over sysplex initialization and will wait until the couple data set cleanup is complete before it IPLs into the sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2IN

Routing code: 1, 2

Descriptor code: 2

IXC404I SYSTEM(S) ACTIVE OR IPLING: *system-names*

Explanation: This system attempted to initialize the sysplex, but XCF found that there are one or more systems that appear to be active (in that they are defined to the sysplex, as represented in the sysplex couple data set), but one or more of these systems do not appear to actually be active because the time of their last system status update is not recent.

XCF requires operator assistance to understand whether these systems are only residual information in the sysplex couple data set, or are in fact active systems in the sysplex despite their out-of-date system status update times. Note that this message displays all of the active and IPLing systems in the sysplex, not just the systems that are in this in-doubt state.

This message is issued only when one or more systems, other than this system, appear to be active in the sysplex. Thus, this message is not issued when the only system that appears to be active in the sysplex is the one that is being IPLed. A determination of whether another system is the same as the system being IPLed can be made only in native MVS and PR/SM systems. For two systems to be the same, they must have identical central processor information so that if this is the first IPL of the system on a new processor, XCF does not find a match. In PR/SM systems, all of the information, including the LPAR ID, must be the same.

In the message text:

system-names
A table of system names.

System action: The system issues message IXC405D, prompting the operator to indicate whether this system should join the already initialized sysplex (if the operator decides that these systems are truly active in the sysplex), or start initializing a new sysplex instance (if the operator decides that these systems are residual and not active).

Operator response: See the operator response for message IXC405D.

System programmer response: Check all the displayed systems to determine if they are active and if this system belongs in a sysplex with them.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2IN

Routing code: 1, 2

Descriptor code: 12

IXC405D REPLY I TO INITIALIZE THE SYSPLEX, J TO JOIN SYSPLEX *sysplex-name*, OR R TO REINITIALIZE XCF

Explanation: This system is trying to initialize or join a sysplex, but XCF found one or more systems already active in sysplex *sysplex-name*. This message prompts the operator to indicate whether the systems displayed in message IXC404I are actually active in the sysplex and whether initialization should continue. See the explanation of message IXC404I for additional information.

This message is issued only when one or more systems, other than this system, appear to be active in the sysplex. Thus, this message is not issued when the only system that appears to be active in the sysplex is the one that is being IPLed. A determination of whether another system is the same as the system being IPLed can be made only in native MVS and PR/SM systems. For two systems to be the same, they must have identical central processor information. In PR/SM systems, all of the information, including the LPAR ID, must be the same.

In the message text:

sysplex-name
The name of an existing sysplex.

System action: Initialization processing stops until the operator replies to message IXC405D.

Operator response: Choose one of the following replies:

I To request that sysplex initialization continue because none of the systems identified in message IXC404I are in fact participating in an operating sysplex, that is, they are all residual systems. This system will perform cleanup of old sysplex data, initialize the couple data set, and start a "new" sysplex. If any of the systems identified in message IXC404I are currently active in the sysplex, they will be placed into a disabled wait state.

Beginning with z/OS V1R9, replying 'I' does not purge information pertaining to inactive systems from the sysplex couple data set. This information is retained for the benefit of systems management applications.

J To request that this system join the already active sysplex. Choose this reply if this system belongs in the sysplex with the systems identified in message IXC404I, despite the fact that some of those systems appear to have out-of-date system status update times. The initialization of this system will continue.

Note that, once this system joins the sysplex and completes its initialization, if the system status update times of the other systems in the sysplex still appear to be out-of-date, this system may consider them to be in a status-update missing condition, and may initiate sysplex partitioning actions against those other systems. Should this occur, those systems will be placed into a disabled wait state.

R To request that XCF be reinitialized on this system. XCF will stop using the current couple data sets and issue message IXC207A to prompt the operator for a new COUPLExx parmlib member.

Choose **R** also to change the sysplex name and reinitialize XCF to remove any residual data for this system from the couple data set. The system prompts the operator for a new COUPLExx parmlib member.

If an incorrect reply is entered, the system issues message IXC208I to notify the operator of the error. The system then reissues message IXC405D.

System programmer response: Check all the systems displayed in message IXC404I to determine if they are operative and if this system belongs in a sysplex with them.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2IN

Routing code: 1, 2M

Descriptor code: 2

IXC406I THIS SYSTEM IS CONNECTED TO ETR NET ID=*xx*. THE OTHER ACTIVE SYSTEMS IN THE SYSPLEX ARE USING ETR NET ID=*yy*. EFFECTIVE CLOCK VALUES ARE NOT CONSISTENT.

Explanation: During sysplex initialization, cross-system coupling facility (XCF) determined that the system joining the sysplex is using a different XCF external time reference (ETR) clock than the other systems in the sysplex or that they are using the same ETR clock but have different effective clock values. All systems in a sysplex must use the same ETR clock and have the same effective clock value.

If the **EFFECTIVE CLOCK VALUES ARE NOT CONSISTENT** message appears in the message text, XCF has

determined that the systems in the sysplex are using the same ETR clock but have effective clock values.This is the ETR time with the LPAR EPOCH applied. A difference of more than one second is deemed as a mismatch in timing information.

In the message text:

xx The identifier of the ETR clock used by the IPLing system.

If the IPLing system is not using an ETR, the message text contains **NET ID=LOCAL**.

yy The identifier of the ETR clock used by the other systems in the sysplex.

System action: The system issues message IXC420D, or the system restarts XCF and issues message IXC207A to request a new COUPLExx specification.

Operator response: Check the status of the ETR, or any defined offsets to the ETR time, and notify the system programmer.

System programmer response: Have the operator do one of the following:

- Specify the COUPLE00 parmlib member on this system to IPL it in XCF-local mode. None of the multisystem XCF services will be available.
- Request a different COUPLExx parmlib member to specify a different couple data set.
- Correct any ETR problem and retry with the same COUPLExx parmlib member.
- Enter a VARY XCF command to remove any systems in the sysplex that are not connected to the correct ETR clock.
- Correct any improperly defined ETR time offsets.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2IN

Routing code: 1, 2, 10

Descriptor code: 12

IXC407W XCF IS UNABLE TO CONTINUE: WAIT STATE CODE: 0A2 REASON CODE: 00C XCF HAS LOST ACCESS TO THE EXTERNAL CLOCK. IF YOU RESTART THIS SYSTEM, ALL OTHER SYSTEMS IN THE SYSPLEX WILL BE PLACED IN A WAIT STATE. RESTART THIS SYSTEM TO CONTINUE.

Explanation: This system lost access to the cross-system coupling facility (XCF) external time reference (ETR) clock. Either the ETR clock failed, or this system's connection to the ETR clock failed. All systems in the sysplex must use the same ETR clock.

If this message appears on every system in the sysplex, the problem is with the ETR clock itself.

System action: The system enters a restartable wait state X'0A2'. If this system is not removed from the sysplex, the other systems will fail. The system writes a machine check record for the ETR failure.

Operator response: Contact hardware support.

System programmer response: Do the following:

- If this message appears on every system in the sysplex, there is a problem with the ETR clock itself. Decide which system in the sysplex you want to keep up and respond to message IXC407W on that system by restarting it. The restarted system removes all other systems from the sysplex. All the other systems enter a nonrestartable wait state.
- If this message is not issued on every system in the sysplex, the problem probably involves this system's connection to the ETR clock. You can keep either this system running or all the other systems running. If you want to keep just this system going, ask the operator to restart it.

In either case, ask the operator to do one of the following:

- Restart this system.

If the ETR clock is not synchronized when this system is restarted, this system will remove all other systems from the sysplex. All the systems will enter a nonrestartable wait state.

If the ETR clock is synchronized, this system will rejoin the other systems in the sysplex.

- Do not restart this system.

  If this system is not restarted, another system in the sysplex issues message IXC402D. RESET this system, and reply **DOWN** to message IXC402D on the other system.

After the ETR clock is fixed, reIPL this system into the sysplex.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1, 2, 10

Descriptor code: 1

IXC408I PRIMARY AND ALTERNATE COUPLE DATA SETS ARE INCONSISTENT. REASON CODE *reason-code***.**

Explanation: This system tried to join a sysplex, but it's primary and alternate couple data sets are different than the ones used by the sysplex.

In the message text:

reason-code
The hexadecimal reason codes are:

Reason Code	Explanation
08	This system specified a different primary couple data set than the rest of the sysplex.
0C	This system specified a different alternate couple data set than the rest of the sysplex.
10	This system specified different primary and/or alternate couple data sets than the rest of the sysplex.

System action: XCF tries again to initialize this system into the sysplex. The system issues message IXC207A to prompt for a new COUPLExx parmlib member.

Operator response: Notify the system programmer.

System programmer response: Enter the DISPLAY XCF,COUPLE command to display the couple data sets used by the sysplex. Do one of the following:

- Change the couple data sets specified in the COUPLExx parmlib member for this system to match the sysplex.
- Change the COUPLExx parmlib member to specify unique data sets to start a new sysplex for this system.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2IN, IXCS2PAC

Routing code: 1, 2, 10

Descriptor code: 12

IXC409D SIGNAL PATHS BETWEEN *sysname1* **AND** *sysname2* **ARE LOST. REPLY RETRY OR SYSNAME=SYSNAME OF THE SYSTEM TO BE REMOVED.**

Explanation: The last available signalling path between this system and another system failed, or the path appears to have become non-operational.

In the message text:

sysname1
The name of a system that was connected to the current system before the signalling paths failed or became non-operational.

sysname2
The name of this system.

System action: The system continues and will process the response when entered. Cross-system coupling facility

(XCF) tries to restart the signalling path. If XCF restores connectivity, the message will be deleted before it is answered. If XCF cannot fully restore connectivity between the two systems, the system issues message IXC409D again.

If the operator enters an incorrect reply, the system issues message IXC208I to notify the operator of the error.

The system might issue (or reissue) the message if:

- XCF continues to be unable to fully restore connectivity between the two systems. If XCF restores signalling connectivity between the two systems, the system deletes the message before it is answered.
- The operator performs a system reset without first issuing the command VARY,sysname1,OFFLINE. Performing a system reset causes signalling paths from all other systems in the sysplex to the system that was reset to appear to have suffered I/O failures.

  If the system that has been reset, or has a non-operational signalling path is detected, and is removed from the sysplex because of operator response to message IXC402D or IXC102A, XCF signalling connectivity to the removed system is no longer relevant and the system deletes the message.

  If the other system is removed from the sysplex through actions taken by the Sysplex Failure Management, or as the result of a PRSMPOLICY value, the system also deletes the message.

Operator response: Choose one of the following replies:

RETRY
To request that connectivity between the two systems be rechecked. Enter the RETRY response to gain more time for the signalling path restart to complete or to enter SETXCF commands to start additional signalling paths.

SYSNAME=*sysname*
To request that XCF remove one of the two systems specified in the message text from the sysplex. The system issues message IXC417D to confirm the request to remove the specified system.

SYSNAME=*sysname1***,DOWN**
To request that XCF remove system *sysname1* from the sysplex. Before entering this reply, system *sysname1* is required to go through a system reset to ensure that it no longer has the capability to perform I/O to devices that may be used by another active system in the sysplex. See documentation for message IXC102A for more information on the acceptable actions that satisfy this requirement.

Note: The fact that system *sysname1* is in a disabled wait state, by itself, is not sufficient to guarantee that system *sysname1* can no longer access I/O devices which can be shared with other active systems in the sysplex. However, if the system is configured so that a system reset is automatically performed when a disabled wait state is entered, then that is sufficient, and there is no need to manually reset the system again.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2WTO

Routing code: 1, 2

Descriptor code: 2

IXC410E SYSTEM *sysname* LOST SYNCHRONIZATION WITH THE TIMING NETWORK. LOCAL TIMING MODE WILL BE ALLOWED FOR 80 MINUTES.

Explanation: The system is the GDPS/PPRC controlling system and it lost time synchronization in a multi-system-capable sysplex, causing the system to switch to local timing mode. In the local timing mode, the system is only allowed to continue processing in the sysplex for a limited amount of time.

In the message text:

sysname
The name of the system that switched to local timing mode.

System action: The system continues processing in local timing mode. If the system continues processing in local timing mode for more than 80 minutes, the system enters a non-restartable wait state X'0A2' reason code X'114' or a non-restartable wait state X'0A2' reason code X'158'.

Operator response: Report this problem to the system programmer.

System programmer response: Fix the problem. See the documentation for message IEA015A and IEA394A for more information about how to repair the problem.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2TSK

Routing code: 1,10

Descriptor code: 11

IXC411I SYSTEMS CAN NOW ENTER THE SYSPLEX USING SYNCHRONOUS CLOCK ID=*id*

Explanation: The sysplex switched from timer-local mode to the XCF external time reference (ETR) clock.

In the message text:

id The identifier of the ETR clock.

System action: Systems can now form a sysplex using the ETR clock.

Operator response: Any other systems brought into this sysplex should use the ETR clock.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2TSK

Routing code: 1, 2

Descriptor code: 4

IXC412I SYSPLEX CONFIGURATION IS NOT COMPATIBLE WITH REQUIRED CONFIGURATION

Explanation: This system tried to IPL with one of the following sysplex configurations specified:

- XCF-local
- MONOPLEX
- Multisystem

This configuration is not compatible with the system configuration, or the sysplex that is defined by the COUPLE system parameter, because of one of the following:

- The PLEXCFG system parameter is not compatible with the sysplex configuration for one of the following reasons:
  - PLEXCFG does not allow XCFLOCAL, and COUPLExx does not have a PCOUPLE statement (or COUPLE=** is used).
  - PLEXCFG only allows XCFLOCAL, but COUPLExx has a PCOUPLE statement.
  - PLEXCFG only allows MONOPLEX, but at least one system is active in the sysplex.
  - PLEXCFG does not allow MONOPLEX, but the system is in the local timing mode.
- Another system component has imposed restrictions on the sysplex configuration that is allowed because of other system parameters.

  For example, If GRS=NONE is specified in the system parameters, the system cannot IPL in multisystem mode.

System action: The system issues other messages explaining the incompatibility and prompts the operator with IXC420D or IXC207A to allow the sysplex to be re-initialized or a new COUPLE system parameter to be specified.

Operator response: Notify the system programmer. At the request of the system programmer, do one of the following:

- Specify a different COUPLE system parameter to allow this system to join the sysplex with the current system configuration
- Have the system programmer change the system parameters of this system to allow the desired configuration. Then re-IPL the system

System programmer response: See the system programmer response for any accompanying messages. Do one of the following:

- Have the operator respecify the COUPLE system parameter. For example, when a system is trying to IPL in a multisystem mode, but the COUPLE system parameter in use does not provide a couple data set, specify another COUPLE system parameter for a parmlib member that does define a couple data set.
- Change this system's system parameters to match the sysplex the system is trying to join. Then have the operator reIPL the system.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PH2, IXCS2IN

Routing code: 1, 2, 10

Descriptor code: 12

IXC413I *config1* **SYSPLEX CONFIGURATION PREVENTED BY** *config2*

Explanation: This system tried to IPL with one of the following sysplex configurations:

- XCF-local
- MONOPLEX
- Multisystem

This configuration is not compatible with the system configuration, or the sysplex that is defined by the COUPLE system parameter, because of one of the following:

- The PLEXCFG system parameter is not compatible with the sysplex configuration for one of the following reasons:
  - PLEXCFG does not allow XCFLOCAL, and COUPLExx does not have a PCOUPLE statement (or COUPLE=** is used).
  - PLEXCFG only allows XCFLOCAL, but COUPLExx has the PCOUPLE statement.
  - PLEXCFG does not allow MULTISYSTEM, but at least one system is active in the sysplex.
  - PLEXCFG does not allow MONOPLEX, but the system is in the local timing mode.
- Another system component has imposed restrictions on the sysplex configuration allowed because of other system parameters.
- The configuration specified on the PLEXCFG system parameter is not compatible with the IPLing system's configuration.
- Another system component has imposed restrictions on the sysplex configuration allowed because of other system parameters.

This message accompanies messages IXC412I and IXC415I to explain the incompatibility.

In the message text:

config1
One of the following:

XCFLOCAL
Single system sysplex without a sysplex CDS (uses COUPLE=** or omits PCOUPLE in COUPLExx).

MONOPLEX
Single system sysplex with a sysplex CDS.

MULTISYSTEM
One or more systems with a sysplex CDS, signal connectivity, and time reference synchronization

config2
One of the following:

PLEXCFG=(MONOPLEX,MULTISYSTEM)
The PLEXCFG system parameter allows the system to IPL in the monoplex mode or multisystem mode, but not in the XCF-Local mode.

PLEXCFG=(XCFLOCAL,MULTISYSTEM)
The PLEXCFG system parameter allows the system to IPL in the XCF-local mode or multisystem mode, but not in the monoplex mode.

PLEXCFG=MULTISYSTEM
The PLEXCFG system parameter allows the system to IPL in the multisystem mode, but not in the XCF-Local mode or monoplex mode.

PLEXCFG=(XCFLOCAL,MONOPLEX)
The PLEXCFG system parameter allows the system to IPL in the XCF-local mode or monoplex mode, but not in the multisystem mode.

PLEXCFG=MONOPLEX
The PLEXCFG system parameter allows the system to IPL in the monoplex mode, but not in the XCF-Local mode or multisystem mode.

PLEXCFG=XCFLOCAL
The PLEXCFG system parameter allows the system to IPL in XCF-local mode, but not in the monoplex mode or multisystem mode.

SYSTEM COMPONENT
A system component prevents this system from joining a sysplex with configuration *config1*. The system component issues another message to explain the problem.

System action: This message was preceded by one or more of messages IXC412I, IXC413I, or IXC415I. Processing continues.

Operator response: See the operator response for accompanying messages IXC412I and IXC415I.

System programmer response: See the system programmer response for accompanying messages IXC412I and IXC415I.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCM2CFG

Routing code: 1, 2, 10

Descriptor code: 2,4,12

IXC414I CANNOT JOIN SYSPLEX *sysplex-name text*

Explanation: This system tried to join a sysplex, but the sysplex is not accepting new systems. Message IXC404I is issued to list the systems in the sysplex.

In the message text:

sysplex-name
The name of the sysplex that this system tried to join.

FOR REASONS WHICH CAN NOT BE DETERMINED
XCF cannot determine why this system cannot join the sysplex.

WHICH IS RUNNING IN MONOPLEX MODE: EXTERNAL TIME REFERENCE IS IN LOCAL MODE
The external time reference (ETR) for the one system in the sysplex is in ETR-local mode. No other system can join the sysplex because they must all have access to the ETR clock, which is not possible when it is in ETR-local mode.

WHICH IS RUNNING IN MONOPLEX MODE: CONFIGURATION REQUIREMENT
The system parameters specified for the one system in sysplex *sysplex-name* requires that the system be in MONOPLEX mode. The system issued messages IXC413I and IXC415I on the one system in the sysplex when it IPLed to indicate why it forced the sysplex to run in MONOPLEX mode.

If IXC414I is followed by IXC404I, see IXC404I for possible explanations on why this system remains active in the sysplex.

BECAUSE SYSPLEX RECONFIGURATION IS IN PROGRESS. NO SYSTEM CAN JOIN THE SYSPLEX UNTIL SFM COMPLETES SYSPLEX RECONFIGURATION PROCESSING
The sysplex is being reconfigured because of a loss of signalling connectivity. No other system can join the sysplex while this is in progress.

LOCAL TIMING MODE IS BEING USED BY THE ACTIVE OR IPLING SYSTEM(S). TIMING NETWORK SYNCHRONIZATION IS REQUIRED
The GDPS/PPRC controlling system lost time synchronization in a multi-system capable sysplex, causing the system to switch to local timing mode and issue IXC410E. The system is allowed to continue processing for a limited amount of time. During this time, a system can only join the sysplex if some other system in the sysplex is able to maintain time synchronization with the timing network.

System action: The system waits for a reply to IXC420D.

Operator response: Report this problem to the system programmer. See IXC420D.

System programmer response: Fix the problem or wait for sysplex reconfiguration processing to complete, then respond to IXC420D. For problems caused by local timing mode, synchronize systems with a timing network. If the problem persists, search problem reporting data bases for a fix to the problem. If no fix exists, call the IBM Support Center.

Problem determination: Verify that the correct COUPLExx parmlib member is used. An incorrect COUPLExx parmlib member might cause the system to try to join the wrong sysplex (for example, a sysplex intended to run in monoplex mode). For problems caused by local timing mode, look for messages on the systems identified in IXC404I

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2IN

Routing code: 1, 2, 10

Descriptor code: 2,4

IXC415I FORCING SYSPLEX CONFIGURATION TO BE MONOPLEX MODE

Explanation: This system is required to operate in MONOPLEX mode because of one of the following:

- The configuration specified on the PLEXCFG system parameter requires MONOPLEX mode.
- Another system component has imposed restrictions on the sysplex configuration allowed because of other system parameters.

This system is the first system in the sysplex and will prevent any other system from joining the sysplex.

System action: This message is accompanied by message IXC412 that explains why the system forced the sysplex to be in MONOPLEX mode.

The system issues message IXC414I on any other system that tries to join this sysplex.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PH2

Routing code: 1, 2, 10

Descriptor code: 2,4

IXC416I SIMETRID IS SUPPORTED ONLY WHEN ALL SYSTEMS IN THE SYSPLEX ARE RUNNING ON THE SAME CPC AND ARE USING SIMETRID CONSISTENTLY

Explanation: This system tried to use a simulated external time reference identifier (SIMETRID) in an unsupported or inconsistent manner. This could mean one of the following:

- Systems running as a guest on a Virtual Machine (VM) system do not all have CPUIDs that represent the same CPC, when VMCPUIDTOLERATION is not requested.
- Systems running in a Processor Resource/Systems Manager™ (PR/SM) environment are not all on the same side of a physical CPC.
- Some systems are using SIMETRID and others are not.
- Systems have different TOD clock values. The effective clock value for the LPAR is the time of the physical TOD clock (the TOD for the CEC) with the LPAR EPOCH applied.

System action: The system issues message IXC420D, or the system restarts XCF and issues message IXC207A to request a new COUPLExx specification.

Operator response: Notify the system programmer.

System programmer response: To use SIMETRID in a sysplex, do one of the following:

- Make sure that this system should be part of this sysplex. If not, specify the COUPLExx parmlib member for the correct sysplex.
- If the systems are running on VM, make sure that the processor identifiers (CPUIDs) of all the systems on the sysplex represent the same machine if VMCPUIDTOLERATION is not requested. When VMCPUIDTOLERATION is not requested, the VM systems must have their virtual CPUID information defined so that they appear to be on the same physical side of the same CPC. Alternately, if desired, request VMCPUIDTOLERATION by specifying

VPCPUIDTOLERATION(YES) in the COUPLExx parmlib member. When VMCPUIDTOLERATION is requested, the VM systems may have disparate virtual CPUID information defined, and still be allowed to participate in the same sysplex.

- If the systems are running in a PR/SM environment, make sure all the systems in the sysplex are on the same side of a physical CPC.

For any system to use SIMETRID, all the systems in the sysplex must use SIMETRID and all the systems in the sysplex must have the same TOD clock value.

If this system should not be using SIMETRID, change the SIMETRID parmlib specification in the CLOCKxx parmlib member.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2IN

Routing code: 1, 2, 10

Descriptor code: 12

IXC417D CONFIRM REQUEST TO REMOVE *sysname* **FROM THE SYSPLEX. REPLY SYSNAME=***sysname* **TO REMOVE** *sysname* **OR C TO CANCEL.**

Explanation: The system issues this message to confirm the operator's reply to message IXC409D.

In the message text:

sysname
The name of the system selected for removal from the sysplex.

System action: The system waits for a valid response from the operator.

Operator response: See the operator response to message IXC409D. Make sure that the system in the message text is the one you want to remove.

Choose one of the following replies:

SYSNAME=*sysname*
To confirm that system *sysname* should be removed from the sysplex.

C To cancel the request to remove system *sysname* from the sysplex. If you select this reply, the system reissues message IXC409D.

If you enter an incorrect reply, the system issues message IXC208I. Then the system reissues message IXC417D.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2WTO

Routing code: 1, 2

Descriptor code: 2

IXC418I SYSTEM *sysname* **IS NOW ACTIVE IN SYSPLEX** *sysplex-name*

Explanation: The indicated system has joined the sysplex.

In the message text:

sysname
The name of the system that is now active in the sysplex.

sysplex-name
The name of the sysplex that this system has joined.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PH3

Routing code: 1, 2

Descriptor code: 4,12

IXC419I NOT SYNCHRONIZED: *sysnames*

Explanation: The system(s) listed in the message are a subset of the active/IPLing systems in the sysplex which did not appear to be correctly synchronized with the IPLing system. Message IXC404I will also be issued to list all of the active/IPLing systems in the sysplex. Message IXC406I, IXC416I, or IXC434I will also be issued to provide additional information regarding the synchronization problems that were detected.

System action: The system cannot join the current sysplex because of the lack of synchronization with one or more of the systems which appear to be active or IPLing in the sysplex. The system issues message IXC402D prompting the operator to indicate whether this system should initialize the sysplex, or re-initialize XCF.

Operator response: See message IXC402D.

System programmer response: Check the displayed systems to understand the cause of the synchronization problem with respect to the IPLing system, and take corrective actions if necessary.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2IN

Routing code: 1, 2

Descriptor code: 12

IXC420D REPLY I TO INITIALIZE SYSPLEX *sysplex-name*, **OR R TO REINITIALIZE XCF. REPLYING I WILL IMPACT OTHER ACTIVE SYSTEMS.**

Explanation: This system is trying to initialize or join a sysplex, but cross-system coupling facility (XCF) found one or more systems that appear to be part of an existing sysplex *sysplex-name*. XCF determined that this system cannot join the existing sysplex because of reasons specified in preceding messages. This message prompts the operator to decide whether the systems identified in message IXC404I are actually active in the sysplex and whether initialization should continue.

In the message text:

sysplex-name
The name of an existing sysplex.

System action: Sysplex initialization processing stops until the operator replies to message IXC420D.

Operator response: Choose one of the following replies:

I To request that sysplex initialization continue because none of the systems identified in message IXC404I are participating in an operating sysplex. This system will perform cleanup of old sysplex data, initialize the couple data set, and start a "new" sysplex. If any of the systems identified in message IXC404I are currently active in the sysplex, they will be placed into a disabled wait state.

Beginning with z/OS V1R9, replying 'I' does not purge information pertaining to inactive systems from the sysplex couple data set. This information is retained for the benefit of systems management applications.

R To request that XCF be reinitialized. XCF will stop using the current couple data sets and issue message IXC207A to prompt the operator for a new COUPLExx parmlib member.

Choose **R** also to change the sysplex name and reinitialize XCF to remove any residual data for this system from the couple data set. The system prompts the operator for a new COUPLExx parmlib member.

If an incorrect reply is entered, the system issues message IXC208I to notify the operator of the error. The system then reissues message IXC420D.

System programmer response: Check all the systems displayed in message IXC404I to determine if they are operative and if this system belongs in a sysplex with them.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2IN

Routing code: 1, 2

Descriptor code: 2

IXC421E XCF WAS UNABLE TO STORE PR/SM SYSTEM AUTHORITY

Explanation: During XCF initialization, XCF was unable to pass the system authority to PR/SM. The problem is due to one of the following:

- A system problem.
- An error in the processor controller code that processes the request.
- The processor controller was busy and the request timed out.

System action: The system authority is not stored. XCF initialization continues.

Because the system authority could not be stored, XCF PR/SM POLICY cannot process system RESET or DEACTIVATION requests for this system.

Some automated actions will no longer function for the sysplex.

The system may issue message IXC402D for systems that stop normal functions.

Operator response: Reenter the SETXCF PRSMPOLICY,ACTIVATE=*memname* command. If the problem was due to the processor controller being busy, the command should be successful.

If the problem persists, or if the problem is due to an error in the processor controller code, contact hardware support and notify the system programmer.

If the system issues message IXC402D, follow the operator response for this message as soon as possible.

Notify the system programmer.

System programmer response: If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PH2

Routing code: 1, 2, 10

Descriptor code: 3

IXC422I XCF {PR/SM|SFM} POLICY *memname* **WAS UNABLE TO {SYSRESET|DEACTIVATE}** *sysname*, *text*

Explanation: XCF cannot carry out a POLICY action specified in the processor resource/systems manager (PR/SM) POLICY parmlib member or the sysplex failure management (SFM) policy.

In the message text:

PR/SM
XCF was executing PR/SM POLICY support.

SFM
XCF was executing SFM POLICY support.

memname
The name of the XCF PR/SM POLICY parmlib member or SFM policy name.

SYSRESET
The XCFPOLxx parmlib member or SFM policy specified RESETTIME to indicate that a failing system should be reset after the specified amount of time.

DEACTIVATE
The XCFPOLxx parmlib member or SFM policy specified DEACTTIME to indicate that the logical remove (LPAR) where the failing system resides should be deactivated after the specified amount of time.

sysname
XCF was asked to reset or deactivate one of the systems in the sysplex, or ALL.

response-code
The PR/SM response code.

UNABLE TO RESET ALL CHANNEL INTERFACES
XCF was unable to complete system reset processing.

PR/SM AUTHORIZATION FAILURE
This system was not authorizes on the PR/SM security frame (LPSEC) to perform the system reset or deactivate function for another system. In this case, the system programmer or operator has specified conflicting policies between XCF and PR/SM.

PR/SM TIME OUT FAILURE
The requested action timed out. The action may or may not have been initiated for the target logically removed mode (LPAR).

ALL STORAGE ALREADY ONLINE
No storage elements were available to handle a DEACTIVATE request.

FUNCTION NOT ENABLED
XCF could not perform the requested action because the target system did not enable its PR/SM system authority XCF normally does not enable the PR/SM system authority until the master scheduler initialization phase of the system initialization process. The system issues message IXC421E on the target system.

SYSTEM NOT IN AN LPAR ON THIS CPC
XCF could not carry out the POLICY action because the system being activated or reset does not have LPAR support.

UNEXPECTED PR/SM RESPONSE CODE=*response-code*
An unexpected response code was received from the processor controller after attempting the specified function. XCF did not complete the requested function.

System action: The deactivate or reset function specified in the XCFPOLxx parmlib member or the SFM policy is ignored. The system may issue message IXC402D. The PR/SM console may display additional messages when the processor controller returns a *response-code*.

If **FUNCTION NOT ENABLED** appears in the message text, and XCF is unable to set the PR/SM system authority, the system issues message IXC421E on the target system.

If the failed reset or deactivate request is initiated because of a status update missing condition, the system falls back to initiating the system default action of ISOLATETIME(0).

Operator response: Because the system ignores the reset or deactivate request, manual reconfiguration action might be necessary.

Follow the operator response for message IXC402D if the system issues it. Notify the system programmer.

System programmer response: Correct errors in the PRSMPOLICY, SFM policy, or PR/SM security frame (LPSEC) which may have caused this situation.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2PAT, IXCS2WTO, IXCS4TSK

Routing code: 1, 2, 10

Descriptor code: 4

IXC423I XCF {PR/SM|SFM} POLICY *memname* **WAS UNABLE TO CONFIG {STOR|ESTOR},** *text*

Explanation: XCF is unable to carry out the specified processor resource/systems manager (PR/SM) POLICY action.

In the message text:

PR/SM
XCF was executing PR/SM POLICY support.

SFM
XCF was using the SFM active policy.

memname
The name of the SYS1.PARMLIB member that contains the XCF PR/SM policy, usually XCFPOLxx.

STOR
Real storage that XCF could not configure online.

ESTOR
Expanded storage that XCF could not configure online.

NO STORAGE AVAILABLE
There was no storage of the specified type to con- figure online. This can occur when the installed storage is already online and there is no additional storage to configure online. This would be likely to occur if the storage being used by the failing system was not defined as reserved to this system.

RSM SERVICE NOT AVAILABLE
XCF was unable to determine if storage was available because of a system error.

System action: The system could not take the action specified in the XCF PR/SM parmlib member.

Operator response: Because the system cannot configure the storage online, any reconfiguration actions necessary must be done manually. Determine what storage is defined to this logical remove by using the processor controller element (PCE) CONFIG frame.

System programmer response: Verify that the storage is defined to the LPARs so that the PR/SM policy is able to reconfigure storage when a system stops processing.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2PAT

Routing code: 1, 2, 10

Descriptor code: 4

IXC424I XCF {PR/SM|SFM} POLICY *memname* **EXPERIENCED AN UNEXPECTED ERROR**

Explanation: XCF PR/SM encountered an unexpected problem. XCF could not perform an action specified in the PR/SM policy parmlib member.

In the message text:

PR/SM
XCF was executing PR/SM POLICY support.

SFM
XCF was executing SFM POLICY support.

memname
The name of the XCF PR/SM policy parmlib member.

System action: The system cannot complete the XCF policy action. Processing continues. The system issues message IXC102A or IXC402D.

Operator response: Follow the operator response for message IXC102A or IXC402D.

If a system was removed from the sysplex, PR/SM storage may need to be reconfigured manually.

System programmer response: If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2PAT

Routing code: 1, 2, 10

Descriptor code: 4

IXC425I XCF {PR/SM|SFM} POLICY *memname* {SYSGONE|RECONFIG} PROCESSING HAS COMPLETED FOR SYSTEM *sysname*

Explanation: XCF completed the SYSGONE policy action specified in the processor PR/SM parmlib member for system *sysname*. This message is issued on the system which processed the SYSGONE event.

In the message text:

PR/SM
XCF was executing PRSMPOLICY support.

SFM
XCF was executing SFM POLICY support.

memname
The name of the XCF PR/SM policy parmlib member or the Sysplex Failure Management policy name.

SYSGONE
PR/SM policy SYSGONE processing.

RECONFIG
SFM policy RECONFIG processing.

sysname
The name of the system for which the SYSGONE action was processed.

System action: XCF processes the SYSGONE action for system *sysname*.

Operator response: Either the operator or a message automation processor can respond to this message by initiating recovery or reconfiguration actions.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2PAT

Routing code: 1, 2, 10

Descriptor code: 4

IXC426D SYSTEM *sysname* IS SENDING XCF SIGNALS BUT NOT UPDATING STATUS. REPLY SYSNAME=*sysname* TO REMOVE THE SYSTEM OR R TO RETRY

Explanation: The Sysplex Failure Management policy specifies that system *sysname* should be removed from the sysplex when system *sysname* has not updated its system status for as long as its failure detection interval. However, system *sysname* has produced signal traffic within its failure detection interval. The system is functional but cannot write its system status. This may be a temporary event or system *sysname* is not functioning properly. XCF message IXC427A provides more information.

In the message text:

sysname
The name of the system whose status is missing.

System action: Processing continues. System *sysname* will be automatically removed from the sysplex if it does not update its status and it does not produce XCF signal traffic within its failure detection interval. If the operator replies SYSNAME=*sysname*, then XCF starts the removal of system *sysname* from the sysplex.

Operator response: If system *sysname* is functional, then do nothing. If system *sysname* is not performing properly and its removal is deemed necessary, then REPLY SYSNAME=*sysname* to have XCF isolate and remove system *sysname* from the sysplex. If the reply is incorrect, the system issues message IXC208I to notify the operator of the error, Then, the system issued IXC426D again.

System programmer response: Frequent occurrences of IXC426D might indicate contention or poor performance of the sysplex couple data sets. You need to investigate the performance problem.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2WTO

Routing code: 1, 2

Descriptor code: 2

IXC427A **SYSTEM** *sysname* **HAS NOT UPDATED STATUS SINCE** *hh:mm:ss* **BUT IS SENDING XCF SIGNALS. XCF SYSPLEX FAILURE MANAGEMENT WILL REMOVE** *sysname* **IF NO SIGNALS ARE RECEIVED WITHIN A** *interval* **SECOND INTERVAL**

Explanation: The Sysplex Failure Management policy specifies that system *sysname* should be removed from the sysplex when its status update is missing. System *sysname* has not updated its system status for as long as its failure detection interval. However, system *sysname* has produced signal traffic within its failure detection interval. The system is functional but cannot write its system status. This can be a temporary event or system *sysname* is not functioning properly. XCF message IXC426D prompts the operator to optionally remove the system.

In the message text:

sysname
The name of the system whose status is missing.

hh:mm:ss
The last time system wrote its system status. The time is in hours (00-23), minutes (00-59), and seconds (00-59).

interval
The system failure detection interval in seconds. This interval is the time XCF lets elapse without a status update before assuming that the system is status update missing.

System action: Processing continues. System *sysname* will be automatically removed from the sysplex if it does not update its status and it does not produce XCF signal traffic within its failure detection interval. At a minimum, XCF will attempt to send a signalling status message at least once a second. The operator can use message IXC426D to manually remove system *sysname*. See IXC426D for more information.

Operator response: See message IXC426D.

System programmer response: Frequent occurrences of message IXC427A might indicate contention of poor performance of the sysplex couple data sets. You need to investigate the performance problem.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2WTO

Routing code: 1, 2

Descriptor code: 1

IXC428I **THE SYSTEM STATUS UPDATE TIME IN SYSPLEX COUPLE DATA SET** *dsname* **ON VOLSER** *volser* **IS GREATER THAN THE CLOCK VALUE IN USE BY THIS SYSTEM. THE COUPLE DATA SET CANNOT BE USED. COUPLE DATA SET LAST UPDATED AT:** *mm/dd/yyyy hh:mm:ss* **CURRENT SYSTEM DATE AND TIME IS:** *mm/dd/yyyy hh:mm:ss* **WAIT UNTIL THE TIME DIFFERENCE HAS ELAPSED AND RESPECIFY COUPLE=***xx* **OR SPECIFY A NEW SYSPLEX COUPLE DATA SET THROUGH THE USE OF COUPLE=XX OR REFORMAT THE CURRENT SYSPLEX COUPLE DATA SET AND RESPECIFY COUPLE=XX.**

Explanation: During sysplex initialization, cross-system coupling facility (XCF) determined that the system is trying to use a sysplex couple data set that was last used after the current time on this system. It may be the case that the TOD clock on this system is either incorrect, or a system with an unsynchronized clock value has updated the sysplex data set.

In the message text:

dsname
The name of the sysplex couple data set that is being initialized.

volser
The direct access storage device (DASD) volume on which the sysplex couple data set resides.

mm/dd/yyyy hh:mm:ss
The date and time the sysplex couple data set was last updated or the date and time of the current system. The date is in months (1-12), days (1-31), and years. The time is in hours (00-23), minutes (00-59), and seconds (00-59).

xx The suffix identifying the COUPLE parmlib member.

System action: The system restarts XCF and issues message IXC207A to request a new COUPLExx specification.

Operator response: Notify the system programmer.

System programmer response: Make sure that all systems are using the identical time. The problem could be the result of at least one of the systems in the sysplex having a different time base than the others. See the consequences of different times being encountered within the sysplex in *z/OS MVS Setting Up a Sysplex*. Some recovery actions have more serious implications than others. The list which follows attempts to order the actions in increasing levels of impact.

Have the operator do one of the following:

- Verify the correct sysplex couple data set is in use. If the wrong sysplex couple data set was specified for this system, use a different COUPLExx parmlib member which specifies the correct sysplex couple data set.
- When the time difference is small, and the system clock (or external time reference, ETR) was changed to reflect a change in local time, wait until the time difference has elapsed and respecify the same COUPLExx parmlib member.
- When the current sysplex couple data set was used in an environment with a system time (or external time reference, ETR) in the future, the sysplex couple data set(s) is no longer usable and must be reformatted before it can be used. This allows its time base, and that of all the systems in the sysplex to be synchronized.
- To continue without a sysplex couple data set, specify COUPLE=** to IPL in XCF-local mode.

Module: IXCS2IN

Routing code: 1, 2, 10

Descriptor code: 12

IXC429W XCF IS UNABLE TO CONTINUE: THE *text* NAME WAS ALREADY DECLARED AND DOES NOT MATCH *name*.

Explanation: The system IPL is unable to continue because one of the names being declared by the operating system was already declared via logical partition definition at the hardware console, and the previously-declared name does not match the name being declared by the operating system.

In the message text:

text
One of the following:

OPERATING SYSTEM
XCF was declaring the operating system name.

CHANNEL PATH MANAGEMENT
XCF was declaring the channel path management name.

CPU MANAGEMENT
XCF was declaring the CPU management name.

name
The system or sysplex name which was being declared.

System action: The system enters a non-restartable wait state.

Operator response: Notify the system programmer.

System programmer response: Determine the reason for the mismatch of the indicated name between the name that was declared for the partition via logical partition definition and the name that is to be declared by the operating system (which is either the system name or the sysplex name).

Correct the mismatch by one of the following:

1. IPLing the system into the logical partition which has a system name or sysplex name that matches the name being declared, or
2. Modifying the logical partition definition to make the declared name match the system name or the sysplex name that will be declared by the operating system, or

3. Modifying the system name or sysplex name for the system being IPLed so that it matches the existing names declared via logical partition definition.

Once the mismatch has been corrected, re-IPL the system. If the system name in the logical partition definition has changed, in order for that name change to take effect, you must re-activate the logical partition before you can re-IPL the system.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCI2PH3

Routing code: 1, 2, 10

Descriptor code: 1

IXC430E SYSTEM *sysname* HAS STALLED XCF GROUP MEMBERS

Explanation: The indicated system has one or more members of an XCF group that are not processing their XCF work in a timely manner. The XCF work to be performed by a group member includes such things as processing of messages by a message user exit routine, or processing of group events by a group user exit routine.

A member is declared stalled if there is any one work item that is not being processed in a timely manner. A stalled member could be processing all its other XCF work in a timely manner. See the explanation of message IXC431I for a description of situations that could make a member appear stalled.

Note: It is very unlikely that the delays are caused by a problem in XCF.
It may not be possible to determine the impact to the sysplex, system, or relevant application without understanding the type and nature of the work item(s) experiencing the delay. The impact may not be limited to the stalled member if it provides services to other applications or subsystems the sysplex. Failure to process this work in a timely manner could account for delays or performance problems elsewhere in the sysplex.

This message is not necessarily issued if the stalled member happens to be an internal XCF member.

In the message text:

sysname
The name of the system on which the stalled members reside.

System action: XCF continues to monitor the situation. The message is deleted when no member stalled conditions exist on the indicated system.

Messages IXC431I and IXC432I may be issued periodically to the log to provide information about the current state of the stall for a particular group member. XCF may issue abend x00C reason x020F0006 to initiate internal XCF self verification and other actions to address the stall. The abend does not directly impact the stalled application. If an internal XCF problem is discovered, a dump will be taken. An entry in logrec is made to document the situation even if no dump is taken.

Operator response: Monitor the situation. If there does not seem to be any detrimental impact, no further action may be needed. On many occasions the system will successfully resolve the situation during the course of normal processing. Issue DISPLAY XCF commands on the indicated system to get more information about the stalled group members.

- Use DISPLAY XCF,GROUP to determine which groups have a stalled member on the system. Message IXC331I lists the names of the groups and indicates which ones have stalled members.
- Use DISPLAY XCF,GROUP,*grpname* to determine which members of group *grpname* are stalled. Message IXC332I lists the names of the members and indicates which ones are considered stalled by XCF.
- Use DISPLAY XCF,GROUP,*grpname*,*membername* to get detailed information about the member *membername* of group *grpname*. Message IXC333I provides status information about the member and indicates what work appears to be stalled.

There may be other commands provided by the stalled application/subsystem that will allow you to determine its status and/or alleviate the problem. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis and/or terminate the indicated application. If multiple members appear to be stalled, or if other indicators suggest work is not being processed, check the status of the system because there may be an underlying problem affecting them all.

The DISPLAY XCF,PATHOUT and DISPLAY XCF,PATHIN commands may be issued to obtain detailed path status information to see if a member with a signaling stall appears to be impacting message delivery.

System programmer response: Check the status of the stalled application/subsystem. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. Take appropriate action to correct the situation or cancel/terminate the application. Before terminating the application, issue the DISPLAY XCF,GROUP *grpname*,ALL command as well as any application specific display commands that may be helpful in ascertaining status. Then collect the following diagnostic information: system log, application log, and an appropriate dump. In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE). Then using its normal shut down procedure, terminate the application.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 2, 10

Descriptor code: 11

IXC431I *text*

Explanation: In the message, *text* is:

```
GROUP gnme MEMBER mnme JOB jnme ASID asid
STALLED AT sdate stime ID: s#.r#
LAST MSGX: adate sitime siexit STALLED swork PENDINGQ
LAST GRPX: gdate gtme   gnexit STALLED gwork PENDINGQ
LAST STAX: stdate sttime stexit STALLED
```

The indicated XCF Group Member is not processing its XCF work in a timely manner. The processing of at least one work item appears to be stalled.

Note: It is very unlikely that the delays are caused by a problem in XCF.
Possible explanations include:

- Contention problems in the user exit routine(s). Perhaps the exit routine is suspended waiting to obtain the local lock or a latch. DISPLAY GRS,C will identify latch contention.
- SRBs not dispatched in a timely manner. Perhaps the member address space is swapped out or a dump is in progress. Perhaps the dispatch priority of the member address space is too low. Perhaps a loop in some other work unit is consuming most of the CPU resource. The looping work unit need not be in the member address space. It could be in an address space other than those identified by the IXC431I message(s).
- An influx of work has exceeded the processing capacity of the member or system. The influx may be a temporary spike that the system can work through with time. It could be the residual effect of some other problem that caused processing of an otherwise normal workload to be delayed.
- Some other member or system in the sysplex is not processing its work in a timely manner. Although XCF may have identified the indicated member as stalled, the situation could be the result of sympathy sickness arising from processing delays elsewhere in the sysplex (which may or may not have been identified).
- A member or system might be engaged in reconfiguration or recovery processes that must complete before normal processing can proceed. For example, a system may have just become active in the sysplex, a system may have just been removed from the sysplex, a member may be joining the group, a member may be leaving the group, or some other application specific processes may be running.
- The user exit routine may have a coding error in which it returns to the dispatcher instead of returning to XCF. One would expect this situation to occur only when testing a new application that exploits XCF services.

It may not be possible to determine the impact to the application without understanding the nature and content of the item(s) experiencing the delay. The impact may not be limited to the stalled member if it provides services to other applications or subsystems in the sysplex. Failure to process this work in a timely manner could account for delays or performance problems elsewhere in the sysplex.

If multiple members appear to be stalled, or if other indicators suggest work is not being processed, check the status of the system because there may be an underlying problem affecting them all.

In the message text:

gnme
The name of the XCF group whose member stalled.

mnme
The name of the stalled member.

jnme
The name of the job.

asid
The hexadecimal ASID of the address space.

sdate
The date when XCF believes the member stalled.

stime
The time when XCF believes the member stalled.

s# A number to help correlate other instances of message IXC431I that are issued for the indicated member with regard to this stall. Also appears in message IXC432I. In general this number is incremented each time a new stall is detected for the member. However it can be reset to zero if no stalls are detected for the member for a sufficiently long time.

r# A number to help indicate whether message IXC431I is being issued or reissued for the same stall condition. Equals one when message IXC431I is first issued for a stall, and incremented each time IXC431I is reissued with new data.

adate
The date when a signal exit most recently completed. Blank if no signal exit ever completed.

sitime
The time when a signal exit most recently completed. Blank if no signal exit ever completed.

siexit
The number of stalled signal exit routines.

swork
The number of signal work items queued for processing by or on behalf of the indicated member. These items include messages to be delivered to the member, notifications to be presented to the member, and internal XCF signaling related requests that need to be processed in the member address space.

gdate
The date when a group exit most recently completed. Blank if no group exit ever completed.

gtime
The time when a group exit most recently completed. Blank if no group exit routine ever completed.

gnexit
The number of stalled group exit routines.

gwork
The number of group work items queued for processing by or on behalf of the indicated member. These items include events that are to be presented to the member.

stdate
The date when a status exit most recently completed. Blank if no status exit routine ever completed or when the member does not have a status exit.

sttime
The time when a status exit most recently completed. Blank if no status exit routine ever completed or when the member does not have a status exit.

stexit
The number of stalled status exit routines.

System action: XCF continues to monitor the situation. If the stalled condition persists, but other items are being successfully processed, XCF periodically reissues message IXC431I with updated information. XCF may issue abend X'00C' reason X'020F0006' to initiate internal XCF self verification and other actions to address the situation. The abend does not directly impact the stalled application in any way. If an internal XCF problem is discovered, a dump will be taken. An entry in logrec is made to document the situation even if no dump is taken. Message IXC432I is

issued if the stalled member resumes normal processing or terminates.

Operator response: This message is issued to the system log so no operator response is expected. If through customer action, the message is rerouted to an operator console, the operator should monitor the situation. If there does not seem to be any detrimental impact, no further action may be needed. Use DISPLAY XCF,GROUP,*grpname*,*membername* to get detailed information about the stalled member of group *grpname* named *membername*. Message IXC333I provides status information about the member and indicates what work appears to be stalled.

There may be other commands provided by the indicated application/subsystem that will allow you to determine its status and/or alleviate the problem. If more than one member is impacted, there may be an underlying system problem affecting them all. If so, investigate the status of the system at large. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis and/or terminate the indicated application.

XCF monitors its own internal use of the XCF signalling service and may issue message IXC431I if XCF itself appears to be stalled. However, the DISPLAY XCF,GROUP command cannot be used to investigate such stalls since the command does not support the internal XCF group.

System programmer response: Check the status of the stalled application/subsystem. If multiple members appear to be stalled, or if other indicators suggest work is not being processed, there may be an underlying problem affecting them all. If so, a broader system diagnosis my be warranted because the impacted members may not be at fault. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. If necessary, take appropriate action to correct the situation or cancel/terminate the application. Before terminating the application, issue DISPLAY XCF,GROUP,*grpname*,ALL and any relevant application display, then collect the following diagnostic information: system log, application log, and an appropriate dump. In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE). Then using its normal shut down procedure, terminate the application.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 2, 10

Descriptor code: 12

IXC432I **GROUP** *grpname* **MEMBER** *membername* **JOB** *jobname* **ASID** *asid text* **AT** *ResumeDate ResumeTme* **ID:** *stall#*

Explanation: The indicated XCF Group Member is no longer considered stalled. This message is issued after the stalled condition indicated by message IXC431I is alleviated.

In the message text:

grpname
The name of the XCF group whose member resumed its XCF processing.

membername
The name of the resumed member.

jobname
The name of the job.

asid
The hexadecimal ASID of the address space.

text
One of the following:

RESUMED
The member is now processing the indicated work in a timely manner.

TERMINATING
The member is being deactivated. Pending work will be discarded.

ResumeDate
The date when XCF determined that the member should no longer be considered stalled.

ResumeTime
The time when XCF determined that the member should no longer be considered stalled.

stall#
A number to help correlate other instances of message IXC431I that are issued for the indicated member with regard to this stall. Also appears in message IXC432I. In general this number is incremented each time a new stall is detected for the member. However it can be reset to zero if no stalls are detected for the member for a sufficiently long time.

System action: If processing resumed, XCF continues to monitor the situation as needed. If the member is terminating, XCF continues with member cleanup processing. If message IXC430E was issued, and no other members on the local system appear to be stalled, message IXC430E is deleted.

Source: Cross System Coupling Facility (SCXCF)

Module: IXS1DCM

Routing code: 2, 10

Descriptor code: 12

IXC433I **THIS SYSTEM IS IN A PARTITION WITH LOGICAL PARTITION ID** *LPnum*. **THE FOLLOWING ACTIVE OR IPLING SYSTEM(S) DO NOT SUPPORT THE CURRENT LOGICAL PARTITION ID:** *system-names*

Explanation: During sysplex initialization, the cross-system coupling facility (XCF) determined that the system joining the sysplex is a Logical Partition with an identifier that is not compatible with the systems that are in the current sysplex.

In the message text:

LPnum
The identifier of the Logical Partition of the IPLing system.

system-names
A table of system names.

System action: The system restarts XCF and issues message IXC207A to request a new COUPLExx specification.

Operator response: Check the service levels of the specified system(s) and notify the system programmer.

System programmer response: Have the operator do one of the following:

- Apply the necessary service to the specified systems that will allow them to be compatible with the current Logical Partition ID.
- Enter a VARY XCF command to remove the specified systems that are not compatible with the current Logical Partition ID.
- Specify the COUPLE00 parmlib member on this system to IPL it in XCF-local mode. None of the multisystem XCF services will be available.
- Request a different COUPLExx parmlib member to specify a different couple data set.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXS1DCM

Routing code: 1, 2, 10

Descriptor code: 12

IXC434I *sysname* **HAS TIMING DEFINITIONS THAT ARE NOT CONSISTENT WITH THE OTHER ACTIVE SYSTEMS IN SYSPLEX** *sysplex* **- EFFECTIVE CLOCK VALUES ARE NOT CONSISTENT.** *text*

Explanation: During sysplex initialization, cross-system coupling facility (XCF) determined that the system that joined the sysplex is using a different time source from the other systems in the sysplex. All systems in a sysplex in

the same timing network must be configured with the same coordinated timing network identifier, must be synchronized to the same coordinated server time, and must have the same effective clock value.

Systems running in a sysplex must have matching effective clock values. This is the ETR time in ETR timing mode or CST in STP timing mode, with the LPAR EPOCH applied. A difference of more than one second is considered as a mismatch in timing information. If an LPAR EPOCH mismatch is detected, the following insert will be included in message IXC434I: EFFECTIVE CLOCK VALUES ARE NOT CONSISTENT.

In the message text:

sysname
The name of the system.

sysplex
The name of the sysplex.

text
text is one of the following:

SYSTEM: *sysname* **IS USING ETR NETID:** *etrid*
The text shows the ETR NetId defined for the indicated system.

SYSTEM: *sysname* **IS USING CTNID:** *stpid-etrid*
The text shows the STP and ETR portions of the CTN identifier defined for the indicated system.

SYSTEM: *sysname* **IS USING CTNID:** *stpid*
The text shows the STP portion of the CTN identifier defined for the indicated system.

System action: The system issues message IXC420D, or the system restarts XCF and issues message IXC207A to request a new COUPLExx specification.

Operator response: Check the status of the ETR, or any defined offsets to the ETR time, if the ETR portion of the CTNID is provided. Check the CTNID and any defined offsets for the server on which this system is running. Make sure that the STP portion of the CTNID is consistent with the STP portion of the CTNID defined for the other servers in the timing network. Notify the system programmer.

System programmer response: Have the operator perform one of the following steps:
- Specify the COUPLE00 parmlib member on this system to IPL it in XCF-local mode. None of the multisystem XCF services will be available.
- Request a different COUPLExx parmlib member to specify a different couple data set.
- Correct any ETR problems if the system is stepping to or being steered by an ETR.
- Correct any CTNID specifications (either the STPid portion or the ETRid portion).
- Retry with the same COUPLExx parmlib member.
- Enter a VARY XCF command to remove any systems in the sysplex that are not connected to the same time source.
- Correct any improperly defined time offsets.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2IN

Routing code: 1, 2, 10

Descriptor code: 12

IXC435I ALL SYSTEMS IN SYSPLEX *sysplex* **ARE NOW SYNCHRONIZED TO THE SAME TIME REFERENCE.** *text*

Explanation: Systems in the sysplex must be using the same primary reference time. This message indicates the timing in use by each of the systems in the sysplex. All these systems are using the same primary time reference for synchronization.

In the message text:

sysplex
The name of the sysplex.

text
text is one of the following:

SYSTEM: *sysname* **IS USING ETR NETID:** *etrid*
The text shows the ETR NetId defined for the indicated system.

SYSTEM: *sysname* **IS USING CTNID:** *stpid-etrid*
The text shows the STP and ETR portions of the CTN identifier defined for the indicated system.

SYSTEM: *sysname* **IS USING CTNID:** *stpid*
The text shows the STP portion of the CTN identifier defined for the indicated system.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2TSK

Routing code: 2, 10

Descriptor code: 12

IXC436W THIS SYSTEM HAS LOST TIME SYNCHRONIZATION WITH THE OTHER SYSTEMS IN THE SYSPLEX AND HAS BEEN PLACED INTO A NON-RESTARTABLE WAIT STATE CODE: X'0A2' REASON CODE: X'15A'

Explanation: This system lost access to its primary time reference. This might have been the result of a configuration change to the coordinated time network (CTN) ID for the CEC where this system was running.

System action: The system enters a non-restartable wait state X'0A2' reason code X'15A'. If this system is not removed from the sysplex, the other systems might fail. If there are other active systems in the sysplex that did not lose their primary reference time, then XCF on those systems will detect a status update missing condition for this system. XCF on those active systems will partition this system from the sysplex according to the sysplex failure management policy if such a policy exists and is active.

Operator response: Determine whether this change was intentional. Seek assistance from the system programmer.

System programmer response: If this message is not issued on every system in the sysplex, but issued on every system on the same CEC and the affected systems are all using STP for their time source in a coordinated time network, determine if the configuration change was intentional. If not, reset the CTNID for this CEC and re-IPL the z/OS systems.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2TSK

Routing code: 1,10

Descriptor code: 1

IXC437I SYSTEMS CAN NOW ENTER THE SYSPLEX USING COORDINATED SERVER TIME CTNID=*stpid***[-***etrid***]**

Explanation: The sysplex switched from local timing mode to timing synchronized by the coordinated timing network.

System action: Systems can now form a sysplex using the CTN primary reference time.

Operator response: Any other systems brought into this sysplex should use the same primary reference time in the same CTN.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2TSK

Routing code: 1, 2

Descriptor code: 4

IXC438I COORDINATED TIMING INFORMATION HAS BEEN UPDATED FOR SYSTEM *sysname* **PREVIOUS** *timing***CURRENT** *timing*

Explanation: This system has been notified of a change to the ETR NETID or CTNID.

In the message:

sysname
The name of the system.

timing
The timing information, which is one of the following values:

ETR NETID: *etrid*
The ETR portion of the CTN identifier defined for the indicated system.

CTNID: *stpid*
The STP portion of the CTN identifier defined for the indicated system.

CTNID: *stpid-etrid*
The STP and ETR portion of the CTN identifier defined for the indicated system.

TIMING: LOCAL
The local timing mode.

System action: Systems in the sysplex must be using the same ETR or CTN reference time. If this system has an updated ETR NETID or CTNID that is not consistent with the other systems in the sysplex, this system will be taken out of the sysplex. Systems with timing of ETR NETID: *etrid* are consistent with systems with timing of CTNID: *stpid-etrid* when the *etrid* matches.

Operator response: Make sure that all systems in the sysplex are running on CECs that have been updated with the new ETR NETID or CTNID.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2TSK

Routing code: 1, 2, 10

Descriptor code: 4

IXC439E ALL SYSTEMS IN THE SYSPLEX *sysplex* **ARE NOT SYNCHRONIZED TO THE SAME TIME REFERENCE. THE FOLLOWING SYSTEM IS NOT PART OF THE TIMING NETWORK AND WILL BE REMOVED.** *text*

Explanation: Systems in the sysplex must be using the same CTN reference time. If this system has an updated CTNID that is not consistent with the other systems in the sysplex, then this system will be taken out of the sysplex. Systems running in a sysplex must have matching effective clock values. This is the ETR time in ETR timing mode or CST in STP timing mode, with the LPAR EPOCH applied. A difference of more than one second is considered as a mismatch in timing information.

In the message:

sysplex
The name of the system.

text
text is one of the following:

SYSTEM: *sysname* **IS USING ETR NETID:** *etrid*
The text shows the ETR NetId defined for the indicated system.

SYSTEM: *sysname* **IS USING CTNID:** *stpid-etrid*
The text shows the STP and ETR portions of the CTN identifier defined for the indicated system.

SYSTEM: *sysname* **IS USING CTNID:** *stpid*
The text shows the STP portion of the CTN identifier defined for the indicated system.

System action: The system continues processing.

Operator response: Make sure all systems in the sysplex are running on the CECs that have been updated with the new CTNID.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2TSK

Routing code: 1, 2

Descriptor code: 11

IXC440E SYSTEM *hurtsys* **IMPACTED BY** *problem* **ON SYSTEM** *stallsys*

Explanation: System *stallsys* has one or more members of an XCF group that are not processing their XCF work in a timely manner. System *hurtsys* is being impacted by *problem*. Action must be taken on system *stallsys* to resolve the problem to avoid further sympathy sickness.

In the message:

hurtsys
The name of the system being impacted by the stalled XCF group members that reside on system *stallsys*.

problem
Describes the type of problem that members on system *stallsys* are having, which in turn is causing an impact to system *hurtsys*. *problem* can be one of the following:

STALLED
Stalled members on system *stallsys* are causing an impact on system *hurtsys*.

ISOLATED
Isolated members on system *stallsys* are causing an impact on system *hurtsys*. When an XCF group member does not process its signals in a timely manner, XCF can isolate the member. The member is said to be "message isolated". When a member is message isolated, XCF will either delay or reject messages that are targeted to that member.

stallsys
The name of the system on which the stalled members reside.

System action: XCF continues to monitor the situation. The message is deleted when the issuing system is no longer being impacted by the stall condition(s) on system *stallsys*. One or more of the following could happen:

- System *stallsys* issues message IXC640E to indicate what action XCF will take, if any, to remedy the problem. The MEMSTALLTIME keyword in the Sysplex Failure Management (SFM) policy determines whether XCF is allowed to take action to resolve the problem.
- System *stallsys* issues message IXC631I to identify a stalled member that is contributing to the sympathy sickness problem.
- System *stallsys* issues message IXC645E to indicate that it has isolated members. Message IXC638I is issued one or more times to document the isolation window for each isolated member on system *stallsys*.
- System *hurtsys* issues message IXC637I to document the impact window induced by a given isolated member. The message can be issued one or more times for a given impact window.

Operator response: Investigate the problem and take action as needed to remedy the problem. The system may be able to resolve the problem automatically if the SFM policy permits XCF to take action. Look for message IXC640E on system *stallsys* to see whether XCF is permitted to act. On many occasions the system will successfully resolve the situation during the course of normal processing.

Issue DISPLAY XCF commands to get more information about the stalled group members.

- Use DISPLAY XCF,GROUP to determine which groups have stalled or isolated members on the system. Message IXC331I lists the names of the groups and indicates which ones have stalled or isolated members.
- Use DISPLAY XCF,GROUP,*grp_name* to determine which members of group *grp_name* are stalled or isolated. Message IXC332I lists the names of the members and indicates which ones are considered stalled or isolated by XCF.
- Use DISPLAY XCF,GROUP,*grp_name*,*member_name* to get detailed information about the member *member_name* of group *grp_name*. Message IXC333I provides status information about the member and indicates what work appears to be stalled or isolated.

There may be other commands provided by the problematic application/subsystem that will allow you to determine its status and/or alleviate the problem. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis and/or terminate the indicated application. If multiple members appear to be having problems, or if other indicators suggest work is not being processed, check the status of the system since there may be an underlying problem affecting them all.

The DISPLAY XCF,PATHOUT and DISPLAY XCF,PATHIN commands may be issued to obtain detailed path status information to see if a member with a signalling stall appears to be impacting message delivery.

System programmer response: Check the status of the stalled application/subsystem. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. No further action may be needed if the active SFM policy MEMSTALLTIME specification for system *stallsys* allows XCF to take action. If XCF takes action to remedy the problem, it will initiate an appropriate dump.

If necessary, take appropriate action to correct the situation or cancel/terminate the application. Before terminating the application, issue the DISPLAY XCF,GROUP,*grpname*,ALL command as well as any application specific display commands that may be helpful in ascertaining status. Then collect the following diagnostic information: system log, application log, and an appropriate dump.

In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE). Then using its normal shut down procedure, terminate the application.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 2, 10

Descriptor code: 11

IXC441I NOTE PAD NAME FILTER NOT ACCEPTED: *value reason*

Explanation: XCF found incorrect syntax specified on the TRACE CT command for NPNAME filtering. *reason* in the message text describes the error.

In the message text:

value
Identifies a note pad name pattern or character that is not valid.

reason
Describes the reason why *value* is not valid. *reason* is one of the following:

MORE THAN FOUR NOTE PAD NAME PATTERNS SPECIFIED
While processing the TRACE CT command, the system found more than four note pad name patterns specified for the NOTEPAD XCF Component trace option. You can specify up to four note pad name patterns with the NPNAME option.

NOTE PAD NAME PATTERN FORMAT IS NOT VALID
value specified on the TRACE CT command is not a syntactically valid note pad name pattern. To be valid, a note pad name pattern must meet the following format criteria:

- A note pad name can consist of two to four sections separated by periods.
- If a section is not specified, it is defaulted to all blanks.
- The first and the second sections must not be blank.
- Each section, if specified, must be left-justified with no trailing blanks.

- Each section can contain up to 8 upper-case alphanumeric (A-Z,0-9), national (@,#,$), or underscore (_) characters.
- Any section can contain the asterisk (*) wild card character, which is used to match zero (0) or more characters (for example, OWN*.*).

EXCEEDS THE MAXIMUM LENGTH
value must not exceed thirty-five (35) characters in length.

IS AN INVALID CHARACTER FOR A NOTE PAD NAME
value identifies a character that is not valid for a note pad name pattern. The valid characters for a note pad name pattern are upper-case alphanumerics (A-Z, 0-9), national (@,#,$), underscore (_), and the asterisk (*) wild card character.

INVALID DELIMITER SPECIFIED OR DELIMITER MISSING
The NPNAME keyword was entered with a missing delimiter or a delimiter that is not valid. The options and list of note pad names must be enclosed within parenthesis. For example:
OPTIONS=(NPNAME=(ABC*.*,A.B)),END

System action: XCF ignores the incorrect NPNAME input. The TRACE CT command was not successful.

Operator response: Correct the input specified for the NPNAME filter option and reenter the TRACE CT command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCC1TCP

Routing code: 2, 10

Descriptor code: 3

IXC442I *hh.mm.ss* **DISPLAY XCF**
text

Explanation: In the message, *text* is:

NOTE PAD NAME	**HOST STRUCTURE**
notepadname	hoststrname

In response to a DISPLAY XCF command, this message displays summary note pad information. The system repeats the display lines as many times as necessary to provide all data.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

notepadname
The name of a note pad.

hoststrname
The structure that the note pad is hosted in.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: 2

Descriptor code: 5

IXC443I *hh.mm.ss* **DISPLAY XCF**
text

Explanation: In the message, *text* is:

IXC443I

[WARNING: INFORMATION MAY NOT BE COMPLETE]

INFO FOR NOTE PAD *npname*
DESCRIPTION: *np_description*
HOST STRUCTURE: *hoststrname*
STATUS: *np_status*
SYSTEMS CONNECTED: *sysname sysname sysname sysname*
sysname sysname sysname sysname
CREATED: *np_created*
LIST NUMBER: *listnum*
MAX TAG: *npmaxtag_hex* | *npmaxtag_ebcdic* |
CURRENT NUMBER OF NOTES: *currnotes*

NOTE PAD DEFINITION
REQUIRED NUMBER OF NOTES: *req#notes*
TAGGING: *nptagging*
TRACK TAG: *nptracktag*
MULTIWRITE: *npmultwrite*
DUPLEX: *npduplex*
INFO: *info_hex* | *info_ebcdic* |

In response to a DISPLAY XCF command, this message displays detailed note pad information. The system repeats the display lines as many times as necessary to provide all data.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

WARNING: INFORMATION MAY NOT BE COMPLETE
The local system could not access the note pad structure to retrieve all note pad data.

npname
The name of the note pad being displayed.

np_description
The description of the note pad.

hoststrname
The structure that the note pad is hosted in.

np_status
One of the following:

CREATING
The note pad is in the process of being created by the XCF Note Pad Service.

CREATED
The note pad is created.

DELETE PENDING
The note pad is in the process of being deleted by the XCF Note Pad Service.

UNKNOWN
The note pad status is unknown.

np_created
The date and time when the note pad was created (*mm/dd/yyyy hh:mm:ss.dddddd*).

listnum
The structure list number that the note pad is assigned to.

npmaxtag_hex
The maximum note tag value for the note pad in hexadecimal format. If *nptracktag* is 'CURRENT', this value equals the maximum tag value assigned to any note that currently exists in the note pad. If *nptracktag* is 'LIFETIME', this value equals the maximum tag value assigned to any note that ever existed in the note pad. Otherwise, set to 0.

'NOT AVAILABLE' is displayed when the note pad structure identified by *hoststrname* is not accessible from the local system that the display command was issued from.

npmaxtag_ebcdic
The maximum note tag value for the note pad in EBCDIC format. If *nptracktag* is 'CURRENT', this value equals the maximum tag value assigned to any note that currently exists in the note pad. If *nptracktag* is 'LIFETIME', this value equals the maximum tag value assigned to any note that ever existed in the note pad.

info_hex
Information about the note pad provided by the creator (from IXCNOTE INFO) in hexadecimal format.

info_ebcdic
Information about the note pad provided by the creator (from IXCNOTE INFO) in EBCDIC format.

currnotes
Number of notes that currently exist in the note pad. 'NOT AVAILABLE' is displayed when the note pad structure identified by *hoststrname* is not accessible from the local system that the display command was issued from.

req#notes
The number of notes that the note pad needs to hold as specified by the creator of the note pad.

nptagging
One of the following:

XCF
The creator of the note pad specified TAGGING=XCF, in which case XCF is responsible for assigning note tag values.

USER
The creator of the note pad specified TAGGING=USER, in which case connectors are responsible for assigning note tag values.

nptracktag
One of the following:

NO The maximum note tag value is not tracked by XCF. The creator of the note pad specified TRACKTAG=NO (or took the default) on IXCNOTE when creating the note pad.

CURRENT
The creator of the note pad specified TRACKTAG=CURRENT on IXCNOTE when creating the note pad.

LIFETIME
The creator of the note pad specified TRACKTAG=LIFETIME on IXCNOTE when creating the note pad.

npmultwrite
One of the following:

YES
The creator of the note pad specified MULTIWRITE=YES.

NO The creator of the note pad specified MULTIWRITE=NO.

npduplex
One of the following:

AVOID
The creator of the note pad specified DUPLEX=AVOID.

FAVOR
The creator of the note pad specified DUPLEX=FAVOR.

sysname
Name of a system that has a connector to the note pad. Value will be *NONE* if no systems are connected to the note pad.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: 2

Descriptor code: 5

IXC444I *hh.mm.ss* **DISPLAY XCF**
NO NOTE PADS {MATCH THE SPECIFIED CRITERIA | CURRENTLY DEFINED}

Explanation: A DISPLAY XCF command was entered to display note pad information, but no note pads that match the specified criteria were found or there are no note pads currently defined in the sysplex.

In the message, *text* is:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

NO NOTE PADS MATCH THE SPECIFIED CRITERIA
No note pads that match the specified filtering criteria were found.

NO NOTE PADS CURRENTLY DEFINED
No note pads are currently defined in the sysplex.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: 2

Descriptor code: 5

IXC445I *hh.mm.ss* **DISPLAY XCF**
DISPLAY COMMAND FAILED: *failrsn*
[*diag***]**

Explanation: The DISPLAY XCF,NOTEPAD command failed for one of the following reasons.

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59) for the DISPLAY XCF command.

failrsn
One of the following reasons for failure:

INTERNAL XCF COMPONENT ERROR
An XCF error caused the command to fail. Diagnostic information may be provided by the detecting program to assist in problem determination.

INTERNAL XCF SERVICE ERROR
An unexpected error was received from an XCF service during the processing of the display command. Diagnostic information is provided for assistance in problem determination.

NO CONNECTIVITY TO NOTE PAD CATALOG
No connectivity exists from the local system to the structure which hosts the note pad catalog.

NOTE PAD CATALOG TEMPORARILY UNAVAILABLE
The note pad catalog is temporarily unavailable.

NOTE PAD CATALOG STRUCTURE FAILURE
The structure which hosts the note pad catalog has failed and cannot be accessed.

SYSTEM NOT CONFIGURED TO USE NOTE PAD CATALOG
The system is not configured to support access to the note pad catalog structure.

RESOURCES NOT AVAILABLE FOR NOTE PAD CATALOG
The system can not connect to the note pad catalog structure due to system resources not being available.

SERVER RESPONSE AREA STORAGE NOT AVAILABLE
The system cannot obtain required storage resources to collect note pad information.

NOTE PAD REQUEST TIMED OUT
The display request to collect note pad definitions and connection information exceeded the XCF internal timeout value for the command.

XCF NOTE PAD SERVER PROTOCOL ERROR
An XCF error caused the command to fail. Diagnostic information might be provided by the detecting program to assist in problem determination.

diag
Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: The system ends processing of the DISPLAY command.

Operator response: Contact the system programmer.

System programmer response: Do one of the following:

- If the reason for failure is 'NO CONNECTIVITY TO NOTE PAD CATALOG', the local system does not have connectivity to the coupling facility containing the note pad catalog structure. This might occur due to operator commands such as VARY PATH OFFLINE or CONFIG CHP OFFLINE or hardware errors such as facility or path failures. Determine if the local system should have connectivity to the coupling facility containing the note pad catalog, restore connectivity if possible and issue the command again. Alternatively, issue the display command from another system in the sysplex (or route the display command to another system in the sysplex) that has connectivity to the coupling facility containing the note pad catalog.
- If the reason for failure is 'NOTE PAD CATALOG TEMPORARILY UNAVAILABLE', temporary environmental conditions in the system are preventing access to the note pad catalog. Try the command again at a later time.
- If the reason for failure is 'NOTE PAD CATALOG STRUCTURE FAILURE', a structure failure has been detected for the note pad catalog structure. Try the command again at a later time.
- If the reason for failure is 'SYSTEM NOT CONFIGURED TO USE NOTE PAD CATALOG', the note pad catalog is not defined or might not be defined correctly in the currently active CFRM policy. See *z/OS MVS Setting Up a Sysplex* for information, guidance and requirements on defining the XCF note pad catalog structure.
- If the reason for failure is 'RESOURCES NOT AVAILABLE FOR NOTE PAD CATALOG' or 'SERVER RESPONSE AREA STORAGE NOT AVAILABLE', system resources were not available to satisfy the display request. Try the command again at a later time.
- If the reason for failure is 'NOTE PAD REQUEST TIMED OUT', the time allotted for the command to collect the requested information has been exceeded. Try the command again at a later time.
- If the reason for failure is 'INTERNAL XCF COMPONENT ERROR', 'INTERNAL XCF SERVICE ERROR', or 'XCF NOTE PAD SERVER PROTOCOL ERROR', an unexpected error occurred during the processing of the display command that could not be resolved by XCF or the system. The provided diagnostic data (if any) is of use to IBM in identifying the system error that occurred. Save the diagnostic information for problem reporting to the IBM Support Center.

  If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1DC2

Routing code: 2, 10

Descriptor code: 5

IXC446I SYSTEM *sysname* IS IN MONITOR-DETECTED STOP STATUS BUT IS SENDING XCF SIGNALS. SFM WILL TAKE SSUM ACTION AT *actiontime* IF SYSTEM REMAINS IN THIS STATE.

Explanation: The Sysplex Failure Management (SFM) active policy specifies that system *sysname* should be removed from the sysplex when a system status update missing (SSUM) condition is detected. System *sysname* has not updated its status for as long as its failure detection interval, but it has produced XCF signal traffic within its failure detection interval. The SSUMLIMIT value from the SFM active policy indicates that automatic action can be attempted when XCF signal traffic is being produced.

In the message text:

sysname
System name.

actiontime
Time (in mm/dd/yy hh:mm:ss format) at which SFM will take action.

The date is in months (1-12), days (1-31), and years. The time is in hours (00-23), minutes (00-59), and seconds (00-59).

System action: Processing continues. System *sysname* will be automatically removed from the sysplex at *actiontime* if it does not update its status. System *sysname* can be automatically removed from the sysplex sooner than *actiontime*, if it stops producing XCF signal traffic. No action will be taken if the system resumes status updates.

Operator response: None required.

System programmer response: Frequent occurrences of message IXC446I might indicate contention or poor performance of the XCF sysplex couple data sets. You need to investigate the performance problem.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2WTO

Routing code: 2, 10

Descriptor code: 12

IXC447I SFM SSUM ACTION TO REMOVE SYSTEM *sysname* **IS CANCELLED:** *reason*

Explanation: A system status update missing (SSUM) condition had been previously detected for system *sysname*. Sysplex Failure Management (SFM) would have taken action to remove the system from the sysplex, but that automatic action will no longer be taken.

In the message text:

sysname
System name.

reason

SFM NO LONGER ACTIVE
Sysplex Failure Management is not active.

SYSTEM UPDATED STATUS
System status updates resumed.

System action: Processing continues.

Operator response: None required.

System programmer response: Frequent occurrences of message IXC447I might indicate contention or poor performance of the XCF sysplex couple data sets. You need to investigate the performance problem.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2WTO

Routing code: 2, 10

Descriptor code: 12

IXC451I INVALID SIGNAL PATH FROM SYSTEM *osysname* **DEVICE** *outdev* **TO SYSTEM** *isysname* **DEVICE** *indev***:** *text*

Explanation: XCF detected an error in the configuration of sysplex signalling paths. The problem can be errors in either the COUPLExx parmlib members or the hardware configuration. This message appears on the system that defined the inbound side of the signalling path.

In the message text:

osysname
The system transmitting a message.

outdev
The device number for the outbound signalling path, coming from *osysname*.

isysname
The system receiving a message.

indev
The device number for the inbound signalling path, leading to *isysname*.

NOT SAME SYSPLEX
A signalling path was established between two systems that are not in the same sysplex. Signalling paths are only permitted between systems participating in the same sysplex.

COUPLE DATA SETS DIFFER
A signalling path was established between two systems that have the same sysplex name, but not the same couple data sets. The couple data sets must have matching names, volumes, and formatting time stamps.

CIRCULAR PATH
A signalling path leads back only to the same system. Circular signalling paths are not allowed.

System action: The system leaves the indicated signalling paths online and allocated to XCF. XCF does not use the signalling path until the problem is corrected. The system on the outbound side of the signalling path receives no information about this problem.

Operator response: Depending on the message text, do the following:

COUPLE DATA SETS DIFFER
NOT SAME SYSPLEX
Do one of the following:

- If one of the systems is IPLing, try respecifying the COUPLExx parmlib member by responding to message IXC207A. If message IXC207A does not appear, then the system must be reIPLed in order to allow it to join the same sysplex.
- If one of the systems is already active in the sysplex, enter either:
  - The DISPLAY XCF,SYSPLEX command to determine what sysplex name is being used by the active system.
  - The DISPLAY XCF,COUPLE command to determine what couple data sets are being used by the active system.
- If the two systems involved are not supposed to be in the sysplex, no signalling path should connect them. Record the device numbers and system names identifier in the message and notify the system programmer. Enter a SETXCF STOP command on the active system where each device is defined to release resources associated with the signalling path.

CIRCULAR PATH
Enter a SETXCF STOP command on the system where the device is defined. Record the device numbers and system name identified in the message. Notify the system programmer.

System programmer response: Make sure that the COUPLExx parmlib member defines the correct signalling path or couple data set for the systems involved. Verify that the hardware configuration is correct and devices are correctly cabled.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1ME1

Routing code: 1, 2

Descriptor code: 12

IXC452I THE NON-XCF CONNECTOR NAMED *conname* RESIDING ON SYSTEM *sysname* MAY INTERFERE WITH XCF'S USE OF STRUCTURE *strname*

Explanation: A non-XCF connector is connected to a XES list structure that is defined to XCF for signalling. The name of the connector and the system from which it did the connect is identified. A structure used by XCF for signalling should be dedicated exclusively to XCF in order to ensure correct operation of the signalling service.

Some of the consequences if the non-XCF connector remains connected to a structure used for signalling:

- Signals may be lost.

- XCF may not be able to connect to the structure.
- Rebuild processing may never complete.

In the message text:

conname
The connection name by which the connector is known. This name was specified via the CONNAME parameter on the IXLCONN macro invocation.

sysname
The name of the system on which the connector resides.

strname
The name of the XES list structure defined to XCF as a signalling path.

System action: If the structure appears to be in use for signalling already, processing continues. If the structure does not appear to be in use for signalling, XCF disconnects from the structure.

Operator response: If XCF is not supposed to use the structure for signalling, enter a SETXCF STOP path command (for each direction that applies) to prevent XCF from attempting to use the structure and thereby interfere with the use of the structure by the other connector(s).

If XCF is supposed to use the structure for signalling, consult the system programmer to determine whether this connector is a legitimate user of the structure. Usually steps should be taken immediately to force the indicated connector(s) to disconnect from the structure. If not, the XCF signalling service may fail in a variety of ways due to interference from the non-XCF connector.

System programmer response: Do not allow non-XCF connectors to connect to a structure that is to be used for signalling. Simply being connected to the structure can prevent the XCF signalling service from operating as intended.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1SEX

Routing code: 1, 2

Descriptor code: 5,12

IXC453I INSUFFICIENT SIGNALLING PATHS AVAILABLE TO ESTABLISH CONNECTIVITY

Explanation: A system is trying to join a sysplex, but there are not enough paths available to establish signalling connectivity between this system and the sysplex.

The COUPLExx parmlib member must provide path definitions so that there will be at least one inbound and one outbound signalling path for every other active system in the sysplex. Either the definition for these signalling paths is missing from the COUPLExx parmlib member, or a failure kept the system from establishing the paths that were defined, or more time is needed to establish the signalling paths.

System action: If the system is not yet active in the sysplex, XCF stops using the COUPLExx parmlib member and message IXC207A is issued. System initialization stops until the operator respecifies the COUPLExx parmlib member.

If the system is active in the sysplex, message IXC455D is issued. System initialization stops until the operator specifies how much longer the system should wait for signalling connectivity to be established. Alternatively, the operator must re-IPL the system.

If a failure prevented the signalling paths from functioning, the IPL-ing system and/or the system to which the signalling path is connected issue messages to explain the failure. Look especially for messages IXC305I and IXC307I which explain why start path processing failed or why the path was stopped.

Operator response: Respond to message IXC455D or IXC207A as appropriate. Notify the system programmer if the problem persists.

If a failure kept the system from establishing valid signalling paths, see the operator response for the message issued to explain the signalling path failure.

System programmer response: Correct the COUPLExx specifications if signalling path definitions are missing.

If a failure kept the system from establishing valid signalling paths, see the system programmer response for the message issued to explain the signalling path failure.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1CON

Routing code: 1, 2

Descriptor code: 12

IXC454I SIGNALLING CONNECTIVITY CANNOT BE ESTABLISHED FOR SYSTEMS: *system-names*

Explanation: A system is trying to join a sysplex, but has not established signalling connectivity for the systems listed in the message text.

The problem is one of the following:

- The definitions for signalling paths to the systems listed are missing from the COUPLExx member.
- The other side of a signalling path has not been defined to XCF on a listed system.
- A failure prevented XCF from establishing valid signalling paths using the signalling path definitions in the COUPLExx parmlib member.
- Not enough time has elapsed for XCF to establish the signalling path.

In the message text:

system-names
A list of systems to which the initializing system has not established signalling connectivity.

System action: If the initializing system does not appear to have enough paths defined to establish signalling connectivity message IXC453I is issued. Message IXC455D is then issued. System initialization stops until the operator responds to message IXC455D.

Operator response: See the operator response for message IXC455D.

System programmer response: Ensure that signalling paths between every pair of systems are defined and operational.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1CON

Routing code: 1, 2

Descriptor code: 12

IXC455D REPLY INTERVAL=NNN SECONDS TO RECHECK CONNECTIVITY OR *text*

Explanation: A system is trying to join a sysplex, but has not yet established signalling connectivity with all the systems in the sysplex. Message IXC454I identifies the systems without signalling connectivity to the IPLing system.

In the message text:

R TO REINITIALIZE XCF
Since the system is not yet active in the sysplex, XCF can be re-initialized.

RE-IPL SYSTEM
Since the system is active in the sysplex, XCF cannot be re-initialized. The system must be removed from the sysplex and re-initialized via an IPL.

System action: Initialization processing stops until the operator replies to the message or re-IPLs the system.

Operator response: There are six diagnostic activities to guide you in replying to this message. Before doing any of these activities, do a visual check on all hardware systems and compare with the configuration chart to ensure that all systems are correctly configured. If the configuration is correct, do the following to diagnose the problem:

1. Check the COUPLExx parmlib member and the couple data set
2. Check for non-operational systems
3. Check the signalling path definitions

4. Check the signalling path status in each active system
5. Check the signalling path status in the IPLing system
6. Collect diagnostic data for IBM.

These diagnostic procedures are described in greater detail below. After diagnosing the problem, choose one of the possible responses indicated in the message:

INTERVAL=*nnn*
To request that the IPLing system continue to check for full connectivity in the sysplex for the next *nnn* seconds. Choose this response after resolving any diagnosed problems, or simply to allow more time for the signalling paths to become established.

Each time this response is chosen, stopped signalling paths on the IPLing system are started again since the circumstances which caused the path failure may have been resolved, thereby allowing the path to establish signalling connectivity. In some cases, the system will unconditionally stop paths that are in the midst of stop processing so that a new start request can be initiated for the path.

System initialization proceeds as soon as signalling connectivity is established. If connectivity is not established within *nnn* seconds, the system reissues message IXC455D to reprompt the operator. The maximum allowable value of *nnn* is 999 seconds.

R To request reinitialization of XCF. Choose this response if the signalling path definitions in the current COUPLExx do not provide the required signalling paths for the systems identified in message IXC454I.

Choose this response to stop and then start the signalling paths all over again (specify the same COUPLExx parmlib member when prompted). This action sometimes allows signalling connectivity to be established when the system does not seem to be making progress despite repeated use of the INTERVAL=*nnn* response.

The system issues message IXC207A to prompt the operator to specify a new COUPLExx member. All signalling paths are stopped, and the system starts the signalling paths identified in the new COUPLExx parmlib member.

During XCF initialization, message IXC305I may or may not be displayed on an operator console when a CTC device cannot be started as a signalling path.

- The message is not displayed on an operator console the first time XCF initialization runs during an IPL.
- If XCF initialization is to be restarted for an issue not related to signalling connectivity problems, the message is not displayed on an operator console.
- If XCF initialization is to be restarted for an issue related to signalling connectivity, message IXC207A prompts the operator to respecify the COUPLExx parmlib member. The response to message IXC207A determines whether message IXC305I is displayed on an operator console. If the same COUPLExx parmlib member is specified, message IXC305I will be displayed. If a different COUPLExx parmlib member is specified, message IXC305I will not be displayed on the operator console, but IXC305I will always be displayed on the hardcopy log.

Re-IPL the system
It may not be possible for XCF to process a new COUPLExx member. In this case, the only recourse is to re-IPL the system. From an active console in the sysplex, enter a VARY XCF command to remove this system from the sysplex. Once sysplex partitioning completes, re-IPL this system. Specify a COUPLExx parmlib member that defines the signalling paths by which signalling connectivity can be established.

If an incorrect reply is entered, the system issues message IXC208I to notify the operator of the error. The system then reissues message IXC455D.

Repeatedly specifying INTERVAL=*nnn* and/or repeatedly respecifying the COUPLExx parmlib member may cause a signalling path on another system to be stopped because the path exceeds its retry limit. In such cases the operator may need to enter a SETXCF START path command on that system to manually start the signalling path again. This situation is more likely to occur when the other system is running a release of MVS/ESA prior to SP510.

Specifically, the diagnostic procedures are:

1. Are the COUPLExx parmlib member and couple data set identified properly?

If the COUPLExx parmlib member is not correctly identified, request reinitialization of XCF (reply R) with the correct parmlib member. If the sysplex couple data set is not correctly identified, request reinitialization of XCF (reply R) with the correct couple data set. The COUPLExx parmlib member identifies the sysplex couple data set(s) to be used by this system.

2. Are any systems non-operational?

   Check the systems named in message IXC454I. If any of these systems is non-operational, use the VARY XCF command from an active system to remove the non-operational systems from the sysplex. When all non-operational systems have been removed from the sysplex, reply INTERVAL=*nnn* to request that the IPLing system continue to check for full signalling connectivity.

   If there is no active system in the sysplex from which to issue the VARY XCF command, ensure that the systems named in message IXC454I actually are non-operational. Then, reply R to reinitialize XCF. If message IXC405D appears, reply I to complete the removal of all the systems from the sysplex and continue the initialization process.

3. Are all signalling paths properly defined in the COUPLExx parmlib member?

   Use the configuration chart to verify that the required signalling paths are correctly defined in the current COUPLExx parmlib member. If the signalling path definitions do not agree, you must either specify a different COUPLExx member or modify the current one. See the system programmer.

4. What is the status of the signalling paths in each active system?

   From an active system console, issue DISPLAY XCF,PATHOUT and DISPLAY XCF,PATHIN commands to obtain detailed information about the status of the signalling paths on each of the systems listed in message IXC454I. The DISPLAY command issues message IXC356I which identifies the status of the requested signalling paths. If the status of a path needed for signalling connectivity is STARTING, RESTARTING, LINKING, REBUILDING, QUIESCING, or QUIESCED, allow additional time for XCF to establish signalling connectivity (reply INTERVAL=*nnn*). If the signalling path is not established after several attempts, enter a SETXCF STOP path command to stop the path and then enter a SETXCF START command to start the path again.

   Note particularly that additional time may be needed when a list structure is used for signalling. Signalling paths cannot be established through a list structure until an active system allocates the structure and initializes it for use by the XCF signalling service. If a list structure is the only means of establishing connectivity between a set of systems in the sysplex (not recommended since it represents a single point of failure), the first system in the set to become active in the sysplex will be the only system capable of allocating the structure. The remaining systems in the set cannot allocate the structure because they are not active in the sysplex, and they cannot become active in the sysplex until they establish signalling connectivity. Initialization of the remaining systems will be delayed until the first system in the set successfully starts the structure for signalling. Message IXC306I is issued when the structure is started successfully.

   If the status is STOPPING, STOPFAILED, or INOPERATIVE, do the following:

   - If the status is STOPPING, let the stop complete or issue the SETXCF STOP command with UNCOND=YES. Once the path is stopped, issue the SETXCF command to start the path again.
   - If the status is STOPFAILED, enter SETXCF STOP path command(s) to try stopping the path again. If the failure persists, specify the UNCOND=YES option on the stop path commands to unconditionally stop the path.
   - Examine the system logs to gather more information about signalling paths that are stopped or have failed to start. Resolve any hardware problems.
   - Enter a SETXCF START command to start the path again.

   If a needed signalling path is not displayed, enter SETXCF START path command to start the path needed to establish signalling connectivity.

   After resolving these path problems, reply INTERVAL=*nnn* on the IPLing system to allow XCF additional time to establish connectivity.

5. What is the status of the signalling paths in the IPLing system?

   Examine the system logs from all systems for any additional data, especially messages about stopped paths or paths that failed to be started. If these messages originate from the IPLing system, and the paths needed for connectivity are either stopped or have not been successfully started, reinitialize XCF with the COUPLExx parmlib member that corresponds to the configuration. As a last resort, take a stand-alone dump from the IPLing system. View the dump with the Interactive Problem Control System (IPCS). Use the VERBX MTRACE command to view messages issued to the system log during the IPL.

6. If connectivity is not established at this point, what diagnostic aids does the IBM Support Center need?

Contact the IBM Support Center. The system programmer should provide the following information:

a. A copy of the configuration chart
b. The console output from the DISPLAY command showing the signalling path status
c. The COUPLExx parmlib definition for each system
d. System logs from all systems
e. An SVC dump from the active system including the XCF address space, the XCF data spaces, and LSQA.
f. A stand-alone dump from the IPLing system, also containing the XCF data spaces.

System programmer response: Provide a configuration chart for the operator which describes the signalling paths used to establish signalling connectivity between every pair of systems in the sysplex. Ensure that the COUPLExx parmlib member correctly defines the signalling paths needed to establish signalling connectivity. Ensure that the necessary signalling paths are defined to systems already active in the sysplex. Ensure that the underlying hardware (devices, coupling facilities, coupling data sets) are operational and available to the appropriate systems. For list structures, ensure that the appropriate CFRM policy is active. Examine the system logs to determine why signalling connectivity could not be established. Messages IXC305I, IXC307I, and IXC467I identify path problems. Message IXC466I indicates when a signalling path is established.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1CON

Routing code: 1, 2

Descriptor code: 2

IXC457I {REBUILT} STRUCTURE *strname* **ALLOCATED WITH** *numlist* **LISTS WHICH SUPPORTS FULL SIGNALLING CONNECTIVITY AMONG** *numsys* **SYSTEMS AND UP TO** *numsig* **SIGNALS**

Explanation: XCF successfully connected to the indicated list structure.

In the message text:

REBUILT
If REBUILT appears in the message, the structure was allocated as the result of structure rebuild processing. If REBUILT does not appear, the structure was allocated as the result of start path processing.

strname
The name of the XES list structure defined to XCF for signalling.

numlist
The total number of lists in the structure. Some of the lists are used by XCF to manage the list structure. The remaining lists are used for signalling paths.

numsys
The number of systems for which full signalling connectivity, both outbound and inbound, could be established with this structure.

numsig
The maximum possible number of signals that could be contained in the structure at any one time. The maximum number of signals will be less if any of the signals are long enough to require more than one list element. The largest signal written to the list structure requires sixteen list elements. Therefore the maximum number of possible signals could be as low as *numsig* divided by sixteen.

System action: Processing continues.

System programmer response: This message indicates the capacity of the list structure with respect to signalling. Use this information as part of capacity planning activities, when evaluating structure size in the CFRM policy, or when determining potential causes of signalling performance degradation, or signalling connectivity problems.

The system initially tries to allocate the list structure with enough lists to provide for full signalling connectivity among all the potential systems in the sysplex. The number of potential systems is determined by the maximum number of systems supported by the sysplex couple data set. If *numsys* is smaller than the maximum number of supported systems, systems may not be able to establish signalling paths due to an insufficient number of lists within the structure. This condition may also indicate that the structure is too small, which can degrade signalling performance. Signalling performance is degraded if the number of signals (list entries) is too small.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1ISS

Routing code: 1, 2

Descriptor code: 5,12

IXC458I SIGNAL *direction* **DEVICE** *devn* **STOPPED:** *text*

Explanation: In the message, *text* is one of the following:

- **REASON UNKNOWN**
- **OPERATOR COMMAND**
- **RETRY LIMIT EXCEEDED**
- **SYSPLEX PARTITIONING OF LOCAL SYSTEM**
- **SYSPLEX PARTITIONING OF REMOTE SYSTEM**
- **OTHER SIDE IS SAME DIRECTION**
- **SUBCHANNEL NOT OPERATIONAL FOR RESUME**
- **START REQUEST FAILED**
- **CONNECTED TO NON-XCF SIGNALLER**
- **NON-XCF SIGNALLER USING PATH**
- **HALT I/O FAILED**
- **PURGE I/O FAILED**

Cross-system coupling facility (XCF) stopped a signalling path. Unless the operator initiated the stop, the signalling path remains defined to XCF.

In the message text:

direction
The direction of the signalling path that stopped. *direction* is one of the following:

- **PATHIN** for an inbound signalling path.
- **PATHOUT** for an outbound signalling path.

devn
The device number for the signalling path that stopped.

REASON UNKNOWN
XCF cannot determine why the signalling path was stopped.

OPERATOR COMMAND
The operator entered a SETXCF STOP command. The device is no longer defined to XCF.

RETRY LIMIT EXCEEDED
The retry count for the signalling path has exceeded the retry limit. The device might still be usable. The problem can be:

- An I/O error occurred on the device.
- An incorrect COUPLExx parmlib member was specified.
- The specified COUPLExx parmlib member had signalling path definition errors. For instance, the retry limit can be exceeded if both sides of a signalling path were started in the same direction. See the explanation for the message text **OTHER SIDE IS SAME DIRECTION**.
- The IPL of a system into a sysplex caused an ESCON CTC device to appear non-operational.

SYSPLEX PARTITIONING OF LOCAL SYSTEM
The local system is no longer in the sysplex, so XCF stopped the signalling path connected to it. If the operator used either the VARY XCF command with RETAIN=NO or the SETXCF STOP command, the definition of the signalling path is deleted from XCF.

SYSPLEX PARTITIONING OF REMOTE SYSTEM
The remote system is no longer in the sysplex, so XCF stopped the signalling path connected to it. If the operator used either the VARY XCF command with RETAIN=NO or the SETXCF STOP command, the definition of the signalling path is deleted from XCF.

OTHER SIDE IS SAME DIRECTION
XCF tried to establish signalling connectivity between two systems, but the signalling path was defined in the same direction on both systems. A signalling path must have an outbound side and an inbound side. If both sides are defined in the same directions, messages cannot travel between the two systems involved.

Either of the two systems involved can detect the problem; the message appears only on one system. No response or acknowledgment is provided about this condition to the other system involved.

SUBCHANNEL NOT OPERATIONAL FOR RESUME
The subchannel is not operational for one of the following reasons:

- No subchannel is provided.
- The subchannel did not have a valid device number assigned.
- The subchannel is not enabled.

START REQUEST FAILED
A request to start a device for use as a signalling path failed because the device is either not suitable or not available. See message IXC456I for an explanation of the problem.

CONNECTED TO NON-XCF SIGNALLER
The device on the other end of this signalling path is not defined to XCF. Either this signalling path is not connected to a system in the sysplex, or another application is trying to use the signalling path. This signalling path can only be used for communication between two systems in the sysplex.

This message can also be issued in a circumstance where XCF is using the link. If an ESCON CTC is defined to the hardware as a BCTC in the IOCDS, but defined to software as an SCTC, XCF will attempt to use the CTC. The protocol understood by the hardware for the CTC is for BCTC; therefore, the first system that tries to connect shows status "LINKING". However, when the second system attempts to connect, the system issues message IXC458I with the additional text CONNECTED TO NON-XCF SIGNALLER.

NON-XCF SIGNALLER USING PATH
An non-XCF application tried to use this system's signalling path. Devices used by XCF must be dedicated exclusively to XCF.

HALT I/O FAILED
The system tried to stop all I/O through this device, but the request failed. The device is probably in a permanent error state. If the device is an ESCON CTC, IPLing another system into the sysplex might have caused the device to stop.

PURGE I/O FAILED
An attempt to remove all I/O queued to this device failed.

System action: XCF stops using this device as a signalling path. The device is left unallocated and online. XCF writes a component trace record for the problem.

If the stop was not initiated by the operator, the device remains defined to XCF, and is in an inoperative state.

Note: Depending on the kind of failure, XCF may be able to automatically restart the device.

Operator response: Depending on the message text, do one of the following:

SUBCHANNEL NOT OPERATIONAL FOR RESUME
HALT I/O FAILED
Contact hardware support.

PURGE I/O FAILED
Contact software support.

OTHER SIDE SAME DIRECTION
The direction of the signalling path *direction* is wrong. Correct the error as follows:

- Enter a SETXCF STOP *direction* to delete the definition of the incorrect path.
- Enter SETXCF START *direction* with the correct direction.

- For other message text, notify the system programmer.
- Manually restart the path.

System programmer response: For both systems involved, do the following:

- Make sure that the correct device number was specified.
- Make sure that the signalling path definitions in the COUPLExx parmlib member are correct.
- Make sure that the correct COUPLExx parmlib member was specified.
- Make sure that the device is being used only by XCF.
- Look in the SYS1.LOGREC error records for I/O errors on the device.
- Ask the operator to enter DISPLAY XCF,PATHOUT,DEVICE=ALL or the DISPLAY XCF,PATHIN,DEVICE=ALL commands on the active systems for information on devices.

  If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Provide the XCF component trace data, the SYS1.LOGREC error record, and the GTF trace data for the device that has failed.

Source: Cross-system coupling facility (XCF)

Module: IXCT1STR

Routing code: 1, 2, 10

Descriptor code: 12

IXC459I SIGNAL *direction* **DEVICE** *devn* **STOPPED UNCONDITIONALLY:** *text*

Explanation: *text* is one of the following:

REASON UNKNOWN

OPERATOR COMMAND

SYSPLEX PARTITIONING OF LOCAL SYSTEM

Cross-system coupling facility (XCF) stopped a signalling path unconditionally.

In the message text:

direction
The direction of the signalling path that stopped. *direction* is one of the following:
- **PATHIN** for an inbound signalling path.
- **PATHOUT** for an outbound signalling path.

devn
The device number for the signalling path that stopped.

REASON UNKNOWN
XCF cannot determine why the signalling path was stopped.

OPERATOR COMMAND
The system stopped the signalling path in response to a SETXCF STOP signalling path command.

SYSPLEX PARTITIONING OF LOCAL SYSTEM
XCF removed the local system from the sysplex. The signalling path was already in the midst of stop processing at the time the message was issued.

System action: XCF stops using the device as a signalling path. It is left unallocated and online.

If **SYSPLEX PARTITIONING OF LOCAL SYSTEM** appears in the message text, XCF forces the in-progress stop request to complete.

Source: Cross-system coupling facility (XCF)

Module: IXCT1STR

Routing code: 1, 2, 10

Descriptor code: 12

IXC460I *statement* **MAXMSG VALUE MUST BE AT LEAST** *minimum* **TO SUPPORT CLASSLEN OF** *classlen* **FOR TRANSPORT CLASS** *classname*

Explanation: The MAXMSG value, in kilobytes, of message buffer space, defined on a COUPLExx parmlib member statement is too small. The MAXMSG value must provide enough buffer space for a message as long as the class length defined for the indicated transport class.

In the message text:

statement
The *statement* can be one of the following:

CLASSDEF
The MAXMSG value for a CLASSDEF statement is incorrect.

LOCALMSG
The MAXMSG value for a LOCALMSG statement is incorrect.

PATHOUT *dev*
The MAXMSG value for a PATHOUT statement is incorrect. *dev* is the device number of the outbound signalling path.

COUPLE
The MAXMSG value for the COUPLE statement is incorrect.

minimum
The least possible value for MAXMSG, in kilobytes, to support the class length of this transport class. Note that setting the MAXMSG value to minimum may not provide sufficient buffer space to ensure good signalling performance.

classlen
The length, in bytes, of messages allowed for this this transport class.

classname
The name of this transport class.

System action: The system prompts the operator for a new COUPLExx parmlib member and waits for the operator to reply.

Operator response: Record the indicated *statement*, *classname*, and *classlen*. Notify the system programmer of the problem.

Specify a new COUPLExx parmlib member when prompted.

System programmer response: In the COUPLExx parmlib member, increase the MAXMSG value or decrease the CLASSLEN value of transport class *classname*.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1IN

Routing code: 1, 2

Descriptor code: 12

IXC462W XCF IS UNABLE TO ACCESS THE ETR AND HAS PLACED THIS SYSTEM INTO NON-RESTARTABLE WAIT STATE CODE: 0A2 REASON CODE: 114

Explanation: This system lost access to the ETR. Either the ETR failed, or ETR connectivity to this system has failed. All systems in the sysplex must use the same ETR.

If this message appears on every system in the sysplex, the problem is probably with the ETR itself.

System action: The system enters a non-restartable wait state X'0A2', reason code X'114'. The system writes a machine check record for the ETR failure. If this system is not removed from the sysplex, the other systems may fail. If there are other active systems in the sysplex that did not lose ETR synchronization, then XCF on those systems will detect a status update missing condition for this system. XCF on those active systems will partition this system from the sysplex according to the sysplex failure management policy if such policy exists and is active. Otherwise, XCF will issue message IXC402D to ask the operator whether XCF should partition this system from the sysplex.

Operator response: Contact hardware support and determine whether to reconfigure the sysplex with assistance from the system programmer.

System programmer response: Do the following:

- If every system in the sysplex issues message IXC462W, IXC468W, or IXC410E, there is probably a problem with the ETR itself. For this case, XCF can allow only one system to be IPLed back into the sysplex, unless a simulated ETR can be used in which case all systems must be IPLed to run in the same processor in the same physical partition under VM or PR/SM. Determine whether to reconfigure the sysplex and then IPL any systems that will be a part of that sysplex.
- If not every system in the sysplex issues message IXC462W, IXC468W, or IXC410E, the problem is probably an ETR connectivity failure that involves one or more systems. You can choose to continue with the unaffected systems, or you can choose to reconfigure the sysplex as described above, except that you must also carefully consider whether any of the unaffected systems need to be reset first in order to protect data integrity of shared sysplex wide resources. If you choose to continue with the unaffected systems, the affected systems must be partitioned out of the sysplex, either manually by replying to IXC402D, or automatically as a result of an installation sysplex failure management policy.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2ETR, IXCS2DIE

Routing code: 1,10

Descriptor code: 1

IXC463I {REBUILD} IXLCONN FOR STRUCTURE *strname* **WITH** *numlist* **LISTS IN COUPLING FACILITY** *cfname* **WAS NOT SUCCESSFUL:** *reason*

Explanation: The system attempted to allocate the structure named *strname*, but no coupling facility was suitable. This message is issued for each coupling facility considered.

In the message text:

REBUILD
If REBUILD appears in the message, the connect was requested as the result of structure rebuild processing. If REBUILD does not appear, the connect was requested as the result of start path processing.

strname
The name of the XES structure defined to XCF for signalling.

numlist
The number of lists requested by XCF when connecting to the structure.

cfname
Name of the coupling facility that the structure could not be allocated in.

reason
One of the following:

POLICY INDICATES SYSTEM NOT CONNECTED TO FACILITY
According to the CFRM active policy, the system on which the connect was processed is not connected to the coupling facility in which the structure is allocated. Physical connectivity to the coupling facility must be re-established.

COUPLING FACILITY NOT DEFINED IN POLICY
The structure is not defined in the CFRM active policy. Verify that the set of facilities actually in use in the sysplex is correct and matches the CFRM policy most recently activated.

LOST CONNECTIVITY TO FACILITY
The system lost connectivity to the coupling facility in which the structure is allocated. Physical connectivity to the coupling facility must be re-established.

COUPLING FACILITY FAILURE
The coupling facility failed.

STRUCTURE FAILURE DURING ALLOCATION PROCESS
The structure failed while being allocated.

STRUCTURE ATTRIBUTES NOT VALID FOR THIS FACILITY
The structure attributes were inconsistent with the model dependent attributes of the coupling facility.

STRUCTURE SIZE DEFINED IN POLICY IS TOO SMALL. MINIMUM SIZE REQUIRED TO ALLOCATE THE STRUCTURE IS *minsize u*.
The structure size specified in the CFRM active policy is too small to allocate the structure with the attributes specified. Increase the structure size defined in the policy. The minimum amount of space required to allocate the structure is *minsize u*, where *u* is the integer size unit specification of K (kilobytes), M (megabytes), G (gigabytes), or T (terabytes). Note that the minimum allocatable size is not sufficient for good signalling performance, so more space is usually needed.

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, a *minsize* of 1048576K may be converted to a *minsize* of 1G for the purpose of messages. A *minsize* of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

POLICY NOT ALLOWING ALLOCATIONS IN THIS FACILITY
New structures cannot be allocated in this coupling facility according to the CFRM active policy. The facility is being removed from the active policy, the facility has failed, or the facility is in the policy reconciliation process.

XCF COMPONENT ERROR
An internal XCF error occurred within the connect service.

UNKNOWN HARDWARE ERROR
An unknown hardware error occurred.

NOT ENOUGH SPACE TO ALLOCATE STRUCTURE IN FACILITY. MINIMUM SIZE REQUIRED TO ALLOCATE THE STRUCTURE IS *minsize u*.
There was not sufficient space available in the coupling facility to allocate the structure. The minimum amount of space required to allocate the structure is *minsize u*, where *u* is the integer size unit specification of K (kilobytes), M (megabytes), G (gigabytes), or T (terabytes). Note that the minimum allocatable size is not sufficient for good signalling performance, so more space is usually needed.

LOCATION=OTHER SPECIFIED ON STRUCTURE REBUILD
The rebuild request specified that the structure must be allocated in some other coupling facility. Since the structure is already allocated in coupling facility *cfname*, it is not an eligible facility for the rebuilt structure.

DOES NOT SUPPORT NUMBER OF USERS NEEDED FOR REBUILD
The coupling facility was not selected for a rebuild connect request because it does not support the number of users connected to the original structure. The number of connectors to the original structure exceeds the coupling facility model dependent limit on the maximum number of connectors.

UNKNOWN REASON: *reason-code*
The reason the structure could not be allocated was not expected. The indicated *reason-code* comes from the field ConaFacilityRsnCode in the Connect Answer Area (mapped by IXLYCONA) returned by the connect service (IXLCONN).

FACILITY MAX ELEMENT CHARACTERISTIC TOO SMALL
The coupling facility model dependent limit for the maximum element characteristic is too small for XCF's needs.

FACILITY MAX NUMBER OF LISTS TOO SMALL
The number of lists requested exceeds the coupling facility model dependent limit for the maximum number of lists in a list structure.

IXLCONN SERVICE COULD NOT CONNECT
An unexpected return and reason code was returned by the IXLCONN service when XCF attempted to connect to the structure.

COUPLING FACILITY IS IN MAINTENANCE MODE
The coupling facility is in maintenance mode.

RC=*n***, RSN=***n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: If there is at least one coupling facility for which the allocation failed due to space constraints, the

system decreases the requested number of lists and attempts to allocate the structure again. If the structure still cannot be allocated, this process is repeated until there are so few lists that the structure would not be suitable for signalling even if it could be allocated. The system issues message(s) IXC463I for the maximum number of lists requested, and for the number of lists requested at the point the system deemed that the structure would not be suitable for signalling. The system issues message IXC457I if the structure can be allocated during this process.

If the structure is not successfully allocated for the REBUILD case, the system will revert to the original structure if it is still usable and will initiate a stop path request if it is not usable. The system also initiates a stop path request if the structure cannot be allocated when it is not a REBUILD case.

System programmer response: Use this information to determine why a structure was not allocated in a particular coupling facility.

Ensure that the coupling facility supports the structure attributes required for it to be used by XCF. As needed, make a suitable coupling facility available to the sysplex.

Ensure that the correct CFRM policy is active. As needed, modify the definition of the structure in the CFRM active policy. For example, change the maximum structure size, the preference list, or the exclusion list. Also consider modifying the CFRM active policy for other structures since reducing the size or number of structures allocated in a coupling facility could free up space for this structure.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1ISS

Routing code: 1, 2

Descriptor code: 5,12

IXC464I REBUILD REQUEST FOR STRUCTURE *strname* **WAS NOT SUCCESSFUL:** *text*

Explanation: A request to rebuild a structure used for signalling was not successful.

In the message text:

strname
The name of the XES list structure that was to be rebuilt.

STOP IS REQUESTED
A stop path command was initiated for the signalling path by either the operator or XCF. All processing for the rebuild request is ended.

PATH UNCONDITIONALLY STOPPED
A stop command with UNCOND=YES was entered for the signalling path. The unconditional stop path request was initiated by either the operator or the system. All processing for the rebuild request is ended.

UNEXPECTED ERROR
An unexpected failure occurred while processing the command.

NO CONNECTIVITY TO COUPLING FACILITY
The system processing the rebuild command does not have connectivity to the coupling facility containing the rebuilt structure. This situation could be due to operator commands such as VARY PATH OFFLINE or CONFIG CHP OFFLINE or hardware errors such as facility or path failures.

NO CONNECTION AVAILABLE FOR XCF
XCF was unable to connect to the structure. There was no connection available for XCF to use. Possible explanations include:

- The maximum number of connectors to a structure has been reached for the CFRM active policy.
- The model dependent limit on the maximum number of connectors to a list structure has been reached for the coupling facility that contains the list structure.
- Some non-XCF connector is connected to the structure. A non-XCF connector can prevent XCF from connecting to a structure even though all the connections are not in use.

UNEXPECTED HARDWARE ERROR
The signalling path could not be rebuilt due to an unexpected hardware error.

STRUCTURE NOT DEFINED IN ACTIVE POLICY
The indicated structure name is not defined in the CFRM active policy. The structure must be defined in the active policy in order to connect to the structure.

UNABLE TO ALLOCATE STRUCTURE
Structure could not be allocated. Message IXC463I is written to the system log to explain why the allocation failed in each of the coupling facilities that was tried. The preference list in the CFRM active policy determines which coupling facilities are allowed to contain the structure.

NEW CONNECTIONS TO STRUCTURE BEING PREVENTED
New connections to the requested structure are being prevented at this time for one of the following reasons:

- All active connectors have confirmed the rebuild quiesce event. New connections will not be permitted until the rebuild or rebuild stop is completed.
- The structure is allocated in a coupling facility that is failed. New connections will not be permitted until the structure is rebuilt, or all connections disconnect causing the structure to be deallocated.
- The coupling facility containing the structure is not available for use because policy reconciliation is in progress. New connections will not be permitted until policy reconciliation is complete.
- New structure allocations for this structure name are not permitted because there is a pending policy change for this structure. New connections will not be permitted until the change is complete.

UNABLE TO DEFINE LOCAL LIST NOTIFICATION VECTOR
The list notification vector used to monitor list transitions could not be defined. The situation is most likely caused by a lack of storage in the Hardware System Area (HSA).

OTHER SYSTEMS USING STRUCTURE INCOMPATIBLY
Some other system is using the structure in ways that are not compatible with the protocols used by the system that processed the rebuild request.

DELAYED UNTIL STOP COMPLETES
A system initiated rebuild request is delayed until stop path processing completes. The system will automatically start the path upon successful completion of the stop, provided the path remains defined to XCF for signalling.

STRUCTURE FAILURE
The structure failed.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system. In order to connect to structures, the couple data set for CFRM must be available.

For a system that is IPLing into an existing sysplex, this failure also arises when the indicated structure is not defined in the CFRM active policy.

DELAYED UNTIL STRUCTURE DUMP COMPLETES
The connect to the structure could not complete because SVC Dump holds serialization on the structure.

STRUCTURE'S DISPOSITION IS KEEP
The rebuilt structure was created with a disposition that allows it to persist (remain allocated) when there are no defined connections. Since the system that processed the rebuild request does not use persistent structures, the structure is being used in ways that are not compatible with its protocols.

STRUCTURE'S LIST ENTRY SIZE TOO SMALL
The rebuilt structure was created with a maximum size list entry that is not large enough to contain 65536 bytes of data. Since the system that processed the rebuild command creates list entries containing up to 65536 bytes of data, the structure is being used in ways that are not compatible with its protocols.

STRUCTURE DOES NOT USE ADJUNCT DATA
The rebuilt structure does not use adjunct data. Since the system that processed the rebuild request uses adjunct data for its list entries, the structure is being used in ways that are not compatible with its protocols.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This situation can arise when the hardware necessary to provide XES functions is not present.

STRUCTURE IN USE BY A NON-XCF CONNECTOR
One or more of the connectors to the rebuilt structure is not XCF. Since it appears that the structure is in use by some other application, XCF disconnects from the structure to avoid interfering with that application. Structures

to be used by XCF for signalling should be dedicated exclusively to XCF in order to ensure correct operation. Message IXC452I is issued to identify the non-XCF connectors.

STRUCTURE IN USE BY ANOTHER SYSPLEX
The rebuilt structure appears to be in use by systems in a different sysplex. Signalling paths are only permitted between systems participating in the same sysplex.

TOO FEW LISTS IN STRUCTURE
The structure does not have enough lists available.

The rebuilt structure was not allocated with the minimum number of lists required for XCF to make use of the structure for signalling. It could be that the structure was allocated by a non-XCF connector, or that there was not enough space available to allocate the structure with the desired number of lists.

NOT ENOUGH FREE SPACE IN STRUCTURE FOR SIGNALLING
There is not enough space available in the rebuilt structure for XCF to use it for signalling. After connecting to the structure, XCF verifies that there is enough space available to manage the structure and to be able to send at least one signal of the maximum supported message length. If the size of the structure is greater than or equal to the maximum structure size defined in the CFRM active policy, the size specified in the policy must be increased so that a larger structure can be allocated. If the allocated structure size is less than the size defined in the policy for the structure, the coupling facility containing the structure did not have enough space available to allocate the structure as large as the policy allowed. Either more space needs to be made available in the coupling facility, or the structure needs to be allocated in a coupling facility that can accommodate it.

UNEXPECTED ERROR
An unexpected failure occurred while processing the command.

IXLREBLD REQUEST(START) FAILED
XCF attempted to initiate a structure rebuild by invoking the IXLREBLD macro but the START rebuild request failed.

REBUILD WAS STOPPED AND ORIGINAL UNUSABLE
Rebuild processing was stopped, so the rebuilt structure will not be used. The original structure is not usable by this system, so the system will stop using the original structure.

REBUILT NOT USABLE, NEED ORIGINAL FOR SIGNAL CONNECTIVITY
This system is not able to use the rebuilt structure, so it considered disconnecting from the structure so that other systems could proceed with using the rebuilt structure. Since disconnecting from the original structure would lead to a loss of signalling connectivity, the rebuild is stopped.

STOP REBUILD, WOULD LOSE SIGNAL CONNECTIVITY
The rebuild is stopped since this system would lose signalling connectivity with one or more systems if it were to use the rebuilt structure.

REBUILT NOT USABLE, ORIGINAL NOT USABLE
Neither the original structure nor the rebuilt structure can be used by this system.

STOP REBUILD, WOULD LOSE SPACE
A rebuild was requested in order to increase the amount of usable space in the structure. The rebuild is stopped since the rebuilt structure did not resolve the space problem.

STOP REBUILD, WOULD LOSE LISTS
A rebuild was requested in order to increase the number of lists in the structure. The rebuild is stopped since the rebuilt structure did not resolve the problem with the number of lists.

REBUILT NOT USABLE
This system cannot use the rebuilt structure.

DIAG073=*n n n n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: If possible, the system reverts to using the original structure. If the original structure is not usable, the system initiates stop path processing.

Operator response: If stop path processing was performed for the structure, enter a SETXCF START path command to try to start the structure again.

If the system reverts to using the original structure, resolve any hardware, definitional, or capacity problems. Then enter a SETXCF START,REBUILD command to try rebuilding the structure again.

If the problem persists, do the following:

1. Record the name of the signalling path, the text explaining why the rebuild was not successful, and any diagnostic data presented with this message. The system programmer will need this information if it becomes necessary to contact IBM service for problem resolution.
2. Enter the display commands that are relevant to the problem. Record the results of the display commands to assist with problem determination.
3. Contact hardware support as needed.
4. Contact the system programmer as needed.

The following commands are useful for investigating unsuccessful rebuild requests for structures. In some cases, it may be helpful to enter these commands on systems in the sysplex other than the one that was processing the rebuild request.

- DISPLAY XCF,PATHOUT,STRNAME=*strname* to display detailed information about the use of the structure for signalling, including the state of the outbound list paths that have been started.
- DISPLAY XCF,PATHIN,STRNAME=*strname* to display detailed information about the use of the structure for signalling, including the state of the inbound list paths that have been started.
- DISPLAY XCF,STRUCTURE to display summary information about the structures defined in this sysplex.
- DISPLAY XCF,STRUCTURE,STRNAME=*strname* to display detailed information about the indicated structure.
- DISPLAY XCF,CF to display summary information about the coupling facilities defined in this sysplex.
- DISPLAY XCF,CF,CFNAME=*cfname* to display detailed information about the indicated coupling facility as defined to the sysplex.
- DISPLAY CF to display summary hardware information about the coupling facilities connected to a system.
- DISPLAY CF,CFNAME=*cfname* to display detailed hardware information about the indicated coupling facility connected to a system.
- DISPLAY M=CHP(*chp*) to display the state of the channel paths connecting a system to a coupling facility.

Depending on the message text, do the following manual intervention:

NO CONNECTIVITY TO COUPLING FACILITY
Enter a DISPLAY XCF,STRUCTURE,STRNAME=*strname* for information about which coupling facility contains the indicated structure. Enter a DISPLAY CF,CFNAME=*cfname* command to display the status of that coupling facility and the channel paths that connect the system to it, (*cfname* is the name of the coupling facility that contains the structure).

Enter a CONFIG CHP command to configure channel paths to the coupling facility, if needed. Enter a VARY PATH command to vary the channel paths online to the system, if needed.

NO CONNECTION AVAILABLE FOR XCF
Enter a DISPLAY XCF,STRUCTURE,STRNAME=*strname* command for information about the connectors to the structure. Enter a DISPLAY XCF,POLICY,TYPE=CFRM command for information about the CFRM active policy. Consult the system programmer as needed to determine whether to:

- Perform the steps needed to activate a CFRM policy that has been formatted to support more connectors.
- Enter a SETXCF START,REBUILD command to rebuild the structure in a coupling facility that supports more connectors.
- Perform the steps needed to cause the non-XCF connector to disconnect from the structure.

UNABLE TO DEFINE LOCAL LIST NOTIFICATION VECTOR
Enter a DISPLAY XCF,STR command to determine which structures are in use. For each structure that is in use, enter a DISPLAY,XCF,STR,STRNAME=*inusestr*, where *inusestr* is the name of an in use structure, to determine which applications are connected to the structure from this system. Consult the system programmer as needed to determine whether to reduce the number of connectors connected to structures from the system that processed the rebuild command, or to modify the way in which the connectors are using the structure, or to perform the steps needed to increase the amount of storage in the Hardware System Area (HSA).

DELAYED UNTIL STRUCTURE DUMP COMPLETES
If the dump does not complete within a reasonable time, enter a DISPLAY,XCF,STRNAME=*strname* command for information about the structure dump. To force the dump serialization to be released, enter a SETXCF FORCE,STRDUMPSERIAL command. Note however, that the requested structure dump may then fail to contain the data needed for problem determination.

System programmer response: Do the following:

1. Examine the information provided by the operator.
2. Ensure that the hardware is correctly configured, defined to the system, and operational.
3. Perform the actions suggested below for the indicated message text.
4. Examine logrec error records for I/O errors or other hardware problems related to the signalling path.
5. Examine the system log for other messages related to the signalling path. Messages IXC452I, IXC457I, and IXC463I are especially relevant.
6. Obtain the following additional diagnostic information as appropriate for problem determination:
   - The XCF component trace table. The trace table must be obtained within 30 seconds of the problem if XCF detail tracing is enabled, and within a few minutes if just XCF default tracing is in effect. Default tracing is sufficient to resolve this problem.
   - XES component trace tables. Obtain both the global trace buffer and the connection related trace buffer.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Supply any diagnostic data presented as part of the rebuild failed message, any output from the DISPLAY commands issued while investigating the problem, the system log(s), and any of the traces that were obtained.

Depending on the message text, the following actions are appropriate:

NO CONNECTION AVAILABLE FOR XCF

If the maximum number of connectors to a structure has been reached for the CFRM active policy, use the XCF couple data set format utility to create a new couple data set that supports more connectors. Run the XCF Administrative Data Utility to recreate the CFRM policy in the new couple data set. Have the operator make this couple data set available to the sysplex.

If the model dependent limit on the maximum number of connectors to a list structure has been reached for the coupling facility that contains the list structure, have the operator rebuild the structure into some other coupling facility that can support the required number of connectors. If so, consider modifying the preference list in the CFRM policy so that the structure is allocated in coupling facilities that can support the required number of connectors. If no suitable coupling facility is available, consider defining more list structures for signalling so that each list structures provides signalling connectivity for a subset of systems in the sysplex. The structures together can provide for full signalling connectivity but the number of connectors need not exceed the model dependent limits on the number of connectors.

If some non-XCF connector is connected to the structure, take whatever steps are needed to force that connector to disconnect.

UNABLE TO DEFINE LOCAL LIST NOTIFICATION VECTOR

There was not enough storage available in the Hardware System Area (HSA) of the system that processed the start command to allow a list notification vector to be defined. Either reduce the amount of storage being used in the HSA, or increase the amount of storage available in the HSA for creating list notification vectors. Reduce the amount of HSA storage being used by decreasing the number of connectors or changing the way connectors make use of their structure. For example, the size of the list notification vector required by the XCF signalling service is determined by the number of inbound list paths to be started. As another example, changing the number of buffers associated with a XES cache structure changes the amount of HSA storage required by the connector.

COUPLE DATA SET FOR CFRM NOT AVAILABLE

Use the XCF format utility program to format a couple data set for CFRM. Ensure that the couple data set formatted for CFRM is available to the system.

NOT ENOUGH FREE SPACE IN STRUCTURE FOR SIGNALLING

If the size of the structure is greater than or equal to the maximum structure size defined in the CFRM active policy, use the XCF Administrative Data Utility to increase the structure size specified in a policy. Have the operator activate the updated policy.

If the allocated structure size is less than the size defined in the policy for the structure, the coupling facility containing the structure did not have enough space available to allocate the structure as large as the policy allowed. Either more space needs to be made available in the coupling facility, or the structure needs to be allocated in a coupling facility that can accommodate it. More space can be made available in a coupling facility by causing structures to be deallocated from that facility, or by decreasing the amount of space reserved for

structure dumps. It may be necessary to modify the preference list or the exclusion list defined in the CFRM policy to allow the structure to be allocated in a more suitable coupling facility. Alternatively, it may be necessary to make a new coupling facility available for the sysplex to use.

UNABLE TO ALLOCATE STRUCTURE
Examine the system log for instances of message IXC463I for explanations of why the structure could not be allocated. Message IXC463I is issued for each coupling facility that was considered. Resolve the problems indicated by message IXC463I or make a suitable coupling facility available for use.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1NSS, IXCT1PCC

Routing code: 1, 2

Descriptor code: 5,12

IXC465I REBUILD REQUEST FOR STRUCTURE *strname* **WAS** *result* **WHY REBUILT:** *rebuildrsn* **{WHY STOPPED:}***stoppedrsn*

Explanation: Rebuild processing for a XES List Structure used by the XCF signalling service has completed. As indicated by *result*, the structure may have been rebuilt or rebuild processing may have been stopped.

In the message text:

strname
The name of the XES structure defined to XCF for signalling.

result
Indicates how rebuild processing completed. The *result* can be:

SUCCESSFUL
The structure was rebuilt.

STOPPED
Rebuild processing was stopped. The structure was not rebuilt.

rebuildrsn
Indicates why processing of a structure rebuild request was initiated on this system:

OPERATOR REQUEST
The operator entered a SETXCF START,REBUILD command for this structure.

LOST CONNECTIVITY TO FACILITY
This system lost connectivity to the coupling facility containing the structure.

STRUCTURE FAILURE
This system detected a structure failure.

MORE LISTS NEEDED
This system determined that the structure was not allocated with enough lists for all the signalling list paths that are needed.

MORE SPACE NEEDED
This system determined that more space was needed in the structure.

UNABLE TO START LIST MONITORING
This system was unable to establish list monitoring for lists used by XCF to manage the structure. The system initiated rebuild processing in an attempt to connect to a new instance of the structure in hopes that the necessary list monitoring could be established.

IXLVECTR TOKEN NOT VALID
The vector token used by this system when invoking the Local Vector Service (macro IXLVECTR) is no longer valid. A structure failure may cause a vector token to become invalidated. The system initiated rebuild processing in an attempt to connect to a new instance of the structure. A new vector token is assigned for the new structure.

MORE SYSTEMS EXPECTED
The system initiated rebuild processing to allocate the list structure with more lists for signalling paths that new systems entering the sysplex are expected to need in order to establish full signalling connectivity. New

systems are expected to enter the sysplex when the primary sysplex couple data set is replaced by a couple data set formatted with a larger MAXSYSTEM specification.

PARTICIPANT, RSN=STRUCTURE FAILURE
This system is participating in a rebuild of the structure initiated by some other connector due to a structure failure.

PARTICIPANT, RSN=OPERATOR REQUEST
This system is participating in a rebuild of the structure initiated by the operator.

PARTICIPANT, RSN=MORE LISTS NEEDED
This system is participating in a rebuild of the structure initiated by some other connector due to a need for more lists.

PARTICIPANT, RSN=MORE SPACE NEEDED
This system is participating in a rebuild of the structure initiated by some other connector due to a need for more space in the structure.

PARTICIPANT, RSN=UNABLE TO START LIST MONITORING
This system is participating in a rebuild of the structure initiated by some other connector that was unable to start list monitoring.

PARTICIPANT, RSN=IXLVECTR TOKEN NOT VALID
This system is participating in a rebuild of the structure initiated by some other connector since the vector token that the connector used when invoking the Local Vector Service (macro IXLVECTR) is no longer valid.

PARTICIPANT, RSN=MORE SYSTEMS EXPECTED
This system is participating in a rebuild of the structure initiated by some other connector to allocate the list structure with more lists for signalling paths that new systems entering the sysplex are expected to need in order to establish full signalling connectivity. New systems are expected to enter the sysplex when the primary sysplex couple data set is replaced by a couple data set formatted with a larger MAXSYSTEM specification.

PARTICIPANT, RSN=DIAG080: *n n*
This system is participating in a rebuild of the structure initiated by some other connector for a reason that this system could not interpret.

WHY STOPPED:
Indicates that the structure rebuild was stopped. Applicable only when *result* is STOPPED.

stoppedrsn
Indicates why processing of a structure rebuild request was stopped on this system. Applicable only when *result* is STOPPED.

OPERATOR REQUEST
The operator entered a SETXCF STOP,REBUILD command.

LOST CONNECTIVITY TO NEW STRUCTURE
This system lost connectivity to the coupling facility that contains the rebuilt structure.

LOST CONNECTIVITY TO OLD STRUCTURE
This system lost connectivity to the coupling facility that contains the original structure. The rebuild could not continue without access to the original structure.

FAILURE OF NEW STRUCTURE
The rebuilt structure failed.

FAILURE OF OLD STRUCTURE
The original structure failed. The rebuild could not continue without access to the original structure.

NO COUPLING FACILITY PROVIDED BETTER CONNECTIVITY
No other coupling facility has better connectivity than the current one. The rebuild, which was initiated due to a loss of connectivity, would cause a further degradation in connectivity if accepted.

NO COUPLING FACILITY PROVIDED EQUIVALENT OR BETTER CONNECTIVITY
No other coupling facility has equivalent or better connectivity than the current one. The rebuild would cause a degradation in connectivity as determined by SFM system weights, if accepted.

WOULD LOSE SIGNAL CONNECTIVITY
This system would lose signalling connectivity if it were to use the rebuilt structure. The rebuild is stopped so the system can revert to using the original structure for signalling.

WOULD LOSE LISTS
The rebuilt structure would not provide more lists than the original structure, but the purpose of the rebuild was to increase the number of lists in the structure.

WOULD LOSE SPACE
The rebuilt structure would not provide more space than the original structure, but the purpose of the rebuild was to increase the amount of space available within the structure.

NO SUCCESSFUL CONNECTIONS TO NEW STRUCTURE
None of the connectors were able to successfully connect to a new instance of the structure.

UNUSABLE, NEED ORIGINAL FOR CONNECTIVITY
Other systems can use the rebuilt structure, but this system cannot. The rebuild is stopped since this system would lose signalling connectivity to some other system in the sysplex without the original structure.

PARTICIPANT, RSN=LOST CONNECTIVITY TO NEW STRUCTURE
This system is participating in a stop rebuild request that it did not initiate. Some connector lost connectivity to the coupling facility containing the rebuilt structure.

PARTICIPANT, RSN=LOST CONNECTIVITY TO OLD STRUCTURE
This system is participating in a stop rebuild request that it did not initiate. Some connector lost connectivity to the coupling facility containing the original structure and was unable to continue rebuild processing.

PARTICIPANT, RSN=FAILURE OF NEW STRUCTURE
This system is participating in a stop rebuild request that it did not initiate. Some connector detected that the new structure failed.

PARTICIPANT, RSN=FAILURE OF OLD STRUCTURE
This system is participating in a stop rebuild request that it did not initiate. Some connector detected that the original structure failed and was unable to continue rebuild processing.

PARTICIPANT, RSN=WOULD LOSE SIGNAL CONNECTIVITY
This system is participating in a stop rebuild request that it did not initiate. Some connector determined that it would lose signalling connectivity by using the rebuilt structure. The rebuild was stopped to revert to signalling through the original structure.

PARTICIPANT, RSN=WOULD LOSE LISTS
This system is participating in a stop rebuild request that it did not initiate. Some connector determined that the rebuilt structure would not provide more lists than the original structure. The rebuild was stopped since this was not acceptable.

PARTICIPANT, RSN=WOULD LOSE SPACE
This system is participating in a stop rebuild request that it did not initiate. Some connector determined that the rebuilt structure would not provide more space than the original structure. The rebuild was stopped since this was not acceptable.

PARTICIPANT, RSN=NO SUCCESSFUL CONNECTIONS TO NEW STRUCTURE
This system is participating in a stop rebuild request that it did not initiate. Some connector determined that no connector was able to successfully connect to the rebuilt structure. The rebuild is stopped since the structure could not be used for signalling.

PARTICIPANT, RSN=UNUSABLE, NEED ORIGINAL FOR CONNECTIVITY
This system is participating in a stop rebuild request that it did not initiate. Some connector determined that it cannot use the rebuilt structure, and that it would lose signalling connectivity without the original structure.

PARTICIPANT, RSN=DIAG081: *n n*
This system is participating in a stop rebuild request that it did not initiate. Some connector determined that it cannot use the rebuilt structure. This system could not interpret the reason for stopping the rebuild.

PARTICIPANT, RSN=THE SPECIFIED POPULATECF IS LESS SUITABLE
This system is participating in a stop rebuild request that it did not initiate. POPULATECF rebuild processing determined that the current coupling facility is a more suitable location for the structure than the specified POPULATECF.

System action: If the structure is not usable by this system, stop path processing is initiated. Otherwise the system continues to use the structure for signalling.

Operator response: No response needed if the structure was rebuilt as desired. If the structure was not rebuilt, resolve the problems that caused rebuild processing to be stopped.

If the rebuild was stopped because signalling connectivity would be lost, enter SETXCF START path command(s) to start the additional signalling paths needed to maintain signalling connectivity.

If the rebuild was stopped because of a lack of connectivity to the coupling facility containing an instance of the structure, restore physical connectivity to the facility. Enter a CONFIG CHP command to configure channel paths to the coupling facility, if needed. Enter a VARY PATH command to vary the channel paths online to the system, if needed.

System programmer response: Ensure that coupling facilities are correctly defined, configured, and operational. Ensure that the structure is correctly defined in the CFRM active policy. Ensure that there is sufficient space available in at least one coupling facility so that a new instance of the structure can be allocated during rebuild processing. Provide redundant signalling paths so that signalling connectivity will be maintained even without this structure.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1NSS, IXCT1PCC

Routing code: 1, 2

Descriptor code: 5

IXC466I *direction* **SIGNAL CONNECTIVITY ESTABLISHED WITH SYSTEM** *sysname* **VIA** *sigpath*

Explanation: This message appears in the system log when a signalling path is established. The signalling path is eligible for signal transfer. When both the sending and receiving systems establish their respective sides of the path, signal transfer can begin.

In the message text:

direction
Signalling connectivity was established in the indicated *direction*:

INBOUND
This system is capable of receiving signals from system *sysname*.

OUTBOUND
This system is capable of sending signals to system *sysname*.

sysname
The name of the other system for which signalling connectivity has been established.

sigpath
Signalling connectivity was established. *sigpath* is one of the following:

DEVICE *dev1* **WHICH IS CONNECTED TO DEVICE** *dev2*
Signalling connectivity was established for a CTC device. *dev1* is the device number for the local signalling path and *dev2* is the device number used by the other system.

STRUCTURE *strname* **LIST** *listnum*
Signalling connectivity was established for a list structure. *strname* is the list structure and *listnum* is the list number of the specified list within the list structure being used for this signalling path.

System action: Processing continues.

System programmer response: Use this information when attempting to resolve signalling connectivity problems. This message indicates which paths were successfully established.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1ME1, IXCT1ME2

Routing code: 1, 2

Descriptor code: 5

IXC467I *command dir pathname* **RSN:** *text*

Explanation: Processing is being initiated that will result in a loss of signalling capacity. The message explains what action is being performed and why.

In the message text:

command
The command being initiated for the signalling path. *Command* is one of the following:

RESTARTING
An established signalling path is being restarted. Signal transfer over the path is interrupted. Restart processing is initiated to re-establish the path and thereby restore it to service. This system may have detected an error, or it simply may be reacting to an action taken by the system to which the path is connected.

REBUILDING
A XES list structure used by the XCF signalling service is to be rebuilt. Rebuild processing is initiated to recover from errors or to reconfigure resources related to coupling facilities. This system may be initiating path rebuild processing, or may be doing so in order to participate in a rebuild initiated on some other system. Note that invoking of the XES rebuild service (macro IXLREBLD) is only one part of the processing needed to accomplish the rebuild of a structure used for signalling. Message IXC467I is issued by each system as it initiates the processing needed to accomplish the rebuild from the perspective of the XCF signalling service.

STOPPING
The signalling path is being removed from service. Stop path processing is initiated for errors or in response to actions taken by the system to which the path is connected. Stopping a list structure causes all list paths through that structure to be stopped as well (in the indicated direction).

dir
The direction specified for the indicated request. An inbound signalling path is used to receive signals from another system in the sysplex. An outbound signalling path is used to send signals to another system in the sysplex.

PATHIN
Indicates the path was defined for inbound signal traffic

PATHOUT
Indicates the path was defined for outbound signal traffic

PATH
Indicates the path direction was not specified or could not be determined. For system initiated requests, the existing XCF path definition was to be used to determine the direction(s) in which to apply the request.

pathname
The name of the signalling path.

DEVICE *dev* **USED TO COMMUNICATE WITH SYSTEM** *sysname*
Indicates the CTC device whose device number is *dev*. The path is used to communicate with the system named *sysname*.

STRUCTURE *strname*
Indicates the XES list structure whose name is *strname*. A list structure can contain one or more individual list signalling paths.

STRUCTURE *strname* **LIST** *num* **USED TO COMMUNICATE WITH SYSTEM** *sysname*
Indicates the list signalling path using list number *num* within the XES list structure named *strname* to communicate with the system named *sysname*.

I/O ERROR WHILE LINKING
An error occurred when the system started an I/O operation used to establish the signalling path.

I/O ERROR AFTER LINKED
An error occurred after an I/O operation used to establish the signalling path had completed, but before the path could be established.

I/O ERROR WHILE WORKING
An I/O error occurred while the signalling path was engaged in signal transfer.

I/O ERROR WHILE RESTARTING. DIAG038: 5
An I/O error occurred while the signalling path was being restarted.

ATTENTION INTERRUPT
An I/O interrupt was presented for a path that was not engaged in any I/O operations. Usually this means the system on the other end of the signalling path is restarting or stopping its side of the path while this system is in the midst of restarting its side of the path.

I/O APPARENTLY STALLED
Signal transfer over the signalling path appears to have stalled. The path is restarted in an attempt to restore the path to working order.

These are the possible causes for the stalled I/O:

- The stalled I/O could be caused by stalled members.
- For signalling paths using a coupling facility structure, the stalled I/O could be caused by CF issues.
- The stalled I/O could be caused by related errors.
- The stalled I/O could be caused by performance issues on the target system.
- The stalled I/O could be caused by poor signalling configuration.

INCOMPLETE SIGNAL
An I/O transfer completed, but not all the data in the signal was received. The path is restarted so that the signal can be resent.

SIGNAL OUT OF SEQUENCE
A signal did not arrive in the expected order. The path is restarted to re-synchronize the two sides of the signalling path.

WRONG BUFFER SIZE
The signal was longer than expected. The path is restarted to re-synchronize the two sides of the signalling path.

I/O QUEUE INCONSISTENT
An I/O queue does not appear to be intact. The path is restarted to ensure successful transfer of the signals.

RESUME I/O FAILED
A suspended I/O operation could not be resumed successfully.

I/O ERROR. DIAG038: 14
An I/O operation ended abnormally or unexpectedly. The path is restarted in an attempt to restore it to working order.

INTERVENTION REQUIRED
An I/O operation failed due to an intervention required condition. This could mean that the system on the other end of the signalling path is restarting or stopping its side of the path. It could also mean that underlying hardware is no longer operational. Manual intervention may be required.

NEED SIGNAL CONNECTIVITY
There is no signalling connectivity with at least one other system in the sysplex. This path is restarted in hopes that it may be able to establish connectivity.

CIRCULAR PATH
The inbound and outbound side of a signalling path must be under the control of two distinct systems. This signalling path may have been misconfigured or defined to XCF incorrectly because it appears to have both sides of the path defined to the same system. However, some of the data used to detect this situation is inconsistent. The path is restarted in order to resolve this question.

INCORRECT SIGNAL LENGTH
While negotiating the parameters to be used for signal transfer, one of the systems determined that the requested signal length was inappropriate. The path is restarted to resolve the problem.

XCF RECOVERY
XCF recovery processing could not determine whether signal transfer over the signalling path was operational. The path is restarted in order to ensure that both sides of the path are synchronized.

UNQUIESCE I/O
The signalling path was quiesced for signal transfer. In this case, the path was restarted as part of the processing used to unquiesce the I/O.

I/O TERMINATION
An I/O operation was terminated due to an error (such as a machine check or program check) that occurred while a system routine was in control. The signalling path is restarted to restore it service.

RESET PARAMETERS
Due to changes in resources associated with the signalling path, it is being restarted to reset its parameters of operation. For example, the maximum list set entry count of each list path is adjusted according to the number lists currently in use as signalling paths through a list structure. Or a change to the MAXMSG value (amount of buffer space) for the signalling path may require modification of parameters related to I/O transfer.

INTERVENTION REQUIRED WHILE LINKING
An I/O operation initiated as part of an attempt to establish the signalling path failed due to an intervention required condition. This situation could be due to an IPL of the system on the other side of the signalling path. Also, the other system may have restarted or stopped its side of the signalling path.

NORMAL COMPLETION OF START
Start path processing completed without error. The path appears to be usable for signalling. A path restart is requested to initiate the processing required to establish signalling connectivity via this path.

START CONVERTED TO RESTART
A system initiated path start request was converted to a path restart request.

INCORRECT SIGNAL FORMAT
While negotiating the parameters to be used for signal transfer, one of the systems determined that the requested signal format was inappropriate. The path is restarted to resolve the problem.

START I/O FAILED
An attempt to start an I/O operation failed. The path is restarted in an attempt to restore it to working order.

I/O ERROR. DIAG038: 37
An I/O operation ended abnormally or unexpectedly. The path is restarted in an attempt to restore it to working order.

INCORRECT VECTOR INDEX
The vector index specified when invoking the Local Vector Service (macro IXLVECTR) is not valid. The path is restarted in order to re-establish a valid vector index.

INCORRECT LIST ENTRY VERSION NUMBER
The signal was not transferred with the expected validation data. The path is restarted to re-synchronize the two sides of the signalling path.

If this error is repetitive, use SETXCF to either rebuild the signalling structure or to stop all pathins and pathouts to the signalling structure and then restart the paths.

Note: This condition may be caused by replying DOWN to message IXC402D prior to a system being completely reset.

SYSPLEX PARTITIONING OF LOCAL SYSTEM
The request was initiated because the local system is no longer in the sysplex. If the local system was active in the sysplex, it enters a wait-state upon completion of sysplex partitioning. If the system was attempting to IPL into a sysplex but never became active, all paths are stopped before the operator is prompted by message IXC207A to respecify a new COUPLExx parmlib member.

SYSPLEX PARTITIONING OF REMOTE SYSTEM
The system to which the path had last established signalling connectivity is being removed from the sysplex. The initiator of the partitioning request specifies whether the systems remaining in the sysplex are to retain the signalling paths used to communicate with the removed system. If the paths are not to be retained, this path becomes undefined to XCF for signalling upon completion of the stop. To redefine the path to XCF for signalling, the operator must enter a SETXCF START path command. If the paths are to be retained after the system is removed from the sysplex, this path remains defined to XCF for signalling and is restarted.

OTHER SYSTEM STOPPING ITS SIDE OF PATH
The other system to which the signalling path is connected is stopping its side of the path. If the path is no

longer needed, this system also stops its side of the path. For example, if a system stops using a list structure for outbound signal traffic, all the systems using the structure for inbound signal traffic can stop their inbound list paths. If the path is still needed, this system restarts the path so that it is ready to re-establish the signalling path if the other side should ever start the path again.

OTHER SIDE IS SAME DIRECTION
XCF tried to establish signalling connectivity between two systems, but the signalling path was defined in the same direction on both systems. A signalling path must have an outbound side and an inbound side. If both sides are defined in the same directions, signals cannot be transferred via this signalling path.

Either of the two systems involved can detect the problem. The error is not necessarily detected by the system that has the incorrect definition. If it appears that the other system is at fault, the path is restarted to ensure that this side of the path remains ready to establish connectivity when the other side of the path is correctly defined. The restart may also allow the other system to recognize that its path is not defined correctly. If it appears that this system is at fault the path is stopped.

OPERATOR REQUEST
The operator entered a SETXCF command which caused the indicated request to be initiated.

STRUCTURE FAILURE
This system detected structure failure.

UNABLE TO START LIST MONITORING
This system was unable to establish list monitoring. The signalling service cannot ensure correct operation without the ability to monitor list transitions. Depending on the list involved, failure to establish monitoring may impact a particular list path or use of the whole structure.

RETRY LIMIT EXCEEDED
The retry count for the signalling path exceeded the retry limit. The path is stopped because it is considered to be non-operational. The problem can be:

- I/O errors occurred on the path.
- An incorrect COUPLExx parmlib member was specified.
- The specified COUPLExx parmlib member had signalling path definition errors. For instance, the retry limit can be exceeded if both sides of a signalling path were started in the same direction. See the explanation for the message text **OTHER SIDE IS SAME DIRECTION**.

SUBCHANNEL NOT OPERATIONAL FOR RESUME
The subchannel is not operational for one of the following reasons:

- No subchannel is provided.
- The subchannel did not have a valid device number assigned.
- The subchannel is not enabled.

REBUILD FAILED, UNABLE TO USE ORIGINAL
A structure rebuild was initiated. The rebuild attempt failed and this system is unable to use the original list structure.

START REQUEST FAILED
A request to start a signalling path failed. Message IXC305I explains why the start request failed.

CONNECTED TO NON-XCF SIGNALLER
The other end of this signalling path is not under XCF control. Either the signalling path is not connected to a system in the sysplex, or another application is trying to use the signalling path. A signalling path can only be used for communication between two systems active in the same sysplex and both ends of the path must be under XCF's exclusive control in order to ensure correct operation of the signalling service.

NON-XCF SIGNALLER USING PATH
A non-XCF application tried to use this system's signalling path. Paths used by XCF must be dedicated exclusively to XCF in order to ensure correct operation of the signalling service.

HALT I/O FAILED
The system tried to stop all I/O through this path, but the request failed. For a CTC signalling path, the CTC device is probably in a permanent error state.

PURGE I/O FAILED
An attempt to remove all I/O queued for the signalling path failed.

CONTROL OPERATION FAILED
XCF performs various read and write operations to manage use of a list structure for signalling. One of these control operations failed.

INTERNAL ERROR
An XCF internal error occurred.

CONNECT TOKEN NO LONGER VALID
The connect token used when invoking XES services to access the list structure is no longer valid. The connect token is returned by the IXLCONN service.

LOST CONNECTIVITY TO STRUCTURE
This system lost connectivity to the coupling facility that contains the structure.

NOT DEFINED AS PATHOUT OR PATHIN
The list structure is defined for neither outbound signal traffic nor inbound signal traffic.

PROPAGATING STOP OF STRUCTURE
A stop request is in progress for a list structure. All the associated list paths must be stopped as well.

NO LIST AVAILABLE FOR USE
A list path no longer has a list allocated within the list structure for its use. For example, a rebuilt structure may not have a list for the path, whereas the original structure did.

UNABLE TO USE REBUILT STRUCTURE
The list structure has been rebuilt, but this system cannot use the rebuilt structure. Although this system may lose signalling capacity by stopping its use of the list structure, it does not lose signalling connectivity. So the other systems in the sysplex are permitted to continue on with the rebuilt structure, and this system disconnects from the structure.

UNABLE TO START REBUILD
The list structure is not usable. An attempt was made to rebuild the structure, but the rebuild could not be started.

STRUCTURE IN USE BY INCOMPATIBLE CONNECTION
The list structure is not usable. It is being used incompatibly by another connector.

STRUCTURE ELEMENT COUNT TOO SMALL
The list structure is not usable. The number of list elements defined for the structure is less than the minimum required by XCF to be able to use the structure for signaling.

STRUCTURE ENTRY COUNT TOO SMALL
The list structure is not usable. The number of list entries defined for the structure is less than the minimum required by XCF to be able to use the structure for signaling.

CONNECTOR HANG
A structure-related process associated with this list structure appears to be hung because of failure to receive a connector response. The system has stopped signaling paths through the structure to cause XCF to disconnect and thereby relieve the hang.

LOST CONNECTIVITY TO FACILITY
This system lost connectivity to the coupling facility containing the structure.

MORE LISTS NEEDED
This system determined that the structure was not allocated with enough lists for all the signalling list paths that are needed.

MORE SPACE NEEDED
This system determined that more space was needed in the structure.

PARTICIPANT
This system is participating in a rebuild of the structure. The rebuild was initiated by the operator or some other connector.

PARTICIPANT, STOP REBUILD
This system is participating in a rebuild of the structure. The rebuild was initiated by the operator or some other connector. However, the rebuild process is being stopped. The protocols for XES rebuild processing require this system to participate in completion of the rebuild process, so the necessary processing is initiated.

IXLVECTR TOKEN NOT VALID
The vector token used by this system when invoking the Local Vector Service (macro IXLVECTR) is no longer valid. A structure failure may cause a vector token to become invalidated. The system initiated rebuild processing in an attempt to connect to a new instance of the structure. A new vector token is assigned for the new structure.

MORE SYSTEMS EXPECTED
The system initiated rebuild processing to allocate the list structure with more lists for signalling paths that new systems entering the sysplex are expected to need in order to establish full signalling connectivity. New systems are expected to enter the sysplex when the primary sysplex couple data set is replaced by a couple data set formatted with a larger MAXSYSTEM specification.

DIAG038: *n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

DIAG039: *n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

DIAG079: *n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

DIAG073: *n n n n n*
Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: The system initiates processing of the indicated path request.

RESTARTING
Signals queued for transfer over this path are delayed until restart processing re-establishes the path (or the path completes stop processing). If this path was the only one available for communicating with the other system, signalling connectivity is lost. If the path can be re-established, signalling connectivity will be restored. When there is no signalling connectivity, requests by applications and sub-systems to send signals are rejected. Message IXC466I is issued if the path is re-established.

REBUILDING
No signal transfer occurs through the list structure while the rebuild is in progress. Signals sent by applications or sub-systems are diverted to other signalling paths while the structure is being rebuilt. If there are no other signalling paths available, the signals are queued until rebuild processing completes. If rebuild processing takes too long, the queued signals may use up all the buffer space available to the XCF signalling service. When the buffer supply is exhausted, requests by applications and sub-systems to send signals are rejected. Message IXC465I is issued to indicate completion of rebuild processing from the perspective of the XCF signalling service.

STOPPING
Signals queued for transfer over this path are resent as needed when stop processing completes. If this path was the only one available for communicating with the other system, signalling connectivity is lost. Other paths may need to be started to restore signalling connectivity. Signals queued for transfer over the stopped path remain queued until signalling connectivity is restored, or the target system is removed from the sysplex. When there is no signalling connectivity, requests by applications and sub-systems to send signals are rejected. Message IXC307I is issued if stop path processing completes successfully.

System programmer response: Use this information for problem determination.

Take the following step according to the possible cause for the stalled I/O:

- If the stalled I/O is caused by stalled members, use a sysplex failure management (SFM) policy that provides a MEMSTALLTIME specification. This allows the system to automatically terminate stalled members that are causing signalling sympathy sickness.
- If the stalled I/O is caused by CF issues, look for and resolve issues related to CF performance.

  Stalled I/O can also occur if the structure size is too small. In this case, verify that the signalling structure is properly sized. If the structure is not properly sized, define or update the structure size. Start a suitable CFRM policy to fix the size, and rebuild the signalling structure.
- Look for the related errors that could cause the stalled I/O, for example, hardware issues or software errors particularly on the target system that might be related.
- If the stalled I/O is caused by performance issues on the target system, ensure that the target LPAR has sufficient CPU resources.

- If the stalled I/O is caused by poor signalling configuration, ensure that each transport class on the sending system has a signalling path that leads to the target system, and ensure that each inbound signalling path has an adequate buffer supply (MAXMSG).

Source: Cross System Coupling Facility (SCXCF)

Module: IXCT1RTT

Routing code: 1, 2

Descriptor code: 5,12

IXC468W XCF IS UNABLE TO ACCESS THE CTN AND HAS PLACED THIS SYSTEM INTO A NON-RESTARTABLE WAIT STATE CODE: X'0A2' REASON CODE: X'158 '

Explanation: This system lost access to its primary time reference. All systems in the sysplex must be synchronized to the same primary time source.

If this message appears on every system in the sysplex, the problem might be with the ETR (Sysplex Timer) or with the primary time server itself.

System action: The system enters a non-restartable wait state X'0A2', reason code X'158'. The system writes a machine check record for the timing failure. If this system is not removed from the sysplex, the other systems might fail. If there are other active reference time, then XCF on those systems will detect a system status update missing (SSUM) condition for this system.

Operator response: Contact hardware support and determine whether to reconfigure the sysplex with assistance from the system programmer.

System programmer response: Take the following actions:

- If every system in the sysplex issues message IXC462W, IXC468W, or IXC410E, there is probably a problem with the primary time reference server itself. Determine whether to reconfigure the sysplex and then perform system IPL for any system that will be a part of that sysplex.
- If not every system in the sysplex issues message IXC462W, IXC468W, or IXC410E, but these messages are issued on every system on the same CEC and the affected systems are all participating in a coordinated time network, there might be a problem with the coupling facility links in use by the STP facility on that CEC. Make sure that the coupling facility links from the CEC to the primary reference time server are online and operational.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS2ETR, IXCS2DIE

Routing code: 1,10

Descriptor code: 1

IXC469I XCF MODULE ID FILTER NOT ACCEPTED: *value reason*

Explanation: XCF found incorrect syntax specified on the TRACE CT command for MODID filtering. *reason* in the message text describes the error.

In the message text:

value
Identifies a MODID or character that is not valid.

reason
Describes the reason why *value* is not valid. *reason* is one of the following:

MORE THAN 8 MODULE IDS SPECIFIED
The maximum number of Module IDs that can be specified for MODID trace filtering is eight.

MODID CONTAINS INVALID CHARACTERS
value identifies a MODID that contains invalid characters. A valid MODID consists of characters A-F and numerics 0-9.

IS AN INVALID CHARACTER FOR A MODULE ID
value identifies a character that is not valid for a MODID. A valid MODID consists of characters A-F and numerics 0-9.

INVALID DELIMITER SPECIFIED OR DELIMITER MISSING
The MODID keyword was entered with a non-valid or missing delimiter. The options and list of MODIDs must be enclosed within parenthesis. For example:

```
options=(modid=(0a01,0250)),end
```

MODULE ID MUST BE FOUR (4) CHARACTERS
value must be exactly four characters. XCF MODIDs are four characters in length.

System action: XCF ignores the incorrect module ID filter specification. The TRACE CT command is not successful.

Operator response: Notify the system programmer.

System programmer response: Correct the input specified for the MODID filter option and re-enter the TRACE CT command.

Module: IXCC1TCP

Routing code: 1, 2

Descriptor code: 5

IXC470I **SYSTEM** *sysname* **EFFECTIVE VALUES: INTERVAL=***einterval* **OPNOTIFY=***eopnotif*
isource **USER INTERVAL:** *uinterval*
DERIVED SPIN INTERVAL: *spinfdi*
usource **USER OPNOTIFY:** *uopnotify*
COMPUTED FOR: *impetus*

Explanation: This message is issued to document the effective failure detection interval (INTERVAL) and the effective operator notification interval (OPNOTIFY), and the data used to compute these values. The message is issued by XCF in response to changes that can impact the failure detection interval or the operator notification interval.

In the message text:

sysname
The name of system whose settings are being documented.

einterval
The effective failure detection interval (INTERVAL) being used, expressed in seconds.

When the USERINTERVAL function is disabled (which is the default behavior), this value takes the larger of the user-specified INTERVAL and the interval derived from the excessive spin recovery parameters. When the USERINTERVAL function is enabled, the user-specified INTERVAL value is used even if it is smaller than the interval derived from the excessive spin parameters. IBM suggests that the INTERVAL be defaulted to the derived interval.

eopnotify
The effective operator notification interval (OPNOTIFY) being used, expressed in seconds.

- If OPNOTIFY is specified as a relative value, the effective OPNOTIFY value is the sum of the effective INTERVAL value *einterval* and the relative OPNOTIFY value *+ooooo*, but not more than the maximum value of 86400.
- If OPNOTIFY is specified as an absolute value, the effective OPNOTIFY value is the larger of the effective INTERVAL value *einterval* and the absolute OPNOTIFY value *ooooo*.

isource
The source from which XCF obtains the user failure detection interval value:

SETXCF
The value is set by the SETXCF COUPLE,INTERVAL command.

PARMLIB
The value is explicitly set by the INTERVAL parameter of the COUPLE statement in the COUPLExx parmlib member at IPL time.

DEFAULT
The default value is used. The default INTERVAL value is derived from the excessive spin parameters that are currently defined for the system. The value changes dynamically in response to the SET EXS command.

CLUSTER
The value is set by cluster management instrumentation software.

uinterval
The failure detection interval specified for the system, either explicitly or by default. The value is expressed in seconds.

spinfdi
The failure detection interval derived from the current excessive spin recovery parameters, expressed in seconds.

The value is computed as follows:

```
spinfdi = (N+1)*SpinTime + 5
```

where `N` is the number of excessive spin recovery actions, +1 indicates the implicit SPIN action, and `SpinTime` is the excessive spin loop timeout interval. The SPINRCVY statement and the SPINTIME keyword in the EXSPATxx parmlib member determine the number of spin actions and the spin loop timeout, respectively. If the excessive spin parameters are not explicitly set on an EXSPATxx parmlib member, the IBM supplied default spin parameters are used. Note that the failure detection interval derived from the excessive spin parameters changes if the SET EXS command is issued to change the excessive spin recovery parameters.

osource
The source of the user-specified operator notification value:

SETXCF
The value is set by the SETXCF COUPLE,OPNOTIFY command.

PARMLIB
The value is explicitly set by the OPNOTIFY parameter of the COUPLE statement in the COUPLExx parmlib member at IPL time.

DEFAULT
The default value of +3 is used. Thus the effective OPNOTIFY is three seconds more than the effective failure detection interval.

[+]*uopnotify*
The OPNOTIFY value specified by the user, whether explicitly or by default. The value is displayed as *+ooooo* for a relative OPNOTIFY value, *ooooo* for an absolute OPNOTIFY value.

impetus
The processing for which this message is issued:

XCF INITIALIZATION
The message documents the values being used as a result of XCF initialization.

SETXCF COUPLE,INTERVAL
The message documents the values being used as a result of processing a SETXCF COUPLE,INTERVAL command.

CLUSTER SETSYSTEMFDI
The message documents the values being used as a result of processing changes made by cluster management instrumentation software.

SETXCF COUPLE,OPNOTIFY
The message documents the values being used as a result of processing a SETXCF COUPLE,OPNOTIFY command.

SETXCF FUNCTIONS
The message documents the values being used as a result of processing a SETXCF FUNCTIONS command to enable or disable the USERINTERVAL function.

The current setting of the USERINTERVAL can be determined by issuing the DISPLAY XCF,COUPLE command.

SET EXS
The message documents the values being used as a result of processing a SET EXS command to set excessive spin recovery parameters.

XCF RECOVERY
The message documents the values being used as a result of resolving an XCF error.

System action: The system uses the indicated effective intervals.

- If the system fails to update its status within the effective failure detection interval, it is considered to be `status update missing`.
- If the system fails to update its status within the effective operator notification interval, the operator can be notified of the condition by an XCF message (for example, IXC402D).

A system that is `status update missing` can cause sympathy sickness on other systems in the sysplex, and therefore should be removed from the sysplex to avoid further problems.

Operator response: When `XCF recovery` is displayed, XCF might have reset the failure detection interval (INTERVAL), or the operator notification interval (OPNOTIFY), or both, to the IBM supplied default values. If so, issue the SETXCF COUPLE,INTERVAL command to set the failure detection interval to the required installation specified value, or the SETXCF COUPLE,OPNOTIFY command to set the operator notification interval to the required installation specified value.

No action is required for other cases.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IIXCI2PH2, IXCO1ASY, IXCB1MRP

Routing code: 2

Descriptor code: 4, 5

IXC471I **UNABLE TO CREATE NOTE PAD** *npname*
text

Explanation: In the message, *text* is:

```
REQUESTER JOB NAME: jobname SYSTEM NAME: sysname
REASON: reason
[HOST STRUCTURES CONSIDERED:
STRUCTURE NAME    STATUS/FAILURE REASON            DIAG
---------------- -------------------------------- --------
strname           reason                           diag  ]
```

XCF was unable to create the named note pad. If reason is 'STATUS UNKNOWN', the note pad may or may not have been defined.

In the message text:

npname
Name of the note pad that could not be created.

jobname
The name of the job that requested the note pad to be created.

sysname
The name of the system on which the job that requested the note pad creation resides.

reason
Describes the reason why the note pad could not be created. *reason* is one of the following:

NO SUITABLE HOST STRUCTURE FOUND
XCF could not find a suitable structure to host the new note pad.

NOTE PAD CATALOG UNAVAILABLE
The catalog structure used to manage the note pads is not available.

NOTE PAD CATALOG FULL
Maximum number of note pads already defined.

NOTE PAD CATALOG STRUCTURE FAILURE
The catalog structure used to manage the note pads has failed.

NO CONNECTIVITY TO NOTE PAD CATALOG
The local system does not have connectivity to the coupling facility that contains the catalog structure.

UNABLE TO ALLOCATE NOTE PAD CATALOG
XCF could not allocate the catalog structure used to manage the note pads.

UNABLE TO FORMAT NOTE PAD CATALOG
XCF could not format the catalog structure used to manage the note pads.

NO CONNECTIVITY TO STRUCTURE
The local system does not have connectivity to the coupling facility that contains the structure.

STRUCTURE TEMPORARILY UNAVAILABLE
The structure is quiesced for some system-managed activity.

STRUCTURE NOT IN ACTIVE POLICY
The structure is not defined in the active CFRM policy.

INSUFFICIENT SPACE IN STRUCTURE
The structure does not have enough space to accommodate the requested number of notes for the note pad.

INSUFFICIENT LISTS IN STRUCTURE
The structure does not have sufficient lists to host another note pad.

UNEXPECTED STRUCTURE ATTRIBUTES
The structure was not allocated with all the required attributes.

UNABLE TO ALLOCATE STRUCTURE
The structure could not be allocated.

STRUCTURE FAILURE
The structure failed prior to the completion of the request.

UNABLE TO CONNECT TO STRUCTURE
The local system was unable to connect to the structure.

STRUCTURE SELECTED
The structure was selected to host the note pad. Note that the host structure could change over the life of the note pad.

strname
Name of the structure considered as potential host for the note pad.

diag
Diagnostic data to be used by IBM in evaluating note pad placement processing, if provided.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCN1PAD

Routing code: 2, Note 13

Descriptor code: 4

IXC472I **NOTE PAD** *npname* **{IS BEING CREATED | HAS BEEN CREATED}**
text

Explanation: In the message, *text* is:

REQUESTER JOB NAME: *jobname* **SYSTEM NAME:** *sysname*
NOTE PAD CREATION TOD: *createtod*
NUMBER OF NOTES: *#notes* **HOST STRUCTURE:** *strname*

XCF successfully processed an IXCNOTE REQUEST=NOTEPAD REQTYPE=CREATE request. The note pad was either logically defined or physically instantiated.

In the message text:

npname
Name of the note pad whose status is being reported.

IS BEING CREATED
The note pad has been logically defined, but not instantiated. Connections can be created for the note pad, but they cannot use the note pad until the note pad is fully instantiated.

HAS BEEN CREATED
The note pad has been fully instantiated. Note pad connectors can start using the new note pad.

jobname
The name of the job that requested the note pad to be created.

sysname
The name of the system on which the job that requested the note pad creation resides.

createtod
The date and time when the note pad creation was initiated. This can be used to identify a unique instance of the note pad (*mm/dd/yyyy hh:mm:ss.dddddd*).

#notes
Number of notes that the note pad needs to hold, as indicated by the #NOTES parameter on the create note pad request.

strname
The name of the structure selected to host the note pad.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCN1PAD

Routing code: 2, Note 13

Descriptor code: 4

IXC473I **NOTE PAD** *npname* **{IS BEING DELETED | HAS BEEN DELETED}**
text

Explanation: In the message, *text* is:

NOTE PAD CREATION TOD: *createtod*
[**REQUESTER JOB NAME:** *jobname* **SYSTEM NAME:** *sysname*
REASON: *reason*]

XCF successfully processed an IXCNOTE REQUEST=NOTEPAD REQTYPE=DELETE request. The note pad is being deleted or has been deleted.

In the message text:

npname
Name of the note pad whose status is being reported.

IS BEING DELETED
The note pad is in the process of being deleted. Some of the note pad resources might still need to be cleaned up, but the note pad can no longer be used.

HAS BEEN DELETED
The note pad has been deleted. All of its resources are gone.

createtod
The date and time when the note pad deletion was initiated. This can be used to identify a unique instance of the note pad (*mm/dd/yyyy hh:mm:ss.dddddd*).

jobname
The name of the job that requested the note pad to be deleted.

sysname
The name of the system on which the job that requested the note pad to be deleted resides.

reason
Reasons why the note pad deletion was initiated. *reason*is one of the following:

USER REQUEST
An explicit request was made to delete the note pad, either through the IXCNOTE interface or through the note pad delete utility.

HOST STRUCTURE GONE
The structure containing the note pad has either failed or has been deallocated.

UNABLE TO FINALIZE NOTE PAD CREATION
XCF was unable to finalize the note pad creation.

System action: The system continues processing.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCN1PAD

Routing code: 2, Note 13

Descriptor code: 4

IXC500I **CONFIRM REQUEST TO USE COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid* **| [LP NAME:** *lparname* **CPC NAME:** *cpcname***] NAMED** *cfname* **AUTHORITY DATA:** *plexname mm/dd/yyyy hh:mm:ss.ffffff* **CF SYSTEM NAME:** *cfsysname* **| [CFRM AUTHORITY:** *plexnam2 mm/dd/yyyy hh:mm:ss.ffffff***]**

Explanation: While attempting to gain ownership of the coupling facility for the sysplex, this system has discovered that some other sysplex is the current owner. The coupling facility must not be used concurrently by more than one sysplex. If this system is permitted to proceed and gain ownership of the coupling facility while the other sysplex is still using it, severe errors may occur in both sysplexes. Note that the sysplex that currently owns the coupling facility will be unable to detect that ownership has been changed and will thus continue to use the coupling facility unless it is specifically stopped from doing so. The coupling facility which this system is attempting to gain ownership is identified by the node descriptor. See mapping IXLYNDE. The current owner is identified by the authority data. The authority data as defined by CFRM is the sysplex name and time of day. The system that gains ownership of the coupling facility will set the authority using the current sysplex name and time of gain ownership processing.

Possible explanations for getting this message are:

- the coupling facility is currently owned and being used by the other named sysplex in which case the reply to message IXC501A should be N until the other sysplex has stopped its use
- the coupling facility is currently owned, but no longer being used by the other named sysplex, in which case the reply to message IXC501A may be Y provided the other sysplex has stopped its use
- the CFRM couple data set is different than the last CFRM couple data set used by the sysplex, in which case the reply to message IXC501A depends on whether the desired CFRM couple data set has been specified. Ensure that the coupling facility is not being used by another sysplex before a reply is made.

Coupling facility usage will be based on reply to IXC501A.

In the message text:

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

lparname
Name assigned to the logical partition on which the CF is running. N/A indicates that the name is not available.

cpcname
Name assigned to the CPC on which the CF is running. N/A indicates that the name is not available.

cfname
Name of coupling facility from the CFRM active policy.

plexname mm/dd/yyyy hh:mm:ss.ffffff
Authority data from the coupling facility: sysplex name, date, and time.

cfsysname
Name of the coupling facility that is communicated to other sub-systems for the purpose of logically identifying the coupling facility within the sysplex. Not applicable if the current owner did not set *cfsysname* in the coupling facility during gain ownership processing.

plexnam2 mm/dd/yyyy hh:mm:ss.ffffff
Authority data for the coupling facility last saved by CFRM: sysplex name, date, and time.

System action: Message IXC501A is issued.

Operator response: Notify the system programmer.

System programmer response: See message IXC501A.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2LHN

Routing code: 1,10

Descriptor code: 2

IXC501A REPLY Y TO USE COUPLING FACILITY NAMED *cfname* OR N TO NOT USE COUPLING FACILITY

Explanation: This is the prompt associated with message IXC500I.

In the message text:

cfname
Name of coupling facility from the CFRM active policy.

System action: The coupling facility usage is based on the response.

Operator response: Notify the system programmer.

System programmer response: Verify that the CFRM active policy correctly specifies the coupling facility that is to be used by this sysplex and ensure that the sysplex identified in message IXC500I is stopped from using the coupling

facility before responding to this message. If Y (yes) is specified, this system will issue message IXC559I to ensure that the operator is made aware of the need to prevent another sysplex from using the coupling facility, and then message IXC560A to prompt for confirmation before allowing this system to gain ownership of the coupling facility. Messages IXC500I and IXC559I identify the coupling facility and the sysplex that currently owns it. Note that a reply of Y to this prompt and a reply of Y to message IXC560A may cause severe errors if the coupling facility is still being used by the sysplex identified in messages IXC500I and IXC559I. If N (no) is specified, the coupling facility will not be used by this system.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2LHN

Routing code: 1,10

Descriptor code: 2

IXC502I CONNECTION INFORMATION WAS NOT ADDED TO THE CFRM ACTIVE POLICY. A COUPLE DATA SET FOR CFRM THAT WILL SUPPORT *totalconn* CONNECT RECORDS IS REQUIRED.

Explanation: Connections to the structure reside in the coupling facility that were not able to be added into the CFRM active policy during coupling facility cleanup processing.

In the message text:

totalconn
Total number of connections that should be supported by the CFRM active policy.

System action: The connections will remain in the coupling facility until a couple data set for CFRM is obtained which is large enough to support all connections.

Operator response: Notify the system programmer.

System programmer response: Run the XCF couple data set format utility for TYPE(CFRM) to increase the number of CONNECT records supported. Issue the SETXCF COUPLE operator command to add the new CFRM couple data set as the alternate and then PSWITCH to make the alternate couple data set the primary couple data set for CFRM.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RC

Routing code: 2, 10

Descriptor code: 12

IXC503I STRUCTURE INFORMATION WAS NOT ADDED TO THE CFRM ACTIVE POLICY. A COUPLE DATA SET FOR CFRM THAT WILL SUPPORT *totalstr* STR RECORDS IS REQUIRED.

Explanation: Structures reside in the coupling facility that were not able to be added into the CFRM active policy during coupling facility cleanup processing.

In the message text:

totalstr
Total number of structures that should be supported by the CFRM active policy.

System action: The structures will remain in the coupling facility until a couple data set for CFRM is obtained which is large enough to support all structures.

Operator response: Notify the system programmer.

System programmer response: Run the XCF couple data set format utility for TYPE(CFRM) to increase the number of STR records supported. Issue the SETXCF COUPLE operator command to add the new CFRM couple data set as the alternate and then PSWITCH to make the alternate couple data set the primary couple data set for CFRM.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RC

Routing code: 2, 10

Descriptor code: 12

IXC504I INCONSISTENCIES BETWEEN COUPLING FACILITY NAMED *cfname* **AND THE CFRM ACTIVE POLICY WERE FOUND. THEY HAVE BEEN RESOLVED.**

Explanation: Structure and/or connection inconsistencies were found between the CFRM active policy and the coupling facility. A structure inconsistency is flagged if the CFRM active policy expects a structure to be allocated in the coupling facility and it is not or vice versa. A connection inconsistency is flagged if the CFRM active policy expects a connection to be attached in the coupling facility and it is not or vice versa. Additional messages (IXC505 for structure and IXC506 for connection) are written to the log to record the actions taken.

In the message text:

cfname
Name of the coupling facility in which inconsistencies were found.

System action: The CFRM active policy is updated to reflect the current state of the coupling facility.

Operator response: Notify the system programmer.

System programmer response: The system log contains messages that will indicate the actions that were taken to resolve the inconsistencies.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RC

Routing code: 2, 10

Descriptor code: 12

IXC505I STRUCTURE *strname* **IN COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid status* **TRACE THREAD:** *thread***.**

Explanation: Action was taken against the coupling facility or the CFRM active policy for a given structure. The coupling facility containing named structure is identified by the node descriptor. See mapping IXLYNDE.

In the message text:

strname
Name of the structure for which information is recorded.

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

status
One of the following:

DEALLOCATED.
The non-persistent structure was found in both the CFRM active policy and the coupling facility. All non-persistent structures are deallocated and cleared from the CFRM active policy during coupling facility cleanup.

NOT FOUND IN COUPLING FACILITY. CFRM ACTIVE POLICY CLEARED.
The structure described in the CFRM active policy is not allocated in the coupling facility. The CFRM active policy structure information has been updated to indicate that the structure is not allocated.

NOT FOUND IN THE CFRM ACTIVE POLICY. DEALLOCATED FROM COUPLING FACILITY.
The structure found in the coupling facility is not described in the CFRM active policy. It is a non-persistent structure and therefore was deallocated.

NOT FOUND IN THE CFRM ACTIVE POLICY. STRUCTURE ADDED TO THE CFRM ACTIVE POLICY.
The structure was found in the coupling facility and was added to the CFRM active policy.

NOT FOUND IN THE CFRM ACTIVE POLICY. COULD NOT BE ADDED TO THE CFRM ACTIVE POLICY.
The structure was found in the coupling facility and an attempt was made to add it to the CFRM active policy. The structure was not added to the CFRM active policy due to size constraints. Message IXC503I will be issued to indicate the changes required to add the structure to the CFRM active policy.

HAS CONNECTIONS PENDING RECONSTRUCTION INTO THE CFRM ACTIVE POLICY.
The structure in the coupling facility has connections that could not be added into the CFRM active policy. The CFRM active policy does not have enough CONNECT records to support the connections found in the coupling facility. Message IXC502I will be issued to indicate the changes required to add the connections to the CFRM active policy.

DEALLOCATED. MORE CURRENT VERSION IN THE CFRM ACTIVE POLICY.
The structure in the coupling facility is different than the structure described by the CFRM active policy. The structure in the coupling facility was deallocated. The structure in the CFRM active policy has either been allocated after the one in the coupling facility and/or is already in use by active connections in the sysplex. This can happen if the coupling facility containing the structure is brought on line after a connector has already connected to and allocated the structure in a different coupling facility.

DEALLOCATED. NEW STRUCTURE ALLOCATED FOR REBUILD WHICH HAS BEEN STOPPED.
The structure in the coupling facility is the new structure for which rebuild processing was underway before cleanup processing began. Rebuild is automatically stopped when the first system in the sysplex gains ownership of the coupling facility.

FAILED.
The structure was found in the coupling facility and experienced a failure. The CFRM active policy structure information has been updated to indicate the structure is not allocated and the structure has been deallocated.

ALLOCATED BY A DIFFERENT SYSPLEX HAS BEEN DEALLOCATED AS REQUESTED.
The structure that was found was allocated by another sysplex. The operator was prompted with messages (IXC523I and IXC508A) to determine the action.

NOT FOUND IN COUPLING FACILITY. STRUCTURE FAILURE INITIATED.
The structure described in the CFRM active policy is not allocated in the coupling facility and there are active connections to the structure. Structure failure processing has been initiated in order to notify the connections. that the structure no longer exists.

thread
Used to tie together messages and XCF component trace records for a particular coupling facility cleanup process.

System action: The CFRM active policy is updated to reflect the current state of the coupling facility.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RC

Routing code: 10

Descriptor code: -

IXC506I **CONNECTION** *conname* **TO STRUCTURE** *strname* **IN COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid status* **TRACE THREAD:** *thread*.

Explanation: Action was taken against the coupling facility or the CFRM active policy for a given connection. The coupling facility which this system is attempting to use is identified by the node descriptor. See mapping IXLYNDE.

In the message text:

conname
Name of a connection to a structure.

strname
Name of the structure for which information is recorded.

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

status
One of the following:

DETACHED.
The non-persistent connection was found in both the coupling facility and the CFRM active policy. All non-persistent connections are detached from the structure and cleared from the CFRM active policy during coupling facility cleanup.

REMAINS FAILED-PERSISTENT.
The persistent connection was found in both the coupling facility and the CFRM active policy. All persistent connections are placed in a failed state in both the coupling facility and the CFRM active policy.

NOT FOUND IN STRUCTURE. CFRM ACTIVE POLICY CLEARED.
The connection described in the CFRM active policy is not attached in the coupling facility. The CFRM active policy connection information is cleared.

NOT FOUND IN THE CFRM ACTIVE POLICY. DETACHED FROM STRUCTURE.
The non-persistent connection was found attached to the structure but not in the CFRM active policy. It is detached from the structure.

NOT FOUND IN THE CFRM ACTIVE POLICY. REMAINS FAILED-PERSISTENT.
The persistent connection was found in the structure but not in the CFRM active policy. It is placed in a failed-persistent state in the coupling facility. Message IXC506I will be issued again to indicate if the connection could or could not be added to the CFRM active policy.

NOT FOUND IN THE CFRM ACTIVE POLICY. ADDED TO THE CFRM ACTIVE POLICY.
The persistent connection was found in the structure but not in the CFRM active policy. It has been added to the CFRM active policy.

NOT FOUND IN THE CFRM ACTIVE POLICY. COULD NOT BE ADDED TO THE CFRM ACTIVE POLICY.
The connection was found in the structure and an attempt was made to add it to the CFRM active policy. The connection was not added to the CFRM active policy due to size constraints. Message IXC502I will be issued to indicate the changes required to add the connection to the CFRM active policy.

thread
Used to tie together messages and XCF component trace records for a particular coupling facility cleanup process.

System action: The CFRM active policy is updated to reflect the current state of the coupling facility.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RC

Routing code: 10

Descriptor code: -

IXC507I **CLEANUP FOR COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid status* **TRACE THREAD:** *thread*.

Explanation: Indicates processing status for coupling facility cleanup. The coupling facility which is in cleanup processing is identified by the node descriptor. See mapping IXLYNDE. The coupling facility cleanup process reconciles differences between information in the coupling facility and the CFRM active policy.

In the message text:

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

status
One of the following:

HAS STARTED.
The cleanup for a coupling facility has started.

HAS COMPLETED.
The cleanup for a coupling facility has completed.

ENCOUNTERED AN ERROR: READ OF THE CFRM ACTIVE POLICY FAILED.
The CFRM active policy could not be read from the couple data set for CFRM. The coupling facility and the CFRM active policy were not reconciled.

ENCOUNTERED AN ERROR: WRITE OF THE CFRM ACTIVE POLICY FAILED.
The CFRM active policy could not be written to the couple data set for CFRM. The procedure will not be attempted again.

RESTARTED: CFRM ACTIVE POLICY LOCK STOLEN.
The CFRM active policy could not be written to the couple data set for CFRM. The procedure will be attempted again.

ENCOUNTERED AN ERROR: COUPLING FACILITY STRUCTURE VECTOR COULD NOT BE OBTAINED.
An operation to the coupling facility failed. The coupling facility and the CFRM active policy were not reconciled.

FAILED: CFRM CHECKPOINT AREA FULL.
Coupling facility cleanup could not be completed because the CFRM checkpoint area is full. The CF will be unavailable for structure allocation until cleanup completes. It may be necessary to cause all systems to lose connectivity to the CF and then regain connectivity in order to retry cleanup processing.

thread
Used to tie together messages and XCF component trace records for a particular coupling facility cleanup process.

System action: The CFRM active policy is updated to reflect the current state of the coupling facility.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RC

Routing code: 10

Descriptor code: -

IXC508A REPLY K TO KEEP, D TO DELETE STRUCTURES FROM SYSPLEX *plexname*

Explanation: This is the prompt associated with message IXC523I.

In the message text:

plexname
Name of the sysplex from which structures were found.

System action: Structures are deleted or kept in the coupling facility based on the response.

Operator response: Notify the system programmer.

System programmer response: Determine if the structures from the other sysplex should be kept in the coupling facility or deleted from the coupling facility and respond. If D (delete) is specified, all structures from sysplex *plexname* will be deleted from the coupling facility identified in message IXC523I. If K (keep) is specified, the structures will remain in the coupling facility. To delete the structures at a later time, ownership of the coupling facility must be gained again to cause coupling facility cleanup process to reoccur.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RC

Routing code: 1,10

Descriptor code: 2

IXC509I CFRM ACTIVE POLICY RECONCILIATION EXIT *status* **TRACE THREAD:** *thread***.**

Explanation: Indicates processing status for a particular reconciliation. Reconciling the CFRM active policy and coupling facilities is initiated when a new couple data set for CFRM is made available or when a change policy causes more space to become available in the current couple data set for CFRM. The assumption is that there may be room to add into the CFRM active policy the structures and connectors that could not be added to the CFRM active policy previously during coupling facility cleanup. Message IXC507I will be issued to indicate which coupling facility is being reconciled with the CFRM active policy.

In the message text:

status
One of the following:

HAS STARTED.
The reconciliation for the CFRM active policy to coupling facilities has started.

HAS COMPLETED.
The reconciliation for the CFRM active policy to coupling facilities has completed.

ENCOUNTERED AN ERROR: READ OF THE CFRM ACTIVE POLICY FAILED.
The CFRM active policy could not be read from the couple data set for CFRM. The reconciliation process was not completed.

RESTARTED: CFRM ACTIVE POLICY LOCK STOLEN.
The CFRM active policy could not be written to the couple data set for CFRM. The procedure will be attempted again.

ENCOUNTERED AN ERROR: WRITE OF THE CFRM ACTIVE POLICY FAILED.
The CFRM active policy could not be written to the couple data set for CFRM. The procedure will not be attempted again.

thread
Used to tie together messages and XCF component trace records for a particular reconciliation process.

System action: The CFRM active policy is updated to reflect the current state of the coupling facility.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RC

Routing code: 10

Descriptor code: -

IXC510I STOP POLICY FOR CFRM ACCEPTED

Explanation: The operator issued SETXCF STOP,POLICY,TYPE=CFRM. The policy change was accepted.

System action: System processing continues. Policy change processing issues IXC512I, IXC513I or both messages to indicate progress and completion of the operator request.

The system will attempt to stop duplexing all structures in a duplexing rebuild. For each of these attempts to stop duplexing, the processing to stop duplexing will be initiated or message IXC538I will be issued.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2POL

Routing code: #

Descriptor code: 5

IXC511I START ADMINISTRATIVE POLICY *polname* FOR CFRM ACCEPTED

Explanation: The operator issued SETXCF START,POLICY,TYPE=CFRM,POLNAME=*polname*. The policy change was accepted.

In the message text:

polname
The name of the policy to be started.

System action: System processing continues. Policy change processing issues IXC512I and/or IXC513I messages to indicate progress and completion of the operator request.

When the policy changes the DUPLEX specification of a simplex structure to DUPLEX(ENABLED), the system will attempt to initiate a duplexing rebuild. The system will issue message IXC536I or IXC538I for each attempt to initiate a duplexing rebuild.

When the policy changes the DUPLEX specification of a structure in a duplexing rebuild to DUPLEX(DISABLED), the system will attempt to stop the duplexing rebuild. The system may also attempt to stop a duplexing rebuild if a structure PREFLIST is changed such that a duplexed structure should no longer be allocated in one of the coupling facilities it is allocated in. For each of these attempts to stop duplexing, the processing to stop duplexing will be initiated or message IXC538I will be issued.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2POL

Routing code: #

Descriptor code: 5

IXC512I POLICY CHANGE IN PROGRESS FOR CFRM TO MAKE *polname* POLICY ACTIVE. *numpend* POLICY CHANGE(S) PENDING.

Explanation: The policy change is in progress.

In the message text:

polname
The name of the administrative policy specified on the SETXCF START,POLICY operator command or NO to indicate SETXCF STOP,POLICY issued.

numpend
The number of structures in the current policy which have a policy change pending plus the number of structures with deallocation pending when structure dump exists. A structure will not be deleted from the active policy if the structure is allocated. A facility will not be deleted from the active if structures are allocated in the facility or if structures with deallocation pending when structure dump exists are in the facility. D XCF,STR will show structures in CFRM active policy. D XCF,CF will show facilities in CFRM active policy.

System action: The policy change is expected to complete successfully. For CFRM, use the DISPLAY XCF CF or STR command to determine if the changes for coupling facilities and structures have completed.

System programmer response: If the policy change is not completing, then additional actions may be required. The SETXCF FORCE command can be used to force the deletion of failed-persistent structures and connections. The SETXCF FORCE command can be used to delete structure dumps. Adding dump data sets to allow the completion of SVC dumps will also delete structure dumps. The SETXCF START,REBUILD command can be used to relocate structures with active connections to another coupling facility. A CFRM active policy with more STR records might be required. If necessary, run the format utility for couple data sets for TYPE(CFRM) to increase the number of STR records supported. Issue the SETXCF COUPLE operator command to add the new CFRM couple data set as the alternate, and then issue the SETXCF COUPLE,PSWITCH command to make the alternate couple data set the primary couple data set for CFRM.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2POL

Routing code: #

Descriptor code: 5

IXC513I COMPLETED POLICY CHANGE FOR CFRM. *polname* **POLICY IS ACTIVE.**

Explanation: Indicates the completion of change policy processing.

In the message text:

polname
For SETXCF START,POLICY processing it is the name of the current CFRM active policy. For SETXCF STOP,POLICY processing it indicates that the active CFRM policy is empty. An empty policy will prevent the use of coupling facilities.

System action: System processing continues.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2POL

Routing code: #

Descriptor code: 5

IXC514I CONNECTION TO STRUCTURE *strname* **BY CONNECTOR** *conname* **FAILED DUE TO A SIZE CONSTRAINT IN THE CFRM ACTIVE POLICY. A CFRM ACTIVE POLICY THAT WILL SUPPORT MORE CONNECTIONS IS REQUIRED.**

Explanation: Connections reside in the structure that were not able to be added into the CFRM active policy during coupling facility cleanup processing. A connection has attempted to reconnect to the structure but has been rejected since the CFRM active policy is not large enough to support all connections.

In the message text:

strname
Name of the structure to which the connection failed.

conname
Connection name supplied by the connector on the IXLCONN service.

System action: The connections will remain in the structure until a policy large enough to support all connections is obtained.

Operator response: Notify the system programmer.

System programmer response: Use the DISPLAY XCF,STR command to determine the values to use to format a larger couple data set for CFRM. Run the XCF couple data set format utility for TYPE(CFRM) to increase the number of connections supported. Then add the new couple data set as the alternate by issuing SETXCF COUPLE,ACOUPLE. Make sure the data set is catalogued in the master catalog before issuing the command. After adding a new alternate couple data set, enter a SETXCF COUPLE,PSWITCH command to switch the primary couple data set with the new alternate one.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ASR

Routing code: 2, 10

Descriptor code: 12

IXC515I STRUCTURE *strname* **IN COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid* **DEALLOCATED. MORE CURRENT VERSION OF STRUCTURE FOUND IN COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid* **TRACE THREAD:** *thread*

Explanation: The structure *strname* was deallocated from the 1st coupling facility. The more current version of the structure *strname* remains allocated in the 2nd coupling facility. The CFRM active policy structure information is about the more current version of the structure. Both coupling facilities are identified by the node descriptor. See mapping IXLYNDE.

In the message text:

strname
Name of the structure for which information is recorded.

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

thread
Used to tie together messages and XCF component trace records for a particular coupling facility cleanup process.

System action: The CFRM active policy is updated to reflect the current state of the coupling facility.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RC

Routing code: 10

Descriptor code: -

IXC516I REBUILD FOR STRUCTURE *strname status* **TRACE THREAD:** *thread*.

Explanation: During CFRM initialization, additional cleanup of the records in the CFRM active policy is completed. Structure rebuild is either stopped or completed based on the rebuild phase indicated in the CFRM active policy for all structures found in the rebuild process.

In the message text:

strname
Name of the structure for which information is recorded.

status
One of the following:

STOPPED.
The rebuild for the structure has been stopped.

COMPLETED.
The rebuild for the structure has been completed.

thread
Used to tie together messages and XCF component trace records during CFRM initialization and processing to gain ownership and cleanup coupling facilities.

System action: The CFRM active policy is updated to reflect the fact that rebuild is no longer in progress.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2CRS

Routing code: 10

Descriptor code: -

IXC517I **SYSTEM** *sysname* **ABLE TO USE COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid* **|[LP NAME: lparname CPC NAME: cpcname] NAMED** *cfname* **| AUTHORITY DATA:** *plexname mm/dd/yyyy hh:mm:ss.ffffff*

Explanation: Indicates that the coupling facility is in the CFRM active policy and connected to this system. The coupling facility is eligible for use by this system. The coupling facility which this system is able to use is identified by the node descriptor. See mapping IXLYNDE. This message is issued by each system that is using the CFRM active policy when the system determines that it can use the coupling facility. If the system also gains ownership of the coupling facility for the sysplex, then additional messages are written to the log for coupling facility cleanup processing.

In the message text:

sysname
Name of the system which is using the coupling facility.

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

lparname
Name assigned to the logical partition on which the CF is running. N/A indicates that the name is not available.

cpcname
Name assigned to the CPC on which the CF is running. N/A indicates that the name is not available.

cfname
Name of coupling facility from the CFRM active policy

plexname mm/dd/yyyy hh:mm:ss.ffffff
Authority data stored in the coupling facility: sysplex name, date, and time.

System action: The CFRM active policy is updated to reflect the current state of the coupling facility usage by this system.

When the system has an active connection to a simplex structure with a CFRM policy specification of DUPLEX(ENABLED), the system may attempt to initiate a duplexing rebuild. The system will issue message IXC536I or IXC538I for each attempt to initiate a duplexing rebuild.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2INT

Routing code: 2, 10

Descriptor code: 4

IXC518I **SYSTEM** *sysname* **NOT USING COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid* **[LP NAME:** *lparname* **CPC NAME:** *cpcname***] NAMED** *cfname* **[AUTHORITY DATA:** *plexname mm/dd/yyyy hh:mm:ss.ffffff***] CF SYSTEM NAME:** *cfsysname* **[CFRM AUTHORITY:** *plexnam2 mm/dd/yyyy hh:mm:ss.ffffff***] REASON:** *text*

Explanation: Indicates that the coupling facility cannot be used by this system. Reasons include not in CFRM active policy, not connected, or error in gain ownership processing. The coupling facility which this system is not able to use is identified by the node descriptor. See mapping IXLYNDE.

In the message text:

sysname
Name of the system which is not able to use the coupling facility

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

lparname
Name assigned to the logical partition on which the CF is running. N/A indicates that the name is not available.

cpcname
Name assigned to the CPC on which the CF is running. N/A indicates that the name is not available.

cfname
Name of coupling facility from the CFRM active policy, or N/A if the coupling facility is not defined in the CFRM active policy.

plexname mm/dd/yyyy hh:mm:ss.ffffff
Authority data from the coupling facility: sysplex name, date, and time.

cfsysname
Name of the coupling facility that is communicated to other sub-systems for the purpose of logically identifying the coupling facility within the sysplex. Not applicable if the current owner did not set *cfsysname* in the coupling facility during gain ownership processing.

plexnam2 mm/dd/yyyy hh:mm:ss.ffffff
Authority data for the coupling facility last saved by CFRM: sysplex name, date, and time.

TAKEOVER PROHIBITED. REASON FLAG: *reason*.
The owner authority stored in the coupling facility does not match the authority in the CFRM CDS and the COUPLExx parmlib member indicates that the operator should not be prompted to use the coupling facility for an authority mismatch.

NOT IN THE CFRM ACTIVE POLICY. REASON FLAG: *reason*.
The CFRM active policy does not have this coupling facility defined. The coupling facility is connected to the system but will not be used since not in CFRM active policy.

NOT CONNECTED TO SYSTEM. REASON FLAG: *reason*.
The coupling facility is defined in the CFRM active policy but the system does not have connectivity. The coupling facility cannot be used by this system. For a system to establish connectivity to a coupling facility, the CFRM active policy definition of the coupling facility must identify a usable coupling facility. The possible reasons for the system not having connectivity are as follows:

- The coupling facility not having enough CPU resource available

  Check that the coupling facility has enough CPU resource available so that the system can establish connectivity. A lack of CPU resources can result in commands to the coupling facility timing out, which prevents the system from connecting.
- A mismatch between the IODF specification of the coupling facility and the CFRM active policy definition of the coupling facility

  The node descriptor is used to identify the coupling facility.
- Problems with the coupling facility links

  Check that the coupling facility links are properly configured online. See the Display CF output for additional information about coupling facility paths and status. See message IXL158I for additional information about problems with paths to the coupling facility.

ERROR IN GAIN OWNERSHIP PROCESS. REASON FLAG: *reason*.
The process to gain ownership and establish system usage has failed. The error is either due to a problem with coupling facility or the CFRM active policy. The coupling facility cannot be used by this system.

OPERATOR REPLIED NO TO IXC501A OR IXC560A. REASON FLAG: *reason*.
The process to gain ownership and establish system usage has failed due to operator response to IXC501A or IXC560A. The coupling facility cannot be used by this system.

CONNECTIVITY LOST. REASON FLAG: *reason*.
The system has lost connectivity to the coupling facility. The coupling facility cannot be used by this system.

CFRM POLICY CHANGE COMPLETED. REASON FLAG: *reason*.
The system has stopped using because the coupling facility has been deleted from the CFRM active policy. The coupling facility cannot be used by this system.

CFRM POLICY NOT STARTED OR STOP COMPLETE. REASON FLAG: *reason*.
A CFRM policy has not been started or a stop for CFRM policy has completed. The coupling facility is connected to the system but will not be used since the CFRM active policy is empty.

A CFRM administrative policy must be started. Use an existing administrative policy or define a new administrative policy using the XCF administrative policy utility (IXCMIAPU) and issue the SETXCF START,POLICY,TYPE=CFRM,POLNAME=polname operator command or specify CFRMPOL(polname) keyword in the COUPLExx parmlib member, which is used to IPL the system.

reason
Information that IBM might request for diagnosis. The **reason flag** is in the form xxxxyyyy. xxxx identifies the discovering module. If xxxx is equal to 1330 then yyyy is an index for use by IBM. For all other values of xxxx, yyyy indicates the following:

- 0001 - coupling facility operation failed
- 0002 - coupling facility operation failed
- 0003 - coupling facility operation failed
- 0004 - CFRM active policy no longer contains the coupling facility. A policy change has occurred in parallel to gain ownership processing
- 0005 - coupling facility operation failed
- 0006 - operator replied NO to IXC501A or IXC560A
- 0007 - another sysplex is now using the coupling facility
- 0008 - coupling facility operation failed
- 0009 - takeover prohibited

System action: The CFRM active policy is updated to reflect the current state of the coupling facility.

When the system lost connectivity to the coupling facility, message IXC568I will be issued to indicate what is being done to recover.

Operator response: Notify the system programmer.

System programmer response: Determine that the CFRM active policy and the configuration of the coupling facility are correct, and both of them properly identify the same coupling facility. If a CFRM policy change is required, use the XCF administrative data utility (IXCMIAPU) to define the policy and start the CFRM administrative policy either by issuing the SETXCF START,POLICY,TYPE=CFRM,POLNAME=polname operator command or by specifying CFRMPOL(polname) in the COUPLExx parmlib member, which is used to IPL the system.

The CFRMPOL(polname) option is only applicable if there is no other previously-activated CFRM policy in effect. By specifying a CFRM policy to be started at IPL-time, you can initialize your sysplex in the global resource serialization star mode when there is no previously-activated CFRM policy, if the CFRM policy started contains the ISGLOCK structure, which is required for the GRS star mode.

If TAKEOVER PROHIBITED is the reason why this system was not allowed to gain ownership of the coupling facility, and there is no doubt that the coupling facility is the correct coupling facility and not currently in use, reactivate or reset the coupling facility from the HMC. The sysplex will gain ownership of the coupling facility once it is up and running again with a zero authority. Alternatively, IPL a system into the sysplex with a COUPLExx parmlib member that specifies CFRMTAKEOVERCF(PROMPT). The system will prompt for the coupling facility. A YES response to the prompts will allow the sysplex to gain ownership of the coupling facility.

If the message text includes one of the following inserts, the system that issues the message may end up being connected to the coupling facility without being able to use it:

- OPERATOR REPLIED NO TO IXC501A OR IXC560A
- ERROR IN GAIN OWNERSHIP PROCESS

When a system is connected to a coupling facility without using it, determine whether or not the system should be connected to the coupling facility. If the system does not require connectivity to the coupling facility, the channel paths should be configured offline. If the system should be connected to the coupling facility, either re-IPL the system or remove the coupling facility from the CFRM active policy and then add it back in. For additional information, see 'Removing a coupling facility from the configuration' in *z/OS MVS Setting Up a Sysplex*.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2INT

Routing code: 2, 10

Descriptor code: 12

IXC519E COUPLING FACILITY DAMAGE RECOGNIZED FOR COUPLING FACILITY *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid* **NAMED** *cfname*

Explanation: Indicates that the coupling facility has suffered a permanent failure. The coupling facility which is damaged is identified by the node descriptor. See mapping IXLYNDE. All the structures allocated in this coupling facility are marked failed in the CFRM active policy and the connected users notified via the event exit. Based on the structure the connected users may be able to recover assuming another coupling facility is available.

In the message text:

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

cfname
Name of coupling facility from the CFRM active policy

System action: The CFRM active policy is updated to reflect the current state of the coupling facility. Processing continues but depending on the structures allocated in the failed coupling facility, using subsystems may require further operator intervention.

Operator response: Notify the system programmer.

System programmer response: Look in the logrec error records for problems with the coupling facility. Contact the IBM Support Center. Provide the logrec error records and the XCF and XES component trace.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2LSC

Routing code: 2, 10

Descriptor code: 11

IXC520I SYSTEM *sysname* **NOT USING COUPLE DATA SET FOR CFRM REASON:** *text*

Explanation: Indicates why a system cannot use the couple data set for CFRM. If the reason is XES function not available, since the couple data set for CFRM is only used to manage this resource the data set is not needed by this system. If the reason is couple data set has the wrong version, then the installation should format another couple data set for CFRM then use the SETXCF COUPLE operator command to make the data set available to the sysplex.

In the message text:

sysname
Name of the system which is not using the couple data set for CFRM.

XES FUNCTION NOT AVAILABLE
The XES function is not available to this system. This can be because the necessary hardware is not present.

PRIMARY COUPLE DATA SET HAS THE WRONG VERSION
The primary couple data set was formatted with a version of the CFRM format utility exit that is not supported by this system. The CFRM format utility exit is invoked by the XCF couple data set format utility.

ALTERNATE COUPLE DATA SET HAS THE WRONG VERSION
The alternate couple data set was formatted with a version of the CFRM format utility exit that is not supported by this system. The CFRM format utility exit is invoked by the XCF couple data set format utility.

System action: Processing continues.

- If the reason was **XES function not available** then this system will not support using the DISPLAY XCF CF or STR operator commands to provide information and the SETXCF START, STOP, or POLICY TYPE=CFRM will not effect the CFRM policy.
- If the reason is **alternate couple data set has the wrong version**, then the sysplex is running with only the primary couple data set. Loss of the primary will result in the system loading a non-restartable wait. System availability may be impacted if the installation does not provide a suitable couple data set for CFRM as an alternate.
- If the reason is **primary couple data set has the wrong version**, then the sysplex is running without the couple data set for CFRM which is required to use XES services. XES services will not be available until a primary couple data set for CFRM is provided.

Operator response: Notify the system programmer.

System programmer response: If the XES function is expected to be available look in the logrec error records for problems with the XES function. Contact the IBM Support Center. Provide the logrec error records and the XCF and XES component trace. If the alternate couple data set for CFRM can not be used then run the XCF administrative data utility using the report option to determine the options used in formatting the primary and the rejected alternate couple data sets for CFRM. The alternate data set must have been formatted with options equal to or greater than the primary data set. Format a new data set then use the SETXCF COUPLE operator command to make the data set available to the sysplex as an alternate.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2FDF

Routing code: 2, 10

Descriptor code: 12

IXC521I REBUILD FOR STRUCTURE *strname action*

Explanation: Information is provided to indicate the status of structure rebuild processing. The type of process is either rebuild or duplexing rebuild and the method is user-managed.

In the message text:

strname
Name of the structure for which information is recorded.

action
One of the following:

HAS BEEN COMPLETED
Structure rebuild processing has completed.

HAS BEEN STOPPED
Structure rebuild processing has been stopped.

HAS REACHED THE DUPLEXING ESTABLISHED PHASE
The user-managed duplexing rebuild has reached the duplexing established phase.

HAS BEEN STARTED
Structure rebuild processing has started.

IXC522I

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD, IXCL2RHT, IXCL2RSR

Routing code: 2

Descriptor code: 5

IXC522I *rebuildtype* **FOR STRUCTURE** *strname* **IS BEING STOPPED** *action* **DUE TO** *reason* **[***codetype stopcode***]**

Explanation: A structure rebuild process is being stopped.

In the message text:

rebuildtype
One of the following:

REBUILD
A structure rebuild process is being stopped. The type of process is either rebuild or duplexing rebuild and the method is user-managed.

SYSTEM-MANAGED REBUILD
A system-managed rebuild is being stopped.

PENDING REBUILD
A pending rebuild from a POPULATECF rebuild request is being stopped.

SYSTEM-MANAGED DUPLEXING REBUILD
A system-managed duplexing rebuild is being stopped.

strname
Name of the structure for which information is recorded.

action
The action that is taken when the rebuild process is stopped. *action* is one of the following:

TO FALL BACK TO THE OLD STRUCTURE
The rebuild process is stopping to fall back to the old structure.

TO SWITCH TO THE NEW STRUCTURE
The rebuild process is stopping to switch to the new structure.

blank
The rebuild process is stopping because the target structure is being deallocated, due to disconnect of the last connector.

reason
One of the following:

LOSS OF CONNECTIVITY TO THE OLD STRUCTURE
The reason specified for stopping the rebuild process was lost connectivity to the coupling facility where the old structure was located.

LOSS OF CONNECTIVITY TO THE NEW STRUCTURE
The reason specified for stopping the rebuild process was lost connectivity to the coupling facility where the new structure was located.

FAILURE OF THE OLD STRUCTURE
The reason specified for stopping the rebuild process was structure failure of the old structure.

FAILURE OF THE NEW STRUCTURE
The reason specified for stopping the rebuild process was structure failure of the new structure.

CONNECTOR SPECIFIC REASON
The reason specified for stopping the rebuild process was provided by the issuer of IXLREBLD. IXLREBLD is the programming interface for structure rebuild processing.

REQUEST FROM AN OPERATOR
The reason specified for stopping the rebuild process was the operator issuing the SETXCF STOP,REBUILD command.

NO COUPLING FACILITY PROVIDING BETTER CONNECTIVITY
No other facility has better connectivity than the current one. The rebuild, which was initiated because of a loss of connectivity, would cause a further degradation in connectivity if accepted. The system evaluated the set of active connections that lost connectivity to the current structure as compared with the set of active connections that would not be able to connect to the rebuild new structure. The system terminates structure rebuild processing because the result of the rebuild would cause additional active connections to lose connectivity.

NO COUPLING FACILITY PROVIDING BETTER OR EQUIVALENT CONNECTIVITY
No other facility has better connectivity than the current one. The rebuild would cause a degradation in connectivity as determined by SFM system weights, if accepted.

Note: When this reason is received for an operator-initiated rebuild by STRNAME or CFNAME and the installation needs to rebuild the structures, a SETXCF START,REBUILD command specifying LESSCONN=CONTINUE can be used to force the rebuild to continue despite this condition. Because this might cause active connections to the structure to lose connectivity to the structure, do not use LESSCONN=CONTINUE unless you understand the impact to the application or subsystem. Consult the application or subsystem documentation for recommendations.

THE SPECIFIED POPULATECF IS LESS SUITABLE
The specified PopulateCF is less suitable than the coupling facility where the structure is currently allocated.

A CHANGE IN THE CFRM ACTIVE POLICY FOR THE STRUCTURE
The reason specified for stopping the rebuild process was a change in either the CFRM active policy DUPLEX specification for the structure or a change in the structure preference list such that the facility in which either the old or new structure is allocated is no longer in the preference list. When the CFRM active policy DUPLEX specification for a structure is changed to DUPLEX(DISABLED) for a change policy request, duplexing rebuild is stopped by MVS when the change is processed. Duplexing rebuild is also stopped when the facility in which the old or new structure is allocated is removed from the preference list.

LOSS OF CONNECTIVITY TO THE STRUCTURE
The reason specified for stopping the rebuild process was lost connectivity to either the coupling facility where the old structure was allocated or the coupling facility where the new structure was allocated.

FAILURE OF THE STRUCTURE
The reason specified for stopping the rebuild process was structure failure of either the new or the old structure.

INSUFFICIENT CONNECTIVITY DUE TO CHANGE IN THE SET OF CONNECTORS
The reason specified for stopping the rebuild process was insufficient connectivity due to a change in the set of connectors.

FAILURE OF A SYSTEM-MANAGED PROCESS PHASE
A phase of a system-managed process was unsuccessful. Message IXC573I may have been issued to provide additional information.

CONNECTOR DISCONNECTED FROM STRUCTURE
The rebuild was stopped in response to a connection disconnecting from the structure. A user-managed rebuild cannot continue after the last connector disconnects, even if the structure persists.

DEALLOCATION OF THE STRUCTURE
The rebuild was stopped because the structure was deallocated (for example, the last connector disconnected from a non-persistent structure).

DUMP SERIALIZATION HELD ON STRUCTURE
The rebuild was stopped because dump serialization prevented access to either the old or the new structure instance.

UNEXPECTED ERROR
The rebuild was stopped due to an unexpected error condition.

FAILURE OF A DUPLEXED REQUEST
The system-managed duplexing rebuild was stopped due to the failure of a duplexed request.

INABILITY TO PRESERVE DUPLEXING
The system-managed duplexing rebuild was stopped to allow the first connection to the structure after a

total loss of connectivity to a coupling facility containing an instance of the duplexed pair or after a sysplex failure. To preserve duplexing, both instances of the duplexed pair must be accessible to the system where the first connection to the structure is running.

DETECTION OF A DUPLEX OUT OF SYNCH CONDITION
The system-managed duplexing rebuild was stopped due to the detection of an out of synch condition. The condition is detected by a duplexed request issued during the duplex established phase of a system-managed duplexing rebuild. Both structure instances are no longer usable and are failed by the system.

CONNECTOR HANG
The rebuild was stopped in an attempt to relieve a connector hang during the processing of a rebuild-related event. The system has issued message IXL040E or IXL041E to report the failure of the connector to provide an expected response to the event. The SFM policy specifies a value of CFSTRHANGTIME that permits the system to take automatic action to relieve connector hangs.

STRUCTURE INSTANCE DID NOT HAVE ANY AVAILABLE CONIDS
The duplexing rebuild was stopped because a structure instance did not have any available connection identifiers.

CONNECTOR DID NOT ALLOW USER LIMIT CHANGES
The duplexing rebuild was stopped because a connector connected and did not specify MAXCONN on the IXLCONN invocation.

STRUCTURE OBJECTS IN STORAGE-CLASS MEMORY
The duplexing rebuild was stopped because of usage of storage-class memory.

STRUCTURE FULL
The rebuild was stopped because the new structure instance is full. This may happen when copying structure objects to the new structure instance requires SCM-related resources that cannot be allocated. Rebuild the structure after updating the structure sizing in the CFRM policy to accommodate more structure objects.

codetype
One of the following:

USER CODE:
The stop code was specified by a user.

SYSTEM CODE:
The stop code was specified by the system.

stopcode
When the rebuild is stopped due to CONNECTOR SPECIFIC REASON, this is the USERCODE specified by the issuer of the IXLREBLD STOP request. Consult the documentation for the application that initiated the the rebuild for the meaning of this value.

When the rebuild was stopped due to FAILURE OF A SYSTEM-MANAGED PROCESS PHASE, FAILURE OF A DUPLEXED REQUEST, DETECTION OF A DUPLEX OUT OF SYNC CONDITION, or CONNECTOR HANG, this is an internal value indicating the reason for the rebuild stop, and is diagnostic data provided to help IBM service personnel with problem determination.

System action: The system stops the rebuild process for the structure as indicated. Depending on the reason for stopping the rebuild process, other actions may be initiated when the stop of the current rebuild process completes. For example, if the structure is to be duplexed as indicated by a CFRM policy DUPLEX(ENABLED) specification, the system may initiate a duplexing rebuild when the current rebuild process is stopped.

Operator response: If the rebuild process was stopped due to a problem in allocating or connecting to the rebuild new structure, gather the information that the system programmer will need to determine the cause of the problem and correct it. In particular, messages (such as IXL013I, IXL015I, IXC573I, or IXC574I) may have been issued to the hardcopy log to document any rebuild connection failures or rebuild new structure allocation failures which may have occurred, and caused the rebuild process to be stopped. The hardcopy log around the time of the failure should be provided.

System programmer response: If the rebuild process was stopped due to a problem with connectors connecting to the rebuild new structure or a problem in allocating the rebuild new structure, this message will have been preceded by message IXL013I, IXL015I, IXC573I, or IXC574I. Look for these messages in the hardcopy log. They contain more

detailed information about the connection failure or the allocation failure that caused the rebuild process to be stopped. Using this information, determine the cause of the rebuild failure, and if desired, correct the problem and re-start the rebuild process.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ASR, IXCL2BLD, IXCL2RSR

Routing code: 2

Descriptor code: 5

IXC523I STRUCTURE(S) FOUND FROM SYSPLEX *plexname* **IN COUPLING FACILITY NAMED** *cfname*

Explanation: Structures from another sysplex may be deallocated at this time. All structures from sysplex *plexname* will be kept or deleted based on reply to IXC508A.

In the message text:

plexname
Name of the sysplex from which structures were found.

cfname
Name of the coupling facility from the CFRM active policy in which the structures were found.

System action: Message IXC508A is issued.

Operator response: Notify the system programmer.

System programmer response: See message IXC508A.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2RC

Routing code: 1,10

Descriptor code: 2

IXC526I STRUCTURE *strname* **IS REBUILDING FROM COUPLING FACILITY** *oldcfname* **TO COUPLING FACILITY** *newcfname***. REBUILD START REASON:** *text* **INFO108:** *data1 data2***.**

Explanation: XCF has chosen a facility to contain the structure that is being rebuilt. This facility might or might not be the same facility in which the structure resided previously.

In the message text:

strname
Name of the structure.

oldcfname
Name of the coupling facility that contains the old copy of the structure being rebuilt.

newcfname
Name of the coupling facility that contains the new copy of the structure being rebuilt.

CONNECTIVITY LOST TO STRUCTURE
The user who initiated the rebuild has indicated that the structure should be rebuilt because loss of connectivity has occurred. Note that loss of connectivity may or may not have occurred. Rebuild processing does NOT verify the reason indicated by the user.

STRUCTURE FAILURE
The user who initiated the rebuild has indicated that the structure should be rebuilt because structure failure has occurred. Note that structure failure might or might not have occurred. Rebuild processing does not verify the reason indicated by the user.

CONNECTOR-SPECIFIED REASON
The user who initiated the rebuild specified its own reason for the rebuild. Consult the documentation for the application that initiated the rebuild for the meaning of this value.

OPERATOR INITIATED
The user who initiated the rebuild has indicated that the rebuild was initiated in response to an operator request. Note that the user who initiated the rebuild might or might not actually be processing an operator request; rebuild processing does not verify the reason indicated by the user.

data1
Data to be used by IBM if this message contains unexpected information.

data2
Data to be used by IBM if this message contains unexpected information.

System action: System processing continues.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 10

Descriptor code: 12

IXC527I THE REBUILD OF *totalrebstr* **STRUCTURES IN COUPLING FACILITY** *cfname* **COULD NOT BE {STARTED|STOPPED}. SPECIFIC ERROR MESSAGES FOLLOW. THREAD:** *thread*

Explanation: For START of structure rebuild processing, all structures in a coupling facility are examined to determine if the requested type (rebuild or duplexing rebuild) can be started for the structure. Message IXC528I will be issued for each structure that could not have structure rebuild processing started. For STOP of structure rebuild processing, all structures in a coupling facility with the requested type (rebuild or duplexing rebuild) of structure rebuild in progress are examined to determine if the process can be stopped. Message IXC528I will be issued for each structure that could not have structure rebuild processing stopped.

In the message text:

totalrebstr
Total number of structures for which the rebuild request could not be processed.

cfname
The name of the coupling facility.

STARTED
The request was to start structure rebuild processing.

STOPPED
The request was to stop in progess structure rebuild processing.

thread
Used to tie together messages and XCF component trace records for a particular coupling facility process.

System action: Structure rebuild processing continues or terminates for those structures for which the process was successfully started or stopped.

Operator response: Contact the system programmer for advice and assistance in determining whether to manually move the structures or cancelling the rest of the CFNAME level rebuild. Ensure the related IXC528I messages are preserved for the system programmer to use in determining next action.

System programmer response: Examine the related IXC528I messages for the correct next action. Note that depending on the application using the structure, the structure rebuild process may not be supported. Consult the application or subsystem documentation for recommendations.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD

Routing code: 10

Descriptor code: 12

IXC528I THE REBUILD OF STRUCTURE *strname* **IN COUPLING FACILITY** *cfname* **COULD NOT BE {STARTED | STOPPED}:** *reason* **THREAD:** *thread*

Explanation: A request was made to start structure rebuild processing or to stop in progress structure rebuild processing for all structures in one or more coupling facilities, but the request was not successful for one or more of the structures in that coupling facility. Structure rebuild processing type can be either rebuild or duplexing rebuild. The request was either due to a SETXCF command or invocation of an IXLREBLD macro.

For rebuild one of the following was specified:

- SETXCF START/STOP REBUILD
- IXLREBLD REQUEST=START/STOP

For duplexing rebuild one of the following was specified:

- SETXCF START/STOP,REBUILD,DUPLEX
- IXLREBLD REQUEST=STARTDUPLEX/STOPDUPLEX

In the message text:

strname
The name of the structure.

cfname
The name of the coupling facility.

STARTED
The request was to start structure rebuild processing.

STOPPED
The request was to stop structure rebuild processing.

reason
One of the following:

STRUCTURE NOT DEFINED IN THE CFRM ACTIVE POLICY
The structure is not defined in the CFRM active policy and therefore is not allocated in any coupling facility.

STRUCTURE NOT ALLOCATED
The structure is not allocated in any coupling facility.

REBUILD HAS ALREADY BEEN INITIATED FOR THE STRUCTURE
The structure rebuild process is already in progress for the structure. Use the DISPLAY XCF,STR command to determine the type (rebuild or duplexing rebuild0 and method (user-managed or system-managed) of the structure rebuild process.

REBUILD STOP HAS ALREADY BEEN INITIATED FOR THE STRUCTURE
Stop has already been initiated for the structure rebuild process.

AT LEAST ONE ACTIVE CONNECTION INDICATED THAT REBUILD IS NOT ALLOWED
Rebuild not permitted because IXLCONN with ALLOWREBLD=NO was specified by at least one active connection.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

NO ACTIVE CONNECTIONS TO THE STRUCTURE
The rebuild request would have resulted in a user-managed rebuild, but the structure has no active connectors to participate in rebuild.

REBUILD STOP IS IN PROGRESS FOR THE STRUCTURE
Rebuild stop is in progress for the structure.

STRUCTURE NOT IN REBUILD PROCESS
The structure is not in the rebuild process.

CLEANUP HAS BEGUN, REBUILD CANNOT BE STOPPED NOW
Rebuild has entered the cleanup phase. Rebuild cannot be stopped now.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware necessary to provide XES functions is not present.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during rebuild processing.

NO ELIGIBLE STRUCTURES FOUND IN COUPLING FACILITY
On a rebuild start request, no structures eligible for rebuild were found in the coupling facility specified. On a rebuild stop request, no structures eligible for rebuild stop were found in the coupling facility specified.

COUPLING FACILITY NOT DEFINED IN THE CFRM ACTIVE POLICY
The coupling facility is not defined in the CFRM active policy.

NO COUPLING FACILITY PROVIDED BETTER CONNECTIVITY
No other facility has better connectivity than the current one. The rebuild, which was initiated because of a loss of connectivity, would cause a further degradation in connectivity if accepted. The system evaluated the set of active connections that lost connectivity to the current structure as compared with the set of active connections that would not be able to connect to the rebuild new structure. The system terminates structure rebuild processing because the result of the rebuild would cause additional active connections to lose connectivity.

NO COUPLING FACILITY PROVIDED BETTER OR EQUIVALENT CONNECTIVITY
No other facility has better connectivity than the current one. The rebuild would cause a degradation in connectivity as determined by SFM system weights, if accepted.

Note: When this reason is received for an operator initiated rebuild by STRNAME or CFNAME and the installation needs to rebuild the structures, a SETXCF START,REBUILD command specifying LESSCONN=CONTINUE can be used to force the rebuild to continue despite this condition. Because this might cause active connections to the structure to lose connectivity to the structure, do not use LESSCONN=CONTINUE unless you understand the impact to the application or subsystem. Consult the application or subsystem documentation for recommendations.

XCF SIGNALLING STRUCTURES CANNOT BE REBUILT USING CFNAME KEYWORD
Due to the availability constraints of XCF Signalling Structures, these structures cannot be rebuilt using the CFNAME option. They must be rebuilt individually using the STRNAME option.

DUPLEXING REBUILD NOT ALLOWED FOR THE STRUCTURE
The structure does not support duplexing rebuild for one of the following reasons:

- DUPLEX(DISABLED) was specified or defaulted to in the CFRM active policy for the structure.
- There are failed-persistent connections that are unavailable until a larger CFRM couple data set is made available.
- A user-managed duplexing rebuild could not be started because:
  - User-managed duplexing rebuilds are not supported for the structure type.
  - At least one active or failed-persistent connection specified or defaulted to IXLCONN ALLOWDUPREBLD=NO.
- A system-managed duplexing rebuild could not be started because:
  - The structure has at least one active connector, and none of the connectors (active or failed-persistent) specified IXLCONN ALLOWAUTO=YES when connecting.
  - A system-managed duplexing rebuild is not supported when a CFRM policy change is pending for the structure.

TYPE OF STOP REQUEST DOES NOT MATCH TYPE OF REBUILD IN PROGRESS
SETXCF STOP,REBUILD or IXLREBLD REQUEST=STOP was issued to stop a duplexing rebuild OR SETXCF STOP,REBUILD,DUPLEX or IXLREBLD REQUEST=STOPDUPLEX was requested to stop a non-duplexing rebuild.

DUPLEXING NOT ESTABLISHED, CANNOT STOP TO KEEP NEW STRUCTURE
SETXCF STOP,REBUILD,DUPLEX,KEEP=NEW or IXLREBLD REQUEST=STOPDUPLEX KEEP=NEW was requested and the rebuild has not yet entered the duplex established phase. Stop requests to switch to the new structure are not accepted until the rebuild enters the duplex established phase.

ALREADY STOPPING IN THE OTHER DIRECTION
The request to stop a duplexing rebuild was not processed because duplex rebuild stop has already been initiated for this structure name in the other direction. Either KEEP=OLD was requested and KEEP=NEW type of duplex rebuild stop is in progress or KEEP=NEW was requested and KEEP=OLD type of duplex rebuild stop is in progress.

STRUCTURE HAS FAILED
The rebuild start request was rejected for one of the following reasons:

- The request was to start a duplexing rebuild and the structure has failed. Duplexing rebuild is not allowed when the structure is in the failed state.
- The rebuild start request would result in a system-managed rebuild. System-managed rebuild is not allowed when the structure is in the failed state.

NO OTHER COUPLING FACILITY FOUND IN PREFERENCE LIST
On a rebuild start request, either LOCATION=OTHER was specified or defaulted to for a request to start a duplexing rebuild. In addition to avoiding the facility in which the structure is currently allocated, when a duplexing rebuild is stopped by the operator and DUPLEX(ENABLED) is specified in the active policy, the subsequent duplexing request initiated due to DUPLEX(ENABLED) will avoid the coupling facility in which the previous instance of the structure was allocated when the duplexing rebuild was stopped.

STRUCTURE DOES NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure does not support system-managed processes (for example, rebuild) for one of the following reasons:

- The structure was not allocated in a coupling facility at or above the minimum CFLEVEL required for the current process by a system supporting system-managed processing.
- The structure has connections that have not been reconciled into the CFRM active policy.
- Structure cleanup is in progress for the structure.

CONNECTORS DO NOT SUPPORT SYSTEM-MANAGED PROCESSES
The requested system-managed process cannot be initiated for one of the following reasons:

- The structure has at least one active connector, and at least one of the connectors (active or failed-persistent) did not specify IXLCONN ALLOWAUTO=YES when connecting.
- A duplexing rebuild cannot be initiated for a structure that has only failed-persistent connectors, and at least one of the failed-persistent connectors did not specify IXLCONN ALLOWAUTO=YES when connecting.

NO SUITABLE COUPLING FACILITY IN PREFERENCE LIST
The requested system-managed process cannot be initiated for one or more of the following reasons:

- The preference list is empty.
- The preference list contains no other coupling facility at or above the minimum CFLEVEL required for the current process.
- The structure already exists in the only suitable coupling facility. The same coupling facility can only be selected as the target for the system-managed process if a CFRM policy change is pending for the structure and one of the following is true:
  - The policy change does not affect the SIZE or the INITSIZE parameters.
  - The policy change affects the SIZE or the INITSIZE parameter and all of the structure connectors specified IXLCONN ALLOWALTER=YES.
- A potentially suitable coupling facility does not permit structure allocation.

START REASON INAPPROPRIATE FOR SYSTEM-MANAGED PROCESS
An IXLREBLD REQUEST=START invocation would have resulted in system-managed processing (for example, rebuild). The request specified a STARTREASON of LOSSCONN or STRFAILURE, which are not valid reasons for the requested process.

AT LEAST ONE CONNECTOR HAS LOST CONNECTIVITY TO THE STRUCTURE
The requested system-managed process (for example, rebuild) cannot be initiated because one or more of the connectors to the target structure has lost connectivity to the coupling facility containing the target structure.

CFRM COUPLE DATA SET DOES NOT SUPPORT SYSTEM-MANAGED PROCESS
The CFRM couple data set does not support the requested system-managed process (for example, rebuild) because the CFRM couple data set was not formatted at or above the minimum version for the

system-managed process requested. Use the DISPLAY XCF,COUPLE,TYPE=CFRM command to determine the format of the CFRM couple data set. To support system-managed rebuild the CFRM couple data set should be formatted specifying "ITEM NAME(SMREBLD) NUMBER(1)". For system-managed duplexing rebuild, "ITEM NAME(SMDUPLEX) NUMBER(1)" should also be specified when formatting a CFRM couple data set. Specifying "ITEM NAME(SMDUPLEX) NUMBER(1)" implicitly formats a CFRM couple data set that supports both system-managed rebuild and system-managed duplexing rebuild.

STRUCTURE WITH NO CONNECTORS HAS NEVER BEEN SYSTEM-MANAGED DUPLEXED
A system-managed duplexing rebuild cannot be initiated because there are no connections to the structure and the structure has not previously been duplexed using system-managed processing.

ALLOCATION OF REBUILD NEW STRUCTURE FOR DUPLEXING REBUILD NOT FEASIBLE
Allocation of the rebuild new structure instance in support of a duplexing rebuild is not feasible. Message IXC574I will contain additional diagnostic information.

STRUCTURE OBJECTS IN STORAGE-CLASS MEMORY
The duplexing rebuild could not be started because storage-class memory is in use.

thread
Used to tie together messages and XCF component trace records for a particular coupling facility rebuild process.

System action: The system does not process the request for that structure. Requested processing continues for those structures which had structure rebuild processing successfully started or stopped.

Operator response: Contact the system programmer for advice and assistance in determining whether to manually move the structures or cancel the rest of the CFNAME level rebuild. Ensure the IXC528I messages are preserved for the system programmer to use in determining next action.

System programmer response: Examine the IXC528I messages for the correct next action. Note that depending on the application using the structure, structure rebuild may not be possible. Consult the application or subsystem documentation for recommendations.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD

Routing code: 10

Descriptor code: 12

IXC529I **DUPLEX REBUILD NEW STRUCTURE** *strname* **IS BEING ALLOCATED IN COUPLING FACILITY** *newcfname* **OLD STRUCTURE IS ALLOCATED IN COUPLING FACILITY** *oldcfname***. REBUILD START REASON:** *reason* **INFO108:** *data1 data2*

Explanation: XCF has chosen a facility to contain the duplexing rebuild new structure.

In the message text:

strname
The name of the structure

newcfname
The name of the coupling facility that contains the duplexing rebuild new structure.

oldcfname
The name of the coupling facility that contains the duplexing rebuild old structure.

reason
One of the following:

CONNECTIVITY LOST TO STRUCTURE
The user who initiated the duplexing rebuild has indicated that the structure should be rebuilt because loss of connectivity has occurred. Duplexing rebuild processing does not verify the reason indicated by the user.

STRUCTURE FAILURE
The user who initiated the duplexing rebuild has indicated that the structure should be rebuilt because structure failure has occurred. Note that structure failure may or may not have occurred. Duplexing rebuild processing does not verify the reason indicated by the user.

CONNECTOR-SPECIFIED REASON:
The user who initiated the duplexing rebuild specified its own reason for the rebuild. Consult the documentation for the application that initiated the duplexing rebuild for the meaning of this value.

OPERATOR INITIATED
The user who initiated the duplexing rebuild or duplexing rebuild stop has indicated that he is the operator. Note that the user who initiated the duplexing rebuild or duplexing rebuild stop may or may not be the operator. Duplexing rebuild processing does not verify the reason indicated by the user.

MVS INITIATED BASED ON POLICY
The duplexing rebuild was initiated by MVS based on the specification of the DUPLEX option in the CFRM active policy. A specification of DUPLEX(ENABLED) will cause MVS to attempt to establish or re-establish duplexing as necessary.

data1
Data to be used by IBM if this message contains unexpected information.

data2
Data to be used by IBM if this message contains unexpected information.

System action: Duplex rebuild processing continues.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2AAL

Routing code: 2

Descriptor code: 5

IXC530I [START|STOP] ALTER REQUEST FOR STRUCTURE *strname* **ACCEPTED**
[TARGET SIZE: size u]
[TARGET ENTRY:ELEMENT RATIO: ents : elems]
[TARGET EMC STORAGE: emcs %]

Explanation: Either the operator, the system, or the program issued a request to start or stop the alteration of a structure. The request was accepted.

In the message text:

START

The SETXCF START,ALTER,STRNAME=*strname*,SIZE=*size* request command was issued to adjust the size of the structure, or a program-initiated IXLALTER request was received by the system, or a system-initiated alter process was started for the structure. The requested targets may be provided in the message when IXALTER was used by a program to start the alter.

STOP

The SETXCF STOP,ALTER,STRNAME=*strname* command was issued to end structure alter processing, or an IXLALTER request was issued to end structure alter processing.

strname
The name of the structure.

size
The target size of the structure and is issued only when the program is requesting a size change.

u The integer size unit specification. One of the following:

- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, a size of 1048576 K may be converted to a size of 1 G for the purpose of messages. A size of 120000 K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

ents
The entry portion of the "entry to element" ratio and is issued only when the program is requesting an entry to element ratio change.

elems
The element portion of the "entry to element" ratio.

emcs
The target EMC storage percentage and is issued only when the program is requesting an EMC storage percentage change.

System action: System processing continues. The request is processed asynchronously on a system in the sysplex that is capable of performing the function and that has connectivity to the coupling facility containing the structure. Structure alter processing issues message IXC532I or IXC533I to indicate an operator-initiated request, message IXC534I to indicate a program-initiated request, and message IXC590I to indicate a system-initiated request.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT

Routing code: 2 Note 13

Descriptor code: 5

IXC531I SETXCF [START|STOP] ALTER REQUEST FOR STRUCTURE *strname* **REJECTED. REASON:** *text*

Explanation: The operator issued a SETXCF command to start or stop a structure alter. The request was rejected.

In the message text:

START
The request is to start structure alter.

STOP
The request is to stop structure alter.

strname
The name of the structure.

text
The reason the request was rejected. *text* is one of the following:

XES FUNCTION NOT AVAILABLE
The XES function is not available to this system. This could be because the necessary hardware is not present. The request should be routed to a system that is capable of processing a structure alter request.

STRUCTURE NOT IN THE CFRM ACTIVE POLICY
The structure is not defined in the CFRM active policy. The structure must be in the CFRM active policy and allocated in order to proceed with the structure alter request.

STRUCTURE NOT ALLOCATED
The specified structure is not allocated. The structure must be in the CFRM active policy and allocated in order to proceed with the structure alter request.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The CFRM couple data set is not available to this system. The CFRM couple data set must be made available to this system or the request should be routed to a system that is capable of processing a structure alter request.

REBUILD IN PROGRESS
The specified structure is in a structure rebuild process and structure alter is not allowed. Either wait for the process to complete or to reach the duplex established phase before requesting the structure alter or stop the structure rebuild process.

REBUILD STOP IN PROGRESS
The specified structure is in the rebuild stop process. Structure alter is not allowed while rebuild stop is in progress. Reissue the structure alter request when the rebuild stop is complete.

COUPLING FACILITY DOES NOT SUPPORT ALTER
The specified structure is allocated in a coupling facility that does not support structure alter. The structure must be rebuilt or reallocated in a coupling facility that supports structure alter (CFLEVEL equal to one).

ALTER ALREADY IN PROGRESS
The structure alter start request cannot be performed because structure alter is in progress. Either wait for the structure alter to complete or issue SETXCF to stop the structure alter.

AT LEAST ONE CONNECTION INDICATED THAT ALTER IS NOT ALLOWED
The structure alter start request cannot be performed because at least one active, failing, or failed-persistent connection indicated that it does not support structure alter. Issue DISPLAY XCF,STR,STRNAME=*structure name*,CONNAME=ALL to display connection information. Use this information to determine which connections do not allow structure alter.

STRUCTURE NOT IN ALTER PROCESS
The structure alter stop request cannot be performed because the structure is not being altered.

AN UNEXPECTED ERROR OCCURRED
The structure alter request cannot be performed because an unexpected error occurred in alter processing.

ALTER STOP ALREADY IN PROGRESS
The structure alter stop request cannot be performed because an alter stop request is already in progress for the structure.

STRUCTURE FAILED
The structure alter request cannot be performed because the structure has failed.

SYSTEM-MANAGED DUPLEXING REBUILD IS IN DUPLEX ESTABLISHED PHASE
The structure alter stop request cannot be performed because the structure is in the duplex established phase of a system-managed duplexing rebuild process. Either wait for the structure alter to complete or stop the duplexing rebuild.

START ALTER NOT PERMITTED
CF structure alter processing has been disabled; start alter is not permitted. If you no longer want to disable CF structure alter processing for this structure, use the SETXCF MODIFY command to permit starting CF structure alter processing.

STORAGE-CLASS MEMORY RELATED RESOURCES IN USE
The coupling facility has migrated structure objects into storage-class memory to avoid a structure-full condition. Alter is not permitted until all structure objects have been migrated from storage-class memory back into coupling facility real storage and all associated resources have been released.

CF INITIATED ALTER IN PROGRESS
The structure alter stop request cannot be performed because the alter was initiated by the coupling facility. Either wait for the structure alter to complete or rebuild the structure.

System action: System processing continues. The SETXCF command was rejected.

Operator response: Notify the system programmer.

System programmer response: Where applicable, take action described for the specific rejection reason.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT, IXCL2TSK

Routing code: 5

Descriptor code: -

IXC532I REQUEST TO ALTER STRUCTURE *strname text*

Explanation: The structure alter processing that is either operator-initiated, program-initiated or system-initiated has ended prematurely.

In the message text:

strname
The name of the structure

text
One of the following:

ENDED. STRUCTURE FAILED.
The structure alter request ended because the structure failed.

ENDED. REQUESTED ATTRIBUTES INCONSISTENT WITH ALLOCATED STRUCTURE.
Structure alter processing ended because the requested attributes are inconsistent with the allocated structure. This condition is encountered only with a request to change the entry-to-element ratio.

ENDED. NO CONNECTIVITY TO STRUCTURE.
Structure alter processing ended because all systems that are capable of performing structure alter processing do not have connectivity to the coupling facility containing the structure.

ENDED. REBUILD STARTED.
The structure alter request ended because of a rebuild request for the same structure.

ENDED. STRUCTURE HAS BEEN DEALLOCATED.
The structure alter request ended because of the deallocation of the structure.

ENDED. ALTER STOPPED BEFORE ANY CHANGES TO THE STRUCTURE OCCURRED.
The structure alter processing ended because of a request to stop alter processing. This request was processed before any coupling facility operations with respect to the alter request could be performed. The structure was not changed by the initial alter request.

text **is blank**
A rebuild is not in progress so no further information is given.

ALTER OF REBUILD-OLD STRUCTURE INSTANCE WAS ATTEMPTED.
The structure alter request that ended was processing the Rebuild-Old structure instance during a duplexing rebuild.

ALTER OF REBUILD-NEW STRUCTURE INSTANCE WAS ATTEMPTED.
The structure alter request that ended was processing the Rebuild-New structure instance during a duplexing rebuild.

System action: System processing continues.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT

Routing code: 2

Descriptor code: 5

IXC533I SETXCF REQUEST TO ALTER STRUCTURE *strname text* **CURRENT SIZE:** *currentsize u* **TARGET:** *targetsize u*

Explanation: The operator-initiated structure alter processing has finished.

In the message text:

strname
The name of the structure

text
One of the following:

COMPLETED. TARGET ATTAINED.
Structure alter processing completed and the requested target was attained. If a size change was requested, the target structure size might have been rounded to a storage increment boundary or bounded to the minimum structure size.

COMPLETED. TARGET NOT ATTAINED.
Structure alter processing completed and the requested target was not attained. If the operator has stopped an alter that was initiated with the IXLALTER macro, it is possible that the current structure size matches the target structure size. The IXLALTER must have been requesting a change to the ratio in this case.

Message IXC534I contains the complete size, entry count, and element count information. IXC534I is written to the system log only.

- The target might not have been attained when contracting the structure because the entry/elements are in use and cannot be removed from the structure or because, if the entry/elements that are not in use are removed, the size of the structure would fall below the connector-specified minimum entry and element percentage of free space.
- The target might not have been attained when expanding the structure because there was not enough available space in the coupling facility.
- A structure allocated with the capability to use storage-class memory requires a minimum number of entries and elements. A target size cannot be attained if it would not support at least the minimum counts.
- Structure alter processing cannot continue when a structure is using storage-class memory. The use of storage-class memory may have caused alter processing to complete prematurely.

text **is blank.**
A duplexing rebuild is not in progress so no further information is given.

ALTER OF REBUILD-OLD STRUCTURE INSTANCE WAS COMPLETED.
The structure alter request that ended was processing the Rebuild-Old structure instance during a duplexing rebuild.

ALTER OF REBUILD-NEW STRUCTURE INSTANCE WAS COMPLETED.
The structure alter request that ended was processing the Rebuild-New structure instance during a duplexing rebuild.

currentsize
The current size of the structure.

u The integer size unit specification. One of the following:

- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, a *currentsize* of 1048576K may be converted to a *currentsize* of 1G for the purpose of messages. A *currentsize* of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

targetsize
The target size of the structure.

System action: System processing continues.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT

Routing code: 5

Descriptor code: -

IXC534I **REQUEST TO ALTER STRUCTURE** *strname text* **CURRENT SIZE:** *currentsize u* **TARGET:** *targetsize u***CURRENT ENTRY COUNT:** *currententrycount* **TARGET:** *targetentrycount* **CURRENT ELEMENT COUNT:** *currentelemcount* **TARGET:** *targetelemcount* **CURRENT EMC COUNT:** *currentemccount* **TARGET:** *targetemccount*

Explanation: The structure alter processing that is either operator-initiated, program-initiated or system-initiated has ended.

In the message text:

strname
The name of the structure

text
One of the following:

COMPLETED. TARGET ATTAINED.
The structure alter processing completed and the requested target was attained.

COMPLETED. TARGET NOT ATTAINED.
The structure alter processing completed and the requested target was not attained. Refer to the documentation for message IXC533I for possible reasons for failure to attain the target.

text **is blank.**
A duplexing rebuild was not in progress so no further information is given.

ALTER OF REBUILD-OLD STRUCTURE INSTANCE WAS COMPLETED.
The structure alter request that ended was processing the Rebuild-Old structure instance during a duplexing rebuild.

ALTER OF REBUILD-NEW STRUCTURE INSTANCE WAS COMPLETED.
The structure alter request that ended was processing the Rebuild-New structure instance during a duplexing rebuild.

currentsize
The size of the structure after alter processing.

u The integer size unit specification. One of the following:

- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, a *currentsize* of 1048576K may be converted to a *currentsize* of 1G for the purpose of messages. A *currentsize* of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

targetsize
The target size of the structure.

current entrycount
The current number of entries. This number is an approximation.

targetentrycount
The target number of entries.

currentelemcount
The current number of elements. This number is an approximation.

targetelemcount
The target number of elements.

System action: System processing continues.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT

Routing code: #

Descriptor code: 10

IXC535I START ADMINISTRATIVE POLICY *polname* **FOR CFRM REJECTED. STRUCTURES MUST BE REMOVED FROM THE FOLLOWING COUPLING FACILITIES:** *cfname*
⋮

Explanation: The operator issued SETXCF START,POLICY,TYPE=CFRM,POLNAME=*polname*. The policy change was rejected.

In the message text:

polname
The name of the policy to be started.

cfname
The name of the coupling facility whose structures must be removed before the change policy request can complete.

System action: System processing continues. The system does not complete the policy change request.

Operator response: The structures in the coupling facilities identified must be removed from the facilities. If possible, rebuild should be initiated for the structures in the identified facilities via the SETXCF START,REBUILD,CFNAME=facility name,LOCATION=OTHER command. If rebuild is not possible, the structure must be deallocated from the coupling facility. For non-persistent structures and connections, this can be accomplished by shutting down the application using the structure. For persistent structures and connections, the application using the structure must be shut down and then the connections and/or the structure must be forced via the SETXCF FORCE,CONNECTION and/or the SETXCF FORCE,STRUCTURE command. The SETXCF START,POLICY,TYPE=CFRM,POLNAME=*polname* command should be reissued once the structures have been removed from the coupling facilities.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2POL

Routing code: #

Descriptor code: 5

IXC536I DUPLEXING REBUILD OF STRUCTURE *strname mvsaction* **REASON:** *reason*

Explanation: Duplexing rebuild is initiated and stopped by MVS in response to various system events. The message text describes the event that prompted MVS to either initiate or stop duplexing rebuild. MVS will initiate duplexing rebuild in response to certain events if the DUPLEX(ENABLED) option is specified in the CFRM active policy for the structure. MVS will stop duplexing rebuild if the CFRM policy DUPLEX option is changed to DISABLED, if the coupling facility in which either the old or new instance of the structure is allocated is removed from the preference list of the structure, or if the CFRM active policy is stopped.

In the message text:

strname
The name of the structure

mvsaction
One of the following:

INITIATED
The duplexing rebuild was initiated by MVS for the reason indicated.

STOPPED TO FALL BACK TO THE OLD STRUCTURE
The duplexing rebuild was stopped by MVS to fall back to the old structure for the reason indicated.

STOPPED TO SWITCH TO THE NEW STRUCTURE
The duplexing rebuild was stopped by MVS to switch to the new structure for the reason indicated.

reason
One of the following:

CONNECTOR CONNECTED TO STRUCTURE
The duplexing rebuild was initiated by MVS in response to a user connecting to a structure.

PREVIOUS REBUILD PROCESS COMPLETED
The duplexing rebuild was initiated by MVS in response to a previous rebuild process completing or a previous rebuild stop process completing.

CONNECTOR FORCED FROM STRUCTURE
The duplexing rebuild was initiated by MVS in response to a connection being forced from the structure.

CONNECTOR DISCONNECTED FROM STRUCTURE
The duplexing rebuild was initiated by MVS in response to a connection disconnecting from the structure.

GAINED CONNECTIVITY TO A COUPLING FACILITY
The duplexing rebuild was initiated by MVS in response to gaining connectivity to a given coupling facility.

COUPLING FACILITY ADDED TO THE PREFERENCE LIST
The duplexing rebuild was initiated by MVS in response to a change policy request that added a coupling facility to the structure preference list.

COUPLING FACILITY DELETED FROM THE PREFERENCE LIST
The duplexing rebuild was stopped by MVS in response to a change policy request that deleted a coupling facility from the structure preference list.

CHANGE IN CFRM ACTIVE POLICY DUPLEX OPTION
The duplexing rebuild was either initiated or stopped by MVS in response to a change policy request that modified the DUPLEX option in the CFRM active policy. A change to specify DUPLEX(ENABLED) will cause MVS to attempt to establish duplexing. A change to specify DUPLEX(DISABLED) will cause MVS to stop duplexing.

CFRM ACTIVE POLICY STOPPED
The duplexing rebuild was stopped by MVS in response to the CFRM active policy being stopped.

SETXCF FORCE COMMAND PROCESSING FOR STRUCTURE
The rebuild is being stopped due to a SETXCF FORCE command issued by the operator.

PROGRAM INITIATED REQUEST TO FORCE STRUCTURE
The rebuild is being stopped due to a program initiated request to force the structure.

ALL CONNECTORS RECONCILED INTO THE POLICY
The duplexing rebuild was initiated by MVS in response to all connectors being reconciled into the active policy.

COUPLING FACILITY GAINED CF-TO-CF LINK CONNECTIVITY
The duplexing rebuild was initiated by MVS in response to a gain in CF-to-CF link connectivity by the coupling facility in which the structure resides.

DUPLEX ENABLED MONITORING IDENTIFIED STRUCTURE
The duplexing rebuild was initiated by MVS as a result of the Duplex Enabled Monitor identifying this structure as one which could be duplexed.

STOP DIRECTION CHANGED FOR SITE RECOVERY MANAGEMENT
The duplexing rebuild stop direction was changed by MVS in order to keep the structure in the coupling facility at the recovery site. Message IXC522I contains the reason why the duplexing rebuild was stopped.

REALLOCATE PROCESSING IDENTIFIED STRUCTURE
The duplexing rebuild was initiated by MVS as a result of REALLOCATE processing identifying this structure as one that could be duplexed.

System action: Duplexing rebuild processing stopped or initiated as indicated.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD

Routing code: 2

Descriptor code: 10

IXC537I ALTER OF STRUCTURE *strname* **COMPLETED FOR REBUILD-OLD INSTANCE, CONTINUING WITH REBUILD-NEW.**

Explanation: Structure alter processing was initiated for a structure that is in duplexing rebuild. The alter is being driven serially, and the alter of the rebuild-old instance has completed, allowing XCF to now alter the rebuild-new instance.

In the message text:

strname
The name of the structure.

System action: System processing continues.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2SLT

Routing code: 10

Descriptor code: -

IXC538I DUPLEXING REBUILD OF STRUCTURE *strname* **WAS NOT {INITIATED|STOPPED} BY MVS. REASON:** *reason*

Explanation: An event occurred that triggers the system to take action to start or stop a duplexing rebuild for the structure. Action was not taken due to the provided reason. This may mean that the environmental conditions required for a duplexing rebuild have not all been met, and may not necessarily require urgent action.

In the message text:

strname
The name of the structure

action
The word **INITIATED** or **STOPPED**

reason
One of the following:

STRUCTURE NOT DEFINED IN THE CFRM ACTIVE POLICY
The structure is not defined in the CFRM active policy and therefore is not allocated in any coupling facility.

STRUCTURE NOT ALLOCATED
The structure is not allocated in any coupling facility.

AT LEAST ONE ACTIVE CONNECTION INDICATED THAT REBUILD IS NOT ALLOWED
Rebuild not permitted because IXLCONN with ALLOWREBLD=NO was specified by at least one active connection.

DEFERRED UNTIL PROCESS COMPLETION
A duplexing rebuild could have been initiated or stopped, but the action is instead deferred. The action is deferred to prevent duplexing rebuild processing from interfering with other potentially more important processing. If necessary, the system will attempt to take action once none of the following processing is in progress: REBUILD (other than the duplex established), REALLOCATE, POPULATECF, and LOSSCONN RECOVERY. The DISPLAY XCF,STRUCTURE,STATUS=(RBPROC,RBPEND,LOSSCONN) can be used to display structures associated with processing that is causing the deferral.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

NO ACTIVE CONNECTIONS TO THE STRUCTURE
The structure has no connectors to participate in rebuild.

REBUILD STOP IS IN PROGRESS FOR THE STRUCTURE
Rebuild stop is in progress for the structure.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware necessary to provide XES functions is not present.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during rebuild processing.

NO ELIGIBLE STRUCTURES FOUND IN COUPLING FACILITY
On a rebuild start request, no structures eligible for rebuild were found in the coupling facility specified. On a rebuild stop request, no structures eligible for rebuild stop were found in the coupling facility specified.

COUPLING FACILITY NOT DEFINED IN THE CFRM ACTIVE POLICY
The coupling facility is not defined in the CFRM active policy.

NO COUPLING FACILITY PROVIDED BETTER CONNECTIVITY
No other coupling facility has better connectivity than the current one. The rebuild, which was initiated due to a loss of connectivity, would cause a further degradation in connectivity if accepted. The system evaluated the set of active connections that lost connectivity to the current structure as compared with the set of active connections that would not be able to connect to the rebuild new structure. The system terminates structure rebuild processing because the result of the rebuild would cause additional active connections to lose connectivity.

NO COUPLING FACILITY PROVIDED BETTER OR EQUIVALENT CONNECTIVITY
No other coupling facility has better connectivity than the current one. The rebuild would cause a degradation in connectivity as determined by SFM system weights, if accepted.

DUPLEXING REBUILD NOT ALLOWED FOR THE STRUCTURE
The structure does not support duplexing rebuild for one of the following reasons:

- DUPLEX(DISABLED) was specified or defaulted to in the CFRM active policy for the structure.
- There are failed persistent connections that are unavailable until a larger CFRM couple data set is made available.
- A user-managed duplexing rebuild could not be started because:
  - User-managed duplexing rebuilds are not supported for the structure type.
  - At least one active or failed-persistent connection specified or defaulted to IXLCONN ALLOWDUPREBLD=NO.
- A system-managed duplexing rebuild could not be started because:
  - The structure has at least one active connector, and none of the connectors (active or failed-persistent) specified IXLCONN ALLOWAUTO=YES when connecting.
  - A system-managed duplexing rebuild is not supported when a CFRM policy change is pending for the structure.

STRUCTURE HAS FAILED
The request was to start a duplexing rebuild and the structure has failed. Duplexing rebuild is not allowed when the structure is in the failed state.

NO OTHER COUPLING FACILITY FOUND IN PREFERENCE LIST
SETXCF START,REBUILD was requested and LOCATION=OTHER was either specified on the rebuild request or defaulted to for STARTREASON=LOSSCONN or for a request to start a duplexing rebuild. In addition to avoiding the coupling facility in which the structure is currently allocated, when a duplexing rebuild is stopped by the operator and DUPLEX(ENABLED) is specified in the active policy, the subsequent duplexing request initiated due to DUPLEX(ENABLED) will avoid the coupling facility in which the previous instance of the structure was allocated when the duplexing rebuild was stopped.

STRUCTURE DOES NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure does not support system-managed processes (for example, rebuild) for one of the following reasons:

- The structure was not allocated in a coupling facility at or above the minimum CFLEVEL required for the current process by a system supporting system-managed processing.
- The structure has connections that have not been reconciled into the CFRM active policy.
- Structure cleanup is in progress for the structure.

CONNECTORS DO NOT SUPPORT SYSTEM-MANAGED PROCESSES
The requested system-managed process cannot be initiated for one of the following reasons:

- The structure has at least one active connector and at least one of the connectors (active or failed-persistent) did not specify IXLCONN ALLOWAUTO=YES when connecting.
- A duplexing rebuild cannot be initiated for a structure that has only failed-persistent connectors, and at least one of the failed-persistent connectors did not specify IXLCONN ALLOWAUTO=YES when connecting.

NO SUITABLE COUPLING FACILITY IN PREFERENCE LIST
The requested system-managed process cannot be initiated for one or more of the following reasons:

- The preference list is empty.
- The preference list contains no other coupling facility at or above the minimum CFLEVEL required for the current process.
- A potentially suitable coupling facility does not permit structure allocation.

AT LEAST ONE CONNECTOR HAS LOST CONNECTIVITY TO THE STRUCTURE
The requested system-managed process (for example, rebuild) cannot be initiated because one or more of the connectors to the target structure has lost connectivity.

CFRM COUPLE DATA SET DOES NOT SUPPORT SYSTEM-MANAGED PROCESS
The CFRM couple data set does not support the requested system-managed process (for example, rebuild), because the CFRM couple data set was not formatted at or above the minimum version for the system-managed process requested. Use the DISPLAY XCF,COUPLE,TYPE=CFRM command to determine the format of the CFRM couple data set. To support system-managed rebuild the CFRM couple data set should be formatted specifying "ITEM NAME(SMREBLD) NUMBER(1)". For system-managed duplexing rebuild, "ITEM NAME(SMDUPLEX) NUMBER(1)" should also be specified when formatting a CFRM couple data set. Specifying "ITEM NAME(SMDUPLEX) NUMBER(1)" implicitly formats a CFRM couple data set that supports both system-managed rebuild and system-managed duplexing rebuild.

STRUCTURE WITH NO CONNECTORS HAS NEVER BEEN SYSTEM-MANAGED DUPLEXED
A system-managed duplexing rebuild cannot be initiated because there are no connections to the structure and the structure has not previously been duplexed using system-managed processing.

ALLOCATION OF REBUILD NEW STRUCTURE FOR DUPLEXING REBUILD NOT FEASIBLE
Allocation of the rebuild new structure instance in support of a duplexing rebuild is not feasible. Message IXC574I will contain additional diagnostic information.

STRUCTURE OBJECTS IN STORAGE-CLASS MEMORY
The duplexing rebuild could not be started because storage-class memory is in use.

System action: Not applicable.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD

Routing code: 10

Descriptor code: -

IXC539I CF STR(S) HAVE BEEN DUMPED DUE TO *dumptrigger*. **TRACE THREAD:***thread***THE FOLLOWING STRUCTURES HAVE BEEN DUMPED:***StrNameList*

Explanation: XCF issues this message after successfully invoking SDUMP processing to dump coupling facility (CF) structures. CF structure(s) are dumped by XCF either due to taking over dump processing or initiating dump processing. For normal SVC dump processing, SDUMP provides the requested CF structure(s) in the requested dump. The processing to dump CF structure(s) captures the data in a dump table associated with an instance of the CF structure. Once the captured data as been written to a dump data set by SDUMP, the dump table is deleted.

For failures during normal SVC dump processing, XCF will perform dump takeover processing. Dump takeover will handle recovery for CF structure dumps when a system that was taking the dump terminates or loses connectivity to the coupling facility containing the CF structure. XCF will also initiate dump processing for CF structure(s) that the installation has designated to be dumped via the CHNGDUMP command.

Dump initiation processing will initiate dumps of CF structure(s) as follows:

- When a system that had active connection(s) to the structure terminates.
- When all systems in a sysplex terminate.
- When all systems connected to a coupling facility terminate.

For both dump takeover and initiation, the dump contains only data captured from CF structure(s). The dump with title "COMPON=XCF,COMPID=....SCXCF, ISSUER=IXCL2STR,TRACE THREAD: *thread*,CF STR(S) — *dumptrigger*" can be related to this message by using the trace thread.

In the message text:

dumptrigger
The trigger for taking the dump of coupling facility structure(s). Possible reasons for dumping a structure include:

- The installation requested structure(s) to be dumped via a CHNGDUMP command.
- The coupling facility already had dump data captured for structure(s).

dumptrigger is one of the following:

GAIN OWNERSHIP OF CF
During the processing to gain ownership for the sysplex of a coupling facility, a dump of coupling facility structure(s) was initiated.

LOST CF CONNECTIVITY
Due to a system having lost connectivity to a coupling facility, another system having connectivity to the coupling facility has initiated a dump of coupling facility structure(s).

SYSTEM FAILURE
Due to the failure of a system in the sysplex, another system has initiated a dump of coupling facility structure(s)

thread
Used to tie together this message, the dump title for the CF STR(S) dump, and XCF component trace records from the processing to take the dump of coupling facility structure(s).

THE FOLLOWING STRUCTURES HAVE BEEN DUMPED:
This line is followed by a list of structures that have been dumped.

StrNameList
The list of structures than have been dumped. Up to three structure names will appear on each line. When more than one instance of a structure had been dumped, the structure name will appear in the list once for each instance in the dump. For example, a duplexed structure has two instances allocated and both could be in the same dump.

System action: System processing continues.

Operator response: Not applicable.

System programmer response: Use the trace thread to locate the dump taken by the system issuing this message. To aid in problem determination, provide the dump to the application(s) or subsystem(s) associated with the listed CF structure(s).

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2STR

Routing code: 10

Descriptor code: –

IXC540I **POPULATECF REBUILD FOR** *cfname* **REQUEST** *action*. **THE FOLLOWING STRUCTURES ARE PENDING REBUILD:** *strnamelist* **THE FOLLOWING WILL NOT BE REBUILT:** *strname*: *reason*

Explanation: A request to initiate a **POPULATECF** rebuild for coupling facility *cfname* was received by the system. A PopulateCF rebuild can be requested either by invoking the **SETXCF START,REBUILD,POPULATECF=***cfname* operator command or by using the **IXLREBLD** macro, specifying **POPULATECF=***cfname*. XES has considered the set

of allocated coupling facility structures in the sysplex and issued message IXC540I to document the disposition of each structure.

In the message text:

cfname
The coupling facility to be populated, specified on the **SETXCF** operator command or the IXLREBLD macro.

action
The action taken by the system on the PopulateCF rebuild request. *action* is one of the following:

ACCEPTED
The request was accepted.

REJECTED
The request was rejected.

THE FOLLOWING STRUCTURES ARE PENDING REBUILD:
This line is followed by a list of structures that have been selected for PopulateCF processing.

strnamelist
The list of structures that have been selected for PopulateCF processing. Up to three structure names will appear on each line. XES will serially initiate structure rebuilds for each of these structures. If no structures are to be rebuilt, this line is **(NONE)**.

THE FOLLOWING WILL NOT BE REBUILT:
This line is followed by a list of structures that will not be rebuilt by PopulateCF processing.

strname
The name of a structure that will not be rebuilt for PopulateCF processing. If all structures are to be rebuilt, this line is **(NONE)**.

reason
The reason why the structure was not selected for the PopulateCF request. *reason* is one of the following:

POPULATECF IS NOT IN THE PREFERENCE LIST
The specified PopulateCF is not in the structure's preference list.

STRUCTURE ALREADY ALLOCATED IN THE POPULATECF
The structure was already allocated in the specified PopulateCF

STRUCTURE HAS NO ACTIVE CONNECTORS
The rebuild request would have resulted in a user-managed rebuild, but the structure has no active connectors to participate in rebuild.

AT LEAST ONE CONNECTOR DOES NOT SUPPORT REBUILD
At least one of the active connectors to the structure does not support rebuild.

STRUCTURE IS ALREADY BEING REBUILT
The structure rebuild process is already in progress for the structure. Use the DISPLAY XCF,STR command to determine the type (rebuild or duplexing rebuild) and method (user-managed or system-managed) of the structure rebuild process.

STRUCTURE IS ALLOCATED IN A MORE PREFERRED CF
The structure is allocated in a CF that is preferred over the specified PopulateCF.

COMPONENT ERROR
An unknown XES component error has occurred.

STRUCTURE DOES NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure does not support system-managed processes (for example, rebuild) for one of the following reasons:

- The structure was not allocated in a coupling facility at or above the minimum CFLEVEL required for the current process by a system supporting system-managed processing.
- The structure has connections that have not been reconciled into the CFRM active policy.
- Structure cleanup is in progress for the structure.

CONNECTORS DO NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure has at least one active connector, and at least one of the connectors (active or failed-persistent) did not specify IXLCONN ALLOWAUTO=YES when connecting.

POPULATECF COUPLING FACILITY NOT SUITABLE
The requested system-managed process cannot be initiated because the specified POPULATECF is not of a CFLEVEL at or above the minimum required for the current process.

SYSTEM-MANAGED PROCESS START REASON INAPPROPRIATE
An IXLREBLD REQUEST=START invocation would have resulted in system-managed processing (for example, rebuild). The request specified a STARTREASON of LOSSCONN or STRFAILURE, which are not valid reasons for the requested process.

AT LEAST ONE CONNECTOR HAS LOST CONNECTIVITY
The requested system-managed process (for example, rebuild) cannot be initiated because one or more of the connectors to the target structure has lost connectivity.

CFRM CDS DOES NOT SUPPORT SYSTEM-MANAGED PROCESS
The CFRM couple data set does not support the requested system-managed process (for example, rebuild) because the couple data set was not formatted at or above the minimum version for the system-managed process requested. Use the DISPLAY XCF,COUPLE,TYPE=CFRM command to determine the format of the CFRM couple data set. To support system-managed rebuild the CFRM couple data set should be formatted specifying "ITEM NAME(SMREBUILD) NUMBER(1)". For system-managed duplexing rebuild, "ITEM NAME(SMDUPLEX) NUMBER(1)" should also be specified when formatting a CFRM couple data set. Specifying "ITEM NAME(SMDUPLEX) NUMBER(1)" implicitly formats a CFRM couple data set that supports both system-managed rebuild and system-managed duplexing rebuild.

STRUCTURE HAS FAILED
The rebuild start request was rejected because it would result in a system-managed rebuild. System-managed rebuild is not allowed when the structure is in the failed state.

System action: The system will rebuild coupling facility structures in the pending rebuild state sequentially, in the order listed. Structures that are not to be rebuilt are unaffected.

Operator response: Not applicable.

System programmer response: If there are any structures listed that should not be rebuilt, have the operator issue: **SETXCF STOP,REBUILD,STRNAME=***strname* to stop the rebuild of that structure. To cancel the entire rebuild, have the operator issue: **SETXCF STOP,REBUILD,POPULATECF=***cfname*.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD

Routing code: 2

Descriptor code: 5

IXC541I POPULATECF REBUILD FOR *cfname* COMPLETE. REBUILD-OLD INSTANCE, CONTINUING WITH REBUILD-NEW.

Explanation: XES has completed processing associated with the POPULATECF rebuild for *cfname*. Structures have been rebuilt in *cfname*, a coupling facility that has been restored or added to the sysplex configuration.

In the message text:

cfname
The coupling facility to be populated, specified on the SETXCF operator command or the IXLREBLD macro.

System action: Processing continues.

Operator response: None required. If another POPULATECF rebuild is desired, it will be accepted now.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 2

Descriptor code: 5

IXC542I POPULATECF REBUILD FOR STRUCTURE *strname* **NOT PROCESSED:** *text*

Explanation: The request to rebuild a structure is being stopped.

In the message text:

strname
Name of the structure for which information is recorded.

THE SPECIFIED POPULATECF HAS BEEN REMOVED FROM THE POLICY
A policy change caused the PopulateCF coupling facility to be removed from the active policy. No allocations can occur in that facility, so the structure rebuild initiated to populate that facility cannot be started.

THE SPECIFIED POPULATECF IS BEING REMOVED FROM THE POLICY
A policy change caused the PopulateCF coupling facility to be marked as DELETE PENDING. The facility is in the process of being removed from use, so the structure rebuild initiated to populate that facility cannot be started.

THE SPECIFIED POPULATECF HAS FAILED
The coupling facility has failed. No allocations can occur in the facility, so the structure rebuild initiated to populate that facility cannot be started.

AT LEAST ONE ACTIVE CONNECTION INDICATED THAT REBUILD IS NOT ALLOWED
Rebuild not permitted because IXLCONN with ALLOWREBLD=NO was specified by at least one active connection.

NO ACTIVE CONNECTIONS TO THE STRUCTURE
The rebuild request would have resulted in a user-managed rebuild, but the structure has no active connectors to participate in rebuild.

THE SPECIFIED POPULATECF IS NOT IN THE STRUCTURES PREFLIST
A policy change caused the PopulateCF facility to be removed from the structures preference list. Since the rebuild was started to populate the specified facility, and this structure cannot be allocated in that facility, the rebuild was not started.

ANOTHER REBUILD REQUEST SUPERSEDED THE PENDING POPULATECF REQUEST
While this structures rebuild was pending, another rebuild was requested. The new rebuild request was processed immediately, and the pending rebuild was cancelled.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during rebuild processing.

NO COUPLING FACILITY PROVIDED BETTER CONNECTIVITY
No other coupling facility has better connectivity than the current one. The rebuild, which was initiated due to a loss of connectivity, would cause a further degradation in connectivity if accepted. The system evaluated the set of active connections that lost connectivity to the current structure as compared with the set of active connections that would not be able to connect to the rebuild new structure. The system terminates structure rebuild processing because the result of the rebuild would cause additional active connections to lose connectivity.

NO COUPLING FACILITY PROVIDED BETTER OR EQUIVALENT CONNECTIVITY
No other coupling facility has better connectivity than the current one. The rebuild would cause a degradation in connectivity as determined by SFM system weights, if accepted.

THE STRUCTURE IS BEING DEALLOCATED
The last connector to the structure has disconnected, causing the structure to be deallocated. It cannot be rebuilt for the PopulateCF rebuild that is in progress.

STRUCTURE HAS FAILED
The rebuild start request was rejected because it would result in a system-managed rebuild. System-managed rebuild is not allowed when the structure is in the failed state.

STRUCTURE DOES NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure does not support system-managed processes (for example, rebuild) for one of the following reasons:

- The structure was not allocated in a coupling facility at or above the minimum CFLEVEL required for the current process by a system supporting system-managed processing.
- The structure has connections that have not been reconciled into the CFRM active policy.

- Structure cleanup is in progress for the structure.

CONNECTORS DO NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure has at least one active connector, and at least one of the connectors (active or failed-persistent) did not specify IXLCONN ALLOWAUTO=YES when connecting.

POPULATECF COUPLING FACILITY NOT SUITABLE
The requested system-managed process cannot be initiated because the specified POPULATECF is not of a CFLEVEL at or above the minimum required for the current process.

START REASON INAPPROPRIATE FOR SYSTEM-MANAGED PROCESS
An IXLREBLD REQUEST=START invocation would have resulted in system-managed processing (for example, rebuild). The request specified a STARTREASON of LOSSCONN or STRFAILURE, which are not valid reasons for the requested process.

AT LEAST ONE CONNECTOR HAS LOST CONNECTIVITY TO THE STRUCTURE
The requested system-managed process (for example, rebuild) cannot be initiated because one or more of the connectors to the target structure has lost connectivity.

CFRM COUPLE DATA SET DOES NOT SUPPORT SYSTEM-MANAGED PROCESS
The CFRM couple data set does not support the requested system-managed process (for example, rebuild), because the couple data set was not formatted at or above the minimum version for the system-managed process requested. Use the DISPLAY XCF,COUPLE,TYPE=CFRM command to determine the format of the CFRM couple data set. To support system-managed rebuild the CFRM couple data set should be formatted specifying "ITEM NAME(SMREBUILD) NUMBER(1)". For system-managed duplexing rebuild, "ITEM NAME(SMDUPLEX) NUMBER(1)" should also be specified when formatting a CFRM couple data set. Specifying "ITEM NAME(SMDUPLEX) NUMBER(1)" implicitly formats a cfrm couple data set that supports both system-managed rebuild and system-managed duplexing rebuild.

STRUCTURE ALLOCATION NOT PERMITTED IN THE SPECIFIED COUPLING FACILITY
A request to start a POPULATECF rebuild was attempted. Structure allocation is not permitted in the specified coupling facility. The request is not processed.

System action: Not applicable.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD, IXCL2FOR, IXCL2RSR

Routing code: 2

Descriptor code: 5

IXC543I THE REQUESTED {START,REALLOCATE | STOP,REALLOCATE | STOP,REALLOCATE,FORCE} WAS {ACCEPTED. |REJECTED: | COMPLETED.} *reason*

Explanation: A SETXCF START/STOP operator command was issued to start or stop a REALLOCATE process or XCF forced an in-progress REALLOCATE process to terminate. The requested START or STOP was either rejected with a reason provided for explanation or accepted.

Once started, the REALLOCATE process will examine each allocated structure to determine the need for activation of a pending policy and/or changing the location of instance(s) allocated in CF(s). The XCF allocation algorithm is used to determine whether or not the CFs containing the structure instances are the preferred CFs. Message IXC574I is written to the hardcopy log to show the current location of instance(s) allocated in CF(s), the policy information used, and the results of applying the XCF allocation criteria. REALLOCATE processing uses these results when evaluating the allocated structure. When the structure needs to be adjusted, REALLOCATE processing predetermines the necessary steps and uses structure rebuild processing to accomplish the adjustment. Messages associated with the structure rebuild process (IXC57nI and IXC52nI) and the deallocation process (IXC579I) will be issued. Message IXC546I is issued for an error encountered when starting a structure rebuild process for the next step to adjust the target structure. When REALLOCATE processing does not attempt adjustment of an allocated structure, message IXC544I will be issued to provide an explanation.

IXC543I will be issued to indicate processing is complete. REALLOCATE processing is complete when one of the following occurs:

- All allocated structures have been evaluated with appropriate action taken.
- The REALLOCATE process was stopped and relocation steps for the current target structure have finished.
- Either a SETXCF STOP,REALLOCATE,FORCE command or internal XCF processing has resulted in the immediate termination of the REALLOCATE process. The structure which is the current target of the REALLOCATE process will continue the in-progress structure rebuild process but this may not complete all the steps for relocation.

In addition, message will be issued to provide the summary of the actions taken.

In the message text:

```
START,REALLOCATE
STOP,REALLOCATE
STOP,REALLOCATE,FORCE
```

ACCEPTED.
The request to start or stop a REALLOCATE process was accepted.

REJECTED:
The request to start or stop a REALLOCATE process was rejected for the specified reason.

COMPLETED.
The system has completed processing for an accepted request to START or STOP the REALLOCATE process.

reason
One of the following:

AN UNEXPECTED ERROR OCCURRED
The REALLOCATE request cannot be performed because an unexpected error occurred.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware necessary to provide XES functions is not present.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

A REALLOCATE PROCESS OR POPULATECF REBUILD IS ALREADY IN PROGRESS
An attempt to start a REALLOCATE process was rejected for one of the following reasons:

- A REALLOCATE process is in progress or stopping.
- A ROPULATECF rebuild is in progress.

Only one POPULATECF rebuild or REALLOCATE process is supported at a time. Use DISPLAY XCF,STR,STATUS=ALLOCATED to identify the process.

AT LEAST ONE SYSTEM DOES NOT SUPPORT THE REALLOCATE PROCESS
A SETXCF START,REALLOCATE request was rejected or an in-progress REALLOCATE process is terminated because there is at least one system in the sysplex that does not support the REALLOCATE process. Since the REALLOCATE process uses structure rebuild processing which can be completed on any system in the sysplex, all systems must support REALLOCATE processing in order either to accomplish the relocation steps for the current target structure or to continue the necessary actions for the in-progress REALLOCATE process.

NO ALLOCATED STRUCTURES EXIST FOR REALLOCATE TO EVALUATE
An attempt to start a REALLOCATE process was rejected because there are no allocated structures to evaluate. The REALLOCATE process is only applicable for allocated structures with instance(s) which are displayed as the ACTIVE, REBUILD OLD/NEW, or DUPLEXING REBUILD OLD/NEW structure.

NO REALLOCATE PROCESS IS IN PROGRESS
An attempt to stop a REALLOCATE process was rejected for one of the following reasons:

- No REALLOCATE process is in progress.
- A POPULATECF rebuild is in progress and must be stopped with a SETXCF STOP,REBUILD command specifying POPULATECF. Use DISPLAY XCF,STR,STATUS=ALLOCATED to identify the structure(s) in the POPULATECF rebuild.

REALLOCATE STOP ALREADY IN PROGRESS
The SETXCF STOP,REALLOCATE request cannot be performed because a stop request has already been

accepted. The REALLOCATE process will finish processing for the structure that is having the location adjusted prior to completing the stop request. Use DISPLAY XCF,STR,STATUS=ALLOCATED to identify the structure with "REALLOCATE PROCESS STOPPING".

System action: When the command is accepted, the system processes the request. When the command is rejected, the system ignores the request.

Operator response: Notify the system programmer.

System programmer response: When the start or stop request was accepted, use the DISPLAY XCF,STR,STATUS=ALLOCATED command to determine the state of REALLOCATE processing. The state of the REALLOCATE process will be shown as "IN PROGRESS" or "STOPPING". The structure that is the current target will indicate "TARGET OF REALLOCATE PROCESS". When the REALLOCATE process is "IN PROGRESS", structures which have not been evaluated will indicate "REALLOCATE EVALUATION PENDING". Structures which have been processed will not have additional status indicators displayed but the log can be examined to determine the action taken.

When the start or stop request was rejected, based on the specified reason take the necessary steps to correct the problem and reissue the command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD, IXCL2TSK

IXC544I REALLOCATE PROCESSING FOR STRUCTURE *strname* **WAS NOT ATTEMPTED BECAUSE** *reason*

Explanation: A SETXCF START,REALLOCATE operator command was issued to start the REALLOCATE process. Once started, the REALLOCATE process will examine each allocated structure to determine the need for adjustment by either activating a pending policy change and/or changing the location of instance(s) allocated in CF(s). When the structure needs to be adjusted, messages associated with the structure rebuild process (IXC57nI and IXC52nI) and the deallocation process (IXC579I) will be issued.

When the structure is not adjusted, message IXC544I will be issued to provide an explanation.

In the message text:

strname
Name of the structure for which information is recorded.

WAS NOT ATTEMPTED BECAUSE
The REALLOCATE process did not process the name structure for the specified reason.

reason
One of the following:

AN UNEXPECTED ERROR OCCURRED
The REALLOCATE process cannot be performed because an unexpected error occurred.

STRUCTURE IS ALLOCATED IN PREFERRED CF
The structure is allocated in preferred CF.

OF A PENDING POLICY CHANGE TO DELETE THE STRUCTURE DEFINITION
There is an administrative policy change pending. The pending policy change is to delete the policy definition for the structure. Since the change is to delete the structure from the CFRM active policy, the structure rebuild process cannot be used to make the pending policy changes active.

OF A PENDING POLICY CHANGE TO SIZE/INITSIZE BUT ALTER NOT ALLOWED
There is an administrative policy change pending. The pending policy change includes a change to the SIZE or INITSIZE specifications. Since at least one of the active or failed-persistent connections to the structure does not allow alter processing AND system-managed rebuild is required, the structure rebuild process cannot be used to make the pending policy changes active.

THERE IS NO CONNECTIVITY TO COUPLING FACILITY
The CFRM active policy indicates that this system does not have connectivity to the coupling facility where an instance of the structure is allocated.

OF AN UNEXPECTED ERROR WHEN BUILDING THE LIST OF ELIGIBLE CFS
The REALLOCATE process encountered an unexpected error during processing to build the list of coupling

facilities where an instance of the structure could be allocated. When this processing accessed an allocated instance to determine the structure parameters, either connectivity to the CF was lost or the command to the CF failed unexpectedly.

A STRUCTURE REBUILD PROCESS IS IN PROGRESS
The structure rebuild process is already in progress for the structure. The structure rebuild process type could be either rebuild or duplexing rebuild. For a duplexing rebuild, the in-progress processing could be one of the following:

- The structure is duplexed. For a user-managed duplexing rebuild, only one instance is allocated because the last user connected to both instances disconnected in between another user's IXLCONN and IXLCONN REBUILD requests.
- Process is in progress but has not reached duplexing established.
- Process has been stopped with KEEP=OLD.
- Process has been stopped with KEEP=NEW.

THE STRUCTURE HAS FAILED
The rebuild start request was rejected for one of the following reasons:

- The request was to start a duplexing rebuild and the structure has failed. Duplexing rebuild is not allowed when the structure is in the failed state.
- The request would result in a system-managed rebuild. System-managed rebuild is not allowed when the structure is in the failed state.

THE STRUCTURE HAS NO ACTIVE CONNECTORS
The request would have resulted in a user-managed process, but the structure has no active connectors to participate in structure rebuild processing.

AT LEAST ONE CONNECTOR DOES NOT SUPPORT REBUILD
At least one of the active connectors to the structure does not support rebuild.

NO SUITABLE COUPLING FACILITY FOR REBUILD WITH LOCATION=OTHER
The rebuild start request was rejected because LOCATION=OTHER was necessary and no other eligible coupling facility was found in the preference list.

NO COUPLING FACILITY PROVIDED BETTER OR EQUIVALENT CONNECTIVITY
No other facility has better connectivity than the current one. The rebuild would cause a degradation in connectivity as determined by SFM system weights, if accepted.

DUPLEXING REBUILD PREVENTED BY CONNECTOR(S)
The structure does not support duplexing rebuild for one of the following reasons:

- There are failed persistent connections that are unavailable until a larger CFRM couple data set is made available.
- A user-managed duplexing rebuild could not be started because:
  - User-managed duplexing rebuilds are not supported for the structure type.
  - At least one active or failed-persistent connection specified or defaulted to IXLCONN ALLOWDUPREBLD=NO.
- A system-managed duplexing rebuild could not be started because:
  - The structure has at least one active connector, and none of the connectors (active or failed-persistent) specified IXLCONN ALLOWAUTO=YES when connecting.

THE STRUCTURE DOES NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure does not support system-managed processes (for example, rebuild) for one of the following reasons:

- The structure was not allocated in a coupling facility at or above the minimum CFLEVEL required for the current process by a system supporting system-managed processing.
- The structure has connections that have not been reconciled into the CFRM active policy.
- Structure cleanup is in progress for the structure.

NO SUITABLE COUPLING FACILITY IN PREFERENCE LIST
The requested system-managed process cannot be initiated for one or more of the following reasons:

- The preference list is empty.
- The preference list contains no other coupling facility at or above the minimum CFLEVEL required for the current process.

- The structure already exists in the only suitable coupling facility. The same coupling facility can only be selected as the target for the system-managed rebuild if a CFRM policy change is pending, and either:
  - The policy changes does not involve updates to the SIZE or INITSIZE values, or
  - the policy change does involve updates to SIZE or INITSIZE and all the structure connectors specified IXLCONN ALLOWALTER=YES.
- A potentially suitable coupling facility does not permit structure allocation.

CONNECTORS DO NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure has at least one active connector, and at least one of the connectors (active or failed-persistent) did not specify IXLCONN ALLOWAUTO=YES when connecting.

AT LEAST ONE CONNECTOR HAS LOST CONNECTIVITY
The requested system-managed process (for example, rebuild) cannot be initiated because one or more of the connectors to the target structure has lost connectivity.

THE CFRM CDS DOES NOT SUPPORT SYSTEM-MANAGED PROCESS
The CFRM couple data set does not support the requested system-managed process (for example, rebuild), because the CFRM couple data set was not formatted at or above the minimum version for the system-managed process requested. Use the DISPLAY XCF,COUPLE,TYPE=CFRM command to determine the format of the CFRM couple data set. To support system-managed rebuild the CFRM couple data set should be formatted specifying "ITEM NAME(SMREBLD) NUMBER(1)". For system-managed duplexing rebuild, "ITEM NAME(SMDUPLEX) NUMBER(1)" implicitly formats a CFRM couple data set that supports both system-managed rebuild and system-managed duplexing rebuild.

A STRUCTURE WITH NO CONNECTORS HAS NEVER BEEN SYSTEM-MANAGED DUPLEXED
A system-managed duplexing rebuild cannot be initiated because there are no connections to the structure and the structure has not previously been duplexed using system-managed processing.

A CFRM ACTIVE POLICY DATA AREA COULD NOT BE OBTAINED
The requested system-managed process (for example, rebuild) cannot be initiated because the necessary CFRM active policy data area could not be obtained.

THE CFRM ACTIVE POLICY INDICATES REALLOCATE NOT ALLOWED
The REALLOCATE process is bypassing the structure because ALLOWREALLOCATE(NO) is specified in the CFRM active policy.

STRUCTURE IS ALLOCATED IN PREFERRED CF AND POLICY CHANGE MADE
The structure is allocated in the preferred CF and the pending policy change was made. The policy change was made immediately because the structure is allocated in the preferred CF according to the pending policy and the pending policy did not affect the structure size.

ALLOCATION OF REBUILD NEW STRUCTURE FOR DUPLEXING REBUILD NOT FEASIBLE
Allocation of the rebuild new structure instance in support of a duplexing rebuild is not feasible. Message IXC574I will contain additional diagnostic information.

STRUCTURE OBJECTS IN STORAGE-CLASS MEMORY
The request would have resulted in a duplexing rebuild, but a duplexing rebuild could not be started because storage-class memory is in use.

System action: The system continues the REALLOCATE process.

Operator response: Notify the system programmer.

System programmer response: Use the DISPLAY XCF,STR,STRNAME=*strname* operator command to show the current state of the structure. Based on the current state of the structure, use SETXCF and/or subsystem commands as required to activate a pending policy change or adjust the structure location.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD

IXC545I REALLOCATE PROCESSING RESULTED IN THE FOLLOWING: *text*

Explanation: The *text* is displayed as:

```
numadjsimplex  STRUCTURE(S) REALLOCATED - SIMPLEX
 numadjduplex  STRUCTURE(S) REALLOCATED - DUPLEXED
numpolsimplex  STRUCTURE(S) POLICY CHANGE MADE - SIMPLEX
 numpolduplex  STRUCTURE(S) POLICY CHANGE MADE - DUPLEXED
 numoksimplex  STRUCTURE(S) ALREADY ALLOCATED IN PREFERRED CF - SIMPLEX
  numokduplex  STRUCTURE(S) ALREADY ALLOCATED IN PREFERRED CF - DUPLEXED
  numbypassed  STRUCTURE(S) NOT PROCESSED
  numnotalloc  STRUCTURE(S) NOT ALLOCATED
   numnotused  STRUCTURE(S) NOT DEFINED
  --------
  totalnum  TOTAL

exceptions  STRUCTURE(S) WITH AN ERROR/EXCEPTION CONDITION
```

A SETXCF START,REALLOCATE operator command was issued to start a REALLOCATE process. When the REALLOCATE process completes, IXC545Iis issued to summarize the results of the processing. As each structure is examined counters are incremented to track the decision whether or not to process the structure. The total of these counters provides the number of structures examined. In addition, message IXC543I will be issued to indicate processing is complete.

In the message text:

numadjsimplex
: The number of simplex structures for which reallocation was initiated. Structure rebuild processing was used to adjust the structure location. For user-managed process, message IXC52nI is issued to track processing. For system-managed process, messages IXC57nI and IXC52nI are issued to track processing. Reallocation of simplex structures may also have activated pending policy changes.

numadjduplex
: The number of duplexed structures for which reallocation was initiated. Structure rebuild processing was used to adjust the structure location. For user-managed process, message IXC52nI is issued to track processing. For system-managed process, messages IXC57nI and IXC52nI are issued to track processing. Reallocation of duplexed structures may also have activated pending policy changes.

numpolsimplex
: The number of simplex structures for which reallocation was initiated only to activate a pending policy change. Structure rebuild processing was used to make a pending policy change active. For user-managed process, message IXC52nI is issued to track processing. For system-managed process, messages IXC57nI and IXC52nI are issued to track processing.

numpolduplex
: The number of duplexed structures for which reallocation was initiated only to activate a pending policy change. Structure rebuild processing was used to make a pending policy change active. For user-managed process message IXC52nI is issued to track processing. For system-managed process, messages IXC57nI and IXC52nI are issued to track processing.

numoksimplex
: The number of simplex structures that were already allocated in the preferred coupling facility, or that were already allocated in the preferred coupling facility and had the pending policy change made. Message IXC544I is issued indicating that the structure instance is allocated in the coupling facility selected by the XCF allocation algorithm and indicating whether the policy change was made.

numokduplex
: The number of duplexed structures that were already allocated in the preferred coupling facilities, or that were already allocated in the preferred coupling facilities and had the pending policy change made. Message IXC544I is issued indicating that the structure instances are allocated in the coupling facilities selected by the XCF allocation algorithm and indicating whether the policy change was made.

numbypassed
: The number of structures which were not processed. Message IXC544I is issued for each bypassed structure to provide the reason for not processing the structure.

numnotalloc
: The number of structures which were not processed since the structure is not currently allocated in a coupling facility. No additional message issued.

numnotused
The number of structures for which a name has not been defined but the CFRM couple data set has been formatted to support additional structure definitions. No additional message issued.

totalnum
The total number of structures examined by the REALLOCATE process. Assuming the REALLOCATE process completes without being stopped, then the total number of examined structures should equal the number of structures the primary CFRM couple data set is formatted to support. When the REALLOCATE process is stopped, processing completes for current target structure and any structure(s) pending evaluation are not processed. There are no additional messages for these bypassed structures and they will not be reflected in the total. Use the DISPLAY XCF,COUPLE,TYPE=CFRM operator command to show the format data for the CFRM couple data set.

exceptions
The number of structures for which exception information was stored. This can include the number of structures for which IXC546I was issued or some other exception occurred. The REALLOCATE process predetermines the necessary steps and if one or more of these steps cannot start structure rebuild, IXC546I is issued to provide the reason and type of structure rebuild process.

System action: The REALLOCATE process has completed, messages IXC52nI, IXC544I, , IXC546I, and IXC57nI may have been issued during the REALLOCATE process. Use the DISPLAY XCF,REALLOCATE,REPORT command to display a detailed report of the processing performed by REALLOCATE, including any exceptions encountered.

Operator response: Notify the system programmer.

System programmer response: If *exceptions* is zero, no further action is necessary.

If *exceptions* is nonzero, find any IXC546I messages in the log to determine the name of the structures for which REALLOCATE processing could not complete, or use DISPLAY XCF,REALLOCATE,REPORT for the same purpose. Use the DISPLAY XCF,STR,STRNAME=strname operator command to show the current state of the structure. Based on the current state of the structure, use SETXCF or subsystem commands as required to activate a pending policy change or adjust the structure location.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD

IXC546I REALLOCATE PROCESSING FOR STRUCTURE *strname* **COULD NOT COMPLETE. THE REQUIRED** *strrbldtype* **WAS NOT STARTED BECAUSE** *reason*

Explanation: A SETXCF START,REALLOCATE operator command was issued to start the REALLOCATE process. The named structure was the target of the REALLOCATE process but a relocation step could not be started for the specified reason. The relocation step was to start either a rebuild or a duplexing rebuild. The rebuild is used to activate a pending policy change and/or to adjust the location.

In the message text:

strname
Name of the structure for which information is recorded.

strrbldtype
One of the following:

REBUILD
The required type of structure rebuild processing was rebuild.

DUPLEXING REBUILD
The required type of structure rebuild processing was duplexing rebuild.

WAS NOT STARTED BECAUSE
The required structure rebuild process could not be started for the specified reason. The type of processing (strrbldtype) for structure rebuild can be either rebuild or duplexing rebuild.

reason
One of the following:

AN UNEXPECTED ERROR OCCURRED
The REALLOCATE process cannot be performed because an unexpected error occurred.

A STRUCTURE REBUILD PROCESS IS IN PROGRESS
The structure rebuild process is already in progress for the structure. Use the DISPLAY XCF,STR command to determine the type (rebuild or duplexing rebuild) and method (user-managed or system-managed) of the structure rebuild process.

THE STRUCTURE HAS FAILED
The rebuild start request was rejected for one of the following reasons:

- The request was to start a duplexing rebuild and the structure has failed. Duplexing rebuild is not allowed when the structure is in the failed state.
- The rebuild start request would result in a system-managed rebuild. System-managed rebuild is not allowed when the structure is in the failed state.

THE STRUCTURE HAS NO ACTIVE CONNECTORS
The request would have resulted in a user-managed process, but the structure has no active connectors to participate in structure rebuild processing.

A REBUILD STOP IS IN PROGRESS FOR THE STRUCTURE
Rebuild stop is in progress for the structure.

AT LEAST ONE CONNECTOR DOES NOT SUPPORT REBUILD
At least one of the active connectors to the structure does not support rebuild.

NO SUITABLE COUPLING FACILITY FOR REBUILD WITH LOCATION=OTHER
The rebuild start request was rejected because LOCATION=OTHER was necessary and no other eligible coupling facility was found in the preference list.

NO COUPLING FACILITY PROVIDED BETTER OR EQUIVALENT CONNECTIVITY
No other facility has better connectivity than the current one. The rebuild would cause a degradation in connectivity as determined by SFM system weights, if accepted.

A DUPLEXING REBUILD IS NOT ALLOWED FOR THE STRUCTURE
The structure does not support duplexing rebuild for one of the following reasons:

- DUPLEX(DISABLED) was specified or defaulted to in the CFRM active policy for the structure.
- There are failed persistent connections that are unavailable until a larger CFRM couple data set is made available.
- A user-managed duplexing rebuild could not be started because:
  - User-managed duplexing rebuilds are not supported for the structure type.
  - At least one active or failed-persistent connection specified or defaulted to IXLCONN ALLOWDUPREBLD=NO.
- A system-managed duplexing rebuild could not be started because:
  - The structure has at least one active connector, and none of the connectors (active or failed-persistent) specified IXLCONN ALLOWAUTO=YES when connecting.
  - A system-managed duplexing rebuild is not supported when a CFRM policy change is pending for the structure.

THE STRUCTURE DOES NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure does not support system-managed processes (for example, rebuild) for one of the following reasons:

- The structure was not allocated in a coupling facility at or above the minimum CFLEVEL required for the current process by a system supporting system-managed processing.
- The structure has connections that have not been reconciled into the CFRM active policy.
- Structure cleanup is in progress for the structure.

NO SUITABLE COUPLING FACILITY IN PREFERENCE LIST
The requested system-managed process cannot be initiated for one or more of the following reasons:

- The preference list is empty.
- The preference list contains no other coupling facility at or above the minimum CFLEVEL required for the current process.
- The structure already exists in the only suitable coupling facility. The same coupling facility can only be selected as the target for the system-managed rebuild if a CFRM policy change is pending, and either:
  - The policy changes does not involve updates to the SIZE or INITSIZE values, or

- the policy change does involve updates to SIZE or INITSIZE and all the structure connectors specified IXLCONN ALLOWALTER=YES.

- A potentially suitable coupling facility does not permit structure allocation.

CONNECTORS DO NOT SUPPORT SYSTEM-MANAGED PROCESSES
The structure has at least one active connector, and at least one of the connectors (active or failed-persistent) did not specify IXLCONN ALLOWAUTO=YES when connecting.

AT LEAST ONE CONNECTOR HAS LOST CONNECTIVITY
The requested system-managed process (for example, rebuild) cannot be initiated because one or more of the connectors to the target structure has lost connectivity.

THE CFRM CDS DOES NOT SUPPORT SYSTEM-MANAGED PROCESS
The CFRM couple data set does not support the requested system-managed process (for example, rebuild), because the CFRM couple data set was not formatted at or above the minimum version for the system-managed process requested. Use the DISPLAY XCF,COUPLE,TYPE=CFRM command to determine the format of the CFRM couple data set. To support system-managed rebuild the CFRM couple data set should be formatted specifying "ITEM NAME(SMREBLD) NUMBER(1)". For system-managed duplexing rebuild, "ITEM NAME(SMDUPLEX) NUMBER(1)" implicitly formats a CFRM couple data set that supports both system-managed rebuild and system-managed duplexing rebuild.

A STRUCTURE WITH NO CONNECTORS HAS NEVER BEEN SYSTEM-MANAGED DUPLEXED
A system-managed duplexing rebuild cannot be initiated because there are no connections to the structure and the structure has not previously been duplexed using system-managed processing.

A CFRM ACTIVE POLICY DATA AREA COULD NOT BE OBTAINED
The requested system-managed process (for example, rebuild) cannot be initiated because the necessary CFRM active policy data area could not be obtained.

ALLOCATION OF REBUILD NEW STRUCTURE FOR DUPLEXING REBUILD NOT FEASIBLE
Allocation of the rebuild new structure instance in support of a duplexing rebuild is not feasible. Message IXC574I contains additional diagnostic information.

STRUCTURE OBJECTS IN STORAGE-CLASS MEMORY
A duplexing rebuild could not be started because storage-class memory is in use.

System action: The system continues the REALLOCATE process.

Operator response: Notify the system programmer.

System programmer response: Message IXC546I was issued by the REALLOCATE process to indicate that processing could not complete for a structure. The REALLOCATE process predetermines the necessary steps and if one or more of these steps cannot start structure rebuild processing then IXC546I is issued to provide the reason and type of structure rebuild process. Structure rebuild process type can be either rebuild or duplexing rebuild.

Use the DISPLAY XCF,STR,STRNAME=*strname* operator command to show the current state of the structure. Based on the current state of the structure use SETXCF and/or subsystem commands as required to activate a pending policy change or adjust the structure location.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD

IXC547I THE SETXCF {START|STOP}, MSGBASED REQUEST {COMPLETED|FAILED}: *reason*

Explanation: An operator entered a SETXCF START|STOP,MSGBASED command to specify the CFRM event management protocol.

In the message text:

START
The request was to start message-based event processing.

STOP
The request was to stop message-based event processing (that is, to revert to policy-based processing).

(reason)

CFRM COUPLE DATA SET IS NOT AVAILABLE
The CFRM active policy could not be read because the couple data set supporting CFRM is not accessible to this system.

CFRM COUPLE DATA SET DOES NOT SUPPORT MESSAGE-BASED PROCESSING.
The CFRM couple data set was not formatted at or above the minimum version required for message-based event processing, and therefore can support only policy-based processing.

To support message-based event processing the CFRM couple data set should be formatted specifying "ITEM NAME(MSGBASED) NUMBER(1)".

ALREADY USING SPECIFIED PROTOCOL
The requested event delivery protocol is already in use. For a SETXCF START,MSGBASED command, message-based event processing is already in effect. For a SETXCF STOP,MSGBASED command, policy-based event processing is already in effect.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during command processing. The results of the request are unpredictable.

System action: When the command completes successfully, the system has updated the CFRM event management protocol as requested. When the command fails, the event management protocol remains unchanged.

Operator response: If the request fails, report the failure to the system programmer.

System programmer response: If the request fails for reasons other than ALREADY USING SPECIFIED PROTOCOL, correct the conditions that caused the failure as documented for the message reason text, and reissue the command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXC01SCP

Routing code: 2

Descriptor code: 5

IXC548I CFRM EVENT MANAGEMENT ENVIRONMENT UPDATEDEVENT MANAGEMENT PROTOCOL: {MESSAGE-BASED|POLICY-BASED}REASON FOR CHANGE: *trigger***TRANSITION SEQUENCE NUMBER:** *transeqnum***TRANSITION TIME:** *trantime***[MANAGER SYSTEM NAME:** *sysname***][MANAGER SYSTEM NUMBER:** *sysid***][MANAGEMENT LEVEL:** *msgbasedlevel***]**

Explanation: The CFRM event processing environment has been updated. Either the event processing protocol has changed, or, in message-based processing, the system assigned to manage events has changed.

In the message text:

MESSAGE-BASED
CFRM is now using the message-based event delivery protocol.

POLICY-BASED
CFRM is now using the policy-based event delivery protocol.

trigger

FIRST USE OF MSGBASED-CAPABLE COUPLE DATA SET
A CFRM couple data set formatted at or above the minimum version required for message-based event processing was made available, either at IPL (when the active CFRM policy did not require policy-based processing), or through a SETXCF COUPLE,PSWITCH command.

FAILURE OF MANAGING SYSTEM
While message-based processing was in effect, the system assigned as event manager failed. The named system is the new manager.

SETXCF COMMAND
The operator issued a SETXCF START,MSGBASED command to initiate message-based processing or a SETXCF STOP,MSGBASED command to revert to policy-based processing.

COMPONENT RECOVERY
The system restarted message-based processing to prevent or correct a potential hang condition.

MANAGEMENT LEVEL
The system restarted message-based processing to change the message-based management level.

transeqnum
The transition sequence number associated with the reported update. The sequence number is incremented every time the event delivery protocol changes and whenever the managing system changes.

trantime
The date/time when the event processing update occurred, in the format mm/dd/yyyy hh:mm:ss.ffffff.

sysname
The name of the system assigned to manage events. Applicable only to message-based event processing. A name of '********' indicates that no manager is assigned.

sysid
The system slot and sequence number of the system assigned to manage events. Applicable only to message-based event processing.

msgbasedlevel
The level of message-based event processing being used by CFRM. Message-based processing can be restarted by the system if a system in the sysplex does not support this level. Message-based processing can also be restarted by the system to increase this level.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2MBU

Routing code: 2

Descriptor code: 4

IXC549I EVENT MANAGEMENT: *evtmgmt*

Explanation: When CFRM initialization is done for a system in the sysplex, the current state of event management protocol is written to the hardcopy log.

In the message text:

EVENT MANAGEMENT

The CFRM event management protocol according to the CFRM active policy. Except for XCF signaling structures, messaged-based processing can be used for any allocated structure.

When the CFRM event management protocol is message-based, message-based processing is enabled for an allocated structure during event processing. When the CFRM event management protocol is policy-based, event processing is policy-based for all allocated structures.

evtmgmt
One of the following:

POLICY-BASED
For the sysplex, event management for an allocated structure is controlled on each system having a structure connection and the CFRM active policy is accessed to obtain event data.

MESSAGE-BASED MANAGER SYSTEM NAME: *mgrsysname*
For the sysplex, allocated structures enabled for message-based processing have event processing managed by an event manager system using messages sent by way of XCF signaling for communication with the participant system(s). The manager system updates the CFRM active policy once all participating system(s) distribute the event to active connections.

The event manager system is identified by *mgrsysname*.

MESSAGE-BASED TRANSITIONING TO NEW MANAGER
For the sysplex, allocated structures enabled for message-based processing have event processing managed by an event manager system but the sysplex is transitioning to a new manager system. Once

the new manager system is assigned, the name of the event manager system can be displayed. The sysplex changes to a new manager system as the result of removing the prior manager system from the sysplex.

mgrsysname
When event management is policy-based, no system name is displayed. When event management is message-based, the manager system name (*mgrsysname* is displayed. When transitioning to a new manager system, no system name is displayed.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2INT

Routing code: 2

Descriptor code: 4

IXC550I CFRM RECORD CLEANUP *status* **TRACE THREAD:** *thread***.**

Explanation: During CFRM initialization, additional cleanup of the records in the CFRM active policy is done. Message IXC516I and IXC551I may also be issued during this processing.

In the message text:

status
One of the following:

BEGINNING.
During CFRM initialization, additional record cleanup for structures started.

BEGINNING WITH FULL CFRM CHECKPOINT AREA.
During CFRM initialization, additional record cleanup for structures started and the checkpoint area of the CFRM active policy is full. The special checkpoint record used to limit the number of times this processing is done for the sysplex is not written to the CFRM active policy. Until the special checkpoint record is written, other systems in the sysplex will also do this processing.

ENDING.
During CFRM initialization, additional record cleanup for structures completed.

ENDING WITHOUT UPDATES FOR CFRM ACTIVE POLICY.
During CFRM initialization, additional record cleanup for structures completed without updating the CFRM active policy.

thread
Used to tie together messages and XCF component trace records during CFRM initialization and processing to gain ownership and cleanup coupling facilities.

System action: The CFRM active policy is updated to reflect any action taken.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2CRS

Routing code: 10

Descriptor code: -

IXC551I **STRUCTURE** *strname* **IN COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid status* **TRACE THREAD:** *thread*.

Explanation: During CFRM initialization, additional cleanup of the records in the CFRM active policy is completed. The action for a structure is based on the information in the CFRM active policy.

In the message text:

strname
Name of the structure for which information is recorded.

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

status
One of the following:

TO BE DEALLOCATED.
The non-persistent structure was found in the CFRM active policy. The structure information has been cleared from the CFRM active policy and a checkpoint record added to the CFRM active policy to indicate that the structure should be deallocated. The non-persistent structure will be deallocated during processing to cleanup the coupling facility in which the structure is allocated. Using the DISPLAY XCF,STR command will show the status as STRUCTURE IN TRANSITION until the structure is deallocated.

The structure deallocation may remain pending if the coupling facility containing the structure is not connected to any system. Use the DISPLAY XCF,CF or DISPLAY CF command to show the connectivity status of the coupling facility.

TO BE DUMPED AND DEALLOCATED.
The non-persistent structure with valid dump options was found in the CFRM active policy. The structure information has been cleared from the CFRM active policy and a checkpoint record added to the CFRM active policy to indicate that the structure should be dumped prior to deallocating the structure. The non-persistent structure will have dump processing initiated during processing to cleanup the coupling facility in which the structure is allocated. The structure will be deallocated when dump processing completes. Using the DISPLAY XCF,STR command will show the status as STRUCTURE IN TRANSITION until the structure is deallocated.

The structure deallocation may remain pending if the coupling facility containing the structure is not connected to any system. Use the DISPLAY XCF,CF or DISPLAY CF command to show the connectivity status of the coupling facility.

thread
Used to tie together messages and XCF component trace records during CFRM initialization and processing to gain ownership and cleanup coupling facilities.

System action: The CFRM active policy is updated to reflect the action taken for the specified structure.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2CRS

Routing code: 10

Descriptor code: -

IXC552I DUPLEX REBUILD NEW STRUCTURE *strname* WAS ALLOCATED IN A COUPLING FACILITY THAT IS NOT FAILURE ISOLATED FROM THE OLD STRUCTURE.

Explanation: The structure allocated for this duplexing rebuild could not be made failure isolated with respect to the old structure. This is not an optimum use of duplexing since failure of a processor with both coupling facility LPARs in it would result in the loss of both structures.

In the message text:

strname
The name of the structure.

System action: The duplexing rebuild continues.

Operator response: Notify the system programmer.

System programmer response: Review your coupling facility configuration. When possible, duplex failure isolation is recommended.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ASR

Routing code: 2, 10

Descriptor code: 11

IXC553E DUPLEXING REBUILD NEW STRUCTURE *strname* IS NOT FAILURE ISOLATED FROM THE DUPLEXING REBUILD OLD STRUCTURE.

Explanation: The duplexing rebuild new structure allocated by system-managed duplexing rebuild could not be made failure isolated with respect to the duplexing rebuild old structure. This is not an optimum use of duplexing since failure of a processor with both CF partitions in it would result in the loss of both structures.

In the message text:

strname
The name of the structure.

System action: The system-managed duplexing rebuild continues. This message will be DOMed when the duplexing rebuild is stopped or completed, and may be reissued if the structure is subsequently reduplexed.

Operator response: Notify the system programmer.

System programmer response: Review your coupling facility configuration. When possible, duplex failure isolation is recommended. IBM recommends that the installation make the necessary configuration changes (for example, making new coupling facilities available, configuring new CF-to-CF links between existing coupling facilities, updating CFRM policy to add coupling facilities to the preference list for the structure, etc.) to allow the old and new instances of the duplexed structure to be allocated in coupling facilities that are failure-isolated from one another.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ATH,IXCL2MON

Routing code: 2, 10

Descriptor code: 10

IXC554I THE SETXCF FORCE PNDSTR REQUEST FOR COUPLING FACILITY *cfname* **WAS COMPLETED | REJECTED:** *text*

Explanation: An operator entered a SETXCF FORCE PNDSTR command to remove pending-deallocation structure information from the CFRM active policy for a coupling facility which is inaccessible to any member in the sysplex. The command was either completed or rejected.

In the message text:

cfname
Name of the inaccessible coupling facility which had pending-deallocation structure information in the CFRM active policy.

text
One of the following:

COUPLING FACILITY NOT DEFINED IN THE CFRM ACTIVE POLICY
The coupling facility is not defined in the CFRM active policy.

COUPLING FACILITY IS ACCESSIBLE TO THE SYSPLEX
The coupling facility is connected to at least one system in the sysplex.

PENDING-DEALLOCATION INFORMATION REMOVED FOR *n* **STRUCTURES**
The command was processed and resulted in the removal of pending-deallocation structure information for *n* structures from the CFRM active policy. *n* is a decimal value.

UNEXPECTED ERROR
An unexpected error occurred during FORCE processing.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware that is necessary to provide XES functions is not present.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

Problem determination: If the command was rejected, then see the explanation text. Use the D XCF,CF command to verify that the coupling facility is defined to the CFRM active policy. In the case of unexpected error, report the problem to the system programmer.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: 2

Descriptor code: 5

IXC555I PENDING-DEALLOCATION STRUCTURE INFORMATION FOR STRUCTURE *strname* **IN COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid* **HAS BEEN DELETED. PHYSICAL STRUCTURE VERSION :** *Phsicalver1 physicalver2*

Explanation: An operator entered the SETXCF FORCE,PNDSTR command to remove pending-deallocation structure information from a coupling facility. The pending-deallocation structure information for the structure *strname* has been processed and will be successfully removed from the CFRM active policy upon completion of the FORCE, PNDSTR command as indicated by message IXC554I.

In the message text:

strname
The name of the structure.

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

physicalver1
First half of the physical structure version number.

physicalver2
Second half of the physical structure version number.

System action: The system continues processing the SETXCF FORCE,PNDSTR command and issues message IXC554I when the request is completed.

Operator response: Verify that message IXC554I is issued to indicate the successful completion of the FORCE,PNDSTR command.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2FOR

Routing code: 2, see note 13

Descriptor code: none

IXC556I [SETXCF COMMAND COMPLETED:] ALTER {ENABLED|DISABLED} FOR *strcnt* STRUCTURE(S).

Explanation: A SETXCF MODIFY command was used to enable or disable CF structure alter processing. This message is issued when processing the SETXCF command and when CFRM initialization finds a CF structure affected by a previously issued SETXCF MODIFY command.

In the message text:

SETXCF COMMAND COMPLETED:
The message is issued as a response to a SETXCF MODIFY command to enable or disable CF structure alter processing. When this text is not provided, the message is issued by CFRM initialization to provide an indication that CF structure alter processing has been disabled by a SETXCF MODIFY command during a previous use of the CFRM CDS.

strcnt
The number of CF structures affected.

System action: The system continues processing

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2INT, IXCO1SCP

Routing code: *

Descriptor code: 5,12/12

IXC557I THE SETXCF DUMP REQUEST FOR *requestfor targetname* **[IN CF** *affectcf***] WAS COMPLETED | UNSUCCESSFUL:** *reason*

Explanation: An operator entered a SETXCF DUMPCF command to request a CF dump. This message displays the results of the command.

In the message text:

requestfor
One of the following:

- STRUCTURE
- CF

targetname
Name of the structure or CF.

affectcf
If the request was made by structure name, this is the name of the CF in which the structure resides. If the request was made by CF name, or if the specified structure is not allocated, this field is blank and the words "IN CF" are not present.

reason
Description for reason of failure or indication of an initiated CF dump. One of the following:

STRUCTURE NOT DEFINED IN THE CFRM ACTIVE POLICY
The structure name requested is not defined in the CFRM active policy.

STRUCTURE NOT ALLOCATED OR IS PENDING DEALLOCATION
The structure is either not allocated in any coupling facility or is pending deallocation.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
The couple data set for CFRM is not available to this system.

CF NOT DEFINED IN THE ACTIVE CFRM POLICY
The CF is not defined in the active CFRM policy.

CF LEVEL NOT SUFFICIENT FOR NON-DISRUPTIVE DUMP
The CF is not at least CFLEVEL=16 with SL 4.0, which is the lowest CF level with non-disruptive dumping function available.

CF NOT CONNECTED TO REQUESTING SYSTEM
The system from which the SETXCF DUMPCF command was issued is not connected to the CF for which the request was made.

CF BYPASSED NON-DISRUPTIVE DUMP
The system made a valid non-disruptive dump request, but the CF bypassed the dump because the request fell within the 5-minute refractory period between non-disruptive dumps in the CF.

THE REQUEST WAS CANCELED BY THE OPERATOR
The dump request was for a disruptive CF dump and was canceled by the operator's response to WTOR IXC558D.

AN UNEXPECTED ERROR OCCURRED
An unexpected error occurred during DUMPCF processing.

A DISRUPTIVE DUMP WAS INITIATED
The dump request was successful, and a disruptive dump of the target CF was requested by the system.

A NON-DISRUPTIVE DUMP WAS INITIATED
The dump request was successful and a non-disruptive dump of the target CF was requested by the system.

System action: The system continues processing.

System programmer response: Once a dump has been taken, collect it for analysis.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: -

Descriptor code: 5

IXC558D CONFIRM DISRUPTIVE CF DUMP OF CF *cfname*. REPLY CANCEL OR CONTINUE

Explanation: The system issues this message to confirm a SETXCF DUMPCF command when the command would result in a disruptive CF dump.

In the message text:

cfname
Name of the CF.

System action: If the operator replies CONTINUE, the system proceeds with DUMPCF processing. If the request is canceled, the system continues normal processing.

Operator response: If a disruptive dump of a CF was intended, reply CONTINUE. If the request was made in error, reply CANCEL. Note that if a disruptive CF dump is initiated, the entire CF is dumped and then re-IPLed.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCO1SCP

Routing code: 1, 2

Descriptor code: 5

IXC559I THE RESPONSE TO MESSAGE IXC501A WAS Y WHICH WILL CAUSE COUPLING FACILITY *cfname* TO BE USED BY *plexname1*. THIS MAY RESULT IN SEVERE ERRORS IF SYSPLEX *plexname2* IS STILL ACTIVELY USING IT. ENSURE THAT THE COUPLING FACILITY IS NOT CURRENTLY BEING USED BY SYSPLEX *plexname2* BEFORE CONFIRMING.

Explanation: This message appears when the reply to message IXC501A is Y. It is issued to warn the operator that severe errors may occur if the coupling facility is still being used by the sysplex that currently owns it. The operator is asked to ensure that the coupling facility is not being used by the currently owning sysplex before confirming its use for the sysplex identified in this message.

In the message text:

cfname
Name of the coupling facility from the CFRM active policy.

plexname1
Sysplex name that is attempting to gain ownership.

plexname2
Sysplex name portion of the authority data.

System action: Message IXC560A is issued.

Operator response: Notify the system programmer.

System programmer response: Verify that the CFRM active policy correctly identifies that the coupling facility

should be used by this sysplex and ensure that the sysplex identified in this message is stopped from using the coupling facility before responding to IXC560A. This message identifies the coupling facility and the sysplex that currently owns it. Note that a reply of Y to IXC560A may cause severe errors if the coupling facility is still being used by the sysplex identified in this message.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2HN

Routing code: 1,10

Descriptor code: 2

IXC560A REPLY Y TO CONFIRM THAT COUPLING FACILITY NAME *cfname* **SHOULD BE USED BY** *plexname1* **OR N TO DENY THE USE.**

Explanation: This message appears in conjunction with message IXC559I when the reply to message IXC501A is Y. Message IXC559I is issued to warn the operator that severe errors may occur if the coupling facility is still being used by the sysplex that currently owns it. The operator is asked to ensure that the coupling facility is not being used by the currently owning sysplex and then asked to either confirm or deny the use of the coupling facility.

In the message text:

cfname
Name of the coupling facility from the CFRM active policy.

plexname1
Sysplex name that is attempting to gain ownership.

System action: The coupling facility usage is based on the response.

Operator response: Notify the system programmer.

System programmer response: Verify that the CFRM active policy correctly identifies that the coupling facility should be used by this sysplex and ensure that the sysplex identified in messages IXC500I and IXC559I is stopped from using the coupling facility before responding to this message. If Y (yes) is specified, this system will gain ownership of the coupling facility for the sysplex and coupling facility cleanup will occur. Messages IXC500I and IXC559I identify the coupling facility and the sysplex that currently owns it. Note that a reply of Y may cause severe errors if the coupling facility is still being used by the sysplex identified in these messages. If N (no) is specified, the coupling facility will not be used by this system.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2HN

Routing code: 1,10

Descriptor code: 2

IXC561I FIRST CONNECTOR TO FAILED-PERSISTENT STRUCTURE *strname* **COULD NOT CONNECT. TO ALLOW THE CONNECT,** *text*

Explanation: The system takes appropriate action to allow another connection attempt.

In the message text:

strname
The name of the structure.

text
One of the following:

THE STRUCTURE WAS FORCED.
The structure was forced so that allocation can be reattempted.

THE DUPLEXING REBUILD WAS COMPLETED.
The duplexing rebuild was completed so that a connection can be reattempted to the alternate structure.

THE DUPLEXED STRUCTURE WAS FORCED.
The duplexed structure was forced so that allocation can be reattempted.

System action: System processing continues.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ASR

Routing code: 10

Descriptor code: 12

IXC567I **CONNECTION** *conname* **TO [NEW] STRUCTURE** *strname state trigger***.**

Explanation: A CF (coupling facility) structure connection has either been deleted or put in the failed-persistent state.

In the message text:

conname
The name of the CF structure connection.

strname
The name of the CF structure.

state
One of the following:

DELETED
The connection is deleted.

FAILED-PERSISTENT
The connection is put in the failed-persistent state.

trigger
One of the following:

DISCONNECT/FAILURE PROCESSING COMPLETED
No connectors need to provide a response to the connector termination event. All responses have been provided or all connectors have terminated.

RELEASE EXISTING FAILED-PERSISTENT CONNECTION REQUESTED
A connector requested that the failed-persistent connection be released.

FORCE FAILED-PERSISTENT CONNECTION REQUESTED
A request was made to force deletion of the failed-persistent connection.

STRUCTURE REBUILD COMPLETED
A connection in the old structure instance (which is being deleted) was not propagated to the new structure instance.

NEW
Indicates the connector termination event is the rebuild connect failure event. Otherwise, the connector termination event is the disconnected/failed event.

System action: The system continues processing

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD, IXCL2FOR, IXCL2RSR

Routing code: Note 13

IXC568I **CFRM LOSSCONN RECOVERY** *status*
[EVENT MANAGEMENT PROTOCOL: {MESSAGE-BASED|POLICY-BASED}]
[MANAGER SYSTEM NAME: *mgrsysname***]**
[MANAGER SYSTEM NUMBER: *mgrsysnum***]**
[MANAGEMENT LEVEL: *msgbasedlevel***]**

[CFLCRMGMT STATUS: {ENABLED|DISABLED}]

Explanation: This message indicates the status of CFRM LOSSCONN RECOVERY when an event occurs that may have affected CFRM LOSSCONN RECOVERY.

In the message text:

status
One of the following:

MANAGEMENT RESUMED
Used by the message-based manager system.

The local system has resumed managing recovery processing that was previously managed by a system that was partitioned from the sysplex.

Some system in the sysplex issued IXC568I indicating PROCESSING INITIATED, but then the manager system was removed from the sysplex and IXC548I was issued to indicate the event management protocol change.

MANAGEMENT STARTED
Used by the message-based manager system.

The local system has started managing recovery processing.

Some system in the sysplex issued IXC568I indicating PROCESSING INITIATED.

MANAGEMENT STOPPED
Used by the message-based manager system.

The local system stopped managing recovery processing because message-based processing was stopped or restarted with an insufficient management level.

Some system in the sysplex issued IXC548I indicating the event management protocol change.

MANAGEMENT SUCCESSFUL
Used by the message-based manager system.

The local system completed management of recovery processing successfully.

Issued by the system that issued IXC568I with MANAGEMENT STARTED or MANAGEMENT RESUMED, management successfully completed.

MANAGEMENT TIMEOUT
Used by the message-based manager system.

The local system is no longer managing recovery processing because it did not complete in a reasonable amount of time.

Issued by the system that issued IXC568I with MANAGEMENT STARTED or MANAGEMENT RESUMED, management completed due to a timeout.

NOT AFFECTED
Used by a system that lost connectivity to a coupling facility.

The loss of connectivity did not affect any active connections, so recovery processing was not requested of the system managing recovery.

Occurs after IXC518I or IXC519E is issued for a CF that was not being used by any active connections on the local system, but recovery processing is being managed for some other event.

NOT MANAGED
Used by a system that lost connectivity to a coupling facility.

The system will perform the recovery processing for the loss of connectivity without being managed because not all of the following requirements are satisfied:

- Optional function, CFLCRMGMT ENABLED. See "FUNCTIONS Statement" in *z/OS MVS Setting Up a Sysplex* for more information.
- A system must be assigned to manage events using message-based processing. See "Comparing message-based processing and policy-based processing" in *z/OS MVS Setting Up a Sysplex* for more information.

- Message-based management level of at least 01052010. This requires the optional function CFLCRMGMT to be ENABLED on the message-based manager system, and support for optional function CFLCRMGMT on all active systems in the sysplex.
- An affected structure is enabled for message-based event management.

Occurs after IXC518I or IXC519E is issued for a CF that was being used by an active connection on the local system, but a condition prevented the recovery processing from being managed.

NOT NEEDED
Used by a system that lost connectivity to a coupling facility.

The loss of connectivity did not affect any active connections, so recovery processing was not initiated.

Occurs after IXC518I or IXC519E is issued for a CF that was not being used by any active connections on the local system, and recovery processing is not being managed.

NOT REQUESTED
Used by a system that lost connectivity to a coupling facility.

The optional function CFLCRMGMT is DISABLED or the affected structures were not enabled for message-based event management, so recovery processing was not requested of the system managing recovery.

Occurs after IXC518I or IXC519E is issued when CFLCRMGMT is DISABLED on the local system or the affected structures were not enabled for message-based event management. But recovery is currently being managed for some other event.

PROCESSING COMPLETED
Used by a system that lost connectivity to a coupling facility.

Recovery processing for the system completed since message-based processing was stopped or restarted with an insufficient management level.

The local system issued IXC568I indicating PROCESSING INITIATED or PROCESSING REQUESTED, but subsequently some system issued IXC548I to indicate a change in the event management protocol. The change requires each system to initiate recovery processing that was previously expected of the recovery manager system, but the recovery manager system already completed all recovery processing that affected the local system.

PROCESSING INITIATED
Used by a system that lost connectivity to a coupling facility.

Management of recovery processing has been initiated.

Occurs after IXC518I or IXC519E is issued when recovery processing was not in progress, but will now be managed. Expect the manager system to issue this message indicating MANAGEMENT STARTED or if the manager system is removed from the sysplex, expect the new manager to issue this message indicating MANAGEMENT RESUMED.

PROCESSING REMAINS
Used by a system that lost connectivity to a coupling facility.

The system will perform remaining recovery processing because it was incomplete when message-based processing was stopped or restarted with an insufficient management level.

The local system issued IXC568I indicating PROCESSING INITIATED or PROCESSING REQUESTED, but subsequently some system issued IXC548I to indicate a change in the event management protocol. The change requires each system to initiate recovery processing that was previously expected of the recovery manager system. The local system is now initiating that processing.

PROCESSING REQUESTED
Used by a system that lost connectivity to a coupling facility.

Recovery processing has been requested of the system managing recovery.

Occurs after IXC518I or IXC519E is issued when recovery processing was already being managed. IXC568I was already issued by some system in the sysplex indicating PROCESSING INITIATED.

mgrsysname
The name of the system assigned to manage events.

mgrsysnum
The system slot and sequence number of the system assigned to manage events.

msgbasedlevel
The level of message-based event processing being used by CFRM. Message-based processing can be restarted by the system if a system in the sysplex does not support this level. Message-based processing can also be restarted by the system to increase this level.

System action: Is indicated by the recovery status.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2EMP, IXCL2EPP, IXCL2GAT, IXCL2LSC, IXCL2RSR

Routing code: 10, Note 13

Descriptor code: 4

IXC569I **MAINTENANCE MODE STARTED | STOPPED FOR COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION** *partition side* **CPCID** *cpcid* **NAMED** *cfname*

Explanation: The maintenance mode state of the coupling facility was changed. When a coupling facility is in maintenance mode, it is not eligible for structure allocation purposes. Furthermore, the coupling facility in maintenance mode is considered an undesirable location for the structure instances that it already contains, so that a rebuild or REALLOCATE process will tend to remove those structures from the coupling facility.

In the message text:

STARTED
Maintenance mode has started for the coupling facility. The coupling facility is now in maintenance mode.

STOPPED
Maintenance mode has stopped for the coupling facility. The coupling facility is now out of maintenance mode.

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

patition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for side. It can be one of the following values:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

&BLANK
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

cfname
Name of coupling facility from the CFRM active policy.

System action: System processing continues.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2MON

Routing code: 2, 10

Descriptor code: 4

IXC570I **SYSTEM-MANAGED** *process* **STARTED FOR STRUCTURE** *strname* **IN COUPLING FACILITY** *oldcfname* **PHYSICAL STRUCTURE VERSION:** *physicalver1 physicalver2* **LOGICAL STRUCTURE VERSION:** *logicalver1 logicalver2* **START REASON:** *reason* **[***connreason***] AUTO VERSION:** *procid1 procid2*

Explanation: The system has accepted a request to start a system-managed process.

In the message text:

process
One of the following:

REBUILD
Initiation of a system-managed rebuild has been requested.

DUPLEXING REBUILD
Initiation of a system-managed duplexing rebuild has been requested.

strname
The name of the structure.

oldcfname
The coupling facility in which the original instance of the structure resides.

physicalver1
First half of the physical version number of the original instance of the structure.

physicalver2
Second half of the physical version number of the original instance of the structure.

logicalver1
First half of the logical structure version number.

logicalver2
Second half of the logical structure version number.

reason
One of the following:

CONNECTOR-SPECIFIED REASON
The user that initiated the process specified its own reason for starting it.

OPERATOR-INITIATED
The request that caused the process to be started indicated that the request was initiated by the operator.

POLICY-INITIATED
The request that caused the process to be started indicated that the request was initiated by the system based on the contents of the CFRM policy. Message IXC536I will contain additional information.

connreason
Connector-specified reason for starting the system-managed process. Present only when START REASON is CONNECTOR-SPECIFIED REASON. Consult the documentation for the application that initiated the process for the meaning of this value.

AUTO VERSION:
A unique value identifying the system-managed process being started. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

System action: The system-managed process begins.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD

Routing code: 2

Descriptor code: 5

IXC571I SYSTEM-MANAGED *process* **FOR STRUCTURE** *strname* **HAS COMPLETED THE** *phase1* **PHASE AND IS ENTERING THE** *phase2* **PHASE. TIME:** *phasetime* **AUTO VERSION:** *procid1 procid2*

Explanation: A system-managed process has completed one phase of the process and is continuing to the next.

In the message text:

process
One of the following:

REBUILD
A system-managed rebuild is in progress.

DUPLEXING REBUILD
A system-managed duplexing rebuild is in progress.

strname
Name of the structure undergoing the system-managed process.

phase1
One of the following:

STARTUP
Initiation of the system-managed process.

QUIESCE
Quiescing activity against the structure.

ALLOCATION
Allocation of the new instance of the structure.

ATTACH
Connection of users to the new instance of the structure.

COPY
Copying of all required data from the old instance of the structure to the new.

COPY STOP
Interruption of the copy phase in order to stop the system-managed process.

DUPLEX ESTABLISHED
Long-lasting phase of duplexing rebuild in which both structure instances exist simultaneously.

QUIESCE FOR STOP
Quiescing activity against the structure due to stopping the system-managed process with KEEP=OLD.

SWITCH
Quiescing activity against the structure due to stopping the system-managed process with KEEP=NEW.

phase2
One of the following:

QUIESCE
Quiescing activity against the structure.

ALLOCATION
Allocation of the new instance of the structure.

ATTACH
Connection of users to the new instance of the structure.

COPY
Copying of all required data from the old instance of the structure to the new.

CLEANUP
Cutover to the new structure.

STOP
Stopping the system-managed process.

COPY STOP
Interruption of the copy phase in order to stop the system-managed process.

DUPLEX ESTABLISHED
Long-lasting phase of duplexing rebuild in which both structure instances exist simultaneously.

QUIESCE FOR STOP
Quiescing activity against the structure due to stopping the system-managed process with KEEP=OLD.

SWITCH
Quiescing activity against the structure due to stopping the system-managed process with KEEP=NEW.

phasetime
The date/time when the phase transition occurred, in the format mm/dd/yyyy hh:mm:ss.ffffff.

AUTO VERSION:
A unique value identifying the system-managed process in progress. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

System action: The system-managed process continues.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD, IXCL2ATC, IXCL2ATH

Routing code: 2

Descriptor code: 4

IXC572I **SYSTEM-MANAGED** *process* **FOR STRUCTURE** *strname* **HAS COMPLETED THE** *subphase1* **SUBPHASE OF THE** *phase* **PHASE AND IS ENTERING THE** *subphase2* **SUBPHASE. TIME:** *subphasetime* **AUTO VERSION:** *procid1 procid2*

Explanation: A system-managed process has completed one subphase of the specified phase and is continuing to the next subphase.

In the message text:

process
One of the following:

REBUILD
A system-managed rebuild is in progress.

DUPLEXING REBUILD
A system-managed duplexing rebuild is in progress.

strname
Name of the structure undergoing the system-managed process.

subphase1
One of the following:

INITIALIZATION
Phase initialization.

ATTACH
Connection of users to the new instance of the structure.

CASTOUT CLASS
Copying cache structure directory entries.

WRITE WITH CASTOUT
Copying cache structure directory entries.

STORAGE CLASS REGISTRATION
Copying cache structure storage class directory entry registration information.

STORAGE CLASS COUNTERS
Copying cache structure storage class statistical information.

LIST
Copying list or lock structure data.

LOCK
Copying lock data for a list or lock structure.

LOCK CLEANUP
Copying lock data for a list or lock structure.

EVENT QUEUE
Copying list structure event monitoring event queue data.

subphase2
One of the following:

ATTACH
Connection of users to the new instance of the structure.

CASTOUT CLASS
Copying cache structure directory entries.

WRITE WITH CASTOUT
Copying cache structure directory entries.

STORAGE CLASS REGISTRATION
Copying cache structure storage class directory entry registration information.

STORAGE CLASS COUNTERS
Copying cache structure storage class statistical information.

LIST
Copying list or lock structure data.

LOCK
Copying lock data for a list or lock structure.

LOCK CLEANUP
Copying lock data for a list or lock structure.

EVENT QUEUE
Copying list structure event monitoring event queue data.

EXIT
Phase completion.

subphasetime
The date/time when the subphase transition occurred, in the format mm/dd/yyyy hh:mm:ss.ffffff.

AUTO VERSION:
A unique value identifying the system-managed process in progress. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

System action: The system-managed process continues.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2SCT

Routing code: 2

Descriptor code: 4

IXC573I *phase* **PROCESSING DURING A SYSTEM-MANAGED** *process* **FOR STRUCTURE** *strname* **ENCOUNTERED AN ERROR. ERROR DATA:** *reason* **[***reldata1 reldata2 reldata3 reldata4***] AUTO VERSION:** *procid1 procid2*

Explanation: A system-managed process was in progress for the specified structure. This system was processing the indicated phase of that process, but encountered an error. The internal reason code and optional related data provide diagnostic information.

In the message text:

phase
One of the following:

ALLOCATE
This system attempted to allocate a new instance of the structure. Message IXC574I may provide further diagnostic information. In addition, the system may write a symptom record to the LOGREC data set.

ATTACH
This system was attempting to connect users to the new instance of the structure.

COPY
This system was attempting to copy data from the old instance of the structure to the new.

process
One of the following:

REBUILD
A system-managed rebuild was in progress.

DUPLEXING REBUILD
A system-managed duplexing rebuild was in progress.

strname
Name of the structure undergoing the system-managed process.

reason
Internal value identifying the error encountered. This is diagnostic data provided to help IBM service personnel with problem determination. The high-order halfword identifies the module in which the error was recognized. The low-order halfword is a module-unique code identifying the error.

reldata1
Data related to the error, if applicable. This is diagnostic data provided to help IBM service personnel with problem determination.

reldata2
Data related to the error, if applicable. May be presented when *reldata1* is presented. This is diagnostic data provided to help IBM service personnel with problem determination.

reldata3
Data related to the error, if applicable. May be presented when *reldata2* is presented. This is diagnostic data provided to help IBM service personnel with problem determination.

reldata4
Data related to the error, if applicable. May be presented when *reldata3* is presented. This is diagnostic data provided to help IBM service personnel with problem determination.

AUTO VERSION:
A unique value identifying the system-managed process in progress. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

System action: If error recovery is not possible, the system-managed process is stopped. If recovery is possible, the system-managed process continues, although the system issuing the message may end its participation in the specified phase of the process.

Operator response: Notify the system programmer.

System programmer response: If a SYSXCF component trace with the CFRM option is available, format the trace and examine it for indications of a problem. If the trace is not available, start the trace and restart the system-managed process.

If the phase is ALLOCATION examine the diagnostic information provided by message IXC574I and the ConaFacilityArray section of the LOGREC symptom record, if any. Determine the reason for the error during the structure allocation attempt. If the reason for the error cannot be determined from this information, contact IBM service for assistance in evaluating the internal reason code and the remainder of the symptom record.

Correct the conditions that caused the error, and, if the system-managed process was stopped as a result of the error, start the system-managed process again. If the conditions that caused the error cannot be determined, contact the IBM support center. Supply the error data included in the message, along with other data from the system log.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ATC, IXCL2ATH, IXCL2BAP, IXCL2SCT

Routing code: 2

Descriptor code: -

IXC574I *text* **OF STRUCTURE** *strname*[**AUTO VERSION:** *procid1 procid2*] [*stralloc* **STRUCTURE ALLOCATED IN COUPLING FACILITY:** *cfname1 cfname2*][*polinfo*]*text2*

Explanation: For the specified structure, either the REALLOCATE process was evaluating the structure or a structure rebuild process of the specified type was being started or in progress. This message provides further information about the evaluation, feasibility, or allocation decision based on the coupling facilities in the structure's preference list.

When sorting the CF eligibility queue for all system-managed rebuild processing and reallocate processing, SFM weight is given priority over other attributes. For a structure without any active connectors, the SFM weight of each coupling facility is the sum of the SFM weights of all systems connected to that coupling facility. For a structure with active connectors, only systems with active connectors are used to determine the SFM weight of the coupling facility. All systems are considered to have equal SFM weight if no SFM policy is active.

Note that for a POPULATECF rebuild request, only the POPULATECF is considered as a possible location for the new instance of the structure, and only that coupling facility will be listed.

In the message text:

text
One of the following:

ALLOCATION INFORMATION FOR SYSTEM-MANAGED REBUILD
A system-managed rebuild was in progress for the specified structure. This system attempted to allocate the rebuild new instance of the structure, and succeeded or failed as described by messageIXC578I and IXC582I, or IXC573I, respectively.

ALLOCATION INFORMATION FOR SYSTEM-MANAGED DUPLEXING REBUILD
A system-managed duplexing rebuild was in progress for the specified structure. This system attempted to allocate the rebuild new instance of the structure, and succeeded or failed as described by message IXC578I and IXC582I, or IXC573I, respectively.

ALLOCATION FEASIBILITY INFORMATION FOR DUPLEXING REBUILD
A request to start a user-managed duplexing rebuild for the specified structure was being processed. This system determined that allocation of the rebuild new structure instance was not feasible.

EVALUATION INFORMATION FOR REALLOCATE PROCESSING
The REALLOCATE process is evaluating an allocated structure using the XCF allocation criteria to analyze the coupling facilities in the preferred list. The preferred coupling facilities are used in determining whether the location of the structure instance(s) should be adjusted by using structure rebuild processing.

strname
Name of the structure for which information is recorded.

AUTO VERSION:
A unique value identifying the system-managed process in progress. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

stralloc
One of the following:

SIMPLEX
The structure is simplex with one instance allocated.

DUPLEXED
The structure is duplexed with two instances allocated.

cfname1
Name of coupling facility from the CFRM active policy. For a simplex structure, this is the name of the coupling facility containing the only instance. For a duplexed structure, this is the name of the coupling facility containing the old instance.

cfname2
Name of coupling facility from the CFRM active policy. For a simplex structure, this is blank. For a duplexed structure, this is the name of the coupling facility containing the new instance.

polinfo
One of the following:

ACTIVE POLICY INFORMATION USED.
The current active policy definition was used.

PENDING POLICY INFORMATION USED.
The pending policy definition was used.

ACTIVE POLICY INFORMATION USED BUT EXCLUSION LIST WAS IGNORED.
The current active policy definition for the structure was used but the exclusion list was ignored.

PENDING POLICY INFORMATION USED BUT EXCLUSION LIST WAS IGNORED.
The pending policy definition for the structure was used but the exclusion list was ignored.

text2

```
CFNAME             STATUS/FAILURE REASON
---------          -----------------------------------------------------
cfname              status

                                [INFO110: data1 data2 data3 data4]
                                        [data5 data6 data7 data8]

                                [subreason]
```

cfname
Name of the coupling facility for which information is recorded.

status
One of the following:

STRUCTURE ALLOCATED
Structure was successfully allocated in the specified coupling facility.

NO CONNECTIVITY
The CFRM active policy indicates that this system does not have connectivity to the specified coupling facility. This message may be accompanied by message IXC575I, indicating that another system will attempt to allocate the structure. That system will also issue message IXC574I to record the results of its allocation attempt. If no system succeeded in allocating the structure, re-establish physical connectivity to the coupling facility and re-initiate the system-managed process for which allocation was attempted.

COUPLING FACILITY NOT IN ACTIVE POLICY
The coupling facility is not listed in the active policy so it is not viable until the policy is changed.

CONNECTIVITY LOST
An attempt to allocate the structure in this coupling facility was unsuccessful because connectivity to the coupling facility has been lost. If structure allocation failed, establish physical connectivity to the coupling facility and reinitiate the system-managed process for which allocation was attempted.

COUPLING FACILITY FAILURE
The coupling facility has failed.

STRUCTURE FAILURE
The new instance of the structure failed during the allocation process.

PARAMETER ERROR
The requested structure attributes are inconsistent with the model-dependent attributes of the coupling facility. Contact IBM service.

INVALID STRUCTURE SIZE
The target structure size was too small to allocate the structure with the attributes specified. If the allocation failed, the CONAFACILITYMINREQSIZE field of the ConaFacilityArray section of the LOGREC symptom record provided with message IXC573I is set to the minimum size of the structure if it were to be allocated in this coupling facility with the requested attributes. The amount of storage required by the structure also increases as a function of the CFRM policy SCMMAXSIZE specification. Requesting a large amount of storage-class memory can significantly increase the minimum structure size. Increase the maximum structure size specified in the CFRM policy.

ALLOCATION NOT PERMITTED
New structures cannot be allocated in the coupling facility according to the CFRM active policy. One or more *subreason* message lines explain why the structure cannot be allocated in the specified coupling facility.

XCF COMPONENT ERROR
An XCF component error has occurred. Contact IBM service.

UNKNOWN HARDWARE ERROR
An unknown hardware error has occurred. Contact IBM service.

INSUFFICIENT SPACE
There was not sufficient space in the coupling facility to allocate the structure. If structure allocation failed, examine the ConaFacilityArray section of the LOGREC symptom record provided with message IXC573I. CONAFACILITYMINREQSIZE is set to the minimum size of the structure if it were to be

allocated in this coupling facility with the requested attributes. The amount of storage required by the structure also increases as a function of the CFRM policy SCMMAXSIZE specification. Requesting a large amount of storage-class memory can significantly increase the minimum structure size. Some amount of additional storage, over and above the structure size, may also be required to support storage-class memory. Make sure there is a coupling facility in the structure's preference list with sufficient space.

RESTRICTED BY REBUILD OTHER
LOCATION=OTHER was specified on the rebuild request. Since the original structure was allocated in this coupling facility, the system did not use this coupling facility when trying to allocate the new structure for rebuild. If the structure allocation failed, make sure there is another suitable coupling facility in the structure's preference list.

RESTRICTED BY SAMESITEONLY
SAMESITEONLY was specified for the DUPLEX parameter on the structure definition. This allocation is for a duplexing rebuild and the CF is NOT defined as being at the same site as the CF containing the structure.

INSUFFICIENT CONNECTIVITY
The coupling facility does not provide connectivity at least equivalent to the connectivity provided by the coupling facility in which the original structure resided.

PREFERRED CF ALREADY SELECTED

The system did not select the coupling facility because a preferable coupling facility was already selected. When the coupling facility status is PREFERRED CF ALREADY SELECTED or PREFERRED CF 2, the message displays one of the following lines that gives the primary reason why this coupling facility was placed lower than the previous one in the eligibility queue. Because of how different requirements are weighted, this information does not imply that all coupling facilities higher in the eligibility queue meet the requirement:

CONNECTIVITY REQUIREMENT MET BY PREFERRED CF
At least one connector to the current (old) structure does not have connectivity to this coupling facility, or the reporting system does not have connectivity, and there is at least one coupling facility to which all connectors do have connectivity.

CFLEVEL REQUIREMENT MET BY PREFERRED CF
Another coupling facility was found with a more appropriate CF level.

FAILURE ISOLATION FOR DUPLEXING MET BY PREFERRED CF
This coupling facility is not failure isolated for duplexing, this is a duplexing rebuild, and at least one coupling facility exists that is failure-isolated for duplexing.

SPACE AVAILABLE FOR REQUESTED SIZE IN PREFERRED CF
This coupling facility does not have enough free space to meet the requested structure size, and at least one coupling facility exists that does have enough free space to allocate the structure at the requested size.

CROSSSITE DUPLEXING PREFERENCE MET BY PERFERRED CF
This coupling facility does not satisfy the CROSSSITE DUPLEX preference according to the CFRM active policy, and at least one coupling facility exists that does satisfy the CROSSSITE DUPLEX preference.

CFLEVEL FOR POTENTIAL DUPLEXING MET BY PREFERRED CF
Duplexing rebuild is a possibility for the structure, and another CF was found with a potential duplex target which has a more appropriate CF level for a duplexing rebuild.

SPACE AVAILABLE FOR MINIMUM SIZE IN PREFERRED CF
This coupling facility does not have enough free space to meet the minimum required structure size to allocate the new structure instance based on the current object counts, and at least one coupling facility exists that does have enough free space to allocate the structure at the minimum size.

SPACE AVAILABLE FOR CHANGED DATA IN PREFERRED CF
This coupling facility does not have enough free space to meet the minimum required structure size to allocate the new structure instance based on the current in-use and changed object counts, and at least one coupling facility exists that does have enough free space to allocate the structure but with changed data only.

MORE SPACE AVAILABLE IN PREFERRED CF
This coupling facility does not have enough free space to allocate the structure at the requested size, and at least one coupling facility exists that also does not have enough free space but does have more space than this one.

STORAGE-CLASS MEMORY REQUIREMENT MET BY PREFERRED CF
This coupling facility does not have enough free storage-class memory to allocate the structure based on the current object counts, and there is at least one coupling facility that does have sufficient storage-class memory. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

SCMMAXSIZE REQUIREMENT MET BY PREFERRED CF
This coupling facility does not have enough total storage-class memory to accommodate the CFRM policy SCMMAXSIZE specification for this structure, and there is another coupling facility which does. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

MORE STORAGE-CLASS MEMORY AVAILABLE IN PREFERRED CF
This coupling facility does not have enough storage-class memory to allocate the structure with the amount specified by the CFRM policy and there is another coupling facility that also does not have enough storage-class memory but has more than this one. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

MORE STORAGE-CLASS MEMORY CONFIGURED IN PREFERRED CF
This coupling facility does not have enough total storage-class memory to accommodate the CFRM policy SCMMAXSIZE specification for this structure, and there is another coupling facility that also does not have enough total storage-class memory but has more than this one. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

NON-VOLATILITY REQUIREMENT MET BY PREFERRED CF
This coupling facility is volatile, non-volatility was requested, and at least one coupling facility exists that is non-volatile.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a non-volatile coupling facility.

FAILURE ISOLATION REQUIREMENT MET BY PREFERRED CF
This coupling facility is not failure-isolated from all connectors, non-volatility was requested, and at least one coupling facility exists that is failure-isolated from all connectors.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the failure isolation requirement.

STAND-ALONE REQUIREMENT MET BY PREFERRED CF
This coupling facility is not stand-alone, non-volatility was requested, and at least one coupling facility exists that is stand-alone.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the failure isolation requirement.

EXCLLIST REQUIREMENT FULLY MET BY PREFERRED CF
This coupling facility contains a structure from the EXCLLIST, and at least one coupling facility exists that does not contain any structures from the EXCLLIST.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that fully satisfies the EXCLLIST requirement.

SAMESITE DUPLEXING PREFERENCE MET BY PERFERRED CF
This coupling facility does not satisfy the SAMESITE DUPLEX preference according to the CFRM active policy, and at least one coupling facility exists that does satisfy the SAMESITE DUPLEX preference.

EXCLLIST REQUIREMENT MET BY PREFERRED CF
This coupling facility contains a simplex structure from the EXCLLIST, and at least one coupling facility exists that contains only old or new structure instances from the EXCLLIST.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the EXCLLIST requirement.

REMOTE FACILITY SPACE REQUIREMENT MET BY PREFERRED CF
The following conditions exist:

- System-managed duplexing rebuild is a possibility for the structure.
- The coupling facility is not connected by CF-to-CF links to any other coupling facilities in the PREFLIST that have adequate space to allocate the structure if a duplexing rebuild is to be started.
- At least one coupling facility exists that is connected by CF-to-CF links to a coupling facility that does have adequate space to allocate the structure.

REMOTE FACILITY REQUIREMENT MET BY PREFERRED CF
The following conditions exist:

- System-managed duplexing rebuild is a possibility for the structure.
- This coupling facility is not connected by CF-to-CF links to any other coupling facilities in the PREFLIST,
- At least one coupling facility exists that is connected by CF-to-CF links to a remote facility, but the remote facility does not have adequate space to allocate the structure if a duplexing rebuild is to be started.

PREFERRED CF HIGHER IN PREFLIST
This coupling facility is lower in the PREFLIST than another coupling facility that is suitable for allocation.

ENFORCEORDER(YES) AND PREFERRED CF HIGHER IN PREFLIST
This coupling facility is lower in the PREFLIST than another coupling facility that is suitable for allocation; because ENFORCEORDER(YES) was also specified for the structure in the CFRM policy, XCF did not re-order the PREFLIST.

GREATER SFM WEIGHT CALCULATED FOR PREFERRED CF
This coupling facility has a lower SFM weight than another coupling facility that is suitable for allocation. For a structure without any active connectors, the SFM weight of each coupling facility is the sum of the SFM weights of all systems connected to that coupling facility. For a structure with active connectors, only systems with active connectors are used to determine the SFM weight of the coupling facility. Note that all systems are considered to have equal SFM weight if no SFM policy is active.

RESTRICTED BY OPERATOR STOP OF DUPLEXING REBUILD
The system did not select the coupling facility because the operator had previously stopped the duplexing rebuild and the structure that was not kept was allocated in this coupling facility.

POPULATECF NOT SUITABLE
The system did not select the coupling facility because it was not as suitable as the facility in which the structure is currently located.

REBUILD IN PLACE NOT ALLOWED WITHOUT CFRM POLICY CHANGE
The coupling facility contains the original instance of the structure, and since there is no CFRM policy change pending, system-managed rebuild into the same facility is not permitted.

INSUFFICIENT CFLEVEL FOR CONNECTOR EXPLOITATION
The coupling facility was not at or above the minimum required CFLEVEL for the current set of active and failed-persistent connectors.

INSUFFICIENT CFLEVEL FOR SYSTEM-MANAGED PROCESSING
The coupling facility CFLEVEL was not at or above the minimum required for the current system-managed process.

INSUFFICIENT MAXIMUM NUMBER OF CONNECTIONS
The maximum number of users that can connect to a structure in this facility is less than the maximum number that can connect to the original instance of the structure.

RESTRICTED BY STRUCTURE LIMITS
Maximum values for some structure attributes are limited by the coupling facility in which they reside. At least one of these structure limits for structures in this coupling facility is less than the corresponding limit on the original instance of the structure.

ALLOCATED ATTRIBUTES UNACCEPTABLE
An attempt to allocate the new structure in the specified facility resulted in a structure with attributes (for example, size or object counts) less suitable than those of the old structure. Adjust the CFRM policy size values to accommodate the attributes of the old structure.

COMPUTED STRUCTURE SIZE WAS NOT VALID
When the structure size was computed from the required object counts (for example, entries, elements, list headers, etc), the command failed, or the computed maximum structure size required was larger than the policy specified SIZE value plus a toleration amount.

NO CF-TO-CF CONNECTIVITY FROM THE PRIMARY TO THIS CF
When CF-to-CF link information was obtained from the CF containing the rebuild old (primary) structure, this CF did not have connectivity (via CF-to-CF link) to the CF containing the rebuild old structure as required for system-managed duplexing rebuild.

NO CF-TO-CF CONNECTIVITY FROM THIS CF TO THE PRIMARY
When CF-to-CF link information was obtained from this CF, the CF containing the rebuild old (primary) structure did not have connectivity (via CF-to-CF link) to this CF as required for system-managed duplexing rebuild.

PREFERRED CF 1
Using the XCF allocation criteria, the system selected this coupling facility as the first CF. When evaluating the structure, the REALLOCATE process will compare this CF to the CF containing the only instance for a simplex structure or to the CF containing the old instance for a duplexed structure.

PREFERRED CF 2
Using the XCF allocation criteria for a structure with no CF SITE duplexing preference, the system selected this coupling facility as the second CF. When evaluating the structure, the REALLOCATE process will compare this CF to the CF containing the new instance for a duplexed structure.

PREFERRED SAMESITE CF
Using the XCF allocation criteria for a structure with SAMESITE specified on the CFRM policy DUPLEX keyword, the system selected this coupling facility as the second CF. When evaluating the structure, the REALLOCATE process will compare this CF to the CF containing the new instance for a duplexed structure.

PREFERRED SAMESITEONLY CF
Using the XCF allocation criteria for a structure with SAMESITEONLY specified on the CFRM policy DUPLEX keyword, the system selected this coupling facility as the second CF. When evaluating the structure, the REALLOCATE process will compare this CF to the CF containing the new instance for a duplexed structure.

PREFERRED CROSSSITE CF
Using the XCF allocation criteria for a structure with CROSSSITE specified on the CFRM policy DUPLEX keyword, the system selected this coupling facility as the second CF. When evaluating the structure, the REALLOCATE process will compare this CF to the CF containing the new instance for a duplexed structure.

When the coupling facility status is PREFERRED CF ALREADY SELECTED, PREFERRED CF2, PREFERRED SAMESITE CF, PREFERRED SAMESITEONLY CF or PREFERRED CROSSSITE CF, the message displays one of the following lines that gives the primary reason why this coupling facility was placed lower than the previous one in the eligibility queue. Because of how different requirements are weighted, this information does not imply that all coupling facilities higher in the eligibility queue meet the requirement:

CONNECTIVITY REQUIREMENT MET BY PREFERRED CF
At least one connector to the current (old) structure does not have connectivity to this coupling facility, or the reporting system does not have connectivity, and there is at least one coupling facility to which all connectors do have connectivity.

CFLEVEL REQUIREMENT MET BY PREFERRED CF
Another coupling facility was found with a more appropriate CF level.

FAILURE ISOLATION FOR DUPLEXING MET BY PREFERRED CF
This coupling facility is not failure isolated for duplexing, this is a duplexing rebuild, and at least one coupling facility exists that is failure-isolated for duplexing.

SPACE AVAILABLE FOR REQUESTED SIZE IN PREFERRED CF
This coupling facility does not have enough free space to meet the requested structure size, and at least one coupling facility exists that does have enough free space to allocate the structure at the requested size.

CROSSSITE DUPLEXING PREFERENCE MET BY PERFERRED CF
This coupling facility does not satisfy the CROSSSITE DUPLEX preference according to the CFRM active policy, and at least one coupling facility exists that does satisfy the CROSSSITE DUPLEX preference.

CFLEVEL FOR POTENTIAL DUPLEXING MET BY PREFERRED CF
Duplexing rebuild is a possibility for the structure, and another CF was found with a potential duplex target which has a more appropriate CF level for a duplexing rebuild.

SPACE AVAILABLE FOR MINIMUM SIZE IN PREFERRED CF
This coupling facility does not have enough free space to meet the minimum required structure size to allocate the new structure instance based on the current object counts, and at least one coupling facility exists that does have enough free space to allocate the structure at the minimum size.

SPACE AVAILABLE FOR CHANGED DATA IN PREFERRED CF
This coupling facility does not have enough free space to meet the minimum required structure size to allocate the new structure instance based on the current in-use and changed object counts, and at least one coupling facility exists that does have enough free space to allocate the structure but with changed data only.

MORE SPACE AVAILABLE IN PREFERRED CF
This coupling facility does not have enough free space to allocate the structure at the requested size, and at least one coupling facility exists that also does not have enough free space but does have more space than this one.

STORAGE-CLASS MEMORY FOR OBJECTS AVAILABLE IN PREFERRED CF
This coupling facility does not have enough free storage-class memory to allocate the structure based on the current object counts, and there is at least one coupling facility that does have sufficient storage-class memory. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

SCMMAXSIZE REQUIREMENT MET BY PREFERRED CF
This coupling facility does not have enough total storage-class memory to accommodate the CFRM policy SCMMAXSIZE specification for this structure, and there is another coupling facility which does. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

MORE STORAGE-CLASS MEMORY AVAILABLE IN PREFERRED CF
This coupling facility does not have enough storage-class memory to allocate the structure with the amount specified by the CFRM policy and there is another coupling facility that also does not have enough storage-class memory but has more than this one. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

MORE STORAGE-CLASS MEMORY CONFIGURED IN PREFERRED CF
This coupling facility does not have enough total storage-class memory to accommodate the CFRM policy SCMMAXSIZE specification for this structure, and there is another coupling facility that also does not have enough total storage-class memory but has more than this one. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

NON-VOLATILITY REQUIREMENT MET BY PREFERRED CF
This coupling facility is volatile, non-volatility was requested, and at least one coupling facility exists coupling facility that is non-volatile.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a non-volatile coupling facility.

FAILURE ISOLATION REQUIREMENT MET BY PREFERRED CF
This coupling facility is not failure-isolated from all connectors, non-volatility was requested, and at least one coupling facility exists that is failure-isolated from all connectors.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the failure isolation requirement.

STAND-ALONE REQUIREMENT MET BY PREFERRED CF
This coupling facility is not stand-alone, non-volatility was requested, and at least one coupling facility exists that is stand-alone.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the failure isolation requirement.

EXCLLIST REQUIREMENT FULLY MET BY PREFERRED CF
This coupling facility contains a structure from the EXCLLIST, and at least one coupling facility exists that does not contain any structures from the EXCLLIST.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that fully satisfies the EXCLLIST requirement.

EXCLLIST REQUIREMENT MET BY PREFERRED CF
This coupling facility contains a simplex structure from the EXCLLIST, and at least one coupling facility exists that contains only old or new structure instances from the EXCLLIST.

For duplexing rebuild new structure allocation, this will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the EXCLLIST requirement.

SAMESITE DUPLEXING PREFERENCE MET BY PERFERRED CF
This coupling facility does not satisfy the SAMESITE DUPLEX preference according to the CFRM active policy, and at least one coupling facility exists that does satisfy the SAMESITE DUPLEX preference.

REMOTE FACILITY SPACE REQUIREMENT MET BY PREFERRED CF
The following conditions exist:

- System-managed duplexing rebuild is a possibility for the structure.
- The coupling facility is not connected by CF-to-CF links to any other coupling facilities in the PREFLIST that have adequate space to allocate the structure if a duplexing rebuild is to be started.
- At least one coupling facility exists that is connected by CF-to-CF links to a coupling facility that does have adequate space to allocate the structure.

REMOTE FACILITY REQUIREMENT MET BY PREFERRED CF
The following conditions exist:

- System-managed duplexing rebuild is a possibility for the structure.
- This coupling facility is not connected by CF-to-CF links to any other coupling facilities in the PREFLIST,
- At least one coupling facility exists that is connected by CF-to-CF links to a remote facility, but the remote facility does not have adequate space to allocate the structure if a duplexing rebuild is to be started.

PREFERRED CF HIGHER IN PREFLIST
This coupling facility is lower in the PREFLIST than another coupling facility that is suitable for allocation.

ENFORCEORDER(YES) AND PREFERRED CF HIGHER IN PREFLIST
This coupling facility is lower in the PREFLIST than another coupling facility that is suitable for allocation; because ENFORCEORDER(YES) was also specified for the structure in the CFRM policy, XCF did not re-order the PREFLIST.

GREATER SFM WEIGHT CALCULATED FOR PREFERRED CF
This coupling facility has a lower SFM weight than another coupling facility that is suitable for allocation.

MAX STRUCTURES ALREADY ALLOCATED IN THIS CF
All available structure slots in this CF are already being used.

INSUFFICIENT STORAGE-CLASS MEMORY
The old structure has objects in SCM and the CF can allocate objects in SCM but cannot allocate all in-use objects (staying within the SIZE policy constraint), given the total amount of SCM configured to the CF.

COMPUTED OBJECT COUNTS UNACCEPTABLE
The old structure has objects in SCM and calculations show that the CF cannot allocate all in-use objects and remain within the SIZE and SCMMAXSIZE policy constraints.

COMPUTED STRUCTURE SIZE WAS NOT VALID
When the structure size was computed from the required object counts (for example, entries, elements, list headers, etc), the command failed, or the computed maximum structure size required was larger than the policy specified SIZE value plus a toleration amount. If the CFRM policy specifies SCMMAXSIZE for the affected structure, this text may also indicate that the coupling facility could not provide sufficient storage-class memory for overflow of in-use structure objects that cannot be contained within the structure itself.

INFO110:
One or more lines of additional diagnostic data may supplement the coupling facility status line to provide rationale for the selection or rejection of the named coupling facility.

data1
Diagnostic data to be used by IBM in evaluating structure allocation processing.

data2
Diagnostic data to be used by IBM in evaluating structure allocation processing. This fullword is a description of the attributes of the 'current' CF. This fullword is also supplied as the reason on IXL015I.

- **BYTE1:**

  10000000
  This CF is accessible to the system trying to allocate the structure. For a rebuild request it means that this facility is accessible to all systems on which connections to the old structure are running.

  01110000
  Indication of the suitability of the CF level of this CF for the likely types of connections and services required.

  00001000
  Duplex Failure Isolation indication if this bit is On then the facility is isolated from the old structure OR for initial allocation or non-duplexing rebuild allocation of a structure that the system may duplex, indicates the facility may provide duplex failure isolation when the structure is subsequently duplexed.

  00000100
  Free space is sufficient.

  00000010
  For duplexing rebuild allocation, indicates the CF satisfies the CROSSSITE DUPLEX preference according to the CFRM active policy for the structure. For initial allocation or non-duplexing rebuild allocation of a structure that the system may duplex, indicates the CF may satisfy the preference when the structure is subsequently duplexed.

- **BYTE2:**

  11100000
  For non-duplexing rebuild allocation of a structure that the system may duplex, an indication of the suitability of the CF level of another CF that may be used for duplexing the structure.

  00010000
  Enough free and control space to allocate the minimum required structure size.

  00001000
  Enough space to allocate the cache structure with "changed data" only.

  00000100
  CF contains enough storage-class (flash) memory to accommodate in-use structure objects that won't fit in CF real storage.

00000010
CF contains enough storage-class (flash) memory to allocate the structure with the amount of SCM specified by SCMMAXSIZE.

- **BYTE3:**

10000000
CF operational level is lower than that specified by the connection or is lower than that required for system managed processing.

01000000
If on, Facility satisfies the volatility requirement as specified by the connector. For duplexing rebuild new structure allocation, this bit will be off when the structure (old instance) is allocated in a non-volatile coupling facility. For initial allocation or non-duplexing rebuild allocation of a structure that the system may duplex, this bit will be on if the volatility requirement should be satisfied when the structure is subsequently duplexed.

00100000
If on, the facility is a stand-alone CF, and as such is failure isolated from all z/OS systems. For initial allocation or non-duplexing rebuild allocation of a structure that the system may duplex, this bit will be on if the failure isolation requirement should be satisfied when the structure is subsequently duplexed. For duplexing rebuild new structure allocation, this bit will be off since it's more appropriate to set the higher weighted duplex failure isolation indication.

00010000
Indicates that the facility satisfies the failure isolation requirement as specified by the connector. For duplexing rebuild new structure allocation, this bit will be off when the structure (old instance) is allocated in a coupling facility that satisfies the failure isolation requirement. For initial allocation or non-duplexing rebuild allocation of a structure that the system may duplex, this bit will be on if the failure isolation requirement should be satisfied when the structure is subsequently duplexed.

00001100
Indication of how closely the exclusion list requirement is met. These two bits break down as follows:

10 CF contains no instances of any structures from the exclusion list.

For duplexing rebuild new structure allocation, this value will not be used when the structure (old instance) is allocated in a coupling facility that does not satisfy the EXCLLIST requirement.

01 CF contains instances of structures from the exclusion list, but each is one of 2 instances.

For duplexing rebuild new structure allocation, this value will not be used when the structure (old instance) is allocated in a coupling facility that satisfies the EXCLLIST requirement.

For initial allocation or non-duplexing rebuild allocation of a structure that the system may duplex, this value will be used if the exclusion list requirement should be satisfied when the structure is subsequently duplexed.

00 CF contains the only instance of one or more structures from the exclusion list.

For duplexing rebuild new structure allocation, this value will not be used when the structure (old instance) is allocated in a coupling facility that fully satisfies the EXCLLIST requirement.

00000010
For duplexing rebuild allocation, indicates the CF satisfies the SAMESITE or SAMESITEONLY DUPLEX preference according to the CFRM active policy for the structure.

For initial allocation or non-duplexing rebuild allocation, indicates the CF may satisfy the preference when the structure is subsequently duplexed.

00000001
System-managed duplexing rebuild is a possibility if the structure is allocated in this CF and there is another CF available with sufficient storage and connected by peer links for the allocation of a secondary structure, should a duplexing rebuild be started in the future.

- **BYTE4:**

10000000
System-managed duplexing rebuild is a possibility if the structure is allocated in this CF and there is another CF connected by peer links for the allocation of a secondary structure, should a duplexing rebuild be started in the future.

data3
Diagnostic data to be used by IBM in evaluating structure allocation processing. This fullword are those attributes that the target CF didn't have that the current CF did. Thus the meanings are the exact opposite of those described for the 2nd fullword.

data4
Diagnostic data to be used by IBM in evaluating structure allocation processing.

data5
Diagnostic data to be used by IBM in evaluating structure allocation processing.

data6
Diagnostic data to be used by IBM in evaluating structure allocation processing.

data7
Diagnostic data to be used by IBM in evaluating structure allocation processing.

data8
Diagnostic data to be used by IBM in evaluating structure allocation processing.

subreason
One or more subreason lines appear when the coupling facility status is ALLOCATION NOT PERMITTED. *subreason* is one of the following:

COUPLING FACILITY BEING REMOVED
The coupling facility is in the process of being removed from the CFRM active policy.

COUPLING FACILITY BEING RECONCILED
The coupling facility is in the process of being cleaned up due to couple data set serialization.

CFRM INDICATES COUPLING FACILITY FAILURE
The coupling facility has failed. All data in the coupling facility is lost.

COUPLING FACILITY IS IN MAINTENANCE MODE
The coupling facility is in maintenance mode.

System action: For REALLOCATE processing or when the allocation was successful for structure rebuild processing, the system continues the in-progress process. When the allocation failed or was not feasible, the system terminates the structure rebuild process.

Operator response: Contact the system programmer for advice and assistance if messages IXC367I, IXC528I, IXC538I, or IXC573I indicate the structure rebuild process could not continue.

System programmer response: For the REALLOCATE process, evaluation of the specified structure will be completed to determine whether or not there is a need to adjust the location of the structure instance(s). Refer to the description for message IXC543I, which provides an explanation of the messages issued during REALLOCATE processing.

For the specified type of structure rebuild processing which is being started or in progress, refer to the description for message IXC367I, IXC528I, IXC538I, IXC573I, IXC578I, or IXC582I,as appropriate.

If the rebuild new structure was successfully allocated no action is required.

If the rebuild new structure allocation failed or was not feasible, examine the diagnostic information provided for each coupling facility by the message and the ConaFacilityArray section of the LOGREC symptom record, if any. Determine why there are no coupling facilities in which to allocate the rebuild new structure. If the failure occurs because of a possible problem with the CFRM policy size values, ensure that the values specified are sufficient to accommodate the attributes of the original structure. The following references provide information for sizing coupling facility structures:

- Coupling Facility Sizing Tool (CFSizer)
- *z/OS MVS Setting Up a Sysplex*
- *z/OS MVS Programming: Sysplex Services Guide*
- *PR/SM Planning Guide*

Correct the conditions that caused the error, and either start the structure rebuild process again, or wait for MVS to automatically initiate a duplexing rebuild for the structure.

If the conditions that caused the error cannot be determined, contact the IBM support center. Supply the error data included in the message, along with other data from the system log.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ATH

Routing code: 2

Descriptor code: -

IXC575I ALLOCATION WAS NOT SUCCESSFUL ON {CURRENT SYSTEM|FAILED SYSTEM} *oldsysname* **FOR SYSTEM-MANAGED** *process* **OF STRUCTURE** *strname***. PROCESSING WILL CONTINUE ON {SYSTEM|RECOVERING SYSTEM}** *newsysname***. AUTO VERSION:** *procid1 procid2*

Explanation: A system-managed process is in progress for the specified structure. The specified system attempted to allocate the new instance of the structure, but one of the following conditions prevented the allocation from succeeding:

- The system failed before completing the allocation of the new structure.
- The system did not have connectivity to the coupling facility in which the original instance of the structure is located.
- The system did not have connectivity to the coupling facility that was determined to be the optimum location for the new structure.

This system has chosen another system in the sysplex to attempt structure allocation. Message IXC574I provides additional diagnostic information.

In the message text:

CURRENT SYSTEM
The specified system attempted to allocate the new structure, but did not succeed.

FAILED SYSTEM
The specified system failed while attempting to allocate the new structure.

oldsysname
The name of the system that was unable to allocate the structure.

process
One of the following:

REBUILD
A system-managed rebuild is in progress for the specified structure.

DUPLEXING REBUILD
A system-managed duplexing rebuild is in progress for the specified structure.

strname
The name of the structure.

SYSTEM
The specified system will attempt to allocate the new structure.

RECOVERING SYSTEM
The specified system will attempt to recover for the failed system and allocate the new structure.

newsysname
The name of the system chosen to attempt structure allocation.

AUTO VERSION:
A unique value identifying the system-managed process in progress. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

System action: The system-managed process continues.

Operator response: Not applicable.

System programmer response: If the system-managed process ultimately stops because the attempt to allocate the new structure instance on the specified system also fails, examine the information provided by message IXC574I to identify connectivity problems. Establish physical connectivity to the appropriate coupling facilities and reinitiate the system-managed process for which structure allocation was attempted.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ATH

Routing code: 2

Descriptor code: 5

IXC576I SYSTEM-MANAGED *process* **OF STRUCTURE** *strname* **COULD NOT MAKE CFRM PENDING POLICY CHANGES ACTIVE BECAUSE** *reason* **AUTO VERSION:** *procid1 procid2*

Explanation: The system could not make a CFRM pending policy change active during a system-managed process.

In the message text:

process
One of the following:

REBUILD
A system-managed rebuild is in progress for the specified structure.

DUPLEXING REBUILD
A system-managed duplexing rebuild is in progress for the specified structure.

strname
The name of the structure.

reason
One of the following:

SIZE CHANGE IS PENDING AND CONNECTORS DO NOT SUPPORT ALTER
The pending policy change includes a change to the SIZE or INITSIZE specifications. Since at least one of the active or failed-persistent structure connectors does not allow alter processing, the system cannot change the structure size.

AUTO VERSION:
A unique value identifying the system-managed process in progress. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

System action: The system-managed process continues using the SIZE, PREFLIST, and EXCLLIST attributes from the CFRM policy which is currently active. The CFRM policy which is currently pending remains pending until the structure is deallocated or rebuilt via user-managed rebuild, or until another CFRM policy is activated which removes the SIZE change.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ATH

Routing code: 2

Descriptor code: 5

IXC577I **SYSTEM-MANAGED** *process* **HAS BEEN {COMPLETED | STOPPED} FOR STRUCTURE** *strname* **STRUCTURE** *status* **PHYSICAL STRUCTURE VERSION:** *physicalver1 physicalver2* **LOGICAL STRUCTURE VERSION:** *logicalver1 logicalver2* **AUTO VERSION:** *procid1 procid2*

Explanation: The system-managed process identified by the auto version has been completed, stopped, or reached the duplex established phase. If the process was stopped before completion or a duplexing rebuild was stopped in the duplex established phase, then additional information may be provided by other messages (IXC522I, IXC536I, IXC561I, and IXC573I).

In the message text:

process
One of the following:

REBUILD
A system-managed rebuild has been completed or stopped.

DUPLEXING REBUILD
A system-managed duplexing rebuild has been completed or stopped, or reached the duplex established phase.

text1
One of the following:

BEEN COMPLETED
The system-managed process has completed.

BEEN STOPPED
The system-managed process has been stopped.

REACHED THE DUPLEX ESTABLISHED PHASE
The system-managed process has reached the duplex established phase.

strname
The name of the structure.

status
status is one of the following:

NOW IN COUPLING FACILITY *cfname*
The remaining structure instance is allocated in the named coupling facility.

BEING DEALLOCATED NORMALLY
The structure is deallocated to support one of the following connector actions:

- All connectors have disconnected from this non-persistent structure. This causes the rebuild to be stopped or completed, and all instances of the structure to be deallocated.
- The first attempt to connect a persistent structure duplexed by a system-managed process was attempted on a system which is not connected to either of the coupling facilities containing the structure instances. This causes the duplexing rebuild to be stopped, and all instances of the structure to be deallocated.
- The structure and any failed-persistent connections have been forced. This causes the duplexing rebuild to be stopped, and all instances of the structure to be deallocated.

IS DUPLEXED
The structure is duplexed.

physicalver1
First half of the physical structure version number.

physicalver2
Second half of the physical structure version number.

logicalver1
First half of the logical structure version number.

logicalver2
Second half of the logical structure version number.

AUTO VERSION:
A unique value identifying the system-managed process being completed or stopped. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

System action: The system-managed process terminates or continues in the duplex established phase.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ASR, IXCL2BLD, IXCL2FOR, IXCL2RSR

Routing code: 2

Descriptor code: 5

IXC578I **SYSTEM-MANAGED** *process* **SUCCESSFULLY ALLOCATED STRUCTURE** *strname***. OLD COUPLING FACILITY:** *oldcfname* **OLD PHYSICAL STRUCTURE VERSION:** *oldphysver1 oldphysver2* **NEW COUPLING FACILITY:** *newcfname* **NEW PHYSICAL STRUCTURE VERSION:** *newphysver1 newphysver2* **LOGICAL STRUCTURE VERSION:** *logicalver1 logicalver2* **AUTO VERSION:** *procid1 procid2*

Explanation: A system-managed process is in progress for the specified structure. This system has successfully allocated the new instance of the structure in the specified coupling facility. Message IXC574I and IXC582Iprovide additional information about the successful allocation.

In the message text:

process
One of the following:

REBUILD
A system-managed rebuild is in progress for the specified structure.

DUPLEXING REBUILD
A system-managed duplexing rebuild is in progress for the specified structure.

strname
The name of the structure.

oldcfname
Name of the coupling facility in which the old structure instance was allocated.

oldphysver1
First half of the physical version number of the old instance of the structure.

oldphysver2
Second half of the physical version number of the old instance of the structure.

newcfname
Name of the coupling facility in which the new structure instance was allocated.

newphysver1
First half of the physical version number of the new instance of the structure.

newphysver2
Second half of the physical version number of the new instance of the structure.

logicalver1
First half of the logical structure version number.

logicalver2
Second half of the logical structure version number.

AUTO VERSION:
A unique value identifying the system-managed process in progress. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

System action: The system-managed process continues.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ATH

Routing code: 2

Descriptor code: 5

IXC579I *dealloctype* **DEALLOCATION FOR STRUCTURE** *strname* **IN COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid* **HAS BEEN COMPLETED. PHYSICAL STRUCTURE VERSION:** *physicalver1 physicalver2* **INFO116:** *modidfp dealloc1 dealloc2 dealloc3* **TRACE THREAD:** *thread***.**

Explanation: A structure instance was deallocated, because its last active connector disconnected or because a rebuild completed or stopped. The resources associated with the structure instance (for example, space within the facility) are now freed.

In the message text:

dealloctype
One of the following:

PENDING
The deallocation could not be completed immediately, due to connectivity, dump serialization, or other factors. The factors impeding the deallocation have now been resolved and the deallocation has been completed.

NORMAL
The deallocation was completed when requested.

strname
The name of the structure.

type
Node type (see ndetype in IXLYNDE).

mfg
Node manufacturer ID (see ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (see ndeplant in IXLYNDE).

sequence
Node sequence number (see ndesequence in IXLYNDE).

partition
Node LPAR partition number (see ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. *side* is one of the following:

SIDE: 0
The coupling facility is on SIDE 0 of a partitionable CPC.

SIDE: 1
The coupling facility is on SIDE 1 of a partitionable CPC.

blank
The coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (see ndecpcid in IXLYNDE).

physicalver1
First half of the physical structure version number.

physicalver2
Second half of the physical structure version number.

modidfp
Internal value identifying the module initiating structure deallocation. The high-order halfword identifies the module. The low-order halfword is module-unique data. This is diagnostic data provided to help IBM service personnel evaluate structure deallocation processing.

dealloc1
Diagnostic data to be used by IBM in evaluating structure deallocation processing.

dealloc2
Diagnostic data to be used by IBM in evaluating structure deallocation processing.

dealloc3
Diagnostic data to be used by IBM in evaluating structure deallocation processing.

thread
Used to tie together messages and XCF component trace records for structure deallocation processing.

System action: The system continues.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD, IXCL2RHT

Routing code: 2

Descriptor code: -

IXC580I **SYSTEM-MANAGED** *process* **OF STRUCTURE** *strname* **AUTO VERSION:** *procid1 procid2* **RESULTED IN THE FOLLOWING STRUCTURE ATTRIBUTES: PHYSICAL STRUCTURE VERSION:** *physicalver1 physicalver2* **LOGICAL STRUCTURE VERSION:** *logicalver1 logicalver2* **CURRENT SIZE:** *currentsize u* **CURRENT ENTRY COUNT:** *currententryCnt* **CURRENT ELEMENT COUNT:** *currentelemcount* **[CURRENT EMC COUNT:** *currentemccount***]**

Explanation: A system-managed process that may have resulted in changes to structure attributes has finished. This message reports the resulting structure size and counts.

In the message text:

process
One of the following:

REBUILD
The process that resulted in the reported structure attributes was a system-managed rebuild.

strname
The name of the structure.

AUTO VERSION:
A unique value identifying the system-managed process in progress. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

physicalver1
First half of the physical structure version number.

physicalver2
Second half of the physical structure version number.

logicalver1
First half of the logical structure version number.

logicalver2
Second half of the logical structure version number.

currentsize
The current size of the structure.

u The integer size unit specification. One of the following:

- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, a *currentsize* of 1048576K may be converted to a *currentsize* of 1G for the purpose of messages. A *currentsize* of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

currententrycnt
The current number of entries. This number is only substantially accurate.

currentelemcount
The current number of elements. This number is only substantially accurate.

currentemccount
The current number of event monitoring controls (list structures only). This number is only substantially accurate.

System action: System processing continues.

Operator response: Not applicable.

System programmer response: Not applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD

Routing code: 2

Descriptor code: -

IXC581I THERE ARE NO SYSTEMS CAPABLE OF PARTICIPATING IN THE *phase* **PHASE OF SYSTEM-MANAGED** *process* **OF STRUCTURE** *strname* **REQUIRED PROCESS LEVEL:** *reqproclevel* **AUTO VERSION:** *procid1 procid2 text*

Explanation: A system-managed process is in progress for the specified structure. The process could not complete because none of the systems in the sysplex are capable of participating in the specified phase.

The ALLOCATE and COPY phases can only occur on systems that support a system-managed process level greater than or equal to the level specified by the REQUIRED PROCESS LEVEL line.

The ALLOCATE phase requires that at least one system have simultaneous connectivity both to the coupling facility containing the old structure instance and to a coupling facility suitable for allocating the new structure instance.

The COPY phase requires that at least one system have simultaneous connectivity to the coupling facilities containing the old and the new structure instances.

In the message text:

phase

ALLOCATE
This system was attempting to allocate the new instance of the structure.

COPY
This system was attempting to identify systems capable of copying data from the old instance of the structure to the new.

process

REBUILD
A system-managed rebuild is in progress for the specified structure.

DUPLEXING REBUILD
A system-managed duplexing rebuild is in progress for the specified structure.

strname
The name of the structure.

reqproclevel
The level of support required by this structure in order to participate in a system-managed process (for example, rebuild).

AUTO VERSION
A unique value identifying the system-managed process in progress. It can be used to correlate messages and XCF component trace records associated with the current system-managed processes.

procid1
First half of the auto version.

procid2
Second half of the auto version.

text

```
           SUPPORTED  CONNECTIVITY  CONNECTIVITY
SYSTEM      PROCESS       TO OLD        TO NEW
NAME         LEVEL      STRUCTURE     STRUCTURE
sysname   maxproclevel oldconn       newconnb
```

sysname
The name of the system.

maxproclevel
The maximum level of system-managed process supported by the system. A process level of UNK indicates that the system issuing the message cannot determine the process level understood by the named system. You can issue the DISPLAY XCF,COUPLE command on that system to determine its maximum process level.

oldconn

YES
The named system has connectivity to the coupling facility containing the old structure instance.

NO The named system does not have connectivity to the coupling facility containing the old structure instance.

newconn

YES
The named system has connectivity to the coupling facility containing the new structure instance, or, in the case of the ALLOCATE phase, to a coupling facility suitable for the allocation of the new structure instance.

NO The named system does not have connectivity to the coupling facility containing the new structure instance, or, in the case of the ALLOCATE phase, to a coupling facility suitable for the allocation of the new structure instance.

System action: The system-managed process stops. Message IXC573I may be issued to provide additional diagnostic

information. If the failing phase is ALLOCATE, the system may write a symptom record to the LOGREC data set.

System programmer response: If the table of systems indicates that no system supports the required process level, IPL a system at a release or service level that provides the necessary support. If the table of systems indicates that no system has the required connectivity, bring coupling facilities online, establish connectivity between coupling facilities and systems, and/or define coupling facilities in the active CFRM policy, as necessary. When a system capable of completing the failing phase is available, restart the system-managed process.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ATH, IXCL2BAP

Routing code: 2

Descriptor code: 5

IXC582I **STRUCTURE** *strname* **ALLOCATED BY** *alloctype*.
PHYSICAL STRUCTURE VERSION: *physver1 physver2*
STRUCTURE TYPE: *strtype*
CFNAME: *cfname*
ALLOCATION SIZE: *allocsize u*
[MAX STRUCTURE SIZE: *maxsize u***]**
[MAX STRUCTURE SCM: *maxscmsize u***]**
POLICY SIZE: *policysize u*
POLICY INITSIZE: *policyinitsize u*
POLICY MINSIZE: *policyminsize u*
[POLICY SCMMAXSIZE: *policyscmsize u***]**
[IXLCONN STRSIZE: *ixlconnstrsize u***]**
ENTRY COUNT: *entrycnt*
[ELEMENT COUNT: *elementcnt***]**
[EMC COUNT: *emccnt***]**
[LOCKS: *lockentries***]**
[MAX SCM ENTRY COUNT: *emaxscmentrycnt***]**
[MAX SCM ELEMENT COUNT: *emaxscmelementcnt***]**
[ENTRY:ELEMENT RATIO: *entratio* **:** *elemratio***]**
[EMC STORAGE PERCENTAGE: *emcstgpct***]**
text

Explanation: A structure was allocated in a coupling facility with an actual allocation size that may exceed the size specifications requested by the CFRM active policy definitions at the time of structure allocation. The actual allocation size is compared to the policy INITSIZE if specified or the policy size if INITSIZE is not specified. The size discrepancy may result from structure allocation "by counts" which allocates the structure with the desired counts of structure objects (entries, data elements, EMCs), regardless of the resulting structure size. Another example of a size discrepancy results when the IXLCONN STRSIZE specified is greater than the specified policy INITSIZE.

In the message text:

strname
The name of the allocated structure.

alloctype
Method of structure allocation

counts
The structure was allocated by target counts.

size/ratio
The structure was allocated by target structure size and ratios.

physver1
First half of the physical version number of the alocated instance of the structure.

physver2
Second half of the physical version number of the allocated instance of the structure.

strtype
One of the following:

list The structure is an unserialized list structure.

cache The structure is a cache structure.

serialized list
The structure is a serialized list structure.

lock The structure is a lock structure.

cfname
The name of the coupling facility in which the structure has been allocated.

allocsize
The allocated size of the structure.

u The integer size unit specification. One of the following:

- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, a *allocsize* of 1048576K may be converted to a *allocsize* of 1G for the purpose of messages. A *allocsize* of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

maxsize
The maximum size of the structure as determined at allocation time based on the CFRM policy and environmental factors.

maxscmsize
The maximum amount of storage-class memory the structure can use as determined at allocation time based on the CFRM policy and environmental factors.

policysize
The CFRM active policy defined SIZE of the structure.

policyinitsize
The CFRM active policy defined INITSIZE of the structure. If INITSIZE is not specified, this value will be zero.

policyminsize
The CFRM active policy defined MINSIZE of the structure. If not specified, the default value will be displayed. When ALLOWAUTOALT(YES) is specified, MINSIZE defaults to 75% of the INITSIZE value (or the SIZE value if INITSIZE is not specified). Otherwise, MINSIZE defaults to zero.

policyscmmaxsize
The SCMMAXSIZE for the structure as specified or defaulted to in the CFRM active policy.

ixlconnstrsize
The STRSIZE requested by the CF structure exploiter on the IXLCONN macro. If not specified by the exploiter, this value will be zero. This value will also be zero when the structure is being allocated by a system-managed process rather than directly by an exploiter using the IXLCONN macro.

entrycnt
The total count of entries allocated for the structure.

elementcnt
The total count of data elements allocated for the structure. Not displayed when the count is zero.

emccnt
The total count of event monitor controls (EMCs) allocated for the strucutre. Event monitor controls are only present in list structures that support certain types of monitoring. Not displayed when the count is zero.

lockentries
The total number of lock entries. Only displayed for lock or serialized list structures.

emaxscmentrycnt
Estimated maximum number of entries that can be stored in the storage-class memory associated with this structure. Only displayed if the structure is allocated with support for storage-class memory.

emaxscmelementcnt
Estimated maximum number of elements that can be stored in the storage-class memory associated with this structure. Only displayed if the structure is allocated with support for storage-class memory.

entratio
The entry portion of the entry-to-element ratio. Zero for a structure without entries.

elemratio
The element portion of the entry-to-element ratio. Zero for a structure without data.

emcstgpct
The percentage of structure storage being used for Event Monitor Controls (EMC) objects. Event monitor controls are only present in list structures that support certain types of monitoring. Not displayed when the percentage is zero.

text
One of the following:

ALLOCATION SIZE EXCEEDS CFRM POLICY DEFINITIONS
The structure allocation size exceeds the size indicated by CFRM active policy definitions allowing for rounding up to a multiple of the CF storage increment size. The allocation size is compared to the policy INITSIZE if specified or the policy size if INITSIZE is not specified.

ALLOCATION SIZE IS WITHIN CFRM POLICY DEFINITIONS
The structure allocation size is within the size indicated by CFRM active policy definitions allowing for rounding up to a multiple of the CF storage increment size.The allocation size is compared to the policy INITSIZE if specified or the policy size if INITSIZE is not specified.

System action: System processing continues. The system writes the message to the hardcopy log.

System programmer response: If the allocation size of the structure exceeds CFRM policy definitions, consider whether it is necessary to update the CFRM policy to increase the requested structure size to the actual allocated structure size as indicated by this message.

A structure allocated with support for storage-class memory may be allocated with a structure size that exceeds CFRM policy definitions in order to avoid an INVALID TARGET STRUCTURE COUNTS condition. Only system-managed rebuild allocation may be able to avoid that condition. Consider using the CF Sizer tool, available on the Parallel Sysplex website http://www.ibm.com/systems/support/z/cfsizer, for help in determining structure SIZE, INITSIZE, and SCMMAXSIZE attributes.

If the structure has increased in size as a result of rebuilding or duplexing the structure into a CF at a different (higher) CFLEVEL than the one in which the original structure is allocated, and you intend to continue to use the higher CFLEVEL in the future, update the CFRM policy size definitions to be in line with the allocated structure size indicated by this message. Failure to do so might result in the structure being allocated with an inadequate structure size, or possibly not being allocatable at all, when the structure is initially allocated in the future. This might result in system, subsystem, or application outages.

If the structure has increased in size when rebuilding or duplexing the structure into a CF at the same CFLEVEL in which the original structure is allocated, there may be no need to update the CFRM policy definitions to reflect the larger allocated structure size indicated by this message.

Similarly, when the structure has been allocated larger than the policy INITSIZE value because the structure exploiter has requested a larger IXLCONN STRSIZE value, there is no need to update the CFRM policy definitions to reflect any size-related changes.

Ensure that the increased CF storage allocation for the structure can be accommodated not only within the current CF, but also in any other CF images in which the structure is eligible to be allocated.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ASR, IXCL2ATH

Routing code: 10

IXC583I **SYSTEM-MANAGED** *process* **FOR STRUCTURE** *strname* **LOGICAL STRUCTURE VERSION** *logicalver1 logicalver2* **MAY BE DELAYED IN THE** *phase* **PHASE. REASON:** *reason* **AUTO VERSION:** *procid1 procid2*

Explanation: A system-managed process has encountered a condition which may delay completion of the process.

In the message text:

process
One of the following:

REBUILD
A system-managed rebuild is in progress.

DUPLEXING REBUILD
A system-managed duplexing rebuild is in progress.

strname
The name of the structure.

logicalver1
First half of the logical structure version number.

logicalver2
Second half of the logical structure version number.

phase
One of the following

COPY
Copying of all required data from the old instance of the structure to the new.

reason
One of the following:

STRUCTURE OBJECTS IN STORAGE-CLASS MEMORY
Either of the following situations may exist:

- Some structure objects have been migrated to storage-class memory and must be retrieved before the system-managed process can progress.
- Some structure objects must be migrated to storage-class memory to provide space for new objects to be written to coupling facility storage.

AUTO VERSION
A unique value identifying the system-managed process being started. It can be used to correlate messages and XCF component trace records associated with the current system-managed process.

procid1
First half of the auto version.

procid2
Second half of the auto version.

System action: The system-managed process continues.

Operator response: None.

System programmer response: If the delay in completion of the system-managed process becomes excessive, you may choose to stop the process using the SETXCF STOP command.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ATC, IXCL2ATH

Routing code: */2 Note 13

Descriptor code: 5/--

IXC584I **STRUCTURE** *strname* **IN COUPLING FACILITY** *cfname* **PHYSICAL STRUCTURE VERSION:** *physver1 physver2* **ALLOCATED WITHOUT SUPPORT FOR** *function* **REASON:** *reason*

Explanation: The named structure was allocated without support for a function or attribute specified by the CFRM policy. Use of the function may have been prevented by environmental, configuration, or application-specific factors.

The specified function is optional in the sense that the system may not be able to honor the installation's or application's request to exploit it. The application with which the structure is associated must be prepared to operate without the affected function.

In the message text:

strname
The name of the structure.

cfname
The name of the coupling facility in which the structure is allocated.

physver1
First half of the physical version number of the allocated instance of the structure.

physver2
Second half of the physical version number of the allocated instance of the structure.

function
One of the following

STORAGE-CLASS MEMORY
Storage-class (flash) memory provides additional or overflow capacity for structure objects.

reason
One of the following:

NOT SUPPORTED FOR STRUCTURE TYPE
The structure is of a type that does not support the specified function.

NOT SUPPORTED BY CONNECTORS
At least one connector is not capable of exploiting the specified function. This may occur when the connector resides on a system at a release level that does not support the specified function. Use the DISPLAY XCF,STRUCTURE command to identify the systems on which structure connectors reside.

CONNECTOR DOES NOT SUPPORT ALTER
At least one connector specified IXLCONN ALLOWALTER=NO. The specified function requires all connectors to support structure alter.

INSUFFICIENT CFLEVEL
The coupling facility in which the structure was allocated is not at or above the minimum CFLEVEL required to exploit the specified function with the attributes specified in the CFRM policy.

INAPPROPRIATE STRUCTURE ATTRIBUTES
The attributes of the structure are inconsistent with the specified function. When function is STORAGE-CLASS MEMORY, the structure attributes are inconsistent with the SCMALGORITHM CFRM policy specification.

COUPLING FACILITY CONFIGURATION
The coupling facility in which the structure was allocated is not configured to support the specified function.

INVALID TARGET STRUCTURE COUNTS
A target structure count was too small for the structure to be allocated with support for the specified function.

UNKNOWN
An unexpected condition or error prevented use of the specified function.

System action: The application with which the structure is associated continues operating without the optional function.

Operator response: None.

System programmer response: If operation without the specified function is undesirable, correct the issue identified by the REASON text.

When the reason is NOT SUPPORTED FOR STRUCTURE TYPE or INAPPROPRIATE STRUCTURE ATTRIBUTES, correct the CFRM policy to remove the request for the specified function.

When the reason is NOT SUPPORTED BY CONNECTORS, upgrade z/OS or the affected application, as appropriate, to a level that supports the requested function.

When the reason is INVALID TARGET STRUCTURE COUNTS, use the CF Sizer tool, available on the Parallel Sysplex website http://www.ibm.com/systems/support/z/cfsizer, for help in determining structure SIZE, INITSIZE, and SCMMAXSIZE attributes.

After correcting the problem, take the steps necessary to deallocate and reallocate the structure (for cases where the issue is not a CFRM policy error).

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ASR, IXCL2ATH

Routing code: Note 13

Descriptor code: --

IXC585E *text*

Explanation: In the message, *text* is:

```
STRUCTURE strname IN COUPLING FACILITY cfname
PHYSICAL STRUCTURE VERSION physver1 physver2
IS AT OR ABOVE STRUCTURE FULL MONITORING THRESHOLD OF thresh%
SPACE USAGE IN-USE TOTAL % [CHANGED %]
ENTRIES: iuent  totent  iupct    [chgdent chgdpct]
ELEMENTS:           iuelem totelem iupct    [chgdelem chgdpct]
EMCS:               iuemc  totemc  iupct
```

XCF has detected that a structure is at or above its structure full monitoring threshold in terms of one or more of the structure objects that the structure contains. The current in-use and total counts for entries will always be presented when IXC585E is issued. The counts for elements and EMCs will only be presented for a structure that contains those types of objects. Note that the counts for all applicable structure objects that the structure contains will be presented, not just those structure objects which are over the threshold.

In the message text:

strname
The structure name of the structure that is over the threshold.

cfname
The coupling facility name of the facility in which the structure instance is allocated.

physver1, *physver2*
The physical structure version number of the structure that is at or above the threshold.

thresh
The structure full monitoring threshold percentage for the structure.

iuent
The number of in-use entries. For a list structure or a lock structure, all in-use entries are considered to be changed / non-reclaimable. For a cache structure, the total in-use entries may contain both changed / non-reclaimable and unchanged/reclaimable entries.

totent
The total number of entries allocated to the structure.

iupct
The percentage of the total number of the applicable structure object type (entries, elements, or EMCs) that are in use.

chgdent
For a cache structure, the total number of in-use entries that are considered changed / non-reclaimable.

chgdpct
The percentage of the total number of the applicable structure object type (entries or elements) that are changed.

iuelem
The number of in-use elements. For a list structure or a lock structure, all in-use elements are considered to be changed/non-reclaimable. For a cache structure, the total in-use elements may contain both changed/non-reclaimable and unchanged/reclaimable elements.

totelem
The total number of elements allocated to the structure.

chgdelem
For a cache structure, the total number of in-use elements that are considered changed/non-reclaimable.

iuemc
The number of in-use EMCs.

totemc
The total number of EMCs allocated to the structure.

nnnnnnnn
The current in-use structure object count for the indicated type of structure object (entries, elements or EMCs). For a cache structure, only changed or locked-for-castout objects are included in the count.

pppppppp
The current structure total object count for the indicated type of structure object (entries, elements or EMCs).

pct
The current structure percent full for the indicated type of structure object (entries, elements or EMCs).

System action: If permitted by the CFRM policy ALLOWAUTOALT specification, the system may attempt to take corrective action by automatically altering the structure.

Operator response: Notify the systems programmer.

System programmer response: Check on the status of the indicated structure instance and take the appropriate actions to determine the cause of the threshold structure full condition and relieve it, if possible, by either modifying the size of the allocated structure instance or taking steps to reduce the load being placed on the structure. The size of the structure may be modified either dynamically by altering the structure, or by modifying the CFRM policy size definitions for the structure and then rebuilding or deallocating/reallocating the structure. These actions may also be taken by message-based automation.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2MON

Routing code: 2, 10M

Descriptor code: 11

IXC586I STRUCTURE *strname* **IN COUPLING FACILITY** *cfname*, **PHYSICAL STRUCTURE VERSION** *physver1 physver2*, **IS NOW BELOW STRUCTURE FULL MONITORING THRESHOLD.**

Explanation: XCF has detected that a structure that was previously at or above its structure full monitoring threshold in terms or one of more of the structure objects is now below threshold for all structure objects that it contains. The threshold structure full condition has been relieved for the structure.

In the message text:

strname
The structure name of the structure that was over the threshold.

cfname
The coupling facility name of the facility in which the structure instance is allocated.

physver1, physver2
The physical structure version number of the structure that was at or above the threshold.

System action: Using the DOM macro, the system deletes the IXC585E message that was previously issued for this structure instance.

Operator response: Notify the systems programmer.

System programmer response: Check on the status of the indicated structure instance, particularly its current size and workload. Make any necessary modifications to CFRM policy size definitions to "harden" structure size changes that may have been made dynamically by altering the structure.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2MON

Routing code: 2, 10

Descriptor code: 12

IXC587I STRUCTURE FULL MONITORING DISCONTINUED FOR STRUCTURE *strname* **IN COUPLING FACILITY** *cfname*, **PHYSICAL STRUCTURE VERSION** *physver1 physver2*.

Explanation: XCF has discontinued structure full monitoring for the indicated structure instance, which was previously in active use and which was at or above the structure full monitoring threshold in terms or one of more of the structure objects it contains, for one of the following reasons:

- The structure instance has become inactive. Examples of the structure becoming inactive include the structure being deallocated or "in transition" pending deallocation, or a structure which is being kept because of an associated structure dump which has not yet been written out to a dump data set.
- The system responsible for monitoring the coupling facility in which the structure instance is allocated has failed. In this case, another active system in the sysplex may take over monitoring responsibility for the coupling facility.
- The system responsible for monitoring the structure instance has lost connectivity to the coupling facility in which the structure instance is allocated. In this case, another active system in the sysplex may take over monitoring responsibility for the coupling facility.
- The structure instance is the rebuild-old structure instance in a system-managed duplexing rebuild, and the duplexing rebuild is stopping to switch to the rebuild-new structure instance.

In the message text:

strname
The name of the structure.

cfname
The name of the coupling facility.

physver1
First half of the physical version number of the instance of the structure.

physver2
Second half of the physical version number of the instance of the structure.

System action: Using the DOM macro, the system deletes the IXC585E message that was previously issued for this structure instance.

Operator response: Notify the systems programmer.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2BLD, IXCL2CST, ICXL2FOR, IXCL2MON, IXCL2POL, IXCL2RC, IXCL2RSR, IXCL2SRF

Routing code: 2, 10

Descriptor code: 12

IXC588I AUTOMATIC ALTER PROCESSING INITIATED FOR STRUCTURE *strname*. **CURRENT SIZE:** *currentsize u* **TARGET SIZE:** *size u* **TARGET ENTRY TO ELEMENT RATIO:** *entries* **:** *elements* **TARGET EMC STORAGE PERCENTAGE:** *emcs*

Explanation: The system has initiated an alter request to correct a resource shortage for one or more of the structure objects that the structure contains. When XCF has detected that a structure is at or above its structure full threshold value in terms of one or more of the structure objects that the structure contains, XCF will start an alter request to correct the situation, when allowed. The current in-use and total counts for the objects will be displayed by message IXC585E.

In the message text:

strname
Structure name of the structure that is being altered.

currentsize
The current size of the structure.

u The integer size unit specification. One of the following:

- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, a *currentsize* of 1048576K may be converted to a *currentsize* of 1G for the purpose of messages. A *currentsize* of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

size
The target size of the structure.

entries
The entry portion of the "entry to element" ratio and is issued only when the alter process is requesting an entry to element ratio change.

elements
The element portion of the "entry to element" ratio.

emcs
The target EMC storage percentage and is issued only when the alter process is requesting an EMC storage percentage change.

System action: If the system-initiated alter successfully relieved the threshold structure full condition for the indicated structure, the system DOMs (deletes) the IXC585E message that was previously issued for this structure instance and message IXC586I will be issued.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2MON

Routing code: 2

Descriptor code: -

IXC589I AUTOMATIC ALTER PROCESSING FOR STRUCTURE *strname text1 text2*

Explanation: The system initiated structure alter processing has ended.

In the message text:

strname
The name of the structure.

text1
One of the following:

ENDED. STRUCTURE FAILED.
The structure alter request ended due to structure failure.

ENDED. NO CONNECTIVITY TO STRUCTURE.
The structure alter processing ended due to all systems which are capable of performing structure alter processing having lost connectivity to the coupling facility containing the structure.

ENDED. REBUILD STARTED.
The structure alter request ended due to a rebuild request for the same structure.

ENDED. STRUCTURE HAS BEEN DEALLOCATED.
The structure alter request ended due to the deallocation of the structure.

ENDED. ALTER STOPPED BEFORE ANY CHANGES TO THE STRUCTURE OCCURRED.
The structure alter processing ended because of a request to stop alter processing. This request was processed before any coupling facility operations with respect to the alter request could be performed. The structure was not changed by the initial alter request.

ENDED. COMPONENT ERROR.
An unknown XES component error has occurred.

text2
One of the following:

A duplexing rebuild is not in progress so no further information is given.

ALTER OF REBUILD-OLD STRUCTURE INSTANCE WAS ATTEMPTED.
The structure alter request that ended was processing the Rebuild-Old structure instance during a duplexing rebuild.

ALTER OF REBUILD-NEW STRUCTURE INSTANCE WAS ATTEMPTED.
The structure alter request that ended was processing the Rebuild-New structure instance during a duplexing rebuild.

System action: System processing continues.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT

Routing code: 2

Descriptor code: -

IXC590I **AUTOMATIC ALTER PROCESSING FOR STRUCTURE** *strname text1* **CURRENT SIZE:** *currentsize u* **TARGET:** *targetsize u* **CURRENT ENTRY COUNT:** *currententrycnt* **TARGET:** *targetentrycount* **CURRENT ELEMENT COUNT:** *currentelemcount* **TARGET:** *targetelemcount* **CURRENT EMC COUNT:** *currentemccount* **TARGET:** *targetemccount* **[***text2***]**

Explanation: The system initiated stucture alter processing has finished.

In the message text:

strname
The name of the structure.

text1
One of the following:

COMPLETED. TARGET ATTAINED.
The structure alter processing completed and the requested target was attained.

COMPLETED. TARGET NOT ATTAINED.
The structure alter processing completed and the requested target was not attained.

currentsize
The current size of the structure.

u The integer size unit specification. One of the following:
- K (kilobytes)

- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, a *currentsize* of 1048576K may be converted to a *currentsize* of 1G for the purpose of messages. A *currentsize* of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

targetsize
The target size of the structure.

currententrycnt
The current number of entries. This number is only substantially accurate.

targetentrycount
The target number of entries.

currentelemcount
The current number of elements. This number is only substantially accurate.

targetelemcount
The target number of elements.

currentemccount
The current number of EMCs. This number is only substantially accurate.

targetemccount
The target number of EMCs.

text2
One of the following:

A duplexing rebuild is not in progress so no further information is given.

ALTER OF REBUILD-OLD STRUCTURE INSTANCE WAS COMPLETED.
The structure alter request that ended was processing the Rebuild-Old structure instance during a duplexing rebuild.

ALTER OF REBUILD-NEW STRUCTURE INSTANCE WAS COMPLETED.
The structure alter request that ended was processing the Rebuild-New structure instance during a duplexing rebuild.

System action: System processing continues.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT

Routing code: 2

Descriptor code: -

IXC591I AUTOMATIC ALTER REQUEST FOR STRUCTURE *strname* **REJECTED. REASON:** *text*

Explanation: The system initiated structure alter processing to start or stop a structure alter was rejected.

In the message text:

strname
The name of the structure.

text
One of the following:

STRUCTURE NOT IN THE CFRM ACTIVE POLICY
The structure is not defined in the CFRM active policy.

STRUCTURE NOT ALLOCATED
The specified structure is not allocated.

REBUILD IN PROGRESS
The specified structure is in the rebuild process. Structure alter is not allowed while rebuild is in progress.

REBUILD STOP IN PROGRESS
The specified structure is in the rebuild stop process. Structure alter is not allowed while rebuild stop is in progess. The request must be issued after the rebuild stop is complete.

COUPLING FACILITY DOES NOT SUPPORT ALTER
The specified structure is allocated in a coupling facility that does not support structure alter. The structure should be rebuilt or reallocated in a coupling facility that supports structure alter. Redefine the structure as ALLOWAUTOALT(NO) in the CFRM policy until such time as the structure can be rebuilt or reallocated in a coupling facility that is capable of alter processing.

ALTER ALREADY IN PROGRESS
The structure alter start request cannot be performed because structure alter is in progress.

AT LEAST ONE CONNECTION INDICATED THAT ALTER IS NOT ALLOWED.
The structure alter start request cannot be performed because at least one active, failing, or failed-persistent connection indicated that it does not support structure alter. Redefine the structure as ALLOWAUTOALT(NO) in the CFRM policy until such time as the connector supports alter processing.

AN UNEXPECTED ERROR OCCURRED.
The structure alter request cannot be performed because an unexpected error occurred.

STRUCTURE FAILED
The structure alter request cannot be performed because the structure has failed.

START ALTER NOT PERMITTED
CF structure alter processing has been disabled; start alter is not permitted.

System action: System processing continues.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT

Routing code: 2

Descriptor code: -

IXC592I STRUCTURE *strname* **ALTER STARTED. COUPLING FACILITY INITIATED REAPPORTIONMENT.**

Explanation: Coupling facility structure alter started to track reapportionment initiated by the coupling facility. The coupling facility may initiate reapportionment to migrate objects from SCM (storage-class memory).

In the message text:

strname
The name of the structure.

System action: System processing continues. The alter is monitored on a system in the sysplex that is capable of performing the function and that has connectivity to the coupling facility containing the structure. Message IXC593I is issued when the alter completes. Message IXC594I is issued if the alter ends due to a failure condition.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT

Routing code: 10, Note 13

Descriptor code: --

IXC593I **STRUCTURE** *strname* **ALTER COMPLETED. ENTRY COUNT:** *entries* **[ELEMENT COUNT:** *elements***] [EMC COUNT:** *emcs***]**

Explanation: The coupling facility structure alter completed.

In the message text:

strname
The name of the structure.

entries
The current number of entries allocated to the structure.

elements
The current number of data elements allocated to the structure. Not displayed when the count is zero.

emcs
The current number of event monitor controls (EMCs) allocated to the strucutre. Event monitor controls are only present in list structures that support certain types of monitoring. Not displayed when the count is zero.

System action: System processing continues.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT

Routing code: 10, Note 13

Descriptor code: --

IXC594I **STRUCTURE** *strname* **ALTER ENDED.** *reason***.**

Explanation: The coupling facility structure alter ended with a failure condition.

In the message text:

strname
The name of the structure.

reason
One of the following:

STRUCTURE FAILED
Structure alter ended because the structure failed.

NO CONNECTIVITY
Structure alter ended because there is no system connected to the coupling facility containing the structure.

REASON UNKNOWN
Structure alter ended for an unknown reason.

System action: System processing continues.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2ALT

Routing code: 10, Note 13

Descriptor code: --

IXC601I **SFM POLICY** *polname* **HAS BEEN {STARTED BY|MADE CURRENT ON|UPDATED BY} SYSTEM** *sysname*

Explanation: The SFM policy *polname* is started by, made current on, or updated by this system.

In the message text:

polname
The name of the policy.

STARTED BY
This system completed the SETXCF,START command for TYPE=SFM. The started policy is also made current on this system.

MADE CURRENT ON
The already started SFM policy has been made current on this system.

UPDATED BY
The already started SFM policy has been updated by this system.

sysname
System name.

System action: If the policy was started then an administrative policy has been made the started policy on the SFM couple data set. If the policy was updated, the started policy has been updated and might no longer match an administrative policy. In any case, the started SFM policy has been made current on this system. When a policy is made current any information that pertains to this system is read in and stored.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN

Routing code: 1, 2, 10

Descriptor code: 4

IXC602I **SFM POLICY** *polname* **INDICATES** *action* **[(***nostatus-interval***)] FROM THE** *sfmfrom* **[AND SSUMLIMIT(***ssumlimit***) FROM THE** *ssumlimitfrom***] FOR SYSTEM** *sysname* **.**

Explanation: SFM takes the specified action when system *sysname* fails to update its status.

In the message text:

polname
Name of the policy just made current on this system.

action
One of the following:

PROMPT
The operator is prompted.

ISOLATETIME
System isolation is attempted using the fencing services through the coupling facility *nostatus-interval* seconds after a system status update missing (SSUM) condition is detected for this system.

RESETTIME
A PR/SM reset is attempted *nostatus-interval* seconds after a system status update missing (SSUM) condition is detected for this system.

DEACTTIME
A PR/SM deactivate is attempted *nostatus-interval* seconds after a system status update missing (SSUM) condition is detected for this system.

nostatus-interval
SSUM INTERVAL that is specified for ISOLATETIME, RESETTIME, or DEACTTIME.

sfmfrom
One of the following:

SYSTEM POLICY ENTRY
The policy explicitly specified the action for this system.

DEFAULT POLICY ENTRY
The policy did not explicitly specify an action for this system. The policy default action will be used.

SYSTEM DEFAULT
No explicit action was specified for this system in the policy, nor was a default specified in the policy. The system default is used.

ssumlimit
SSUMLIMIT specification from the SFM policy. The limit put on the amount of time the system can be status update missing before action is taken.

ssumlimitfrom
One of the following:

SYSTEM POLICY ENTRY
The policy explicitly specified the SSUMLIMIT for this system.

POLICY DEFAULT ENTRY
The policy did not explicitly specify an SSUMLIMIT for this system. The policy default SSUMLIMIT is used.

SYSTEM DEFAULT
No explicit SSUMLIMIT was specified for this system in the policy, nor was a default specified in the policy. The system default is used.

sysname
System name.

System action: Processing continues.

Operator response: Make sure that the action to be taken is the desired action. Notify the system programmer if it is not.

System programmer response: Correct and start the policy if changes are necessary.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN

Routing code: -

Descriptor code: 4

IXC603I THE SFM POLICY *polname* **SPECIFIED A {RESETTIME KEYWORD FOR SYSTEM|DEACTTIME KEYWORD FOR SYSTEM| RECONFIG STATEMENT INVOLVING SYSTEM}** *sysname* **BUT THE REQUESTED FUNCTION IS AVAILABLE ONLY UNDER PR/SM WITH THE CROSS LPAR FUNCTION INSTALLED. {THE ACTION WILL BE CHANGED TO THE SYSTEM DEFAULT | RECONFIGURATION WILL NOT BE POSSIBLE}.**

Explanation: Either RESETTIME or DEACTTIME was specified in the SYSTEM information for this system, or this system was specified as the ACTSYS or TARGETSYS on a RECONFIG statement. Reset, deactivate, and reconfiguration actions can be performed only under PR/SM with the cross LPAR function installed.

In the message text:

polname
Name of the active policy.

RESETTIME KEYWORD FOR SYSTEM
A RESETTIME keyword was specified for this system.

DEACTTIME KEYWORD FOR SYSTEM
A DEACTTIME keyword was specified for this system.

RECONFIG STATEMENT INVOLVING SYSTEM
A RECONFIG statement was specified, naming this system as the acting system (ACTSYS) or target system (TARGETSYS).

sysname
System name detecting error.

THE ACTION WILL BE CHANGED TO THE SYSTEM DEFAULT
A RESET or DEACTIVATE cannot be done, so the default SFM system status update missing (SSUM) action will be used. Message IXC602I indicates the system default taken.

RECONFIGURATION WILL NOT BE POSSIBLE
If the system issuing this message is the acting system (ACTSYS), the reconfiguration action will be ignored. If it is the target system (TARGETSYS), then the acting system may attempt the reconfiguration, but it will not be successful.

System action: The SFM action will be changed to the system default, or the RECONFIG statement will have no effect. If a reconfiguration is attempted later, it will fail.

Operator response: Notify the system programmer

System programmer response: Determine why a PR/SM-related function was specified for a system that was not capable of that action.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN

Routing code: 1, 2, 10

Descriptor code: 12

IXC604I XCF PR/SM POLICY HAS BEEN DEACTIVATED ON SYSTEM *sysname* DUE TO THE START OF A SFM POLICY

Explanation: The XCF PR/SM policy has been deactivated because a SFM policy has been started on this system.

In the message text:

sysname
System name.

System action: The XCF PR/SM policy is deactivated.

Operator response: Notify the system programmer

System programmer response: Make sure that any needed PR/SM Policy has been integrated into the SFM policy.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN

Routing code: #

Descriptor code: 4

IXC605I SFM HAS EXPERIENCED A SOFTWARE FAILURE ON SYSTEM *sysname*. SFM IS NOT AVAILABLE ON THIS SYSTEM.

Explanation: SFM has encountered an unrecoverable error.

In the message text:

sysname
System name.

System action: SFM has been disabled on this system. A dump will be taken.

Operator response: Notify the system programmer.

System programmer response: Capture dump. Search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN

Routing code: 1, 2, 10

Descriptor code: 4

IXC606I SFM IS RECONFIGURING THE SYSPLEX DUE TO A SIGNALLING CONNECTIVITY FAILURE

Explanation: A signalling connectivity failure occurred in the sysplex. This system has initiated a reconfiguration of the sysplex based on the SFM policy.

System action: The systems in the sysplex are partitioned so that the remaining systems are fully connected. SYS1.LOGREC contains symptom records containing information that was used to determine which systems to remove. The records also contain the system weights and connectivity maps for each system that remains in the sysplex.

Operator response: Repair the failed connectivity and re-IPL the partitioned system(s).

System programmer response: Investigate the signalling configuration to determine if proper redundancy exists.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1, 2, 10

Descriptor code: 4

IXC607I SFM POLICY *text*

Explanation: SFM has processed a SETXCF STOP,POLICY command.

In the message text:

sysname
System name.

HAS BEEN STOPPED BY SYSTEM *sysname*
This system has processed the SETXCF STOP,POLICY for SFM.

IS NO LONGER CURRENT ON SYSTEM *sysname*
This system has reacted to another system processing the SETXCF STOP,POLICY command for SFM.

System action: The SFM policy is stopped.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN

Routing code: #

Descriptor code: 4

IXC608I SETXCF START,POLICY FOR SFM IS CANCELED. NO SFM COUPLE DATA SET IS IN USE BY THIS SYSTEM.

Explanation: The SFM policy cannot be started because there is no Sysplex Failure Management couple dataset in use by this system.

System action: The command to start a Sysplex Failure Management policy is canceled.

Operator response: Notify the system programmer that no Sysplex Failure Management couple dataset is available, or issue a SETXCF command to make one available.

System programmer response: Determine why no couple dataset for Sysplex Failure Management is available. Make sure that the system has access to a Sysplex Failure Management couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2TSK

Routing code: 1, 2, 10

Descriptor code: 4

IXC609I SFM POLICY *polname* **INDICATES FOR SYSTEM** *sysname* **A SYSTEM WEIGHT OF** *sysweight* **SPECIFIED BY** *text*

Explanation: This value will be used for SFM connectivity failure processing.

In the message text:

polname
Name of the current policy.

sysname
System name.

sysweight
The system weight value for this system.

SPECIFIC POLICY ENTRY
This value was specified in the policy explicitly for this system.

POLICY DEFAULT
An explicit value was not specified for this system. The policy default will be used.

SYSTEM DEFAULT
An explicit value was not specified for this system, and no policy default was specified. The system default will be used.

Operator response: Make sure values specified are the ones expected. Notify the system programmer if values are unexpected.

System programmer response: Correct and start policy if mistakes are found.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN

Routing code: #

Descriptor code: 4

IXC610I THE NUMBER OF {POLICY|RECONFIG|SYSTEM} DEFINITIONS IN THE ALTERNATE SFM COUPLE DATA SET WAS NOT GREATER THAN OR EQUAL TO THE NUMBER OF {POLICY|RECONFIG|SYSTEM} DEFINITIONS IN THE PRIMARY SFM COUPLE DATA SET.

Explanation: The specified alternate SFM couple data set cannot be used with the primary SFM couple data set. The number of POLICY, SYSTEM, or RECONFIG definitions in the alternate SFM couple must be greater than or equal to those in the primary SFM couple data set.

In the message text:

POLICY
Format item that specifies the number of POLICYs the couple data set is formatted to contain.

RECONFIG
Format item that specifies the number of RECONFIGs that the couple data set is formatted to contain in each policy.

SYSTEM
Format item that specifies the number of SYSTEMs that the couple data set is formatted to contain in each policy.

System action: SFM rejects the use of the alternate couple data set.

System programmer response: Format an alternate SFM couple data set in which each definition is greater than or equal to the primary SFM couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2FDF

Routing code: 1, 2

Descriptor code: 4

IXC611I ERROR DETECTED IN LINE *linenum*. *text*

Explanation: The XCF administrative data utility found an error in a policy definition.

In the message text:

linenum
Line number of error.

text
The error description, which can be one of the following conditions:

ACTSYS AND TARGETSYS CANNOT BE THE SAME.
A system cannot take action against itself.

FAILSYS AND ACTSYS CANNOT BE THE SAME.
A system cannot take action when it is the failed system.

A DUPLICATE RECONFIG STATEMENT HAS BEEN ISSUED FOR THE SAME FAILSYS AND ACTSYS.
A reconfig definition was already specified for this combination of failing system and acting system.

POLICY DEFAULTS HAVE ALREADY BEEN SPECIFIED FOR THIS POLICY.
SYSTEM NAME(*) can only be specified once for each policy.

A SYSTEM KEYWORD WAS ALREADY SPECIFIED FOR THIS SYSTEM.
SYSTEM NAME(sysname) can only be specified once for each system.

SSUMLIMIT CANNOT BE SPECIFIED WHEN PROMPT IS SPECIFIED
SSUMLIMIT can only be specified for actions other than PROMPT.

System action: The system continues processing the control statements however, the administrative data will not be changed.

Source: Cross System Coupling Facility (SCXCF)

Routing code: 1, 2

Descriptor code: 5

IXC612I POLICY *polname* **ON LINE NUMBER** *linenum* **SPECIFIED CONNFAIL(NO) BUT A WEIGHT WAS SPECIFIED FOR AT LEAST ONE SYSTEM DEFINITION**

Explanation: The XCF administrative data utility found an apparent conflict. A weight was specified for a system definition in a policy that will not take action for connectivity failures.

In the message text:

polname
The name of the policy for which the conflict was detected.

linenum
The line number where the conflict was detected.

System action: The system continues processing the control statements. The policy will not take action for connectivity failures. The weights for any system definitions in the policy are ignored.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2FDX

Routing code: 1, 2

Descriptor code: 5

IXC613I *sysname* **HAS RESUMED NORMAL PROCESSING. REASON: TIME SYNCHRONIZATION RESTORED.**

Explanation: This system has resumed normal processing. When the system returns REASON: TIME SYNCHRONIZATION RESTORED, the operator replied RETRY in response to message IEA015A and the system resumes normal processing. If an SFM policy is active, the specified isolation actions is suspended for at least four

minutes while XCF waits for the operator to resume the other systems in the sysplex.

sysname
System name.

System action: The system continues to monitor the progress of the sysplex and will resume SFM policy isolation actions under one of the following conditions:

- when there are systems in the sysplex that have been stopped since we have lost time synchronization but the SFM suspension time limit has been exceeded
- when there are systems in the sysplex that have been resumed following a loss of time synchronization but are again status update missing.

Operator response: Make sure all systems in the sysplex have been resumed as soon as possible by replying to message IEA015A.

System programmer response: Not Applicable.

Routing code: 1, 2

Descriptor code: 4

IXC614I **SFM POLICY** *polname* **INDICATES THE FOLLOWING PARAMETERS FOR SYSTEM** *sysname*: **MEMSTALLTIME(NO | ***memstalltime***) AS SPECIFIED BY** *specifier***CFSTRHANGTIME(NO | ***cfstrhangtime***) AS SPECIFIED BY** *specifier*

Explanation: The indicated SFM policy has been updated or activated to indicate the value specified for the listed attributes. This message is issued to hard copy only.

In the message text:

polname
The SFM policy name.

sysname
The name of the issuing system.

MEMSTALLTIME(NO)
SFM will not take action to resolve sympathy sickness problems caused by a stalled XCF group member.

MEMSTALLTIME(*memstalltime***)**
SFM will take action to resolve a sympathy sickness problem attributed to a stalled XCF group member if the problem persists for *memstalltime* number of seconds.

CFSTRHANGTIME(NO)
The system will not take action to resolve hangs in CF structure-related processes caused by failure of a connector to provide an expected response.

CFSTRHANGTIME(*cfstrhangtime***)**
The system will take action to resolve hangs in a CF structure-related process caused by failure of a connector to provide an expected response if the problem persists for *cfstrhangtime* seconds after the hang is reported by message IXL040E or IXL041E.

specifier
One of the following:

SPECIFIC POLICY ENTRY
This value was specified in the policy explicitly for this system.

POLICY DEFAULT
An explicit value was not specified for this system. The policy default will be used.

SYSTEM DEFAULT
An explicit value was not specified for this system, and no policy default was specified. The system default will be used.

System action: The system continues processing.

Operator response: Make sure values specified are the ones expected. Notify the system programmer if values are unexpected.

System programmer response: Correct and start policy if mistakes are found.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN

Routing code: 2, 10

Descriptor code: 4

IXC615I **GROUP** *grpname* **MEMBER** *membername* **JOB** *jobname* **ASID** *asid*{**SFM** | **XCF**} *action reason*[**ISSUED BY MEMBER** *srcmemname* **JOB** *srcjobname* **ASID** *asid*]

Explanation: One of the following conditions exists:

- The indicated XCF Group Member was stalled and impacting the sysplex. The Sysplex Failure Management (SFM) policy MEMSTALLTIME specification for the local system allows XCF to take automatic action to attempt to relieve the sympathy sickness condition. XCF is terminating the member.
- The indicated XCF Group Member is a critical member and was impaired. The impairment condition is possibly preventing the member from performing any useful work for the function provided by the group member. XCF is terminating the member.
- The indicated XCF Group Member is being terminated because some member of the group invoked the XCF Terminate Member Service (IXCTERM) to terminate the member.

If a previously requested termination does not complete, XCF may initiate a new termination request at a higher scope to ensure that the member terminates. Such escalation can occur even if the previous termination request resolved the original sympathy sickness problem. The member continues to consume sysplex resources until termination completes.

In the message text:

grpname
The name of the XCF group.

membername
The member name.

jobname
The name of the job.

asid
The hexadecimal ASID of the address space.

SFM | XCF *action reason*
SFM or XCF is doing the following *action* for the following *reason:*

action
Either SFM or XCF is doing one of the following:

TERMINATING JOIN TASK
The member task will be terminated.

TERMINATING JOB STEP TASK
The member job step task will be terminated.

TERMINATING ADDRESS SPACE
The member address space will be terminated. Task recovery and task-level resource managers will get control.

MEMTERMING ADDRESS SPACE
The member address space will be terminated. Task recovery and task-level resource managers will not get control.

TERMINATING SYSTEM
The system on which the member resides will be removed from the sysplex.

MEMTERMING ADDRESS SPACE
A previous attempt to terminate the member has not completed. The member is being terminated at a higher scope to ensure that member termination completes.

reason
One of the following:

TO RELIEVE SYMPATHY SICKNESS
Member being terminated to relieve sympathy sickness. If previous termination request failed to relieve the sympathy sickness condition, the member is being terminated at a higher scope to ensure that termination completes.

TO FORCE COMPLETION
A previous attempt to terminate the member has not completed. The member is being terminated at a higher scope to ensure that member termination completes.

TO RELIEVE IMPAIRMENT CONDITION
Critical member being terminated to relieve an impairment condition. If previous termination request failed to relieve the impairment condition, the member is being terminated at a higher scope to ensure that termination completes.

FOR IXCTERM FROM SYSTEM *sysname*
The member is being terminated because a peer group member on the system named *sysname* invoked the XCF Terminate Member Service (IXCTERM).

ISSUED BY MEMBER *srcmemname* **JOB** *srcjobname* **ASID** *asid*

srcmemname
The name of the member that issued the IXCTERM request.

srcjobname
The name of the job for the member that issued the IXCTERM request.

asid
The hexadecimal ASID of the address space for the member that issued the IXCTERM request.

System action: XCF either terminates the member or removes the system from the sysplex in an attempt to relieve the sympathy sickness condition. XCF will initially request termination at the smallest scope expected to provide relief. For example, it is generally preferred that a member task be terminated before the member address space. If necessary, XCF may escalate the termination to a higher scope.

Operator response: The application or subsystem may or may not recover after its XCF member is terminated. If not, you may need to shutdown and/or restart the affected application, subsystem, or system.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 2, 10

Descriptor code: 12

IXC616I SFM POLICY *polname* **INDICATES CONNFAIL(YES|NO) FOR A SYSPLEX** *sysplex-name*

Explanation: The indicated CONNFAIL value is the current setting for the sysplex.

In the message text:

polname
The name of the current SFM policy.

YES | NO
The CONNFAIL value for the sysplex.

sysplex-name
The sysplex name.

System action: For CONNFAIL(YES), SFM will take recovery actions in the event of loss of signaling connectivity failures between one or more systems in the sysplex. SFM will perform sysplex partitioning actions using the

WEIGHT values specified for each system in the sysplex as a basis to determine the best set of systems to remain in the sysplex, given the connectivity failures that have occurred.

CONNFAIL(NO) indicates the operator will be prompted to decide which system or systems to partition from the sysplex.

Operator response: Make sure that the CONNFAIL value specified is the one expected. Notify the system programmer if the value is unexpected.

System programmer response: Correct and start the policy if mistakes are found.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2SIN

Routing code: -

Descriptor code: 4

IXC631I GROUP *grpname* **MEMBER** *membername* **JOB** *jobname* **ASID** *asid***STALLED, IMPACTING SYSTEM** *sysname* **{WHICH IS IN PARTITIONING }**

Explanation: The indicated XCF Group Member is not processing its XCF work in a timely manner. The stall is considered critical because it is impacting the indicated system. For example, the indicated system may not be able to send signals to the local system because the stalled member is holding XCF signal buffers that would be needed to receive such signals.

In the message text:

grpname
The name of the XCF group whose member stalled.

membername
The stalled member name.

jobname
The name of the job.

asid
The hexadecimal ASID of the address space.

sysname
The name of the system being impacted.

WHICH IS IN PARTITIONING
The impacted system is in the midst of being removed from the sysplex. The sympathy sickness and its impact may persist until sysplex partitioning of the impacted system is completed.

System action: Message IXC440E is issued by any other system in the sysplex that is impacted by the stall. Messages IXC431I, IXC432I, and IXC430E are issued by the local system where the stalled member resides. XCF continues to monitor the situation. If the member continues to be stalled but no longer impacts the other system, message IXC632I is issued. If the member becomes not stalled, message IXC632I may not be issued since the issuing of message IXC432I indicates the member is no longer stalled. Message IXC432I implies that the member is no longer impacting other systems.

If the impact persists and the active Sysplex Failure Management (SFM) policy MEMSTALLTIME specification for the local system allows XCF to take action to address the problem, and the impacted system is not being removed from the sysplex, XCF will terminate the indicated member and/or remove its system from the sysplex. If the impacted system is being removed from the sysplex, XCF will not consider this sympathy sickness impact when determining whether it should take action against the member. In particular, if the indicated system is the only one being impacted, no action will be taken against the member since the sympathy sickness will disappear after the system is removed from the sysplex. If XCF terminates the member, it requests a dump and issues message IXC615I.

Operator response: Use DISPLAY XCF,GROUP,*grp_name*,*member_name* to get detailed information about the stalled member of group *grp_name* and member *member_name*. Message IXC333I provides status information about the member and indicates what work appears to be stalled.

There may be other commands provided by the indicated application/subsystem that will allow you to determine its status and/or alleviate the problem. If more than one member is impacted, there may be an underlying system

problem affecting them all. If so, investigate the status of the system at large. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis and/or terminate the indicated application.

XCF monitors its own internal use of the XCF signalling service and may issue message IXC431I if XCF itself appears to be stalled. However, the DISPLAY XCF,GROUP command cannot be used to investigate such stalls since the command does not support the internal XCF group.

System programmer response: Check the status of the indicated application/subsystem. If multiple members appear to be stalled, or if other indicators suggest work is not being processed, there may be an underlying problem affecting them all. If so, a broader system diagnosis may be warranted since the impacted members may not be at fault. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. If necessary, take the appropriate action to correct the situation or cancel/end the application.

Take the following steps:

1. Issue the DISPLAY XCF,GROUP,grp_name,ALL and any relevant application display.
2. Collect the following diagnostic information: system log, application log, and an appropriate dump. In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE).
3. Use its normal shut down procedure, and end the application.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 2, 10

Descriptor code: 12

IXC632I **GROUP** *grpname* **MEMBER** *membername* **JOB** *jobname* **ASID** *asid***NO LONGER IMPACTING SYSTEM** *sysname*

Explanation: The indicated XCF group member is no longer impacting the system *sysname*. The member may have resumed normal processing, or may be terminating, or if still stalled, the stall is not impacting the system. Message IXC631I was previously issued to indicate that the stalled member was impacting the system.

In the message text:

grpname
The name of the XCF group.

membername
The stalled member name.

jobname
The name of the job.

asid
The hexadecimal ASID of the address space.

sysname
The name of the system no longer being impacted.

System action: XCF continues to monitor the situation as needed. If message IXC640E was issued, and no other stalled members on the local system appear to be impacting the sysplex, message IXC640E is deleted. If message IXC440E was issued by some other system in the sysplex, and no other stalled member on the local system appears to be impacting that system, message IXC440E is deleted. Message IXC632I is not necessarily issued if message IXC432I is issued to indicate that the impacting member is no longer considered stalled.

Operator response: None.

System programmer response: None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 2, 10

Descriptor code: 12

IXC633I *text*

Explanation: In the message, *text* is:

```
GROUP gnme MEMBER mnme JOB jnme ASID asid
{DEEMED | CONFIRMED} IMPAIRED AT ipdate iptime ID: s#.r#
LAST MSGX: sgdate sgtime sgexit STALLED sgwork PENDINGQ
LAST GRPX: grdate grtime grexit STALLED grwork PENDINGQ
LAST STAX: stdate sttime stexit STALLED
```

One of the following conditions exists:

- The indicated XCF group member is not processing its XCF work in a timely manner. The processing of all work items appears to be stalled.
- The indicated XCF group member's status exit indicates that the member is not operating normally and is considered to be in a status update missing condition.

Note: It is very unlikely that the delays are caused by a problem in XCF.
When a member is deemed impaired, some possible explanations include:

- Contention problems in the user exit routines. Perhaps the exit routine is suspended waiting to obtain the local lock or a latch.
- SRBs not dispatched in a timely manner. Perhaps the member address space is swapped out or a dump is in progress. Perhaps the dispatch priority of the member address space is too low. Perhaps a loop in some other work unit is consuming most of the CPU resource. The looping work unit need not be in the member address space. It could be in an address space other than those identified by the IXC633I message.
- An influx of work has exceeded the processing capacity of the member or system. The influx may be a temporary spike that the system can work through with time. It could be the residual effect of some other problem that caused processing of an otherwise normal workload to be delayed.
- Some other member or system in the sysplex is not processing its work in a timely manner. Although XCF may have identified the indicated member as stalled, the situation could be the result of sympathy sickness arising from processing delays elsewhere in the sysplex (which may or may not have been identified).
- A member or system might be engaged in reconfiguration or recovery processes that must complete before normal processing can proceed. For example, a system may have just become active in the sysplex, a system may have just been removed from the sysplex, a member may be joining the group, a member may be leaving the group, or some other application specific processes may be running.
- The user exit routine may have a coding error in which it returns to the dispatcher instead of returning to XCF. One would expect this situation to occur only when testing a new application that exploits XCF services.

It may not be possible to determine the impact to the application without understanding the nature and content of the items experiencing the delay. The impact may not be limited to the impaired member if it provides services to other applications or subsystems in the sysplex. Failure to process this work in a timely manner can account for delays or performance problems elsewhere in the sysplex.

If multiple members appear to be impaired, or if other indicators suggest work is not being processed, check the status of the system because there may be an underlying problem affecting them all.

In the message text:

gnme
The name of the XCF group whose member is impaired.

mnme
The name of the impaired member.

jnme
The name of the job.

asid
The hexadecimal ASID of the address space.

{DEEMPED | CONFIRMED} IMPAIRED
One of the following:

DEEMED IMPAIRED
XCF has determined that the member is impaired. The processing of all XCF work items appears to be stalled.

CONFIRMED IMPAIRED
The member's status exit indicates that the member is not operating normally and is considered to be in a status update missing condition.

ipdate
The date when XCF believes the member became stalled.

iptime
The time when XCF believes the member became stalled.

s# A number to help correlate other instances of message IXC633I that are issued for the indicated member with regard to this impairment. Also appears in message IXC634I.

In general this number is incremented each time a new impairment is detected for the member. However it can be reset to zero if the member is not deemed impaired for a sufficiently long time.

r# A number to help indicate whether message IXC633I is being issued or reissued for the same impairment condition. Equals one when message IXC431I is first issued for an impairment condition, and incremented each time IXC633I is reissued with new data.

sgdate
The date when a signal exit most recently completed. Blank if no signal exit ever completed.

sgtime
The time when a signal exit most recently completed. Blank if no signal exit ever completed.

sgexit
The number of stalled signal exit routines.

sgwork
The number of signal work items queued for processing by or on behalf of the indicated member. These items include messages to be delivered to the member, notifications to be presented to the member, and internal XCF signaling related requests that need to be processed in the member address space.

grdate
The date when a group exit most recently completed. Blank if no group exit ever completed.

grtime
The time when a group exit most recently completed. Blank if no group exit routine ever completed.

grexit
The number of stalled group exit routines.

grwork
The number of group work items queued for processing by or on behalf of the indicated member. These items include events that are to be presented to the member.

stdate
The date when a status exit most recently completed. Blank if no status exit routine ever completed or when the member does not have a status exit.

sttime
The time when a status exit most recently completed. Blank if no status exit routine ever completed or when the member does not have a status exit.

stexit
The number of stalled status exit routines.

System action: XCF continues to monitor the situation. Message IXC634I is issued if the impaired member resumes normal processing or terminates.

If the impairment condition persists, XCF will issue IXC636I indicating that the member is impacting the FUNCTION specified on the IXCJOIN macro. The impairment condition must exist for one failure detection interval (FDI) before message IXC636I is issued.

For critical members, if the impairment condition persists, XCF will terminate the indicated member, or remove its

system from the sysplex, or both. See the explanation of message IXC636I for a description of the actions taken by XCF.

Operator response: This message is issued to the system log so no operator response is expected. If through customer action, the message is rerouted to an operator console, the operator should monitor the situation. If there does not seem to be any detrimental impact, no further action may be needed. Use DISPLAY XCF,GROUP,*grpname*,*membername* to get detailed information about the stalled member of group *grpname* named *membername*. Message IXC333I provides status information about the member and indicates what work appears to be impaired.

There may be other commands provided by the indicated application or subsystem that will allow you to determine its status and alleviate the problem. If more than one member is impacted, there may be an underlying system problem affecting them all. If so, investigate the status of the system at large. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis or terminate the indicated application.

XCF monitors its own internal use of the XCF signalling service and may issue message IXC633I if XCF itself appears to be impaired. However, the DISPLAY XCF,GROUP command cannot be used to investigate such impairment conditions because the command does not support the internal XCF group.

System programmer response: Check the status of the indicated application or subsystem. If multiple members appear to be impaired, or if other indicators suggest work is not being processed, there may be an underlying problem affecting them all. If so, a broader system diagnosis my be warranted because the impacted members may not be at fault. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. If necessary, take appropriate action to correct the situation, cancel or terminate the application. Before terminating the application, issue DISPLAY XCF,GROUP,*grpname*,ALL and any relevant application display, then collect the following diagnostic information: system log, application log, and an appropriate dump. In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE). Then using its normal shut down procedure, terminate the application.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 2, 10

Descriptor code: 12

IXC634I **GROUP** *grpname* **MEMBER** *membername* **JOB** *jobname* **ASID** *asid* **NO LONGER IMPAIRED.** *text* **AT** *ResumeDate ResumeTme* **ID:** *stall#*

Explanation: The indicated XCF group member is no longer considered impaired. One or more instances of message IXC633I were previously issued to describe the impairment conditions for the member.

In the message text:

grpname
The name of the XCF group whose member is no longer impaired.

membername
The name of the member that is no longer impaired.

jobname
The name of the job.

asid
The hexadecimal ASID of the address space.

text
One of the following:

ACTIVITY OBSERVED
XCF has observed activity by the member.

TERMINATING
The member is being deactivated. Pending work will be discarded.

REPORTED ACTIVE
The member has reported good status through the member status exit.

ResumeDate
The date when XCF determined that the member should no longer be considered impaired.

ResumeTime
The time when XCF determined that the member should no longer be considered impaired.

stall#
A number to help correlate this message with other instances of message IXC663I that are issued concerning the impairment condition.

System action: If processing resumed, XCF continues to monitor the situation as needed. If the member is terminating, XCF continues with member cleanup processing. If message IXC635E was issued, and no other members on the local system appear to be impaired, message IXC635E is deleted.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXS1DCM

Routing code: 2, 10

Descriptor code: 12

IXC635E SYSTEM *sysname* HAS IMPAIRED XCF GROUP MEMBERS

Explanation: The indicated system has one or more members of an XCF group that are deemed impaired, or it has one or more members of an XCF group that are confirmed impaired, or both conditions exist for the system.

- A member is deemed impaired if all XCF work items are not being processed in a timely manner. The XCF work to be performed by a group member includes such things as processing of messages by a message user exit routine, or processing of group events by a group user exit routine.
- A member is confirmed impaired when the member's status exit indicates that the member is not operating normally and is considered to be in a status update missing condition.

See the explanation of message IXC633I for a description of situations that can make a member appear impaired.

Note: It is very unlikely that the delays are caused by a problem in XCF.
It may not be possible to determine the impact to the sysplex, system, or relevant application without understanding the type and nature of the work items experiencing the delay. The impact may not be limited to the impaired member if it provides services to other applications or subsystems in the sysplex. Failure to process this work in a timely manner can account for delays or performance problems elsewhere in the sysplex.

This message is not necessarily issued if the impaired member happens to be an internal XCF member.

In the message text:

sysname
The name of the system on which the impaired members reside.

System action: XCF continues to monitor the situation. The message is deleted when no member impairment conditions exist on the indicated system.

Messages IXC633I and IXC634I may be issued periodically to the log to provide information about the current state of the impairment for a particular group member. If an internal XCF problem is discovered, a dump will be taken. An entry in logrec is made to document the situation even if no dump is taken.

For critical members, if the active sysplex failure management (SFM) policy MEMSTALLTIME specification for the local system specifies a value other than NO, XCF will wait the MEMSTALLTIME to take action to address the problem. If the active SFM policy MEMSTALLTIME specification for the local system specifies or defaults to a value of NO, or SFM is not active, XCF will wait two minutes or one failure detection interval (FDI), whichever is longer, to take action to address the problem. XCF will attempt to terminate critical members, or remove the system on which the critical member resides, or both. If XCF terminates the member, it requests a dump and issues message IXC615I.

Operator response: Monitor the situation. If there does not seem to be any detrimental impact, no further action

may be needed. On many occasions the system will successfully resolve the situation during the course of normal processing. Issue DISPLAY XCF commands on the indicated system to get more information about the impaired group members:

- Use DISPLAY XCF,GROUP to determine which groups have impaired members on the system. Message IXC331I lists the names of the groups and indicates which ones have impaired members.
- Use DISPLAY XCF,GROUP,*grpname* to determine which members of group *grpname* are impaired. Message IXC332I lists the names of the members and indicates which ones are considered impaired by XCF.
- Use DISPLAY XCF,GROUP,*grpname*,*membername* to get detailed information about the member *membername* of group *grpname*. Message IXC333I provides status information about the member and indicates what work appears to be impaired.

There may be other commands provided by the stalled application or subsystem that will allow you to determine its status or alleviate the problem. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis or terminate the indicated application. If multiple members appear to be impaired, or if other indicators suggest work is not being processed, check the status of the system because there may be an underlying problem affecting them all.

The DISPLAY XCF,PATHOUT and DISPLAY XCF,PATHIN commands can be issued to obtain detailed path status information to see if a member with a signaling stall appears to be impacting message delivery.

System programmer response: Check the status of the stalled application or subsystem. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. Take appropriate action to correct the situation, cancel or terminate the application. Before terminating the application, issue the DISPLAY XCF,GROUP *grpname*,ALL command and any application specific display commands that may be helpful in ascertaining status. Then collect the following diagnostic information: system log, application log, and an appropriate dump. In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE). Then using its normal shut down procedure, terminate the application.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 2, 10

Descriptor code: 11

IXC636I **GROUP** *grpname* **MEMBER** *membername* **JOB** *jobname* **ASID** *asid* **IMPAIRED, IMPACTING [CRITICAL] FUNCTION** *function*

Explanation: The indicated XCF group member is impaired.

- A member is deemed impaired if all XCF work items are not being processed in a timely manner. The XCF work to be performed by a group member includes such things as processing of messages by a message user exit routine, or processing of group events by a group user exit routine.
- A member is confirmed impaired when the member's status exit indicates that the member is not operating normally and is considered to be in a status update missing condition.

The impairment is considered important because the member has been impaired for a period longer than the failure detection interval. This may prevent the indicated function from performing useful work.

If the impaired member indicated that it is a critical member by specifying keyword CRITICAL on the IXCJOIN macro, the impairment is considered critical because the indicated function is critical to the normal operation of the system.

In the message text:

grpname
The name of the XCF group whose member is impaired.

membername
The name of the impaired member.

jobname
The name of the job.

asid
The hexadecimal ASID of the address space.

function
A number to help correlate this message with other instances of message IXC663I that are issued concerning the impairment condition.

System action: For impaired members, messages IXC633I, IXC634I, and IXC635E are issued by the local system where the impaired member resides. XCF continues to monitor the situation. 'If the member becomes no longer impaired, message IXC634I will be issued to indicate the member is no longer impaired.

For critical members, if the active sysplex failure management (SFM) policy MEMSTALLTIME specification for the local system specifies a value other than NO, XCF will wait the MEMSTALLTIME to take action to address the problem. If the active SFM policy MEMSTALLTIME specification for the local system specifies or defaults to a value of NO, or SFM is not active, XCF will wait two minutes or one failure detection interval (FDI), whichever is longer, to take action to address the problem. 'XCF will terminate the indicated member, or remove its system from the sysplex, or both. If XCF terminates the member, it requests a dump and issues message IXC615I.

Operator response: Use DISPLAY XCF,GROUP,*grpname*,*membername* to get detailed information about the member *membername* of group *grpname*. Message IXC333I provides status information about the member and indicates what work appears to be impaired.

There may be other commands provided by the indicated application or subsystem that will allow you to determine its status and alleviate the problem. If more than one member is impacted, there may be an underlying system problem affecting them all. If so, investigate the status of the system at large. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis or terminate the indicated application.

XCF monitors its own internal use of the XCF signalling service and may issue message IXC633I if XCF itself appears to be impaired. However, the DISPLAY XCF,GROUP command cannot be used to investigate such impairment conditions because the command does not support the internal XCF group.

System programmer response: Check the status of the indicated application or subsystem. If multiple members appear to be impaired, or if other indicators suggest work is not being processed, there may be an underlying problem affecting them all. If so, a broader system diagnosis my be warranted because the impacted members may not be at fault. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. If necessary, take appropriate action to correct the situation, cancel or terminate the application. Before terminating the application, issue DISPLAY XCF,GROUP,*grpname*,ALL and any relevant application display, then collect the following diagnostic information: system log, application log, and an appropriate dump. In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE). Then using its normal shut down procedure, terminate the application.

Source: Cross System Coupling Facility (SCXCF)

Module: IXS1DCM

Routing code: 2, 10

Descriptor code: 12

| **IXC637I** **GROUP** *grp_name* **MEMBER** *isolated_memname* **JOB** *jobname* **ASID** *asid*
| **MEMTOKEN** *memtoken1 memtoken2* **ON SYSTEM** *isosysnm* **ISO#:** *isosysslot***.***sysiso#*
| **MESSAGE ISOLATION IMPACT FOR SYSTEM** *impsysnm* **RPT#:** *report#*
| **IMPACTED :** *impactdate impacttime* **IXC637ISEQ#:** *impactiso# whyclosed***:** *closedate closetime*
| **RESUMED : SEQ#:** *closeiso#*
| **DELAYED :** *delayeddate delayedtime* **#MSG:** *#msgdelayed*
| **REJECTED :** *rejecteddate rejectedtime* **#MSG:** *#msgrejected*

| **Explanation:** Member *isolated_memname* of group *grp_name* on system *isosysnm* is “message isolated”. XCF delays or rejects messages targeted to a member that is message isolated. When a sending member has a message delayed or rejected because the target member appears to be isolated, the sending member is said to be “impacted”. System *impsysnm* issues message IXC637I to summarize the isolation impact experienced by the members of group *grp_name* residing on system *impsysnm*. Message IXC637I indicates the time when the impact started, the number of messages that were delayed or rejected, and the time when messages were most recently delayed or rejected.

| An “isolation window” is the period of time from when a member becomes message isolated to when a member is no longer message isolated. A member is isolated by XCF when it fails to process its messages in a sufficiently timely

manner. XCF stops isolating a target member when it appears to make adequate progress with respect to the processing of its messages. An isolation window is said to be open while an active member is being isolated. An isolation window closes when XCF stops isolating the member or when the member is no longer active in its group. System *isosysnm* issues message IXC638I to document the isolation window for member *isolated_memname*.

A "system impact window" for a given sending system for a given target member opens when some sending member on that system is impacted by the isolation of that target member. The impact window closes when the impacted system determines that the isolation window for the target member has closed, or when all of its impacted senders become not active. Message IXC637I documents the system impact window for system *impsysnm* with respect to the target member *isolated_memname*.

Note that isolation windows, and therefore impact windows, have the potential to open and close rapidly. Thus message IXC637I is not necessarily issued for every impact window. A subsequent instance of the message can document either the continuation or closure of a given impact window, or it can document the start or closure of a newer impact window. It should never be the case that an outstanding instance of message IXC637I reports an impact window as closed when in fact the window is open. That is, message IXC637I might over indicate the existence of an open impact window, but it should never under indicate the existence of such a window.

In general, impact windows and isolation windows will coincide fairly closely in time. But this need not always be the case since an impact window might never open or it might open long after the isolation window opens. For example, it might be the case that no member tries to send a message to the target member during its isolation window, or that the first attempt to send a message to the target member occurs long after the isolation window opens. Alternatively, the fact that a target member is message isolated might not be recognized in a timely manner. Thus the sending system might continue to send messages to the isolated target member long after the isolation windows was opened. An impact window might close long after the isolation window closes if the sending system fails to recognize the closure of the isolation window in a timely manner. Indeed, a given impact window might span multiple isolation windows. The various sequence numbers reported in messages IXC637I and IXC638I can help identify these situations.

The data reported by message IXC637I is accurate as of when the message was issued, but this data might not reflect the current state of the system as time moves forward. You can issue the `DISPLAY XCF,G,grp_name,isolated_memname` command to get current detailed information about the isolation of member *isolated_memname*. In response to the display command, XCF issues message IXC333I. As applicable, information about the current isolation window and any related system impact windows is provided. In particular, the display output will indicate whether a window is open or closed at the time of the display. In the display output, note that isolated members are flagged with an asterisk ("*"). If senders are being impacted as a result of the message isolation, the isolated members are flagged with an exclamation point ("!").

In the message text:

grp_name
The name of the XCF group whose member is message isolated.

isolated_memname
The name of the isolated member.

jobname
The MVS job name for the isolated member.

asid
Hexadecimal ASID of the address space from which the isolated member joined its XCF group.

memtoken1
First word of the XCF member token that uniquely identifies the isolated member.

memtoken2
Second word of the XCF Member token.

isosysnm
The name of the system that hosts the isolated member.

isosysslot
XCF system slot number of the system that hosts the isolated member.

sysiso#
The system message isolation sequence number of the isolation window opened by system *isosysnm* that in turn caused system *impsysnm* to open the impact window being reported by this message. Each system in the sysplex

maintains an ever increasing system unique sequence number (subject to wrap) that identifies each message isolation window opened by the system. This sequence number is incremented when a new message isolation window is opened by the system. *sysiso*# is the sequence number for the isolation window on system *isosysnm* that system *impsysnm* perceived to be open when its sending members came to be impacted by the isolation of member *isolated_memname*.

The system isolation sequence number can be used to correlate isolation windows reported by message IXC638I with impact windows reported by message IXC637I. It can also be used to infer the existence of isolation windows not reported by messages IXC637I and IXC638I.

impsysnm
The name of the system whose members are being impacted by the isolation of member *isolated_memname*.

report#
A number to help identify instances of message IXC637I that are being issued for the same impact window. *Report*# equals 1 when message IXC637I is first issued for a given impact window. If the impact window persists long enough, new instances of message IXC637I are issued to summarize the ongoing impact. *Report*# is incremented by 1 for each new instance of the message. If message IXC637I is subsequently issued to document closure of the impact window, *report*# is similarly incremented.

If an impact window closes and a new impact window opens before an instance of IXC637I is issued to document the closure of the previous impact window, the *report*# is reset to 1 since the next instance of message IXC637I will be documenting a different impact window. In such cases, the only instance of message IXC637I issued for the new impact window (with a *report*# of 1) might in fact be reporting the closure of the window.

impactdate
The date when an impact window was most recently opened.

impacttime
The time when an impact window was most recently opened. This is the time when the first message sent to the isolated member *isolated_memname* by some member of group *grp_name* residing on system *impsysnm* was rejected or delayed by XCF due to the indicated isolation window.

impactiso#
The member message isolation sequence number of the isolation window that caused system *impsysnm* to open the impact window being reported by this message.

For each active member, XCF maintains an ever increasing member unique sequence number (subject to wrap) that identifies each message isolation window opened for the member. This sequence number is incremented when a new message isolation window is opened for the member. *ImpactIso*# is the sequence number for the member isolation window that system *impsysnm* perceived to be open when its sending members came to be impacted by the isolation of member *isolated_memname*.

The member isolation sequence number can be used to correlate isolation windows reported by message IXC638I with impact windows reported by message IXC637I. It can help you infer the existence of isolation windows not directly reported by message IXC637I. It can also help you detect cases where an impact window spans multiple isolation windows.

whyclosed
Identifies the event that precipitated closure of the most recently closed impact window. If system *impsysnm* has never closed an impact window for target member *isolated_memname*, *WhyClosed* will indicate RESUMED but the reported *CloseDate* and *CloseTime* for the closure will be blank.

whyclosed is one of the following:

RESUMED
The impact window closed because system *impsysnm* recognized that system *isosysnm* had closed the isolation window. Member *isolated_memname* is no longer message isolated. The normal flow of messages can be resumed.

NOT ACTIVE
The impact window closed because system *impsysnm* recognized that member *isolated_memname* is no longer active. An inactive member is not eligible to receive messages.

NO SENDERS
The impact window closed because there are no impacted sending members. All of the sending members on system *impsysnm* that were being impacted by the isolation of target member *isolated_memname* are no longer active.

Note that the isolation window for member *isolated_memname* could still be open. If so, and a subsequent sender on system *impsysnm* is impacted, a new impact window will be opened.

UNKNOWN
The impact window is closed, but XCF cannot determine the reason. This case is not expected. It suggests that an error occurred.

closedate
The date when system *impsysnm* most recently closed an impact window (blank if none).

closetime
The time when system *impsysnm* most recently closed an impact window (blank if none).
- For RESUMED, this time indicates when system *impsysnm* recognized that the isolation window for member *isolated_memname* had closed. In general, the closure of an impact window will coincide with closure of the isolation window. However, disparities can occur. In such cases, senders on system *impsysnm* might continue to suffer impact beyond the time when the isolation window for member *isolated_memname* had closed.
- For NOT ACTIVE, this time indicates when system *impsysnm* recognized that member *isolated_memname* was no longer active.
- For NO SENDERS, this time indicates when system *impsysnm* recognized that none of its impacted sending members were active.

You can compare the date and time of the start of the impact window (*ImpactDate* and *ImpactTime*) to the date and time of the most recently closed impact window (*CloseDate* and *CloseTime*) to determine whether the impact window is being reported as open or closed. When the reported closure occurred after the start of the impact, the window is closed. Otherwise, the window is open.

closeiso#
The member message isolation sequence number of the isolation window perceived to be open when system *impsysnm* most recently closed an impact window. Refer to *ImpactIso#* for the definition of a member message isolation sequence number.

The member isolation sequence number can be used to correlate isolation windows reported by message IXC638I with impact windows reported by message IXC637I. It can also be used to infer the existence of isolation windows not reported by message IXC637I. In general, you can make the following inferences:
- When *CloseIso#* is zero, the impact window precipitated by isolation window *ImpactIso#* is open. Message IXC637I is reporting the first impact window experienced by system *impsysnm* as the result of member *isolated_member* being message isolated. There is no prior impact window (closed or otherwise).
- When *CloseIso#* is less than *ImpactIso#*, the impact window precipitated by isolation window *ImpactIso#* is open. *CloseIso#* refers to a prior closed isolation window.
- When *CloseIso#* equals *ImpactIso#*, the impact window precipitated by isolation window *ImpactIso#* is closed, except possibly in the case where *WhyClosed* is "NO SENDERS".

  When an impact window closes because all of the impacted senders become inactive, it could be the case that other (possibly new) members of *grp_name* residing on system *impsysnm* later come to be impacted. Thus there could be multiple impact windows for a given isolation window in cases where the sending members become inactive during an isolation window. When *WhyClosed* is NO SENDERS, you must compare the date and time of the start of the impact (*ImpactDate* and *ImpactTime*) to the date and time when an impact window was most recently closed (*CloseDate* and *CloseTime*) to determine whether the impact window precipitated by isolation window *ImpactIso#* is being reported as open or closed.
- When *CloseIso#*is greater than *ImpactIso#*, the impact window precipitated by isolation window *ImpactIso#* is closed. The impact window spanned multiple isolation windows. That is, the impacted system failed to observe the closure of isolation window *ImpactIso#* before it observed the start of a newer isolation window. So there may have been periods where XCF was delaying or rejecting messages even though the target member was not isolated. In general, XCF processing must be delayed in order for this case to occur.

Note: The fact that isolation sequence numbers can wrap could make it difficult to determine the relationship between *ImpactIso#* and *CloseIso#*. When in doubt, you can compare the date and time of the start of the impact to the date and time of the most recently closed impact window to determine whether the impact window precipitated by isolation window *ImpactIso#* is being reported as open or closed.

delayeddate
The date when a message-out request was most recently delayed as a result of the isolation of member *isolated_memname*.

delayedtime
The time when a message-out request was most recently delayed as a result of the isolation of member *isolated_memname*.

#msgdelayed
The number of message-out requests that were delayed during the reported impact window.

Ultimately, a delayed message will either be delivered to the target member or rejected. For example, if the target member becomes not isolated and the sending system recognizes that the isolation window has closed before the message-out request times out, the message will be delivered. A delayed request might later be rejected if the message times out or if the target member becomes inactive. These subsequent rejections (if any) are not included in the count of rejected requests reported by *#MsgRejected*.

rejecteddate
The date when a message-out request was most recently rejected as a result of the isolation of member *isolated_memname*.

rejectedtime
The time when a message-out request was most recently rejected as a result of the isolation of member *isolated_memname*.

#msgrejected
The number of message-out requests that were rejected during the reported impact window.

System action: XCF continues to monitor the situation. Message IXC637I is issued periodically while an impact window is open for the target member. An instance of message IXC637I is eventually issued to document the closure of an impact window. Because the message is issued periodically, there will not necessarily be an instance of message IXC637I for each impact window. System *impsysnm* also issues message IXC440E to the operator console to indicate that it is being impacted by isolated members residing on system *isosysnm*.

Message IXC638I is issued periodically on system *isosysnm* while member *isolated_memname* is isolated. System *isosysnm* issues message IXC645E to the operator console to indicate it has isolated members.

Operator response: This message is issued to the system log so no operator response is expected. If through customer action, the message is rerouted to an operator console, the operator should monitor the situation. If there does not seem to be any detrimental impact, no further action may be needed. Use the `DISPLAY XCF,GROUP,grp_name,isolated_memname` command to get detailed information about the isolated member of group *grp_name* named *isolated_memname*. Message IXC333I provides status information about the member.

There may be other commands provided by the indicated application/subsystem that will allow you to determine its status and/or alleviate the problem. If more than one member is isolated, there may be an underlying system problem affecting them all. If so, investigate the status of the system at large. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis and/or terminate the indicated application. The most useful dump to obtain is on the system where the isolated member resides.

System programmer response: Check the status of the indicated application/subsystem. Use the output of the `DISPLAY XCF,GROUP` command to guide the investigation. Note that `D XCF,G,grp_name,ALL` will provide current information about the isolation and impact windows for all the members in group *grp_name*. If multiple members appear to be isolated, or if other indicators suggest work is not being processed, there may be an underlying problem affecting them all. If so, a broader system diagnosis may be warranted since the isolated members may not be at fault. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. If necessary, take appropriate action to correct the situation or cancel/terminate the application. Before terminating the application, issue `DISPLAY XCF,grp_name,ALL` and any relevant application display, then collect the following diagnostic information: system log, application log, and an appropriate dump. In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE). Then using its normal shut down procedure, terminate the application.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA1TSK

Routing code: 2, 10

Descriptor code: 12

IXC638I **GROUP** *grp_name* **MEMBER** *member_name* **JOB** *jobname* **ASID** *asid*
MEMTOKEN *memtoken1 memtoken2* **ON SYSTEM** *sysname* **ISO#:** *isosysslot*.*sysiso#*
MESSAGE ISOLATION STATUS FOR SYSTEM *sysname* **RPT#:** *report#*
ISOLATED : *isolatedate isolatetime* **: SEQ#:** *memberiso# whyclosed*: *closedate closetime*
RESUMED : SEQ#: *resumeiso#*
DELIVERYQ : *deliveryqdate deliveryqtime* **#MSG:** *#msgqueued*
LAST MSGX : *activedatesi activetimesi* **SEQ#:** *signalqueueseq#*

Explanation: Member *member_name* of group *grp_name* on system *sysname* is "message isolated". XCF isolates a member when it fails to make adequate progress with respect to the processing of its messages. Message isolation helps keep problematic group members from impeding the delivery of messages to other members. Message IXC638I indicates the time when XCF isolated the member and provides information about the XCF work pending for the member, as well as information about the progress of the signal exit routines that are expected to process that work.

While a member is isolated, XCF delays or rejects messages targeted to that member. When a sending member has a message delayed or rejected because the target member appears to be isolated, the sending member is said to be "impacted". Since sending members must be in the same XCF group as the target member, the only members that can be directly impacted by the problematic member will be members of its own group. There could of course be indirect sympathy sickness impacts if other programs have dependencies on the services provided by group *grp_name*.

An "isolation window" is the period of time from when a member becomes message isolated to when a member is no longer message isolated. A member is isolated by XCF when it fails to process its messages in a sufficiently timely manner. XCF stops isolating a target member when it appears to make adequate progress with respect to the processing of its messages. An isolation window is said to be open while an active member is being isolated. An isolation window closes when XCF stops isolating the member or when the member is no longer active in its group. System *sysname* issues message IXC638I to document the isolation window for member *member_name*.

The data reported by message IXC638I is accurate as of when the message was issued, but this data might not reflect the current state of the system as time moves forward. You can issue the `DISPLAY XCF,G,grp_name,member_name` command to get current information about the member and its isolation window (if any). In response to the display command, XCF issues message IXC333I. As applicable, information about the current isolation window and any related system impact windows is provided. In particular, the display output will indicate whether a window is open or closed at the time of the display. In the display output, note that isolated members are flagged with an asterisk ("*"). If senders are being impacted as a result of the message isolation, the isolated members are flagged with an exclamation point ("!").

In the message text:

grp_name
The name of the XCF group whose member is message isolated.

member_name
The name of the isolated member.

jobname
The MVS job name for the isolated member.

asid
Hexadecimal ASID of the address space from which the isolated member joined its XCF group.

memtoken1
First word of the XCF member token that uniquely identifies the isolated member.

memtoken2
Second word of the XCF Member token.

sysname
The name of the system that hosts the isolated member.

isosysslot
XCF system slot number of the system that hosts the isolated member.

sysiso#
The system message isolation sequence number that identifies the isolation window that was opened by system *sysname* when member *member_name* was isolated. Each system in the sysplex maintains an ever increasing

system unique sequence number (subject to wrap) that identifies each message isolation window opened by the system. This sequence number is incremented when a new message isolation window is opened by the system.

The system isolation sequence number can be used to correlate isolation windows reported by message IXC638I with impact windows reported by message IXC637I.

report#
A number to help identify instances of message IXC638I that are being issued for the same isolation window. *Report#* equals 1 when message IXC638I is first issued for a given isolation window. If the isolation window persists long enough, new instances of message IXC638I are issued to summarize the ongoing isolation. *Report#* is incremented by 1 for each new instance of the message. If message IXC638I is subsequently issued to document closure of the isolation window, *report#* is similarly incremented.

isolatedate
The date when XCF most recently isolated the member.

isolatetime
The time when XCF most recently isolated the member.

memberiso#
The member message isolation sequence number that identifies the message isolation window most recently opened for member *member_name*.

For each active member, XCF maintains an ever increasing member unique sequence number (subject to wrap) that identifies each message isolation window opened for the member. This sequence number is incremented when a new message isolation window is opened for the member. *MemberIso#* is the sequence number for the member isolation window most recently opened for member *member_name*.

The member isolation sequence number can be used to correlate isolation windows reported by message IXC638I with impact windows reported by message IXC637I.

whyclosed
Identifies the event that precipitated closure of the most recently closed isolation window. If an isolation window has never closed for member *member_name*, *WhyClosed* will indicate RESUMED but the reported *CloseDate* and *CloseTime* for the closure will be blank.

whyclosed is one of the following:

RESUMED
The isolation window closed because member *member_name* appears to be making adequate progress with respect to the processing of its messages, or because the XCF functions MSGISO switch was set to DISABLED. The member is no longer message isolated. The normal flow of messages can be resumed.

NOT ACTIVE
The isolation window closed because member *member_name* is no longer active. An inactive member is not eligible to receive messages.

closedate
The date when system *sysname* most recently closed an isolation window for member *member_name*.

closetime
The time when system *sysname* most recently closed an isolation window for member *member_name*.
- For RESUMED, this time indicates when system *sysname* transitioned member *member_name* from "isolated" to "not isolated".
- For NOT ACTIVE, this time indicates when system *sysname* recognized that member *member_name* was no longer active.

You can compare the date and time of the start of the isolation window (*IsolateDate* and *IsolateTime*) to the date and time of the most recently closed isolation window (*CloseDate* and *CloseTime*) to determine whether the isolation window is being reported as open or closed. When the reported closure occurred after the start of the isolation, the window is closed. Otherwise, the window is open.

resumeiso#
The member message isolation sequence number of the isolation window that was most recently closed. Refer to *MemberIso#* for the definition of a message isolation sequence number.

The member isolation sequence number can be used to correlate isolation windows reported by message IXC638I with impact windows reported by message IXC637I. You can make the following inferences:

- When *ResumeIso#* is zero, the isolation window *MemberIso#* is open. Message IXC638I is reporting the first isolation window opened for *member_name*. There is no prior isolation window (closed or otherwise).
- When *ResumeIso#* equals *MemberIso#*, the isolation window *MemberIso#* is closed.
- When *ResumeIso#* does not equal *MemberIso#*, the isolation window *MemberIso#* is open. *ResumeIso#* refers to a prior closed isolation window.

deliveryqdate
The date when the signal that is currently first on the member delivery queue was queued for processing.

deliveryqtime
The time when the signal that is currently first on the member delivery queue was queued for processing.

#msgqueued
The number of signals queued for processing by the indicated member.

activedatesi
The date when a signal exit most recently completed. Blank if no signal exit ever completed.

activetimesi
The time when a signal exit most recently completed. Blank if no signal exit ever completed.

signalqueueseq#
The sequence number of the work item that is currently first on the member delivery queue. If no items are on the queue then this represents the sequence number of the last work item to have been queued to the member delivery queue.

System action: XCF continues to monitor the situation. Message IXC638I is issued periodically while an isolation window is open for member *member_name*. An instance of message IXC638I will eventually be issued to document the closure of the isolation window if and when that happens. System *sysname* also issues message IXC645E to the operator console to indicate it has isolated members.

Message IXC637I is issued periodically by any system whose members are impacted by the isolation of member *member_name*. An impacted system also issues message IXC440E to indicate that one or more of its members are being impacted by isolated members on system *sysname*.

Operator response: This message is issued to the system log so no operator response is expected. If through customer action, the message is rerouted to an operator console, the operator should monitor the situation. If there does not seem to be any detrimental impact, no further action may be needed. Use `DISPLAY XCF,GROUP,grp_name,member_name` to get detailed information about the isolated member of group *grp_name* named *member_name*. Message IXC333I provides this detailed infomation about the member.

There may be other commands provided by the indicated application/subsystem that will allow you to determine its status and/or alleviate the problem. If more than one member is isolated, there may be an underlying system problem affecting them all. If so, investigate the status of the system at large. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis and/or terminate the indicated application. The most useful dump to obtain is on the system where the isolated member resides.

System programmer response: Check the status of the indicated application/subsystem. If multiple members appear to be isolated, or if other indicators suggest work is not being processed, there may be an underlying problem affecting them all. If so, a broader system diagnosis may be warranted since the isolated members may not be at fault. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. If necessary, take appropriate action to correct the situation or cancel/terminate the application. Before terminating the application, issue `DISPLAY XCF,grp_name,ALL` and any relevant application display, then collect the following diagnostic information: system log, application log, and an appropriate dump. In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE). Then using its normal shut down procedure, terminate the application.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 2, 10

Descriptor code: 12

IXC640E *type* **XCF GROUP MEMBERS ON SYSTEM** *sysname* **IMPACTING SYSPLEX***text*

Explanation: One of the following conditions exists:

- System *sysname* has at least one XCF group member that appears to be stalled, and is not processing its XCF work in a timely manner. Failure to process this work appears to be impacting the sysplex.
- System sysname has at least one critical XCF group member that appears to be impaired. See the explanation of message IXC633I for a description of situations that can make a member appear impaired.

In the message text:

type
One of the following:

STALLED
A stall condition exists.

IMPAIRED
An impairment condition involving one or more critical member exits.

sysname
The name of the system that has the stalled or impaired members.

text
text is one of the following:

MANUAL INTERVENTION REQUIRED
There is no SFM policy active on the local system, so SFM will not take action to remedy the problem. Because the stall condition is impacting the sysplex, the operator should immediately investigate and resolve the problem.

SFM POLICY *polname* **REQUIRES MANUAL INTERVENTION**
MEMSTALLTIME(NO) is in effect for the local system, so SFM will not take action to remedy the problem. Because the stall condition is impacting the sysplex, the operator should immediately investigate and resolve the problem.

text2 **IS TAKING ACTION**
SFM is taking action to remedy the problem.

text2 **WILL TAKE ACTION AT** *dd*/*mm*/*yyyy hh*:*mm*:*ss*
If the problem persists, SFM will take action to remedy the problem at the date and time indicated.

text2
One of the following:

SFM POLICY *polname*
An SFM policy exists and the MEMSTALLTIME specification allows action to be taken.

SFM
There is no SFM policy or MEMSTALLTIME(NO) is in effect.

[SFM POLICY *polname***] IGNORED, IMPACTED SYSTEMS IN PARTITIONING**
The impacted systems are in the midst of being removed from the sysplex. The sympathy sickness and its impact may persist until sysplex partitioning of the impacted systems is completed. If an SFM policy exists and the MEMSTALLTIME specification allowed action to be taken to alleviate the sympathy sickness condition, that action is not being taken since removal of the impacted systems from the sysplex will provide the necessary relief. If there is no SFM policy or if MEMSTALLTIME(NO) is in effect, manual intervention to resolve the sympathy sickness condition is likely not needed for the same reason.

polname
The name of the SFM policy.

System action: For a stalled member condition, the systems being impacted by the stall condition issue message IXC440E to so indicate. System *sysname* issues message IXC631I for each stalled member that is contributing to the problem.

- If message IXC640E indicates that manual intervention is required, or if the message indicates the condition is being ignored, XCF continues to monitor the situation.

- If message IXC640E indicates that SFM is taking action, XCF terminates the stalled member(s). To accomplish the member termination, the system on which the member resides may be removed from the sysplex.
- If the message indicates that SFM will take action, then XCF will delay taking action until the indicated time. If the stall condition persists and continues to impact the sysplex, XCF will then terminate the stalled member(s). If XCF terminates the stalled member, XCF will initiate a dump, and issue message IXC615I to indicate that action is being taken against the stalled member to resolve the problem.

If the stalled member(s) resumes normal operation or the sysplex is no longer impacted by the stall condition, message IXC632I is issued.

For an impaired member condition system *sysname* issues message IXC633I for each impaired member contributing to the problem.

- If message IXC640E indicates that SFM is taking action, XCF terminates the impaired member(s). To accomplish the member termination, the system on which the member resides may be removed from the sysplex.
- If the message indicates that SFM will take action, then XCF will delay taking action until the indicated time. If the impairment condition persists and continues to impact the member function, XCF will then terminate the impaired member(s). If XCF terminates the impaired member, XCF will initiate a dump, and issue message IXC615I to indicate that action is being taken against the impaired member to resolve the problem.

If the impaired member(s) resume normal operation or the member function is no longer impacted by the impairment condition, message IXC634I is issued.

Operator response: If the message indicates that SFM is taking action or is going to take action, no operator response is needed. However, the operator might choose to investigate and remedy the problem if there is enough time to do so before SFM takes action. Before SFM takes action, the SETXCF command can be used to stop or change the SFM policy to provide additional time for manual action.

If manual intervention is required, the operator should investigate and resolve the problem. If the message indicates that the condition is being ignored because the impacted systems are being removed from the sysplex, the operator can optionally investigate and resolve the problem. Use DISPLAY XCF,GROUP,*grp_name*,*member_name* to get detailed information about the stalled member. Message IXC333I provides status information about the member and indicates what work appears to be stalled.

There may be other commands provided by the indicated application/subsystem that will allow you to determine its status and/or alleviate the problem. If more than one member is impacted, there may be an underlying system problem affecting them all. If so, investigate the status of the system at large. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis and/or terminate the indicated application.

XCF monitors its own internal use of the XCF signalling service and may issue message IXC431I if XCF itself appears to be stalled. However, the DISPLAY XCF,GROUP command cannot be used to investigate such stalls since the command does not support the internal XCF group.

Message IXC440E is issued by each system in the sysplex that is impacted by the stall condition. These messages can be used to judge the pervasiveness of the impact.

System programmer response: Check the status of the indicated application/subsystem. If multiple members appear to be stalled, or if other indicators suggest work is not being processed, there may be an underlying problem affecting them all. If so, a broader system diagnosis may be warranted since the impacted members may not be at fault. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. If necessary, take appropriate action to correct the situation or cancel/terminate the application.

Take the following steps:

1. Issue the DISPLAY XCF,GROUP,grp_name,ALL and any relevant application display.
2. Collect the following diagnostic information: system log, application log, and an appropriate dump. In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE).
3. Use its normal shut down procedure, and end the application.

If XCF takes action to resolve the problem, it will also attempt to ensure that appropriate documentation is available for diagnosis. XCF abend X' 00C' reason X'020F000D' is issued and a dump is taken.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 1, 2, 10

Descriptor code: 11

IXC645E SYSTEM *sysname* HAS ISOLATED XCF GROUP MEMBERS

Explanation: One or more XCF group members on system *sysname* are “message isolated”. XCF isolates a member when it fails to make adequate progress with respect to the processing of its messages. Message isolation helps keep problematic group members from impeding the delivery of messages to other members.

While a member is isolated, XCF delays or rejects messages targeted to that member. When a sending member has a message delayed or rejected because the target member appears to be isolated, the sending member is said to be "impacted". Since sending members must be in the same XCF group as the target member, the only members that can be directly impacted by the problematic member will be members of its own group. There could of course be indirect sympathy sickness impacts if other programs have dependencies on the services provided by the relevant XCF group.

In the message text:

sysname
The name of the system that hosts the isolated members.

System action: XCF continues to monitor the situation. The message is deleted when none of the members on system *sysname* are isolated.

System *sysname* periodically issues message IXC638I to the log to provide information about a particular isolated member.

If a system rejects or delays a message-out request that is targeted to an isolated member, the sending system is said to be impacted by the isolated member. An impacted system periodically issues message IXC637I to the log to document the impact. An impacted system also issues message IXC440E to the operator console to indicate that it is being impacted by isolated members on system *sysname*.

Since messages IXC637I and IXC638I are issued periodically, they do not always provide current status information. Use the `DISPLAY XCF,GROUP` command to get the most current status regarding member isolation and its impact.

Operator response: Monitor the situation. If there does not seem to be any detrimental impact, no further action may be needed. On many occasions the system will successfully resolve the situation during the course of normal processing. Issue `DISPLAY XCF,GROUP` commands on the indicated system to get more information about the isolated group members.

- Use `DISPLAY XCF,GROUP` to determine which groups have isolated members on the system. Message IXC331I lists the names of the groups. Groups with isolated members are flagged with an asterisk (“*”). Group whose isolated members are impacting sending systems are flagged with an exclamation point (“!”). However, note that other conditions besides isolation can cause groups to be flagged with these characters.
- To investigate a particular group of interest, issue `DISPLAY XCF,GROUP,`*`grp_name`*. Message IXC332I lists the names of the members in the group. Isolated members are flagged with an asterisk (“*”). Isolated members that are impacting sending systems are flagged with an exclamation point (“!”). However, note that other conditions besides isolation can cause members to be flagged with these characters.
- To investigate a particular member of interest, use `DISPLAY XCF,GROUP,`*`grp_name`*`,`*`member_name`* to get detailed information about member *member_name* of group *grp_name*. Alternatively, use `DISPLAY XCF,GROUP,`*`grp_name`*`,ALL` to get detailed information about all of the members in the group. Message IXC333I provides the detailed status information about the requested set of members. In particular, the message describes the duration of the isolation and its impact on sending systems.

There may be other commands provided by the relevant application/subsystem that will allow you to determine its status and/or alleviate the problem. At the direction of the system programmer, you may need to obtain dumps for problem diagnosis and/or terminate the indicated application. If multiple members appear to be isolated, or if other indicators suggest work is not being processed, check the status of the system since there may be an underlying problem affecting them all.

System programmer response: Use the `DISPLAY XCF,GROUP` command as described under the operator response to determine which members are isolated. You can also review the log for instances of message IXC638I. Check the status of the isolated application/subsystem. On many occasions the system will successfully resolve the situation during the course of normal processing, in which case no further action is warranted. If necessary, take appropriate action to correct the situation or cancel/terminate the application. Before terminating the application, issue the `DISPLAY XCF,GROUP,`*`grp_name`*`,ALL` command as well as any application specific display commands that may be

helpful in ascertaining status. Then collect the following diagnostic information: system log, application log, and an appropriate dump. In addition to application specific diagnostic data, the dump should include XCF data (SDATA=COUPLE). Then using its normal shut down procedure, terminate the application.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCS1DCM

Routing code: 2, 10

Descriptor code: 11

IXC700E SYSPLEX COUPLE DATA SET LIMIT REACHED, FUTURE REQUESTS MAY BE REJECTED. *text*

Explanation: While processing a JOIN or CREATE request, cross-system coupling facility (XCF) detected that either the sysplex contains the maximum number of groups or that group *groupname* contains the maximum number of members.

In the message text:

groupname
The name of the group which is of maximum size.

NO MORE GROUPS ALLOWED.
The sysplex contains the maximum number of groups specified in the couple data set.

NO MORE MEMBERS ALLOWED IN GROUP *groupname***.**
The sysplex contains the maximum number of members specified for group *groupname* in the sysplex couple data set.

System action: If the JOIN or CREATE request consumes the last available slot, the system continues processing the request. However, subsequent requests may be rejected due to the lack of available slots. If all of the available slots have already been consumed, the request is rejected and the system issues message IXC701I. Depending on the message text, one of the two possible capacity problems is being identified. The message is deleted if a primary sysplex couple data with more capacity is brought into service.

NO MORE GROUPS ALLOWED
Subsequent requests to join or create a member of a new group will be rejected until such time as a group slot becomes available. If the primary sysplex couple data set is not formatted to support the maximum possible number of groups, additional group slots can be made available by increasing the number of groups that is supported by the primary sysplex couple data set. A group slot can also be made available if all the members of an existing group become undefined.

NO MORE MEMBERS ALLOWED IN GROUP *groupname*
Subsequent requests to join or create a new member of the indicated group will be rejected until such time as a member slot becomes available. If the primary sysplex couple data is not already formatted to support the maximum possible number of members per group, additional member slots can be made available by increasing the number of members per group supported by the primary sysplex couple data set. A member slot can also be made available if a member of the group becomes undefined.

Note: The problem is not necessarily restricted to the indicated group. Other groups could experience the same problem even though message IXC700E is not issued to explicitly name them.

Operator response: Notify the system programmer.

System programmer response: Issue the DISPLAY XCF,COUPLE command to display:

- The maximum groups and members defined in the sysplex couple data set
- The numbers of groups and members currently contained in the sysplex

Use this information to determine whether the couple data set allows enough groups and members for sysplex activity,

If you decide that the couple data set should allow more groups and members, choose one of the following:

- Switch the primary and alternate couple data sets by entering the SETXCF COUPLE,PSWITCH command if the alternate couple data set allows more groups and members than the primary one.

Then format a new alternate data set and issue SETXCF COUPLE,ACOUPLE=*dsname*. Make sure the data set is catalogued in the master catalog before issuing the command.

- Format an alternate couple data set allowing more groups and members if one of the following is true:
  - There is no alternate couple data set defined
  - The alternate couple data set does not allow any more groups or members than the primary couple data set.

  After formatting a new alternate couple data set, do the following:
  - Enter a SETXCF COUPLE,ACOUPLE command to define the new alternate couple data set to XCF
  - Enter a SETXCF COUPLE,PSWITCH command to switch the primary couple data set with the new alternate one.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCG1CRE, IXCG1JON

Routing code: 2, 10

Descriptor code: 11

IXC701I [IXCCREAT | IXCJOIN] REQUEST FOR GROUP *groupname* **MEMBER** *memname* **FAILED. JOBNAME** *jobname* **ASID:** *asid* **RETURN CODE:** *retcode* **REASON CODE:** *rsncode*

Explanation: An attempt to use cross-system coupling facility (XCF) group services via either the IXCCREAT or IXCJOIN macro has failed.

In the message text:

groupname
Name of the group for which information is recorded.

memname
Name of the member for which information is recorded. If the member name was not specified, and the failure occurred before the member name could be generated, then N/A will be used. If the member name was not specified, and the failure occurred after the member name was generated, then the generated name will be used.

jobname
Jobname of application issuing the macro service that was unsuccessful.

asid
ASID of application issuing the macro service.

retcode
Macro service return code.

rsncode
Macro service reason code.

System action: The system continues. The program which issued the IXCCREAT or IXCJOIN macro has failed.

System programmer response: Determine the reason why the request could not be satisfied. Make the appropriate corrections. If needed, restart or reinitialize the program so that the request is attempted again. For return code and reason code indicating either the sysplex contains the maximum number of groups or that group *groupname* contains the maximum number of members, issue the DISPLAY XCF,COUPLE command to display:

- The maximum groups and members defined in the sysplex couple data set.
- The number of groups and members currently contained in the sysplex.

Use this information to determine whether the couple data set allows enough groups and members for sysplex activity.

If you decide that the couple data set should allow more groups and members, choose one of the following:

1. Switch the primary and alternate couple data sets by entering the SETXCF COUPLE,PSWITCH command if the alternate couple data set allows more groups and members than the primary one.

   Then format a new alternate data set and issue SETXCF COUPLE,ACOUPLE=*dsname*.
2. Format an alternate couple data set allowing more groups and members if one of the following is true:

- There is no alternate couple data set defined.
- The alternate couple data set does not allow any more groups or members than the primary couple data set.

After formatting a new alternate couple data set, do the following:

- Enter a SETXCF COUPLE,ACOUPLE command to define the new alternate couple data set to XCF.
- Enter a SETXCF COUPLE,PSWITCH command to switch the primary couple data set with the new alternate one.

To avoid a single point of failure in the sysplex, IBM recommends using an alternate couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCG1CRE, IXCG1JON

Routing code: 10

Descriptor code: -

IXC725I **SYNTAX ERROR DETECTED IN LINE** *linenum*. **THE FOLLOWING WAS EXPECTED:** *expected_string* **BEFORE:** *position_string*.

Explanation: The XCF Administrative Data Utility detected a syntax error. The *expected_string* was missing from a control statement.

In the message text:

linenum
The line number where the error was detected.

expected_string
The expected string.

position_string
This string identifies the position in the control statement prior to which the *expected_string* should be inserted.

System action: The system ignores the control statement and will continue to process subsequent statements.

Operator response: Notify the system programmer.

System programmer response: Correct the syntax error and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCM2LEX

Routing code: 1, 2

Descriptor code: 5

IXC726I **SYNTAX ERROR DETECTED IN LINE** *linenum* **THE FOLLOWING WAS NOT RECOGNIZED:** *symbol*. **EXPECTED ONE OF THE FOLLOWING AT THAT POINT: [** *yyy yyy...yyy***]**

Explanation: The XCF Administrative Data Utility detected a syntax error. The *symbol* was detected where one of the *yyy ... yyy* text strings would have been appropriate.

In the message text:

linenum
The line number where the error was detected.

symbol
The unrecognized string. The string may be truncated after the first 16 characters.

yyy
One or more correct symbols or characters that should replace *symbol* in the control statement text.

System action: The system ignores the control statement and will continue to process subsequent statements.

Operator response: Notify the system programmer.

System programmer response: Correct the syntax error and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCM2LEX

Routing code: 1, 2

Descriptor code: 5

IXC727I INPUT IS SKIPPED UP TO: *continue_string*, **WHICH WAS FOUND IN LINE** *linenum*

Explanation: The XCF Administrative Data Utility had previously detected a syntax error. The system ignores the portion of input which contains the syntax error, but continues processing at the point indicated in the message text.

In the message text:

continue_string
The point at which the system will continue to process control statements.

linenum
The line number where the system will continue to process control statements.

System action: The system continues to process control statements at the specified point.

Operator response: Notify the system programmer.

System programmer response: Correct the syntax error and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCM2LEX

Routing code: 1, 2

Descriptor code: 5

IXC728I *error_string* **SHOULD BE DELETED IN LINE** *linenum*

Explanation: The XCF Administrative Data Utility has detected a syntax error and has identified a portion of a control statement which should be deleted.

In the message text:

error_string
A string which should be deleted from the control statement.

linenum
The line number where the error was detected.

System action: The *error_string* is ignored and the remaining control statements will be processed.

Operator response: Notify the system programmer.

System programmer response: Correct the syntax error and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCM2LEX

Routing code: 1, 2

Descriptor code: 5

IXC729I *insert_string* **WAS ASSUMED BEFORE THE ERROR POINT IN LINE** *linenum*

Explanation: The XCF Administrative Data Utility has detected a syntax error and has identified a portion of a control statement which should be inserted.

In the message text:

insert_string
The string which was assumed at the error point when the system continued processing the control statements.

linenum
The line number where the *insert_string* should be inserted.

System action: The *insert_text* is assumed and the utility will continue to process remaining control statements.

Operator response: Notify the system programmer.

System programmer response: Correct the syntax error and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCM2LEX

Routing code: 1, 2

Descriptor code: 5

IXC730I ERROR DETECTED IN LINE *linenum*. **THE VALUE '***value_string*' **FOR KEYWORD '***keyword*' *error_text*

Explanation: The XCF administrative data utility has detected an error in the specified keyword value.

In the message text:

linenum
The line number where the error was detected.

value_string
The string which was found to be in error. The string, enclosed in quotation marks, may be truncated to 16 characters.

keyword
The keyword for which the *value_string* was found to be in error.

error_text
Describes the reason why the value was in error. *error_text* is one of the following:

IS TOO LONG.
The keyword value was too long.

IS TOO SHORT.
The keyword value was too short.

CONTAINS CHARACTERS WHICH ARE NOT VALID.
The *value_string* contained one or more characters which are not valid for this keyword value.

IS OUT OF RANGE.
The number specified was not within the allowable range for this keyword value.

IS NOT ONE OF THE ALLOWABLE VALUES.
The *value_string* is not one of the allowable values for this keyword.

CONTAINS AN INVALID USAGE OF WILDCARD CHARACTERS.
The *value_string* violates the rules for wildcard character usage.

IS NOT 'SITE1' OR 'SITE2'.
The *value_string* is not one of the allowable values for this keyword. Only 'SITE1' or 'SITE2' is allowed.

System action: The keyword value is ignored and the data is not changed.

Operator response: Notify the system programmer.

System programmer response: Correct the syntax error and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2FDX, IXCA3FDM, IXCL2PPI, IXCM2PPI

Routing code: 1, 2

Descriptor code: 5

IXC733I REPORT MAY BE INCOMPLETE. XCF ADMINISTRATIVE DATA UTILITY SUPPORTS *data_type* **POLICY VERSION** *supportedver*, **BUT POLICY (***polname***) VERSION is** *polver*.

Explanation: The XCF Administrative Data Utility (IXCMIAPU) is reporting on a policy that contains data not supported by the level of IXCMIAPU. The report for the policy is incomplete- it does not contain the uplevel policy data.

In the message text:

data_type
The type of administrative data reported on. For example, *data_type* might be CFRM.

supportedver
The highest version of policies (for the datatype) supported by this version of IXCMIAPU.

polname
The name of the policy whose version is not supported.

polver
The version of the administrative policy in the couple data set.

System action: The system continues processing the control statements. Accompanying message IXC739I indicates whether the data was changed.

Operator response: Not applicable.

System programmer response: Re-run the report with the level of IXCMIAPU that was used to define the policy.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2PPR

Routing code: 1, 2

Descriptor code: 5

IXC734I XCF ADMINISTRATIVE DATA UTILITY ENCOUNTERED AN UNEXPECTED ERROR. DIAGNOSIS INFORMATION: *diag_info*

Explanation: The XCF Administrative Data Utility ended because of unexpected errors.

In the message text:

diag_info
If the diagnosis information is presented it should be saved for use by your support personnel.

The format of *diag_info* is:

X'xx aaaaaaaa bbbbbbbb cccccccc'

where:

xx Code indicating the service that caused the error

01 ALESERV

02 DSPSERV

03 RACROUTE

04 Internal error

05 Internal error

06 LOAD

07 ESTAEX

08 Internal error

09 Internal error

10 SYSEVENT

aaaaaaaa
Return code from the service

bbbbbbbb
Reason code from the service

cccccccc
Internal information

System action: The Administrative Data Utility program ends.

Operator response: Notify the system programmer.

System programmer response: The diagnosis information presented with this message should be saved. If this error persists report the problem to the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2FDX, IXCL2PPI, IXCM2APU, IXCM2PPI, IXCA3FDM

Routing code: 1, 2

Descriptor code: 5

IXC735I XCF ADMINISTRATIVE DATA UTILITY ENCOUNTERED AN ERROR: *error_text*

Explanation: The XCF administrative data utility program ended because of JCL errors.

In the message text:

error_text
A description of the error which occurred. *error_text* is one of the following:

VOLSER SPECIFIED WITHOUT DSN
The VOLSER keyword was specified on the TYPE control statement but the DSN keyword was missing.

UNABLE TO OPEN SYSIN
An error occurred when the system tried to open the SYSIN file. The SYSIN DD control statement may be missing.

I/O ERROR ON SYSIN
An I/O error occurred when the system attempted to read the SYSIN data set.

NO SYSIN CONTROL STATEMENTS
No control statements were provided in the SYSIN data set.

DATA TYPE CONTROL STATEMENT ERROR
One or more errors were encountered while processing the TYPE control statement.

DSN REQUIRED FOR THIS LEVEL OF MVS
Only offline couple data sets can be updated on the current system level of MVS. The DSN keyword is required at this system level or rerun the utility on the level of MVS that supports ONLINE couple data sets.

System action: The administrative data utility program ends.

Operator response: Notify the system programmer.

System programmer response: Correct the JCL and rerun the program.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCM2APU, IXCM2PPI

Routing code: 1, 2

Descriptor code: 5

IXC736I THE LIMIT OF *maxnum* **{POLICIES|STRUCTURES|COUPLING FACILITIES|SYSTEM ELEMENTS| RECONFIG ELEMENTS|RESTART ORDER ENTRIES|RESTART GROUPS|ELEMENTS| RESTART METHODS|TARGET SYSTEMS} PER** *policy_object_group* **HAS BEEN EXCEEDED IN LINE** *linenum***.** *data_type* **IS THE COUPLE DATA SET DATA TYPE TO WHICH THIS LIMIT APPLIES.**

Explanation: The specified limit was reached and the system could not complete processing of the control statement on line *linenum*. In most cases, the limit is set when the couple data set containing the administrative data is formatted.

In the message text:

maxnum
The maximum number of items per unit. This number is defined within the context of the specific item.

POLICIES
The specified limit of policies has been reached.

STRUCTURES
The specified limit of structures has been reached.

COUPLING FACILITIES
The specified limit of coupling facilities has been reached.

SYSTEM ELEMENTS
The specified limit of system elements has been reached.

RECONFIG ELEMENTS
The specified limit of reconfig elements has been reached.

RESTART ORDER ENTRIES
The specified limit of restart order entries has been reached.

RESTART GROUPS
The specified limit of restart group entries has been reached.

ELEMENTS
The specified limit of element entries has been reached.

RESTART METHODS
The specified limit of restart method entries has been reached.

TARGET SYSTEMS
The specified limit of target system entries has been reached.

policy_object_group
One of the following:

COUPLE DATA SET DATA TYPE
Refers to the entire set of administrative data within the scope of an XCF couple data set *data_type*.

PREFERENCE LIST
The limit of coupling facilities that can be specified in a preference list is fixed at 8.

EXCLUSION LIST
The limit of structures that can be specified in an exclusion list is fixed at 8.

POLICY
The limit of the specified *policy_object* that can be defined within a policy, established by the installation when the couple data set containing the policy data was formatted

ELEMENT
The limit of restart methods that can be defined within an element definition is fixed at 2.

linenum
The line number where the error was detected.

data_type
Couple data set data type to which this limit applies.

System action: The system ignores the control statement and continues processing remaining control statements.

Operator response: Notify the system programmer.

System programmer response: The limit could possibly be increased. Refer to SETTING UP A SYSPLEX for instructions on how to increase the size of the couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2FDX, IXCL2PPI

IXCA3FDM

Routing code: 1, 2

Descriptor code: 5

IXC737I AN ERROR WAS DETECTED AT LINE *linenum*. *object_name* **IS A DUPLICATE { POLICY| COUPLING FACILITY| STRUCTURE| SYSTEM ELEMENT| ELEMENT NAME| ELEMENT TYPE| RESTART GROUP| ELEMENT| TARGET SYSTEM} WITHIN** *policy_scope*

Explanation: The XCF Administrative Data Utility found the name of a policy object that has been duplicated within the specified *policy_scope*.

In the message text:

linenum
The line number where the error was detected.

object_name
The policy object that was duplicated.

POLICY
Policy object type.

COUPLING FACILITY
Coupling facility object type.

STRUCTURE
Structure object type.

SYSTEM ELEMENT
System object type.

ELEMENT NAME
Element name object type.

ELEMENT TYPE
Element type object type.

RESTART GROUP
Restart group object type.

ELEMENT
Element object type.

TARGET SYSTEM
Target system object type.

policy_scope
Defines the scope in which the *object_name* was duplicated. *policy_scope* is one of the following:

A SET OF DEFINE POLICY CONTROL STATEMENTS.
The policy name was duplicated on more than one DEFINE POLICY statement.

A PREFERENCE LIST.
The coupling facility was specified more than once in a structure preference list.

AN EXCLUSION LIST.
The structure name was specified more than once in a structure exclusion list.

A LIST OF STRUCTURES IN A POLICY.
The structure name was specified more than once within a policy.

A LIST OF COUPLING FACILITIES IN A POLICY.
The coupling facility name was specified more than once within a policy.

A LIST OF SYSTEM ELEMENTS IN A POLICY.
The system element name was defined more than once within a policy.

A POLICY.
The *object_name* was defined more than once within a policy.

A LIST OF TARGET SYSTEMS IN A RESTART GROUP.
The *object_name* was defined more than once within a target system list.

System action: The system continues processing the control statements; however, the administrative data will not be changed.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2FDX, IXCA3FDM, IXCL2PPI

Routing code: 1, 2

Descriptor code: 5

IXC738I **{DEFINE|DELETE} POLICY (***polname***) STATEMENT AT LINE** *linenum* **{PASSED|FAILED} VERIFICATION.** *explanation*

Explanation: This is a status message issued after all control statements associated with a DEFINE POLICY or DELETE POLICY control statement have been processed.

In the message text:

DEFINE
The statement is a DEFINE control statement.

DELETE
The statement is a DELETE control statement.

polname
The name of a policy.

linenum
The line number of the statement.

PASSED
The processing for the control statement was successful.

FAILED
The processing for the control statement had one or more associated errors or the REPLACE specification indicated the job should fail. This text is produced when REPLACE(NO) is specified, but that is not an error. However, if any policy specifies REPLACE(NO) the job will not update any POLICY.

explanation
Further describes the processing for the specified control statement. *explanation* is one of the following:

THE POLICY CAN BE ADDED.
The policy name did not exist at the time this statement was processed.

THE POLICY CAN BE REPLACED.
The policy name existed at the time this statement was processed and this new policy data will overlay the previous policy data for the same named policy. Either REPACE(YES) or REPLACE(*timestring*) was specified and the timestamp matched.

THE POLICY WILL NOT BE ADDED DUE TO REPLACE SPECIFICATION.
A policy with the specified name did not exist at the time this statement was processed. A DEFINE statement where REPLACE(timestring) is specified fails when the policy was not previously defined.

THE POLICY WILL NOT BE REPLACED DUE TO REPLACE SPECIFICATION.
A policy with the specified name existed in the couple data set at the time this statement was processed. Either REPLACE(NO) was used, or REPLACE(*timestring*) was specified and the timestamp of the existing policy did not match the timestamp specified for the REPLACE keyword.

THE POLICY WAS NOT PREVIOUSLY DEFINED.
The policy name did not exist at the time this statement was processed.

THE POLICY WAS PREVIOUSLY DEFINED.
The policy name existed at the time this statement was processed and this new policy data will overlay the previous policy data for the same named policy.

THE POLICY CAN BE DELETED.
The policy name existed at the time this statement was processed. The DELETE statement was successful.

THE DELETE STATEMENT CONFLICTS WITH A PREVIOUS DEFINE.
A previous DEFINE POLICY statement for the same named policy was processed.

THE POLICY WAS NOT FOUND.
The specified policy was not found and was not deleted.

ONE OR MORE ERRORS OCCURRED.
One or more errors occurred during the processing of the statements for this policy.

THE POLICY WAS PREVIOUSLY DEFINED, USE REPLACE(YES).
The policy name was previously defined. REPLACE(YES) is required to overlay policy.

System action: The system continues processing.

Operator response: Not Applicable.

System programmer response: Not Applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2FDX, IXCA3FDM, IXCL2PPI

Routing code: 1, 2

Descriptor code: 5

IXC739I DATA WAS *action* **FOR COUPLE DATA TYPE** *data_type*

Explanation: This is a final disposition message in regard to the administrative data.

In the message text:

action
The action that was taken in regard to the policy data. *action* is one of the following:

CHANGED
The policy data was changed in the couple data set that contains data of type *data_type*.

NOT CHANGED
No data was changed for the specified *data_type*. Other messages may have been previously issued to describe errors encountered while processing utility control statements.

data_type
The couple data type which is associated with this administrative policy data.

System action: If a report was requested, then the utility will continue to the report phase of processing. Otherwise, the utility processing is complete.

Operator response: Not Applicable.

System programmer response: Not Applicable.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2FDX, IXCA3FDM, IXCL2PPI

Routing code: 1, 2

Descriptor code: 5

IXC740I THE XCF ADMINISTRATIVE DATA UTILITY ENCOUNTERED AN ERROR WHILE USING COUPLE DATA TYPE *data_type*. *error_text*

Explanation: The XCF administrative data utility ended because of problems accessing an online couple data set.

In the message text:

data_type
The type of data specified as input to the Utility.

error_text
A description of the error that occurred. *error_text* is one of the following:

THE COUPLE DATA TYPE WAS NOT AVAILABLE.
The couple data set data type was not available on the system where the utility was running.

A DATA RECORD WAS NOT AVAILABLE.
There is a possible formatting error with the couple data set that contains the specified data type.

THE SERIALIZATION CONTENTION LIMIT WAS EXCEEDED.
There was contention for the couple data set. Retry the utility at a later time.

THE COUPLE DATA SET RESOURCE WAS NOT DEFINED TO THE SYSTEM AUTHORIZATION FACILITY.
A facility class resource profile must be defined for the specific couple data set type. The resource name is as follows: MVSADMIN.XCF.xxxxxxxx, where xxxxxxx is the required data type.

THE USER WAS NOT AUTHORIZED TO UPDATE THE COUPLE DATA TYPE RESOURCE.
The user of the utility was not authorized to update the couple data set for data type. Authorization is defined through the System Authorization Facility.

THE USER WAS NOT AUTHORIZED TO READ THE COUPLE DATA TYPE RESOURCE.
The user of the utility was not authorized to read the couple data set data type. Authorization is defined through the System Authorization Facility.

System action: The XCF administrative data utility program ends.

Operator response: Notify the system programmer.

System programmer response: Correct the error and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA2FDX, IXCA3FDM, IXCL2PPI, IXCM2APU

Routing code: 1, 2

Descriptor code: 5

IXC741I XCF ADMINISTRATIVE DATA UTILITY ENCOUNTERED AN ERROR WHILE USING COUPLE DATA SET *dsname* **FOR DATA TYPE** *data_type* **BECAUSE** *error_text*

Explanation: The XCF administrative data utility ended because of errors accessing an offline couple data set.

In the message text:

dsname
The name of the couple data set that was specified on the TYPE Control Statement.

data_type
The type of data contained in a couple data set.

error_text
Description of the error that occurred. *error_text* is one of the following:

THE DATA WAS NOT AVAILABLE.
The data set specified did not contain the data type.

A DATA RECORD WAS NOT AVAILABLE.
The data set specified did not contain one or more required data records. This would indicate that the data set was not properly formatted.

System action: The XCF administrative data utility program ends.

Operator response: Notify the system programmer.

System programmer response: Reformat the data set or correct the data set name.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCM2APU

Routing code: 1, 2

Descriptor code: 5

IXC742I ERROR DETECTED IN *list_keyword* **FOR STRUCTURE** *strname* **IN POLICY** *polname***.** *entry error_text*

Explanation: The *list_item* had an error for the context in which it was specified.

In the message text:

list_keyword
Either PREFLIST or EXCLLIST.

strname
The structure name for which the preference list had an error.

polname
The name of the policy being processed.

entry
The entry in the list which is in error.

error_text
A description of the error which occurred. *error_text* is one of the following:

WAS NOT DEFINED IN THE POLICY.
The entry was not a defined structure or coupling facility for the specified policy.

CANNOT BE IN THE EXCLUSION LIST FOR ITSELF.
An exclusion list entry cannot be in the exclusion list for itself.

System action: The system continues processing any remaining control statements, however, the administrative data will not be changed.

Operator response: Notify the system programmer.

System programmer response: Correct the error in the JCL and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2PPI

Routing code: 1, 2

Descriptor code: 5

IXC743I COUPLING FACILITY *cf_name1* **WAS PREVIOUSLY DEFINED HAVING THE SAME IDENTIFICATION INFORMATION AS** *cf_name2* **WHICH WAS DEFINED AT LINE** *linenum*

Explanation: The administrative data utility detected duplicate coupling facility identification information within the policy.

In the message text:

cf_name1
The name of a coupling facility with duplicate identification information.

cf_name2
The name of a coupling facility with duplicate identification information.

linenum
The line number where the second coupling facility was defined.

System action: The system continues processing any remaining control statements, however, the administrative data will not be changed.

Operator response: Notify the system programmer.

System programmer response: Correct the error in the JCL and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2PPI

Routing code: 1, 2

Descriptor code: 5

IXC744I ERROR DETECTED IN POLICY (*polname***). COUPLING FACILITY (***cfname***)** *error_text*

Explanation: The administrative data utility detected the specified error while processing control statements.

In the message text:

polname
The name of the policy being processed.

cfname
The name of the coupling facility in error.

error_text
A description of the error which occurred. *error_text* is one of the following:

WAS NOT REFERENCED BY ANY STRUCTURE PREFLIST ENTRIES.
The coupling facility was not referenced by at least one preference list for structures defined in the policy.

IS DEFINED WITH A SITE DIFFERENT FROM ANOTHER CF ON THE SAME CEC.
A CF with a different SITE is defined in the policy with the same TYPE, MFG, PLANT, and SEQUENCE. CFs that have the same TYPE, MFG, PLANT, and SEQUENCE cannot be at different SITEs because they are co-resident on the same physical machine. If all CFs that have a SITE specified are on the same CEC, the administrative data will be changed to allow this configuration for a test environment. Otherwise, the administrative data will not be changed.

System action: The system continues processing any remaining control statements; however, the administrative data will not be changed (unless specifically noted otherwise).

Operator response: Notify the system programmer.

System programmer response: Correct the error in the JCL and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2PPI

Routing code: 1, 2

Descriptor code: 5

IXC745I ERROR DETECTED IN *keyword* **FOR STRUCTURE** *strname* **IN POLICY** *polname***.** *error_text*

Explanation: The keyword was not valid for the context in which it was specified.

In the message text:

keyword
The keyword being processed when the error was detected.

strname
The name of the structure.

polname
The name of the policy being processed.

error_text
A description of the error that occurred. *error_text* is one of the following:

THE PREFLIST MUST CONTAIN TWO OR MORE FACILITIES WITH DIFFERENT SITE VALUES.
The CROSSSITE keyword specified on the DUPLEX parameter requires that two or more coupling facilities be specified in the preference list for the structure with different SITE values.

THE PREFLIST MUST CONTAIN TWO OR MORE FACILITIES WITH THE SAME SITE VALUE.
The SAMESITE or SAMESITEONLY keyword specified on the DUPLEX parameter requires that two or more coupling facilities be specified in the preference list for the structure with the same SITE value.

THE PREFLIST MUST CONTAIN TWO OR MORE FACILITIES.
The value of the DUPLEX keyword requires that two or more coupling facilities be specified in the preference list for the structure.

VALUE SPECIFIED IS GREATER THAN VALUE SPECIFIED FOR SIZE.
The number specified for the initial or minimum structure size is larger than the value specified for the maximum structure size.

THE PREFLIST MUST CONTAIN TWO OR MORE FACILITIES.
The value of the DUPLEX keyword requires that two or more coupling facilities be specified in the preference list for the structure.

VALUE SPECIFIED IS GREATER THAN VALUE SPECIFIED FOR INITSIZE.
The number specified for the minimum structure size is larger than the value specified for the initial structure size.

CANNOT BE SPECIFIED WITHOUT SCMMAXSIZE.
The named keyword cannot be specified unless SCMMAXSIZE is specified.

System action: The system continues processing any remaining utility control statements; however, the administrative data will not be changed.

Operator response: Notify the system programmer.

System programmer response: Correct the error in the JCL and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2PPI

Routing code: 1, 2

Descriptor code: 5

IXC746I MISSING KEYWORD FOR STRUCTURE *strname* **IN POLICY** *polname*. *reqkeyword* **REQUIRED WHEN** *strkeyword* **SPECIFIED.**

Explanation: A keyword required by the presence of another keyword was not specified.

In the message text:

strname
The name of the structure.

polname
The name of the policy being processed.

reqkeyword
The missing required keyword.

strkeyword
Policy keyword that requires the presence of the missing keyword.

System action: The system continues processing any remaining control statements, however the administrative data will not be changed.

Operator response: Notify the system programmer.

System programmer response: Correct the error in the JCL and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2PPI

Routing code: 1, 2

Descriptor code: 5

IXC760I ERROR DETECTED AT LINE *linenum*. TARGET SYSTEM '*' IS NOT ALLOWED WITHIN A LIST OF TARGET SYSTEMS.

Explanation: The administrative data utility has detected an error in the specification of the TARGET_SYSTEM keyword value. A target system of '*' may not appear in a list of target system names.

In the message text:

linenum
The line number where the error was detected.

System action: The system continues processing the control statements. The administrative data will not be changed.

Operator response: Notify the system programmer.

System programmer response: Correct the syntax error and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3FDM

Routing code: 1, 2

Descriptor code: 5

IXC761I ELEMENT MISSING FOR RESTART GROUP ON LINE *linenum*.

Explanation: The administrative data utility has detected an error. An element definition is required for the specified restart group.

In the message text:

linenum
The line number where the restart group is specified.

System action: The restart group definition is ignored. The system continues processing the control statements. The administrative data will not be changed.

Operator response: Notify the system programmer.

System programmer response: Add an element definition for the restart group and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3FDM

Routing code: 1, 2

Descriptor code: 5

IXC762I ERROR DETECTED AT LINE *linenum*. ELEMENT *elementname* IS NOT VALID WITHIN RESTART GROUP *restartgroup*.

Explanation: The administrative data utility found an element that is not valid within the specified restart group.

In the message text:

linenum
The line number where the error was detected.

elementname
The name of the element that is not valid within the specified restart group.

restartgroup
The name of the restart group that may not contain the specified element.

System action: The restart group definition is ignored. The system continues processing the control statements. The administrative data will not be changed.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3FDM

Routing code: 1, 2

Descriptor code: 5

IXC763I INVALID COMBINATION OF RESTART METHODS DETECTED AT LINE *linenum***.** *error_text*

Explanation: The administrative data utility has detected an error in a set of restart method definitions for an element.

In the message text:

linenum
The line number where the error was detected.

error_text
Describes the particular combination of restart methods that caused the error. *error_text* is one of the following:

'BOTH' AND 'SYSTERM' ARE MUTUALLY EXCLUSIVE.
Restart methods for event types BOTH and SYSTERM cannot be defined for a single element.

'BOTH' AND 'ELEMTERM' ARE MUTUALLY EXCLUSIVE.
Restart methods for event types BOTH and ELEMTERM cannot be defined for a single element.

'SYSTERM' MAY ONLY BE SPECIFIED ONCE PER ELEMENT.
Only one restart method for event type SYSTERM is allowed per element definition.

'ELEMTERM' MAY ONLY BE SPECIFIED ONCE PER ELEMENT.
Only one restart method for event type ELEMTERM is allowed per element definition.

'BOTH' MAY ONLY BE SPECIFIED ONCE PER ELEMENT.
Only one restart method for event type BOTH is allowed per element definition.

System action: The system continues processing the control statements. The administrative data will not be changed.

Operator response: Notify the system programmer.

System programmer response: Correct the syntax error and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3FDM

Routing code: 1, 2

Descriptor code: 5

IXC764I ERROR DETECTED IN QUOTED STRING AT LINE *linenum***.** *error_text*

Explanation: The administrative data utility has detected an error in the specified quoted string.

In the message text:

linenum
The line number where the quoted string is specified.

error_text
Describes the reason why the string was in error. *error_text* is one of the following:

THE STRING IS TOO SHORT.
The specified string is too short.

THE STRING IS TOO LONG.
The specified string is too long.

A DATASET NAME CONTAINS AN INVALID MEMBER SPECIFICATION.
The partitioned data set name contains an incomplete or incorrect member specification.

System action: The string is ignored. The system continues processing the control statements. The administrative data will not be changed.

Operator response: Notify the system programmer.

System programmer response: Correct the syntax error and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3FDM

Routing code: 1, 2

Descriptor code: 5

IXC765I XCF ADMINISTRATIVE DATA UTILITY ENCOUNTERED AN UNEXPECTED ERROR WHILE PROCESSING ARM POLICY. DIAGNOSIS INFORMATION: *diag_info*

Explanation: The administrative data utility ended because of unexpected errors.

In the message text:

diag_info
An internal diagnostic code that IBM might request.

System action: The administrative data utility program ends.

Operator response: Notify the system programmer.

System programmer response: Rerun the utility. If this error persists, save the diagnostic information presented with this message and report the problem to the IBM Support Center.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3FDM

Routing code: 1, 2

Descriptor code: 5

IXC766I ERROR DETECTED FOR STRUCTURE *strname* **IN POLICY** *polname***. EXCLLIST CANNOT BE SPECIFIED WITH ENFORCEORDER(YES).**

Explanation: EXCLLIST is mutually exclusive with ENFORCEORDER(YES).

In the message text:

strname
The structure name for which the error was detected.

polname
The name of the policy being processed.

System action: The system continues processing any remaining control statements; however, the administrative data will not be changed.

Operator response: Notify the system programmer.

System programmer response: Correct the error in the JCL and rerun the utility.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCL2PPI

Routing code: 1, 2

Descriptor code: 5

IXC800I ELEMENTS FROM TERMINATED SYSTEM *sysname* **NOT RESTARTED.** *text*

Explanation: The designated system has been removed from the sysplex. MVS is unable to initiate restarts of the elements from the designated system on another system for the reason indicated by *text*.

In the message text:

sysname
The name of the system that has been removed from the sysplex.

ARM RESTARTS ARE NOT ENABLED.
Restarts of registered elements either have never been enabled (through a SETXCF START command) or have been disabled (through a SETXCF STOP command).

THRESHOLD FOR SYSTEM TERMINATIONS REACHED.
The number of systems that have left the sysplex within the system designated interval has reached the threshold where MVS no longer restarts elements from a terminated system.

SYSTEM *sysname* **LOST ACCESS TO THE ARM COUPLE DATA SET DURING RESTART PROCESSING.**
The system has lost access to the ARM couple data set while initiating restarts of the elements from the designated system.

sysname
The name of the system that incurred the error that prevented the elements from being restarted.

INTERNAL ERROR DURING ARM RESTART PROCESSING ON SYSTEM *currsys*. **DIAG106:** *diag106*
An internal processing error occurred during cross-system restart processing. MVS will not restart this element.

currsys
The name of the current system.

diag106
An internal diagnostic code that the IBM Support Center might request.

System action: MVS deregisters elements that had been running on the terminated system.

Operator response: If restarts are not enabled, then determine if you should enable them (through a SETXCF START command). You may also want to determine if you should manually restart the elements from the terminated system on another system in the sysplex.

System programmer response: If the threshold for system terminations has been reached then determine the reason for the system terminations.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3SG0

Routing code: 2

Descriptor code: 4

IXC801I RESTART OF RESTART GROUP *restartgroup* **FROM SYSTEM** *sysname* **WAS TERMINATED.** *text*

Explanation: The designated system has been removed from the sysplex. MVS is unable to initiate restarts of the elements defined in the designated restart group on another system for the indicated reason. The individual elements are identified in occurrences of message IXC802I which follow this message.

In the message text:

restartgroup
The name of the restart group for which a restart attempt has been made.

sysname
The name of the system that has been removed from the sysplex.

ARM COUPLE DATA SET COULD NOT BE UPDATED.
An error has occurred during an attempt to update the ARM couple data set.

THERE ARE NO ELIGIBLE TARGET SYSTEMS.
There are no systems available to be used as the target of a restart.

System action: MVS deregisters the elements in the specified restart group that were running on the terminated system.

Operator response: Notify the system programmer.

System programmer response: If the message text indicates a data set error, initiate appropriate problem analysis. If there are no eligible target systems, then determine if the restrictions imposed by the JES XCF group or the current automatic restart management policy are eliminating all SP5.2.0 systems as eligible target systems. Determine which systems are in the same JES XCF group as the system that terminated, or check the target system list specified in the automatic restart management policy. Check SYS1.LOGREC for a symptom record for this problem.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3SG0

Routing code: 2

Descriptor code: 4

IXC802I JOBNAME *jobname*, **ELEMENT** *elementname* **FROM SYSTEM** *sysname* **WAS DEREGISTERED**

Explanation: Either the designated system has been removed from the, sysplex or the designated system lost access to the ARM couple data set. The specified element will not be restarted by the automatic restart manager. The automatic restart manager has deregistered the element. This message may appear after and provide additional information for message IXC801I.

In the message text:

jobname
The name of the job or started task that was current when the element last registered by issuing the IXCARM macro.

elementname
The name of the element specified when the element registered by issuing the IXCARM macro.

sysname
The name of the system that the element was last considered to be running on.

System action: The automatic restart manager will no longer restart this element.

Operator response: Ensure that a primary couple data set is available. Determine if the job needs to be restarted manually.

System programmer response: One of the following messages should have been received prior to this one: IXC800I, IXC801I, or IXC809I. Perform the appropriate action for that message.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3ARP

Routing code: 2

Descriptor code: 4

IXC803I JOBNAME *jobname*, **ELEMENT** *elementname* **WAS DEREGISTERED. THE RESTART TIMEOUT THRESHOLD HAS BEEN REACHED.**

Explanation: MVS restarted the designated element but it has not subsequently reregistered with the automatic restart manager within the defined restart-timeout interval.

In the message text:

jobname
The name of the job or started task that was current when the element last registered by issuing the IXCARM macro.

elementname
The name of the element specified when the element registered by issuing the IXCARM macro.

System action: The system continues processing. The deregistered element is no longer a candidate for automatic restart manager restarts.

Operator response: Determine the state of the job and if a manual restart is required.

System programmer response: Determine the cause of the restart not resulting in the element re-registering within the restart-timeout interval. Items that should be checked are:

- That the job was successfully restarted. Incorrect policy specifications for the restart method could have caused the restart to fail.
- That the restart timeout interval is appropriate.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3TOP

Routing code: 2

Descriptor code: 4

IXC804I JOBNAME *jobname*, **ELEMENT** *elementname* **WAS NOT RESTARTED.** *text*

Explanation: The designated element has terminated and the automatic restart manager is not restarting it for the specified reason.

In the message text:

jobname
The name of the job or started task that was current when the element last registered by issuing the IXCARM macro.

elementname
The name of the element specified when the element was registered by issuing the IXCARM macro.

exitname
The name of the event exit specified when the element was registered by issuing the IXCARM macro.

dsname
The name of the data set containing the JCL to restart the element.

memname
Name of the member in the partitioned data set.

safrc
The SAF return code from the RACROUTE request.

racfrc
The RACF or security product return code from the RACROUTE request passed back in the SAF parameter list.

racfrsn
The RACF or security product reason code from the RACROUTE request passed back in the SAF parameter list.

diag092
An internal diagnostic code that IBM might request.

THE RESTART ATTEMPTS THRESHOLD HAS BEEN REACHED.
The number of restarts that MVS has initiated for the designated element has exceeded the policy defined maximum number of restarts within a given period of time.

TERMTYPE IS ELEMTERM, CROSS-SYSTEM RESTARTS PROHIBITED.
The system the element was running on has left the sysplex. The element's restart failure type indicates that it should not be restarted for system failures. The element failure type is defined either by the installation's

automatic restart manager policy or by the TERMTYPE keyword when the element registered by issuing the IXCARM macro. The policy specification, if it is not the default, overrides the IXCARM macro TERMTYPE keyword.

ELEMENT IS THE TARGET OF AN ASSOCIATE REQUEST.
Another element has identified itself as being the backup for the designated element. Doing so indicates that MVS should not perform restarts for the designated element. An element indicates that it is the backup for another element by issuing the IXCARM macro with the keywords REQUEST=ASSOCIATE and TELEMENT.

ARM RESTARTS ARE NOT ENABLED.
MVS is not performing restarts of any elements because either restarts were not enabled using the SETXCF START command, or restarts were disabled using a SETXCF STOP command.

ELEMENT RESTART EXIT PROHIBITED AN ARM RESTART.
An element restart exit routine has indicated that MVS should not restart this element.

COULD NOT OPEN THE INTERNAL READER FOR OUTPUT.
Because the internal reader could not be opened for output, MVS could not submit the override JCL. Therefore, the element could not be restarted.

EVENT EXIT *exitname* **COULD NOT BE LOADED.**
MVS could not load the element's event exit.

EVENT EXIT *exitname* **FAILED DURING EXECUTION.**
The element's event exit has failed.

EVENT EXIT *exitname* **PROHIBITED AN ARM RESTART.**
The element's event exit routine has indicated that the element should not be restarted.

OVERRIDE DATA SET *dsname* **COULD NOT BE ALLOCATED.[RC=]***allocrc***[RSN=]***allocrsn*
MVS could not allocate the override data set needed to restart the element.

OVERRIDE DATA SET *dsname* **COULD NOT BE OPENED.[RC=]***allocrc***[RSN=]***allocrsn*
MVS could not open the override data set needed to restart the element.

OVERRIDE DATA SET *dsname* **MEMBER** *memname* **COULD NOT BE ALLOCATED.[RC=]***allocrc***[RSN=]***allocrsnn*
MVS could not allocate the override data set containing the member needed to restart the element.

OVERRIDE DATA SET *dsname* **MEMBER** *memname* **COULD NOT BE OPENED.[RC=]***allocrc***[RSN=]***allocrsnn*
MVS could not open the override data set containing the member needed to restart the element.

SAF ENVIRONMENT COULD NOT BE REESTABLISHED. RACROUTE SAF RC=*safrc* **RACF RC=***racfrc* **RACF RSN=***racfrsn*
The SAF environment that was current at the time the element was originally registered could not be reestablished when MVS attempted to restart the element.

RESTART PROHIBITED BY JES. THE JOB IS BEING CANCELED, PURGED, OR REROUTED
MVS could not restart this element because the element is being canceled, purged, or rerouted.

RESTART PROHIBITED BY JES. THE JOB HAS BEEN CANCELED OR REROUTED
MVS could not restart this element because the element has been canceled or rerouted.

RESTART PROHIBITED BY JES. THE JOB HAS BEEN PURGED.
MVS could not restart this element because the element has been purged.

RESTART PROHIBITED DUE TO JES BEING DOWN
MVS could not restart this element because the JES address space is down.

RESTART PROHIBITED BY JES. THE JOB IS ALREADY ACTIVE.
MVS could not restart this element because the element is already active.

START COMMAND ABORTED DUE TO LACK OF SYSTEM STORAGE.
MVS could not restart this element because of the lack of available system storage.

INTERNAL ERROR DURING ARM RESTART PROCESSING. DIAG092: *diag092 diag092a diag092b*
An internal processing error occurred during element restart processing. MVS will not restart this element.

System action: The system continues processing. The automatic restart manager deregisters the element.

Operator response: Notify the system programmer.

System programmer response: Depending on the message text, do one of the following:

THE RESTART ATTEMPTS THRESHOLD HAS BEEN REACHED.
Determine why the element required enough restarts to exceed the maximum number of allowed restarts within the defined time interval. Determine if the policy defined maximum number of restarts within a given period of time is appropriate for the element.

TERMTYPE IS ELEMTERM, CROSS-SYSTEM RESTARTS PROHIBITED.
Determine if the cross-system restart restriction is appropriate for the element. If not, update the policy to indicate the element should be restarted for system failures.

ARM RESTARTS ARE NOT ENABLED.
To enable automatic restart manager restarts, enter the SETXCF START command, if appropriate. To run the specified job or started task, resubmit it.

ELEMENT RESTART EXIT PROHIBITED AN ARM RESTART.
If the installation needs the job or started task restarted, resubmit it. Determine whether the element restart exit needs to be updated.

COULD NOT OPEN THE INTERNAL READER FOR OUTPUT.
Using related system messages, determine why the internal reader could not be opened. If no determination can be made, search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM Support Center.

EVENT EXIT *exitname* **COULD NOT BE LOADED.**
Ensure that the:

1. event exit is a loadable module and that the data set that it resides in is in the linklist concatenation
2. linklist library is APF-authorized.

EVENT EXIT *exitname* **FAILED DURING EXECUTION.**
Correct the error in the event exit.

EVENT EXIT *exitname* **PROHIBITED AN ARM RESTART.**
If the installation needs the job or started task restarted, resubmit it. Determine whether the event exit needs to be updated.

OVERRIDE DATA SET *dsname* **COULD NOT BE ALLOCATED.[RC=]***allocrc***[RSN=]***allocrsn*
Insure that the data set is in the linklist. See *z/OS MVS Programming: Authorized Assembler Services Guide* for information about the DYNALLOC return and reason codes.

OVERRIDE DATA SET *dsname* **COULD NOT BE OPENED.[RC=]***allocrc***[RSN=]***allocrsn*
Insure that the data set is in the linklist. See related system messages to determine the open error.

OVERRIDE DATA SET *dsname* **MEMBER** *memname* **COULD NOT BE ALLOCATED.[RC=]***allocrc***[RSN=]***allocrsnn*
Insure that the data set is in the linklist. Insure that the member is in the data set. See *z/OS MVS Programming: Authorized Assembler Services Guide* for information about the DYNALLOC return and reason codes.

OVERRIDE DATA SET *dsname* **MEMBER** *memname* **COULD NOT BE OPENED.[RC=]***allocrc***[RSN=]***allocrsnn*
Insure that the data set is in the linklist. See related system messages to determine the open error.

SAF ENVIRONMENT COULD NOT BE REESTABLISHED. RACROUTE SAF RC=*safrc* **RACF RC=***racfrc* **RACF RSN=***racfrsn*
Determine if the SAF authorization should be updated. If the installation needs the job or started task restarted, resubmit it.

RESTART PROHIBITED BY JES. THE JOB IS BEING CANCELED, PURGED, OR REROUTED
If the restart was expected to occur, determine the reason for the cancellation, purge, or reroute. If the installation needs the job or started task restarted, resubmit it.

RESTART PROHIBITED BY JES. THE JOB HAS BEEN CANCELED OR REROUTED
If the restart was expected to occur, determine the reason for the cancellation or reroute. If the installation needs the job or started task restarted, resubmit it.

RESTART PROHIBITED BY JES. THE JOB HAS BEEN PURGED.
If the restart was expected to occur, determine the reason for the purge. If the installation needs the job or started task restarted, resubmit it.

RESTART PROHIBITED DUE TO JES BEING DOWN
Restart the JES address space.

RESTART PROHIBITED BY JES. THE JOB IS ALREADY ACTIVE.
If the element was restarted under an automation product, make the appropriate update to prevent duplicate restarts.

START COMMAND ABORTED DUE TO LACK OF SYSTEM STORAGE.
Relieve the storage shortage constraint and enter the START command to restart the element.

Search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM Support Center. Provide the diagnostic code.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3EEP, IXCA3ERS, IXCA3RIP, IXCA3RPR, IXCA3SG0, IXCA3SJT, IXCA3XRP

Routing code: 2

Descriptor code: 4

IXC805I *typename* **POLICY HAS BEEN STARTED BY SYSTEM** *sysname***. POLICY DEFAULTS ARE NOW IN EFFECT.**

Explanation: If typename is ARM, the operator issued a SETXCF START,POLICY,TYPE=ARM,POLNAME=polname command. If ARM restarts had been disabled, they are now enabled, and the indicated policy is now the active policy for ARM. If no policy was specified then ARM defaults are in effect.

In the message text:

typename
The name of the type whose policy is to change.

sysname
The name of the system on which the SETXCF command was processed.

polname
The name of the administrative policy that has become the active policy.

IS NOW IN EFFECT.
The policy specified in the SETXCF command is now the active policy.

POLICY DEFAULTS ARE NOW IN EFFECT.
Because no policy name was specified on the SETXCF command, the policy defaults are now active.

POLICY NAMED *polname* **IS NOW IN EFFECT.**

System action: The system continues processing.

Operator response: None None

System programmer response: None None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3SAP

Routing code: #

Descriptor code: 5

IXC806I *typename* **POLICY HAS BEEN STOPPED BY SYSTEM** *sysname*

Explanation: The operator issued a SETXCF STOP,POLICY,TYPE=typename command. The default policy is now active.

In the message text:

typename
The name of the type whose policy is stopped.

sysname
The name of the system on which the SETXCF command was processed.

System action: The system continues processing.

Operator response: None

System programmer response: None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3SAP

Routing code: #

Descriptor code: 5

IXC807I THE NUMBER OF {POLICY|MAXELEM|TOTELEM} DEFINITIONS IN THE ALTERNATE ARM COUPLE DATA SET WAS NOT GREATER THAN OR EQUAL TO THE NUMBER OF {POLICY|MAXELEM|TOTELEM} DEFINITIONS IN THE PRIMARY ARM COUPLE DATA SET.

Explanation: The specified alternate ARM couple data set cannot be used with the primary ARM couple data set. The number of POLICY, MAXELEM, or TOTELEM definitions in the alternate ARM couple data set must be greater than or equal to those in the primary ARM couple data set.

In the message text:

POLICY
Data name that specifies the number of policies the couple data set is formatted to contain.

MAXELEM
Data name that specifies the maximum number of elements that the couple data set is formatted to contain in each policy.

TOTELEM
Data name that specifies the total number of elements that the couple data set has formatted to contain status records.

System action: The system rejects the use of the alternate couple data set.

Operator response: Notify the system programmer

System programmer response: Correct the code for the couple data set format utility or specify another data set as the ARM couple data set.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3FDF

Routing code: 1, 2

Descriptor code: 4

IXC808I ELEMENTS FROM TERMINATED SYSTEM *sysname* WERE NOT PROCESSED BY THIS SYSTEM. ARM COUPLE DATA SET IS NOT AVAILABLE TO THIS SYSTEM.

Explanation: The system that issued this message does not have access to the ARM couple data set; therefore, it cannot initiate restarts of automatic restart manager elements, if any, from the failed system. The other remaining systems in the sysplex can restart elements from the failed system.

In the message text:

sysname
The name of the system that has been removed from the sysplex.

System action: The system continues processing, but can not provide any automatic restart manager functions.

Operator response: None

System programmer response: None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3SG0

Routing code: 2

Descriptor code: 4

IXC809I ELEMENTS REGISTERED OR RESTARTING ON SYSTEM *sysname* WERE DEREGISTERED DUE TO LOSS OF ACCESS TO THE ARM COUPLE DATA SET

Explanation: The identified system has lost access to the ARM couple data set. All elements running on this system will be deregistered by other systems in the sysplex that have access to the ARM couple data set. The deregistered programs that were not in a FAILED or RESTARTING state will continue to run. Programs that were in a RESTARTING state may continue to run if the automatic restart manager had issued an IXC812I message indicating that they were restarted.

In the message text:

sysname
The name of the system that has lost access to the ARM couple data set.

System action: The system continues processing, but can not provide any automatic restart manager functions.

Operator response: Notify the system programmer.

System programmer response: Make another ARM couple data set available to the system that lost access. The elements can not be reregistered without ending their jobs or started tasks. See *z/OS MVS Programming: Sysplex Services Guide* for information about how to prevent the loss of both the primary and alternate couple data sets.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3FAI, IXCA3ARP

Routing code: 2

Descriptor code: 4

IXC810I SYSTEM *sysname* NOT USING COUPLE DATA SET FOR ARM REASON: *text*

Explanation: The ARM couple data set was formatted on a system that is incompatible with the specified system.

In the message text:

sysname
The name of the system that is not using the couple data set for automatic restart manager.

PRIMARY COUPLE DATA SET HAS THE WRONG VERSION
The primary ARM couple data set was formatted with a version of the format utility that is incompatible with the specified system.

ALTERNATE COUPLE DATA SET HAS THE WRONG VERSION
The alternate ARM couple data set was formatted with a version of the format utility that is incompatible with the specified system.

PRIMARY COUPLE DATA SET FORMATTED WITH WRONG SYMBOLIC SUBSTITUTION TABLE SIZE
The primary ARM couple data set was formatted on a version of z/OS whose symbolic substitution table size is smaller than the current systems table size. There is not enough space in internal records to represent elements from the current system. The CDS is incompatible with the current system.

ALTERNATE COUPLE DATA SET FORMATTED WITH WRONG SYMBOLIC SUBSTITUTION TABLE SIZE
The alternate ARM couple data set was formatted on a version of z/OS whose symbolic substitution table size is smaller than the current systems table size. There is not enough space in internal records to represent elements from the current system. The CDS is incompatible with the current system.

System action: Depending on the message text, the system does one of the following:

PRIMARY COUPLE DATA SET HAS THE WRONG VERSION
The sysplex runs without the ARM couple data set. Automatic restart manager services will not be available until a primary ARM couple data set formatted at the appropriate level is provided.

ALTERNATE COUPLE DATA SET HAS THE WRONG VERSION
The sysplex runs with the primary ARM couple data set only.

PRIMARY COUPLE DATA SET FORMATTED WITH WRONG SYMBOLIC SUBSTITUTION TABLE SIZE
The sysplex runs without the ARM couple data set. Automatic restart manager services will not be available until a primary ARM couple data set formatted at the appropriate level is provided.

ALTERNATE COUPLE DATA SET FORMATTED WITH WRONG SYMBOLIC SUBSTITUTION TABLE SIZE
The sysplex runs with the primary ARM couple data set only.

Operator response: Notify the system programmer.

System programmer response: Determine whether the system can run ARM compatibly with the systems in the sysplex. You may need to upgrade the system.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3FDF

Routing code: 2, 10

Descriptor code: 12

IXC811I SYSTEM *sysname* **IS NOW ARM CAPABLE**

Explanation: The designated system now has connectivity to a primary ARM couple data set. To enable restarts, activate an ARM policy using the SETXCF START,POLICY,TYPE=ARM command.

In the message text:

sysname
The name of the system that now has access to the ARM couple data set.

System action: The system continues processing.

Operator response: Enter the SETXCF START,POLICY,TYPE=ARM command to activate an ARM policy.

System programmer response: None

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3FAI

Routing code: 2

Descriptor code: 4

IXC812I JOBNAME *jobname*, **ELEMENT** *elementname* **FAILED. THE ELEMENT WAS RESTARTED** *text*

Explanation: The designated job and element have been restarted as specified. The logged message IXC813I contains additional information related to the restart of the element.

In the message text:

jobname
The specified jobname.

elementname
The specified element name.

sysname
The name of the system that failed and caused the element to restarted on the current system

text
One of the following:

WITH PERSISTENT START TEXT.
The element was restarted using the same start text that was previously used to start the element.

WITH PERSISTENT JCL.
The element was restarted using the same JCL that was previously used to run the element's batch JOB.

WITH OVERRIDE JCL.
The element was restarted using override JCL specified in the active policy.

WITH OVERRIDE START TEXT.
The element was restarted using override start text specified in the active policy.

WITH PERSISTENT START TEXT.
The element was restarted using the same start text that was previously used to start the element.

WITH PERSISTENT JCL.
The element was restarted using the same JCL that was previously used to run the element's batch JOB.

WITH OVERRIDE JCL.
The element was restarted using override JCL specified in the active policy.

WITH OVERRIDE START TEXT.
The element was restarted using override start text specified in the active policy.

System action: The system continues processing and expects a re-registration by the restarted element.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3ERS, IXCA3SJT

Routing code: 2

Descriptor code: 4

IXC813I JOBNAME *jobname*, **ELEMENT** *elementname* **WAS RESTARTED WITH THE FOLLOWING {START TEXT:** *starttext* **| OVERRIDE JCL:** *dsname*} **THE RESTART METHOD USED WAS** *text*

Explanation: The designated job and element have been restarted as specified. This message is only written to the message log. The message IXC812I contains additional information related to the restart of the element.

In the message text:

jobname
The specified jobname.

elementname
The specified element name.

WAS RESTARTED WITH THE FOLLOWING START TEXT:
The element was restarted using the designated start text.

starttext
The text of the command used to restart this element.

WAS RESTARTED WITH THE FOLLOWING OVERRIDE JCL:
The element was restarted using the override JCL contained in the designated data set.

dsname
The name of the data set or data set and member that contained the override JCL that was used.

DETERMINED BY THE ACTIVE POLICY.
The element was restarted using the information contained in the active policy

SPECIFIED BY AN ELEMENT RESTART EXIT.
An element restart exit informed ARM as to the restart method that was to be used.

SPECIFIED BY THE ELEMENT ON REGISTRATION.
The element specified a restart command text that specified when the element last registered by issuing the IXCARM macro was used to restart the element.

DETERMINED BY THE ACTIVE POLICY.
The element was restarted using the information contained in the active policy.

SPECIFIED BY AN ELEMENT RESTART EXIT.
An element restart exit informed ARM as to the restart method that was to be used.

System action: The system continues processing and expects a re-registration by the restarted element.

Operator response: None.

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3ERS, IXCA3SJT

Routing code: 2

Descriptor code: 4

IXC814I **JOB** *jobname* **ASID** *asid* **ELEMENT** *elementname* **REGISTRATION {IS DELAYED FOR|COMPLETED WITH} IXCARM RC=***rc* **RSN=***rsn***.**

Explanation: An IXCARM request to register an element has been delayed because the system on which the element was last registered has been partitioned from the sysplex and the element is in one of the AVAILABLE, AVAILABLE-TO, FAILED, and RESTARTING states.

In the message text:

jobname
The name of the job or started task whose IXCARM request to register has been delayed.

asid
The hexadecimal address space identifier for the address space whose IXCARM request to register has been delayed.

elementname
The name of the element specified on the IXCARM request that has been delayed.

IS DELAYED FOR
The message is for the initial delay of a registration.

COMPLETED WITH
The message is for the completion of a delayed registration.

System action: When the message is for the initial delay of a registration, the system periodically internally attempts the registration until the conditions that caused this message to be issued are resolved.

Operator response: Report this problem to the system programmer when the message is for the initial delay of a registration.

System programmer response: Use system command DISPLAY XCF,ARMSTATUS,ELEMENT=*elementname* to determine the system on which the element is in use. Given enough time for the element to get deregistered or restarted and AVAILABLE/AVAILABLE-TO, the problem should resolve by itself and the IXCARM request to register should complete. If the problem persists, search the problem reporting database for a fix to the problem. If no fix exists, contact the IBM Support Center.

If necessary, use system command SETXCF FORCE,ARMDEREGISTER,ELEMENT=*elementname* to deregister the element and allow the IXCARM register request to complete.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3REG, IXCA3RGT, IXCA3IO2

Routing code: 2, Note 13

Descriptor code: 12

IXC815I **MEMBER CLEANUP FOR SYSTEM** *sysname1* **NUMBER** *sysnum1* **INCOMPLETE. JOBNAME** *jobname***, ELEMENT** *elementname* **RESTART{IS DELAYED FOR UP TO** *dec* **SECOND(S). RESTART IS FOR THEFAILURE OF SYSTEM** *sysname2* **NUMBER** *sysnum2***. | DELAY TIMED OUT AFTER** *dec* **SECOND(S). }**

Explanation: When a system terminates, automatic restart management updates the state of elements owned by the terminated system to FAILED. When member cleanup for the terminated system completes, systems that are targeted to perform cross-system restart update the state of eligible elements to RESTARTING and perform cross-system restart processing.

When member cleanup for the terminated system does not complete within two minutes (120 seconds), systems targeted to perform cross-system restart update the state of eligible elements to RESTARTING and proceed to perform cross-system restart processing using the CLEANUP_TIMEOUT parameter to introduce additional delay, as necessary. The potential amount of additional delay is the amount of time specified by the CLEANUP_TIMEOUT value that is more than 2 minutes. When a CLEANUP_TIMEOUT value greater than 120 is specified (or defaulted to), and additional delay is introduced to wait for member cleanup processing to complete, message IXC815I is issued to the system log to record the delay in performing restart processing.

If the member cleanup does not occur within the time specified by the CLEANUP_TIMEOUT parameter, automatic restart management will proceed with processing the element for cross-system restart, and, if CLEANUP_TIMEOUT(120) is not being used, the system will issue IXC815I to the system log to record the time out.

In the message text:

sysname1
The name of the system identified by *sysnum1.*

sysnum1
The XCF system number of the terminated system for which member cleanup is incomplete. This is the system on which the ARM element was last started or restarted.

jobname
The name of the job or started task that registered the ARM element.

elementname
The name of the ARM element whose cross-system restart has been delayed waiting for member cleanup of the terminated system identified by sysnum1.

dec
The maximum amount of time, in seconds, that cross-system restart of the element may be delayed waiting for member cleanup of the terminated system identified by sysnum1.

sysname2
The name of the system identified by *sysnum2.*

sysnum2
The XCF system number of the of the system on which the ARM element was last started, restarted, or targeted for restart.

System action: The system continues processing.

Operator response: None

System programmer response: None.

Source: Cross System Coupling Facility (SCXCF)

Module: IXCA3RST

Routing code: 2, Note 13

Descriptor code: 4

Chapter 2. IXCH messages

IXCH0001I *check_name* **was entered with an unknown hexadecimal function code of** *function code***.**

Explanation: This check was not coded to recognize the specified function code. The function code was ignored.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Problem determination: N/A

Source: Parallel Sysplex® (XCF)

Module: IXCHCCF, IXCHCCPL, IXCHCSIG, IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0101I **CHECK(***check_owner,check_name***,) cannot be processed because an unexpected error occurred in module** *modulename***.**
Service *servicename* **returned with RC =** *rc***, and RSN =** *rsn***.**
Diagnosis area: *debug word1 word2 word3 word4*

Explanation: A service returned an unexpected return code.

In the message text:

check_owner
The owner of the check is IBMXCF.

check_name
The name of the check.

modulename
The name of the module that requested the service.

servicename
The name of the service that returned an unexpected return and reason code. System services are used to obtain storage and data for doing the check. The following services are used:

- IXCQUERY
- IXCMG
- IXLMG
- IOSSPOF
- STORAGE

rc The return code from the service.

rsn
The reason code from the service.

The diagnosis area provides additional debug information set by the module that requested the named service. The values provided are in hexadecimal format.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF, IXCHCCPL, IXCHCSIG, IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0102I *check_name* **cannot be processed. It was entered with an unexpected hexadecimal entry code of** *entry code***.**

Explanation: An unexpected error occurred.

System action: The system will discontinue running this check.

Operator response: Report this problem to the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF, IXCHCCPL, IXCHCSIG, IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0104I *check_name* **detected a parameter error. The parameter value of '***parm***' is** *problem***.**

Explanation: The check detected an error in the check parameter. The installation updated the parameter in either the HZSPRMxx parmlib member or a MODIFY hzsproc command. See "XCF checks" in IBM Health Checker for z/OS User's Guide.

System action: The system will discontinue running this check.

Operator response: Report this problem to the system programmer.

System programmer response: Check the parameter described above and adjust it accordingly.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF, IXCHCCPL, IXCHCSIG, IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0106I *check_name* **detected a parameter error.** *specified* **parameter(s) was/were specified when** *expected* **is/are expected.**

Explanation: The installation provided an incorrect number of parameters in either the HZSPRMxx parmlib member or a MODIFY hzsproc command. See "XCF checks" in IBM Health Checker for z/OS User's Guide.

System action: The system will discontinue running this check.

Operator response: Report this problem to the system programmer.

System programmer response: Update parameters for this check.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF, IXCHCCPL, IXCHCSIG, IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0107I *check_name* **is not applicable because system** *system_name* **is in XCF-LOCAL mode.**

Explanation: This check is not applicable in the current mode.

System action: The system will discontinue running this check.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF, IXCHCCPL, IXCHCSIG, IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0108I *check_name* **is not applicable because system** *system_name* **is in MONOPLEX mode.**

Explanation: This check is not applicable in the current mode.

System action: The system will discontinue running this check.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL, IXCHCSIG, IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0109I **CHECK(***check_owner,check_name***) is not applicable because system** *system_name* **cannot currently access the CFRM couple data set.**

Explanation: The specified check is not applicable in the current environment.

To perform the check, information must be obtained from the CFRM active policy. The CFRM active policy resides on the CFRM couple data set that cannot be accessed from the specified system.

In the message text:

check_owner
The owner of the check is IBMXCF.

check_name
The name of the check.

system_name
The name of the system.

System action: The specified system will discontinue running the specified check.

Operator response: Report this problem to the system programmer.

System programmer response: The CFRM active policy could not be read to obtain information required by the named check because the couple data set supporting TYPE CFRM is not accessible to the specified system.

Determine if the CFRM couple data set should be made available to the system. To give the system access to the CFRM couple data set, issue command `SETXCF COUPLE,TYPE=CFRM,PCOUPLE=(data_set_name,volser)`. When the CFRM

couple data set is made available to any system in the sysplex, IBM Health Checker for z/OS runs the check from one of those systems.

When other systems in the sysplex have access to the CFRM couple data set, IBM Health Checker for z/OS runs the check from one of those systems.

When no system in the sysplex has access to the CFRM couple data set, then use of coupling facilities is not supported and the specified check remains disabled.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCGR3

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0110I This check is not applicable because SFM is not active *scope***.**

Explanation: CHECK(IBMXCF,XCF_SFM_*) is not applicable in the current environment.

In the message text:

scope
The scope across which SFM must be active for the current check. *scope* is one of the following:

throughout the sysplex
The check requires that SFM be active on every system in the sysplex.

on this system
The check requires that SFM be active on the local system.

System action: The system will discontinue running the specified check.

Operator response: N/A

System programmer response: Refer to the System Programmer Response section for message IXCH0514E.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: Refer to the Reference section for message IXCH0514E.

IXCH0111I This check is not applicable because the SFM policy specifies an indeterminate status action of PROMPT for the local system.

Explanation: CHECK(IBMXCF,XCF_SFM_*) is not applicable in the current environment.

System action: The system will discontinue running the specified check.

Operator response: Report this problem to the system programmer.

System programmer response: Refer to the System Programmer Response section for message IXCH0514E.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: Refer to the Reference section for message IXCH0514E.

IXCH0112I This check is not applicable because the couple data set types to which it applies are not in use in the sysplex.

Explanation: CHECK(IBMXCF,XCF_CDS_SEPARATION) is not applicable in the current environment.

System action: The system will discontinue running the specified check.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

IXCH0154I Valid parameters for CHECK(IBMXCF,XCF_CFRM_MSGBASED) are
MSGBASED | POLBASED
The parameters correspond to the desired CFRM structure event management protocol. They are defined as follows:
MSGBASED
Use message-based processing for CFRM structure event management.
POLBASED
Use policy-based processing for CFRM structure event management.

Explanation: CHECK(IBMXCF,XCF_CFRM_MSGBASED) stopped because the parameters provided by the installation are not valid.

System action: The system will discontinue running this check.

Operator response: N/A

System programmer response: Correct the parameters then run the check.

The parameters can be corrected by specifying the parameters in an HZSPRMxx parmlib member or on a MODIFY hzsproc command, for example:

```
F HZSPROC,UPDATE,CHECK(IBMXCF,XCF_CFRM_MSGBASED),
    PARM='MSGBASED'
```

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For a discussion of the CFRM structure event management protocols, see "Comparing message-based processing and policy-based processing" in z/OS MVS Setting Up a Sysplex.

IXCH0155I Valid parameters for CHECK(IBMXCF,XCF_CF_STR_SCM_UTLIZATION) are:
SCM_NONE(xx%) or abbreviated as SCM_N(xx%)
SCM_LOW (xx%) or abbreviated as SCM_L(xx%)
SCM_MED (xx%) or abbreviated as SCM_M(xx%)
SCM_HIGH(xx%) or abbreviated as SCM_H(xx%)
where xx is a percent value in the range of 1-100. At least one parameter must be provided. Each parameter corresponds to the severity level that will be reported for the check when the usage of storage-class memory by a coupling facility structure exceeds the specified percentage of total

storage-class memory eligible to be used by the coupling facility structure.
Note: The percent sign (%) is optional.

Explanation: The parameters for CHECK(IBMXCF,XCF_CF_STR_SCM_UTILIZATION) specify the storage-class memory utilization thresholds that the check uses when raising an exception for the check. At least one threshold parameter must be specified and up to four threshold parameters may be specified that correspond with check exception severity levels.

The defined parameters are as follows:

SCM_NONE(xx%) | SCM_N(xx%)
Specifies the storage-class memory (SCM) percent utilization threshold to use when raising a check exception with a severity of NONE when the usage of storage-class memory by a coupling facility structure exceeds the specified percentage (xx%) of the maximum storage-class memory eligible to be used by the structure as determined by the coupling facility.

SCM_LOW(xx%) | SCM_L(xx%)
Specifies the storage-class memory (SCM) percent utilization threshold to use when raising a check exception with a severity of LOW when the usage of storage-class memory by a coupling facility structure exceeds the specified percentage (xx%) of the maximum storage-class memory eligible to be used by the structure as determined by the coupling facility.

SCM_MED(xx%) | SCM_M(xx%)
Specifies the storage-class memory (SCM) percent utilization threshold to use when raising a check exception with a severity of MEDIUM when the usage of storage-class memory by a coupling facility structure exceeds the specified percentage (xx%) of the maximum storage-class memory eligible to be used by the structure as determined by the coupling facility.

SCM_HIGH(xx%) | SCM_H(xx%)
Specifies the storage-class memory (SCM) percent utilization threshold to use when raising a check exception with a severity of HIGH when the usage of storage-class memory by a coupling facility structure exceeds the specified percentage (xx%) of the maximum storage-class memory eligible to be used by the structure as determined by the coupling facility.

Specify the parameters in an HZSPARM parmlib member or on a MODIFY HZSPROC command, e.g.,

```
F HZSPROC,UPDATE,CHECK(IBMXCF,XCF_CF_STR_SCM_UTILIZATION),
 PARM='SCM_LOW(10),SCM_MED(50),SCM_H(90)'
```

System action: The system continues processing.

Operator response: N/A

System programmer response: Specify parameters to ensure that the check reports an appropriate exception severity when the usage of storage-class memory by a coupling facility structure exceeds the specified percentage of total storage-class memory eligible to be used by the coupling facility structure. The default PARM value is 'SCM_LOW(1),SCM_MED(80)'.

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0201I A policy change is in progress for structure *Structure Name***. At this time the check is not applicable for the indicated structure.**

Explanation: The check is currently not applicable for the indicated structure.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0202I All coupling facility structures currently reside in their preferred locations based on their preference lists and duplexing site preferences.

Explanation: The check found good status of all coupling facility structures.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0203I Duplexed structure *structure* **instance** *instance* **resides in coupling facility** *active CF***. This does not match coupling facility** *preferred CF* **listed** *first/second* **in the preference list.**

Explanation: Message provides information about the current location of structures which do not match the data in the CFRM couple data set.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0204I Structure *structure* **resides in coupling facility** *active CF***. This does not match coupling facility** *preferred CF* **listed first in the preference listin the CFRM active policy.**

Explanation: Message provides information about the current location of structures which do not match the data in the preference list for the structure.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0205I Structure *structure* **is not currently excluded from sharing a coupling facility with structure** *excluded structure***. This is not as requested based on the exclusion list.**

Explanation: Message provides information about the structures which do not match the exclusion list data in the CFRM couple data set.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0206E One or more CF structures are not in their preferred location(s).

Explanation: XCF tries to allocate structures according to the attributes of the structure, the attributes of the coupling facility (for example, non-volatility and ICF when failure-isolation is required), and the preference list for that structure. If a structure is not allocated in the most preferred coupling facility, it may signify a problem with the coupling facility and/or the preference list for the structure.

This message is accompanied by message IXCH0203I, IXCH0204I, IXCH0226I, or IXCH0227I, which list the structures that are not in their preferred locations.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Examine the log messages for the allocation of the structures (messages IXL014I and IXC574I) to understand why the most preferred coupling facility was not chosen to host the specific structure.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0207E One or more CF structures have an exclusion list violation.

Explanation: A check found an exclusion list violation. See accompanying message IXCH0205I for more information.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Determine why the structures are not excluded and take appropriate action.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0208I All coupling facility structure exclusion lists are currently satisfied.

Explanation: The check found that all coupling facility structure exclusion lists are currently satisfied.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0209I There are currently no structures allocated in any coupling facilities. At this time, CHECK(*check_owner,check_name***) is not applicable.**

Explanation: The check is not applicable in the current environment.

In the message text:

check_owner
The owner of the check is IBMXCF.

check_name
The name of the check.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0210E One or more CF structures which have DUPLEX specification of either ALLOWED or ENABLED are currently not duplexed.

Explanation: CHECK(IBMXCF,XCF_CF_STR_DUPLEX) found one or more allocated CF structures with DUPLEX specified as ALLOWED or ENABLED, but the structure is not duplexed. When a structure is allocated with a DUPLEX value of either ALLOWED or ENABLED, the structure should be duplexed to support intended redundancy and recoverability. Duplexing a structure provides redundancy that eliminates a single point of failure.

Failure to start a duplexing rebuild usually means that the environmental conditions required for a duplexing rebuild have not all been met, and that you might or might need to take any action.
CHECK(IBMXCF,XCF_CF_STR_DUPLEX) issues this message to indicate that one or more structures that could

potentially be duplexed have not been. When a structure is not duplexed, it might be an oversight that leaves the structure with less redundancy/recoverability than was intended.

See message IXCH0920I in the message buffer, for a list of the CF structures including the DUPLEX value specified in the CFRM active policy and the current status of the structure. The status is one of the following:

Rebuilding - The structure rebuild process type is rebuild.
Rebuild stopping - The structure rebuild process type is rebuild.
The process is being stopped.
Duplexing rebuild - The structure rebuild process type is
duplexing rebuild.
Duplexing rebuild stopping - The structure rebuild process type
is duplexing rebuild. The process is being stopped to fall back
to the old instance.
Duplexing rebuild switching - The structure rebuild process type
is duplexing rebuild. The process is being stopped to switch
to the new instance.
Duplexed - The structure is allocated and duplexed.
(NOTE: Duplexed structures are only listed when the check is
run in verbose mode.)
Simplex - The structure is allocated with only one instance.

For structures with a DUPLEX value of ALLOWED, either the application or an operator can initiate a duplexing rebuild. An operator can use the command:

```
SETXCF START,REBUILD,DUPLEX,STRNAME=structure_name
```

However, the system does not make any attempts to maintain the duplexed status of the structure. The application or operator must initiate another duplexing rebuild if duplexing is stopped.

For structures with a DUPLEX value of ENABLED, the system initiates and attempts to maintain the duplexed status of the structure. When a duplexing rebuild process is stopped, the system attempts to initiate duplexing again.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Generally, it is preferred to duplex structures whenever the CFRM active policy indicates they can be. If a particular structure is not duplexed, it might be an oversight that leaves the structure with less redundancy/recoverability than was intended.

To obtain the current duplexing status for each structure listed in message IXCH0920I, use the display command:

```
DISPLAY XCF,STR,STRNAME=structure_name
```

When the structure is duplexed, no further action is needed. When the structure is in the process of becoming duplexed, reissue the display command to confirm that duplexing has been established for the structure. When structure duplexing stopd, determine the reason and take action based on the DUPLEX specification for the structure. When the structure is not duplexed, take action based on the DUPLEX specification for the structure.

When the DUPLEX value is ALLOWED, initiate a duplexing rebuild for the structure using the command:

```
SETXCF START,REBUILD,DUPLEX,STRNAME=structure_name
```

If a duplexing rebuild cannot be started, examine the resulting IXC367I message and take action to allow the duplexing rebuild to start.

When the DUPLEX value is ENABLED, either issue the SETXCF command (as shown above) to initiate a duplexing rebuild or examine the log messages to understand why the duplexing rebuild cannot be initiated. Examine messages indicating duplexing feasibility (message IXC574I) or giving a reason for not initiating a duplexing rebuild (message IXC538I) for the structure.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0211I Any allocated structures with DUPLEX specified as either ALLOWED or ENABLED are currently duplexed.

Explanation: CHECK(IBMXCF,XCF_CF_STR_DUPLEX) found good status for the checked structures.

It is preferred to duplex structures whenever the CFRM active policy says they can be. If a particular structure is not duplexed, it might be an oversight that leaves the structure with less redundancy/recoverability than was intended.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0212E At least one CF structure has a preference list (PREFLIST) definition which does not have at least 2 usable coupling facilities each on a different CEC.

Explanation: CHECK(IBMXCF,XCF_CF_STR_AVAILABILITY) found an availability problem with one or more CF structures' preference lists (PREFLIST). A structure's preference list should have at least two coupling facilities that can be used for structure allocation with each coupling facility on a different CEC. For a coupling facility to be usable for structure allocation, at least one system must be connected to the coupling facility, and allocation must be permitted in the coupling facility.

The check uses the preference list to evaluate structure availability. The preference list is from the active policy unless there is a pending policy change. When a policy change is pending, the preference list is from the pending policy. The result of the evaluating the structure's preference list is one of the following:

Preference list passed checks
The checked preference list has at least two coupling facilities that are usable for structure allocation and are on different CECs.

Note: Structure(s) with this evaluation result are only shown when the check is run in verbose mode. The evaluation result is shown once before the structure(s) are listed. Each structure listed does not have an evaluation result shown.

Preference list has only 1 CF
The checked preference list has only one coupling facility.

Preference list does not have at least 2 usable CFs
The checked preference list does not have at least two coupling facilities that are usable for structure allocation.

Preference list does not have 2 usable CFs each on different CECs
The checked preference list does not have at least two coupling facilities that are usable for structure allocation and are on different CECs.

See message IXCH0921I in the message buffer, for a list of the CF structures including the preference list used, the coupling facilities in the preference list, and the result of evaluating the structure's preference list.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: It is preferred that the preference list for each structure defined in the CFRM active policy should have at least two coupling facilities located in different CECs that support structure allocation. To support structure allocation, the coupling facility should have at least one system in the sysplex connected and should be in a state permitting structure allocation.

When a structure listed in message IXCH0921I has an availability problem, examine the coupling facilities listed from the preference list to determine any action needed to make the coupling facility usable for structure allocation. To obtain the current status for each coupling facility, use the display command:

```
DISPLAY XCF,CF,CFNAME=ALL
```

When the coupling facility is not eligible for structure allocation, the display command output (message IXC362I) shows this :

```
- "NO SYSTEMS ARE CONNECTED TO THIS COUPLING FACILITY"
- "ALLOCATION NOT PERMITTED" along with the reasons  that structure allocation is currently not permitted.
```

When the coupling facility is now eligible for structure allocation, no further action is needed. When the coupling facility is not eligible for structure allocation, take the necessary actions based on the reason specified:

```
"NO SYSTEMS ARE CONNECTED TO THIS COUPLING FACILITY"
On each system issue display command:
  D CF,CFNAME=cfname
to obtain current status of the system accessibility to
the coupling facility and correct any problems found.

"ALLOCATION NOT PERMITTED" based on the reason(s):
 - The coupling facility is in maintenance mode.
   To take a coupling facility out of maintenance mode use
   command:
     SETXCF STOP,MAINTMODE,CFNAME=cfname

 - There is a pending policy change to delete the coupling
   facility from the CFRM active policy.
   If the coupling facility is to be removed from use then
   move all the structures currently allocated in the coupling
   facility to other coupling facilities. Use command:
     SETXCF START,REALLOCATE
   to accomplish this for structures that support structure
   rebuild processing.
   If the coupling facility is to remain in use then start
   a CFRM administrative policy that includes a definition of
   the coupling facility. Use command:
     SETXCF START,POLICY,TYPE=CFRM,POLNAME=policy_name

 - The coupling facility has failed.
   Reactivate the coupling facility partition. See the
   PR/SM Planning Guide for information on activating partitions.
   If the coupling facility remains failed,
   search problem reporting data bases for a fix for the problem.
   If no fix exists, contact the IBM Support Center.

 - The coupling facility is in cleanup processing in preparation
   for use by the sysplex.
   The cleanup processing must complete on some system in the
   sysplex before the coupling facility can be used by any system.
```

If the coupling facility remains in cleanup,
search problem reporting data bases for a fix for the problem.
If no fix exists, contact the IBM Support Center.

When the sysplex configuration has only one CEC or a single coupling facility image, a single point of failure exists. This environment is not consistent with the best practices. CHECK(IBMXCF,XCF_CF_STR_AVAILABILITY) issues this exception message each time the check is run. Therefore, when the sysplex configuration has only one CEC or a single coupling facility image, the check should be disabled.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

PR/SM Planning Guide

IXCH0213I There are no coupling facilities or CF structures defined in the CFRM active policy. Possible explanations include: - A CFRM policy was never started. - The CFRM policy has been stopped. At this time, CHECK(*check_owner*,*check_name*) is not applicable.

Explanation: The check is not applicable in the current environment.

In the message text:

check_owner
The owner of the check is IBMXCF.

check_name
The name of the check.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: To determine the current CFRM policy status, use the display command:

```
D XCF,POLICY,TYPE=CFRM
```

Assuming that a CFRM policy should be in use by the sysplex, use the following command to start the CFRM administrative policy that was previously defined by running the XCF Administrative Data Utility:

```
SETXCF START,POLICY,TYPE=CFRM,POLNAME=policy_name
```

See the "CFRM Parameters for Administrative Data Utility" section in z/OS MVS Setting Up a Sysplex for details about creating a CFRM administrative policy.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF, IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0214I Allocation is not permitted in coupling facility *cfname*.

Explanation: CHECK(IBMXCF,XCF_CF_ALLOCATION_PERMITTED) found allocation not permitted in the coupling facility named *cfname*.

It is preferred that a coupling facility should be eligible for allocating structures whenever the CFRM active policy has a definition for the coupling facility.

In the message text:

cfname
The name of the coupling facility that does not permit structure allocation. These are the possible reasons for structure allocation not permitted:

- The coupling facility is in maintenance mode.
- There is a pending policy change to delete the coupling facility from the CFRM active policy.
- The coupling facility has failed.
- The coupling facility is in cleanup processing in preparation for use by the sysplex.

To obtain the current status for the coupling facility, use the display command:

```
D XCF,CF,CFNAME=cfname
```

Exception message IXCH0215E follows in the message buffer when the check finds that structure allocation is not permitted in any coupling facility.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: See IXCH0215E.

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0215E.

IXCH0215E One or more coupling facilities do not permit structure allocation.

Explanation: CHECK(IBMXCF,XCF_CF_ALLOCATION_PERMITTED) found allocation not permitted in one or more coupling facilities.

It is preferred that a coupling facility should be eligible for allocating structures whenever the CFRM active policy has a definition for the coupling facility.

See message IXCH0214I in the message buffer for the name of the coupling facility for which structure allocation is not permitted. These are the possible reasons for structure allocation not permitted:

- The coupling facility is in maintenance mode.
- There is a pending policy change to delete the coupling facility from the CFRM active policy.
- The coupling facility has failed.
- The coupling facility is in cleanup processing in preparation for use by the sysplex.

For a coupling facility to be eligible for structure allocation, the state of the coupling facility must permit structure allocation.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: It is preferred that coupling facilities should be eligible for structure allocation

whenever the coupling facility is defined in the CFRM active policy. If a particular coupling facility is not eligible for structure allocation, it might be due to planned reconfiguration or service activities that are in progress. But if the service activity has completed, it might be an oversight that leaves the coupling facility in maintenance mode, or might be an indication of a problem with the coupling facility as a result of service activities.

To obtain the current status for all coupling facilities, use the display command:

D XCF,CF,CFNAME=ALL

To obtain current status for a specific coupling facility listed by message IXCH0214I, use the display command:

D XCF,CF,CFNAME=cfname

When the coupling facility is not eligible for structure allocation, the display command output (message IXC362I) shows this:

"ALLOCATION NOT PERMITTED" along with the reason(s) that structure allocation is currently not permitted.

When the coupling facility is now eligible for structure allocation, no further action is needed. When the coupling facility is not eligible for structure allocation, take the necessary actions based on the reason specified:

The coupling facility is in maintenance mode.
To take a coupling facility out of maintenance mode use command: SETXCF STOP,MAINTMODE,CFNAME=cfname

There is a pending policy change to delete the coupling facility from the CFRM active policy.
If the coupling facility is to be removed from use, move all the structures currently allocated in the coupling facility to other coupling facilities. Use the command to accomplish this for structures that support structure rebuild processing: SETXCF START,REALLOCATE

If the coupling facility is to remain in use, start a CFRM administrative policy that includes a definition of the coupling facility.
Use the command: SETXCF START,POLICY,TYPE=CFRM,POLNAME=policy_name

The coupling facility has failed.
Reactivate the coupling facility partition. See the PR/SM Planning Guide for information about activating partitions. If the coupling facility remains failed, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

The coupling facility is in cleanup processing in preparation for use by the sysplex.
The cleanup processing must complete on some system in the sysplex before the coupling facility can be used by any system. If the coupling facility remains in cleanup, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

PR/SM Planning Guide

IXCH0216I All coupling facilities currently permit structure allocation.

Explanation: CHECK(IBMXCF,XCF_CF_ALLOCATION_PERMITTED) found good status for the checked coupling facilities.

It is preferred that coupling facilities should be eligible for structure allocation whenever the coupling facility is defined in the CFRM active policy.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0217I All structures have preference lists defined which have at least two coupling facilities each on different CECs and usable for structure allocation.

Explanation: CHECK(IBMXCF,XCF_CF_STR_AVAILABILITY) found good status for the checked structures.

It is preferred that the preference list for each structure defined in the CFRM active policy should have at least two coupling facilities located in different CECs that support structure allocation. To support structure allocation, the coupling facility should have at least one system in the sysplex connected and should be in a state of permitting structure allocation.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0218I There are currently no allocated structures in any coupling facilities using storage-class memory (SCM). At this time, CHECK(*owner, checkname*) is not applicable.

Explanation: The check is not applicable in the current environment.

In the message text:

owner
The owner of the check is IBMXCF.

checkname
The name of the check.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0219I There are currently no allocated structures in any coupling facilities whose CFRM policy structure definition statement specifies the SCMMAXSIZE keyword which indicates that the structure should be allocated with the capability to use coupling facility storage-class memory (SCM). At this time, CHECK(*owner,checkname*) is not applicable.

Explanation: The check is not applicable in the current environment.

In the message text:

owner
The owner of the check is IBMXCF.

checkname
The name of the check.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0220E The number of coupling facilities available to all active systems in the sysplex does not meet the required minimum.

Explanation: CHECK(IBMXCF,XCF_CF_SYSPLEX_CONNECTIVITY) found an exception.

The number of coupling facilities in the CFRM active policy that have connectivity to all active systems in the sysplex is *ctdcfs* - the *parameter* requires at least *mincfs*. IXCH0908I and IXCH0909I have been placed in the message buffer to indicate the coupling facilities in the CFRM active policy and the systems that do not have connectivity to those coupling facilities.

See accompanying messages IXCH0908I and IXCH0909I for more information.

When running in a parallel sysplex environment, hardware redundancy should be provided for coupling facilities.

In the message explanation:

ctdcfs
Resolves to the number of coupling facilities in the CFRM active policy that are connected to all active systems in the sysplex.

parameter
Resolves to 'owner' or 'installation' to indicate whether the default PARMS from the HZSADDCHECK exit routine are in effect, or user overrides are in effect.

mincfs
Resolves to the MINCFS value from the check PARMS.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Determine why the required number of coupling facilities are not available to all active systems in the sysplex, and take appropriate action. There might be a problem with a coupling facility definition in the active CFRM policy, a coupling facility, or a system's connectivity to a coupling facility.

Problem determination: See IXCH0908I and IXCH0909I in the message buffer that identify the active systems in the sysplex and the coupling facilities in the sysplex (with information about their connectivity to the active systems).

On systems that are not connected to a coupling facility, CHECK(IBMXCF,XCF_CF_CONNECTIVITY) provides additional information through message IXCH0448E.

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex.

Search for Achieving the Highest Levels of Parallel Sysplex Availability, SG24-6061, in IBM Redbooks®.

IXCH0221I The number of coupling facilities in the CFRM active policy connected to all active systems in the sysplex is *ctdcfs*. This satisfies the *parameter* requirement of *mincfs*.

Explanation: CHECK(IBMXCF,XCF_CF_SYSPLEX_CONNECTIVITY) ran successfully and found no exceptions. It found the required number of coupling facilities in the CFRM active policy with connectivity to all active systems in the sysplex.

In the message text:

ctdcfs
Resolves to the number of coupling facilities in the CFRM active policy that are connected to all active systems in the sysplex.

parameter
Resolves to 'owner' or 'installation' to indicate whether the default PARMS from the HZSADDCHECK exit routine are in effect, or user overrides are in effect.

mincfs
Resolves to the MINCFS value from the check PARMS.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

IXCH0222E A coupling facility structure user request for non-volatility and failure-isolation from connectors is not satisfied.

Explanation: CHECK(IBMXCF,XCF_CF_STR_NONVOLATILE) found an exception.

An allocated coupling facility structure was connected to with IXLCONN NONVOLREQ=YES, requesting non-volatility and failure-isolation from connectors. The structure is not in a coupling facility with non-volatile storage, or a connector to the structure is not failure-isolated from the structure instances.

See accompanying message IXCH0910I for more information.

For applications that request it, structures should be allocated in a coupling facility that provides non-volatility and failure-isolation from connectors.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: If all coupling facilities containing the structure are volatile, move a structure instance to a non-volatile coupling facility that provides failure-isolation from connectors, or accomplish the same result by changing a coupling facility to be non-volatile. Only one structure instance of a duplex structure needs to be in a non-volatile coupling facility for the structure to be considered non-volatile. The following system commands might provide additional information:

```
DISPLAY  XCF,CF,CFNAME=cfname
DISPLAY  XCF,STRUCTURE,STRNAME=strname
```

If a connector is not failure-isolated from the structure instances, determine the action needed to provide failure-isolation. Note that a connector only has to be failure-isolated from one structure instance of a duplexed pair of structure instances to be considered failure-isolated. The following system command might provide additional information:

```
DISPLAY  XCF,STRUCTURE,STRNAME=strname,CONNAME=conname
```

Problem determination: See IXCH0910I in the message buffer that identifies the coupling facility structure and connectors that caused the exception.

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0223I All allocated coupling facility structures are found to satisfy user requests for structure non-volatility and failure-isolation from connectors.

Explanation: CHECK(IBMXCF,XCF_CF_STR_NONVOLATILE) ran successfully and found no exceptions. For applications that requested it, structures should be allocated in a coupling facility that provides non-volatility, and users of the structure should be failure-isolated in a different CEC from an allocated structure instance.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0224I Coupling facility storage-class memory (SCM) utilization for all allocated coupling facility structures using SCM is below the *checkowner_or_installation* **defined threshold(s) for the check.**

Explanation: Coupling facility structures configured to use coupling facility storage-class memory (SCM) can use storage extensions beyond the defined coupling facility real storage for the allocated structure. SCM provides relief for temporary CF real storage capacity constraints and additional structure capacity when needed during peak processing periods.

When the check is run in verbose mode, IXCH0925I is issued to list all allocated coupling facility structures eligible to use SCM.

In the message text:

checkowner_or_installation
Resolves to **owner** or **installation** to indicate whether the default PARMS from the HZSADDCHECK exit routine are in effect, or user overrides are in effect.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0225E Coupling facility storage-class memory (SCM) for one or more coupling facility structures exceeds a *checkowner_or_installation* **defined threshold utilization percentage.**

Explanation: Check(IBMXCF,XCF_CF_STR_SCM_UTILIZATION) found an exception.

The storage-class memory (SCM) utilization of an allocated coupling facility structure exceeds a defined SCM utilization percentage as specified by the check. High structure SCM utilization is an indication that coupling facility storage-class memory assigned to a structure is becoming exhausted and may cause structure unavailability conditions or application disruptions.

Message IXCH0925I lists all allocated structures with assigned SCM that are exceeding a defined threshold utilization percentage for SCM.

In the message text:

checkowner_or_installation
Resolves to **owner** or **installation** to indicate whether the default PARMS from the HZSADDCHECK exit routine are in effect, or user overrides are in effect.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Determine if the reason for the use of storage-class memory in the coupling facility is expected. Utilization levels of coupling facility SCM by application or subsystem structures may be due to one of the following:

- An application's real storage structure size may be undersized for the actual application workload environment causing the coupling facility to use SCM to provide additional structure capacity.
- An application is experiencing a temporary increased workload and the use of SCM is expected.
- An application or subsystem is experiencing problems processing structure data thus causing the coupling facility to use SCM to provide additional structure capacity.

Display command D CF can be used to obtain detailed coupling facility space and SCM utilization information for further diagnostic purposes and monitoring of coupling facility storage and SCM utilization.

See "Managing Coupling Facility Resources" in *z/OS MVS Setting Up a Sysplex* for information on coupling facility planning.

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: See Note 35.

Descriptor code: 3 is the default set by this check. See Note 1.

IXCH0226I Duplexed structure *structure* **instance** *old/new instance* **resides in coupling facility** *old/new CF name* **at site** *old/new CF site name***. This does not match coupling facility** *preflist CF name* **at site** *preflist CF site name* **listed** *preflist position* **in the preference list determined using the duplexing site preference of** *site preference***.**

Explanation: Message provides information about the current location of duplexed structures which do not match the data in the preference list for the structure taking into account the coupling facility site preference in the CFRM couple data set. For more information, see *z/OS MVS Setting Up a Sysplex* .

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0227I Duplexed structure *structure* **instance old resides in coupling facility** *old CF name* **at** *old CF site name* **while instance new resides in coupling facility** *new CF name* **at site** *new CF site name***. This is inconsistent for the duplexing site preference of** *site preference***.**

Explanation: Message provides information about the current location of duplexed structures which do not match the coupling facility site preference in the CFRM couple data set. For more information, see *z/OS MVS Setting Up a Sysplex* .

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0239I Valid parameters for CHECK(IBMXCF,XCF_CDS_SEPARATION) are LOGR(NO | YES)

Explanation: The parameters for CHECK(IBMXCF,XCF_CDS_SEPARATION) are defined as follows:

LOGR Indicates whether the system logger (TYPE(LOGR)) couple data set (CDS) is to be checked for separation from other performance-sensitive CDS types.

- **NO** The check does not test whether the primary LOGR CDS is separated from other performance-sensitive CDS types.
- **YES** The check should verify that the primary LOGR CDS resides on a volume separate from other performance-sensitive CDS types.

Specify the parameters in an HZSPRMxx parmlib member policy statement or on a MODIFY HZSPROC command, for example:

```
F HZSPROC,UPDATE,CHECK(IBMXCF,XCF_CDS_SEPARATION),
PARM=''LOGR(NO)''
```

System action: The system continues processing normally.

System programmer response: Specify parameters to ensure that the check reports an exception only when CDS types that the installation considers performance-sensitive are not properly separated. The default parameters are "LOGR(NO)", because in general, the level of I/O activity to the Logger CDS does not warrant its placement on a volume separate from other CDS types.

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Reference Documentation: For a discussion of considerations in allocating couple data sets, see "Considerations for All Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

IXCH0240E Primary couple data sets for performance-sensitive types reside on the same volume.

Explanation: CHECK(IBMXCF,XCF_CDS_SEPARATION) found an exception.

The check found that the primary couple data sets for types that should be separated reside on the same volume:

```
CDS Type Volser Data Set Name
-------- ------ -----------------------------------------
typename1 vol1   dsn1
typename2 vol2   dsn2
typename3 vol3   dsn3
```

Message IXCH0907I describes the complete couple data set configuration.

In the message explanation:

typename1
The type of data contained in the couple data set

vol1
The volume on which the couple data set resides

dsn1
The couple data set name

typename2
The type of data contained in the couple data set

vol2
The volume on which the couple data set resides

dsn2
The couple data set name

typename3
The type of data contained in the couple data set

vol3
The volume on which the couple data set resides

dsn3
The couple data set name

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: For maximum performance and availability, the primary sysplex couple data set and the primary CFRM couple data set should be placed on different volumes, and the installation monitor I/O should rate to other couple data sets such as LOGR to evaluate whether they also warrant placement on separate volumes. By default, this check does not consider the LOGR couple data set in evaluating couple data set placement. If the installation requires to maintain the LOGR primary on a separate volume, update the check with the parameter 'LOGR(YES)' to require the check to consider the placement of the LOGR couple data set.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For a discussion of considerations in allocating and managing couple data sets, see "Planning the Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

For a discussion of formatting couple data sets, see "Format Utility for Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF COUPLE command, see "SETXCF Couple Command" in z/OS MVS Setting Up a Sysplex.

IXCH0241I The following primary couple data sets reside on unique volumes:
```
 CDS Type Volser Data Set Name
-------- ------ ----------------------------------------
typename1 vol1 dsn1
typename2 vol2 dsn2
typename3 vol3 dsn3
```
This is consistent with the IBM recommendation that performance-sensitive couple data sets should be placed on separate volumes.

Explanation: The check found that the primary couple data sets for types that should be separated reside on unique volumes.

In the message text:

typename1
The type of data contained in the couple data set

vol1
The volume on which the couple data set resides

dsn1
The couple data set name

typename2
The type of data contained in the couple data set

vol2
The volume on which the couple data set resides

dsn2
The couple data set name

typename3
The type of data contained in the couple data set

vol3
The volume on which the couple data set resides

dsn3
The couple data set name

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0242E One or more couple data sets have a single point of failure.

Explanation: CHECK(IBMXCF,XCF_CDS_SPOF) found an exception.

The couple data set configuration has one or more single points of failure. A failure at one of these points could result in loss of a couple data set, the system, or even the entire sysplex.

This message is preceded by one or more IOSPFxxxI messages, IXCH0244I, or IXCH0245I. These messages identify the single points of failure in the couple data set configuration. IXCH0907I also precedes this message to describe the couple data set configuration.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: For maximum availability, operate with both primary and alternate couple data sets for each couple data set type. The couple data sets should be allocated so as to avoid single points of failure. For example, the primary and alternate couple data sets should not reside on the same volume, or on volumes on the same physical control unit or in the same logical subsystem.

If IXCH0242E is preceded by IOSPFxxxI messages, refer to the documentation for those messages for an explanation of the single points of failure detected.

Take the necessary action to eliminate single points of failure. It might include varying additional device paths online, or adding or relocating couple data sets using the SETXCF COUPLE command.

Problem determination: Identify the single points of failure in the couple data set configuration from the IOSPFxxxI, IXCH0244I, and/or IXCH0245I messages that precede this message.

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For a discussion of considerations in allocating and managing couple data sets, see "Planning the Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

For a discussion of formatting couple data sets, see "Format Utility for Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF COUPLE command, see "SETXCF Couple Command" in z/OS MVS System Commands.

For more information about the IOSPFxxxI messages that describe the individual single points of failure detected in the couple data set configuration, see "IOSPF Messages" in z/OS MVS System Messages, Vol 9 (IGF-IWM).

IXCH0243I For each couple data set type, there is both a primary and an alternate. Each pair of data sets is allocated without single points of failure, as far as can be determined by current checks. This is consistent with the IBM recommendation.

Explanation: For the set of potential exposures currently evaluated by the IOSSPOF service, the check found no single points of failure for couple data sets.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0244I There is no alternate *typename* couple data set.

Explanation: For maximum availability, operate with both primary and alternate couple data sets for each couple data set type.

In the message text:

typename
The type of data contained in the couple data set

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For considerations in allocating and managing couple data sets, see "Planning the Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

IXCH0245I The *typename* primary and alternate couple data sets reside on the same volume.

Explanation: For maximum availability, primary and alternate couple data sets should be allocated to avoid single points of failure.

In the message text:

typename
The type of data contained in the couple data set

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For considerations in allocating and managing couple data sets, see "Planning the Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

IXCH0246I CHECK(IBMXCF,XCF_SIG_STR_SIZE) is not applicable because system *system_name* is the only system active in the sysplex.

Explanation: The specified check is not applicable in the current environment.

Checking the size and characteristics of each coupling facility structure used to implement signaling paths between systems is important in any multi-system sysplex. In the current single-system sysplex, signaling structures might exist; however, they are not a critical sysplex resource. The specified check begins examining signaling structures in each coupling facility when one or more additional systems join the sysplex.

In the message text:

system_name
The name of this system.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0247E Structure *StrName* does not contain enough lists to support full signaling connectivity.

Explanation: CHECK(IBMXCF,XCF_SIG_STR_SIZE) found that the structure does not contain enough lists to support full signaling connectivity among all active systems in the sysplex.

The structure contains *ListCount* lists; however, *ListsNeeded* lists are needed to provide full signaling connectivity among the *NumberSystems* active systems in the sysplex.

Whenever XCF allocates a signaling structure, it tries to allocate it with enough lists to provide full signaling connectivity among all possible systems in the sysplex (as determined by the MAXSYSTEM parameter used to format the sysplex couple data set). If XCF finds that it needs more lists than a existing signaling structure provides, it attempts to rebuild the structure to get them. For example, if XCF switches to a new primary sysplex couple data set that supports more systems than the previous one, XCF attempts to rebuild the structure to allocate more lists in anticipation of the need to establish signaling paths with more systems.

The failure of this check suggests that XCF was unable to allocate the structure with the desired number of lists, or that the attempt to rebuild the structure failed. Further, the number of active systems now exceeds the capacity of this structure.

Use the Coupling Facility Structure Sizer Tool (CFSizer) to determine the SIZE parameter for XCF signaling structures. The CFSIZER tool is available at http://www.ibm.com/systems/support/z/cfsizer.

In the message text:

`StrName`
The signaling structure in use by XCF.

In the message explanation:

`ListCount`
The current count of list headers (lists) in the signaling structure.

`ListsNeeded`
The number of list headers (lists) needed to support full signaling connectivity among all active systems in the sysplex.

`NumberSystems`
The number of systems active in the sysplex.

System action: This check is performed against all signaling structures in use by this system and allocated in a coupling facility. The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Examine logs to determine why the rebuild of the signaling structure failed. Messages IXL013I and IXL015I, if issued for this structure, contain relevant diagnostic information. Resolve the indicated problems.

If XCF does not automatically rebuild the structure as a result of the problem resolution, initiate a rebuild of the structure by issuing the command:

```
SETXCF START,REBUILD,STRNAME=IXCxxx
```

where "IXCxxx" is the name of the signaling structure.

Upon successful completion of the rebuild, XCF issues message IXC457I on the system that (re)allocates the structure to indicate the number of lists in the structure, the number of systems that can establish full signaling connectivity through those lists, and the maximum number of signals (list entries) that can be supported by each list at one time.

Verify that the structure is in use by XCF for signaling:

```
D XCF,PI,STRNAME=IXCxxx
D XCF,PO,STRNAME=IXCxxx
```

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For additional information on configuring signaling services using XCF list structures, see "Planning Signaling Services in a Sysplex" and "Tuning the Signaling Service" in z/OS MVS Setting Up a Sysplex.

z/OS MVS System Commands

IXCH0248E Structure *Strname* **is too small for full signalling connectivity.**

Explanation: CHECK(IBMXCF,XCF_SIG_STR_SIZE) found that the structure does not contain enough list entries to support full signaling connectivity among all active systems in the sysplex.

When a list within the structure is used for a signaling path, the *checkowner_or_installation* specification requires that there be at least *MinimumNumber* list entries available for each signaling path in the sysplex. List entries are used to buffer signals for the path. There are only *CurrentNumber* list entries per path available to XCF in the current signaling structure.

The number of signaling paths in the sysplex is a function of the number of active systems. Each of the *NumberSystems* active systems can have two paths (PATHIN and PATHOUT) to every other active system for a total of *NumberPaths* signaling paths. In order for this structure to meet the *checkowner_or_installation* specification, at least *NeededEntries* list entries are required. This total includes some list entry "overhead" needed by XCF for non-pathing functions.

Use the Coupling Facility Structure Sizer Tool (CFSizer) to determine the SIZE parameter for XCF signaling structures. The CFSIZER tool is available at http://www.ibm.com/systems/support/z/cfsizer.

In the message text:

`StrName`
The signaling structure in use by XCF.

In the message explanation:

`MinimumNumber`
The *checkowner_or_installation* specification of the minimum number of list entries per signaling path available to each signaling structure.

`CurrentNumber`
The number of list entries per signaling path available to XCF in this structure.

`NumberSystems`
The number of systems active in the sysplex.

`NumberPaths`
The number of signaling paths to connect all systems.

`NeededEntries`
The minimum number of list entries in the signaling structure needed to meet the *checkowner_or_installation* specification.

System action: This check is performed against all signaling structures in use by this system and allocated in a coupling facility. The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Run the Coupling Facility Structure Sizer Tool (CFSizer) to determine the SIZE parameter for this XCF signaling structure. Note that CFSizer calculates 20 list entries required for each list, which is why 20 is the default parameter value for this check. If the *checkowner_or_installation* specification is greater than 20, the CFSizer results will need to scale up accordingly.

Modify the structure in the CFRM policy with the new size value. Activate that CFRM policy.

If XCF does not automatically rebuild the structure as a result of the policy activation, initiate a rebuild of the structure by issuing the command:

```
SETXCF START,REBUILD,STRNAME=IXCxxx
```

where IXCxxx is the name of the signaling structure.

On successful completion of the rebuild, XCF issues message IXC457I on the system that (re)allocates the structure to indicate the number of lists in the structure, the number of systems that can establish full signaling connectivity through those lists, and the maximum number of signals (list entries) that can be supported by each list at one time.

Verify that the structure is in use by XCF for signaling:

```
D XCF,PI,STRNAME=IXCxxx
D XCF,PO,STRNAME=IXCxxx
```

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For additional information about configuring signaling services using XCF list structures, see "Planning Signaling Services in a Sysplex" and "Tuning the Signaling Service" in z/OS MVS Setting Up a Sysplex.

z/OS MVS System Commands

IXCH0249I **All signaling structures appear to be capable of supporting full signaling connectivity. This check assumes that each signaling structure is intended to support full connectivity among the** *NumberSystems* **active systems in the sysplex. Each signaling structure has at least the** *ListsNeeded* **lists needed to support all signaling paths, and each structure contains enough list entries to support the** *checkowner_or_installation* **minimum of** *MinimumNumber* **list entries per signaling path.**

Explanation: The check found that all signaling structures are capable of supporting paths between all active systems in the sysplex.

In the message text:

`NumberSystems`
The number of systems active in the sysplex.

`ListsNeeded`
The number of list headers (lists) needed to support full signaling connectivity among all active systems in the sysplex.

`MinimumNumber`
The *checkowner_or_installation* specification of the minimum number of list entries per signaling path available to each signaling structure.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0250I CHECK(IBMXCF,XCF_SIG_STR_SIZE) is not applicable because there are no signaling structures allocated in a coupling facility.

Explanation: The specified check is not applicable in the current environment.

Checking the size and characteristics of each coupling facility structure used to implement signaling paths between systems is important in any multi-system sysplex. In the current environment, no signaling structures exist. The specified check begins examining signaling structures in each coupling facility when one or more structures are allocated.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0251I A couple data set configuration change is in progress for type *typename*. This check is not meaningful for that type until the couple data set configuration is stable.

Explanation: The check is currently not applicable for the indicated couple data set type.

In the message text:

typename
The type of data contained in the couple data set

System action: The system continues processing.

Operator response: Rerun this check when the couple data set configuration is stable.

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For considerations in allocating and managing couple data sets, see "Planning the Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

IXCH0252I Type *typename* is in use by the sysplex but is not in use on this system. This system cannot perform this check for that type.

Explanation: The check is currently not applicable for the indicated couple data set type.

In the message text:

typename
The type of data contained in the couple data set

System action: The system continues processing.

Operator response: If this system begins using the named couple data set type, rerun this check.

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For considerations in allocating and managing couple data sets, see "Planning the Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

IXCH0253E The CFRM structure event management protocol is inconsistent with the *checkowner_or_installation* **specification.**

Explanation: CHECK(IBMXCF,XCF_CFRM_MSGBASED) found an exception.

The CFRM structure event management protocol is *evtmgmt* in a multisystem-capable sysplex.

In the message text:

evtmgmt
The CFRM structure event management protocol according to the CFRM active policy.

checkowner_or_installation
Resolves to **owner** or **installation** to indicate whether the default PARMS from the HZSADDCHECK exit routine are in effect, or user overrides are in effect.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: If the CFRM structure event management protocol is policy-based, the problem may be that the primary CFRM couple data set was not formatted to support message-based processing, or it may be that a system command was used to switch to policy-based.

IBM suggests that, when all systems are at z/OS V1R8 and there is no intention of falling back to a lower level of z/OS, message-based event processing should be enabled because of the large performance, availability, and scalability benefits that it can provide in some parallel sysplex environments.

If the primary CFRM couple data set was not formatted to support message-based processing, bring the required couple data sets into use. The couple data set format utility may be needed to format one or more new couple data sets. One or more SETXCF COUPLE commands can be used to bring the required couple data sets into use. Be sure to update the appropriate COUPLExx parmlib members with the couple data sets in use.

If the CFRM structure event management protocol is policy-based and the primary CFRM couple data set was already formatted to support message-based processing, switch to message-based with the following system command:

```
SETXCF START,MSGBASED
```

If the CFRM structure event management protocol is message-based and policy-based event processing is desired, switch to policy-based with the following system command:

```
SETXCF STOP,MSGBASED
```

Problem determination: The parameters used to format the CFRM couple data sets in use can be obtained with the following system command:

```
DISPLAY XCF,COUPLE,TYPE=CFRM
```

MSGBASED(1) in the message IXC357I response to that command is the indication that a couple data set was formatted to support message-based processing.

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For a discussion of using the couple data set format utility, see "Format utility for couple data sets" in z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF command, see "SETXCF Command" in z/OS MVS System Commands.

For the syntax of the DISPLAY XCF command, see "Displaying Cross System Coupling Facility (XCF) Information" in z/OS MVS System Commands.

For a discussion of the CFRM structure event management protocols, see "Comparing message-based processing and policy-based processing" in z/OS MVS Setting Up a Sysplex.

IXCH0254I The CFRM structure event management protocol is *evtmgmt*. This is consistent with the *checkowner_or_installation* specification.

Explanation: CHECK(IBMXCF,XCF_CFRM_MSGBASED) ran successfully and found no exceptions.

In the message text:

evtmgmt
The CFRM structure event management protocol according to the CFRM active policy.

checkowner_or_installation
Resolves to **owner** or **installation** to indicate whether the default PARMS from the HZSADDCHECK exit routine are in effect, or user overrides are in effect.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0255E A CFRM policy structure specification has too large a difference between the INITSIZE and SIZE values.

Explanation: CHECK(IBMXCF,XCF_CF_STR_POLICYSIZE) found an exception.

A specification of INITSIZE in the active or pending CFRM policy indicates an initial structure size that is too small for the maximum structure size (as determined by the SIZE specification). Either a structure has an initial size specified as less than half the maximum size, or a structure whose users do not allow structure alter has an initial size specified different than the maximum size.

When allocating the structure initially, whether INITSIZE is specified or not, the system attempts to build all control structures that will be required to support the maximum size of the structure. These control structures are built in the control storage allocation of the structure. For structures whose users do not allow structure alter, the control storage allocated to accommodate larger sizes is wasted. An INITSIZE value substantially smaller than the SIZE value might cause the following conditions:

- It might be impossible to allocate a structure at a size of INITSIZE, because the amount of control storage required to support the SIZE value might actually be larger than INITSIZE.
- If the allocation succeeds, it might result in a structure with a proportionally large amount of its storage allotted to structure controls, leaving too few structure objects to be exploited usefully by the associated application.

See accompanying message IXCH0923I for more information.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: IBM suggests that the INITSIZE and SIZE specification for structures be determined by the CfSizer (Coupling Facility Structure Sizer) tool: http://www.ibm.com/systems/support/z/cfsizer

Use the CfSizer tool to determine the INITSIZE and SIZE parameters for structures with an exception condition. Update the CFRM policy (or policies) with the new parameters. The new parameters should not have an INITSIZE value for a structure less than half the SIZE value for that structure. If alter is not allowed by users of a structure, INITSIZE should not be specified for that structure. Start an updated policy with the following system command:

```
SETXCF START,POLICY,TYPE=CFRM,POLNAME=polname
```

The policy changes will become pending and affect only future structure allocations, not currently allocated structures. REBUILD or REALLOCATE can be used to activate the pending changes for currently allocated structures. For example, a REALLOCATE process can be started with the following system command:

```
SETXCF START,REALLOCATE
```

Problem determination: See IXCH0923I in the message buffer that identifies the coupling facility structures with an exception condition.

The problem may have occurred because a CFRM policy structure SIZE value was adjusted without also adjusting the INITSIZE value (or vice versa).

The following system command can be used to determine the name of the active or pending CFRM policy:

```
DISPLAY XCF,POLICY,TYPE=CFRM
```

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For more information on planning and activating CFRM policies, see z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF START command, see "SETXCF Start Command" in z/OS MVS System Commands.

IXCH0256I No CFRM policy structure specification has too large a difference between the INITSIZE and SIZE values.

Explanation: CHECK(IBMXCF,XCF_CF_STR_POLICYSIZE) ran successfully and found no exceptions. All specifications of INITSIZE in the active or pending CFRM policy indicate an initial structure size of at least half the maximum structure size (as determined by the SIZE specification). The policy does not specify an initial structure size less than the maximum structure size when altering of the structure size is not supported (as determined by this check).

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0257E The amount of storage-class memory (SCM) assigned to one or more coupling facility structures is not consistent with the value specified on the SCMMAXSIZE keyword in the CFRM policy.

Explanation: CHECK(IBMXCF,XCF_CF_STR_SCMMAXSIZE) found an exception.

A check exception is raised when a CFRM policy structure definition specifies SCMMAXSIZE, but the maximum storage-class memory assigned to the structure by the coupling facility (CF) is less than the policy specified SCMMAXSIZE. It is recommended that the actual amount of SCM available to an allocated structure be equal to the CFRM policy SCMMAXSIZE value. Coupling facility and structure related configuration definitions such as total coupling facility storage-class memory and maximum structure size (SIZE keyword on the CFRM policy structure definition) may limit the amount of SCM that a coupling facility makes available to an individual structure.

Message IXCH0926I in the message buffer lists the amount of SCM requested to be available to a structure as defined by the SCMMAXSIZE keyword in the active CFRM policy and the effective maximum amount of SCM that a coupling facility will make eligible to be assigned to a structure.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: The maximum SCM assigned to a structure at structure allocation time by the coupling facility is equal to the minimum of:

- SCMMAXSIZE specified for the structure rounded up to the nearest integral multiple of the SCM storage increment for the coupling facility model.
- The total storage-class memory for the coupling facility.
- The difference between 4G - 1 and the maximum structure structure size (SIZE), rounded down to the nearest integral multiple of the SCM storage increment for the coupling facility model.

If the SCMMAXSIZE specified for the structure exceeds the total storage-class memory for the coupling facility, re-allocate the structure in a coupling facility with more storage-class memory if more SCM is needed by the structure. Otherwise change the CFRM policy structure definition statement and re-allocate the structure to have the policy change take effect.

Determine the maximum structure size (determined by the SIZE specification in the active CFRM policy). The maximum SCM assigned to a structure is limited by the effective maximum structure size. The sum of the maximum structure size and SCMMAXSIZE expressed as 4K block units can not exceed 4G - 1 (4,294,967,295). Adjust the effective maximum structure size or SCMMAXSIZE values accordingly and re-allocate the structure.

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: See Note 35.

Descriptor code: 3 is the default set by this check. See Note 1.

IXCH0258I The amount of storage-class memory (SCM) assigned to any allocated structure that requests the use of SCM is consistent with the specified value on the SCMMAXSIZE keyword in the CFRM policy for the structure.

Explanation: Coupling facility structures configured to use coupling facility storage-class memory (SCM) can use storage extensions beyond the defined coupling facility real storage for the allocated structure. SCM provides relief for temporary CF real storage capacity constraints and additional structure capacity when needed during peak processing periods.

When the check is run in verbose mode, IXCH0926I is issued and lists all allocated coupling facility structures eligible to be assigned storage-class memory.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0259E The sum of coupling facility storage-class memory (SCM) eligible to be assigned to allocated structures in a coupling facility exceeds the total storage-class memory defined to a coupling facility.

Explanation: CHECK(IBMXCF,XCF_CF_STR_MAXSCM) found an exception.

A check exception is raised when the sum of the maximum storage-class memory (SCM) for allocated structures exceeds the actual total storage-class memory available to a coupling facility.

Maximum SCM for a structure is the maximum amount of SCM that a coupling facility will allow a structure to use, if needed. SCM for a structure is not pre-assigned, but instead allocated when structure data needs to be migrated to SCM.

A check exception for a coupling facility indicates that the coupling facility's SCM usage allowance for structures exceeds its actual available SCM.

Message IXCH0927I in the message buffer lists coupling facilities in use by the local system that are "over committed" in their maximum storage-class memory assignments to allocated structures.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Determine if too many structures using SCM are mapped to the coupling facility. An over commitment of SCM to structures may result in not enough coupling facility SCM to satisfy structure data migration requests. Inability to migrate structure data can result in structure unavailability conditions.

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: See Note 35.

Descriptor code: 3 is the default set by this check. See Note 1.

IXCH0260I The sum of coupling facility storage-class memory (SCM) eligible to be assigned to allocated structures does not exceed the total storage-class memory defined to a coupling facility.

Explanation: Coupling facilities configured to use storage-class memory (SCM) provide storage extensions for coupling facility list structures. SCM provides relief for temporary CF real storage capacity constraints and additional structure capacity when needed during peak processing periods.

When the check is run in verbose mode, all coupling facilities connected to by the local system and in the active CFRM policy that have storage class memory available to be used as structure storage extensions will be listed along with the allocated structures in the coupling facility eligible to use SCM. See message IXCH0927I.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0261E The sum of coupling facility real storage eligible to be assigned to allocated structures in a coupling facility exceeds the total storage space defined to a coupling facility.

Explanation: CHECK(IBMXCF,XCF_CF_STR_MAXSPACE) found an exception.

A check exception is raised when the sum of the maximum structure size (determined by the SIZE specification in the CFRM active policy) and estimated augmented space for allocated structures plus the total CF dump space exceeds the actual total space (real storage) available to a coupling facility.

Augmented storage space is real storage used by the coupling facility as control space to support structure use of storage-class memory (SCM). Structures may use up to the requested maximum structure size and estimated maximum augmented storage space assigned. Real storage must be available to the coupling facility to alter the size of a structure to the requested maximum size and to use as augmented storage to support the maximum SCM usage currently allowed for allocated structures.

A check exception for a coupling facility indicates that the coupling facility's real storage allowances for maximum structure size and estimated maximum augmented storage space exceeds its actual availability of real storage resources.

Message IXCH0928I in the message buffer lists coupling facilities in use by the local system that are "over committed" in their real storage assignments to allocated structures.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Augmented storage space is needed by a coupling facility as control space to support structure use of SCM. Estimated augmented storage requirements are calculated based on the maximum SCM assigned to a structure. Augmented storage allocation is bounded by the availability of coupling facility real space.

The altering of a structure size to a larger size up to the requested maximum structure size can only be accomplished if there is real storage available to be allocated to the structure.

Ensure that there is enough real storage available in a coupling facility to satisfy possible allocation needs of the allocated structures. The lack of real space will prevent the coupling facility from allocating the needed augmented storage to manage the use of SCM for structures or prevent a structure size from being altered to a larger size. The inability to allocate augmented storage or alter the structure can limit the capacity of the structure and result in structure unavailability conditions.

For a discussion on structure sizing, see "Identifying the coupling facility structures" in *z/OS MVS Setting Up a Sysplex*.

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: See Note 35.

Descriptor code: 3 is the default set by this check. See Note 1.

IXCH0262I The sum of coupling facility real storage eligible to be assigned to allocated coupling facility structures for structure expansion and augmented storage space allocation does not exceed the available real storage space for any coupling facilities.

Explanation: Coupling facilities with enough total space to cover eligible assignment of real space for structure expansion and augmented space allocation is recommended to enable successful structure expansion and maximum storage-class memory usage by structures.

When the check is run in verbose mode, all coupling facilities in use by the local system will be listed in the message buffer. See message IXCH0928I.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

IXCH0263E A coupling facility structure has residual use of augmented space.

Explanation: CHECK(IBMXCF,XCF_CF_STR_SCM_AUGMENTED) found an exception.

A check exception is raised when a coupling facility structure has an in-use augmented space amount greater than its fixed augmented space amount and its in-use in storage-class memory (SCM) structure object counts are zero.

Augmented space is real storage used by the coupling facility as control space to support structure use of SCM. SCM provides relief for temporary CF real storage capacity constraints and additional structure capacity when needed during peak processing periods. Augmented space that is needed to support the use of SCM may be freed when SCM is no longer in use. However, there are cases where it is not possible for the CF to free some (or all) of the augmented space.

A check exception for a structure indicates that it has an in-use augmented space amount greater than its fixed augmented space amount and its in-use SCM structure object counts are zero. The residual use of augmented space is probably largely wasted and precludes coupling facility structure alter processing from dynamically adjusting CF structure storage usage.

Message IXCH0929I in the message buffer lists coupling facility structures allocated with the capability to use SCM, their use of augmented space, and their usage of SCM.

An asterisk (*) before a structure name in message IXCH0929I indicates a structure with residual use of augmented space.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Perform the appropriate rebuild and/or stop duplexing processing to eliminate the residual use of augmented space.

For duplexed structures in which only one structure instance has residual use of augmented space, stop duplexing to keep the structure instance that does not have residual augmented space. Then re-duplex the structure.

For duplexed structures in which both structure instances have residual use of augmented space, stop duplexing to keep the new structure instance. Then rebuild the structure to eliminate the residual use of augmented space. Then re-duplex the structure.

For simplex structures, rebuild coupling facility structures with residual use of augmented space to eliminate the residual use of augmented space.

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: See Note 35.

Descriptor code: 3 is the default set by this check. See Note 1.

IXCH0264I No coupling facility structure has residual use of augmented space.

Explanation: Either no coupling facility structure has an in-use augmented space amount greater than its fixed augmented space amount or the structures that do are also using storage-class memory (SCM).

When the check is run in verbose mode, message IXCH0929I in the message buffer lists all coupling facility structures allocated with the capability to use SCM, their use of augmented space, and their usage of SCM.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

IXCH0401E One or more function couple data sets have a MAXSYSTEM value that might prevent current and/or future systems from using the functions provided by these couple data sets.

Explanation: CHECK(IBMXCF,XCF_CDS_MAXSYSTEM) found an exception.

One or more function couple data sets were formatted with a MAXSYSTEM value that is less than the MAXSYSTEM value associated with the primary sysplex couple data set. This might prevent current and/or future systems in the sysplex from using the functions provided by these function couple data sets. A function couple data set is any couple data set other than the sysplex couple data set.

See message IXCH0913I in the message buffer, for a list of function couple data sets whose MAXSYSTEM values are less than the MAXSYSTEM value associated with the primary sysplex couple data set.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: IBM suggests that the MAXSYSTEM value specified for function couple data sets matches the MAXSYSTEM value specified for the primary sysplex couple data set, so all systems in the sysplex can use the function associated with the function couple data sets.

Format the indicated function couple data sets with a MAXSYSTEM value that matches the MAXSYSTEM value associated with the primary sysplex couple data set. Bring the new couple data sets into service with the appropriate sequence of SETXCF COUPLE commands.

Problem determination: Issue the DISPLAY XCF,COUPLE,TYPE=type_name command to display the current status of the couple data sets used by the named service type.

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For a discussion of considerations in allocating and managing couple data sets, see "Planning the Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

For a discussion of formatting couple data sets, see "Format Utility for Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF START command, see "SETXCF Start Command" in z/OS MVS System Commands.

For the syntax of the DISPLAY XCF command, see "Displaying Cross System Coupling Facility (XCF) Information" in z/OS MVS System Commands.

IXCH0402I All function couple data sets were formatted with a MAXSYSTEM value that is at least equal to the MAXSYSTEM value associated with the primary sysplex couple data set.
The MAXSYSTEM value associated with the primary sysplex couple data set is *maxsys***.**

Explanation: The check found that all function couple data sets were formatted with a MAXSYSTEM value greater than or equal to the MAXSYSTEM value associated with the primary sysplex couple data set. A function couple data set is any couple data set other than the sysplex couple data set.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For a discussion of considerations in allocating couple data sets, see "Planning the Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

IXCH0410E Inadequate number of signaling paths were found between systems.

Explanation: This message is followed by message IXCH0903I, which lists information about inadequate connectivity.

The number of operational XCF signaling paths between systems is less than the *checkowner_or_installation* specified value. This is inadequate to reduce vulnerability to failures. When there are more operational paths, failures are less likely to cause loss of XCF communication between systems.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Add paths to the configuration as needed.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0411I There are at least *num* operational XCF PATHINs and PATHOUTs from this system to all other systems in the sysplex. This number equals or exceeds the *checkowner_or_installation* specified minimum.

Explanation: The check found good connectivity between this systems and all others in the sysplex.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0414E Group 'UNDESIG' is not assigned to one or more transport classes.

Explanation: This message is followed by message IXCH0901I, which is a table listing the transport classes that do not have UNDESIG assigned to them.

Group 'UNDESIG ' has not been assigned to the transport classes indicated in the table below. IBM suggests that users coding the group keyword explicitly assign the collection of undesignated groups to each transport class by coding the pseudo-group name UNDESIG in GROUP keyword on the CLASSDEF statement in the COUPLExx member of PARMLIB.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Edit the COUPLExx member of PARMLIB and be sure that each CLASSDEF assigns at least the pseudo-group name UNDESIG to the transport classvia the GROUP keyword.For example:

```
CLASSDEF CLASS(ONE) GROUP(UNDESIG)
CLASSDEF CLASS(TWO) GROUP(UNDESIG,GROUP2)
```

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: See note 35.

Descriptor code: 12 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0415I The pseudo-group 'UNDESIG ' has been assigned to all transport classes defined on *system_name***.**

Explanation: The check found good status of UNDESIG on all transport classes.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0417E One or more transport classes do not have enough operational signaling paths to a system.

Explanation: This message is followed by IXCH0902I, which is a table listing all the transport classes that have an inadequate number of operational signaling paths to systems in the sysplex.

Transport class definitions are used to segregate XCF signal traffic. If a transport class does not have an operational outbound signaling path to communicate with a particular target system, the signals using that transport class are rerouted over a signal path from some other transport class. This means that the desired segregation of message traffic is not obtained.

Messages routed to an alternate signaling path incur additional overhead and can degrade the performance of messages that are supposed to use the alternate class. The consequences can be particularly severe if the buffer size used by the alternate class is smaller than the buffer size used by the rerouted message. In such cases, XCF may have to send additional control signals to change the size of the inbound message buffers on the target system. Since the number of buffers in a bufferpool gets smaller when the buffers are bigger, signal capacity is reduced. If the target

system thereby experiences "no buffer" conditions, signal throughput will be impacted.

To avoid the consequences of this lack of segregation, assigning at least one signaling path to the transport class for each possible target system. For capacity and availability, additional paths may bedesired. The check parameter determines the minimum number of signaling paths required per transport class per system.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: A particular transport class might not have enough operational signaling paths for a particular target system because there are too few paths assigned to the transport class, or because some of the assigned paths were not operational at the time of the check. If there are toofew paths assigned to the class, you must either start more outbound signaling paths (ensuring that they are assigned to this transport class), or modify existing signaling paths to change them from one transport class to another. If the signaling paths were not operational, determine the cause, make repairs as needed, and restorethe paths to service.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0418I All transport classes on *system_name* have the minimum specified number of paths to every other system in the sysplex.

Explanation: The check found that all transport classes in the system have the minimum number of paths to every other system in the sysplex.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0420E Transport class definitions do not provide sufficient size segregation.

Explanation: The XCF transport class definitions on system *system_name* do not provide sufficient size segregation for XCF message traffic. The *checkowner_or_installation* requires that the transport class definitions provide *MinNumber* different message buffer sizes, but the check only found *ActualNumber*.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: See Planning Signaling Services in a Sysplex in *z/OS MVS Setting Up a Sysplex* for details on the IBM suggestion.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0421I The XCF transport class definitions on system *system_name* provide sufficient size segregation for XCF message traffic. The *checkowner_or_installation* requires that the transport class definitions provide *MinNumber* message buffer size(s). The check found *ActualNumber*.
See Planning Signaling Services in a Sysplex in *z/OS MVS Setting Up a Sysplex* for details on the IBM suggestion.

Explanation: The check found good status of transport class definitions that provide sufficient size segregation.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0424E A MAXMSG value for XCF signaling is smaller than the check parameter.

Explanation: This message is followed by IXCH0904I, which is a table listing the *maxmsg* value that is too small and where it is defined.

One or more MAXMSG specifications in use by system *system_name* are smaller than the *checkowner_or_installation* specification. MAXMSG values should be greater than or equal to this value to pass the check. Message IXC0904I is issued to identify the particular MAXMSG value that is too small.

In the COUPLExx parmlib member, MAXMSG values can be specified on the COUPLE, CLASSDEF, PATHOUT, or PATHIN statements. The MAXMSG values associated with these statements can be modified after IPL via the SETXCF MODIFY operator command. The SETXCF START command can also be used to create new CLASSDEFs, PATHOUTs, or PATHINs.If a MAXMSG value is not explicitly coded on a statement in the COUPLExx parmlib member or on the SETXCF START command, a default value is used. If MAXMSG is not coded on the COUPLE statement, the IBM supplied default value is used for MAXMSG. If MAXMSG is not specified for a CLASSDEF, the MAXMSG value is inherited from the COUPLE MAXMSG value in effect at the time the CLASSDEF is defined. If MAXMSG is not specified for a PATHOUT, the MAXMSG value is inherited from the CLASSDEF MAXMSG value in effect at the time the PATHOUT is defined (the CLASSDEF to which the PATHOUT is assigned is used). If MAXMSG is not specified for a PATHIN, the MAXMSG value is inherited from the COUPLE MAXMSG in effect at the time the path is defined.

This check cannot determine whether a MAXMSG value was explicitly coded or inherited as described above. However, the check does understand the inheritance and assumes that the specification was inherited if the MAXMSG value of a "child" equals the MAXMSG value of its "parent". In such cases, the check will attempt to identify the "parent" as the problem.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: The MAXMSG values in error were probably specified in the COUPLEXX parmlib member, and if so, the necessary changes should be made there in preparation for the next IPL. However, the values specified in the parmlib member could have been modified via the SETXCF operator command after IPL. The check cannot determine whether such changes were made, so it could be possible that the parmlib values do not need to be changed. Regardless, the SETXCF MODIFY command can be used to modify the MAXMSG values currently being used by the system.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS MVS System Commands

IXCH0426I The XCF transport class MAXMSG value is currently equal to or larger than the *checkowner_or_installation* specified value *defaultMAXMSG*.

Explanation: The check found an appropriate MAXMSG transport value.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0427E One or more PATHINs support fewer messages than recommended.

Explanation: This message is followed by message IXCH0905I, which is a table listing PATHINs that support fewer messages than recommended.

The total amount of space available for buffers is specified by the MAXMSG value. The number of buffers for a given MAXMSG value is determined by the size of the messages. Larger messages require more space, so there will be fewer buffers. Smaller messages require less space, so there will be more buffers. The number of buffers can be increased either by increasing the MAXMSG value for the signaling path or be decreasing the size of the messages that are sent over the path.

The buffer that receives a message cannot be reused until the message data has been extracted from the buffer. Normally this occurs when the message exit routine of the target member invokes the XCF Message-In service (IXCMSGI) to receive the message. If the signaling path does not have a buffer available toreceive a message that is pending transfer on the sending side, signal traffic is delayed. Such delays could lead to message backlogs on the sending system, possibly causing message requests to be rejected due to a "no buffer"condition. The inbound signaling path needs to have a large enough buffer supply to be able to continue receiving pending messages while waiting for in-use buffers to be recycled.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Determine if the transport class definitions on the outbound system are producing the behavior you had intended. It could be the case that the inbound path is receiving messages that are larger than you had expected. For example, if a transport class does not have signaling paths for a particular target system, the messages that use that class will be sent via an alternate path. This lack of class connectivity could cause large messages to be routed over a path that was intended to support small messages. If the transport class definitions are producing the intended behavior, increase the MAXMSG value for the inbound path to at least the SUGGESTED MAXMSG value listed in the table below.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: See note 35.

Descriptor code: 12 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0428I All inbound signal paths that can be checked from *system_name* currently support at least as many messages as the *checkowner_or_installation* specified minimum of *parm*.

Explanation: The check found an appropriate status for inbound signaling paths.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0430I System *system_name* is currently the only system in the sysplex. This check is not applicable to the single system environment.

Explanation: The check is currently not applicable in this environment.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: IBM Health Checker for z/OS: User's Guide

z/OS MVS Setting Up a Sysplex

IXCH0439I There are no coupling facilities available to or in use by system *sysname* that are configured to use storage-class memory. No checks relating to coupling facility storage-class memory can be run.

Explanation: No coupling facilities connected to and available for use by the specified system are configured to use storage-class memory. Checks relating to coupling facility storage-class memory cannot be performed.

In the message text:

sysname
The name of the system.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCCF, IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0440I There are no coupling facilities available to or in use by system *system_name*. No checks relating to using coupling facilities can be run.

Explanation: No coupling facilities are connected to and available for use by the specified system. Checks relating to coupling facility resources cannot be performed.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0441I There are no coupling facilities available to system *system_name*. No checks relating to using coupling facilities can be run.

Explanation: The specified system does not have coupling facility resources defined. Checks relating to coupling facility resources cannot be performed.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0442I The processor configuration for all coupling facilities in use by the local system is consistent with IBM recommendations pertaining to dedicated processors for coupling facilities. Dedicated processors result in the fastest response time and throughput possible for coupling facility requests.

Explanation: The check found the processor configuration for the coupling facility architected function levels (CFLEVEL) of the coupling facilities in use by the local system consists of dedicated processors, which results in the fastest response time and throughput possible for coupling facility requests.

Message IXCH0912I reports on the processor configuration attributes for all coupling facilities in use by the local system.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: N/A

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

IXCH0443E One or more single points of failure in signaling have been detected.

Explanation: CHECK(IBMXCF,XCF_SIG_PATH_SEPARATION) found an exception.

IXCH0906I has been placed in the message buffer. It lists single points of failure in this system's XCF signaling configuration. A single point of failure might be a single path, a coupling facility (CF), or a CEC. A CF might be a single point of failure when the connection is composed of multiple signaling structure paths in a single CF. A CEC might be a single point of failure when the connection is composed of multiple signaling structure paths in multiple coupling facilities but on a single CEC.

It is preferred not to have any single point of failure in an XCF signaling configuration. Loss of a single CTC link, single coupling facility structure, single coupling facility, or single CEC could cause total loss of signaling connectivity between two or more systems in the sysplex.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Eliminate all single points of failure identified in IXCH0906I. This may involve starting additional signaling paths, fixing non-working signaling paths, rebuilding signaling structures, modifying signaling structure preference lists, etc.

When the single point of failure is a CF or a CEC, ensure the following is used in the CFRM active policy for each signaling structure:

- preference list with the names of at least two coupling facilities that are not on a single CEC
- exclusion list to prefer that each signaling structure will be allocated in a different CEC

Problem determination: Consider using the following MVS system commands to gather additional information that might help in problem determination:

```
DISPLAY XCF,PATHIN,DEV=ALL,STRNAME=ALL
DISPLAY XCF,PATHOUT,DEV=ALL,STRNAME=ALL
DISPLAY XCF,STR,STRNAME=structure_name,CONNAME=ALL
DISPLAY XCF,CF,CFNAME=ALL
```

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS MVS System Commands

IXCH0444E Coupling facility processor configurations in use by the local system may result in degraded response time and throughput for coupling facility requests.

Explanation: The check found that the processor configuration of coupling facilities in use by the local system is not consistent with IBM recommendations for the CFLEVEL. The current processor configuration may result in degraded response time and throughput possible for coupling facility requests as compared to coupling facilities configured for the best performance and throughput based on the coupling facility CFLEVEL.

Message IXCH0912I reports on the processor configuration attributes for all coupling facilities in use by the local system.

Too few processors can limit the number of potential transactions, and too many active logical processors can affect performance. In addition to a number of initially online logical processors sufficient to meet the current peak

demands of the logical partition, the definition should include the number of reserved logical processors required for possible growth requirements.

IBM recommends using dedicated central processors (CPs) or shared CPs enabled to process coupling adapter interrupt events (available in coupling facilities whose architecture function level is CFLEVEL19 or above) for production coupling facility LPARs, which will allow for the best performance and throughput.

System action: The system continues processing.

Operator response: For more information on shared and dedicated processors and coupling facilities in use by the local system, issue the D CF command.

Report this problem to the system programmer.

System programmer response: Decide if coupling facility processor reconfiguration is desired. For more information about processor configuration considerations for coupling facilities, see topic "Processor Considerations for Coupling Facility LPs" in the PR/SM Planning Guide

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS HCD Planning

PR/SM Planning Guide

IXCH0445I There is no single point of failure in signaling connectivity from system *system_name* **to all other systems in the sysplex.**

Explanation: The check found no single points of failure in signaling connectivity.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0446E System *system_name* **has only one online operational channel path to coupling facility** *cfname***.**

Explanation: The specified system has only one channel path that can be used to communicate to the indicated coupling facility. This represents a single point of failure regarding communication to the coupling facility.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Issue display command (D CF,CFNAME = cfname) to obtain the current information regarding coupling facility connectivity information. Inspect the sender path status for each defined channel path.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0447I *check_name* **is not applicable because system** *system_name* **has no coupling facility services available.**

Explanation: The specified system does not have coupling facility services available. Coupling Facility support functions are not installed on this system.Checks relating to coupling facility resources cannot be performed.

System action: The system will discontinue running this check.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0448E System *system_name* **has no online operational channel paths to coupling facility** *cfname***.**

Explanation: The specified system has lost connectivity to the coupling facility identified.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Issue display command (D CF) to obtain the current information regarding coupling facility connectivity information. Inspect the sender path status for each defined channel path.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0449I System *system_name* **has all installed channel paths connected to coupling facility** *cfname* **online and operational.**

Explanation: the check found good status of channel paths to the coupling facility.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0450E System *system_name* **has one or more not-operational channel paths to coupling facility** *cfname***.**

Explanation: The specified system has at least one channel path defined for the specified coupling facility that is not-operational or not-connected. The system cannot use any not-operational or not-connected channel paths to communicate to the coupling facility.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Issue display command (D CF,CFNAME = cfname) to obtain the current information regarding coupling facility connectivity information. Inspect the sender path status for the defined channel paths.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS MVS System Commands

IXCH0451I System *system_name* **has no online operational channel paths to**
COUPLING FACILITY: *descriptor*
PARTITION: *partition* **CPCID:** *cpcid*

Explanation: The specified system does not have connectivity to the coupling facility identified.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0452I System *system_name* **has no online operational channel paths to coupling facility control unit** *CU***.**

Explanation: The specified system does not have connectivity to the coupling facility identified.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Issue display command (D CF) to obtain the current information regarding coupling facility connectivity information. Determine if this coupling facility is defined in the CFRM policy and should have connectivity to this system. IBM recommends that coupling facilities not intended to be used by a system should have all channel paths configured offline from that system to the coupling facility.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS MVS System Commands

IXCH0453E System *system_name* **is connected to a coupling facility that is not defined in the CFRM Policy.**
COUPLING FACILITY: *descriptor* **PARTITION:** *partition* **CPCID:** *cpcid*

Explanation: The specified system has connectivity to the coupling facility identified, however the coupling facility has not been defined in theCFRM policy.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Issue display command (D CF) to obtain the current information regarding coupling facility identification information. Determine if this coupling facility should be defined in the CFRM policy. If this system does not require connectivity to the coupling facility, the channel paths should be configured offline. IBM recommends that coupling facilities not intended to be used by a system should have all channel paths configured offline from that system to the coupling facility.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS MVS System Commands

IXCH0454I Not all installed channel paths are online from system *system_name* **to coupling facility** *cfname***.**

Explanation: There are channel paths that are installed but not online. It should be determined whether this is intended.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Issue the D CF command and insure that all paths that are configured online are operational.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS MVS System Commands

IXCH0455I Coupling facility memory utilization for all coupling facilities in use by the local system are below the defined *checkowner_or_installation* **maximum memory utilization for the check.**

Explanation: Coupling facilities with low memory utilization are good candidates for structure expansion and failover processing.

Message IXCH0914I lists the memory utilization percentage for all coupling facilities in use by the local system and whether the memory utilization exceeds the defined maximum memory utilization for the check.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: N/A

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

IXCH0456E Coupling facility memory utilization for one or more coupling facilities in use by the local system exceeds the *checkowner_or_installation* defined maximum memory utilization of *threshold* percent.

Explanation: The memory utilization of coupling facilities in use by the local system exceeds the defined maximum memory utilization as specified by the check. High coupling facility memory utilization may limit the coupling facilities capacity to allocate new structures, expand the size of existing structures, sustain a viable failover environment and participate in structure rebuild and reallocation processing.

Message IXCH0914I lists the memory utilization percentage for all coupling facilities in use by the local system and whether the memory utilization exceeds the defined maximum memory utilization for the check.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Use the D CF command to obtain detailed coupling facility space utilization information for further diagnostic purposes and monitoring of coupling facility memory utilization.

Use the D XCF,STR,STATUS=ALLOCATED command to display detailed structure allocation space utilization information for planning purposes.

Determine if the coupling facilities are in a steady-state or are undergoing planned reconfiguration or failover processing.

See "Managing Coupling Facility Resources" in *z/OS MVS Setting Up a Sysplex* for information on coupling facility planning.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0457I Coupling facility storage-class memory (SCM) utilization for all coupling facilities in use by system *system_name* is below the *checkowner_or_installation* defined threshold(s) for the check.

Explanation: Coupling facilities configured to use storage-class memory (SCM) provide storage extensions for coupling facility list structures. SCM provides relief for temporary CF real storage capacity constraints and additional structure capacity when needed during peak processing periods.

Message IXCH0924I lists the SCM utilization percentage for all coupling facilities in use by the local system and whether the SCM utilization exceeds a defined utilization threshold for the check.

In the message text:

system_name
The name of the system issuing the message.

checkowner_or_installation
Resolves to **owner** or **installation** to indicate whether the default PARMS from the HZSADDCHECK exit routine are in effect, or user overrides are in effect.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

IXCH0458E Coupling facility storage-class memory (SCM) for one or more coupling facilities in use by system *system_name* **exceeds an** *checkowner_or_installation* **defined threshold utilization percentage.**

Explanation: CHECK(IBMXCF,XCF_CF_SCM_UTILIZATION) found an exception.

The SCM utilization of coupling facilities in use by the local system exceeds a defined SCM utilization percentage as specified by the check. High coupling facility SCM utilization is an indication that coupling facility storage-class memory is becoming exhausted and thus unavailable to provide additional coupling facility structure capacity when needed during peak processing periods or to provide relief when coupling facility real storage capacity for a structure becomes constrained.

Message IXCH0924I lists the SCM utilization percentage for all coupling facilities in use by the local system and whether the SCM utilization exceeds a defined utilization threshold for the check. For the coupling facilities that have exceeded a defined SCM utilization percentage, a list of allocated structures in the coupling facility using SCM will also be included in the message buffer.

In the message text:

system_name
The name of the system issuing the message.

checkowner_or_installation
Resolves to **owner** or **installation** to indicate whether the default PARMS from the HZSADDCHECK exit routine are in effect, or user overrides are in effect.

System action: The system continues processing.

Operator response: N/A

System programmer response: Determine if the reason for the use of storage-class memory in the coupling facility is expected. Utilization levels of coupling facility SCM by application or subsystem structures may be due to one of the following:

- An application's real storage structure size may be undersized for the actual application workload environment causing the coupling facility to use SCM to provide additional structure capacity.
- An application is experiencing a temporary increased workload and the use of SCM is expected.
- An application or subsystem is experiencing problems processing structure data thus causing the coupling facility to use SCM to provide additional structure capacity.

Display command D CF can be used to obtain detailed coupling facility space and SCM utilization information for further diagnostic purposes and monitoring of coupling facility storage and SCM utilization.

See "Managing Coupling Facility Resources" in *z/OS MVS Setting Up a Sysplex* for information on coupling facility planning.

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCCF

Routing code: See Note 35.

Descriptor code: 3 is the default set by this check. See Note 1.

IXCH0459E System S1 is connected to a coupling facility that is not being used by the sysplex. COUPLING FACILITY: *descriptor* **PARTITION:** *partition* **CPCID:** *cpcid*

Explanation: The specified system has connectivity to the coupling facility identified, however the coupling facility is not being used by the sysplex. It may be the case that the sysplex is in the process of gaining ownership of the coupling facility, or it may be the case that the sysplex decided not to gain ownership of the coupling facility (for example, because takeover was prohibited).

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Issue display command (D XCF,CF,CFNAME=ALL) to obtain the current status of coupling facility gain ownership processing. Examine the log messages for messages related to coupling facility gain ownership processing (messages IXC500I, IXC517I, and IXC518I) to understand why the sysplex did not gain ownership of the coupling facility.

Issue display command (D CF) to obtain the current information regarding coupling facility identification information. Determine if this coupling facility should be defined in the CFRM policy. If this system does not require connectivity to the coupling facility, the channel paths should be configured offline. IBM recommends that coupling facilities not intended to be used by a system should have all channel paths configured offline from that system to the coupling facility.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: See Note 35.

Descriptor code: 3 is the default set by this check. See Note 1.

Reference Documentation:

- *z/OS MVS Setting Up a Sysplex*
- *z/OS MVS System Commands*

IXCH0507I The current XCF cleanup value is set to *value* **seconds. This equals the** *checkowner_or_installation* **specified value.**

Explanation: The check found good XCF cleanup value status.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0508E The current XCF cleanup value is NOT consistent with the *checkowner_or_installation* recommendation.

Explanation: The current XCF cleanup value is set to *value* seconds. This is *higher/lower*than the *checkowner_or_installation* specified value of *parm* seconds.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Issue the `SETXCF COUPLE,CLEANUP=xx` command. Remember to update the CLEANUP() parameter in the COUPLExx member of PARMLIB prior to the next IPL.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS MVS System Commands

IXCH0509I The current XCF Failure Detection Interval is set to *fdi* seconds. This satisfies the *checkowner_or_installation* specification of *parm* seconds.

Explanation: The check found good XCF failure detection interval status.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS MVS Initialization and Tuning Guide

z/OS MVS Initialization and Tuning Reference

IXCH0510E The current XCF Failure Detection Interval is NOT consistent with the *checkowner_or_installation* recommendation.

Explanation: The current XCF Failure Detection Interval is set to *fdi* seconds. This is *higher/lower* than the *checkowner_or_installation* specification of *parm* seconds determined by equation (parameter 1) * (system timeout value) + (parameter 2)

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Adjust system timeout value or the XCF failure detection interval.

To adjust the system timeout value issue `SET EXS=xx` at operating system console. Update the EXSPATxx parmlib member with `SPINTIME=xx`.

To adjust the XCF Falure Detection Interval issue `SETXCF COUPLE,INTERVAL=xx` at the operating system console. Update the COUPLExx parmlib member with `INTERVAL=xx`.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS MVS Initialization and Tuning Guide

z/OS MVS Initialization and Tuning Reference

IXCH0511I Valid parameters for CHECK(IBMXCF,XCF_FDI) are
MULT(mult)
where mult is a decimal value between 1 and 5 inclusive.
INC(inc)
where inc is a decimal value between 0 and 86400 inclusive.

Explanation: The parameters for CHECK(IBMXCF,XCF_FDI) are used to calculate the upper bound for the XCF_FDI check. The upper bound is calculated as UpperBound = (mult*SpinFDI) + inc. See the message IXCH0510E for a complete explanation of the XCF_FDI check and the recommended practice for setting the system failure detection interval.

System action: The system continues processing.

Operator response: N/A

System programmer response: Specify parameters to ensure that the check reports an exception only when the effective FDI is not large enough to prevent the system from being needlessly removed from the sysplex and not small enough to prevent the other systems from being significantly impacted should the system become unresponsive. See message IXCH0510E for a detailed explantion of the XCF_FDI health check and the system effective FDI.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

z/OS MVS Initialization and Tuning Guide

z/OS MVS Initialization and Tuning Reference

IXCH0512I This check is not applicable because coupling facility processors can not be configured as dedicated processors in a VM environment.

Explanation: The check is not applicable in the current environment.

System action: The check is disabled from running on the system.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

IXCH0513I Sysplex Failure Management (SFM) is *state* in the sysplex. This satisfies the *checkowner_or_installation* specification.

Explanation: The check found that SFM status is as required.

In the message text:

state
Indicates whether SFM is in use in the sysplex:

ACTIVE
SFM is active in the sysplex.

INACTIVE
SFM is not active in the sysplex.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0514E The state of Sysplex Failure Management is not consistent with the *checkowner_or_installation* recommendation.

Explanation: Sysplex Failure Management (SFM) is *state* in the sysplex. The *checkowner_or_installation* specification requires that SFM be *parm*.

In the message explanation:

state
Indicates whether SFM is in use in the sysplex:

ACTIVE
SFM is active in the sysplex.

INACTIVE
SFM is not active in the sysplex.

parm
Indicates the desired state of SFM as specified by the check owner or the installation.

ACTIVE
SFM should be active in the sysplex.

INACTIVE
SFM should not be active in the sysplex.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: IBM recommends that an SFM policy be activated to permit automated recovery from system failure. Unless the installation has explicitly decided to run without SFM, activate an SFM policy as follows:

Ensure that an SFM couple data set is available to all systems. If necessary, format primary and alternate couple data sets using the IXCL1DSU format utility, and bring them into service using the SETXCF command:

SETXCF COUPLE,TYPE=SFM,PCOUPLE=(primary data_set_name,pri volser)

SETXCF COUPLE,TYPE=SFM,ACOUPLE=(alternate data_set_name,alt volser)

Define an SFM policy using the IXCMIAPU policy utility, and activate the policy using the SETXCF command:

SETXCF START,POLICY,TYPE=SFM,POLNAME=polname

To run without SFM active, stop the active SFM policy by issuing the command:

SETXCF STOP,POLICY,TYPE=SFM

It is preferred that SFM should be active.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For a discussion of formatting couple data sets, see "Format Utility for Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

For a discussion of activating policies, see "Defining and Activating Policies" in z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF COUPLE command, see "SETXCF Couple Command" in z/OS MVS System Commands.

For the syntax of the SETXCF START command, see "SETXCF Start Command" in z/OS MVS System Commands.

IXCH0515I The Sysplex Failure Management (SFM) policy specifies *sumresponse* for the local system. This is consistent with the *checkowner_or_installation* specification.

Explanation: The SFM policy specification for the action to be taken if the local system becomes status update missing (SUM) is as you want.

In the message text:

sumresponse
The indeterminate status action specification from the SFM policy.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

IXCH0516E The Sysplex Failure Management (SFM) policy specification for the action to be taken if the local system becomes status update missing (SUM) is not consistent with the *checkowner_or_installation* recommendation.

Explanation: CHECK(IBMXCF,XCF_SFM_SUM_ACTION) found an exception.

The SFM policy specifies a SUM response of *policyspec*. The *checkowner_or_installation* specification requires a SUM response of *requiredspec*.

In the message explanation:

policyspec
The indeterminate status action specification from the SFM policy.

requiredspec
The indeterminate status action required by the check owner or installation.

The SFM policy should specify ISOLATETIME(0) to permit SFM to take automatic action to remove an unresponsive system from the sysplex without operator intervention and without undue delay.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Update the existing SFM policy, or define a new one using the administrative data utility IXCMIAPU.

Start the corrected SFM policy by issuing the command:

```
SETXCF START,POLICY,TYPE=SFM,POLNAME=xx
```

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

For a discussion of activating policies, see "Defining and Activating Policies" in z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF START command, see "SETXCF Start Command" in z/OS MVS System Commands.

IXCH0517I Valid parameters for CHECK(IBMXCF,XCF_SFM_SUM_ACTION) are SUMACTION(ISOLATE | DEACTIVATE | RESET | PROMPT) SUMINTERVAL(*isi*) where *isi* is a decimal value between 0 and 86400 inclusive.

Explanation: The parameters for CHECK(IBMXCF,XCF_SFM_SUM_ACTION) correspond to the possible Sysplex Failure Management (SFM) policy specifications that describe the action to be taken if the local system becomes status update missing (SUM). They are defined as follows:

SUMACTION
The action to be taken if the local system becomes SUM.

ISOLATE
The system is to be isolated (fenced) from the channel subsystem.

DEACTIVATE
The logical partition in which the system is defined is to be deactivated.

RESET
The logical partition in which the system is defined is to be reset.

PROMPT
SFM is to prompt the operator to reset the system.

SUMINTERVAL
The maximum acceptable time in seconds that SFM is to wait before taking the specified action. SUMINTERVAL is required when SUMACTION is ISOLATE, DEACTIVATE, or RESET. It is syntax-checked and ignored if specified when SUMACTION is PROMPT. The check will report an exception if the time specified in the SFM policy (ISOLATETIME, DEACTTIME, or RESETTIME) is greater than the value specified by the SUMINTERVAL parameter.

Specify the parameters in an HZSPARM parmlib member or on a MODIFY HZSPROC command. For example,

```
F HZSPROC,UPDATE,CHECK(IBMXCF,XCF_SFM_SUM_ACTION),
   PARM='SUMACTION(ISOLATE),SUMINTERVAL(0)'
```

Parameters correspond to the SFM policy keywords specified on the administrative policy utility IXCMIAPU as follows:

SUMACTION(ISOLATE),SUMINTERVAL(isi)
ISOLATETIME(isi)

SUMACTION(DEACTIVATE),SUMINTERVAL(isi)
DEACTTIME(isi)

SUMACTION(RESET),SUMINTERVAL(isi)
RESETTIME(isi)

SUMACTION(PROMPT)
PROMPT

System action: The system continues processing.

Operator response: N/A

System programmer response: Specify parameters to ensure that the check reports anexception only when the SFM policy does not match the desired SUM behavior. The default parameters are SUMACTION(ISOLATE),SUMINTERVAL(0), corresponding to that the SFM policy specifies automatic isolation with no additional delay.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

For a description of the IXCMIAPU keywords used in defining the SFM policy, see "SFM Parameters for Administrative Data Utility" in z/OS MVS Setting Up a Sysplex.

IXCH0518I The Sysplex Failure Management (SFM) policy specifies *connfail***. This is consistent with the** *checkowner_or_installation* **specification.**

Explanation: The SFM policy specification for the action to be taken if one or more systems lose signaling connectivity is as you want.

In the message text:

connfail
The CONNFAIL specification from the SFM policy.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

IXCH0519E The Sysplex Failure Management (SFM) policy specification for the action to be taken if one or more systems lose signaling connectivity is not consistent with the *checkowner_or_installation* **recommendation.**

Explanation: CHECK(IBMXCF,XCF_SFM_CONNFAIL) found an exception.

The SFM policy specifies *policyspec*. The *checkowner_or_installation* specification requires *requiredspec*.

In the message explanation:

`policyspec`
The CONNFAIL specification from the SFM policy.

`requiredspec`
The CONNFAIL specification required by the check owner or the installation.

The SFM policy should specify CONNFAIL(YES) to permit SFM to reconfigure the sysplex automatically when one or more systems lose signaling connectivity. However, in a GDPS® environment, the policy should specify CONNFAIL(NO) to permit GDPS to take appropriate action.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Update the existing SFM policy, or define a new one using the administrative data utility IXCMIAPU.

Start the corrected SFM policy by issuing the command:

```
SETXCF START,POLICY,TYPE=SFM,POLNAME=xx
```

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

For a discussion of activating policies, see "Defining and Activating Policies" in z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF START command, see "SETXCF Start Command" in z/OS MVS System Commands.

IXCH0520I Valid parameters for CHECK(IBMXCF,XCF_SFM_CONNFAIL) are CONNFAIL(YES | NO)

Explanation: The parameters for CHECK(IBMXCF,XCF_SFM_CONNFAIL) correspond to the possible Sysplex Failure Management (SFM) policy specifications that describe the action to be taken if one or more systems lose signaling connectivity. They are defined as follows:

CONNFAIL
Indicates whether SFM is to take action if one or more systems lose signaling connectivity.

YES
SFM is to partition systems as necessary to form the optimal sysplex based on signaling connectivity conditions and the weights assigned to the individual systems by the SFM policy.

NO SFM is not to reconfigure the sysplex in response to signaling connectivity failures.

Specify the parameters in an HZSPARM parmlib member or on a MODIFY HZSPROC command. For example,

```
F HZSPROC,UPDATE,CHECK(IBMXCF,XCF_SFM_CONNFAIL),
    PARM='CONNFAIL(YES)'
```

Parameters correspond to the SFM policy keywords specified on the administrative policy utility IXCMIAPU.

System action: The system continues processing.

Operator response: N/A

System programmer response: Specify parameters to ensure that the check reports an exception only when the SFM policy does not match the required behavior. The default parameters are CONNFAIL(YES), corresponding to that the SFM policy permits automatic reconfiguration of the sysplex on signaling connectivity failure.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

For a description of the IXCMIAPU keywords used in defining the SFM policy, see "SFM Parameters for Administrative Data Utility" in z/OS MVS Setting Up a Sysplex.

IXCH0521I The Sysplex Failure Management (SFM) policy specifies *ssumlimit* for the local system. This is consistent with the *checkowner_or_installation* specification.

Explanation: The SFM policy specification for the time a system is allowed to remain status update missing (SUM) while still sending signals is as desired.

In the message text:

ssumlimit
The SSUMLIMIT specification from the SFM policy.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

IXCH0522E The Sysplex Failure Management (SFM) policy specification for the time a system is allowed to remain status update missing (SUM) while still sending signals is not consistent with the *checkowner_or_installation* recommendation.

Explanation: CHECK(IBMXCF,XCF_SFM_SSUMLIMIT) found an exception. The system issues this message when the sysplex failure management (SFM) policy specifies NONE or a value larger than the SSUMLIMIT value that the check owner specifies.

The SFM policy specifies *policyspec*. The *checkowner_or_installation* specification requires *requiredspec*.

In the message explanation:

policyspec
The SSUMLIMIT specification from the SFM policy.

requiredspec
The SSUMLIMIT specification required by the check owner or by the installation.

The SFM policy should specify SSUMLIMIT to limit the time a system is permitted to remain status update missing while still sending signals. In this condition, the system is operative to some degreebut is not able to participate in all sysplex functions. Allowing the system to remain in this degraded state indefinitely is likely to cause sympathy sickness and affect overall sysplex performance.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Update the existing SFM policy, or define a new one using the administrative data utility IXCMIAPU.

Start the corrected SFM policy by issuing the command:

```
SETXCF START,POLICY,TYPE=SFM,POLNAME=xx
```

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

For a discussion of activating policies, see "Defining and Activating Policies" in z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF START command, see "SETXCF Start Command" in z/OS MVS System Commands.

IXCH0523I Valid parameters for CHECK(IBMXCF,XCF_SFM_SSUMLIMIT) are SSUMLIMIT(NONE | ssumlimit) where ssumlimit is a decimal value between 0 and 86400 inclusive.

Explanation: The parameters for CHECK(IBMXCF,XCF_SFM_SSUMLIMIT) correspond to the possible Sysplex Failure Management (SFM) policy specifications describing the action to be taken if the local system becomes status update missing (SUM) but is still sending signals. They are defined as follows:

SSUMLIMIT
Specifies the action to be taken if the local system becomes SUM but continues to send signals.

NONE
The system is to be allowed to remain in this degraded state indefinitely. The check reports an exception if the SFM policy does not specify SSUMLIMIT(NONE).

ssumlimit
The maximum acceptable time in seconds that SFM is to allow the system to remain in this degraded state before taking the indeterminate status action specified by the SFM policy. The check will report an exception if the SSUMLIMIT time specified in the SFM policy is greater than the value specified by the SSUMLIMIT check parameter.

Specify the parameters in an HZSPARM parmlib member or on a MODIFY HZSPROC command. For example,

```
F HZSPROC,UPDATE,CHECK(IBMXCF,XCF_SFM_SSUMLIMIT),
   PARM='SSUMLIMIT(60)'
```

System action: The system continues processing.

Operator response: N/A

System programmer response: Specify parameters to ensure that the check reports anexception only when the SFM policy does not match the desired SUM behavior. The default parameters are SSUMLIMIT(60), corresponding to that the SFM policy specifies some limitation on the amount of time a system is to be permitted to continue in the degraded state.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

For a description of the IXCMIAPU keywords used in defining the SFM policy, see "SFM Parameters for Administrative Data Utility" in z/OS MVS Setting Up a Sysplex.

IXCH0525I The System Status Detection (SSD) partitioning protocol is *ssdstate* **for use by XCF on the system. This is consistent with the** *checkowner_or_installation* **specification.**

Explanation: If the SSD partitioning protocol is configured, the system can initiate partitioning of applicable systems using the SSD protocol and can be targeted by other system using the SSD protocol.

In the message text:

ssdstate
The state of the SSD protocol on this system. It can be either configured or not configured.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For a discussion of the partitioning process and the SSD partitioning protocol, see the "Planning Sysplex Availability and Recovery" topic in *z/OS MVS Setting Up a Sysplex*.

IXCH0526E The System Status Detection (SSD) partitioning protocol is not configured for use by XCF on the system. This is inconsistent with the *checkowner_or_installation* specification.

Explanation: CHECK(IBMXCF,XCF_SYSSTATDET_PARTITIONING) found an exception.

The System Status Detection partitioning protocol is not configured for use by XCF on the system.

REASON: *disabledrsn*

The *checkowner_or_installation* specification requires ENABLED(YES).

In the message text:

disabledrsn
The reason that the SSD protocol is disabled on this system. One of the following:

PRIMARY SYSPLEX COUPLE DATA SET NOT FORMATTED TO SUPPORT PROTOCOL
The primary sysplex couple data set was not formatted to support the larger records required by the protocol.

NOT ENABLED BY INSTALLATION
The installation has not enabled the protocol by specifying ENABLE(SYSSTATDETECT) either in the COUPLExx parmlib member FUNCTIONS statement or on a SETXCF OPTIONS command.

IBM suggests that the SSD partitioning protocol be configured to ensure that failed systems are removed from the sysplex expeditiously and with a minimum of operator involvement.

System action: The system continues processing.

Operator response: Report the problem to the system programmer.

System programmer response: In order for the SSD partitioning protocol to be fully functional, the SYSSTATDETECT function must be enabled and the primary sysplex couple data set must be formatted to support the protocol.

If the REASON text is `PRIMARY SYSPLEX COUPLE DATA SET NOT FORMATTED TO SUPPORT PROTOCOL`, format primary and alternate sysplex couple data sets by specifying ITEM NAME(SSTATDET) NUMBER(1) in the input to the IXCL1DSU format utility. Bring the new couple data sets into service with the appropriate sequence of SETXCF COUPLE commands.

If the REASON text is `NOT ENABLED BY INSTALLATION`, issue the SETXCF FUNCTIONS,ENABLE=SYSSTATDETECT command. Update the COUPLExx parmlib member to specify FUNCTIONS ENABLE(SYSSTATDETECT) to preserve the setting for the next IPL.

Problem determination: Issue the DISPLAY XCF,COUPLE command to display the current status of the SYSSTATDETECT function.

Issue the DISPLAY XCF,COUPLE,TYPE=SYSPLEX command to display the current status of the sysplex couple data sets. If a sysplex couple data set was formatted to support the SSD partitioning protocol, the command output shows SYSTEM STATUS DETECTION PROTOCOL IS SUPPORTED for that particular sysplex couple data set.

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For a discussion of the partitioning process and the SSD partitioning protocol, see the "Planning Sysplex Availability and Recovery" topic in *z/OS MVS Setting Up a Sysplex*.

For a discussion of using the couple data set format utility, see the "Format utility for couple data sets" topic in *z/OS MVS Setting Up a Sysplex*.

For the syntax of the SETXCF FUNCTIONS command, see the "SETXCF FUNCTIONS Command" topic in *z/OS MVS System Commands*.

For the syntax of the DISPLAY XCF command, see the "Displaying Cross System Coupling Facility (XCF) Information" topic in *z/OS MVS System Commands*.

IXCH0527I Valid parameters for CHECK(IBMXCF,XCF_SYSSTATDET_PARTITIONING) are ENABLED(YES | NO).

Explanation: The parameters for CHECK(IBMXCF,XCF_SYSSTATDET_PARTITIONING) correspond to the desired state of the System Status Detection (SSD) partitioning protocol. They are defined as follows:

ENABLED
Indicates whether the system is allowed to initiate partitioning of failed systems using the SSD protocol and to be targeted by other systems using the SSD protocol.

YES
The system is allowed to use the SSD protocol to detect and partition a failed system without unnecessary delay and operator involvement. The system can also be targeted by other systems using the SSD protocol.

NO The system is not to target other systems or to be targeted by other systems using the SSD protocol.

System action: The system continues processing.

Operator response: N/A

System programmer response: Specify parameters in an HZSPARM parmlib member or on a MODIFY HZSPROC command to ensure that the check reports an exception only when the SSD protocol is not in the desired state. The default parameters are 'ENABLED(YES)', corresponding to IBM's recommendation that the SSD partitioning protocol be enabled to ensure that failed systems are removed from the sysplex expeditiously and with a minimum of operator involvement.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For a discussion of the partitioning process and the SSD partitioning protocol, see the "Planning Sysplex Availability and Recovery" topic in *z/OS MVS Setting Up a Sysplex*.

IXCH0528I This check is not applicable because BCPii callable services and the System Status Detection (SSD) partitioning protocol are not supported when a z/OS image is running as a guest under VM.

Explanation: The check is not applicable in the current environment.

System action: The check is disabled from running on the system.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

IXCH0529E The System Status Detection (SSD) partitioning protocol is configured for use by XCF on the system. This is inconsistent with the *checkowner_or_installation* specification.

Explanation: CHECK(IBMXCF,XCF_SYSSTATDET_PARTITIONING) found an exception.

The System Status Detection partitioning protocol is configured for use by XCF on the system.

The installation specification requires ENABLED(NO).

IBM suggests that the SSD partitioning protocol be configured to ensure that failed systems are removed from the sysplex expeditiously and with a minimum of operator involvement.

System action: The system continues processing.

Operator response: Report the problem to the system programmer.

System programmer response: To update the check parameter to ENABLED(YES), specify ENABLED(YES) in an HZSPARM parmlib member or on a MODIFY HZSPROC command, e.g., F HZSPROC,UPDATE,CHECK(IBMXCF,XCF_SYSSTATDET_PARTITIONING), PARM='ENABLED(YES)'

To disable the System Status Detection partitioning protocol, issue the SETXCF FUNCTIONS,DISABLE=SYSSTATDETECT command. Update the COUPLExx parmlib member to specify FUNCTIONS DISABLE(SYSSTATDETECT) to preserve the setting for the next IPL.

Problem determination: Issue the DISPLAY XCF,COUPLE command to display the current status of the SYSSTATDETECT function.

Issue the DISPLAY XCF,COUPLE,TYPE=SYSPLEX command to display the current status of the sysplex couple data sets. If a sysplex couple data set was formatted to support the SSD partitioning protocol, the command output shows SYSTEM STATUS DETECTION PROTOCOL IS SUPPORTED for that particular sysplex couple data set.

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For a discussion of the partitioning process and the SSD partitioning protocol, see the "Planning Sysplex Availability and Recovery" topic in *z/OS MVS Setting Up a Sysplex*.

For the syntax of the SETXCF FUNCTIONS command, see the "SETXCF FUNCTIONS Command" topic in *z/OS MVS System Commands*.

For the syntax of the DISPLAY XCF command, see the "Displaying Cross System Coupling Facility (XCF) Information" topic in *z/OS MVS System Commands*.

IXCH0530I The Sysplex Failure Management (SFM) policy specifies *cfstrhangtime* for the local system. This is consistent with the *checkowner_or_installation* specification.

Explanation: The SFM policy specification for the maximum time an event response from a coupling facility (CF) structure connector is allowed to remain overdue is as expected.

In the message text:

cfstrhangtime
The CFSTRHANGTIME specification from the SFM policy.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For a discussion of considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

IXCH0531E The Sysplex Failure Management (SFM) policy specification for the time a connector response to a coupling facility (CF) structure-related event is allowed to remain overdue is not consistent with the *checkowner_or_installation* recommendation.

Explanation: CHECK(IBMXCF,XCF_SFM_CFSTRHANGTIME) found an exception.

The SFM policy specifies *policyspec*. The *checkowner_or_installation* specification requires *requiredspec*.

In the message explanation:

policyspec
The CFSTRHANGTIME specification from the SFM policy.

requiredspec
The CFSTRHANGTIME specification required by the check owner or the installation.

IBM recommends that the SFM policy specify CFSTRHANGTIME to limit the time a required connector response is allowed to remain overdue. Failure to provide a required response to a structure-related event is likely to cause sympathy sickness and affect overall sysplex performance.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Update the existing SFM policy or define a new one using the administrative data utility IXCMIAPU.

Start the corrected SFM policy by issuing the following command:

```
SETXCF START,POLICY,TYPE=SFM,POLNAME=xx
```

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For a discussion of considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

For a discussion of activating policies, see "Defining and Activating Policies" in z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF START command, see "SETXCF Start Command" in z/OS MVS System Commands.

IXCH0532I Valid parameters for CHECK(IBMXCF,XCF_SFM_CFSTRHANGTIME) are CFSTRHANGTIME(NO | *cfstrhangtime*) where *cfstrhangtime* is a decimal value between 0 and 1800 inclusive.

Explanation: The parameters for CHECK(IBMXCF,XCF_SFM_CFSTRHANGTIME) correspond to the possible Sysplex Failure Management (SFM) policy specifications describing the action to be taken if a coupling facility (CF) structure connector fails to provide an expected response. They are defined as follows:

CFSTRHANGTIME
Specifies the action to be taken if a CF structure connector fails to provide an expected response.

NO The system is not to take automatic action to resolve the hang caused by the outstanding response. The check reports an exception if the SFM policy does not specify or default to CFSTRHANGTIME(NO).

cfstrhangtime
The maximum acceptable time in seconds that a connector's response is allowed to remain overdue (after message IXL040E or IXL041E has been issued) before the system acts to relieve the hang. The check will report an exception if the CFSTRHANGTIME value specified in the SFM policy is greater than the value specified by the CFSTRHANGTIME check parameter, or if the SFM policy specifies or defaults to CFSTRHANGTIME(NO).

Specify the parameters in an HZSPARM parmlib member or on a MODIFY HZSPROC command, for example:

```
F HZSPROC,UPDATE,CHECK(IBMXCF,XCF_SFM_CFSTRHANGTIME),
    PARM='CFSTRHANGTIME(300)'
```

System action: The system continues processing.

Operator response: N/A

System programmer response: Specify parameters to ensure that the check reports an exception only when the SFM policy does not match the desired hang termination behavior. The default parameters are 'CFSTRHANGTIME(300)', selected so that the SFM policy specifies some limitation on the amount of time a CF structure-related process can remain hung due to an overdue connector response, yet provide the installation an opportunity to take manual action if desired.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: For a discussion of considerations in establishing the SFM policy, see "Controlling System Availability and Recovery through the SFM Policy" in z/OS MVS Setting Up a Sysplex.

For a description of the IXCMIAPU keywords used in defining the SFM policy, see "SFM Parameters for Administrative Data Utility" in z/OS MVS Setting Up a Sysplex.

IXCH0533I Valid parameters for CHECK(IBMXCF,XCF_CF_SCM_UTILIZATION) are:
SCM_NONE(xx%) or abbreviated as SCM_N(xx%)
SCM_LOW (xx%) or abbreviated as SCM_L(xx%)
SCM_MED (xx%) or abbreviated as SCM_M(xx%)
SCM_HIGH(xx%) or abbreviated as SCM_H(xx%)
where xx is a percent value in the range of 1-100. At least one parameter must be provided. Each parameter corresponds to the severity level that will be reported for the check when the usage of storage-class memory by the structures in a coupling facility exceeds the specified percentage of total storage-class memory eligible to be used by the coupling facility structure.
Note: The percent sign (%) is optional.

Explanation: The parameters for CHECK(IBMXCF,XCF_CF_SCM_UTILIZATION) specify the storage-class memory utilization thresholds that the check uses when raising an exception for the check. At least one threshold parameter must be specified and up to four threshold parameters may be specified that correspond with check exception severity levels. The defined parameters are as follows:

In the message text:

SCM_NONE(xx%) | SCM_N(xx%)
Specifies the storage-class memory (SCM) percent utilization threshold to use when raising a check exception with a severity of NONE when the usage of storage-class memory by the structures in a coupling facility exceeds the specified percentage (xx%) of total storage-class memory available to the coupling facility.

SCM_LOW(xx%) | SCM_L(xx%)
Specifies the storage-class memory (SCM) percent utilization threshold to use when raising a check exception with a severity of LOW when the usage of storage-class memory by the structures in a coupling facility exceeds the specified percentage (xx%) of total storage-class memory available to the coupling facility.

SCM_MED(xx%) | SCM_M(xx%)
Specifies the storage-class memory (SCM) percent utilization threshold to use when raising a check exception with a severity of MEDIUM when the usage of storage-class memory by the structures in a coupling facility exceeds the specified percentage (xx%) of total storage-class memory available to the coupling facility.

SCM_HIGH(xx%) | SCM_H(xx%)
Specifies the storage-class memory (SCM) percent utilization threshold to use when raising a check exception with a severity of HIGH when the usage of storage-class memory by the structures in a coupling facility exceeds the specified percentage (xx%) of total storage-class memory available to the coupling facility.

System action: The system continues processing.

Operator response: N/A

System programmer response: Specify parameters to ensure that the check reports an appropriate exception severity when the usage of storage-class memory by structures in a coupling facility exceeds a specified percentage of available storage-class memory in the coupling facility. The default PARM value is 'SCM_MED(80)'.

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

IXCH0601I The sysplex couple data set provides adequate room for growth.

Explanation: The sysplex couple data set is formatted with sufficient capacity to permit future growth of the sysplex. Message IXCH0911I identifies the monitored attributes and their values.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: z/OS MVS Setting Up a Sysplex

IXCH0602E The sysplex couple data set has insufficient room for growth.

Explanation: One or more formatted attributes of the sysplex couple data set might constrain future growth of the sysplex. Message IXCH0911I identifies the limiting factors.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Format a larger sysplex couple data set by running the format utility IXCL1DSU with appropriate parameters. Bring the newly-formatted couple data set into service using a sequence of SETXCF COUPLE commands.

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: See note 35.

Descriptor code: 3 is the default set by this check. See note 1.

Reference Documentation: For a discussion of formatting couple data sets, see "Format Utility for Couple Data Sets" in z/OS MVS Setting Up a Sysplex.

For the syntax of the SETXCF COUPLE command, see "SETXCF Couple Command" in z/OS MVS System Commands.

IXCH0901I Transport classes that do not service group 'UNDESIG'.
CLASS NAME = The transport class name that does not service 'UNDESIG'.
CLASS
NAME

Explanation: Displays transport classes that do not service group UNDESIG.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

IXCH0902I Transport classes that do not have at least the *checkowner_or_installation* **specified value of** *check parm* **signaling paths assigned to the indicated systems.**
text

Explanation: Where *text* is:

```
CLASS NAME   = The Name of the transport class.
OTHER SYSTEM = The name of the connected system that contains less paths for the indicated
  transport class than needed to satisfy the check.
#PATHS FOUND = The inadequate number of paths that were found from this system to "OTHER SYSTEM".

CLASS OTHER  #PATHS
NAME  SYSTEM  FOUND
----- ------ ------
```

Displays transport classes that do not have at least the installation defined or default number of signaling paths defined.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

IXCH0903I Number of operational paths that are less than the *checkowner_or_installation* **specified value of** *parm*.
text

Explanation: Where *text* is:

```
PATH DIRECTION = The direction that has inadequate paths.
OTHER SYSTEM   = The name of the connected system that has less than the number of paths needed
   to satisfy the check.
#PATHS FOUND = The number of paths found from this system to "OTHER SYSTEM".

PATH      OTHER  #PATHS
DIRECTION SYSTEM  FOUND
--------- ------  ------
```

Displays the number of operational paths that are less than the installation defined or default value of paths.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

IXCH0904I MAXMSG values that are less than the *checkowner_or_installation* **specified value of** *parm*.
text

Explanation: Where *text* is:

```
MAXMSG VALUE = The value of the current MAXMSG value.
TYPE         = An indicator of where the MAXMSG value was found "COUPLE"/"CLASSDEF"/"PATHIN"/"PATHOUT".
NAME         = This differs depending on the type.
   COUPLE    = "N/A"
   CLASSDEF  = The classname where MAXMSG is defined.
   PATHIN/PATHOUT = The device number (CTCs) or the structure name (STRs).

MAXMSG
VALUE   TYPE NAME
------  ---- ----
```

Displays the MAXMSG values that are less than the installation or default level.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

IXCH0905I Information needed to adjust the MAXMSG value.
text

Explanation: Where *text* is:

```
The following is a context description of the information:

PATHIN (PATHIN TYPE-NAME) is recieving (MESSAGE SIZE) byte messages from system (OTHER SYSTEM)
at the time of the check. With a MAXMSG value of (CURR. MAXMSG) this inbound path can receive
at most (MESSAGES SUPPORTED) messages at a time, which is less than the checkowner_or_installation
specified minimum of parm.

PATHIN TYPE-NAME   = The type (CTC/STR)-(DEVICE#/STRUCTURE NAME).
MESSAGE SIZE       = The size in bytes of the longest message that the path can currently receive.
OTHER SYSTEM       = The name of the connected system.
CURR MAXMSG        = The current MAXMSG value.
MESSAGES SUPPORTED = The number of messages currently supported.
SUGG. MAXMSG       = The check suggested MAXMSG value.
```

```
PATHIN    MESSAGE OTHER  CURR.  MESSAGES  SUGG.
TYPE-NAME SIZE    SYSTEM MAXMSG SUPPORTED MAXMSG
--------- ------- ------ ------ --------- ------
```

Displays the information needed to adjust the MAXMSG value to an appropriate level.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

IXCH0906I Single points of failure in signaling.
text

Explanation: Where *text* is:

```
PATH DIRECTION = The direction of the path PATHIN/PATHOUT.
OTHER SYSTEM   = The name of the system the path is connected to.
RESOURCE TYPE  = The type of resource that is the single point of failure. ex. "CF"
RESOURCE NAME  = The name of the "RESOURCE TYPE".

NOTE: If there is only 1 path there can be no separation. Therefore if only 1 path is
   found it will receive the 'N/A ONLY 1 PATH' message.

PATH      OTHER    RESOURCE RESOURCE
DIRECTION SYSTEM   TYPE     NAME
--------- -------- -------- --------

dir       sysname  rtype    rname
dir2      sysname2 N/A ONLY 1 PATH
...
```

This is a report for CHECK(IBMXCF,XCF_SIG_PATH_SEPARATION). It lists single points of failure in this system's XCF signaling configuration.

In the report:

dir
Resolves to PATHIN or PATHOUT.

sysname
Resolves to the name of the system to which the path is connected.

rtype
Resolves to CF when the connection is composed of multiple signaling structure paths in a single CF. Resolves to CEC when the connection is composed of multiple signaling structure paths in multiple coupling facilities but on a single CEC.

rname
When the resource type is CF, resolves to the name of the coupling facility in which the signaling structures are allocated. When the resource type is CEC, resolves to the name of the CEC (type.mfg.plant.sequence) in which the signaling structure are allocated.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: See IXCH0443E.

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0443E.

IXCH0907I Describes couple data set configurations.
text

Explanation: Where *text* is:

```
CDS Type      = The type of couple data set, ex. "CFRM" or "SYSPLEX".
Use           = The word PRI or ALT to indicate the primary or alternate couple data set respectively.
Volser        = The volume serial on which the couple data set resides.
Unit          = The device number of the unit associated with the volume on which the couple data set
   resides.
Data Set Name = The couple data set name.

An @ preceding the CDS TYPE indicates that the check was not performed for that type, either because it is
   not in use on this system or because the couple data set configuration was changing at the time of the
   check. In this case, the unit information may be obsolete or appear as 'N/A'.

CDS
Type Use Volser Unit Data Set Name
---- ---------- ---- -------------------------------------------
type use volser unit dsname
...
```

This message displays information needed to find couple data set points of failure.

In the report:

type
The type of data contained in the couple data set.

use
The word PRI or ALT to indicate the primary or alternate couple data set respectively.

volser
The volume on which the couple data set resides.

unit
The unit on which the couple data set resides.

dsname
The name of the couple data set.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

IXCH0908I Coupling facilities in the CFRM active policy and any missing connectivity to active systems are summarized by the following report:
text

Explanation: Where *text* is:

```
CF Name Coupling Facility Systems NOT Connected
------- ------------------------------------------------------

cfname  type.mfg.plant.sequence   system01 system02 system03
        PARTITION: pp  CPCID: cc  system04 system05 system06
                                  system07 system08 system09
...

cfname2 type2.mfg2.plant2.sequence2
        PARTITION: p2  CPCID: c2
...
```

This is a report for CHECK(IBMXCF,XCF_CF_SYSPLEX_CONNECTIVITY). All coupling facilities in the CFRM active policy are listed. The Systems NOT Connected column is blank for a coupling facility when it is connected to all active systems in the sysplex.

In the report:

cfname
Resolves to the name of a coupling facility in the CFRM active policy.

type
Resolves to the coupling facility node machine type from the CFRM active policy.

mfg
Resolves to the coupling facility node manufacturer identifier from the CFRM active policy.

plant
Resolves to the coupling facility node manufacturer plant code from the CFRM active policy.

sequence
Resolves to the coupling facility node sequence/serial number from the CFRM active policy.

pp Resolves to the coupling facility node LPAR number from the CFRM active policy.

cc Resolves to the coupling facility node central processor complex (CPC) identifier from the CFRM active policy.

systemxx
Resolves to the name of an active system in the sysplex that is not connected to the coupling facility.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: See IXCH0220E.

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0220E.

IXCH0909I Active systems in the sysplex
system01 system02 system03 system04 system05 system06 system07 system08
...

Explanation: This is a report for CHECK(IBMXCF,XCF_CF_SYSPLEX_CONNECTIVITY). The names of all active systems in the sysplex are listed.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: See IXCH0220E.

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0220E.

IXCH0910I Coupling facility structure non-volatility and failure-isolation from connectors is summarized by the following report:
text

Explanation: Where *text* is:

```
An asterisk (*) before a structure name indicates a structure that does not satisfy a user request for
non-volatility and failure isolation from connectors. A connection name and/or the coupling facility
name(s) will also have an asterisk to indicate the unsatisfied condition(s).

An asterisk (*) or a dash (-) before a coupling facility name (CfName1 and/or CfName2) indicates a
structure instance allocated in a volatile coupling facility. A dash is used when non-volatility is
satisfied by the duplexed structure instance in the other coupling facility.

An asterisk (*) before a connection name indicates a connector that is not failure-isolated from the
structure instance(s). Iso1 and/or Iso2 will be "No" - indicating the connector's lack of
failure-isolation from CfName1 and/or CfName2 respectively.

Structure Name   CfName1  CfName2  Connection Name Req Iso1 Iso2
--------------   -------  -------  --------------- --- ---- ----
*strname1        *cfname1 *cfname2 conname1        Yes  Yes  Yes
*strname2         cfname3          *conname2       Yes  No
```

This is a report for CHECK(IBMXCF,XCF_CF_STR_NONVOLATILE). When VERBOSE=NO is used when the check is run, only structures that do not satisfy a user request for non-volatility andfailure-isolation from connectors are listed.When VERBOSE=YES is used when the check is run, all allocated structures are listed.

In the report:

Structure Name
The name of a coupling facility structure.

CfName1
The name of a coupling facility in which an instance of the structure is allocated.

CfName2
The name of a coupling facility in which an instance of the duplexed structure is allocated. Blank when the structure is not duplexed.

Connection Name
The name of a connection to the structure. Multiple connection names might be listed for a single structure. Blank when no connections exist - the structure is persistent.

Req
Connection specification for NonVolReq. Yes indicates the user connected with NonVolReq=YES. No indicates the user connected with NonVolReq=NO. N/A indicates the connection is failed-persistent and has been reconciled into the CFRM active policy.

Iso1
Connection failure-isolation from CfName1. Yes indicates the connector is failure-isolated from the coupling

facilitiy identified by CfName1. No indicates the connector is not failure-isolated from the coupling facilitiy identified by CfName1. N/A indicates the connection is failed-persistent.

Iso2
Connection failure-isolation from CfName2. Yes indicates the connector is failure-isolated from the coupling facilitiy identified by CfName2. No indicates the connector is not failure-isolated from the coupling facilitiy identified by CfName2. N/A indicates the connection is failed-persistent. Blank when the structure is not duplexed.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: See IXCH0222E.

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0222E.

IXCH0911I This report summarizes attributes of the sysplex couple data set and identifies those which may constrain future growth, if any.
text

Explanation: Where *text* is:

```
An asterisk in the first column indicates a limiting attribute. An attribute is considered limiting if
the peak value exceeds the threshold value.

The threshold value is calculated by subtracting the owner- or installation-supplied growth space
from the maximum value.

For the SYSTEMS attribute, the "Peak Value" column represents the number of systems currently
active in the sysplex.


Attribute Peak Value Threshold Max Value
--------- ---------- --------- ---------
attr      peak       threshold max
...
```

This is a report for CHECK(IBMXCF,XCF_SYSPLEX_CDS_CAPACITY).

In the report:

attr
The couple data set attribute being described. It is one of these:

SYSTEMS
The number of systems for which the couple data set was formatted. The SYSTEMS attribute is not checked when the sysplex is in monoplex mode.

GROUPS
The number of XCF groups for which the couple data set was formatted.

MEMBERS
The number of members per XCF group for which the couple data set was formatted.

peak
The peak number (high-water mark) observed as of the time of the check. (For the SYSTEMS attribute, this column represents the number of systems currently active in the sysplex.)

threshold
The maximum number that still provides sufficient room for future growth. If the attribute's peak value exceeds the threshold, it might indicate that the sysplex is approaching the point where future operations might be precluded by the formatted limits of the couple data set.

max
The maximum number for which the primary sysplex couple data set was formatted.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: See IXCH0602E.

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0602E.

IXCH0912I This report summarizes the processor configuration for coupling facilities in use by the local system. *text*

Explanation: Where *text* is:

```
| CFNAME                 = The coupling facility name.
| Processor Configuration = The configuration of dedicated and shared processors for the coupling facility.
| DynDisp                = Specifies whether or not dynamic CF dispatching is active for the CF. When
|    dynamic CF dispatching is active, a timer driven polling for command dispatching is used; when it is
|    not active, a continuous polling is used. A status of THIN indicates that coupling thin interrupt
|    processing is used by the coupling facility to initiate more timely dispatching. N/A indicates that
|    dynamic dispatching is not available on the coupling facility.
| Check Results          = The check result for the individual coupling facility
|
| An asterisk (*) before a Check Result for a coupling facility indicates that at least
|    one dedicated processor is in the coupling facility configuration, but the number
|    of shared processors is unknown.
|
|                                                                                  Check
| CFNAME     Processor Configuration             DynDisp   Results
| -------    ----------------------------------  -------   -------
| cfname     processor_information               dyndisp   results
```

Displays the processor configuration attributes for coupling facilities in use by the local system.

In the report:

cfname
The name of the coupling facility processed by the check.

processor_information
The processor configuration of the coupling facility. One of the following lines is displayed:

ONLY SHARED PROCESSORS
All processors in the coupling facility are defined to be shared. This line is displayed only for coupling facilities whose architected function level is lower than CFLEVEL15.

ONE OR MORE DEDICATED PROCESSORS
One or more processors in the coupling facility is defined to be dedicated. An asterisk (*) before a Check Result for this processor configuration indicates that at least one dedicated processor is in the coupling facility configuration, but the number of shared processors is unknown. This line is displayed only for coupling facilities whose architected function level is lower than CFLEVEL15.

num1 **SHARED AND** *num2* **DEDICATED PROCESSORS**
The number of shared and dedicated processors in the coupling facility. This line is displayed only for coupling facilities whose architected function level is CFLEVEL15 or above.

num1
The number of shared processors in the coupling facility.

num2
The number of dedicated processors in the coupling facility.

dyndisp
Whether dynamic coupling facility dispatching is active or not.

YES
Dynamic coupling facility dispatching is active. When dynamic CF dispatching is active, a timer driven polling for command dispatching is used.

NO Dynamic coupling facility dispatching is not active. When dynamic CF dispatching is not active, continuous polling is used for command dispatching.

THIN
Dynamic coupling facility dispatching is not active, but dispatching based on coupling thin interrupt processing is enabled for the coupling facility.

results
The results of the check for a coupling facility. The check uses architected facility level configuration data available from the coupling facility to determine whether a coupling facility meets the check requirements. It is one of the following:

SUCCESSFUL
For the CFLEVEL of the coupling facility, the processor configuration meets the check requirement. Coupling facilities whose architected function level is lower than CFLEVEL15 will have a check result of SUCCESSFUL if the processor configuration is made up of at least one dedicated processor. Coupling facilities whose architected function level is CFLEVEL15 through CFLEVEL18 inclusive will have a check result of SUCCESSFUL if the processor configuration is made up of all dedicated processors. Coupling facilities whose architected function level is CFLEVEL19 or above will have a check result of SUCCESSFUL if the processor configuration is made up of all dedicated processors or coupling thin interrupt processing is enabled on the coupling facility.

EXCEPTION
For the CFLEVEL of the coupling facility, the processor configuration does not meet the check requirement. The overall status of the check is EXCEPTION. The installation may wish to exclude coupling facilities from the check that are running in "test" mode or are not production coupling facilities without dedicated processors. Coupling facilities whose architected function level is lower than CFLEVEL15 will have a check result of EXCEPTION if the processor configuration is made up of all shared processors. Coupling facilities whose architected function level is CFLEVEL15 through CFLEVEL18 inclusive will have a check result of EXCEPTION if the processor configuration is not made up of all dedicated processors. Coupling facilities whose architected function level is CFLEVEL19 or above will have a check result of EXCEPTION if the processor configuration is made up of shared processors and coupling thin interrupt processing is not enabled.

EXCLUDED
The coupling facility was listed on the EXCLUDE parameter. The coupling facility processor configuration is not considered in the overall status for the check.

System action: The system continues processing.

Operator response: N/A

System programmer response: See IXCH0444E.

Problem determination: See IXCH0444E.

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0444E.

IXCH0913I This report lists function couple data sets whose primary MAXSYSTEM values are less than the MAXSYSTEM value associated with the primary sysplex couple data set.
text

Explanation: Where *text* is:

```
The MAXSYSTEM value associated with the primary sysplex couple data set is maxsys.

MAX
CDS type Use SYSTEM VOLSER Data Set Name
-------- --- ------ ------ -------------------------------------
cds_type use maxsys volser dsname
...
```

This is a report for CHECK(IBMXCF,XCF_CDS_MAXSYSTEM).

In the report:

cds_type
The type of couple data set, for example, CFRM or SYSPLEX

use
The word PRI or ALT to indicate the primary or alternate couple data set respectively.

max_sys
The MAXSYSTEM value associated with the couple data set.

volser
The DASD volume where the data set resides.

dsname
The couple data set name.

System action: The system continues processing.

Operator response: N/A

System programmer response: See IXCH0401E.

Problem determination: See IXCH0401E.

Source: Parallel Sysplex (XCF)

Module: IXCHCCPL

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0401E.

IXCH0914I This report summarizes the coupling facility memory utilization for CHECK(XCF_CF_MEMORY_UTILIZATION).
text

Explanation: Where *text* is:

```
CFNAME               = The coupling facility name.
MEMORY UTILIZATION   = The current memory utilization for the coupling facility. Current memory
   utilization is determined by the amount of space allocated for structures in the coupling facility
   and the amount of space reserved for dumping structures allocated in the coupling facility.
TOTAL SPACE          = Total amount of storage available in a coupling facility.
UTILIZATION EXCEEDED = Whether the coupling facility memory utilization exceeds the defined maximum
   memory utilization percentage for the check.

         MEMORY         TOTAL         UTILIZATION
```

```
CFNAME    UTILIZATION    SPACE         EXCEEDED
------    -----------    -----------   -----------
cfname    utilization    total space   yes/no
...
```

This is a report for CHECK(IBMXCF,XCF_CF_MEMORY_UTILIZATION) that displays the memory utilization percentage for coupling facilities managed by the local system and whether the current memory usage exceeds the defined maximum memory utilization for the check.

In the report:

cfname
The name of the coupling facility processed by the check.

utilization
The percentage of space in the coupling facility currently being used. Space used in the coupling facility is determined by the amount of space allocated for structures in the coupling facility and the amount of space reserved for dumping structures allocated in the coupling facility.

total space
The total amount of coupling facility space expressed in units of kilobytes (K), megabytes (M), gigabytes (G), or terabytes (T).

yes/no
Whether the current memory usage of the coupling facility exceeds the defined maximum memory utilization for the check. It is one of the following:

YES
The current memory usage of the coupling facility exceeds the defined maximum memory utilization for the check.

NO The current memory usage of the coupling facility is below the defined maximum memory utilization for the check.

System action: The system continues processing.

Operator response: N/A

System programmer response: See IXCH0456E.

Problem determination: Exception message IXCH0456E is present in the message buffer when the check finds a coupling facility's memory utilization exceeding the defined maximum memory utilization for the check.

Source: Parallel Sysplex (XCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0456E.

IXCH0915I This report summarizes the attributes of all signaling structures in use by XCF and identifies those which are too small to support the sysplex configuration, if any:
text

Explanation: Where *text* is:

```
Structure List
Structure Name    CF Name   Size     Lists    Entries
---------------   --------  -------  ------   ---------
structurename     cfname    strsize  lists    les
...
```

This is a report for CHECK(IBMXCF,XCF_SIG_STR_SIZE) that displays all signaling structures in use by XCF. Each structure is identified by structure name and the name of the coupling facility in which it is allocated. If a rebuild is in progress for a signaling structure, it will be allocated in two coupling facilities until the rebuild process completes. Both instances are reported for this case.

In the report:

structurename
The name of a signaling list structure in use by XCF.

cfname
The name of the coupling facility in which the structure is allocated.

strsize
The size, in 1K blocks, of the structure.

lists
The number of lists (in decimal) allocated in the structure.

les
The number (in decimal) of list entries allocated in the structure.

If a signaling structure fails this check, then an asterisk (*) appears in column 1 (preceeding StructureName). In addition, an asterisk will follow the Lists and/or the LEs values, indicating those which are too small to meet the check's criteria.

If SYSTEMS(ACTIVE) is in effect and a structure passes this check currently but will fail if the maximum number of systems join the sysplex, then a dash (-) appears in column 1 (preceeding SturctureName). In addition, an asterisk will follow the Lists and/or the LEs values, indicating those which are too small to support the maximum number of systems that could join the sysplex.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Parallel Sysplex (XCF)

Module: IXCHCSIG

Routing code: N/A

Descriptor code: N/A

IXCH0920I Lists allocated structures with DUPLEX value of ENABLED or ALLOWED that are currently not duplexed.
text

Explanation: Where *text* is:

```
NOTE: When the check is run in verbose mode, all allocated structures with DUPLEX
   value of ALLOWED or ENABLED are listed. The structures that are duplexed are
   listed after any that are currently not duplexed.

Structure name      DUPLEX value    Status
----------------    ------------    ------------------------------
structure_name      duplex_value    status
structure_name      duplex_value    status
```

CHECK(IBMXCF,XCF_CF_STR_DUPLEX) found CF structure(s) with DUPLEX value of ALLOWED or ENABLED but the structure is not duplexed.

A structure should be duplexed whenever the CFRM active policy DUPLEX value is ALLOWED or ENABLED.

The check writes the list to the message buffer when an exception is discovered (see message IXCH0210E) or when the check is run in verbose mode. When the check is run in verbose mode, all allocated structures with DUPLEX value of ALLOWED or ENABLED are listed. The structures that are duplexed are listed after any that are currently not duplexed.

In the message text:

structure_name
The name of the CF structure.

duplex_value
The DUPLEX value from the CFRM active policy. The value is one of the following:

- ALLOWED
- ENABLED

status
Current® status of the structure. The status is one of the following:

Rebuilding
The structure rebuild process type is rebuild.

Rebuild stopping
The structure rebuild process type is rebuild. The process is being stopped.

Duplexing rebuild
The structure rebuild process type is duplexing rebuild.

Duplexing rebuild stopping
The structure rebuild process type is duplexing rebuild. The process is being stopped to fall back to the old instance.

Duplexing rebuild switching
The structure rebuild process type is duplexing rebuild. The process is being stopped to switch to the new instance.

Duplexed
The structure is allocated and duplexed. (Duplexed structures are listed only when the checkis run in verbose mode.)

Simplex
The structure is allocated with only one instance.

Exception message IXCH0210E follows in the message buffer when the check finds structures that are not duplexed and the DUPLEX value is ALLOWED or ENABLED.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: See IXCH0210E.

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0210E.

IXCH0921I Lists structures which have an availability problem based on evaluation of the structure's preference list.
text

Explanation: Where *text* is:

```
When the structure does not have a policy change pending, the check uses
   the preference list from the active policy (ACTIVE). When the structure
   has a policy change pending, the check uses the preference list from
   the pending policy (PENDING).

An asterisk (*) before the coupling facility name from the preference
   list indicates that the coupling facility is not usable for structure
   allocation.
```

```
NOTE: When the check is run in verbose mode, all defined structures are
   listed. The structures that do not have an availability problem are
   listed after any that have an availability problem.


Structure name    PREFLIST used    PREFLIST (preference list)
   (evaluation result)
--------------    -------------    ------------------------------
structure_name    preflist_used    cfname_1 *cfname_2 *cfname_3
   (evaluation result)

structure_name    preflist_used    *cfname_1 cfname_2 *cfname_3
                                   *cfname_4 *cfname_5 *cfname_6
                                   *cfname_7 *cfname_8
   (evaluation result)
```

CHECK(IBMXCF,XCF_CF_STR_AVAILABILITY) found CF structure(s) with a preference list that could limit availability of the structure.

A structure's preference list should have at least two coupling facilities located in different CECs with each usable for structure allocation. To be usable for structure allocation, the coupling facility must have at least one system connected and have allocation permitted.

The check writes the list to the message buffer when an exception is discovered (see message IXCH0212E) or when the check is run in verbose mode. When the check is run in verbose mode, all structures defined in the CFRM active policy are listed.The structures without an availability problem are listedafter any that currently have an availability problem.

In the message text:

structure_name
The name of the CF structure.

preflist_used
Identifies which preference list was used for evaluation.

- ACTIVE - the PREFLIST information is from the active policy.
- PENDING - the PREFLIST information is from the pending policy.

cfname
The name of the coupling facility in the preference list.

- An asterisk (*) in front of the coupling facility name indicates that the coupling facility is not usable for structure allocation. To be usable for structure allocation, the coupling facility must be defined in the CFRM active policy and permit structure allocation with at least one system connected.
- When the coupling facility name is all asterisks (*********), then the preference list is empty. The preference list can be empty when a persistent CF structure was reconciled into the CFRM active policy that did not have a definition for the named structure.
- Up to three coupling facility names are listed per line.

(evaluation_result)
The result of the evaluating the structure's preference list is one of the following:

--------- (Preference list passed checks) ---------
The checked preference list has at least two coupling facilities that are usable for structure allocation and are on different CECs. Structures with this evaluation result are shown only when the check is run in verbose mode. Theevaluation result is shown once before the structures are listed. Each structure listed does not have an evaluationresult shown.

(Preference list has only 1 CF)
The checked preference list has only one coupling facility.

(Preference list does not have at least 2 usable CFs)
The checked preference list does not have at least two coupling facilities that are usable for structure allocation.

(Preference list does not have 2 usable CFs each on different CECs)
The checked preference list does not have at least two coupling facilities that are usable for structure allocation and are on different CECs.

Exception message IXCH0212E follows in the message buffer when the check finds structures with availability problem.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: See IXCH0212E.

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0212E.

IXCH0923I Coupling facility structure policy sizing is summarized by the following report:
text

Explanation: Where *text* is:

```
An asterisk (*) before a structure name indicates an exception condition. When the qualification is
"Alter not allowed", an exception condition is when INITSIZE is specified not equal to SIZE.
Otherwise an exception condition is when INITSIZE is less than half of SIZE.

Structure Name   INITSIZE    Max  SIZE    Alter  Qualification
--------------   ----------  ---------    ----------------------
[*]strname       [initsize]  [size]       alterqual
```

This is a report for CHECK(IBMXCF,XCF_CF_STR_POLICYSIZE). When VERBOSE=NO is used when the check is run, only structures that have SIZE too large compared to INITSIZE are listed. When VERBOSE=YES is used when the check is run, all defined structures are listed.

In the report:

strname
The name of a coupling facility structure.

initsize
The INITSIZE specified in the CFRM policy, or blank if not specified.

size
The SIZE specified in the CFRM policy, or blank if reconciled.

alterqual
One of the following:

Alter not allowed
At least one connection did not specify IXLCONN ALLOWALTER=YES. Alter is not supported for this structure, so INITSIZE should not be specified in the policy.

Alter supported
All connections specified IXLCONN ALLOWALTER=YES. Alter is supported for the structure, so INITSIZE can be specified in the policy as small as half of SIZE.

No connections defined
Alter is currently not prevented by the users, but support for alter cannot be determined at this time.

Larger CFRM CDS needed
Alter is currently not allowed because the primary CFRM CDS was not formatted for enough connections -

not all the failed-persistent connections can be reconciled into the CFRM active policy. Even through altering structure size is prevented, it is likely that the failed-persistent connections allow alter.

Reconciled into policy
The SIZE specification used when the structure was allocated is unknown because the structure was reconciled into the CFRM active policy.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: See IXCH0255E.

Source: Parallel Sysplex (XCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Reference Documentation: See IXCH0255E.

IXCH0924I This report summarizes the coupling facility storage-class memory (SCM) utilization for CHECK(XCF_CF_SCM_UTILIZATION).
CFNAME:
The coupling facility name.
An asterisk (*) before a CF Name indicates that the SCM utilization for the coupling facility exceeds a defined utilization threshold for the check.
SCM Utilization:
The current storage-class memory (SCM) utilization for the coupling facility.
SCM Utilization is determined by the sum of the SCM frames currently in use across all structures in the facility. "N/A" indicates that SCM is not available to the coupling facility.
Total SCM Space:
Total amount of storage-class memory available to a coupling facility that may be used as structure extensions. "N/A" indicates that SCM is not available to the coupling facility.
Severity:
The exception severity level for an individual coupling facility. The severity level is based on the defined utilization thresholds for the check. The severity can be NONE, LOW, MED and HIGH. The overall check exception severity will be the highest severity found by the check for an individual coupling facility.
text

Explanation: Where *text* is:

```
CF Name     SCM UTILIZATION   TOTAL SCM SPACE   SEVERITY
-------     ---------------   ---------------   --------
cfname      utilization       total scm         severity

STRUCTURE                     SCM               ELIGIBLE TO
NAME        CF NAME           UTILIZATION       BE ASSIGNED SCM
---------   ---------         -----------       ---------------
strname     strcfname         str util          assigned scm
```

This is a report for CHECK(IBMXCF,XCF_CF_SCM_UTILIZATION) that displays the storage-class memory (SCM) utilization percentage for coupling facilities managed by the local system and whether the current SCM usage exceeds a defined utilization threshold for the check.In the report:

cfname
The name of the coupling facility processed by the check.

utilization
The percentage of SCM for the coupling facility currently being used. SCM used by the coupling facility is determined by the sum of the SCM frames currently in use across all structures in the facility.

totl scm
The total amount of coupling facility SCM available for use by structures expressed in units of kilobytes (K), megabytes (M), gigabytes (G), or terabytes (T).

severity
The exception severity level for an individual coupling facility. The severity level is based on the defined utilization thresholds for the check. Severity is one of the following:
NONE
LOW
MED
HIGH

When an SCM utilization threshold is exceeded for the coupling facility, the report will include SCM utilization information for each allocated structure using SCM. In the report:

strname
The name of an allocated structure using SCM, and the structure status. The status can be one of the following:

OLD
A structure rebuild process is in progress and two instances of the structure are allocated. This is the old instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

NEW
A structure rebuild process is in progress and two instances of the structure are allocated. This is the new instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

PND
Deallocation is pending for this structure because a structure dump is associated with this structure. The structure deallocation remains pending until the structure dump is either forced or written to a dump data set.

strcfname
The name of the coupling facility that the structure is allocated in.

str util
The current percentage of the total amount of storage-class memory available to the structure currently in use.

assigned scm
Total amount of storage-class memory available to a coupling facility structure that may be used as structure extensions. The total amount of coupling facility SCM available for use by structures is expressed in units of kilobytes (K), megabytes (M), gigabytes (G), or terabytes (T).

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCCF

Routing code: N/A

Descriptor code: N/A

IXCH0925I This report summarizes the coupling facility storage-class memory (SCM) utilization for CHECK(XCF_CF_STR_SCM_UTILIZATION).
When the check is run in verbose mode, IXCH0925I is issued to list all allocated coupling facility structures with assigned storage-class memory (SCM). The structures that are exceeding a defined threshold utilization percentage for SCM are listed first followed by structures that have not exceeded any threshold utilization percentage.
Structure Name:
The structure name.

CFNAME:
The coupling facility name where the structure resides.
SCM Utilization:
The current SCM utilization for the coupling facility structure. SCM Utilization is the percentage of SCM frames eligible for use by the structure that are currently being used by the coupling facility to hold migrated structure data.
Eligible To Be Assigned SCM:
Total amount of SCM available to a coupling facility structure that may be used as structure extensions.
Severity:
The exception severity level for an individual coupling facility structure.
The severity level is based on the defined utilization thresholds for the check. The severity can be NONE, LOW, MED and HIGH. The overall check exception severity will be the highest severity found by the check for an individual coupling facility structure.
text

Explanation: Where *text* is:

```
STRUCTURE                SCM           SCM ELIGIBLE
NAME       CF NAME       UTILIZATION   TO BE ASSIGNED    SEVERITY
---------  -------       -----------   --------------    --------
strname    cfname        used          eligible scm      severity
```

This is a report for CHECK(IBMXCF,XCF_CF_STR_SCM_UTILIZATION) that displays the SCM utilization percentage for coupling facility structures configured to use storage-class memory.

When the check is run in verbose mode, IXCH0925I lists all allocated coupling facility structures with assigned SCM. The structures that are exceeding a defined threshold utilization percentage for SCM are listed first followed by structures that have not exceeded any threshold utilization percentage.

In the report:

strname
The name of an allocated structure using SCM, and the structure status. The status can be one of the following:

OLD
A structure rebuild process is in progress and two instances of the structure are allocated. This is the old instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

NEW
A structure rebuild process is in progress and two instances of the structure are allocated. This is the new instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

PND
Deallocation is pending for this structure because a structure dump is associated with this structure. The structure deallocation remains pending until the structure dump is either forced or written to a dump data set.

cfname
The name of the coupling facility in which the structure is allocated.

used
The current percentage of the total amount of storage-class memory available to the structure that is currently in use.

eligible scm
Total amount of storage-class memory available to the structure that may be used as structure extensions. The total amount of coupling facility SCM available for use by structures is expressed in units of kilobytes (K), megabytes (M), gigabytes (G), or terabytes (T).

severity
The exception severity level for an individual coupling facility structure. The severity level is based on the defined utilization thresholds for the check. The overall check exception severity will be the highest severity found by the check for an individual coupling facility structure. Severity is one of the following:

NONE

LOW
MED
HIGH

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0926I The report lists allocated coupling facility structures that are defined to use coupling facility storage-class memory (SCM). The report shows the amount of SCM requested to be available to the structure as defined by the SCMMAXSIZE keyword on the structure definition statement in the CFRM policy and the maximum amount of SCM that a coupling facility will make eligible to be assigned to a structure if needed.
When the check is run in verbose mode, all allocated structures with a non-zero SCMMAXSIZE value are listed. The structures that are eligible to use the amount of SCM as requested via the CFRM policy are listed after any structures that are not eligible to be assigned the amount of SCM requested as specified in the CFRM policy.
The report is generated as part of CHECK(XCF_CF_STR_SCMMAXSIZE).
Structure Name:
The structure name.
An asterisk (*) before a structure name indicates that the structure maxzimum SCM value assigned by the coupling facility is less than the requested SCXMMAXSIZE value. An 'at sign' (@) before a structure name indicates that the coupling facility where the structure is allocated is not configured to use storage-class memory.
SCMMAXSIZE:
The value defined on the SCMMAXSIZE keyword of the structure definition statement in the CFRM policy.
Maximum SCM:
Maximum storage-class memory available to the coupling facility structure.
text

Explanation: Where *text* is:

```
STRUCTURE                                SCM ELIGIBLE
NAME          CF NAME       SCMMAXSIZE   TO BE ASSIGNED
---------     -------       ------------ --------------
strname       cfame         scm maxsize1 eligible scm
```

In the report:

strname
The name of the structure processed by the check.

cfname
The name of the coupling facility processed by the check.

scmmaxsize
The CFRM policy SCMMAXSIZE specification for the structure.

eligible scm
The total amount of SCM eligible for use by the structure.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0927I **The report lists coupling facilities connected to by the local system and in the active CFRM policy that are "over committed" in their maximum storage-class memory (SCM) assignments to allocated structures. The report is generated as part of CHECK(IBMXCF,XCF_CF_STR_MAXSCM).**
When the check is run in verbose mode, all coupling facilities connected to by the local system and in the active CFRM policy that have storage-class memory available to be used as structure storage extensions will be listed along with the allocated structures in the coupling facility eligible to use SCM.
The following information is listed in the report:
For each CF:
- The coupling facility name.
- Total real storage available to the coupling facility.
- Total dump space defined to the coupling facility.
- Total storage-class memory available for use by the coupling facility.
- An indicator as to whether the coupling facility has over committed on its assignment of SCM to allocated structures.
- The sum of SCM assigned to structures for use.
For each allocated structure that is eligible to use SCM:
- The structure name.
- The maximum SCM eligible to be used by the structure as assigned by the coupling facility.
- The maximum structure size.
- The estimated maximum augmented space needed to support the maximum SCM that the coupling facility assigned to the structure.
CF Name: (cfname)
Total Space: (total space)
Total Dump Space: (dump space)
Total SCM: (total scm)
Sum of SCM: (sum of scm)
text

Explanation: Where *text* is:

```
STRUCTURE                    - REAL STORAGE -
NAME        MAXIMUM SCM     MAX SIZE   AUGMENTED
---------   -----------     --------   ---------
strname     maximum scm     maxsize    augmented
```

The report is generated as part of CHECK(IBMXCF,XCF_CF_STR_MAXSCM). The report lists coupling facilities in use by the local system that are "over committed" in their maximum storage-class memory (SCM) assignments to allocated structures.

When the check is run in verbose mode, all coupling facilities in use by the local system that have storage-class memory available to be used as structure storage extensions will be listed along with the allocated structures in the coupling facility eligible to use SCM.

In the report:

cfname
The name of the coupling facility processed by the check.

total space
The total real storage space available to the coupling facility for control space, dump space, and structure space.

dump space
The total dump space defined to the coupling facility.

total scm
The total storage-class memory available for use by the coupling facility. An asterisk (*) will indicate whether the coupling facility has over committed on its assignment of SCM to allocated structures.

sum of scm
The sum of SCM assigned to structures for use.

strname
The name of an allocated structure using SCM, and the structure status. The status can be one of the following:

OLD
A structure rebuild process is in progress and two instances of the structure are allocated. This is the old instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

NEW
A structure rebuild process is in progress and two instances of the structure are allocated. This is the new instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

maximum scm
Maximum storage-class memory available to the coupling facility structure.

maxsize
The maximum structure size.

augmented
The estimated maximum augmented space needed to support the maximum SCM that the coupling facility assigned to the structure.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0928I The report lists coupling facilities in use by the local system that are "over committed" in their real storage space assignments to allocated structures. The report is generated as part of CHECK(IBMXCF,XCF_CF_STR_MAXSPACE).
When the check is run in verbose mode, all coupling facilities in use by the local system will be included in the report.
The following information is listed in the report:
For each CF:
- The coupling facility name.
- Total dump space defined to the coupling facility.
- The sum of maximum structure sizes for allocated structures.
- An indicator as to whether the coupling facility has over committed on its assignment of real storage to allocated structures.
For each allocated structure:
- The structure name.
- The requested maximum structure size defined for the structure.
- The estimated maximum augmented space needed to support the maximum SCM that the coupling facility assigned to the structure.
CF Name: (cfname)
Total Space: (total space)
Total Dump Space: (dump space)

Sum of MSS: (sum of mss)
Sum of Augmented: (sum of augmented)*text*

Explanation: Where *text* is:

```
STRUCTURE       - REAL STORAGE -
NAME        MAX SIZE       AUGMENTED
---------   ---------      ---------
strname     maxsize        augmented
```

The report lists coupling facilities in use by the local system that are "over committed" in their real storage space assignments to allocated structures. The report is generated as part of CHECK(IBMXCF,XCF_CF_STR_MAXSPACE).

When the check is run in verbose mode, all coupling facilities in use by the local system will be included in the report.

In the report:

cfname
The name of the coupling facility processed by the check.

total space
The total real storage space available to the coupling facility for control space, dump space, and structure space. An asterisk (*) will indicate whether the coupling facility has over committed on its assignment of real storage to allocated structures.

dump space
The total dump space defined to the coupling facility.

sum of mss
The sum of maximum structure sizes for allocated structures.

sum of augmented
The sum of maximum augmented space for allocated structures.

strname
The name of an allocated structure using SCM, and the structure status. If no status follows the structure name, then only one instance of the structure is allocated. The status can be one of the following:

OLD
A structure rebuild process is in progress and two instances of the structure are allocated. This is the old instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

NEW
A structure rebuild process is in progress and two instances of the structure are allocated. This is the new instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

maxsize
The maximum structure size.

augmented
The estimated maximum augmented space needed to support the maximum SCM that the coupling facility assigned to the structure.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

IXCH0929I Coupling facility structure use of augmented space is summarized by the following report: *text*

Explanation: Where *text* is:

```
STRUCTURE   FIXED             IN-USE
NAME        AUGMENTED         AUGMENTED         IN-USE SCM
---------   ---------         ---------         ----------
strname     fixaug            iuaug             iuscm
```

The report lists structures allocated with the capability to use storage-class memory (SCM), their use of augmented space, and their use of SCM. The report is generated as part of CHECK(IBMXCF,XCF_CF_STR_SCM_AUGMENTED).

When the check is run in verbose mode, all structures allocated with the capability to use SCM will be included in the report.

In the report:

strname
The structure name and status. If no status follows the structure name, then only one instance of the structure is allocated. The status can be one of the following:

OLD
A structure rebuild process is in progress and two instances of the structure are allocated. This is the old instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

NEW
A structure rebuild process is in progress and two instances of the structure are allocated. This is the new instance of the structure. The structure rebuild process type is either rebuild or duplexing rebuild.

fixaug
The amount of fixed augmented space.

iuaug
The amount of in-use augmented space.

iuscm
One of the following:

Yes
Indicates that an in-use in SCM structure object count is non-zero.

No Indicates that the in-use in SCM structure object counts are zero.

System action: The system continues processing.

Operator response: N/A

System programmer response: N/A

Problem determination: N/A

Source: Cross System Coupling Facility (SCXCF)

Module: IXCHCSTR

Routing code: N/A

Descriptor code: N/A

Chapter 3. IXG messages

IXG001E LOGR POLICY SYNTAX ERROR ON LINE# *nnnn* . THE VALUE SPECIFIED FOR KEYWORD *keyword* IS NOT VALID.

Explanation: The LOGR Policy Processing has detected an error in the value for *keyword*.

In the message text:

nnnn
is the line number in which the syntax error was encountered.

keyword
is the keyword that contains an invalid value.

System action: The system ignores the keyword value and continues processing the remaining control statements. However, the control statements will only be checked for syntactical correctness and will not change the contents of the LOGR Policy.

Operator response: Notify the system programmer.

System programmer response: Correct the syntax error and rerun the XCF Administrative Data Utility.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG002E LOGR POLICY PROCESSING ENDED WITH RETCODE=*retcode* RSNCODE=*rsncode*

Explanation: The LOGR Policy Processing ended with a non-zero return code when the policy was being updated using either the IXGINVNT service or the administrative data utility (IXCMIAPU).

In the message text:

retcode
is the RETURN CODE.

rsncode
is the REASON CODE.

System action: Processing stops when the retcode value is greater than a warning condition (4). For warning conditions, processing continues.

Operator response: None.

System programmer response: See the return and reason code description documented for the IXGINVNT service in *z/OS MVS Programming: Assembler Services Reference IAR-XCT*The return and reason codes documented for the IXGINVNT service also apply to the IXCMIAPU utility.

IXG003I accompanies this message and might provide additional diagnostic data. Other messages are produced for selected return and reason codes. Look for these in your joblog, or syslog. The return and reason code description documented for the IXGINVNT service lists the messages that accompany each return code.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG003I LOGR POLICY PROCESSING ENCOUNTERED AN UNEXPECTED ERROR. DIAGNOSIS INFORMATION: *diag1-diag4*

Explanation: Processing of the IXCMIAPU utility LOGR policy for the input line identified in message IXG005I ended with non-zero results. This message accompanies messages IXG002E or IXG447I. You need to save the values presented in this message because they can provide useful diagnostic information for the IBM Support Center.

In the message text:

diag1

diag2

diag3

diag4

These four diagnostic fields (diag1 - diag4) are mapped by the IXGANSAA answer area macro.

System action: For error conditions, the processing of the current control statement ended. The system continues processing the remaining control statements. However, the control statements will only be checked for syntactical correctness and will not change the contents of the system logger inventory if CONTINUE was not specified. If CONTINUE was specified, the following control statements will be run. For warning conditions, the processing of the current statement was completed but some non-terminal errors occurred. The system continues processing the remaining control statements.

Operator response: Contact the system programmer.

System programmer response: Check your joblog and syslog for logger messages related to this error. Logger messages have message IDs that begin with IXG.

Message IXG002E is of particular interest because IXG002E and IXG003I are issued together as a pair. When the companion message IXG002E presents return code X'08', reason code X'805', then Diag1 and Diag2 in message IXG003I contains the following:

- **Diag1** in message IXG003I contains either an internal logger return code or the contents of the 4-byte field S99ERSN. More information on internal logger return codes and S99ERSN appears below.
- **Diag2** in message IXG003I contains either the contents of the 4-byte field S99ERSN, or the contents of the 2-byte field S99ERROR followed by the 2-byte field S99INFO. More information on these two fields appear below.

S99ERSN, S99ERROR and S99INFO are fields in the IEFZB4D0 control block that the logger uses to communicate with dynamic allocation.

The following are internal logger return codes you can find in Diag1: X'04', X'10', X'14', X'1C'. When Diag1 contains these internal logger return codes, contact IBM.

S99ERROR is documented in Interpreting Error Reason Codes from DYNALLOC in the *z/OS MVS Programming: Authorized Assembler Services Guide*.

S99ERSN is documented in S99RBX Fields in the*z/OS MVS Programming: Authorized Assembler Services Guide*.

S99INFO is documented in Interpreting Information Reason Codes from DYNALLOC in the *z/OS MVS Programming: Authorized Assembler Services Guide*.

After you have researched the meaning of S99ERROR, S99ERSN and S99INFO, you might be able to find more information about the meaning of S99ERSN by looking up a DFSMS message whose ID is IGDxxxx. You can compute xxxx: It is the value found in S99ERSN, converted to decimal. The documenation for this IGDxxxx message gives the meaning of the value found in S99ERSN, even if the DFSMS message does not appear in syslog. Not all values of S99ERSN map to an IGDxxxx message. Here are some examples of S99ERSN values and the related message ID: If

S99ERSN is x'00042CF', the DFSMS message ID is IGD17103. Sometimes zeros must be inserted after IGD. For example, if S99ERSN is x'00003F6', the DFSMS message ID is IGD01014. IGD messages are documented in *z/OS MVS System Messages, Vol 8 (IEF-IGD)*.

Look in syslog for any messages that were issued near the time your IXCMIAPU job ran. Look for messages that begin with IXG. Messages of interest will often have 2 message IDs; the first message ID is IXG251I and the second begins with IGD, IDC, IKJ, IEF or ICH.

If message IXG263E was issued, follow the action documented for that message.

If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG004I LOGR POLICY PROCESSING ENDED WITHOUT ERROR

Explanation: The LOGR Policy Processing successfully completed processing of a control statement.

System action: The LOGR Policy Processing processes the next control statement, if more exist.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI1CMP

Routing code: -

Descriptor code: -

IXG005I LOGR POLICY PROCESSING LINE# *nnnn*

Explanation: The control statement beginning on line *nnnn* is syntactically correct and the LOGR Utility has begun to process the control statement verb that is on line number *nnnn*.

In the message text:

nnnn
is the line number which contains the control statement verb that is currently being processed.

System action: The LOGR Policy Processing processes the control statement verb.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI1FUN

Routing code: -

Descriptor code: -

IXG006I LOGR POLICY PROCESSING ENCOUNTERED AN UNEXPECTED ERROR. DIAGNOSIS INFORMATION: *diag_info*

Explanation: Processing of the IXCMIAPU utility ends because of unexpected errors.

In the message text:

diag_info
Diagnostic information for use by IBM.

System action: Processing of the current control statement ends. The system continues processing the remaining control statements; however, the control statements will only be checked for syntactical correctness and will not change the contents of the LOGR policy.

Operator response: Notify the system programmer.

System programmer response: Correct any syntax errors indicated by IXG or ASA system messages. Then resubmit the job. If the error persists, contact the IBM Support Center and provide the diagnostic information.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG007E A STORAGE MANAGEMENT SUBSYSTEM (SMS) ATTRIBUTE CLASS IS UNDEFINED.

Explanation: A storage class requested to define attributes of staging data sets or log stream data sets is not defined to the storage management subsystem (SMS) and cannot be used for data set allocation.

System action: The LOGR Policy Processing terminates processing of the current control statement verb.

Operator response: Notify the system programmer.

System programmer response: Define the storage class to SMS and rerun the XCF Administrative Data Utility.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3INV

Routing code: -

Descriptor code: -

IXG008E THE SYSTEM LOGGER ADDRESS SPACE IS NOT AVAILABLE

Explanation: The system logger address space is either not accepting requests for system logger services at this time or the system logger address space is not active.

System action: The LOGR policy processing can not process the control statement. The LOGR policy remains unchanged.

Operator response: Determine why the system logger address space is not available to accept service requests.

System programmer response: Once the system logger address space is active, rerun the XCF Administrative Data Utility.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI1INV

Routing code: -

Descriptor code: -

IXG009E THE MAXBUFSIZE VALUE IS NOT WITHIN THE VALID RANGE OR IS LESS THAN THE CURRENT VALUE

Explanation: The value specified for the MAXBUFSIZE keyword on either a DEFINE or UPDATE request is not valid. For a DEFINE request or UPDATE request, the value specified for the MAXBUFSIZE keyword is not within the range of acceptable values. The range of acceptable values is 1 to 65532. For an UPDATE request:

- the input MaxBufSize value specified is less than the MAXBUFSIZE value currently associated with a DASD-only log stream, or
- the current DASD-only MAXBUFSIZE value is greater than the MAXBUFSIZE value associated with the STRUCTNAME specified on the UPDATE request or the current structure MAXBUFSIZE value associated with the STRUCTNAME specified on the UPDATE request.

System action: System logger does not process the request.

Operator response: None.

System programmer response: For a DEFINE request, specify a valid value for MAXBUFSIZE and reissue the request. For an UPDATE request, either specify a value within the valid range for MAXBUFSIZE that is greater than or equal to the current DASD-only MAXBUFSIZE value, or ensure that the structure specified for the STRUCTNAME keyword has a maximum buffer size that is greater than or equal to the current MAXBUFSIZE associated with the log stream specified on the update request.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3INV

Routing code: -

Descriptor code: -

IXG010E NO SPACE IS AVAILABLE FOR *type* ENTRIES

Explanation: The system logger couple data set defined by the LOGR policy has no free space for the type of entry you are trying to define.

In the message text:

type
is the type of entry trying to be defined.

System action: The entry is not defined.

Operator response: None.

System programmer response: Delete unneeded entries of this type or define a new couple data set for the LOGR policy, specifying a larger number of records for the type of entry you are trying to define. If you define a new couple data set, make it the primary data set for the LOGR policy using the SET command.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG011E THE MAXIMUM NUMBER OF LOGSTREAMS ALLOWED FOR THIS STRUCTURE HAVE BEEN DEFINED

Explanation: There are no free list numbers for this structure. No additional logs treams may be defined to this structure.

System action: The log stream is not defined.

Operator response: None.

System programmer response: The log stream may be defined to a different structure of the structure may need to be deleted and redefined specifying a larger LOGSNUM value. If the LOGSNUM is increased, changes may need to be made to the LOGR Policy.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -M

IXG012E LOGSTREAM *logstream* ALREADY EXISTS

Explanation: The log stream name specified on a define request or the new log stream name on an update request already exists in the LOGR inventory couple data set.

In the message text:

logstream
is the log stream name.

System action: The system rejects the log stream define or update request with a return code 8, reason code X'080E' condition (see IxgRsnCodeStreamDefined in IXGCON macro).

Operator response: None.

System programmer response: If you no longer need the existing log stream, delete it. Then you can reuse the name for a new or renamed log stream. If you still need the existing log stream, use a different log stream name for your new or renamed log stream.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG013E STRUCTURE *strname* ALREADY EXISTS

Explanation: A structure entry with the same name already exists in the Log Data Inventory.

In the message text:

strname
is the structure trying to be defined.

System action: The entry is not defined.

Operator response: None.

System programmer response: If the current entry is no longer needed, then it may be deleted and a new entry can

then be defined with the same name. If the current entry is needed, then a different structure name will have to be used when defining the new structure.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG014E LOGSTREAM *logstream* **IS CURRENTLY IN USE**

Explanation: The log stream has one or more applications currently connected to it (this maybe an active or failed connection), so this update request or delete request is rejected.

In the message text:

logstream
The log stream you are trying to update or delete.

System action: The log stream is not updated/deleted.

Operator response: None.

System programmer response: All the applications that are currently connected to this log stream must issue a DISCONNECT before the log stream can be updated/deleted. If the application is cancelled or ABENDS then a DISCONNECT will be issued for the application.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG015E STRUCTURE *strname* **IS CURRENTLY IN USE**

Explanation: An attempt was made to delete a log stream that one or more structures currently reference.

In the message text:

strname
is the structure trying to be deleted.

System action: The structure is not deleted.

Operator response: None.

System programmer response: All the log streams that reference this structure will have to be deleted before the structure can be deleted.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG016E THE VALUE SPECIFIED FOR THE *keyword* KEYWORD IS NOT WITHIN THE VALID RANGE

Explanation:

The value specified for the identified *keyword* is not within the range of acceptable values.

In the message text:

keyword
Identifies the keyword with the value that is outside the valid range. Either of the following values are possible:

LOGSNUM
The range of acceptable values is 1 through 512.

LS_ALLOCAHEAD
The range of acceptable values is 0 through 3.

System action:

Depending on the keyword in error, either the STRUCTURE is not defined to the LOGR inventory or the LOGSTREAM is not defined or updated in the LOGR inventory.

Operator response: None.

System programmer response:

Correct the error and re-submit the request as appropriate.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3INV

Routing code: -

Descriptor code: -

IXG017E LOGSTREAM *logstream* DOES NOT EXIST

Explanation: An attempt was made to update or delete a log stream that is not defined in the log date inventory.

In the message text:

logstream
is the log stream trying to be updated/deleted.

System action: The log stream is not updated/deleted.

Operator response: None.

System programmer response: An incorrect name may have been specified for the log stream name, or the log stream may have already been deleted.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG018E STRUCTURE *strname* DOES NOT EXIST

Explanation: The structure name specified on the STRUCTNAME parameter in the IXCMIAPU utility does not exist in the LOGR policy. One of the following occurred:

- You specified the name of the structure incorrectly.
- The structure specified has been deleted or has not been defined.

In the message text:

strname
is the name of the structure.

System action: The IXCMIAPU utility does not perform the request.

Operator response: None.

System programmer response: Correct the structure name on the request. If necessary, use the REPORT parameter or the LIST request on the IXCMIAPU utility to identify the structure names in the LOGR policy.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG019E LOGSTREAM *logstream* SPECIFIED ON A LIKE KEYWORD DOES NOT EXIST

Explanation: An attempt was made to use a log stream as a model, but the log stream specified on the LIKE keyword does not exist in the Log Data Inventory.

In the message text:

logstream
is the log stream trying to be used as a model..

System action: The log stream is not defined.

Operator response: None.

System programmer response: An incorrect name may have been specified for the LIKE keyword, or the log stream may have been deleted.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG020E *strname* IS INVALID FOR A STRUCTURE NAME

Explanation: The structure name specified is not valid.

In the message text:

strname
is the name of the structure.

System action: The structure is not defined/deleted.

Operator response: None.

System programmer response: Change the name for the structure being defined/deleted to conform to the rules for a structure name.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG021E *logstream* **IS INVALID FOR A LOGSTREAM NAME**

Explanation: The log stream name specified is not valid.

In the message text:

logstream
is the name of the log stream.

System action: The log stream is not defined/updated/deleted.

Operator response: None.

System programmer response: Change the name for the structure being defined/updated/deleted to conform to the rules for a log stream name.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG022E THE VALUE SPECIFIED FOR THE AVGBUFSIZE KEYWORD IS NOT WITHIN THE VALID RANGE

Explanation: The value specified for the AVGBUFSIZE keyword is not within the range of acceptable values. The range of acceptable values is 1 to the value of the MAXBUFSIZE keyword. When the MAXBUFSIZE default is taken, the MAXBUFSIZE value is 65536.

System action: The structure is not defined to the LOGR Inventory.

Operator response: None.

System programmer response: Correct the AVGBUFSIZE keyword value and rerun the job.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3INV

Routing code: -

Descriptor code: -

IXG030E THE INVENTORY FUNCTIONAL COUPLE DATASET IS NOT FORMATTED CORRECTLY

Explanation: The system logger couple data set contains inventory records that are not in the correct format for the current release of system logger.

System action: The STRUCTURE or LOGSTREAM request is not performed.

Operator response: None.

System programmer response: Reformat the Inventory Functional Couple Dataset for the current release of system logger and rerun the XCF Administrative Data Utility.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3INV

Routing code: -

Descriptor code: -

IXG031E LOGSTREAM *logstream* SPECIFIED ON A *keyword* KEYWORD IS NOT VALID FOR A LOGSTREAM NAME.

Explanation: The log stream name specified on the identified keyword is syntactically incorrect.

In the message text:

logstream
is the log stream name.

keyword is the keyword containing the error.

System action: The log stream is not defined nor updated.

Operator response: None.

System programmer response: Correct the log stream name value on the keyword to conform to the rules for a log stream name.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG032E *name* SPECIFIED ON THE *keyword* KEYWORD IS INVALID.

Explanation: The value *name* is syntactically invalid.

In the message text:

name
is a value specified on the HLQ, LS_DATACLAS, LS_STORCLAS, LS_MGMTCLAS, STG_DATACLAS, STG_STORCLAS, OR STG_MGMTCLAS keyword.

keyword
One of the following:

HLQ
The High Level Qualifier keyword.

LS_MGMTCLAS
The SMS Management Class keyword used when allocating log stream data sets.

LS_STORCLAS
The SMS Storage Class keyword used when allocating log stream data sets.

LS_DATACLAS
The SMS Data Class keyword used when allocating log stream data sets.

STG_MGMTCLAS
The SMS Management Class keyword used when allocating log stream staging data sets.

STG_STORCLAS
The SMS Storage Class keyword used when allocating log stream staging data sets.

STG_DATACLAS
The SMS Data Class keyword used when allocating log stream staging data sets.

System action: The log stream is not defined.

Operator response: None.

System programmer response: Correct the syntax error to conform to the LOGR policy rules for the HLQ, LS_DATACLAS, LS_MGMTCLAS, LS_STORCLAS, STG_DATACLAS, STG_MGMTCLAS and STG_STORCLAS keywords and resubmit the log stream request.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG033E USER DOES NOT HAVE SAF AUTHORIZATION TO PERFORM THE *request* REQUEST

Explanation: The Inventory DEFINE, DELETE, UPDATE, LIST or REPORT(YES) request failed because the user did not have the required SAF authorization. Access to the following RESOURCES and CLASSES are required:

- Defining/deleting a structure entry:
  - Alter access to CLASS(FACILITY) RESOURCE(MVSADMIN.LOGR)
- Defining/updating/deleting a log stream entry:
  - Alter access to CLASS(LOGSTRM) RESOURCE(your.log stream)
  - Update access to CLASS(FACILITY) RESOURCE(IXLSTR.your_structure) if STRUCTNAME is specified on the log stream definition, or if the structure name was extracted from the log stream named on the LIKE parameter
  - Update access to CLASS(FACILITY) RESOURCE(IXGZAWARE_CLIENT) if ZAI(YES) is specified on the log stream definition.
- Reporting or List option:
  - Read access to CLASS(FACILITY) RESOURCE(MVSADMIN.LOGR)

In the message text:

request
One of the following:

DEFINE
A DEFINE log stream or DEFINE Structure request.

DELETE
A DELETE log stream or DELETE Structure request.

UPDATE
A UPDATE log stream request.

LIST
A LIST log stream or LIST Structure request.

REPORT
A REPORT(YES) request.

System action: The Inventory request is not performed.

Operator response: Contact the system programmer.

System programmer response: Logger messages IXG002E and IXG003I accompany IXG033E and provide additional diagnostic data. Message IXG002E will contain return code X'08' reason code X'80D'. Logger returns in IXG003I information about the error in the diagnostic fields, mapped by IXGANSAA. Investigate the meaning of DIAG1, DIAG2 and DIAG4. DIAG1 contains the RACF or installation exit return code from the RACROUTE REQUEST=AUTH macro. DIAG2 contains the RACF or installation exit reason code from the RACROUTE REQUEST=AUTH macro. DIAG4 contains the SAF return code from the RACROUTE REQUEST=AUTH macro. See *z/OS Security Server RACROUTE Macro Reference*for information about the RACROUTE macro.

Ensure that the userid associated with the Inventory request has the required SAF authorization to perform the request and submit the Inventory request again.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG034E DATA TYPE(LOGR) IS NOT SUPPORTED ON THE CURRENT LEVEL OF THE SYSTEM

Explanation: The administrative data utility cannot be run on the current level of the system for DATA TYPE(LOGR). System logger requires the system level to be version 5 release 2 of the MVS/ESA System Product or higher to perform system logger inventory requests.

System action: The inventory request is not performed.

Operator response: Contact the system programmer.

System programmer response: The request can only be run on a system with the required version and release of the MVS/ESA System Product. Resubmit the inventory request to run on a system with the correct version and release of the MVS/ESA System Product that is required for the desired inventory request.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG035E THE VALUE SPECIFIED FOR THE LOWOFFLOAD KEYWORD IS NOT WITHIN THE VALID RANGE. THE RANGE OF ACCEPTABLE VALUES

Explanation: The value specified for the LOWOFFLOAD keyword is not within the range of acceptable values. The range of acceptable values is greater than or equal to 0 and less than the specified (or defaulted) HIGHOFFLOAD value.

System action: The LOGSTREAM is not defined to the LOGR Inventory.

Operator response: None.

System programmer response: Correct the LOWOFFLOAD keyword value and rerun the job.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3INV

Routing code: -

Descriptor code: -

IXG036E THE VALUE SPECIFIED FOR THE HIGHOFFLOAD KEYWORD IS NOT WITHIN THE VALID RANGE.

Explanation: The value specified for the HIGHOFFLOAD keyword is not within the range of acceptable values. The range of acceptable values is greater than the LOWOFFLOAD value and less than 100.

System action: The LOGSTREAM is not defined to the LOGR Inventory.

Operator response: None.

System programmer response: Correct the HIGHOFFLOAD keyword value and rerun the job.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3INV

Routing code: -

Descriptor code: -

IXG037E KEYWORD *keyword* CAN ONLY BE SPECIFIED WHEN THE LOGSTREAM IS DEFINED TO USE STAGING DATASETS TO DUPLEX LOG DATA.

Explanation: The value *keyword* can only be specified when the log stream is defined to use staging data sets to duplex log data resident in the coupling facility.

In the message text:

keyword
is a keyword specified on the LOGSTREAM DEFINE or UPDATE statement.

System action: The log stream is not defined nor updated.

Operator response: None.

System programmer response: Remove the *keyword* or update the log stream definition to specify that staging data sets should be used to duplex coupling facility resident log data by specifying either the STG_DUPLEX=YES or DASDONLY=YES for the log stream. Note that DASDONLY=YES is not allowed on UPDATE LOGSTREAM requests.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG040E THE VALUE SPECIFIED FOR KEYWORD *keyword* IS NOT WITHIN THE VALID RANGE OF 0 TO 16,777,215.

Explanation: The value specified for the *keyword* is not within the range of acceptable values. The range of acceptable values is 0 to 16 777 215.

In the message text:

keyword
One of the following:

LS_SIZE
the value of LS_SIZE is not in the acceptable range.

STG_SIZE
the value of STG_SIZE is not in the acceptable range.

System action: The log stream is not defined to the LOGR inventory.

Operator response: None.

System programmer response: Correct the *keyword* value and rerun the job.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3INV

Routing code: -

Descriptor code: -

IXG041E NO STRUCTURE DEFINED FOR LOGSTREAM *logstream*

Explanation: A structure name was not provided for this log stream through the STRUCTNAME keyword or defined for a log stream named on a LIKE keyword. A STRUCTNAME value is required to successfully define to the system logger inventory.

In the message text:

logstream
is the log stream that does not have a structure defined for it.

System action: The LOGSTREAM is not defined to the LOGR Inventory.

Operator response: None.

System programmer response: Provide a value for the STRUCTNAME keyword or define a structure for the log stream referenced on the LIKE keyword.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3INV

Routing code: -

Descriptor code: -

IXG047I THE LOGR COUPLE DATA SET IS INACCESSIBLE ON SYSTEM *sysname*

Explanation: The LOGR couple data set has become inaccessible.

In the message text:

sysname
is the name of the system which has lost access to the LOGR couple data set.

System action: The IXGLOGR address space ended because access to a couple data set is required in order to run system logger services.

Operator response: Determine why the couple data set is not available. Correct the access problem and start the IXGLOGR address space again. See the explanation for the IXG056I message for information about starting the system logger address space again.

System programmer response: Not applicable.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3IYT

Routing code: 2,10

Descriptor code: 4

IXG049I LOGR COUPLE DATA SET FORMAT LEVEL: *n*

Explanation: This message is used to display information regarding the LOGR couple data set format level.

In the message text:

n indicates the format level of this couple data set. Where HBB5220 indicates this LOGR CDS was formatted at a release level before HBB6603. Where HBB6603 indicates this LOGR CDS was formatted at release HBB6603 or a higher level.

System action: None.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG051I SYSTEM LOGGER ADDRESS SPACE CREATE FAILED.

Explanation: The system logger address space create (ASCRE) failed.

System action: The system does not start the system logger component.

Operator response: Contact the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, then contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF00

Routing code: 2,10

Descriptor code: 4

IXG052I SYSTEM LOGGER ALREADY ACTIVE.

Explanation: An operator attempted to start the system logger component through the START command when the system logger component was already active in the MVS.

System action: None.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 2

Descriptor code: 5

IXG053I SYSTEM LOGGER DID NOT INITIALIZE BECAUSE *reason*

Explanation: An attempt was made to start system logger, but the system detected a condition that caused system logger initialization to fail.

In the message text:

reason
One of the following:

THE SYSTEM IS IN XCF LOCAL MODE
System logger requires sysplex mode.

IXGLOGR=NOSTART SPECIFIED ON LOGR SUBSYS
The installation specified INITPARM(IXGLOGR=NOSTART) in an IEFSSNxx parmlib member, which results in the IXGLOGR address space not being started on this system.

System action: The system does not start system logger, meaning the IXGLOGR address space is not active nor available for the duration of this IPL.

When the IXGLOGR address space is not available for reason IXGLOGR=NOSTART SPECIFIED ON LOGR SUBSYS, the following system actions result:

1. The LOGR (or named) subsystem functional routines were established.

   However, any JCL DD SUBSYS=(LOGR,exit,...) or dynamic allocation equivalents will likely result in the subsystem exit routine encountering a return code 8, reason code 0814x condition. See IxgRsnCodeNotAvailForIPL in IXGCON macro.

   For example, if the logger subsysem default exit IXGSEXIT was requested in this environment, then system logger message would be issued indicating the IXGCONN service failed with the return and reason codes listed above.

   Errors returned by any system logger subsystem exit routine will cause system logger to issue message IXG504I indicating the exit error condition.
2. Attempts to start the IXGLOGR address space (re: IXGLOGRS procedure) will not complete successfully as system logger will not allow the IXGLOGR address space to start because of the IXGLOGR=NOSTART specification.
3. Any system logger API (IXGxxxxx) service request made on this system will result in the requester receiving a return code 8, reason code 0814x (IxgRsnCodeNotAvailForIPL) condition.

Operator response: None.

System programmer response: If system logger services are required, then plan and process the appropriate configuration changes that ensure the correct environment, and reIPL the system.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 11

Descriptor code: 6

IXG054A LOGR COUPLE DATA SET NOT AVAILABLE. MAKE A COUPLE DATA SET AVAILABLE OR REPLY C TO CANCEL THE *name* REQUEST.

Explanation: No Couple Data Set of type LOGR is available. Either make a Couple Data Set of type LOGR available so that IXGLOGR address space initialization can continue or reply C to cancel the IXGLOGR address space.

In the message text:

name
is the name of the job requesting system logger services.

System action: Processing for the requested system logger service stops. The system issues message IXG054 to prompt the operator to make a LOGR couple data set available or to reply *C* to cancel the request from the named job. If a LOGR couple data set becomes available, then IXGLOGR address space continues processing the request. If the operator replies *C* then the IXGLOGR address space rejects the request.

Operator response: Make a valid LOGR couple data set available if system logger services are intended to be available for operation at the installation. Otherwise, reply C.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 1,2

Descriptor code: 2

IXG055I SYSTEM LOGGER WILL NO LONGER ISSUE SMF RECORDS

Explanation: The task that issues system management facility (SMF) records on behalf of logger took an unexpected abend and no more records will be issued.

System action: System logger will no longer issue SMF records.

Operator response: Contact system programmer.

System programmer response: Search the problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center with the dump. If SMF records are essential to installation operations, consider taking down the IXGLOGR address space (this will impact any executing system logger applications) and then restarting system logger.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 10

Descriptor code: 4

IXG056I SYSTEM LOGGER ADDRESS SPACE HAS ENDED*text*

Explanation: The system logger address space has ended.

In the message text:

IXGLOGR IS AUTOMATICALLY RESTARTING.

IXGLOGR CANNOT BE AUTOMATICALLY RESTARTED.

OPERATOR ISSUED FORCE COMMAND. MANUAL RESTART REQUIRED.

System action: System logger services will be unavailable until the address space is restarted.

Operator response: Contact the system programmer.

System programmer response: System logger will attempt to automatically restart unless the system logger address space termination was due to operator command, or system logger has failed two auto restart attempts consecutively (an attempt at restarting is considered failed if logger is unable to initialize). If the system logger address space was not ended due to operator command, determine what caused the system logger address space to end by checking for error messages and by checking for any dumps created by the system logger address space. If the cause was not related to a configuration problem (such as if system logger lost access to the TYPE=LOGR couple data set) then contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGR1EOT

Routing code: 2,10

Descriptor code: 4

IXG057I SYSTEM LOGGER ADDRESS SPACE INITIALIZATION FAILED DIAGNOSTIC INFORMATION: *diag1 diag2 diag3 diag4*

Explanation: The system logger address space has failed to initialize.

In the message text:

diag1, diag2, diag3, diag4
is diagnostic information for use by IBM

System action: System logger services will be unavailable until the problem is corrected and the address space restarted.

Operator response: Contact system programmer.

System programmer response: If system logger services are required, you can attempt to restart the address space through "S IXGLOGRS" command. Should the problem persist, then contact the IBM Support Center and provide the diagnostic fields included in the message.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 2,10

Descriptor code: 4

IXG058E LOGSTREAM CONNECTIONS HAVE BEEN LOST DUE TO SYSTEM LOGGER TERMINATION

Explanation: One or more log stream connections were potentially lost when system logger terminated.

System action: System logger services will be unavailable until the system logger address space is restarted. If the system logger address space unexpectedly terminated, system logger will attempt to automatically restart. If the restart attempt is successful, message IXG058 will be DOMed. If system logger is unable to restart automatically, see message IXG056I and message IXG067E for further assistance.

Operator response: Contact system programmer.

System programmer response: If you require the system logger services, restart the address space through the "S IXGLOGRS" command. Look for the cause of the problem by checking for other system messages or dumps issued at the time that system logger terminated.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGR1EOT

Routing code: 1,10

Descriptor code: 11

IXG059I CORRUPTED INDEX ENTRY DETECTED IN LOGR CDS. *text*

Explanation: An index record entry in the LOGR CDS has been corrupted with invalid characters or the index record entry references another CDS record that is not valid.

In the message text:

indexnum
is the position of the corrupted entry in the index entry record.

indexent
is the first 26 bytes of the corrupted index entry in hexadecimal.

SYSTEM INDEX ENTRY *indexnum* **HAS BEEN DELETED.**
indexentnnnnn n

LOGSTREAM INDEX ENTRY *indexnum* **HAS BEEN DELETED.**
indexentnnnnn n

System action: The system has made a component trace exception record containing the bad entry. The index entry has been deleted.

Operator response: Not applicable.

System programmer response: System logger may need to be recycled (S IXGLOGRS command) if it could not continue processing with the corrupted record.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3IWT

Routing code: -

Descriptor code: 4

IXG060I *invldcnt* **CORRUPTED ENTRIES WERE DETECTED IN THE LOGR CDS** *text*

Explanation: One or more index record entries in the LOGR CDS has been corrupted with invalid characters.

In the message text:

invldcnt is the number of invalid entries in the index record.

System action: For each corrupted index entry, a component trace exception record has been cut containing the bad entry.

Operator response: Not applicable.

System programmer response: Not applicable.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3IYT

Routing code: -

Descriptor code: 4

IXG061I *restrcnt* **OF** *invldcnt* **CORRUPTED ENTRIES IN THE LOGR CDS** *text*

Explanation: Zero or more corrupted index record entries in the LOGR CDS have been restored to their correct values.

In the message text:

restrcnt is the number of restored entries in the index record.

invldcnt is the number of invalid entries in the index record.

STRUCTURE INDEX RECORD HAVE BEEN RESTORED.

LOGSTREAM INDEX RECORD HAVE BEEN RESTORED.

System action: Not applicable.

Operator response: Not applicable.

System programmer response: This message and message IXG060I may be issued several times since system logger may not be able to restore all of the corrupted entries to their correct values at once. Normal progress is being made if successive messages indicate one (or more) corrupted entries have been restored and the number of corrupted entries detected decreases. If normal progress is not being made or if a related ABEND1C5 occurs, contact the IBM Support Center for assistance.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3IYT

Routing code: -

Descriptor code: 4

IXG062A SYSTEM LOGGER CLEANUP NOT PROCESSING FOR *jobname, waitcount* **ASYNCH EVENTS NOT DONE. REPLY TO CONTINUE TERMINATION.**

Explanation: System logger has detected that cleanup of asynchronous events associated with the named address space of asid is not processing.

In the message text:

jobname is the name of the address space or ASID that is terminating.

waitcount
is the number of asynchronous events that have not completed yet.

System action: The system continues to wait for the asynchronous events related to the address space to complete. If progress is detected, the message will be automatically DOMed, and system logger will continue to wait for all asynchronous events to complete. When all asynchronous events complete, the messages will be DOMed, and system logger will continue cleanup.

Operator response: Display system logger and/or GRS activity to see if any contention exists for system resources.

System programmer response: Determine if the address space in the message is having problems finishing its processing, or if the address space is waiting for other address spaces to finish their processing. Next, determine if IXGLOGR is waiting for asynchronous activity to finish. It may be necessary to terminate users of the address space in the message; for example, if RRS is terminating, then there may be clients of RRS that have outstanding system logger operations in progress. If this does not succeed, reply to this message with any character. System logger will continue the cleanup without waiting for the asynchronous events to complete. This may cause jobs that are still using log streams owned by the terminating address space to abend.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWORKT, IXGMSG

Routing code: 1,2

Descriptor code: 2

IXG063I LOGGER ABENDED AND REQUESTED AN SVC DUMP WHILE PROCESSING LOGSTREAM: *logstream* **STRUCTURE:** *strname* **GROUP:** *groupname dumptitleinfo*

Explanation: System logger has entered software recovery processing while processing for the named resources.

In the message text:

logstream
is the name of the log stream being used. If no log stream can be identified, the value of this field will be ****UNKNOWN****.

strname
is the name of the structure being used. If no structure can be identified, or this is a DASDONLY log stream, the value of this field will be ****UNKNOWN****.

group
is the name of the group that the log stream belongs to. It can be either PRODUCTION or TEST. The value will be ****UNKNOWN**** if not known.

dumptitleinfo
is part of the dump title used when requesting a dump associated with this message. The full dump title is of the form:

```
COMPON=LOGGER,COMPID=5752SCLOG,ISSUER=IXGR1REC,
MODULE=IXGxxxxx,ABEND=yyyyy,REASON=zzzzzzzz
```

System action: The system analyzes the error related to the named resources and gathers diagnostic data. The system attempts a retry if it is deemed appropriate. Otherwise "Continue-With-Termination" is indicated.

Operator response: Check for any error messages or dumps related to system logger and the named structure and log stream. If you cannot determine the cause of the condition, notify the System programmer.

System programmer response: This message identifies the log stream where the problem originated. If you can identify contention or other serious problems with this log stream or structure, you need to terminate applications that are using this log stream or structure. See 'System Logger Recovery' in *z/OS MVS Setting Up a Sysplex* for collecting additional documentation and for a discussion of further actions that you might need to take. If you cannot resolve the problem, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGR1REC,IXGR1REC,IXGXMSG

Routing code: 2,10

Descriptor code: 4

IXG064I IMPROPER ATTEMPT TO INITIALIZE LOGGER

Explanation: There was an attempt to initialize system logger in an improper manner.

System action: An improper attempt to initialize system logger has been rejected. System logger is prevented from being submitted as a job, and from being started as a task inappropriately. There is no effect on the system logger address space.

Operator response: If desired, system logger may be initialized by referencing the IXGLOGRS procedure.

System programmer response: The correct method of starting system logger is by an IPL or through the S IXGLOGRS command.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF00, IXGBLF01

Routing code: 2,10

Descriptor code: 4

IXG065I SYSTEM *sysname* NOT USING *cdstype* LOGGER COUPLE DATA SET, CDS WITH *fmtlvlb* FORMAT LEVEL IS HIGHER THAN THIS SYSTEM CAN USE, THE HIGHEST FORMAT LEVEL SUPPORTED BY THIS SYSTEM IS *fmtlvlh*.

Explanation: The LOGR couple data set is not useable on this system because this system is not at the minimum release level required to use the couple data set.

In the message text:

sysname
The name of the system that cannot use the LOGR couple data set.

cdstype
One of the following couple data sets:

PRIMARY
The primary LOGR CDS.

ALTERNATE
The alternate LOGR CDS.

fmtlvlb
The format level or version of the LOGR couple data set that is not supported by this system release level. If "UNKNOWN" appears in the message, then this release simply does not have the compatibility support applied to identify the unsupported format level.

fmtlvlh
The highest format level or version of a couple data set that is supported by this system release level.

System action: Processing continues. Messages IXC255I and IXC250I are also issued, and they identify the name of the LOGR couple data set being rejected because of the data set consistency checking on this system. If the rejection of the couple data set causes this system to not have access to a primary LOGR couple data set, then message IXG054A will be issued requesting that a LOGR couple data set be made available. Until a primary LOGR couple data set is made available to this system, no logger functions can be exploited by the system, such as updating logger inventory (policy) information or connecting to any log streams.

Operator response: Notify the system programmer.

System programmer response: If this release level system needs to be brought into the sysplex, see *z/OS MVS Setting Up a Sysplex* for information about formatting the LOGR couple data set and making it available to the sysplex, in addition to guidance on handling LOGR couple data set format levels and required release levels. If it is intended to use these LOGR couple data set(s) formatted at a higher level than this system can use, then re-IPL this system at the appropriate release level.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGINVF

Routing code: 1,2,10

Descriptor code: 12

IXG066I SYSTEM LOGGER EVENT MONITOR IS NOT ACTIVE.

Explanation: The task that monitors system logger events (such as logstream offloads and allocation/HSM requests) terminated abnormally. No more system logger event monitoring will be performed on this system unless system logger or the system is restarted.

System action: System logger will no longer monitor events, including offload activity and data set allocation and recall requests.

Operator response: Contact system programmer.

System programmer response: Search the problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center with the dump. If monitoring is essential to installation operations, consider taking down the IXGLOGR address space (this will impact any executing system logger applications) and then restarting the system logger (through START IXGLOGRS).

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 10

Descriptor code: 4

IXG067E ISSUE S IXGLOGRS TO RESTART SYSTEM LOGGER

Explanation: System logger has been terminated. The START IXGLOGRS command is required to restart system logger.

System action: None.

Operator response: Contact system programmer.

System programmer response: System logger is unable to automatically restart because IXGLOGR was ended due to operator command or has failed two consecutive restart attempts (an attempt is considered failed if logger is unable to initialize). See message IXG056I for the reason IXGLOGR is unable to auto restart. If the system logger address space did not end due to operator command, then determine what caused the system logger address space to end by checking for error messages and by checking for any dumps. If the cause was not related to a configuration problem (such as if system logger lost access to the TYPE=LOGR couple data set) then contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGR1EOT

Routing code: 1,10

Descriptor code: 11

IXG068D CONFIRM LOGGER TO CONVERT DRXRC-TYPE RESOURCES ON THIS IPL. REPLY Y TO CONVERT THEM OR N TO NOT CONVERT THEM

Explanation: When the system is IPLed with system parameter DRMODE=YES, it indicates that a recovery system is being IPLed as part of a disaster recovery scenario and special handling of certain resources are required. The system issues system logger message IXG068D to allow the installation to confirm that system logger should identify and convert any DRXRC-type resources. That is, system logger will make existing DRXRC-type staging data sets available for log stream recovery, and any log streams with STG_DUPLEX(YES),DUPLEXMODE(DRXRC) currently specified will be converted to STG_DUPLEX(NO).

It is assumed the necessary actions, (e.g. XRC XEND and XRECOVER commands) have been taken to establish the DASD consistency groups related to the system logger data sets before this recovery system being IPLed with DRMODE=YES.

Following this message confirmation, system logger messages IXG072I, IXG224I and IXG069I will be issued when system logger has taken action to include the appropriate log stream DRXRC-type resources in log stream data recovery. If the DRXRC convert processing cannot be completed, message IXG073D will be issued requesting an additional response before system logger honors log connections or LOGR couple data set inventory updates or both.

System action: System logger initialization processing stops until the operator replies to this message. Following the response, system logger initialization processing continues. See the Operator Response for more details.

Operator response: Choose one of the following replies:

Y To request that system logger initialization continue and allow system logger to **include** DRXRC-type staging data sets in its log data recovery for coupling facility structure-based log streams that had been connected before this IPL. Following this response, system logger messages, such as IXG072I, IXG224I and IXG069I, will be issued when system logger has taken action to include the appropriate log stream DRXRC-type staging data sets in log data recovery.

N To request that system logger initialization continue and requests system logger to **NOT convert** DRXRC-type staging data sets for log stream recovery at this time.

For log streams using DRXRC-type staging data sets, the N reply will be treated by system logger as if the system were IPLed with DRMODE=NO. If the only copies of some log streams primary (interim) log data are in a DRXRC-type staging data sets and the reply N is used, the recovery for these log streams might not succeed (message IXG212E) and the log streams marked as damaged ("possible loss of data").

If an incorrect reply is entered, the system issues message IXG116I to notify the operator of the error. The system then reissues message IXG068D.

Regardless of the response to message IXG068D, system logger conventional system level log stream recovery and log stream connection recovery will be performed for log streams that had failed connections.

System programmer response: Consult with the installation storage administrator and determine that it is appropriate for system logger to make use of DRXRC-type staging data sets for log stream recovery purposes on this system. DRXRC-type staging data sets would have been established in certain system logger configurations in order to allow staging data set DASD mirroring to occur asynchronously from log stream write activity. This means that these DRXRC-type staging data sets should only be used for log stream recovery when it has been determined that all the related mirrored DASD, for example, couple data sets, offload data sets, etc., within the same consistency group are also being used to restore the system and sysplex.

Use the D XCF,C,TYPE=LOGR and D LOGGER,C,SYSPLEX commands or use the IXCMIAPU DATA TYPE(LOGR) utility with the LIST LOGSTREAM NAME(*) DETAIL options to help identify which log streams are using DRXRC-type staging data sets and need conversion for log data recovery use.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4XRC

Routing code: -

Descriptor code: -

IXG069I SYSTEM LOGGER DRXRC-TYPE RESOURCES MADE AVAILABLE FOR LOGSTREAM RECOVERY

Explanation: The system was IPLed with system parameter DRMODE=YES and the operator replied Y to message IXG068D and system logger completed its identification and preparation of the log stream resources needing recovery.

System action: Processing continues.

For each of the affected log streams, system logger had already taken the following actions before issuing IXG069I:

- The log stream's attributes are updated to STG_DUPLEX(NO), and the message IXG224I is issued for each updated log stream.
- System level recovery of the log stream data has been initiated for the log streams that had failed connections from the same system name as this recovery system just IPLed.

Operator response: None.

System programmer response: Once message IXG069I is issued, all the log streams that had DRXRC-type staging data sets in use on the primary (production) sysplex site now have the DRXRC-type staging data sets ready for log

stream recovery purposes on the secondary (recovery) sysplex site. As additional recovery systems are IPLed in the recovery sysplex site, DRMODE=YES will not need to be specified or a reply of N can be entered in response to IXG068D on those other recovery systems.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4XRC

Routing code: 2

Descriptor code: 4

IXG070I ANTRQST REQUEST FOR OBTAINING THE CONSISTENCY TIME FAILED WITH RETCODE=*retcode* **RSNCODE=***rsncode*

Explanation: System logger's attempt to obtain the consistency time from the Extended Remote Copy XRC session failed. Reply to message IXG071D to indicate how system logger should proceed.

In the message text:

retcode is the error return code from the ANTRQST API request.

rsncode is the error reason code from the ANTRQST API request.

System action: System logger issues message IXG071D and stops initializing until you provide a reply.

Operator response: Notify the system programmer.

System programmer response: Consult with the installation storage administrator and determine whether any log stream DRXRC-type staging data sets need to be managed for this DRMODE=YES IPL.Use the D XCF,C,TYPE=LOGR and D LOGGER,C,SYSPLEX commands or use the IXCMIAPU DATA TYPE (LOGR) utility with the REPORT(YES) and LIST LOGSTREAM NAME(*)DETAIL options to help identify which log streams are using DRXRC-type staging data sets and need conversion for log data recovery use.

Use the necessary XRC commands (e.g. XQUERY) and services to identify the cause of the problem and make the necessary corrections. See *z/OS MVS System Messages, Vol 1 (ABA-AOM)* for an explanation of the ANTRQST service return and reason codes. For a description of XRC commands, see the *z/OS DFSMS Advanced Copy Services* manual.

If RETCODE=7101 RSNCODE=3554068441 appears in the IXG070I message, system logger converted the XRC return information because a zero time stamp was received.

Reply to message IXG071D to allow system logger initialization to continue.

If you are still unable to solve the problem, contact the IBM Support Center and provide the retcode and rsncode from IXG070I.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4XRC

Routing code: 2,10

Descriptor code: 7,11

IXG071D REPLY R TO RETRY OR U TO USE THE CURRENT TIME AS THE CONSISTENCY TIME.

Explanation: Logger's attempt to obtain the consistency time from XRC session failed. Message IXG070I will have the return and reason code for the service failure. To perform the recovery operation, system logger needs a consistent time view from Extended Remote Copy (XRC). System logger uses the consistency time for managing converted DRXRC-type staging data set resources during log stream log data recovery.

System action: System logger stops initializing. The system logger address space has been made partially available mainly for display purposes. Following the response, the remaining system logger DRXRC conversion is attempted

again or terminated. See the Operator Response for more details.

Operator response: Notify the system programmer, then respond to the message by selecting one of the following replies:

R To request that system logger retry to obtain the consistency time from XRC. Use this response after taking the steps to remedy the reason for the failure identified in message IXG070I.

U To request that system logger use the current time as the consistency time for managing converted DRXRC-type staging data set resources during log stream log data recovery. System logger will include all log stream log data in any converted DRXRC-type staging data set during the log stream recovery.

If you enter an incorrect reply, the system issues message IXG116I to notify the operator of the error. The system then reissues message IXG070D.

Regardless of the response to message IXG071D, conventional system level recovery of log stream connections will be performed for log streams that had failed connections.

System programmer response: Consult with the installation storage administrator and determine whether any log stream DRXRC-type staging data sets need to be managed for this DRMODE=YES IPL.

Use the D XCF,C,TYPE=LOGR and D LOGGER,C,SYSPLEX commands or use the IXCMIAPU DATA TYPE(LOGR) utility with the REPORT(YES) and LIST LOGSTREAM NAME(*) DETAIL options to help identify which log streams are using DRXRC-type staging data sets and need conversion for log data recovery use.

Use the necessary XRC commands (e.g. XQUERY) and services to identify the cause of the problem and make the necessary corrections. See *z/OS MVS System Messages, Vol 1 (ABA-AOM)* for an explanation of the ANTRQST service return and reason codes. For a description of XRC commands, see the *z/OS DFSMS Advanced Copy Services* manual. If RETCODE=7101 RSNCODE=3554068411 appears in the IXG070I message, then system logger converted the XRC return information because a zero time stamp was received.

Reply to message IXG071D to allow system logger initialization to continue.

If you are still unable to solve the problem, contact the IBM Support Center and provide the retcode and rsncode from IXG070I.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4XRC

Routing code: 1,2

Descriptor code: 2

IXG072I CONSISTENCY TIME OF *conntime* IS BEING USED BY LOGGER FOR DRXRC RECOVERY PURPOSES

Explanation: System logger uses the consistency time (UTC or coordinated universal time) for managing converted DRXRC-type staging data set resources during log stream log data recovery.

In the message text:

conntime
The consistency time obtained from XRC ANTRQST macro.

System action: Processing continues.

If message IXG070I and IXG071D were issued and the reply was **U**, then system logger obtained the current time and will include all log stream log data in any converted DRXRC-type staging data sets.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4XRC

Routing code: 2

Descriptor code: 4

IXG073D LOGGER DRXRC CONVERSION HAS NOT COMPLETED. REPLY R TO RETRY OR C TO CANCEL DRXRC PROCESSING.

Explanation: The system was IPLed with system parameter DRMODE=YES. When DRMODE=YES is specified in combination with a Y reply to message IXG068D, it indicates that a recovery system is being IPLed as part of a disaster recovery scenario and special handling of certain resources are required.

However, system logger had not been able to complete its identification and preparation, meaning conversion, of the log stream resources needing recovery. System logger needs this process to be completed in order to recover the data from these resources.

System action: System logger initialization processing stops and the system logger address space has been made partially available mainly for display purposes. Following the response, the remaining system logger DRXRC conversion is attempted again or terminated. See Operator Response below for more details.

Operator response: Choose one of the following replies:

R To request that system logger retry the process of converting (identifying and preparing) any remaining log stream DRXRC-type resources. This makes the DRXRC-type resource available for log stream recovery. If the above processing is finished then message IXG069I will be issued indicating that system logger DRXRC-type resources are now available for log stream recovery.

C To request that system logger cancel the process of converting (identifying and preparing) any remaining log stream DRXRC-type resources.

For log streams using DRXRC-type staging data sets, and not yet converted, the C reply will be treated by system logger as if the system were IPLed with DRMODE=NO. If the only copies of some log streams primary (interim) log data are in a DRXRC-type staging data sets, then the recovery for these log streams might not succeed (message IXG212E) and the log streams marked as damaged (possible loss of data).

If an incorrect reply is entered, the system issues message IXG116I to notify the operator of the error. The system then reissues message IXG073D.

Regardless of the response to message IXG073D, system logger conventional system level log stream recovery and log stream connection recovery will be performed for log streams that had failed connections.

System programmer response: Use the D XCF,C,TYPE=LOGR and D LOGGER,C,SYSPLEX commands or use the IXCMIAPU DATA TYPE(LOGR) utility with the REPORT(YES) and LIST LOGSTREAM NAME(*) DETAIL options to help identify which log streams are using DRXRC-type staging data sets and still need conversion for log data recovery use.

Consult with the installation storage administrator and determine where the DRXRC-type staging data sets reside and make sure all of them are online so system logger can get access to the couple data set.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 1,2

Descriptor code: 2

IXG074I SYSTEM LOGGER SERVICES DISABLED FOR GROUP: TEST

Explanation: The system logger TEST group service tasks failed. D LOGGER, ST will identify that the system logger TEST environment is not operational.

System action: The system takes the following actions:

- Disconnects all log streams defined with GROUP(TEST) from the system.
- Might issue other messages, such as IXG063I.
- Issues an ENF signal for each disconnected log stream

Note: Although system logger services have been disabled for TEST log streams, the system still permits the SETLOGR FORCE,DELETE,LSN=xxx command and might permit DEFINE and UPDATE commands for TEST log streams.

Operator response: Notify the system programmer.

System programmer response: If this TEST group is critical, you must restart the system logger address space (IXGLOGR)

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 2, 10

Descriptor code: 3

IXG075E SYSTEM LOGGER CONSTRAINED FOR GROUP: PRODUCTION

Explanation: Log streams defined with group attribute PRODUCTION cannot be connected because the system is constrained or log streams in other groups might have consumed some of the allotted set of resources required for log stream connections.

System action: The connection request is rejected

Operator response: Notify the system programmer.

System programmer response: TEST log streams connections might prevent PRODUCTION log streams from connecting. You might need to disconnect TEST log streams in order for the PRODUCTION connection to succeed.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CON

Routing code: 2,10

Descriptor code: 7,11

IXG076I SYSTEM LOGGER CONSTRAINED FOR GROUP: TEST

Explanation: Log streams defined with GROUP(TEST) cannot be connected because the system is constrained or log streams in the TEST group have consumed their allotted set of resources required for log stream connections.

System action: The connection request is rejected.

Operator response: Notify the system programmer.

System programmer response: PRODUCTION log streams might prevent TEST log streams from connecting. You might need to disconnect PRODUCTION log streams in order for the TEST connection to proceed.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CON

Routing code: 10

Descriptor code: 4

IXG077I SYSTEM LOGGER HEALTH CHECKS NOT ACTIVATED ON SYSTEM *sysname* **REASON** *reason*

Explanation: System logger health checks were not activated on this system. System logger encountered an error while trying to establish the system logger health checks.

In the message text:

sysname
The name of the system where health checks were not activated.

reason
Diagnostic reason code. See system programmer response for details.

System action: Logger health checks will not run on this system. No other logger processing will be adversely affected.

Operator response: Notify the system programmer.

System programmer response: Review Logrec for a system logger software record that contains PIDS/5752SCLOG RIDS/IXGBLF01, and FLDS/RETCODE VALU/H0000000C FLDS/REASON VALU/H02020007 for the service name, service type, return and reason codes.

You need to consult other publications depending on the diagnostic reason codes:

0X There was a problem issuing a STORAGE request; consult *z/OS MVS Programming: Assembler Services Reference IAR-XCT* with the return code from the trace.

1X There was a problem issuing a CSVDYNEX request; consult *z/OS MVS Programming: Authorized Assembler Services Reference ALE-DYN* with the return and reason codes from the trace.

2X There was a problem issuing a HZSCHECK request; consult *IBM Health Checker for z/OS User's Guide* with the return and reason codes from the trace.

If the health checks are essential, you can force the IXGLOGR asid and restart system logger to retry adding the checks. If the problem cannot be determined or corrected, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 10

Descriptor code: 4

IXG078I LOGR COUPLE DATA SETS NOT BEING USED ON SYSTEM *sysname* **MANAGE LOGRCDS ALLOWACCESS(NO) SPECIFIED**

Explanation: System logger will not access the LOGR couple data sets on this system because of the logger policy parameter specification MANAGE LOGRCDS ALLOWACCESS(NO).

In the message text:

sysname
The name of the affected system.

System action: This message is issued during system restart processing when the IXGCNFxx SYS1.PARMLIB specification is detected and processing continues. This message is reissued if the system logger address space

| IXGLOGR is started and remains active on this system or is later restarted. Logger will not attempt any LOGR
| couple data set accesses while this setting is in place.

| **Operator response:** None.

| **System programmer response:** If the system is configured as expected, then no action is needed.

| If system logger services are required, then plan and process the appropriate configuration changes that ensure the
| correct environment. For more information, see the MANAGE LOGRCDS ALLOWACCESS option in the IXGCNFxx
| SYS1.PARMLIB member in *z/OS MVS Initialization and Tuning Reference* . For suggested approaches for reversing this
| setting, see"Prevent a z/OS image from accessing LOGR couple data sets" in *z/OS MVS Setting Up a Sysplex* .

| **User response:** None.

| **Programmer response:** None.

| **Source:** System logger (SCLOG)

| **Module:** IXGBLF01

| **Routing code:** 2

| **Descriptor code:** 4

IXG101I STRUCTURE REBUILD INTO STRUCTURE *strname* **STOPPED FOR REASON:** *text*

Explanation: The structure rebuild process has failed because of the specified reason.

In the message text:

strname
is the new structure in the rebuild operation.

NEW STRUCTURE TOO SMALL TO CONTAIN LOGSTREAM DATA
The Structure Rebuild process has failed because the new structure is not allocated with enough data entries to hold all the log stream data from all the connectors participating in the structure rebuild.

Message IXG106I is issued when the structure rebuild is stopped for this reason. See message IXG106I for the correct action to take.

IXLLIST FAILURE
An IXLLIST list structure request failed during Local Buffer restore processing.

A SYSLOGR Trace entry is produced and written to the system logger trace buffer. A dump of the system logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason that caused the structure rebuild to stop.

INTERNAL SYSTEM LOGGER FAILURE
An internal system logger service failed preventing the structure rebuild from continuing. The structure rebuild is stopped.

A SYSLOGR trace entry is produced and written to the system logger trace buffer. A dump of the system logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason that caused the structure rebuild to stop.

CONNECTION TO THE NEW STRUCTURE FAILED
A peer connector failed in attempting to connect to the new structure during structure rebuild. Since not all original connectors have successfully connected to the new structure, the rebuild is stopped.

A SYSLOGR trace entry is produced and written to the system logger trace buffer. A dump of the system logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason that caused the structure rebuild to stop.

LOSS OF CONNECTIVITY TO THE NEW STRUCTURE
The system has lost connectivity to the new structure and cannot participate in the rebuild process. The structure rebuild is stopped because the system that lost connectivity to the new structure was not using staging data sets to duplex all of the log streams that it was currently connected to at the time the structure rebuild started. The structure rebuild is stopped to prevent a loss of data condition for the log streams that this system is connected to.

The installation should determine why the system lost connectivity to the new structure. Correct the reason for the connectivity loss and reinitiate a structure rebuild through the SETXCF START,REBUILD console command.

IXLLIST OPERATION FAILED FOR NEW STRUCTURE
An IXLLIST operation failed during structure rebuilding processing, preventing structure rebuild from proceeding successfully.

A SYSLOGR trace entry is produced and written to the system logger trace buffer. A dump of the system logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason that caused the structure rebuild to stop.

SYSTEM LOGGER STORAGE MANAGER FAILURE
A request to the system logger storage manager to obtain resources needed by structure rebuild processing had failed. The failure prevents the structure rebuild from proceeding successfully.

A SYSLOGR trace entry is produced and written to the system logger trace buffer. A dump of the system logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason that caused the structure rebuild to stop.

SYSTEM FAILURE
A system has terminated while rebuild is in progress. The rebuild is stopped to prevent possible loss of data.

The installation may reinitiate a structure rebuild through the SETXCF START,REBUILD operator command if another attempt to rebuild the structure is desired. Be aware that if the original structure does not have any other systems currently connected to the structure in the active state, reinitiating a structure rebuild may result in a loss of data for log streams that were connected to by the system that terminated if the log data written by the terminated system was not duplexed by system logger staging data sets.

To display detailed information about the indicated structure, the following command may be issued from the operator console:

- D XCF,STRUCTURE,STRNAME=*name*

SYSTEM LOGGER INVENTORY ERROR
A request to update the system logger inventory records during structure rebuild processing had failed. The failure prevents the structure rebuild from proceeding successfully.

A SYSLOGR trace entry is produced and written to the system logger trace buffer. A dump of the system logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason that caused the structure rebuild to stop.

NEW STRUCTURE HAS UNACCEPTABLE ATTRIBUTES
The structure created for rebuild cannot be used because it is not allocated with enough data entries to support the number of log streams requested on the Inventory structure definition LOGSNUM keyword.

system logger uses a small percentage of the allocated data entries in a structure for internal processing. The most likely cause of this problem is that the Coupling Facility which contains the newly allocated structure does not have enough space available to allocate the structure at the requested size.

Either more space needs to be made available in the coupling facility, or the structure needs to be allocated in a coupling facility that can accommodate it. More space can be made available in a coupling facility by causing structures to be deallocated from that facility, or by decreasing the amount of space reserved for structure dumps. It may be necessary to modify the preference list or the exclusion list defined in the CFRM policy to allow the structure to be allocated in a more suitable coupling facility. Alternatively, it may be necessary to make a new coupling facility available for the sysplex to use.

ERROR POPULATING NEW STRUCTURE WITH CONTROL LIST
An internal failure occurred while refreshing control blocks and populating the new structure with a control list.

A SYSLOGR trace entry is produced and written to the system logger trace buffer. A dump of the system logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason that caused the structure rebuild to stop.

NEW STRUCTURE HAS INSUFFICIENT VECTOR LENGTH
The structure created for rebuild cannot be used because the list notification vector for the list structure is not large enough for all the lists that need to be monitored for list transitions. There was not enough storage available in the Hardware System Area (HSA) for a larger vector. Enter a DISPLAY XCF,STR command to determine which structures are in use. For each structure that is in use, enter a DISPLAY,SCF,STR,STRNAME= *inusestr*, where *inusestr* is the name of an in use structure, to determine which applications are connected to the

structure from this system. Consult the system programmer as needed to determine whether to reduce the number of connector connected to structures from the system stopped the structure rebuild, or to modify the way in which the connectors are using the structure, or to perform the steps needed to increase the amount of storage in the Hardware System Area (HSA).

LIST MONITORING REQUEST FOR THE NEW STRUCTURE FAILED
A list monitoring request has failed for a list used by system logger to manage the log streams defined to structure *name*. The failure prevents the structure rebuild from proceeding successfully.

A SYSLOGR trace entry is produced and written to the system logger trace buffer. A dump of the system logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason that caused the structure rebuild to stop.

NEW STRUCTURE HAS INSUFFICIENT OPERATIONAL LEVEL
The new structure resides in a coupling facility which does not have a minimum operation level of 1. System logger requires a Coupling Facility operation level of 1 or greater. It may be necessary to modify the preference list or the exclusion list defined in the CFRM policy to allow the structure to be allocated in a Coupling Facility with the required operation level. Alternatively, it may be necessary to make a new coupling facility available for the sysplex to use with an operation level of at least 1.

STAGING DATASET ERROR
An error was encountered while repopulating the list structure with log data from staging data sets.

A SYSLOGR trace entry is produced and written to the system logger trace buffer. A dump of the system logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason that caused the structure rebuild to stop.

IXLLIST FAILURE
IXLLIST FAILURE occurred during coupling facility repopulation from staging data sets.

A SYSLOGR trace entry is produced and written to the system logger trace buffer. A dump of the system logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason that caused the structure rebuild to stop.

REQUIRED OFFLOAD NOT COMPLETED
A stalled or failed offload was encountered while the system attempted to move CF structure resident data that was not duplexed for a log stream defined to the structure being rebuilt. A SYSLOGR Component Trace entry is produced and written to the system logger Component Trace buffer. A dump of the system logger Component Trace buffer should be requested to obtain diagnostic information that the IBM Support Center needs to diagnose the reason that caused the structure rebuild to stop.

System action: A structure rebuild stop has been initiated and the structure rebuild stop process begins.

Operator response: Notify the system programmer.

System programmer response: Take the action described for the specific structure rebuild stop reason.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 2

Descriptor code: 4

IXG102I SYSTEM *sysname* **FAILED WHILE STRUCTURE** *strname* **WAS BEING REBUILT. THE REBUILD WILL CONTINUE BECAUSE THE LOG STREAM DATA IS DEEMED RECOVERABLE.**

Explanation: A system failure was detected during structure rebuild processing. Because all log streams using the old structure instance on the failed system are also using staging data sets, system logger has determined that the rebuild can continue.

In the message text:

sysname
The name of the failing system

strname
The name of the structure in the rebuild operation

System action: The structure rebuild continues. Logger will attempt to recover the failing system's log stream data from its staging data sets when the rebuild completes.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4STE

Routing code: 2, 10

Descriptor code: 4

IXG104I STRUCTURE REBUILD INTO STRUCTURE *strname* **HAS BEEN STARTED FOR REASON:** *text*

Explanation: The structure rebuild has been initiated because of the specified reason.

In the message text:

strname
is the new structure in the rebuild operation.

STRUCTURE FAILURE
A structure failure condition was detected.

LOSS OF CONNECTIVITY TO THE STRUCTURE
Connectivity to the structure does not exist.

COUPLING FACILITY VOLATILITY STATE CHANGE
A structure has changed from non-volatile to volatile state.

System action: A structure rebuild starts for structure *name*.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 2

Descriptor code: 4

IXG105I UNABLE TO START STRUCTURE REBUILD INTO STRUCTURE *strname* **FOR REASON:** *text* **DIAG1:** *diag1* **DIAG2:** *diag2*

Explanation: The initiation of the structure rebuild process for the specific reason has failed.

In the message text:

strname
is the new structure in the rebuild operation.

text
is one of the following:

STRUCTURE FAILURE
A structure failure condition was detected.

LOSS OF CONNECTIVITY TO THE STRUCTURE
Connectivity to the structure does not exist.

COUPLING FACILITY VOLATILITY STATE CHANGE
A structure has changed from non-volatile to volatile state.

diag1
Is the return code from the IXLREBLD macro.

diag2
Is the reason code from the IXLREBLD macro.

System action: The request to initiate a structure rebuild was not successful.

Operator response: If another system within the sysplex connected to structure *name* could not initiate a structure rebuild, a SETXCF START,REBUILD,STRNAME=*name* console command can be issued to to initiate a structure rebuild.

System programmer response: Consult *z/OS MVS Programming: Sysplex Services Reference* to understand the meaning of the return code and reason code received from IXLREBLD, as this may help you solve the problem. If a structure rebuild can not be initiated automatically by system logger or initiated manually by the SETXCF console command issued by the operator, search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 1

Descriptor code: 11

IXG106I REBUILT STRUCTURE NOT LARGE ENOUGH TO ACCOMMODATE THE CONTENTS OF *strname*. ORIGINAL STRUCTURE HAS *decimalnumber* ELEMENTS, STRUCTURE CREATED FOR REBUILD ATTEMPT HAS *decimalnumber* ELEMENTS.

Explanation: The structure created during rebuild processing for *strname*, is not large enough. Either an inadequate size is specified in the policy or the containing Coupling Facility does not have enough space available to allocate the structure at the requested size.

In the message text:

strname
is the name of the structure undergoing structure rebuild.

decimalnumber
is the size of the structure which was originally created.

System action: The structure rebuild is stopped by system logger.

Operator response: Contact the system programmer.

System programmer response: If the size of the original structure is greater than the maximum structure size defined in the CFRM active policy, use the XCF Administrative Data Utility to increase the structure size specified in a policy. Have the operator activate the updated policy and re-initiate a structure rebuild through the SETXCF START,REBUILD console command.

If the allocated structure size of the new structure is less than the size defined in the policy for the structure, the coupling facility containing the structure did not have enough space available to allocate the structure as large as the policy allowed. Either more space needs to be made available in the coupling facility, or the structure needs to be allocated in a coupling facility that can accommodate it. More space can be made available in a coupling facility by causing structures to be deallocated from that facility, or by decreasing the amount of space reserved for structure dumps. It may be necessary to modify the preference list or the exclusion list defined in the CFRM policy to allow the structure to be allocated in a more suitable coupling facility. Alternatively, it may be necessary to make a new coupling facility available for the sysplex to use.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGL1SRB

Routing code: 2

Descriptor code: 4

IXG107I STRUCTURE REBUILD FAILED FOR STRUCTURE *strname* **DUE TO A** *text*

Explanation: Structure rebuild for structure *strname* has failed, leaving connectors to log streams defined to this structure unable to access log stream data.

In the message text:

strname
The name of the structure for which the structure rebuild failed for.

text is one of the following ones:

LOSS OF CONNECTIVITY TO THE STRUCTURE. LOGSTREAM DATA DEFINED TO THIS STRUCTURE IS NOT ACCESSIBLE.
The system does not have access to the log stream data in the structure due to a loss of connectivity between the MVS system and the coupling facility in which structure *strname* resides.

When logger attempted to rebuild the structure, a system failed, and the failing system had log stream connections that were not deemed recoverable because they were not duplexing to staging data sets. Logger stopped the rebuild to prevent data loss.

STRUCTURE FAILURE. LOGSTREAM DATA DEFINED TO THIS STRUCTURE IS NOT ACCESSIBLE.
The system does not have access to the log stream data in the structure due to a structure failure against structure *strname* or a failure in the coupling facility in which structure *strname* resides.

System action: The structure rebuild has stopped.

Operator response: Contact the system programmer.

System programmer response: Access to log stream data is not possible due to the structure being in a failed state or a lack of connectivity to the structure by the system.

If the structure experienced a loss of connectivity, determine if the structure can be reconnected. Logger may be able to recover log data if the structure is properly reconnected to the system.

If the structure experienced a structure failure, or a loss of connectivity and you are unable to reconnect the structure, the log streams connected to the structure may experience data loss during a subsequent rebuild request.

To continue working with log streams connected to *strname*, you will need to re-initiate a structure rebuild via the SETXCF START,REBUILD operator command.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RBE

Routing code: 2

Descriptor code: 4

IXG109E SYSTEM LOGGER INVENTORY REQUEST FAILED FOR LOGSTREAM *logstream***. THE FAILURE RESULTS IN DOWN LEVEL CONNECTION INFORMATION IN THE SYSTEM LOGGER COUPLE DATASET FOR THIS CONNECTION.**

Explanation: An attempt to update the system logger inventory functional couple data set for log stream *logstream* failed. The failure results in down level connection information in the system logger couple data set for this

connection. Down Level connection information for a connector may result in a false notification to the connector(s) that this log stream has suffered a loss of data condition.

In the message text:

logstream
Name of the log stream that the request failed for.

System action: A SYSLOGR trace entry is produced and written to the system logger trace buffer.

Operator response: None.

System programmer response: A dump of the system logger trace buffer may be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason for the condition that caused this message to be issued.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RPC

Routing code: 10

Descriptor code: 12

IXG110I STRUCTURE REBUILD FOR STRUCTURE *strname* IS COMPLETE. LOGSTREAM DATA DEFINED TO THIS STRUCTURE MAY BE LOST FOR CERTAIN LOGSTREAMS

Explanation: The structure rebuild for structure *strname* has completed successfully. When structure rebuild completed, some log streams had a loss of data condition due to not all data for the log stream being restored to the new rebuilt structure.

An ENF 48 signal was broadcasted and received by registered listeners listing all log streams that might have lost data due to a failed instance of a system logger in the sysplex not participating in the structure rebuild.

In the message text:

strname
is the name of the structure which the structure rebuild has failed for.

System action: Structure rebuild completes successfully.

Operator response: Not Applicable.

System programmer response: Not Applicable.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RBE

Routing code: 2

Descriptor code: 4

IXG111I *rebuildtype* REBUILD FOR STRUCTURE *strname* IS COMPLETE. LOGSTREAM DATA DEFINED TO THIS STRUCTURE IS AVAILABLE

Explanation: Structure or Duplex rebuild for structure *strname* has completed successfully. Connectors may resume requests against the log streams defined to structure *strname*.

In the message text:

rebuildtype
The type of rebuild: STRUCTURE or DUPLEXING.

strname
The name of the structure which the structure rebuild has completed for.

System action: Structure rebuild completes successfully.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RBE

Routing code: 2

Descriptor code: 4

IXG112I SYSTEM LOGGER INITIALIZATION FAILED.

Explanation: System logger was unable to complete initialization processing of the system logger Function Couple Dataset. System logger requests which are related to log streams or Coupling Facility structures may not be able to be processed on the system.

System action: The system logger address space becomes active. A SYSLOGR trace entry is produced and written to the system logger trace buffer.

Operator response: Contact the system programmer.

System programmer response: A SYSLOGR trace entry is produced and written to the system logger trace buffer. A dump of the System logger trace buffer should be requested to obtain diagnostic information that the IBM support center will need to diagnose the reason why System logger initialization failed.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 11

Descriptor code: 6

IXG113E SYSTEM LOGGER DUPLEX MODE TRANSITION FAILED FOR LOGSTREAM *logstream***. THE FAILURE PREVENTS SYSTEM LOGGER FROM USING** *text*

Explanation: An attempt by system logger to dynamically change the way coupling facility resident log data is duplexed for log stream *logstream* failed. The failure prevents System logger from changing the way in which coupling facility log data is duplexed until it can be written to log stream data sets.

In the message text:

logstream
Name of the log stream that the request failed for.

text
One of the following:

STAGING DATASETS TO DUPLEX COUPLING FACILITY RESIDENT LOG DATA.
System logger can not use Staging Data Sets to duplex coupling facility resident log data despite the transition of the connection from failure-independent to failure-dependent. Coupling facility resident log data continues to be duplexed in local buffers that reside on the MVS image that wrote the log data.

LOCAL BUFFERS TO DUPLEX COUPLING FACILITY RESIDENT LOG DATA.
System logger can not use Local Buffers resident on the MVS image that wrote the log data to duplex

coupling facility resident log data despite the transition of the connection from failure-dependent to failure-independent. Coupling facility resident log data continues to be duplexed in staging data sets.

NO LOGGER DUPLEXING TO DUPLEX COUPLING FACILITY RESIDENT LOG DATA.
System logger has determined that it no longer needs to duplex data, since XES is duplexing the data in failure-isolated structures. However, system logger was unable to delete its staging data set and will continue to use it.

System action: System logger continues to process requests.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RPC

Routing code: 10

Descriptor code: 12

IXG114A OFFLOAD IS NOT PROGRESSING ON *sysname* **LOGSTREAM:** *logstream*, **STRUCTURE:** *strname* **CHECK FOR OFFLOAD INHIBITORS WITHIN** *checksys*

Explanation: On system *sysname*, an offload initiated as part of log stream recovery for log stream *logstream* on structure *strname* is not progressing. The offload function involves reading log data from interim storage and writing it to DASD log data sets. Writing data to DASD log data set(s) involves DASD I/O and the potential need to allocate a new or existing log data set.

In the message text:

sysname
is the name of the system on which the system logger address space is not progressing with log stream recovery.

logstream
is the name of the log stream which is in the process of being offloaded.

strname
the name of the structure associated with the log stream.

checksys
identifies the likely system candidate that should be checked or if all systems in the "SYSPLEX" should be checked for inhibitors preventing the log stream recovery on system *sysname*.

System action: Until this offload completes, system logger on system *sysname* is unable to process functions such as log stream connect requests, log stream disconnect requests, log stream deletion requests and is unable to process most structure events for all structures to which the system is connected.

The inability of this system to process structure events could result in delays in structure rebuild and the inability of other systems in the sysplex to reconnect to one of the affected structures. The affected structures are any structure to which system *sysname* is connected.

Once the offload completes, this message will be DOMed.

This message is accompanied by message IXG115A.

Operator response: Check for any conditions in the installation that might be preventing the offload from proceeding.

1. Check for outstanding WTOs or WTORs.

   Check for any outstanding WTORs or WTOs that are awaiting action that might be preventing system logger from being able to allocate a log data set.
2. Check for start pendings.

Check for any start pending conditions against either the offload DASD device or any devices required to allocate/unallocate log data sets such as the catalog device and any device on which a new log data set could be allocated. If start pending conditions are found any of these devices, resolve the condition.

3. Check for resource contention.

   Issue the DISPLAY GRS,C command to display resource contention. If there is resource contention that is preventing system logger from allocating log data sets. If so, resolve the contention.

4. Check for recall of migrated log data sets.

   Resolve any recall requests for migrated log data sets.

If none of the above steps resolves the condition, notify the system programmer.

System programmer response: See the system programmer response for IXG115A.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RSC

Routing code: 1

Descriptor code: 2

IXG115A CORRECT THE OFFLOAD CONDITION ON *sysname* FOR *strname* OR REPLY TASK=END TO END THE STRUCTURE TASK.

Explanation: On system *sysname*, an offload initiated as part of log stream recovery for log stream *logstream*. is not progressing. The offload function involves reading log data from interim storage and writing it to DASD log data sets. Writing data to DASD log data set(s) involves DASD I/O and may involve allocating a new or existing offload data set.

In the message text:

sysname
: is the name of the system on which the system logger address space is not progressing with log stream recovery.

strname
: is the name of the structure for which the log stream offload is not progressing.

System action: Until this offload completes, system logger on system *sysname* is unable to process the following functions related to the structure *strname*:

- log stream connect requests
- log stream disconnect requests
- log stream deletion requests
- structure events

  The inability of this system to process structure events could result in delays in structure rebuild and the inability of other systems in the sysplex to reconnect to the structure.

Once the offload completes, this message will be DOMed.

This message is accompanied by message IXG114A. This message might also be accompanied by messages IXG311I, IXG312E and/or IXG271I, IXG272E or IXG281I on a system that is currently processing an offload for the log stream.

Operator response: Check for any conditions in the installation that might be preventing the offload from proceeding.

1. Check for outstanding WTOs or WTORs.

   Check for any outstanding WTORs or WTOs that are awaiting action that might be preventing system logger from being able to allocate a log data set. See Offload and Service Task Monitoring in *z/OS MVS Setting Up a Sysplex* for more information on the relationship among and considerations for these action messages.

   Check for messages IXG311I and IXG312E on systems connected to the log stream. If messages IXG311I and IXG312E were issued from a system that is different from the system where messages IXG114A and IXG115A

were issued for this log stream, replying "FAIL" to IXG312E allows system logger to complete an offload on the same system where message IXG115A was issued. If system logger can complete the offload on this system, the IXG115A condition can be cleared without any additional action.

If messages IXG311I and IXG312E were issued from the same system as messages IXG114A and IXG115A for the log stream, then replying “FAIL” to IXG312E will most likely clear the IXG115A condition, but might cause the log stream recovery to be incomplete. If the log stream recovery is incomplete, then the log stream may end up failed-persistent, or a log stream connection request might be rejected.

Also, look for messages IXG271I and IxG272E on the system identified in IXG115A. Replying “FAIL” to IXG272E might help allow the log stream recovery to continue, but this response might also cause the log stream recovery to be incomplete (similar to what described above).

2. Check for start pendings.

   Check for any start pending conditions against either the offload DASD device or any devices required to allocate/unallocate log data sets such as the catalog device and any device on which a new log data set could be allocated. If start pending conditions are found any of these devices, resolve the condition.

3. Check for resource contention.

   Issue the DISPLAY GRS,C command to display resource contention. If there is resource contention that is preventing system logger from allocating log data sets. If so, resolve the contention.

4. Check for recall of migrated log data sets.

   Issue the DISPLAY LOGGER,STATUS,RECALLS command to display all the outstanding data set recalls requested by the system logger on the system. Determine if DFSMShsm is functioning properly.

   Resolve any recall requests for migrated log data sets. Use the SETLOGR FORCE,NORECall,DSName=dsname command to cause system logger to stop waiting for a particular data set to be recalled.

If none of the above steps resolves the condition, notify the system programmer.

System programmer response: If the problem persists after the actions in the **Operator Response**, you can reply TASK=END to this message. System logger will then abend the structure task owning the connection to structure *strname*. A system logger dump will be requested for all the systems in the sysplex and a dump of the structure *strname* will also be requested. All active log stream connections owned by this system to the structure, and the structure connection will be placed in a failed state.

If the problem appears to be a system error, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center, providing the dump.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RSC

Routing code: 1,2

Descriptor code: 2

IXG116I THE RESPONSE TO MESSAGE *messageid* **IS INCORRECT:** *reply text*

Explanation: The operator entered an incorrect response to a message.

In the message text:

messageid
The message identifier.

reply
The incorrect response.

text

IS NOT A VALID ACTION
The operator entered an incorrect response to message *messageid*.

System action: The system reissues the message that received an incorrect reply.

Operator response: See the operator response for message *messageid* and respond accordingly, if applicable.

System programmer response: Not Applicable.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: Many

Routing code: 1,2

Descriptor code: 12

IXG117I *rebuildtype* **REBUILD STARTED FOR STRUCTURE** *strname count* **OF** *count* **LOGSTREAMS CONNECTED TO STRUCTURE:** *logstream logstream*

Explanation: The Names of up to 10 (the maximum recommended) Log streams connected to the Structure that is being rebuilt are listed. This message is accompanied by ENF 48, Type LOGSTRMSNOTAVAIL, Subtype STRREBUILDSTART.

When the rebuild activity is complete, logger will issue a message indicating the status of the request. Also another ENF 48 signal is issued, indicating the completion status of the REBUILD.

In the message text:

rebuildtype
The type of rebuild: STRUCTURE or DUPLEXING.

strname
Is the structure in the rebuild operation.

count
Is the number of log streams listed.

logstream
The name of the log stream.

System action: The rebuild continues.

Operator response: If a listing of all the log streams in the structure is needed, issue the D LOGGER Command, specifying the structure being rebuilt.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RBE

Routing code: 2

Descriptor code: 4

IXG119I **LOGGER STAGING DRXRC DUPLEXING IN EFFECT FOR LOGSTREAM** *logstream* **DSN=***DataSetName* **ON VOLUME** *volume*

Explanation: Message issued on the first log stream connection for a system or following a structure rebuild after the staging data set is successfully established to indicate system logger is now duplexing the log data in a staging data set for specific secondary/recovery site conditions. See message IXG068D.

In the message text:

logstream
The name of the log stream duplexed in this manner.

DataSetName
The staging data set name.

volume The volume name or the string "?????" when the volume could not be determined.

System action: System logger will duplex log data written to primary storage (coupling facility structure) in local buffers for any primary site log stream recovery conditions. System logger will also duplex asynchronously the same log data in a DRXRC-type staging data set for potential log stream recovery purposes on a secondary or recovery site.

Operator response: Not applicable.

System programmer response: If extended Remote Copy (XRC) is being used to mirror the DASD for the system logger configuration, then contact the storage administrator to ensure the staging data set is allocated on a volume and is being managed as expected. See *z/OS DFSMS Advanced Copy Services* and *z/OS MVS Setting Up a Sysplex* for more information about XRC and system logger's use of DRXRC-type staging date set use.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CON

Routing code: 10

Descriptor code: 12

IXG120E LOGGER STAGING DRXRC DUPLEXING REQUESTED BUT NOT IN EFFECT FOR LOGSTREAM *logstream*

Explanation: Message is issued when system logger is attempting to obtain a DRXRC-type staging data set, but was unable to acquire one on this system for the identified log stream. It can occur in the following three situations:

- during a log stream connection
- after a structure rebuild
- after a permanent I/O error occurred for a prior instance of the DRXRC-type staging data set. A new DRXRC-type staging data set instance cannot be obtained.

Duplexing of the primary site for system logger depends on the LOGGERDUPLEX parameter. See system logger message IXG217E. Message is issued when system logger is attempting to obtain a DRXRC-type staging data set, but was unable to acquire one on this system for this log stream.

In the message text:

logstream
The name of the log stream that had the DRXRC-type staging data set error.

System action: System logger produces the duplex log data written to primary storage (coupling facility structure) in local buffers for any recovery conditions for the primary site for the log stream. System logger is unable to duplex asynchronously the same log data in a DRXRC-type staging data set for the recovery purposes of the potential log stream on a secondary or recovery site.

Operator response: Not applicable.

System programmer response: Correct the error related to the staging data set. To ensure that system logger attempts to allocate the DRXRC-type staging data set again, take one of the following actions:

1. If in structure simplex-mode, issue a structure rebuild by using the SETXCF START,REBUILD... command.
2. If in structure duplex mode, transition from structure duplex-mode to simplex-mode (SETXCF STOP,REBUILD,DUPLEX... command), issue the structure rebuild (see prior step a), or restart structure duplexing (SETXCF START,REBUILD,DUPLEX... command).
3. Disconnect all connection on this system and reconnect to the log stream.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 10

Descriptor code: 4

IXG121I STALLED ASYNCHRONOUS IXGWRITE REQUESTS DETECTED DURING REBUILD FOR STRUCTURE *strname*. REBUILD ALLOWED TO CONTINUE

Explanation: During rebuild quiesce processing, System logger indicators showed outstanding asynchronous write activity. After delaying to allow for any potential writes to complete normally, system logger is responding to the rebuild quiesce request.

In the message text:

strname
is the structure in the rebuild operation.

System action: System logger responds to the outstanding rebuild quiesce request after delaying to allow active asynchronous events time to complete.

Operator response: Notify the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If there is no fix for the problem, get a dump of the system logger trace buffer, address space, and structure and contact the IBM Support Center. See Operator Command in IEADMCxx Parmlib Member and Getting a Dump of System Logger Information of *z/OS MVS Diagnosis: Tools and Service Aids* for more information about obtaining system logger dumps.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF1TTT

IXG122I OFFLOAD INITIATED FOR LOGSTREAM: *logstream* STRUCTURE: *strname* PRIOR TO ALLOWING REBUILD TO CONTINUE.

Explanation: During user managed rebuild quiesce processing, System Logger determined that an offload was necessary for the log stream to move data to DASD for which no duplexed copy exists.

In the message text:

logstream
The name of the log stream for which an offload has initiated.

strname
The name of the structure associated with the log stream.

System action: System logger responds to the outstanding rebuild quiesce request after the offload successfully moves data not duplexed by system logger to DASD. Rebuild processing will continue.

Operator response: None.

System programmer response: If the offload does not complete successfully, look for message IXG101I and other related rebuild messages to determine what actions to take.

User response: None.

Programmer response: None.

IXG201I REQUEST TO CONNECT TO LOGSTREAM *logstream* IN STRUCTURE *strname* ACCEPTED. CONNECTION TO ADDITIONAL LOGSTREAMS MAY FAIL DUE TO INSUFFICIENT STRUCTURE STORAGE

Explanation: The structure allocated for this log stream does not have sufficient storage to support the maximum

number of log streams defined for the structure as indicated in the LOGR policy. Subsequent connect requests may fail.

In the message text:

logstream
is the name of the log stream to be connected.

strname
is the name of the structure associated with the log stream.

System action: The connect request was successful.

Operator response: Notify the system programmer.

System programmer response: If the log streams defined for this structure will be used concurrently, a larger structure is necessary. The size of the structure can be increased by updating the CFRM policy, or dynamically by using the SETXCF operator command.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CON

Routing code: 10

Descriptor code: 12

IXG202I REQUEST TO CONNECT TO LOGSTREAM *logstream* **IN STRUCTURE** *strname* **REJECTED. INSUFFICIENT STORAGE FOR VECTOR TABLE.**

Explanation: An application issued an IXGCONN request to connect to a log stream associated with structure *strname*, but the request failed because there is not enough storage in the Hardware System Area (HSA) to allocate a large enough vector table large for the number of log streams requested.

In the message text:

logstream
is the name of the log stream to be connected.

strname
is the name of the structure associated with the log stream.

System action: The connect request failed.

Operator response: Notify the system programmer.

System programmer response: Increase the amount of storage in the Hardware System Area (HSA), or reduce the number of log streams defined to the structure so that a smaller vector table can be allocated.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CON

Routing code: 11

Descriptor code: 6

IXG203I REQUEST TO CONNECT TO LOGSTREAM *logstream* **IN STRUCTURE** *strname* **REJECTED. MINIMUM COUPLING FACILITY LEVEL REQUIRED IS** *decimalnumber* **CURRENT COUPLING FACILITY LEVEL IS** *decimalnumber*

Explanation: An application issued the IXGCONN request to connect to a log stream, but the operational level of the coupling facility where the structure associated with the log stream is not at the level required for system logger. The minimum operational level of the coupling facility required is 1.

In the message text:

logstream
is the name of the log stream to be connected.

strname
is the name of the structure associated with the log stream.

decimalnumber
is the required operational level of the coupling facility.

System action: The connect request failed.

Operator response: Notify the system programmer.

System programmer response: Upgrade the coupling facility operational level to at least 1.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CON

Routing code: 11

Descriptor code: 6

IXG204I DISCONNECT COMPLETED FOR LOGSTREAM *logstream* **IN STRUCTURE** *strname* **DUE TO ACTION RECOMMENDED BY XES.**

Explanation: Based on loss of installation-defined policies set up in the SFM policy for loss of connectivity, cross system extended services (XES) has recommended that this system discontinue use of the coupling facility.

In the message text:

logstream
is the name of the disconnected log stream.

strname
is the name of the structure associated with the log stream.

System action: All connections to the structure were terminated.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4DIS

Routing code: 11

Descriptor code: 6

IXG205I DISCONNECT COMPLETED FOR LOGSTREAM *logstream* **IN STRUCTURE** *strname* **DUE TO REBUILD FAILURE.**

Explanation: A component error was encountered during rebuild. All log streams defined to the original structure will be disconnected and the structure disconnected from Cross-system extended services (XES) with a failure reason code.

In the message text:

logstream
is the name of the disconnected log stream.

strname
is the name of the structure associated with the log stream.

System action: All connections associated with the failed structured have been terminated. The system issues message IXG101I to explain the problem further.

Operator response: Notify the system programmer.

System programmer response: Determine why the structure rebuild was stopped (see message IXG101I) and reinitiate a structure rebuild through the SETXCF START,REBUILD operator command. Reconnect to the log stream after the structure has successfully been rebuilt.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4DIS

Routing code: 11

Descriptor code: 6

IXG206I CONNECT FAILED FOR LOGSTREAM *logstream* **IN STRUCTURE** *strname***. NO SUITABLE COUPLING FACILITY FOUND.**

Explanation: Cross-system extended services (XES) could not find a suitable coupling facility in which to allocate structure *strname*. Accompanying message IXG207I displays the name of each coupling facility attempted and the failure reason code for each.

In the message text:

logstream
is the name of the disconnected log stream.

strname
is the name of the structure associated with the log stream.

System action: The connect request failed. The system issues accompanying message IXG207I.

Operator response: Notify the system programmer.

System programmer response: See accompanying message IXG207I to determine why no suitable coupling facility was found by examining the failure reason code. Fix the problem and then retry the connect request.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CTS

Routing code: 11

Descriptor code: 6

IXG207I CF NAME: *cfname* **REASON CODE:** *reason-code* **CF MINIMUM SIZE:***cfsize* **K BYTES.**

Explanation: Cross-system extended services (XES) could not find a suitable coupling facility in which to allocate the structure specified in message IXG206I.

In the message text:

cfname
is the name of the coupling facility XES tried to use.

reason-code
is the failure reason code.

cfsize
is the required size (in decimal) of the CF in kilobytes, needed by system logger when the REASON CODE value is either "00000007"x or "0000000B"x. For other reason codes, the value is zero (0).

System action: The connect request failed.

Operator response: Notify the system programmer.

System programmer response: See macro IXLYCONA for an explanation of the reason codes. The reason codes are constants whose names begin with "ConaRsn", for example, ConaRsnSuccess.Also, refer to ConaFacilityRsnCode field and values ConaRsnInvalidStructureSize and ConaRsnInsufficientSpace for when the required size will be provided in the message.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CTS

Routing code: 11

Descriptor code: 6

IXG208I DISCONNECT COMPLETED FOR LOGSTREAM *logstream* **IN STRUCTURE** *strname***. UNABLE TO OFFLOAD DATA TO DASD.**

Explanation: A component error was encountered during the process of offloading data from interim storage to DASD log stream data sets. (For a coupling facility log stream, interim storage is in the coupling facility while for a DASD-only log stream interim storage is in local storage buffers.) The log stream is disconnected. For a coupling facility log stream, the connection to the structure is in a failed-persistent state.

In the message text:

logstream
is the name of the disconnected log stream.

strname
is the name of the structure associated with the log stream.

System action: The log stream has been abnormally terminated.

Operator response: Notify the system programmer.

System programmer response: Notify IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4DIS

Routing code: 11

Descriptor code: 6

IXG209I RECOVERY FOR LOGSTREAM *logstream* **IN STRUCTURE** *structure* **COMPLETED SUCCESSFULLY.**

Explanation: All log stream data for log stream *logstream* that may have not been offloaded to log stream DASD data sets due to a prior log stream connection failure has now been successfully offloaded to log stream DASD data sets.

In the message text:

logstream
is the name of the log stream that has been recovered.

strname
is the name of the structure associated with the log stream.

System action: Log stream recovery completed successfully.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RSC

Routing code: 2

Descriptor code: 4

IXG210E RECOVERY FOR LOGSTREAM *logstream* **IN STRUCTURE** *strname* **WAS NOT SUCCESSFUL. DATA MAY BE LOST FOR THE CONNECTION ON SYSTEM** *sysname* **DUE TO:** *text* **DIAGNOSTIC INFORMATION:** *diag1 diag2 diag3 diag4*

Explanation: An error occurred during log stream recovery for the specified log stream. The error has resulted in log stream data being lost for the log stream.

In the message text:

logstream
is the name of the log stream that recovery was attempted for.

strname
is the name of the structure associated with the log stream.

sysname
is the name of the system where the connection resided whose data may have been lost.

text
is one of the following:

ERRORS ENCOUNTERED DURING STAGING DATASET PROCESSING
An error occurred during log stream recovery for the specified log stream while reading log stream data from staging data sets.

STAGING DATASET ALLOCATION ERROR.
An error was encountered while attempting to allocate staging data sets for log stream recovery for the specified log stream.

diag1 diag2 diag3 diag4
is diagnostic information relating to the log stream recovery failure. If diagnostic information is presented, it should be saved and provided to the IBM Software Support Center.

System action: System logger detects that the log stream has lost data. System logger communicates this loss of data to applications when the application attempts to connect to the log stream.

For the following cases, the log stream connect request completes with a warning return code 4, reason code X'0407' (See IxgRsnCodeConnPossibleLossOfData in IXGCON macro):

- for a DASDONLY type log stream if the text "STAGING DATASET ALLOCATION ERROR" appears in message IXG210E
- for a CF structure log stream if recovery for a failed connection occurs on a system different to where the log stream connect request is submitted

For other cases, system logger fails the log stream connect request and issues message IXG231I indicating that the connect request is rejected with return code 8, reason code X'0812' (See IxgRsnCodeLogStreamRecoveryFailed in IXGCON macro).

Operator response: None.

System programmer response: Do one of the following, depending on the text of this message:

- If this message contains the text 'DUE TO STAGING DATASET ALLOCATION ERROR', look for related allocation or SMS messages containing the staging data set name and try to resolve the allocation error.

If the error persists, contact the IBM Support Center. Provide the information in the diagnostic fields.

If this message contains the text 'DUE TO ERRORS ENCOUNTERED DURING STAGING DATASET PROCESSING', contact the IBM Support Center and provide the information in the diagnostic fields.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RSC

Routing code: 10

Descriptor code: 4

IXG211E RECOVERY FOR LOGSTREAM *logstream* **IN STRUCTURE** *strname* **WAS NOT SUCCESSFUL:** *text* **DIAGNOSTIC INFORMATION:** *diag1 diag2 diag3 diag4*

Explanation: An error occurred during log stream recovery for log stream *logstream*. Failed connections to the log stream have not been recovered. There may be log stream data that does not reside in the log stream DASD data sets and is not duplexed by some combination of system logger local buffers, log stream staging data sets, or coupling facility list structure.

In the message text:

logstream
is the name of the log stream that has been recovered.

strname
is the name of the structure associated with the log stream.

text
is one of the following:

STRUCTURE CONNECTION INFORMATION WAS NOT AVAILABLE
Internal Error.

NO STORAGE FOR STRUCTURE INFORMATION BUFFER
Internal error.

READ FOR LOGSTREAM RECORD FAILED
Internal error.

WRITER OFFLOAD CLEANUP FOR CONNECTOR FAILED
Internal error.

CONNECT TO LOGSTREAM NEEDING RECOVERY FAILED
Internal error.

READ FOR YOUNGEST LOGSTREAM BLOCK FAILED
Internal error.

NO STORAGE FOR IXLLIST BUFFER
Internal error.

READ FOR LIST CONTROLS FAILED
Internal error.

WRITE FOR LIST CONTROLS FAILED
Internal error.

READ FOR LOGSTREAM CONTROL RECORD FAILED
Internal error.

WRITE FOR LOGSTREAM CONTROL RECORD FAILED
Internal error.

READ/UPDATE LOGSTREAM RECORD FAILED
Internal error.

LOGSTREAM INVENTORY UPDATE FAILED
Internal error.

WRITE LOGSTREAM RECORD FAILED
Internal error.

DATA OFFLOAD FAILED
Internal error.

INITIATE DATA OFFLOAD FAILED
Internal error.

SYSTEM RECORD PROCESSING FAILED
Internal error.

ACTIVE SYSTEM INFORMATION WAS NOT AVAILABLE
Internal error.

COMPONENT SERIALIZATION ERROR
Internal error.

COMPONENT STORAGE ERROR
Internal error

READ FOR STRUCTURE RECORD FAILED
Internal error

SERIALIZATION NOT AVAILABLE
Internal error

diag1 diag2 diag3 diag4
Is diagnostic information relating to the log stream recovery failure. If diagnostic information is presented, it should be saved and provided to the IBM Software Support Center.

System action: The log stream still has failed connections associated with it. Recovery for the log stream will be attempted again on a subsequent connect to the log stream or on a subsequent connect to a log stream defined to the structure *strname*.

Operator response: Contact the system programmer.

System programmer response: Look for related messages that begin with IXL related to the structure referenced in this message and try to resolve the problem. The diagnosis information presented with this message should be saved. If this error persists, report the problem to the IBM Software Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RSC

Routing code: 10

Descriptor code: 4

IXG212E RECOVERY FOR LOGSTREAM *logstream* IN STRUCTURE *strname* WAS NOT SUCCESSFUL. DATA MAY BE LOST FOR THE CONNECTION ON SYSTEM *sysname* DUE TO: NO STAGING DATASETS USED BY THE LOGSTREAM.

Explanation: System logger detected that staging data sets were needed to perform log stream recovery for log stream *logstream*, but staging data sets were not in use to duplex log stream data at the time of connector failure. Log stream data for the failed connection may have been lost and the log stream is marked damaged.

In the message text:

logstream
is the name of the log stream that recovery was attempted for.

strname
is the name of the structure associated with the log stream.

sysname
is the name of the system where the connection resided whose data may have been lost.

System action: System logger detects that the log stream has a loss of data condition. This condition is communicated to applications when the application attempts to connect to the log stream.

Operator response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RSC

Routing code: 10

Descriptor code: 4

IXG213E RECOVERY FOR LOGSTREAM *logstream* **IN STRUCTURE** *strname* **WAS NOT SUCCESSFUL. DATA MAY BE LOST FOR THE CONNECTION ON SYSTEM** *sysname* **DUE TO: DATA NOT BEING AVAILABLE FOR LIST STRUCTURE REPOPULATION.**

Explanation: System logger detected that log stream data was not available to connect *sysname* to repopulate the list structure during structure rebuild for log stream *logstream*. Log stream data may have been lost and the log stream is marked damaged. As part of structure rebuild, each system participating in the structure rebuild is responsible for repopulating the new structure with log stream data written by that system, and still resident in the original structure (not offloaded to log stream DASD data sets yet) at the time the structure rebuild started. A system does not have a duplex copy of the log stream data in its local buffers, when a log stream data offload failed during log stream recovery processing and the log stream was connected after a system logger failure. The requester is notified with a warning return code on the IXGCONN request when this condition exists.

In the message text:

logstream
is the name of the log stream that recovery was attempted for.

strname
is the name of the structure associated with the log stream.

sysname
The name of the system where the connection resided whose data might have been lost.

System action: System logger detects that the log stream has a loss of data condition. This condition is communicated to applications when the application attempts to connect to the log stream.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RSC

Routing code: 10

Descriptor code: 4

IXG214I SYSTEM LOGGER LOGSTREAM DATA DUPLEXING FOR LOGSTREAM *logstream* **IS BEING DONE IN** *duplexmode text*

Explanation: A failure might prevent system logger from using the preferred duplex mode for log stream *logstream* based on the log stream definition and on the failure dependency of the log stream coupling facility list structure.

This might have been caused by an attempt to offload coupling facility resident data to DASD or an attempt to delete or allocate a staging dataset during the commit phase of a structure rebuild.

In the message text:

logstream
The name of the log stream that the request failed for.

duplexmode
One of the following:

STAGING DATA SETS
System logger is using staging data sets to duplex coupling facility resident log data despite the fact that local buffers may be used based on the failure dependency of the coupling facility that the log stream data resides in.

LOCAL BUFFERS
System logger is using local buffers to duplex coupling facility resident log data despite the fact that Staging Data Sets may be used based on the failure dependency of the coupling facility that the log stream data resides in.

text
One of the following:

STAGING DATA SETS MAY NOT BE THE PREFERRED MODE OF DUPLEXING

LOCAL BUFFERS MAY NOT BE THE PREFERRED MODE OF DUPLEXING

STAGING DRXRC ALSO BEING USED FOR DISASTER RECOVERY

System action: Duplexing of log stream data for log stream *logstream* will be done in the mode specified by *duplexmode*. The additional text might also indicate that DRXRC-type staging data set duplexing for disaster recovery (on a secondary or remote site) log stream duplexing might be in effect along with primary site local buffer duplexing.

Operator response: Not Applicable.

System programmer response: Not Applicable.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4RPC, IXGC4CON

Routing code: 10

Descriptor code: 12

IXG215I DISCONNECT COMPLETED FOR LOGSTREAM *logstream* **IN STRUCTURE** *strname* **DUE TO SYSTEM LOGGER COMPONENT ERROR. DIAG:** *diagnosticcode*

Explanation: A component error was encountered which resulted in system logger having to disconnect all the log streams in the named structure. An instance of this message is issued for each log stream in the structure. Additionally, system logger has disconnected from the structure.

In the message text:

logstream
is the name of the disconnected log stream.

strname
is the name of the structure associated with the log stream.

diagnosticcode
is a diagnostic code for IBM support.

System action: All active log stream connections associated with the structure have been disconnected. Additionally, system logger has disconnected from the structure. The log stream and structure connections are left in a failed state and may be recovered by a peer system. If not, the state of the log stream connections will remain failed and the state of the structure connection will be failed-persistent. The system may issue a dump of the system logger address space.

Operator response: Notify the system programmer.

System programmer response: Reconnect the applications using the log streams to the log stream. Gather any dumps of the system logger address space (jobname is IXGLOGR) and contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4DIS

Routing code: 11

Descriptor code: 6

IXG216I DISCONNECT COMPLETED FOR LOGSTREAM *logstream* **DUE TO REQUIRED LOGGER RESOURCES NOT AVAILABLE.** *reason*

Explanation: System logger was using a staging data set to duplex log data for a DASD only log stream, but an I/O error occurred and system logger could not allocate a new staging data set. System logger disconnects active connections to the log stream.

In the message text:

logstream
is the name of the disconnected log stream.

reason
One of the following:

STAGING DATA SET COULD NOT BE ALLOCATED AFTER I/O ERROR OCCURRED.
System logger was using a staging data set to duplex log data for a DASD only log stream. An I/O error occurred and a new staging data set could not be allocated.

System action: The active log stream connections have been disconnected.

Operator response: Notify the system programmer.

System programmer response: Check for I/O error and allocation error messages and correct the problem that led to the staging data set allocation error. After the problem has been resolved, have the application re-connect to the log stream.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4DIS

Routing code: 11

Descriptor code: 6

IXG217E IXGLOGR ATTEMPT TO ALLOCATE A NEW STAGING DATASET FAILED FOR LOGSTREAM *logstream***.** *alloctext* **DSN=***datasetname voltext volume*

Explanation: An attempt by IXGLOGR to allocate a new instance of a staging data set for log stream *logstream* failed. If you found an old instance of the staging data set and could not delete or reallocate it, a problem might exist on the volume specified in the message. **ON VOLUME** *xxxxxx* included in the message indicates the volume on which the staging data set resides. If **ON VOLUME ??????** is included in the message, you could not obtain the duplicate staging data set volume from the catalog.

In the message text:

logstream
is the name of the log stream.

alloctext
One of the following:

blanks Unable to allocate a New Staging data set.

DUPLICATE NAME FOUND
Unable to allocate a new staging data set. A duplicate data set could not be allocated for the purpose of deleting it. This might be because the volume is not available.

datasetname
is the data set name.

voltext
One of the following:

blanks A volume serial is not available.

ON VOLUME
A volume serial is available.

volume
is the volume name or **??????**.

System action: System logger will not be able to use the staging data set. The impact depends on the function requesting the staging data set.

When Connect is requested, IXGCONN is rejected with Return Code 8-80C. Message IXG231I may also be issued.

When system logger encounters an I/O or access error with a staging data set, and a new staging data set 12 cannot be obtained, then for a CF-based log stream local buffers will be used to duplex the log stream data. Message IXG255I may also be issued. For a DASDONLY log stream, the log stream will be disconnected. An ENF48 signal will be issued with event indicator IxgenfLogstreamsNotAvailable, event reason IxgenfReqLogResNotAvail, and specific reason IxgenfStgAllocErr set on. Message IXG216I may also be issued. When a rebuild fails and system logger is unable to resume using the original structure, then an attempt will be made to ensure the log data is duplexed in staging data sets to minimize the potential for a loss of data condition. When a new staging data set cannot be allocated to keep the duplexed data, then the likelihood for a loss of data condition remains. Message IXG232I may also be issued. When a rebuild completes and the duplexmode is set to conditional, system logger may attempt to duplex to a staging data set versus using local buffers. If the staging data set cannot be obtained, then local buffers will continue to be used. Message IXG113I may also be issued. Other System logger messages may be issued for this log stream or staging data set. Other components may have issued diagnostic messages as well.

Operator response: Notify the system programmer.

System programmer response: Check for I/O error messages and allocation error messages and correct the problem. After the problem has been resolved, it may be necessary to cause the application to reconnect to the log stream.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1AUS

Routing code: 10

Descriptor code: 4

IXG218A SYSTEM LOGGER IS UNABLE TO WRITE TO LOGSTREAM *logstream* **UNTIL** *date time* **DUE TO FUTURE TIME VALUE DETECTED FROM PRIOR CONNECTION TO LOGSTREAM.**

Explanation: System logger has detected that the timestamp of the last block written for the log stream indicated is well in the future. It is likely that this log stream was used in Y2K testing and an attempt has been made to reuse it once the testing was complete and the clock has been set back to the present date/time. Note the date and time displayed are local values, in the form mm/dd/yyyy hh:mm:ss.

In the message text:

logstream
is the name of the log stream.

date
is the local date when IXGWRITEs will again be accepted.

time
is the local time when IXGWRITEs will again be accepted.

System action: No IXGWRITE requests for this log stream can be completed until the date/time indicated are reached. Until this date and time are reached, system logger will reject IXGWRITE requests with a return code X'0C'. System logger will also issue ABEND 1C5-00040003 to log the issue. Finally, system logger will request a dump to provide diagnostic information. The system will delete this message if either a successful IXGWRITE is processed for this log stream, or if all connectors on this system disconnect.

Operator response: Notify the system programmer.

System programmer response: The most likely cause of this problem is that the clock value for the sysplex has been adjusted backwards in time, and that this log stream was written to while the clock was adjusted forward. If the wait time indicated in this message is unacceptable, it will be necessary to disconnect from the log stream, delete it, redefine it, and reconnect.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1SET

Routing code: 1

Descriptor code: 11

IXG219I SYSTEM LOGGER PROCESSED TRANSITION TO *newmode* **MODE FOR STRUCTURE** *strname*

Explanation: System logger has processed a structure transition to either duplex mode or simplex mode after a system-managed rebuild structure event was presented to system logger for this structure.

In the message text:

newmode
The mode that the structure is transitioning to: DUPLEX or SIMPLEX.

strname
The name of the structure that is transitioning to DUPLEX or SIMPLEX mode.

System action: System logger reacts to the structure state changing by examining each log stream connected to the structure and changing the duplex options for that log stream, appropriate for the definition of the log stream and the new environment that now exists. Message IXG113 will be issued for any log streams where the transition is not successful.

Operator response: To determine the new state of log streams in this structure, issue the appropriate D LOGGER command to display the status and duplexing state of the log streams requested.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4STE

Routing code: 2

Descriptor code: 4

IXG220I SYSTEM LOGGER PROCESSED A CF VOLATILITY STATE CHANGE FOR *volstate* STRUCTURE *strname*

Explanation: System logger has processed a volatility state change for a CF structure, after being notified of the event by XES.

In the message text:

volstate
The new volatility state of the structure that has experienced a volatility state change: NON-VOLATILE or VOLATILE.

strname
The name of the structure that has experienced a volatility state change.

System action: System logger reacts to the volatility state change by examining each log stream connected to the structure and changing the duplex options for that log stream, appropriate for the definition of the log stream and the new environment that now exists. Message IXG113 will be issued for any log streams where the transition is not successful.

Operator response: To determine the new state of log streams in this structure, issue the appropriate D LOGGER command to display the status and duplexing state of the log streams requested.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4STE

Routing code: 2

Descriptor code: 4

IXG221I INSUFFICIENT STRUCTURE STORAGE AVAILABLE FOR STRUCTURE *strname* AFTER ALTER PROCESSING. NEW LOGSTREAM CONNECTIONS MAY FAIL

Explanation: Structure *strname* does not have sufficient storage allocated to support the maximum number of log streams defined by LOGSNUM for the structure.

In the message text:

strname
The name of the structure associated with the XCF ALTER request.

System action: Future connections to the structure will fail unless the structure size is increased.

Operator response: Use the SETXCF ALTER support to increase the structure size.

System programmer response: Changes may need to be made to the XCF Policy to insure the minimum structure size is adequate.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF1DSR

Routing code: 1

Descriptor code: 11

IXG222I SEVERE STRUCTURE STORAGE SHORTAGE DETECTED IN STRUCTURE *strname* AFTER ALTER PROCESSING.

Explanation: As a result of a structure alter operation (from a SETXCF START,ALTER command or an IXLALTER request for example), system logger determined that the structure allocated for this log stream is not large enough to support the current number of log streams connected to the structure.

In the message text:

strname
is the name of the structure associated with the SCF ALTER request.

System action: IXGWRITE requests issued by current connectors may fail unless the structure size is increased.

Operator response: Use the SETXCF ALTER command support to increase the structure size.

System programmer response: Changes may need to be made to the XCF Policy in insure the minimum structure size is adequate.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF1DSR

Routing code: 1

Descriptor code: 11

IXG223I ENTRY TO ELEMENT RATIO CHANGE INITIATED FOR STRUCTURE *strname* SUBSEQUENT REBUILDS MAY FAIL

Explanation: A request has started to alter the entry to element ratio for a system logger structure *strname* by an agent other than system logger. The system logger is unable to track the target entry to element ratio in the TYPE=LOGR couple data set because it is not formatted at the correct level. A subsequent rebuild for this structure may fail as a result of this change because system logger will connect to the new instance of the structure with the entry to element ratio as defined through the AVGBUFSIZE keyword on the structure definition in the TYPE=LOGR policy.

In the message text:

strname
is the name of the structure.

System action: System logger continues processing.

Operator response: Notify the system programmer.

System programmer response: Determine whether it is acceptable for an application to initiate an alter of a system logger structure and change the structures entry to element ratio. If so, you should format a new couple data set with TYPE=LOGR and bring it into the sysplex as the active primary TYPE=LOGR couple data set. This allows system logger to track the entry to element changes so that it can use them on subsequent structure allocations. If it is not acceptable for an application to change the entry to element ratio for a system logger structure, then determine which application initiated the alter and either change the application or remove the applications authority to alter the structure.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC3SEX

Routing code: -

Descriptor code: -

IXG224I LOGSTREAM *logstream* **DUPLEXING CHANGED TO STG_DUPLEX(NO)** *text*

Explanation: Indicates system logger changed the named *logstream* attribute from STG_DUPLEX(YES),DUPLEXMODE(DRXRC) to STG_DUPLEX(NO) since the log stream recovery will occur from the existing DRXRC-type staging data set since the system was IPL'd with DRMODE=YES system parameter and the response to system logger message IXG068D was Y.

In the message text:

logstream
The name of the log stream with the automatic attribute update.

text One of the following:

NO STAGING DATA SET WAS IN USE
There was no staging data set in use for this log stream before the attributes were converted.

DRXRC TYPE RESOURCE MADE AVAILABLE FOR LOGSTREAM RECOVERY
System logger has converted the DRXRC type resources for this log stream and they can be used for log stream recovery purposes.

System action: Log stream duplexing method has been updated.

Operator response: Not applicable.

System programmer response: Not applicable.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4XRC

Routing code: 10

Descriptor code: 12

IXG225I IXGLOGR FAILED TO *threadname* **STAGING DRXRC DUPLEXING FOR LOGSTREAM** *logstream* **ON VOLUME** *volume servicename* **SERVICE ERROR RETCODE:** *retcode*,**RSNCODE:** *rsncode*

Explanation: System logger cannot use a DRXRC-type staging data set or cannot clean up a volume previously used for a DRXRC-type staging data set.

In the message text:

threadname
The name of the system logger function or thread being performed for the DRXRC-type staging data set. Values can be ACTIVATE, DEACTIVATE or CLEAN UP.

logstream
The name of the log stream.

volume The volume name or "??????".

servicename
The name of the service that encountered an error.

retcode The return code from the service.

rsncode The reason code from the service.

System action: System logger duplexing of log data written to primary storage, coupling facility structure, will depend on log stream attributes or conditions for any primary site log stream recovery purposes. When ACTIVATE appears as the *threadname* system logger will be unable to duplex asynchronously the same log data in a DRXRC-type staging data set for potential log stream recovery purposes on a secondary or recovery site.

When DEACTIVATE or CLEAN UP appears as the *threadname*, system logger was unable to mark the volume *volume* as not having a DRXRC-type staging data set actively in use. If the identified volume is part of an Extended Remote

Copy (XRC) storage control session (scsession) designated as a LOGPLUS session, XRC volume consistency processing could also be impacted.

Operator response: Notify the system programmer.

System programmer response: If the *servicename* is not INTERNAL check in the z/OS publications for a description of the return and reason code and try to rectify the problem. See the following publications for return and reason codes:

- UcbLook: *z/OS MVS Programming: Authorized Assembler Services Reference SET-WTO*
- IOSCapu: *z/OS MVS Programming: Authorized Assembler Services Reference EDT-IXG*, Release a Captured UCB Function.
- Reserve: *z/OS MVS Programming: Authorized Assembler Services Reference LLA-SDU*
- Release: The return code is from the DEQ macro, see *z/OS MVS Programming: Assembler Services Reference ABE-HSP*. The reason code is not meaningful.
- ExcpRead: *z/OS DFSMSdfp Advanced Services* - check the ECB completion code for EXCP.
- ExcpWrite: *z/OS DFSMSdfp Advanced Services* - check the ECB completion code for EXCP.

Also check for related I/O error messages and correct the problem. See system logger message IXG120E for additional actions.

When the identified volume is a LOGPLUS XRC scsession identified as L+ in XQUERY report you may need to use the IBM Device Support Facilities ICKDSF utility with the REFORMAT command XRCLOGGER(CLEAR) option or use the INIT command to get the volume label information corrected.

If you are unable to identify the problem source or correct the error contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY, IXGXMSG

Routing code: 2

Descriptor code: 4

IXG226I STRUCTURE LIST CLEANUP ERROR ENCOUNTERED FOR STRUCTURE=*structname***, CONNECTION ATTEMPT FAILED FOR LOGSTREAM=***logstream***

Explanation: Unexpected list entries were found in the structure. Connect was unable to clean up structure list entries for this log stream. The structure lists may have been left from a previous use of the structure.

In the message text:

structname
The name of the structure.

logstream
The name of the logstream.

System action: The IXGCONN connect fails. Message IXG231I may follow with further diagnostic information.

Operator response: Not applicable.

System programmer response: Since this is the first connection to this log stream, possible actions include moving the log stream to a different structure using IXGINVNT REQUEST (UPDATE), or initiating a structure rebuild by doing the following:

1. if in structure simplex-mode, issue a structure rebuild (SETXCF START,REBUILD...command), or
2. if in structure duplex-mode, transition to simplex-mode (SETXCF STOP,REBUILD,DUPLEX...command), then issue the structure duplexing (SETXCF START,REBUILD,DUPLEX...command).

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CON

Routing code: 10

Descriptor code: 12

IXG227E JOBNAME *jobname* CONNECTED TO LOGSTREAM *logstream*, REPLY WITH ANY CHARACTER TO DISCONNECT.

Explanation: The system logger procedure performed a log stream connection as requested, and is waiting for a response before disconnecting from the log stream.

In the message text:

jobname
The name of the job or started task.

logstream
The name of the logstream.

System action: The utility program is connected to the log stream, and the program will not disconnect until a reply is provided.

Operator response: A reply to this message will cause the logger utility program IXGM1CLS to disconnect from the log stream. If message IXG273I is issued after replying to message IXG227E, the log stream was successfully disconnected. If message IXG274I indicates that an error occurred on the disconnect attempt, notify the system programmer.

System programmer response: Check the error diagnostics on message IXG274I. Issue the D LOGGER,C,LSN=logstreamname,D and check the message IXG601I output to verify the log stream connection status on the system where the utility is run.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGM1CLS

Routing code: 1, 2

Descriptor code: 2

IXG230I LOGSTREAM *streamname* MAY HAVE EXCESSIVE NUMBER OF UNUSED LOCAL BUFFERS.

Explanation: This diagnostic message is related to log stream local buffer management and intended for IBM support. The system only issues this message when the log stream is defined with DIAG(YES).

In the message text:

streamname
is the log stream name that has a problem.

System action: The system continues processing.

Operator response: None.

System programmer response: Notify IBM support. If message IRA204E or other indicators of auxiliary storage shortages are issued, disconnecting from the log stream might relieve the shortage. The IBM support center might request a dump of the system logger trace buffer and address space. See Operator Command in IEADMCxx Parmlib Member and Getting a Dump of System Logger Information of *z/OS MVS Diagnosis: Tools and Service Aids* for more information about obtaining system logger dumps.

User response: Notify the system programmer.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGT5LBM

Routing code: 2

Descriptor code: 4

IXG231I **IXGCONN REQUEST=CONNECT TO LOG STREAM** *logstream* **DID NOT SUCCEED FOR JOB** *jobname***. RETURN CODE:***retcode* **REASON CODE:***rsncode* **DIAG1:***diag1* **DIAG2:***diag2* **DIAG3:***diag3* **DIAG4:***diag4*

Explanation: A request to connect to a log stream was not successful.

In the message text:

logstream
is the name of the log stream for which the connect failed.

jobname
is the name of the job or started task that issued the IXGCONN request.

retcode
is the return code.

rsncode
is the reason code.

diag1, *diag2*, *diag3*, *diag4*
Diagnostic fields ansaa_diag1, ansaa_diag2, ansaa_diag3, ansaa_diag4 from the answer area, mapped by macro IXGANSAA

System action: Processing continues. The system writes the message to the hard copy log.

Operator response: None.

System programmer response: See the return and reason code description documented for the IXGCONN service in *z/OS MVS Programming: Assembler Services Reference IAR-XCT*. Correct the problem.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC2CON

Routing code: 10

Descriptor code: 12

IXG232I **IXGCONN REQUEST=DISCONNECT FROM LOG STREAM** *logstream* **DID NOT SUCCEED FOR JOB** *jobname***. RETURN CODE:***retcode* **REASON CODE:***rsncode* **DIAG1:***diag1* **DIAG2:***diag2* **DIAG3:***diag3* **DIAG4:***diag4*

Explanation: A request to disconnect from a log stream was not successful.

In the message text:

logstream
The name of the log stream for which the disconnect failed.

jobname
The name of the job or started task that issued the IXGCONN request.

retcode
The return code.

rsncode
The reason code.

diag1, *diag2*, *diag3*, *diag4*
Diagnostic fields ansaa_diag1, ansaa_diag2, ansaa_diag3, and ansaa_diag4 from the answer area, mapped by macro IXGANSAA

System action: Processing continues. The system writes the message to the hardcopy log.

Operator response: None.

System programmer response: See the return and reason code description documented for the IXGCONN service in *z/OS MVS Programming: Assembler Services Reference IAR-XCT*. Correct the problem.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC2CON

Routing code: 10

Descriptor code: 12

IXG233I LOGSTREAM *logstream* **NOT SUPPORTED ON SYSTEM** *sysname*, **SERVICE=***ixgservice* **FAILED,** *text*

Explanation: The system release level does not support the log stream type or attribute, so system logger failed the request. The system might issue other system logger messages for this failed request. For example, on IXGCONN requests, the system will also issue message IXG231I with return code 8, reason code X'08E3'.

In the message text:

logstream
is the name of the log stream.

sysname
is the name of the system.

ixgservice
is the name of a system logger service that received the failure.

text Presents more details about why the service failed. The values for text are:

ATTRIBUTE DUPLEXMODE(DRXRC)
Indicates that the log stream DRXRC option for the DUPLEXMODE parameter is not supported at this release level.

RENAMED LOGSTREAM
Indicates that an application tried to use the logger service to operate on a log stream that has been renamed. This use of a renamed log stream is not supported at this release level. (IXG233I applies only to log streams that have been renamed by invoking IXGINVNT or IXCMIAPU with the NewStreamName parameter.)

ATTRIBUTE GROUP VALUE
Indicates that the log stream has a group value other than "PRODUCTION", and the group is not supported at this release level.

ATTRIBUTE ZAI*
Indicates that the parameter specifications for log streams ZAI(YES) and ZAIDATA(*string*) are not supported at this release level.

ATTRIBUTE LS_ALLOCAHEAD
Indicates that the LS_ALLOCAHEAD value that was specified for the log stream at this release level was a value other then zero (0).

System action: System logger fails the specific request. The action of the requester receiving the failed request may vary.

Operator response: Notify the system programmer.

System programmer response: Make the exploiter of system logger run on a system that is at z/OS release HBB7730 or higher, or update the log stream to remove attributes that are not supported on the current system.

When the DRXRC attribute is not supported on this system release level, you can update the *logstream* with STG_DUPLEX(NO) or DUPLEXMODE(COND or UNCOND). Or if necessary, you can delete the *logstream* and redefine it without the DUPLEXMODE(DRXRC) attribute.

When a renamed log stream or a log stream with a value other than GROUP(PRODUCTION) is not supported on this system release level, you will need to connect to it from a system that is at z/OS release HBB7730 or higher.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CON

Routing code: 10

Descriptor code: 12

IXG235I STALLED ASYNCHRONOUS IXGWRITE REQUESTS DETECTED DURING DISCONNECT FOR LOGSTREAM *streamname*. DISCONNECT ALLOWED TO CONTINUE

Explanation: During connector disconnect processing, system logger indicators showed outstanding asynchronous write activity. After delaying to allow for any potential writes to complete normally, system logger is allowing the disconnect request to complete.

In the message text:

streamname
is the log stream that the disconnect operation is being performed on.

System action: System logger disconnect processing for the connector proceeds after delaying to allow any still active asynchronous IXGWRITE requests time to complete.

Operator response: Notify the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If there is no fix for the problem, get a dump of the system logger trace buffer, address space, and structure and contact the IBM Support Center. See Operator Command in IEADMCxx Parmlib Member and Getting a Dump of System Logger Information of *z/OS MVS Diagnosis: Tools and Service Aids* for more information about obtaining system logger dumps.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF1TTT

IXG251I *text*

Explanation: This message contains the messages generated from an allocation failure for system logger. It can also contain the actual messages generated from the IDCAMS program when system logger renames a staging data set as a result of an IXCMIAPU DATA TYPE(LOGR) or IXGINVNT API UPDATE LOGSTREAM NEWSTREAMNAME request.

System action: The system writes the message to the hard-copy log. The actual message identification number follows this message.

Operator response: See the operator response for the message that follows this message.

System programmer response: See the system programmer response for the message identifier that is included in message IXG251I.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1AUS

Routing code: -

Descriptor code: -

IXG252I *dsname* **IS NO LONGER BEING MANAGED.**

Explanation: The log stream data set is no longer being used but the system could not delete the data set.

In the message text:

dsname
is the name of a log stream data set.

System action: None.

Operator response: None.

System programmer response: The data set should be deleted using the IDCAMS delete command.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1DEL

Routing code: 2

Descriptor code: 4

IXG253I SYSTEM LOGGER NO LONGER RECALLING DATA SETS ASYNCHRONOUSLY FOR GROUP: *group*

Explanation: The System logger component responsible for recalling data sets asynchronously has failed for the indicated group.

In the message text:

group
is the name of the group of log streams that data set recalls are no longer being processed asynchronously for.

System action: Migrated data sets will be recalled when they are allocated. Some performance degradation might result.

Operator response: None.

System programmer response: You need to consider if the system logger address space needs to be restarted to allow migrated data sets to be recalled asynchronously.

When TEST is specified in *group*, data set recalls for PRODUCTION group log streams are unaffected.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 2

Descriptor code: 4

IXG254I SMS IS NOT ACTIVE. ACTIVATE SMS OR REPLY C FOR LOGGER TO CONTINUE REGARDLESS OF SMS BEING ACTIVE.

Explanation: System logger found that System Managed Storage (SMS) address is not active. SMS must be active for system logger to properly use VSAM linear data sets.

System action: If SMS becomes active and system logger recognizes this before the operator replies, this message will be cleared. Performing an action against VSAM linear data sets while SMS is not active might result in error

messages, and system logger processing might not complete successfully.

Operator response: Ensure system programmer has activated SMS, or reply C.

System programmer response: You should consider activating SMS as part of the system initialization to eliminate this message. To have SMS active, its address space must be initialized and it must be ready for work.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01, IXGC4SLR

Routing code: 1,2

Descriptor code: 2

IXG255I SYSTEM LOGGER IS NO LONGER USING A STAGING DATA SET FOR LOG STREAM *streamname*

Explanation: Due to an I/O error, system logger is unable to use a staging data for the log stream.

In the message text:

streamname
is the name of the log stream.

System action: The log stream no longer uses a staging data set and coupling facility data is backed up on the system's local storage buffer.

Operator response: None.

System programmer response: You should consider if the log stream needs to be stopped and restarted to use a staging data set.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1SET

Routing code: 2

Descriptor code: 4

IXG256I AN INCORRECT DATA SET SIZE WAS DETECTED, *dssize* **IS USED. DATA SET:** *dsname*

Explanation: System logger encountered an incorrect data size for a DASD log stream data set or staging data set. The minimum data set size for system logger is 64K. If a data set falls below this bound, the data set will be reallocated to meet the minimum requirement. The maximum data set size for system logger is up to 4G. If a data set falls above this bound, the data set will be reallocated to around 3.5G.

In the message text:

dssize
One of the following:

64K The approximate size of the newly allocated data set because the originally specified dataset was too small.

3.5G The approximate size of the newly allocated data set because the originally specified data set was too large. Logger tries to get a data set around 3.5G and specifies 917504 4K bytes as the corresponding LS_SIZE or STG_SIZE attribute.

dsname
The name of the data set.

System action: The data set is allocated using a valid size in the range noted in the message text.

Operator response: None.

System programmer response: The incorrect size was either specified in a DFSMS data class or on a log stream attribute at DEFINE time. Search for messages IEF196I and IGD101I that may have been recorded in syslog when the data set was newly allocated and check the assigned attributes.

See the LS_SIZE, LS_DATACLAS, STG_SIZE and the STG_DATACLAS specifications for the logstream definition and the DFSMS data class that is being used. The appropriate specification should be changed to meet the minimum data set size requirement for system logger. For information on choosing a data set size, see 'Testing log data set parameter modifications' in *z/OS MVS Setting Up a Sysplex*.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1AUS

Routing code: 11

Descriptor code: 6

IXG257I DATA SET DIRECTORY FOR LOGSTREAM *logstream* **IN STRUCTURE** *strname* **IN GROUP** *group* **IS OVER 90% FULL.**

Explanation: The data set directory for the DASD log data sets for log stream *logstream* is nearly at its maximum capacity. This message is issued in two situations:

1. System logger issues this message if the logstream is in the production group, and the job that created the LOGR couple data set requested that no additional log data set directory extents be defined, either by default or by explicitly specifying ITEM NAME(DSEXTENT) NUMBER(0). Because no additional log data set directory extents were defined, neither this nor any other logstream can have more than 168 DASD log datasets. Logger might soon be unable to offload data for this log stream.
2. System logger issues this message if the logstream is in the test group and the job that created the LOGR couple data set requested that fewer than four additional log data set directory extents be defined by default or by explicitly specifying ITEM NAME(DSEXTENT) NUMBER(X) where X<4. Because fewer than four additional log data set directory extents were defined, neither this nor any other logstream in the test group can have more than 168 DASD log datasets. System logger may soon be unable to offload data for this log stream.

In the message text:

logstream
is the name of the log stream.

strname
is the name of the structure associated with the log stream.

group
is the name of the group the log stream is defined to.

System action: System logger continues to offload until the data set directory is completely filled. System logger will also continue to process write requests to the log stream until the interim storage and DASD log data set space for the log stream are completely filled. (Interim storage for a coupling facility log stream is in the coupling facility, while for a DASD-only log stream it is in the local storage buffers.) The system does not delete this message until either the number of log data sets for the log stream drops below 85% of the total allowed or the last connection to the log stream in the sysplex disconnects. If the shortage continues, the system might issue IXG301I, IXG261E, and IXG262A.

Operator response: None.

System programmer response: Either delete enough data from the log stream to free up space or disconnect from the log stream.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

IXG258I

Module: IXGA1SWT

Routing code: 1

Descriptor code: 2

IXG258I **DATA SET** *datasetname* **NOT ALLOCATED. RC=***returncode* **ERROR=***error* **INFO=***infocode* **SMSRSN=***smsreasoncode*

Explanation: System logger encountered a dynamic allocation error when allocating the specified data set.

In the message text:

datasetname
is the data set name.

returncode
is the dynamic allocation return code.

error
is the dynamic allocation error code (S99ERROR).

infocode
is the dynamic allocation information code (S99INFO).

smsreasoncode
is the DFSMS reason code (S99ERSN).

System action: The system writes the message to the hardcopy log and continues processing.

Operator response: Notify the system programmer.

System programmer response: Reference the dynamic allocation documentation for the cause of the failure. Search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM Support Center.

S99ERSN, S99ERROR and S99INFO are fields in the IEFZB4D0 control block that logger uses to communicate with dynamic allocation.

The meaning of the dynamic allocation return code is documented in the Interpreting Error Reason Codes from DYNALLOC of the *z/OS MVS Programming: Authorized Assembler Services Guide*.

The meaning of S99ERROR is documented in Interpreting DYNALLOC Return Codes of the *z/OS MVS Programming: Authorized Assembler Services Guide*.

The meaning of S99ERSN is documented in S99RBX fields of the *z/OS MVS Programming: Authorized Assembler Services Guide*.

The meaning of S99INFO is documented in Interpreting Information Reason Codes from DYNALLOC of the *z/OS MVS Programming: Authorized Assembler Services Guide*.

After you have researched the meaning of the dynamic allocation return code, S99ERROR, S99ERSN and S99INFO, you may be able to find even more information about the meaning of S99ERSN by looking up a DFSMS message whose ID is IGDxxxx. You can compute xxxx: It is the value found in S99ERSN, converted to decimal. The documentation for this IGDxxxx message gives the meaning of the value found in S99ERSN, even if the DFSMS message does not appear in syslog. Not all values of S99ERSN map to an IGDxxxx message. Here are some examples of S99ERSN values and the related message ID: If S99ERSN is X'00042CF', the DFSMS message ID would be IGD17103. Sometimes zeros must be inserted after IGD. For example, if S99ERSN is X'00003F6', the DFSMS message ID would be IGD01014. IGD messages are documented in *z/OS MVS System Messages, Vol 8 (IEF-IGD)*.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1AUS

Routing code: -

Descriptor code: -

IXG259I **DATA SET** *datasetname* **NOT UNALLOCATED. RC=***returncode* **ERROR=***error* **INFO=***infocode* **SMSRSN=***smsreasoncode*

Explanation: System logger encountered a dynamic allocation error when unallocating the specified data set.

In the message text:

datasetname
is the data set name.

returncode
is the dynamic allocation return code.

error
is the dynamic allocation error code (S99ERROR).

infocode
is the dynamic allocation information code (S99INFO).

smsreasoncode
is the DFSMS reason code (S99ERSN).

System action: The system writes the message to the hardcopy log and continues processing.

Operator response: Notify the system programmer.

System programmer response: Reference the dynamic allocation documentation for the cause of the failure. Search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM Support Center.

See message IXG258 for help understanding the meaning of the dynamic allocation return code, error code (S99ERROR), information code (S99INFO) and DFSMS reason code (S99ERSN).

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1AUS

Routing code: -

Descriptor code: -

IXG260I *macroname* **FAILED FOR** *datasetname***. RC=***retcode* **RSN=***rsncode*

Explanation: System logger encountered an error from the specified macro interface while processing the specified migrated data set.

In the message text:

macroname
One of the following:

ARCHRCAL
An ARCHRCAL macro was issued to recall a migrated data set.

ARCHDEL
An ARCHDEL macro was issued to delete a migrated data set.

datasetname
is the data set name.

retcode
is the macro return code.

rsncode
is the macro reason code. If the rsnCode value is X'D3D6C7D9' (CLOGR), then system logger assigned the internal return code condition. This reason code will likely appear following an ABEND condition or when the IXGLOGR address space terminates (for example: following a FORCE IXGLOGR,ARM command). If you are unable to determine the cause of the condition, you should contact the IBM Support Center.

System action: The system writes the message to the hard-copy log and continues processing.

Operator response: Notify the system programmer.

System programmer response: See the macro documentation for the cause of the failure. The Archdel and Archrcal macros are documented in *z/OS DFSMShsm Managing Your Own Data*. Some Archdel and Archrcal return codes are documented in Return Codes from DFSMShsm Commands of the *z/OS DFSMShsm Managing Your Own Data*.

Search syslog for messages that begin with ARC and were issued near the time IXG260I was issued. ARC messages are documented in *z/OS MVS System Messages, Vol 2 (ARC-ASA)*.

If the macroname in IXG260I is ArchRcal, then you may be able to find more information about the meaning of the return code presented in IXG260I by looking up a DFSMShsm message whose ID is ARC11xx. You can compute xx: It is the return code converted to decimal. The documentation for this ARC11xx message gives the meaning of the return code, even if the DFSMShsm message does not appear in syslog. Not all values of the return code map to an ARC11xx message. ARC messages are documented in *z/OS MVS System Messages, Vol 2 (ARC-ASA)*. Return codes are documented in the ARC Return Codes and Reason Codes in *z/OS MVS System Messages, Vol 2 (ARC-ASA)*.

Search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1HSM

Routing code: -

Descriptor code: -

IXG261E SHORTAGE OF DIRECTORY EXTENT RECORDS TOTAL *numTotal* **IN USE:** *numInuse* **AVAILABLE:** *numAvail*

Explanation: System logger has detected a shortage of log data set directory extent records in the active LOGR couple data set for PRODUCTION group log streams. System logger might eventually fail log stream offloads if it cannot obtain a log data set directory extent required to process the offload. The system issues this message if the number of in-use log data set directory extent records in the active LOGR couple data set exceeds 85 percent of the total number of log data set directory extent records in the LOGR couple data set. The counts in the message are the values that existed when the condition was detected. These do not reflect the real time record counts in the current couple data set.

In the message text:

numTotal
: is the total number of log data set directory extent records formatted in the active primary LOGR couple data set.

numInuse
: is the number of log data set directory extent records currently in use in the active primary LOGR couple data set.

numAvail
: is the number of log data set directory extent records available for use in the active primary LOGR couple data set.

System action: The system logger will continue processing. This condition can proceed in one of two directions:

1. Shortage is relieved

   This means that the number of in-use log data set directory extent records has dropped below 80 percent of the total formatted in the active primary LOGR couple data set for the PRODUCTION group.

   This could happen either as a result of system activity resulting in a number of log data set directory extent records being freed from log streams, thus increasing the available pool for the PRODUCTION group or because a new LOGR couple data set was brought into the sysplex as the primary LOGR couple data set and this LOGR couple data set was formatted with a larger number of log data set directory extent records.

   The shortage could also be relieved if the activities of TEST group log streams are reduced by deleting TEST group log streams or by reducing the retention period for log data associated with TEST group log streams.

If this storage is relieved, this message will be deleted (DOMed).

2. Shortage becomes critical

   This means that the number of in-use log data set directory extent records has exceeded 95 percent of the total formatted in the active primary LOGR couple data set.

   If this occurs, the system will issue message IXG262A to notify you of the critical shortage.

Operator response: Notify the system programmer.

System programmer response: You must increase the pool of available log data set directory extent records in the active primary LOGR couple data set. You can increase the available pool in one of the following two ways:

1. Formatting a new LOGR couple data set.

   You can format a new LOGR couple data set and increase the number of log data set directory extent records through the DSEXTENT keyword on the couple data set format utility. As help in determining the number of additional log data set directory extent records to specify, this message includes the total number of log data set directory extent records that are formatted in active primary LOGR couple data set, *numTotal*, the number of currently in-use log data set directory extent records, *numInuse*, and the number of currently available log data set directory extent records, *numAvail*.

   To relieve the shortage, you must reduce the number of in-use log data set directory extent records to below 80 percent of the total formatted.

   Complete the following steps to create and bring in a LOGR couple data set with more DSEXTENT records:

   a. Run formatting job IXCL1DSU to create two (2) new LOGR couple data sets with the updated DSEXTENT numbers.
   b. Use the SETXCF COUPLE,TYPE=LOGR,PSWITCH command to set the current LOGR couple data set alternate as the primary.
   c. Use the SETXCF COUPLE,TYPE=LOGR,ACOUPLE=(*dsname1*,*volume1*) command to define one of the newly formatted couple data sets as the new alternate.
   d. Use the SETXCF COUPLE,TYPE=LOGR,PSWITCH command to switch to the new alternate again so that the newly formatted LOGR couple data set is now primary.
   e. Use the SETXCF COUPLE,TYPE=LOGR,ACOUPLE=(*dsname2*,*volume2*) command to define other newly formatted couple data sets as alternate.

2. Freeing log data set directory extents from existing log streams.

   You can also relieve the shortage by freeing log data set directory extent records being consumed by existing log stream definitions. You can free log data set directory extent records in two different ways:

   a. Deleting log stream definitions.

      If you can identify unnecessary log stream definitions that are consuming log data set directory extents, deleting the log stream definition will immediately free the log data set directory extents associated with that log stream back into the available pool.

      As an aid in detecting unnecessary log stream definitions, check the log stream GROUP attribute. You can delete TEST group log streams before you delete PRODUCTION group log streams.

   b. Reducing the retention period for log data.

      If you can identify log streams that are defined with excessive retention periods and these log streams are consuming log data set directory extent records, you can free up log data set directory extent records by reducing the retention period, thus increasing the available pool.

      For TEST group based log streams, you can make the retention period small so that the data can be quickly deleted, thus occupying less directory extent records.

      Note: System logger does not necessarily react immediately to reductions in the retention period. The rule for when system logger will process reductions in the retention period is upon the next log data set switch event for the log stream. This implies that the log stream must be connected and incurring sufficient write activity to force data set switch events.
      You can run a report of the log streams defined in the LOGR couple data set to help you identify candidates for cleanup. The report utility program is IXCMIAPU.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

IXG262A

Module: IXGA1SWT

Routing code: 1

Descriptor code: 11

IXG262A CRITICAL SHORTAGE OF DIRECTORY EXTENT RECORDS TOTAL *numTotal* **IN USE:** *numInuse* **AVAILABLE:** *numAvail*

Explanation: The system logger has detected a critical shortage of log data set directory extent records in the active LOGR couple data set for PRODUCTION group log streams. System logger may shortly begin failing log stream offloads should it be unable to obtain a log data set directory extent required to process the offload. This message is issued once the number of in-use log data set directory extent records in the active LOGR couple data set exceeds 95 percent of the total number of log data set directory extent records in the LOGR couple data set. The counts in the message are the values that existed when the condition was detected. These do not reflect the real time record counts in the current couple data set.

In the message text:

numTotal
is the total number of log data set directory records formatted in the active primary LOGR couple data set.

numInuse
is the number of log data set directory records currently in use in the active primary LOGR couple data set.

numAvail
is the number of log data set directory records available for use in the active primary LOGR couple data set.

System action: The system logger will continue processing. This condition can proceed in one of the following two directions:

1. Critical shortage is relieved

   This means that the number of in-use log data set directory extent records has dropped below 90 percent of the total formatted in the active primary LOGR couple data set.

   This could happen either as a result of system activity resulting in a number of log data set directory extent records being freed from log streams, thus increasing the available pool or because a new LOGR couple data set was brought into the sysplex as the primary LOGR couple data set and this LOGR couple data set was formatted with a larger number of log data set directory extent records.

   You can delete TEST group log streams or reduce the retention period for log data associated with TEST group log streams to reduce the activities of TEST group log streams, thus relieving the storage.

   If this critical shortage is relieved, this message will be deleted (DOMed). If the resulting environment still has a shortage of log data set directory extent records, message IXG261E will stay on the screen.
2. Offloads begin failing

   This means that all the log data set directory extent records in the active primary LOGR couple data set are in-use and a log stream offload that required extending the log stream log data set directory could not obtain the needed extent.

   If offloads begin failing, the system will issue message IXG301I with a return code 8 and reason code of X'85C'. If the log stream remains connected and log data set directory extents records become available, system logger will retry the offload.

Operator response: Notify the system programmer.

System programmer response: The pool of available log data set directory extent records in the active primary LOGR couple data set must be increased. You can increase the available pool in one of the following two ways:

1. Formatting a new LOGR couple data set.

   You can format a new LOGR couple data set and increase the number of log data set directory extent records through the DSEXTENT keyword on the couple data set format utility. As help in determining the number of additional log data set directory extent records to specify, this message includes the total number of log data set directory extent records that are formatted in active primary LOGR couple data set, *numTotal*, the number of currently in-use log data set directory extent records, *numInuse*, and the number of currently available log data set directory extent records, *numAvail*.

   To relieve the critical shortage, you must reduce the number of in-use log data set directory extent records to below 90 percent of the total formatted.

If the critical shortage is relieved, unless you reduce the number of in-use log data set directory extent records to below 80 percent of the total formatted, a shortage condition will result.

Complete the following steps to create and bring in a LOGR couple data set with more DSEXTENT records:

a. Run formatting job IXCL1DSU to create two (2) new LOGR couple data sets with the updated DSEXTENT numbers.
b. Use the SETXCF COUPLE,TYPE=LOGR,PSWITCH command to set the current LOGR couple data set alternate as the primary.
c. Use the SETXCF COUPLE,TYPE=LOGR,ACOUPLE=(*dsname1*,*volume1*) command to define one of the newly formatted couple data sets as the new alternate.
d. Use the SETXCF COUPLE,TYPE=LOGR,PSWITCH command to switch to the new alternate again so that the newly formatted LOGR couple data set is now primary.
e. Use the SETXCF COUPLE,TYPE=LOGR,ACOUPLE=(*dsname2*,*volume2*) command to define other newly formatted couple data sets as alternate.

2. Freeing log data set directory extents from existing log streams.

   You can also relieve the shortage by freeing log data set directory extent records being consumed by existing log stream definitions. You can free log data set directory extent records in two different ways:

   a. Deleting log stream definitions.

      If you can identify unnecessary log stream definitions that are consuming log data set directory extents, deleting the log stream definition will free the log data set directory extents associated with that log stream back into the available pool.

      As an aid in detecting unnecessary log stream definitions, check the log stream GROUP attribute. You can delete TEST log streams before deleting PRODUCTION log streams.

   b. Reducing the retention period for log data.

      If you can identify log streams that are defined with excessive retention periods and these log streams are consuming log data set directory extent records, you can free up log data set directory extent records by reducing the retention period, thus increasing the available pool.

      For TEST group log streams, you need to make the retention period small so that you can quickly delete the data. Thus the data occupy less directory extent records.

      Note: The system logger does not necessarily react immediately to reductions in the retention period. The rule for when system logger will process reductions in the retention period is upon next log data set switch event for the log stream. This implies that the log stream must be connected and incurring sufficient write activity to force data set switch events.
      You can run a report of the log streams defined in the LOGR couple data set to help you identify candidates for cleanup. The report utility program is IXCMIAPU.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1SWT

Routing code: 1

Descriptor code: 2

IXG263E IXGLOGR ATTEMPT TO ALLOCATE A DATA SET FAILED FOR LOGSTREAM *logstream*. **UNSUPPORTED** *typesize* **USED=***size* **DSN** *datasetname*

Explanation: An attempt by IXGLOGR to allocate data set *datasetname* for log stream *logstream* failed because system logger does not support the CI size *cisize* or data set size used for the data set. For CISIZE, the STG_DATACLAS or LS_DATACLAS specification for the log stream definition may reference an SMS data class that uses a CI size of VSAM linear data set other than 4096, or on a 4K boundary up to 32K (for LS_DATACLAS).

In the message text:

logstream
The name of the log stream.

typesize
Either CISIZE or DSSIZE.

size
The unsupported control interval (CI) size or data set size.

data-set-name
The data set name.

System action: System logger will not be able to use the data set. If the data set is allocated new, it will be deleted. If the data set previously existed, it will just be unallocated. The impact depends on the function that requests the data set. If a staging data set was allocated with a CI size that is not supported, connections to the log stream might be prevented, or recovery for the log stream might not complete successfully. If a log stream data set was allocated with a CI size that is not supported, then offloads might fail, and attempts to browse data from the log stream might also be unsuccessful.

Operator response: Notify the system programmer.

System programmer response: For CISIZE, check the SMS Data class that is being used for the data set. Ensure that the log stream STG_DATACLAS or LS_DATACLAS specification references an SMS data class that uses a VSAM linear data set CI size of 4096 (for a staging data set) or on a 4K boundary up to 32768 (for an offload data set). For DSSIZE, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1AUS

Routing code: 10

Descriptor code: 4

IXG264E SMS IS NOT INSTALLED. INSTALL SMS OR REPLY C FOR LOGGER TO CONTINUE REGARDLESS OF SMS BEING INSTALLED.

Explanation: System logger found that System Managed Storage (SMS) is not installed. SMS must be installed and active for system logger to properly use VSAM linear data sets.

System action: If SMS is installed and system logger recognizes this before the operator replies, the message will be cleared. However, if SMS is now installed but not yet active, message IXG254I will be issued. Performing an action against a VSAM linear data set while SMS is not active might result in an error message and system logger processing might not complete successfully.

Operator response: Ensure the system programmer has installed SMS, or reply C.

System programmer response: You should consider installing and activating SMS as part of the system initialization to eliminate this message. To have SMS installed, it must be defined as a subsystem.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01, IXGC4SLR

Routing code: 1,2

Descriptor code: 2

IXG266I LOGGER DATA SET DELETION ACTIVITY FOR LOGSTREAM *logstream* **WAS QUIESCED BY** *group taskname* **TASK.**

Explanation: System logger quiesced data set deletion activity for the specified log stream because it was taking longer than 50 seconds, and other log stream processing requests were being delayed.

In the message text:

logstream
is the name of the log stream.

group
is the name of the group to which the service task belongs (either PRODUCTION OR TEST). *group* is set to blank if *taskname* is MONITORING

taskname
identifies the logger task, LOGSTREAM MISC or MONITORING, that handled the quiescing of the log stream deletion activity.

System action: System logger quiesces the data set deletion activity for the log stream and continues its operation in a normal manner.

Operator response: None.

System programmer response: Check if any remaining data sets that might still need to be deleted are eventually deleted on subsequent log stream offloads.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGL2MON

IXG267I *DataSetType* **DATASET** *DataSetName* **ALLOCATED WITH INCORRECT VSAM SHAREOPTIONS, USE IS ACCEPTED BUT NOT RECOMMENDED.**

Explanation: System logger detected that a dataset which has just been allocated has incorrect VSAM SHAREOPTIONS. This can lead to system logger being unable to read back the data for operations such as Logstream Recovery and Browse requests. Datasets used for system logger in this environment MUST have VSAM SHAREOPTIONS set to at least (3,3), either through the SMS DATACLAS that is associated with the Logstream, or a similar method.

In the message text:

DataSetType
The type of the data set. This can be either:

Logstream
A Logstream (Offload) Dataset is allocated.

Staging
A Staging (Recovery) Dataset is allocated.

DataSetName
The name of the data set.

System action: System logger allows the Allocation. However, in order to ensure correct operation of the system, the SHAREOPTIONS MUST be updated. See System Programmer Response.

Operator response: Contact the system programmer.

System programmer response: The VSAM SHAREOPTIONS for this data set are incorrect, and must be changed through IDCAMS to avoid future problems trying to access the data. In addition, the logstream attribute LS_DATACLAS or STG_DATACLAS may need to be changed to point to an SMS DATACLAS that has the correct options. To determine the current DATACLAS values, run the IXCMIAPU Utility and specify "LIST LOGSTREAM NAME(logstream) DETAIL(YES) LISTCAT". If the log stream is not defined with xx_DATACLAS, then you may need to update your ACS Routines, or other allocation defaults on your system. Alternatively, the SMS DATACLAS can be altered. Be aware that this type of change will impact any data set associated with this DATACLAS.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG268I *datasettype* **DATASET** *dsname* **CAN NOT BE OPENED FOR JOB** *jobname* **DUE TO** *shropt datanotavail*

Explanation: System logger detected that a dataset could not be opened due to incorrect VSAM SHAREOPTIONS, or another unexpected error.Typically, the dataset is being used by another process with exclusive access.

This can lead to system logger being unable to read back the data for operations such as Logstream Recovery and Browse requests. Datasets used for system logger must have VSAM SHAREOPTIONS set to at least (3,3), either through the SMS DATACLAS that is associated with the log stream, or a similar method, in order to avoid problems when the log streams are used in a multisystem environment. Also, system logger must have access to its datasets whenever it needs to update them.

This problem can be due to HSM allocating a dataset exclusive that system logger requires. In this case, retrying the operation will correct the problem.

In the message text:

datasettype
The type of the data set. This can be either:

Logstream
A Logstream (Offload) Dataset open failed.

Staging
A Staging (Recovery) Dataset open failed.

dsname
The name of the data set.

jobname
The name of the job or started task that issued the request.

shropt
shropt can be either:

INCORRECT VSAM SHAREOPTIONS OR OTHER ERROR
VSAM SHAREOPTIONS may not be correct.

UNEXPECTED OPEN ERROR
Unexpected Open Error was received.

datanotavail

REQUESTED DATA MAY NOT BE AVAILABLE
Data may not be accessible in this dataset.

System action: The Action depends on the type of data set being allocated.

- For a Logstream data set being allocated for output, the system ignores the dataset and allocates a new one. No data is lost in this case.
- For a Logstream data set being allocated for input, the data in the data set is not accessible. The data is not lost but can not be read at this time.
- For a Staging data set being allocated for input, the data is not accessible, and no other copy of the data may exist, either in local buffers or a CF Structure. Check for other system logger messages associated with this Logstream.

  This message may be accompanied by MSGIEC161I. See the explanation of this message for more details.

Operator response: Notify the system programmer.

System programmer response: If the VSAM SHAREOPTIONS for this dataset are incorrect, they must be changed through IDCAMS to avoid future problems trying to access the data. In addition, the log stream attribute LS_DATACLAS or STG_DATACLAS may need to be changed to point to an SMS DATACLAS that has the correct options. To determine the current DATACLAS values, run the IXCMIAPU Utility and specify "LIST LOGSTREAM NAME(*logstream*) DETAIL(YES) LISTCAT". If the log stream is not defined with xx_DATACLAS, then you might need to update your ACS Routines, or other Allocation defaults on your system.

Alternatively, the SMS DATACLAS can be altered. Be aware that this type of change may impact other datasets associated with this DATACLAS.

If the VSAM SHAREOPTIONS are correct, and the problem is due to HSM holding serialization on the dataset, then the use of HSM Exit ARCBDEXT can tell HSM that it does not need to obtain serialization for certain datasets. This exit can be used for Offload datasets but not for Staging datasets.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 2

Descriptor code: 4

IXG269I SYSTEM LOGGER ENCOUNTERED A DATA ERROR WHILE READING DSN= *DSName*

Explanation: System logger encountered a data error while trying to read from the log data set specified.

In the message text:

DSName
The name of the data set.

System action: The request to read the data set fails.

Operator response: Contact the system programmer.

System programmer response: Try to re-drive the function. If the problem persists, search IBM's problem reporting databases for a fix. If no fix exists, collect the following information to provide to the IBM support center to obtain a fix.

1. If message IXG063I is also issued, the dump taken by the Logger might not contain all the pertinent data, manually obtain a dump of the system logger and all the related data from all the systems connected to the log stream. Use SYS1.SAMPLIB(IEADMCLS), which specifies the REMOTE option to dump all the systems, as the model for the information to be requested. This can be invoked by the DUMP PARMLIB= command.
2. To help view the log stream data set directory, obtain the IXCMIAPU LIST LOGSTREAM NAME(name) DETAIL(YES) output.
3. Obtain a dump of the primary LOGR Couple Data Set using a utility such as ADRDSSU.
4. Use IDCAMS LISTCAT to obtain the VSAM linear offload data set characteristics for the offload data set specified in IXG269I. If "LIST LOGSTREAM NAME(name) DETAIL(YES) LISTCAT" is used in step 2, locate the information in the IXCMUAPU output for the data set that is identified in message IXG269I.
5. Print the VTOC information for the volume where the data set resides. For example, using the ISPF data set list utility.
6. Obtain a print of the system logger log data set specified in IXG269I, as well as the log data set immediately before and after it in sequence number if available, using a utility such as IDCAMS or ADRDSSU.
7. Obtain the LOGREC data and system log for all systems in the sysplex.

For guidance on performing these steps, see "Collecting Documentation" in *z/OS MVS Diagnosis: Reference* and "Getting a Dump of system logger Information" in *z/OS MVS Diagnosis: Tools and Service Aids*.

Note: Until the correct diagnostic data can be collected, or the problem is resolved, avoid deleting log data because some of the necessary diagnostics might not be accessible afterwards.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1MM

Routing code: 2

Descriptor code: 4

IXG270I SHORTAGE OF DIRECTORY EXTENT RECORDS FOR GROUP: TEST GROUP TOTAL: *grouptotal* **IN-USE:** *groupnuminuse* **AVAILABLE:** *groupnumavail*

Explanation: System logger has detected a shortage of data set directory extent records in the active primary LOGR couple data set (CDS) for TEST group log streams. This message is issued when a DSEXTENT record is assigned to a TEST group log stream and the number of in-use data set directory extent records exceeds 85% of the total number of data set directory extent records in the LOGR CDS available for TEST group log streams. The message can also be issued when system logger is unable to obtain a DSEXTENT record for a TEST group log stream because all the DSEXTENTs are assigned to PRODUCTION log streams.

TEST group log streams are allowed at most 25% of the total number of DSEXTENT records in the LOGR CDS. The counts in the message are the values that existed when the condition was detected and may not reflect the real time record counts in the current LOGR couple data set.

In the message text:

grouptotal
is the total number of data set directory extent records in the active primary LOGR couple data set that can be used for the TEST group log streams.

groupnuminuse
is the current number of data set directory extent records explicitly in use for TEST group log streams in the active primary LOGR couple data set.

groupnumavail
is the remaining number of data set directory extent records currently available in the active primary LOGR couple data set for TEST group log streams.

System action: The system logger will continue processing. This condition can proceed in one of two directions:

1. Shortage is relieved

   This could happen either as a result of system activity resulting in a number of data set directory extent records being freed from log streams, thus increasing the available pool for the TEST group, or because a new LOGR CDS was brought into the sysplex and was formatted with a larger number of data set directory extent records.

   The shortage could also be relieved if the activities of TEST group log streams are reduced by deleting TEST group log streams or by reducing the retention period for log data associated with TEST group log streams.

   Should this shortage be relieved, this message will be deleted (DOMed).

2. No more data set directory extent records are available

   This means that all of the data set directory extent records for the TEST group are in use in the active primary LOGR CDS. System logger will fail log stream offloads in the TEST group since it is unable to obtain a data set directory extent required to process an offload. If the condition persists, then the log stream writers may eventually receive "log stream interim storage full" error conditions.

Operator response: Notify the system programmer.

System programmer response: The pool of available data set directory extent records in the active primary LOGR CDS may need to be increased.

1. Freeing data set directory extents from existing log streams:

   You can relieve the shortage by freeing data set directory extent records being consumed by existing log stream definitions. Run a report of the log streams defined in the LOGR couple data set to help you identify candidates for cleanup. The report utility program is IXCMIAPU for DATA TYPE(LOGR) using the LIST LOGSTREAM NAME(*) DETAIL(YES) request. Data set directory extent records can be freed in two different ways:

   a. Deleting log stream definitions.

      If you can identify unnecessary log stream definitions that are consuming data set directory extents, deleting the log stream definition will result in the data set directory extent records associated with that log stream being freed and put back into the available pool. As an aid in detecting unnecessary log stream definitions, check the log stream GROUP attribute. It is more likely you will want to delete TEST log streams before you delete PRODUCTION log streams.

   b. Reducing the retention period for log data.

If you can identify log streams that are defined with excessive retention periods and these log streams are consuming data set directory extent records, by reducing the retention period you may free up data set directory extent records, thus increasing the available pool. For TEST group based log streams, you may want to make the retention period small so that the log data can be quickly deleted thus occupying less data set directory extent records.

Note: System logger does not necessarily react immediately to reductions in the retention period. The rule for when system logger will process reductions in the retention period is on the next data set switch event for the log stream. Hence, this implies that the log stream must be connected and incurring sufficient write activity to force data set switch events.

2. Bring in a new primary LOGR couple data set with more data set directory extent records:

   You can format a new LOGR couple data set and increase the number of data set directory extent records through the DSEXTENT keyword on the couple data set format utility. Use the DISPLAY XCF,C,TYPE=LOGR command and use the message IXC358I output to determine the current total number of data set directory extent records that are formatted in the active primary and alternate LOGR couple data sets. After the larger LOGR CDS is formatted, make it the new active primary through the SETXCF COUPLE commands.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1SWT

Routing code: 2,10

Descriptor code: 3

IXG271I LOGGER DATA SET REQUEST IN *group taskname* **SERVICE TASK DELAYED DURING THE PAST** *seconds* **SECONDS FOR LOGSTREAM** *logstream staging* **DSN=***dsname***, DIAG=***diag*

Explanation: The logger event monitor determines that a system logger service task is not responding while attempting an allocation, deletion, HSM recall, or HSM deletion for a log stream data set. Delays in system logger service tasks can impact not only the specific log stream, but also other log streams on the system or in the sysplex.

In the message text:

group
is the name of the group that the service task belongs to (either PRODUCTION or TEST)

taskname
is the name of the system logger service task that is not responding. The task is either ALLOCATION, CONNECTION, LOGSTREAM MISC or MIGRATED DATASET

seconds
is the number of seconds that the task has not responded.

logstream
is the log stream name.

staging
is the word STAGING or null.

dsname
is the log stream data set name.

diag
is the internal Diagnostic Data where the hexadecimal ranges below followed by the decimal values indicate the type of activity that system logger is waiting on to complete:

- X'01'-X'0A' (1-10) Dynamic Allocation/Unallocation
- X'0B'-X'14' (11-20) Serialization/Latching
- X'15'-X'1E' (21-30) Catalog Accesses
- X'1F'-X'32' (31-50) Media Manager OPEN/CONNECT
- X'33'-X'46' (51-70) Media Manager CLOSE/DISCONNECT

- X'47'-X'50' (71-80) Media Manager I/O Accesses
- X'51'-X'5A' (81-90) Migrated Data Set Recall
- X'5B'-X'64' (91-100) Migrated Data Set Delete

System action: System logger will prompt the operator for action with message IXG272E. If the operator makes no response, the data set request might still finish normally. If this occurs, system logger will issue a DOM for both IXG271I and IXG272E messages and continues processing. Until the data set request completes, system logger on this system might not be able to process many functions such as log stream connect, disconnect, deletion requests, offloads, or browses.

When the *taskname* is MIGRATED DATASET, the resource information for the log stream and data set identifies the oldest recall request outstanding for that *group*. Note that the PRODUCTION group can have up to 24 recall requests waiting for DFSMShsm to respond, and the TEST group can have up to 8 recalls. If any of the waiting recalls complete, system logger will issue a DOM for both IXG271I and IXG272E messages and continue processing. Message IXG281I may also be issued indicating system logger has data set recall requests pending.

Operator response: Check for any conditions in the installation that might be preventing the task from proceeding.

1. Check for outstanding WTOs or WTORs.

   Check for any outstanding WTORs or WTOs that are awaiting action that might be preventing system logger from being able to allocate a log data set.
2. Check for start pendings.

   Check for any start pending conditions against either the DASD device or any devices required to allocate or unallocate log data sets, such as the catalog device and any device for which a new log data set could be allocated. If start pending conditions are found for any of these devices, resolve the condition.
3. Check for resource contention.

   Issue the DISPLAY GRS,C command to display resource contention. If there is resource contention that is preventing system logger from allocating log data sets, then resolve the contention.
4. Check for recall of migrated log data sets.

   Issue the DISPLAY LOGGER,STATUS,RECALLS command to display all the outstanding data set recalls requested by system logger, and consider using the SETLOGR FORCE,NORECALL command to cause system logger to stop waiting for a particular data set to be recalled.

Resolve any recall requests for migrated log data sets.

If none of the above steps resolves the problem, notify the system programmer.

System programmer response: See also message IXG272E documentation.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGL2MON

Routing code: 2,10

Descriptor code: 7,11

IXG272E LOGGER *group taskname* **TASK DELAYED, REPLY "MONITOR", "IGNORE", "FAIL", "EXIT".**

Explanation: The system logger Event Monitor is requesting that an action be specified for a task that is not responding in the system logger address space.

The actions are as follows:

1. MONITOR—Continue monitoring this delayed request.
2. IGNORE—Stop monitoring this delayed request.
3. FAIL—Fail the current request this task is processing.
4. EXIT—Terminate system logger Service Task Monitoring.

See the system programmer Response for a more complete description of these actions.

In the message text:

group
is the name of the group to which the service task belongs (either PRODUCTION or TEST)

taskname
is the name of system logger service task that is not responding. The task is either ALLOCATION, CONNECTION, LOGSTREAM MISC or MIGRATED DATASET.

System action: Message IXG271I accompanies this message. System logger waits for the operator to specify an action, or for the request to complete resulting in message IXG272E being DOMed.

Operator response: Contact the system programmer. Then respond to the message.

System programmer response: Message IXG271I accompanies this message. Review IXG271I and its description before proceeding with a response.

This message can also be accompanied by messages IXG311I and IXG312E, which also indicates a possible delay related to a log stream data set request. Review these message descriptions as well. See Offload and Service Task Monitoring in *z/OS MVS Setting Up a Sysplex* for more information about the relationship and considerations for these action messages.

If the system makes no response, the Task might still finish the request normally resulting in message IXG272E being DOMed. If you decide to respond, you can find the explanation of the ramifications of each response as follows.

MONITOR
The system logger Event Monitor continues to Monitor the request and takes no overt action. If the specific request has not made progress after another interval, the system will issue another WTOR at that time.

When you reply MONITOR, any subsequent IXG271I messages issued will show a delay duration. You can use the delay duration to determine if a new delay is being seen, or if the delay is ongoing, that is, the delay value is increasing.

IGNORE
The system logger Event Monitor stops Monitoring this request. It might be that there is no problem with this request, it is simply taking a long time, and this is acceptable to the installation, (e.g. HSM Recalls for data sets).

FAIL The request will be interrupted on this system. This will most likely cause the request to behave as if it failed (e.g. a data set could not be allocated).

This can also allow other work to continue that was waiting for this system logger service task. Use this option only if you cannot determine why the request is not completed.

Replying FAIL might cause undesirable results, and is meant to keep the rest of the system logger applications running, at the expense of one hung application.

Take note of any other system logger error messages or messages from any exploiter of the affected log stream.

If you reply FAIL, system logger might cause other components such as Allocation to enter their Recovery, take dumps, or issue various messages.

EXIT The system logger event monitor terminates ALL service task monitoring activity on this system. There will be no messages indicating system logger task processing being delayed, and there will be no mechanism available to quiesce (fail) any delayed system logger tasks. In this case, the system also issues Message IXG275I.This response will not affect offload monitoring. If system logger is ever stopped and restarted, the Task Monitor will be restarted as well.

If it appears there is a persistent problem inhibiting normal system logger operations, get a dump of system logger to obtain diagnostic information, and contact the IBM support center. See Operator Command in IEADMCxx Parmlib Member and Getting a Dump of System Logger Information of *z/OS MVS Diagnosis: Tools and Service Aids* for more information about obtaining system logger dumps.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGL2MON

Routing code: 2,10

Descriptor code: 3

IXG273I *function* **COMPLETED SUCCESSFULLY**

Explanation: The system logger procedure performed the requested function successfully.

In the message text:

function
is the function that relates to the submitted procedure, such as:

- DELETE ALL BLOCKS (Samplib IXGDELAB)
- DELETE LOGSTREAM (Samplib IXGDELLS)
- OFFLOAD (Samplib IXGOFDLS)
- LOGSTREAM CONNECT (Samplib IXGCONLS)
- LOGSTREAM DISCONNECT (Samplib IXGCONLS)

System action: The requested *function* was performed successfully.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Routing code: 2,10

Descriptor code: 4

IXG274I *subfunction* **FAILED FOR** *function*, **RETCODE=***retcode*, **RSNCODE=***rsncode*

Explanation: The system logger procedure was attempting to perform the requested *function*, but the *subfunction* failed, preventing the *function* from being successful.

The return and reason codes are documented in macro IXGCON.

In the message text:

subfunction
is the subfunction or IXG-service that was operating when the failure or error was encountered.

function
is the function that relates to the submitted procedure, such as:

- DELETE ALL BLOCKS (Samplib IXGDELAB)
- DELETE LOGSTREAM (Samplib IXGDELLS)
- OFFLOAD (Samplib IXGOFDLS)
- LOGSTREAM CONNECT (Samplib IXGCONLS)
- LOGSTREAM DISCONNECT (Samplib IXGCONLS)

retcode
is the return code from the *subfunction* service.

rsncode
is the reason code from the *subfunction* service.

System action: The job step terminates and the *function* does not complete successfully.

Operator response: See *z/OS MVS Programming: Assembler Services Reference IAR-XCT* to review the *subfunction* macro for information about system logger return and reason codes displayed with this message. Correct the error

and retry the operation. If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

System programmer response: None.

User response: Correct the error and retry the operation.

Programmer response: Correct the error and retry the operation.

Source: System logger (SCLOG)

Routing code: 2,10

Descriptor code: 4

IXG275I SYSTEM LOGGER EVENT MONITORING STOPPED FOR SERVICE TASKS ON SYSTEM *sysname*

Explanation: The system requested system logger service task monitoring to be stopped because of operator response of "EXIT" for message IXG272E. No more system logger service task event monitoring will be performed on this system, unless system logger or the system is restarted.

In the message text:

sysname
is the name of the system where the service task monitor has been stopped.

System action: System logger will no longer monitor service task events, including allocation and recall requests. This response will not affect offload monitoring.

Operator response: Contact the system programmer.

System programmer response: Make sure that system logger is still functioning normally. If monitoring is essential to installation operations, consider taking down the IXGLOGR address space (this will not impact any executing system logger applications) and then restarting system logger (through START IXGLOGRS).

User response: None.

Programmer response: Correct the error and retry the operation.

Source: System logger (SCLOG)

Routing code: 10

Descriptor code: 4

IXG276I LOGGER RENAMED LOGSTREAM *logstream* **STAGING DATA SET** *dsnhlq.dsnlsn.dsnllq* **TO NEW NAME** *dsnhlq.dsnlsnn.dsnllq*

Explanation: The system issues this message when system logger is successful renaming an existing log stream staging data set as part of the log stream name update request.

In the message text:

logstream
is the log stream being updated.

dsnhlq
is the high level qualifier of the log stream data set name.

dsnlsn
is the current log stream name qualifier portion of the log stream data set name.

dsnllq
is the low level qualifier of the log stream data set name.

dsnlsnn
is the new log stream name qualifier portion of the log stream data set name.

System action: System logger continues with the UPDATE LOGSTREAM NEWSTREAMNAME request.

Operator response: None

System programmer response: None

User response: None.

Programmer response: None

Source: System logger (SCLOG)

Routing code: 10

Descriptor code: 12

IXG277E UNABLE TO RENAME LOGSTREAM *logstream* **STAGING DATA SET** *dsnhlq.dsnlsn.dsnllq* **TO NEW NAME** *dsnhlq.dsnlsnn.dsnllq* **IDCAMS request SERVICE ERROR RETCODE:** *retcode*, **RSNCODE:** *rsncode*

Explanation: The system issues this message when system logger is attempting to rename an existing log stream staging data set, but encountered an error. If the RETCODE is 4 and the RSNCODE is "D3D6C7D9"X ("LOGR"C), IDCAMS returned information about the LISTCAT request, but system logger could not identify the DATA entry for the staging data set name.

In the message text:

logstream
is the log stream being updated.

dsnhlq
is the high level qualifier of the log stream data set name.

dsnlsn
is the current log stream name qualifier portion of the log stream data set name.

dsnllq
is the low level qualifier of the log stream data set name.

dsnlsnn
is the new log stream name qualifier portion of the log stream data set name.

request
One of the following:

ALTER
Alter request to update data set name.

retcode
The return code from the Service

rsncode
The reason code from the Service

System action: System logger continues with the UPDATE LOGSTREAM NEWSTREAMNAME request which will complete with a return code 4, and a reason code "418" (see IxgRsnCodeUpdateNewnameWarning in IXGCON macro).

Operator response: Notify the System Programmer

System programmer response: Check for any IXG251I hard-copy messages and see the system programmer response for the message identifier that is included in message IXG251I. See *z/OS DFSMS Access Method Services Commands* for information about IDCAMS ALTER. If a staging data set is migrated, the IXG251I messages might indicate that the data set is a "NONVSAM" type entry for the cluster. Migrated staging data sets for the log stream should first be recalled before submitting the NEWSTREAMNAME update request as system logger does not attempt to rename migrated data sets. Because the log stream is already renamed when this message is issued, the system programmer will need to rename the migrated staging data set.

After correcting the error condition, submit the necessary IDCAMS ALTER entryname NEWNAME() job to get the existing log stream staging data set name updated to match the new stream name change. This will need to be done before defining a new instance of a log stream that uses the same name as the log stream identified in this message. Failure to get the staging data set renamed correctly can result in a "loss of data" condition when a connection occurs for the log stream that was renamed.

If you cannot identify the problem source or correct the error, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

User response: None.

Programmer response: None

Source: System logger (SCLOG)

Routing code: 10

Descriptor code: 12

IXG278I IXGLOGR ASYNCHRONOUS RECALL REQUEST FOR GROUP: *group*
LOGSTREAM *logstream staging***DSN=** *dsname*

Explanation: System logger issued an asynchronous ARCHRCAL request to recall a migrated data set for a log stream. When "STAGING" appears in the message, the recall is for a log stream staging data set; otherwise the recall is for a log stream offload data set.

In the message text:

group
is the name of the log stream group for the MIGRATED DATASET task in system logger that issued the asynchronous data set recall request (either PRODUCTION or TEST).

logstream
is the log stream name.

staging
is the word STAGING or null.

dsname
is the log stream data set name.

System action: After issuing the ARCHRCAL, system logger waits for the data set to be recalled. When DFSMShsm (or an equivalent function) responds with the recall results, system logger continues with the recall operation. The system logger MIGRATED DATASET task handler for the identified log stream *group* continues with DFSMShsm requests unless the limit for that group has been reached. For the PRODUCTION group MIGRATED DATASET task, up to 24 asynchronous recall requests can be outstanding. For the TEST group MIGRATED DATASET task, up to 8 asynchronous recall requests can be outstanding.

If the maximum recall requests are reached for the *group*, the MIGRATED DATASET task is considered busy, and the system logger task monitor will track progress. If no progress is detected, the system issues messages IXG271I and IXG272A. While the task is in this busy state, subsequent migrated data set requests the system does not process for *group* until one of the following occurs:

- One of the current recall requests completes.
- System logger is specifically requested to stop waiting from either a reply to action message IXG272A or through the SETLOGR FORCE,NORECall,DSName=datasetname command.

If the maximum recall requests are not yet reached for the *group*, but at least one of the recall requests is satisfied within 30 seconds, system logger issues message IXG281I that indicates data set recall requests are pending.

Operator response: None.

System programmer response: If system logger recall requests are delayed, check for IXG271I, IXG311I messages in the system log. If these messages appear and the data set has not yet been recalled, determine if DFSMShsm is functioning properly. You can use the DISPLAY LOGGER,STATUS,RECALLS command can be used to display all the outstanding data set recalls requested by Logger. Consider responding to messages IXG272E or IXG312E. SETLOGR FORCE,NORECall,DSName=datasetname command to cause system logger to stop waiting for a particular request.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1HSM

Routing code: - (hardcopy log)

IXG279I IXGLOGR RECALL REQUEST COMPLETED FORDSN= *dsname*

Explanation: The system logger recall request for the migrated data set completed successfully.

In the message text:

dsname
is the log stream data set name.

System action: Since the recall request completed successfully, system logger continues with the operation that must access the (previously migrated) data set.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1HSM

Routing code: - (hardcopy log)

IXG280I IXGLOGR RECALL REQUEST STOPPED BY SETLOGR COMMAND FORDSN= *dsname*

Explanation: System logger stopped waiting on the recall request for the data set as a result of the SETLOGR FORCE,NORECall,DSName=*datasetname* command.

In the message text:

dsname
is the log stream data set name.

System action: System logger treats this as if the recall request returned with an error condition. The result depends upon which system logger operation attempted to access the (migrated) data set. It is possible that log stream browse requests receive "gap" type error conditions, which means that the system cannot read all of the data. Log stream offload failures could also occur (re: message IXG301I) if an offload data set was migrated and needed to continue moving log data from "interim" storage to "secondary" (DASD) storage.

Operator response: None.

System programmer response: Monitor system logger activities to ensure that no unexpected behaviors occur, particularly for the log stream exploiter that might be directly affected by the unsuccessful recall request.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1HSM

Routing code: - (hardcopy log)

Descriptor code: -

IXG281I IXGLOGR DATA SET RECALL REQUESTS PENDING FOR GROUP:*group*

Explanation: System logger issued an asynchronous ARCHRCAL request to recall a migrated data set for a log stream and has not received a response for at least 30 seconds, or the maximum allotted number of recalls for the group has been reached.

In the message text:

group
is the name of the log stream group for the MIGRATED DATASET task in system logger that issued the asynchronous data set recall request (either PRODUCTION or TEST).

System action: The system logger MIGRATED DATASET task handler for the identified log stream *group* continues with DFSMShsm requests unless the limit for that group has been reached. For the PRODUCTION group MIGRATED DATASET task, up to 24 asynchronous recall requests can be outstanding. For the TEST group MIGRATED DATASET task, up to 8 asynchronous recall requests can be outstanding. When DFSMShsm (or an equivalent function) responds with the recall results, system logger continues with the operation that required the data set to be recalled. If there are no asynchronous recall requests outstanding for at least 30 seconds, then system logger will issue a DOM for message IXG281I.

If the maximum recall requests are reached for the *group*, the system considers the MIGRATED DATASET task busy and the system logger task monitor it issues progress. If the system does not detect any progress, it issues messages IXG271I and IXG272A. While the task is busy, the system does not process subsequent migrated data set requests for *group* until one of the current recall requests completes, or until system logger is specifically requested to stop waiting from either a reply to action message IXG272A or through the SETLOGR,FORCE,NORECALL,DSNAME=*datasetname* command.

Operator response: Issue DISPLAY LOGGER,STATUS,RECALLS command to identify the delayed recall requests.

System programmer response: If system logger recall requests are being delayed, check IXG271I, IXG311I messages in the system log. If these messages appear and data sets are not being recalled, determine if DFSMShsm is functioning properly. Consider responding to messages IXG272E or IXG312E. SETLOGR FORCE,NORECALL,DSNAME=*datasetname* command can also be used to cause system logger to stop waiting for a particular recall request.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1HSM

Routing code: 2

Descriptor code: 3

IXG282I *DataSetType* **DATASET** *DataSetName* **WAS ALTERED FOR LOGSTREAM** *logstream* **UPDATED ATTRIBUTE** *attribute*

Explanation: System logger detected that a data set which has just been newly allocated had incorrect attributes, so the data set was modified as noted.

In the message text:

DataSetType
The type of the data set. This can be either of the following values:

OFFLOAD
A log stream offload data set was altered.

Staging
A staging (recovery) data set was altered.

DataSetName
The name of the data set.

logstream
The name of the log stream.

attribute
The data set attribute that is updated by system logger, where attribute is

VSAM SHAREOPTIONS
System logger detected that the SHAREOPTIONS for the data set did not meet the (3,3) required setting. An incorrect setting can cause logger being unable to read log data for requests during log stream recovery or browse requests.

System action: System logger took action to alter the identified attribute (such as the VSAM SHAREOPTIONS) to meet the expected requirements to ensure correct operation of the systems in the sysplex using this data set.

Operator response: Contact the system programmer.

System programmer response: When the VSAM SHAREOPTIONS attribute for this data set is initially incorrect, logger already took action to alter them through IDCAMS. You should check the log stream LS_DATACLAS and STG_DATACLAS specifications to ensure they reference an SMS data class that has the correct options. To determine the current data class values, run the IXCMIAPU Utility and specify "LIST LOGSTREAM NAME(logstream) DETAIL(YES) LISTCAT". If the log stream data sets are not defined as intended, you need to update your ACS routines, or other allocation defaults on your system. Alternatively, the SMS data class can be altered, but this type of change will impact any data set that is associated with the data class.

User response: None.

Programmer response: None.

Problem determination: None.

Source: System logger (SCLOG)

Module: IXGA1AUS

Routing code: 10

Descriptor code: 4

Automation: None.

IXG283I *DataSetType* **DATASET** *DataSetName alloctype* **FOR LOGSTREAM** *logstream* **CISIZE=***cisize* **SIZE=***size*

Explanation: System logger allocated a new log data set as noted in the message.

In the message text:

DataSetType
is the type of logger data set, where

OFFLOAD
A log stream offload data set was allocated.

STAGING
A staging (recovery) data set was allocated.

DataSetName
is the name of the data set that was allocated new.

alloctype
is the type of logger allocation activity, where

ALLOCATED NEW
A log stream data set was newly allocated.

ALLOC ADV NEW
A log stream offload data set was newly allocated in advance of the actual need to move log data.

NOW NEW CURDS
A log stream offload data set that was previously allocated in advance is now the current offload data set.

logstream
is the name of the log stream.

cisize
is the Control Interval (CI) size for the data set.

size
is the size of the data set in bytes.

System action: The log stream data set is used by system logger to either duplex log data or to move log data from primary/interim storage to secondary storage (STAGING or OFFLOAD respectively) for the log stream. The data set

was allocated using the CISIZE and SIZE attributes displayed in the message.

Operator response: None.

System programmer response: No action required. Verify attributes are as expected.

User response: None.

Programmer response: None.

Problem determination: None.

Source: System logger (SCLOG)

Module: many

Automation: None.

IXG284I *DataSetType* **DATASET** *DataSetName* **pending FOR LOGSTREAM** *logstream* **CISIZE=***cisize* **SIZE=***size*

Explanation: System logger attempted to delete a log stream data set. As noted in the message, the data set has either been deleted or is now marked pending delete.

In the message text:

DataSetType
is the type of logger data set, where

OFFLOAD
An log stream offload data set was deleted or marked pending delete.

Staging
A staging (recovery) data set was deleted.

DataSetName
The name of the data set that was allocated as new.

pending
One of the following:

DELETED
The data set was successfully deleted by system logger.

PENDING DELETE
The data set could not be immediately deleted. System logger will attempt the delete request again at a later point in time.

logstream
The name of the log stream.

System action: The log stream data set is no longer in use by system logger. If the message indicates the data set has been marked pending delete, then Logger was unable to delete the data set but will retry at a later point. The PENDING DELETE form of message IXG284I will only be issued for the first unsuccessful attempt to delete data set *DataSetName*. System logger will issue IXG284I again only if the subsequent delete request is successful. If system logger continues to be unable to delete dataset *DataSetName*, it may stop managing it. In this case, message IXG252I will be issued.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Problem determination: None.

Source: System logger (SCLOG)

Module: IXA1AUS,IXGA2DEL

Automation: None.

IXG285I LOGGER OFFLOAD DATA SET MANAGEMENT SUBTASK HAS FAILED FOR: *lstype* LOGSTREAMS

Explanation: A system logger logstream resource related subtask has failed. The subtask is associated with offload processing for *lstype*.

In the message text:

lstype
One of the following:

DASDONLY
The failed task handled DASDONLY logstream requests.

CF STRUCTURE
The failed task handled CF structure based logstream requests.

System action: System logger will redistribute offload data set allocations amongst the remaining log stream resource subtasks. The specific operation that was in progress may fail. However, operations are expected to continue normally as long as there are remaining eligible log stream subtasks.

Operator response: None.

System programmer response: Monitor further for IXG285I messages and messages IXG286I, IXG287E or IXG288E, which will indicate further task failures have led to system logger operating in a diminished capacity. Look for IXG301I instances or other offload related error messages and any dumps created by the system logger address space, then contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGLRTSK

IXG286I LOGGER IS RUNNING IN A DIMINISHED CAPACITY DUE TO A LOSS OF OFFLOAD DATA SET MANAGEMENT SUBTASKS FOR: *lstype* LOGSTREAMS

Explanation: The system logger component responsible for offload data set management for *lstype* logstreams has lost multiple logstream resource subtasks.

In the message text:

lstype
One of the following:

DASDONLY
The failed tasks handled DASDONLY logstream requests.

CF STRUCTURE
The failed tasks handled CF structure based logstream requests.

System action: System logger will redistribute offload data set allocations among the remaining *lstype* logstream resource subtasks. However, related workload (such as offload related data set allocations and deletions) may run in a diminished capacity for *lstype* logstreams.

Operator response: None.

System programmer response: Consider scheduling a planned outage to restart the IXGLOGR address space. Further loss of logstream resource subtasks can lead to offload failures for *lstype* logstreams. Message IXG287E or IXG288E might be issued to describe further problems.

Note: Restarting the IXGLOGR address space will impact any executing system logger applications. See Restarting the system logger address space in *z/OS MVS Diagnosis: Reference* for information on stopping and restarting the IXGLOGR address space. In addition, look for related error messages and any dumps created by system logger, then contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGLRTSK

Routing code: 2

Descriptor code: 4

IXG287E LOGGER NO LONGER DELETING OFFLOAD DATA SETS FOR *lstype* LOGSTREAMS ON THIS SYSTEM

Explanation: The system logger component responsible for offload data set delete processing has failed for the indicated log stream type.

In the message text:

lstype
One of the following:

DASDONLY
DASDONLY logstreams are the type affected.

CF STRUCTURE
CF structure logstreams are the type affected.

System action: Offload data set deletes for logstreams of type *lstype* will not be processed on this system. Continued operation in this environment may lead to a shortage of data set related resources and performance degredation of system logger related workloads of type *lstype*.

Operator response: None.

System programmer response: IBM recommends restarting the IXGLOGR address space as soon as possible. Since this will impact any running system logger applications, see *z/OS MVS Diagnosis: Reference* Restarting the system logger address space for information on stopping and restarting the IXGLOGR address space. In addition, look for related error messages and dumps created by system logger, then contact the IBM support center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGLRTSK

Routing code: 1, 10

Descriptor code: 11

IXG288E CRITICAL FAILURE OF LOGGER OFFLOAD DATA SET MANAGEMENT SUBCOMPONENT HAS OCCURRED FOR *lstype* LOGSTREAMS ON THIS SYSTEM

Explanation: The system logger component responsible for offload data set delete processing has failed for the indicated log stream type.

In the message text:

lstype
One of the following:

DASDONLY
DASDONLY logstreams are the type affected.

CF STRUCTURE
CF structure logstreams are the type affected.

System action: The system logger subcomponent responsible for offload data set management processing for *lstype* has lost all logstream resource subtasks.

Operator response: None.

System programmer response: Due to offload data set allocation processing being an essential function, system logger performs to manage the log stream resource, and IBM recommends restarting the IXGLOGR address space as soon as possible. See *z/OS MVS Diagnosis: Reference* Restarting the system logger address space for information on stopping and restarting the IXGLOGR address space. In addition, look for related error messages and dumps created by system logger, then contact the IBM support center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGLRTSK

Routing code: 1, 10

Descriptor code: 11

IXG289E CRITICAL FAILURE OF LOGGER DATA SET ALLOCATION SUBCOMPONENT HAS OCCURRED

Explanation: The system logger allocation task responsible for browse related allocations, deletes by blockid that need non-current offload data sets, and general offload data set unallocations has failed.

System action: System logger will no longer be able to allocate offload data sets for IXGBRWSE function on this system. Further data set unallocation requests for the IXGLOGR address space on this system will no longer be processed. Continued operation in this environment will severely degrade performance and may lead to application outages for exploiters who need to browse offload data sets.

Operator response: None.

System programmer response: IBM recommends restarting the IXGLOGR address space as soon as possible. See *z/OS MVS Diagnosis: Reference* Restarting the system logger address space for information on stopping and restarting the IXGLOGR address space. In addition, look for related error messages and dumps created by system logger, then contact the IBM support center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGLRTSK

Routing code: 1, 10

Descriptor code: 11

IXG301I SYSTEM LOGGER FAILED TO OFFLOAD DATA FOR LOG STREAM *logstream* **IN STRUCTURE** *strname***. RETURN CODE:***retcode* **REASON CODE:***rsncode* **DIAG1:***diag1* **DIAG2:***diag2* **DIAG3:***diag3* **DIAG4:***diag4*

Explanation: The system detected a failure during a process to offload data from interim storage (coupling facility for a coupling facility log stream, local storage buffers for a DASD-only log stream) to DASD log data sets for the specified log stream.

In the message text:

logstream
is the name of the log stream.

strname
For a coupling facility log stream, the name of the structure associated with the log stream.

For a non-coupling facility based log stream, the *strname* will be:

NOT APPLICABLE

retcode
The return code from the failing service.

rsncode
The reason code from the failing service.

diag1, *diag2*, *diag3*, *diag4*
Diagnostic fields (*diag1* - *diag4*) info for the answer area, IXGANSAA. See System Programmer Response below for more information.

System action: System logger will continue to accept write requests until the interim storage associated with the specified log stream is full. Once it becomes full, logger will attempt to offload periodically until the problem is resolved or the log stream is disconnected.

Operator response: Notify the system programmer.

System programmer response: Search the IXGCON mapping macro for the return code and reason code, and take the suggested action. Some diagnostic fields (diag1 - diag4) are described there. If the error cannot be corrected, contact the IBM Support Center.

Instructions for specific installation environmental errors:

- For return code X'08', reason code X'0805', an application can still write to the log stream until the application receives a return code X'08' on an IXGWRITE with a reason code that indicates that interim storage is full (e.g., X'0860', X'0865', or X'085D'). When interim storage becomes full, the error that caused this IXG301 message (e.g., out of space on DASD) must be corrected before more data can be written to the log stream.

  The contents of Diag1 and Diag2 are described in the documentation for message IXG003I, in the System Programmer Response section.
- Return code X'08', reason code X'085C' indicates that an offload failed because the log stream's data set directory is full. If this problem is not corrected, applications might eventually be unable to write to this log stream. This might have already happened. See the explanation for accompanying messages IXG257I, IXG261E and IXG262A. Also see When DASD Log Data Set Space Fills in *z/OS MVS Setting Up a Sysplex*.
- For return code X'08', reason code X'085D', applications can continue to write data to the log stream until they receive an X'085D' or similar reason code from the IXGWRITE service indicating that the interim storage is full. The X'085D' reason code may also be included in this message if the response to message IXG312E was to "FAIL" (or "AUTOFAIL") the offload on this system. This reason code may also result if the response to message IXG272E was to "FAIL="" the allocation or recall request related to the log stream.
- Return code X'0C', reason code X'0000' indicates that an internal logger error has occurred. The error occurs usually because a LOGR couple dataset has been inadvertently reused. If you find that no improper reuse of the Logger Couple Dataset has occurred, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF1WOW

Routing code: 2

Descriptor code: 4

IXG302E DATA MAY BE LOST FOR LOG STREAM *logstream* IN STRUCTURE *strname* DUE TO I/O ERROR.

Explanation: System logger encountered an I/O error while offloading the log stream data for log stream *logstream*.

The I/O error was encountered while writing the control interval which was not completely written during prior writer offload. The log blocks which were part of the control interval and offloaded previously may be lost.

In the message text:

logstream
is the name of the log stream for which data was being offloaded.

strname
is the name of the structure associated with the log stream.

System action: System logger marks that the log stream has a loss of data condition. This condition is communicated to applications when the application attempts to Browse the log stream and gap condition is detected or when the application attempts to write more blocks to the log stream.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1WRT

Routing code: 10

Descriptor code: 4

IXG303I DIRECTED OFFLOAD FOR LOG STREAM *logstream* STARTED.

Explanation: An offload that was directed to a specific system, or away from a particular system, was started.

In the message text:

logstream
is the name of the log stream whose offload was started.

System action: The offload continues.

Operator response: None.

System programmer response: Monitor completion of the offload. Search for message IXG304I.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF1TRX

Routing code: -

Descriptor code: 4

IXG304I DIRECTED OFFLOAD FOR LOG STREAM *logstream* IS COMPLETE.

Explanation: An offload that was directed to a specific system has now completed.

In the message text:

logstream
is the name of the log stream whose offload completed.

System action: None.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF1WOW

Routing code: -

Descriptor code: 4

IXG310I SYSTEM LOGGER CURRENT OFFLOAD IS NOT PROGRESSING FOR LOGSTREAM *logstream* **STRUCTURE:** *strname request* **DSN=***dsnhlq.dsnlsn.dsnllq*

Explanation: The logger cannot continue until an outstanding request completes. The request may be for an offload data set allocation, deletion, or HSM recall. Additionally, the request may be for an update to the LOGR couple data set for the offload activity results. The data set naming convention is included to aid in identifying other potential messages that might be related to this offload activity. The offload function involves reading log data from interim storage and writing it to DASD log data sets. Writing data to one or more DASD log data sets involves DASD I/O and the potential need to allocate a new or existing log data set, which can be on primary DASD or archived.

See Offload and Service Task Monitoring in *z/OS MVS Setting Up a Sysplex* for more information about system logger log stream offload monitoring activities.

In the message text:

logstream
Name of the log stream whose current offload is not progressing.

strname
For a coupling facility log stream, the name of the structure associated with the log stream.

For a DASD-only based log stream, *strname*:

NOT APPLICABLE.

request
One of the following:

ALLOCATING
Allocating a new or existing log stream offload data set request.

DELETING
System logger is checking for offload data sets that are no longer needed. If any data sets are found that are no longer needed, they will be deleted.

RECALLING
Recalling an existing log stream offload data set request.

UPDATING
Updating the LOGR CDS log stream record with offload control information.

dsnhlq
is the high level qualifier of the log stream data set name.

dsnlsn
is the log stream name qualifier portion of the log stream data set name.

dsnllq
is the low level qualifier of the log stream data set name or <SEQ#>. If <SEQ#> is seen, this indicates that the log stream is waiting for another log stream that is having a problem. Check the log for an earlier IXG310I message for the name of the other log stream.

When UPDATING preceeds DSN=, the data set name is replaced with LOGR CDS.

System action: System logger will continue to monitor the offload allocation. If the delay persists, system logger might issue IXG311I and prompt the operator for action with message IXG312E.

Until this allocation completes, system logger on this system may be unable to process many functions such as log stream connect requests, log stream disconnect requests, log stream deletion requests, and others.

Operator response: Check for any conditions in the installation that might be preventing the offload from proceeding.

1. Check for outstanding WTOs or WTORs.

   Check for any outstanding WTORs or WTOs that are awaiting action and might be preventing system logger from being able to allocate a log data set.
2. Check for start pendings.

Check for any start pending conditions against the offload DASD device or any device required to allocate/unallocate log data sets such as the catalog device or any device that a new log data set could be allocated. If start pending conditions are found for any of these devices, resolve the condition.

3. Check for resource contention.

   Issue the DISPLAY GRS,C command to display resource contention. If there is resource contention that is preventing system logger from allocating log data sets, then resolve the contention.

4. Check for recall of migrated log data sets.

   Issue the DISPLAY LOGGER,STATUS,RECALLS command to display all the outstanding data set recalls requested by system logger. Resolve any recall requests for migrated log data sets.

If these steps do not resolve the condition, notify the system programmer.

System programmer response: See also message IXG311I and IXG312E documentation.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGL2MON

Routing code: 10

Descriptor code: 4

IXG311I SYSTEM LOGGER CURRENT OFFLOAD HAS NOT PROGRESSED DURING THE PAST *seconds* **SECONDS FOR LOGSTREAM** *logstream* **STRUCTURE:** *strname request* **DSN=***dsnhlq.dsnlsn.dsnllq*

Explanation: The logger event monitor determined that an offload data set allocation, deletion, or HSM recall, or an update to the LOGR couple data set for the offload activity results have not been satisfied for the secondary monitoring interval. The data set naming convention is included to aid in identifying other potential messages that might be related to this offload activity. The offload function involves reading log data from interim storage and writing it to DASD log data sets. Writing data to DASD log data sets involves DASD I/O and the potential need to allocate a new or existing log data set, which might be on primary DASD or archived.

See Offload and Service Task Monitoring in *z/OS MVS Setting Up a Sysplex* for more information about system logger log stream offload monitoring activities.

In the message text:

seconds
is the number of seconds that the current offload has been delayed.

logstream
is the name of the log stream whose offload has been delayed.

strname
For a coupling facility log stream, the name of the structure associated with the log stream.

For a DASD-only based log stream, *strname*:

NOT APPLICABLE.

request
can be one of the following:

ALLOCATING
Allocating a new or existing log stream offload data set request.

DELETING
Deleting offload data sets that are no longer needed.

RECALLING
Recalling an existing log stream offload data set request.

UPDATING
Updating the LOGR CDS log stream record with offload control information.

dsnhlq
is the high level qualifier of the log stream data set name.

dsnlsn
is the log stream name qualifier portion of the log stream data set name.

dsnllq
is the low level qualifier of the log stream data set name or <SEQ#>. If <SEQ#> is seen, this indicates that the log stream is waiting for another log stream that is having a problem. Check the log for an earlier IXG310I message for the name of the other log stream.

When UPDATING preceeds DSN=, the data set name is replaced with LOGR CDS.

System action: System logger prompts the operator for action with message IXG312E, unless an AUTOFAIL response on a previous IXG312E condition in which case the system issues message IXG313I occurs.

Until this allocation completes, the system logger on this system may be unable to process many functions such as log stream connect requests, log stream disconnect requests and log stream deletion requests.

Operator response: Check for any conditions in the installation that might be preventing the offload from proceeding.

1. Check for outstanding WTOs or WTORs.

   Check for any outstanding WTORs or WTOs that are awaiting action and might be preventing system logger from being able to allocate a log data set.
2. Check for start pendings.

   Check for any start pending conditions against the offload DASD device or any device required to allocate/unallocate log data sets, such as the catalog device. If start pending conditions are found for any device, then resolve the condition.
3. Check for resource contention.

   Issue the DISPLAY GRS,C command to display resource contention. If there is resource contention that is preventing system logger from allocating log data sets, then resolve the contention.
4. Check for recall of migrated log data sets.

   Issue the DISPLAY LOGGER,STATUS,RECALLS command to display all the outstanding data set recalls requested by Logger. Resolve any recall requests for migrated log data sets.

If these steps do not resolve the condition, notify the system programmer.

System programmer response: See also message IXG312E documentation.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGL2MON, IXGXMSG

Routing code: 2,10

Descriptor code: 7,11

IXG312E OFFLOAD DELAYED FOR *logstream*, REPLY "MONITOR", "IGNORE", "FAIL", "AUTOFAIL", OR "EXIT".

Explanation: The system logger Event Monitor is requesting that an action be specified for an offload allocation or migration recall that is still not complete.

The responses are as follows:

1. MONITOR - Continue monitoring this offload.
2. IGNORE - Stop monitoring this offload.
3. FAIL - Fail the offload on this system.
4. AUTOFAIL - Fail the offload on this system and continue this action for this log stream for the duration of this connection.
5. EXIT - Terminate system logger offload event monitor.

See the system programmer response for a more complete description of these actions.

In the message text:

logstream
Name of the log stream whose offload allocation needs action.

System action: This message is accompanied by message IXG311I. System logger waits for the operator to specify an action, or for the allocation to complete by itself. If the offload attempt is successful, message IXG311I and IXG312E will be DOMed.

Operator response: Contact system programmer. Then respond to the message.

System programmer response: This message is accompanied by message IXG311I. Review IXG311I and its description before proceeding with a response.

This message may also be accompanied by messages IXG271I and IXG272E, which also indicates a possible delay related to a log stream data set request. Review these message descriptions as well. See *z/OS MVS Setting Up a Sysplex* "Offload and Service Task Monitoring", for more information about the relationship and considerations for these action messages.

If no response is made, the offload allocation may still finish normally. If you decide to respond, the remifications of each response are explained here.

MONITOR
The system logger Event Monitor continues to monitor the offload and takes no overt action. If the offload allocation is still not complete after another interval, another WTOR will be issued at that time.

If you reply MONITOR, it is possible that subsequent messages issued may contain different data set names than the previous set of messages, as system logger goes through offload processing such as HSM recalls, data set switches, and deleting old data sets that are no longer needed. This indicates that while progress is being made internally, the original offload activity still may be delayed until all the internal processes are complete.

When you reply MONITOR, any subsequent IXG311I messages issued will show an offload delay duration. The delay duration can be used to determine if a new delay is being seen, or if the delay is ongoing, i.e., the delay value is increasing.

IGNORE
The system logger Event Monitor stops monitoring this offload allocation. It may be that there is no problem with this offload allocation, it is simply taking a long time.

FAIL The offload will be cancelled on this system. This may allow other work to continue that was waiting for system logger allocation resources. System logger will attempt to restart the offload on another system, if there is another system in the sysplex that is connected to the same structure as this log stream. If another system cannot be found, the offload will be restarted on the same system.

AUTOFAIL
This response has the same effect as FAIL for the current log stream offload activity, plus the response affects future offload delay conditions for the same log stream while it is connected on this system.

For the current log stream offload, the offload will be cancelled on this system. This may allow other work to continue that was waiting for system logger allocation resources. System logger will attempt to restart the offload on another system, if there is another system in the sysplex that is connected to the same structure as this log stream. If another system cannot be found, the offload will be restarted on the same system.

When future offload delays occur for this log stream on this system which would normally result in message IXG312E being issued, system logger will automatically handle the condition as if a "FAIL" reply was specified. This automatic action will occur for the log stream specified in the IXG312E message while the connection is maintained on this system.

Message IXG313I will be issued when AUTOFAIL is specified.

EXIT The system logger Event Monitor terminates ALL monitoring activity on this system. There will be no messages indicating log stream offload activity being delayed, and there will be no mechanism available to quiesce (fail) any delayed log stream offloads. In this case, the system also issues message IXG314I. System logger service task monitoring will be unaffected by this response. If system logger is ever stopped and restarted, the offload monitor will be restarted as well.

If it appears there is a persistent problem inhibiting normal system logger operations, a dump of system logger may be necessary to obtain diagnostic information. The IBM Support Center will need this information to diagnose the condition that caused this message to be issued. See *z/OS MVS Diagnosis: Tools and Service Aids* "Operator Commands in an IEADMCxx Parmlib Member" and "Getting a dump of system logger information" for more information about obtaining system logger dumps.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGL2MON

Routing code: 2,10

Descriptor code: 3

IXG313I DELAYED OFFLOAD FOR LOGSTREAM *logstream* CANCELLED BY INSTALLATION POLICY.

Explanation: The system logger Event Monitor detected that the offload for this log stream was delayed for longer than the value in the installation defined policy applicable to this log stream. Therefore it initiated a quiesce of the offload that was in progress.

In the message text:

logstream
Name of the log stream whose offload was quiesced.

System action: This message is preceded by message IXG311I and possibly message IXG312E. System logger quiesces the offload on this system. System logger will attempt to restart the offload either on another system or this system if no other systems are acceptable candidates to attempt the offload.

Operator response: Contact system programmer.

System programmer response: Make sure that the offload completes. Message IXG304I will be issued when it does.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGL2MON

Routing code: -

Descriptor code: -

IXG314I SYSTEM LOGGER EVENT MONITORING STOPPED FOR LOGSTREAM OFFLOADS ON SYSTEM *sysname*

Explanation: System logger log stream offload monitoring was requested to be stopped due to operator response of "EXIT" for message IXG312E. No more system logger offload event monitoring will be performed on this system, unless system logger or the system is restarted.

In the message text:

sysname
is the name of the system where the offload monitoring has been stopped.

System action: System logger will no longer monitor offload activity on this system. System logger service task monitoring will be unaffected by this response.

Operator response: Contact system programmer.

System programmer response: If monitoring is essential to installation operations, consider taking down the IXGLOGR address space (this will impact any executing system logger applications) and then restarting system logger (through START IXGLOGRS).

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGL2MON

Routing code: 10

Descriptor code: 4

IXG315I SYSTEM LOGGER OFFLOAD DATA SET SWITCH OCCURRED FORREASON: *reason***LOGSTREAM=***logstream***DSN=***datasetname*

Explanation: System logger determined that a premature offload data set switch was necessary due to *reason*. The data set named by IXG315I is closed and a new data set is allocated. Offload processing continues.

In the message text:

reason
Is one of the following:

IO ERROR
An I/O error occurred accessing the named data set.

DATASET MIGRATED
The named data set was migrated and the log stream is defined with OFFLOADRECALL=NO.

RECALIBRATION NEEDED
The logger determined that a data set switch was needed based on internal factors.

UNABLE TO ACCESS DATASET
The logger was unable to access the data set and switched to a new one to avoid delays.

logstream
Is the name of the log stream for which the switch occurred.

datasetname
Is the data set name from which the system logger switched.

System action: System logger no longer writes to the noted offload data set. Offload processing continues on the next offload data set. See message IXG251, in the system log, for information on this data set allocation.

Operator response: None.

System programmer response: Monitor further occurrences of this message for the named log stream. If it occurs frequently for the reason of IO ERROR or RECALIBRATION NEEDED, contact IBM support and collect documentation. Provide IBM support center with the following diagnostic information: the system logger component trace buffer dump, address space dump, structure dump (if applicable) and copies of relevant offload data sets. For more information on obtaining logger dumps, see Operator Command in an IEADMCxx Parmlib Member and Obtaining a Dump of System Logger Information in *z/OS MVS Diagnosis: Tools and Service Aids*.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1SWT

Routing code: 2

Descriptor code: 4

IXG316E STRUCTURE ENTRY CONSUMPTION OF *curusage***% IS AT OR ABOVE THE ENTRY THRESHOLD OF 90% FOR STRUCTURE** *strname*

Explanation: Entry consumption for name system logger structure has passed the 90% entry threshold. This message was issued as per the WARNPRIMARY log stream specification and the MONITOR LSPRIMARY CONSUMPTIONALERT parmlib policy specification.

In the message text:

curusage
Is the current percentage of CF structure entries in-use by system logger.

strname
Is the name of the structure which has reached the 90% entry threshold.

System action: System logger initiates an offload for all log streams defined to structure *strname*. System logger continues accepting new IXGWRITEs for the log stream. Message IXG316E will be deleted when system logger detects after an offload activity the entry usage falls to 85% or a lower value.

Operator response: Notify the System Programmer

System programmer response: Check for any conditions in the installation that may be preventing an offload from proceeding.

Issue a D XCF,STR,STRNAME=*strname* to view the current usage information for structure *strname*. Check for signs that structure *strname* is not properly tuned if there are many elements available, but the structure is constrained on entries.

Monitor for messages IXG310I, IXG311I, IXG312E, IXG271I, IXG272E or other offload related messages for log streams defined to the structure. See 'Monitoring log stream interim storage consumption' in *z/OS MVS Setting Up a Sysplex*.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGW1TSK

Routing code: 2

Descriptor code: 3

IXG317E LOGSTREAM PRIMARY STORAGE CONSUMPTION OF *curusage***% IS AT OR ABOVE THE IMMINENT THRESHOLD OF** *imminentpct***% FOR LOGSTREAM** *logstream***, IN STRUCTURE** *strname*

Explanation: System logger is alerting operations that the log stream primary storage consumption has exceeded the imminent threshold. This message was issued as per the WARNPRIMARY log stream specification and the MONITOR LSPRIMARY CONSUMPTIONALERT parmlib policy specification.

In the message text:

curusage
Is the current percentage of the log stream primary storage medium in-use.

imminentpct
Is the log stream alert threshold, which is the log stream primary (interim) storage consumption percentage 2/3 between the HIGHOFFLOAD value and 100% full (rounded down to the nearest whole number).

logstream
Name of the log stream.

strname
For a coupling facility log stream, the name of the structure associated with the log stream. For a DASD-only log stream, the value will be "NOT APPLICABLE".

System action: System logger continues accepting new IXGWRITEs for the log stream. Message IXG317E will be deleted when system logger detects after an offload activity the log stream usage drops 5% or more below the imminent *imminentpct* value.

If an offload is delayed due to a secondary storage inhibitor, system logger may issue messages IXG310I, IXG311I, IXG312E, and/or IXG271I, IXG272E. If the primary storage resource becomes full, system logger will no longer accept new IXGWRITEs for the log stream and message IXG318E will be issued.

Operator response: Notify the System Programmer

System programmer response: Check the log stream and structure resources, if appropriate. Issue the following logger command and check the message IXG601I output.

```
D LOGGER,C,LSN=logstreamname,D
```

When the log stream duplexing option is listed as "DUPLEXING: STAGING DATA SET" in the display output, then also check the staging data set detail lines to see if the resource constraint stems from the data set being at or near full.

For a CF structure based log stream, also issue the following XCF command and check the message IXC360I output to show details of the specified logger structure.

```
D XCF,STR,STRNAME=logger_structure
```

System programmer response: Check on the total and in use counts as well as the percentage full values for the CF structure entries and elements in the message IXC360I usage into portion of the display output.

Check for any conditions in the installation that may be preventing the offload from proceeding. Monitor for messages IXG310I, IXG311I, IXG312E, IXG271I, IXG272E or other offload related messages.

See 'Monitoring log stream interim storage consumption' in *z/OS MVS Setting Up a Sysplex*.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGW1TSK

Routing code: 2

Descriptor code: 3

IXG318E LOGSTREAM PRIMARY STORAGE CONSUMPTION HAS REACHED 100% IN USE FOR LOGSTREAM *logstream*, **IN STRUCTURE** *strname*

Explanation: Log stream primary storage consumption for the log stream has reached the 100% in use point, meaning it is considered full. For a CF structure based log stream, this message can also be issued when the CF structure element pool space allotted to this log stream is within the MAXBUFSIZE (maximum size of one log block) range of reaching 100%.

This message was issued as per the WARNPRIMARY log stream specification and the MONITOR LSPRIMARY CONSUMPTIONALERT parmlib policy specification.

In the message text:

logstream
Name of the log stream.

strname
For a coupling facility log stream, the name of the structure associated with the log stream. For a DASD-only log stream, the value will be "NOT APPLICABLE".

System action: System logger will reject new IXGWRITE requests for the log stream until space can be made available in the primary (interim) storage medium. Warning message IXG316E for this same structure or warning message IXG317E for this log stream will be deleted by the system.

If interim storage space becomes available, log data writes may be honored.

When the constraint condition is relieved, meaning when the log stream primary (interim) storage consumption appears to be at least 5% less than full after an offload activity, then after a slight time delay message IXG319I will be issued and the system will delete message IXG318E.

If an offload is delayed due to a secondary storage inhibitor, system logger may issue messages IXG310I, IXG311I, IXG312E, and/or IXG271I, IGX272E.

Operator response: Notify the System Programmer

System programmer response: Check the log stream and structure resources, if appropriate. Issue the following logger command and check the message IXG601I output.

```
D LOGGER,C,LSN=logstreamname,D
```

When the log stream duplexing option is listed as "DUPLEXING: STAGING DATA SET" in the display output, then also check the staging data set detail lines to see if the resource constraint stems from the data set being at or near full.

For a CF structure based log stream, also issue the following XCF command and check the message IXC360I output to show details of the specified logger structure.

```
D XCF,STR,STRNAME=logger_structure
```

Check on the total and in use counts as well as the percentage full values for the CF structure entries and elements in the message IXC360I usage portion of the display output.

Check for any conditions in the installation that may be preventing the offload from proceeding. Monitor for messages IXG310I, IXG311I, IXG312E, IXG271I, IXG272E or other offload related messages.

See 'Monitoring log stream interim storage consumption' in *z/OS MVS Setting Up a Sysplex*.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGW1TSK

Routing code: 2

Descriptor code: 11

IXG319I LOGSTREAM PRIMARY STORAGE FULL CONDITION RELIEVED FOR LOGSTREAM *logstream*, **IN STRUCTURE** *strname*

Explanation: The constraint condition indicated by related message IXG318E has been relieved.

In the message text:

logstream
Name of the log stream.

strname
For a coupling facility log stream, the name of the structure associated with the log stream. For a DASD-only log stream, the value will be "NOT APPLICABLE".

System action: Related message IXG318E is deleted.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGW1TSK

Routing code: Note 13 (hardcopy)

IXG320I DSEXTENT RECORD ASSIGNED TO LOGSTREAM *logstream* **TOTAL:** *numTotal* **IN USE:** *numInuse* **AVAILABLE:** *numAvail*

Explanation: System logger has removed a DSEXTENT (directory extent) record from the available pool for use in the active primary LOGR couple data set (CDS). The PRODUCTION group log stream identified now has an additional log data set directory extent record and can make use of more offload data sets. The counts in the message are the values that existed when the condition occurred. These do not necessarily reflect the real time record counts in the current couple data set.

In the message text:

logstream
Name of the log stream.

numTotal
Total number of log data set directory extent records that are formatted in the active primary LOGR CDS.

numInuse
Number of log data set directory extent records that are currently in use in the active primary LOGR CDS.

numAvail
Number of log data set directory extent records that are available for use in the active primary LOGR CDS.

System action: Another DSEXTENT (directory extent) record is now in use for the identified log stream, and system logger continues processing.

Operator response: None.

System programmer response: Monitor further use of the DSEXTENT records that are defined in the LOGR CDS. If the available DSEXTENT records start to become scarce, look for messages IXG261E or IXG262A. Also see "Increasing the space available for DASD log data sets" in *z/OS MVS Setting Up a Sysplex* .

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3DSE (ixgotmsg)

Routing code: Note 13 (hardcopy)

IXG321I DSEXTENT RECORD UNASSIGNED FROM LOGSTREAM *logstream* **TOTAL:** *numTotal* **IN USE:** *numInuse* **AVAILABLE:** *numAvail*

Explanation: System logger has returned a DSEXTENT (directory extent) record to the available pool for use in the active primary LOGR CDS (couple data set). The directory extent record is no longer used for the identified PRODUCTION group log stream. The counts in the message are the values that existed when the condition occurred. These counts do not necessarily reflect the real time record counts in the current couple data set.

In the message text:

logstream
Name of the log stream.

numTotal
Total number of log data set directory extent records that are formatted in the active primary LOGR CDS.

numInuse
Number of log data set directory extent records that are currently in use in the active primary LOGR CDS.

numAvail
Number of log data set directory extent records that are available for use in the active primary LOGR CDS.

System action: A DSEXTENT (directory extent) record is now in the available pool, and system logger continues processing.

Operator response: None.

System programmer response: Monitor further use of the DSEXTENT records that are defined in the LOGR CDS. If the available DSEXTENT records start to become scarce, look for messages IXG261E or IXG262A. Also see "Increasing the space available for DASD log data sets" in *z/OS MVS Setting Up a Sysplex* .

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3DSD (ixgotmsg)

Routing code: Note 13 (hardcopy)

IXG322I DSEXTENT RECORD ASSIGNED TO LOGSTREAM *logstream*, **FOR GROUP:** *group* **GROUP TOTAL:** *grouptotal* **IN-USE:** *groupnuminuse* **AVAILABLE:** *groupnumavail*

Explanation: System logger has removed a DSEXTENT (directory extent) record from the available pool in the active primary LOGR couple data set (CDS). The identified log stream in the group now has an additional log data set directory extent record and can make use of more offload data sets. The counts in the message are the values that existed when the condition occurred. These do not necessarily reflect the real time record counts in the current couple data set.

In the message text:

logstream
Name of the log stream.

group
Log stream group, for example TEST.

grouptotal
Total number of log data set directory extent records that are in the active primary LOGR CDS that can be used for the identified group log streams.

groupnuminuse
Current number of log data set directory extent records explicitly in use for the identified group log streams in the active primary LOGR CDS.

It is possible for the value of *groupnuminuse* to be greater than the value for *grouptotal* when a log stream definition is updated from group PRODUCTION to group TEST. Logger honors the update request even though the actual number of DSEXTENT records might exceed the intended group total.

groupnumavail
Remaining number of log data set directory extent records that are currently available in the active primary LOGR CDS for the identified group log streams.

System action: Another DSEXTENT (directory extent) record is now in use for the identified log stream, and system logger continues processing.

Operator response: None.

System programmer response: Monitor further use of the DSEXTENT records that are defined in the LOGR CDS. If the available DSEXTENT records start to become scarce, look for messages IXG261E, IXG262A, or IXG270I. Also see "Increasing the space available for DASD log data sets" in *z/OS MVS Setting Up a Sysplex* .

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3DSE (ixgotmsg)

Routing code: Note 13 (hardcopy)

IXG323I DSEXTENT RECORD UNASSIGNED FROM LOGSTREAM *logstream*, **FOR GROUP:** *group* **GROUP TOTAL:** *grouptotal* **IN-USE:** *groupnuminuse* **AVAILABLE:** *groupnumavail*

Explanation: System logger returned a DSEXTENT (directory extent) record to the available pool in the active primary LOGR couple data set (CDS). The directory extent record is no longer used for the identified log stream in the group. The counts in the message are the values that existed when the condition occurred. These do not necessarily reflect the real time record counts in the current couple data set.

In the message text:

logstream
Name of the log stream.

group
Log stream group, for example TEST.

grouptotal
Total number of log data set directory extent records that are in the active primary LOGR CDS that can be used for the identified group log streams.

groupnuminuse
Current number of log data set directory extent records that are explicitly in use for the identified group log streams in the active primary LOGR CDS.

groupnumavail
Remaining number of log data set directory extent records that are currently available in the active primary LOGR CDS for the identified group log streams.

System action: A DSEXTENT (directory extent) record is now in the available pool, and system logger continues processing.

Operator response: None.

System programmer response: Monitor further use of the DSEXTENT records defined in the LOGR CDS. If the available DSEXTENT records start to become scarce, look for messages IXG261E or IXG262A. Also see "Increasing the space available for DASD log data sets" in *z/OS MVS Setting Up a Sysplex* .

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3DSD (ixgotmsg)

Routing code: Note 13 (hardcopy)

IXG324I DATA SET SWITCH FAILURE PREVENTING OFFLOAD PROGRESS FOR LOGSTREAM *logstream*, **IN STRUCTURE** *strname*

Explanation: System logger encountered an error while attempting to either make use of an existing current offload data set or acquiring a new current offload data set. The error condition is preventing the log stream offload activity of moving log data from interim or primary storage, for example CF structure, to one or more DASD offload data sets.

This message is issued for the first occurrence after the log stream is connected on the z/OS image, and issued again only after enough time elapses since the last occurrence. The checking for the elapsed time is based on the logger MONITOR OFFLOAD ACTIONALLOC value. See the IXGCNFxx parmlib member in *z/OS MVS Initialization and Tuning Reference* and the SET IXGCNF= or SETLOGR commands in *z/OS MVS System Commands* for more information about the ACTIONALLOC setting.

In the message text:

logstream
Name of the log stream for which the offload data set switch was attempted.

strname
For a coupling facility log stream: Name of the structure that is associated with the log stream.

For a non-coupling facility based log stream: *NOT APPLICABLE*

System action: System logger stops the offload for the log stream. Subsequent IXGWRITE requests receive a warning condition that the failed offload might cause the log stream interim or primary storage to start to fill. If the log stream interim or primary storage fills, then the IXGWRITE requests receive error conditions indicating that there is no room for more log data in the log stream until the error condition is cleared. Subsequent offload processing occurs in an attempt to make room in the interim or primary storage area so that additional log data can be written.

Operator response: None.

System programmer response: Monitor further occurrences of this message for the named log stream. Also look for other log stream error messages such as IXG251I, IXG258I, IXG263E, IXG267I, IXG268I, IXG301I, IXG325I, and so on, in the system log for information on any offload data set switch errors. If you are unable to determine the cause of the data set switch errors, contact IBM support and collect documentation. Provide IBM support with the following diagnostic information: the system logger component trace buffer dump, address space dump, structure dump (if applicable), and copies of any LISTCAT information for any relevant offload data sets.

For more information about obtaining logger dumps, see "Operator Command in an IEADMCxx Parmlib Member" and "Obtaining a Dump of System Logger Information" in *z/OS MVS Diagnosis: Tools and Service Aids* .

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1WRT, IXGF1WOW (ixgwortn)

Routing code: 2,10

IXG325I ERROR OBTAINING ADVANCED-CURRENT OFFLOAD DATA SET FOR LOGSTREAM *logstream*, **IN STRUCTURE** *strname*

Explanation: System logger encountered an error while attempting to allocate and prepare an advanced-current offload data set. The error condition might not immediately prevent the log stream offload activity of moving log data from interim or primary storage, for example CF structure, to one or more DASD offload data sets. It could, however, indicate that a problem will arise if a remedy is not provided before another offload data set is required to move log data to DASD.

This message is issued for the first occurrence after the log stream is connected on the z/OS image, and issued again only after enough time elapses since the last occurrence. The checking for the elapsed time is based on the logger MONITOR OFFLOAD ACTIONALLOC value. See the IXGCNFxx parmlib member in *z/OS MVS Initialization and Tuning Reference* and the SET IXGCNF= or SETLOGR commands in *z/OS MVS System Commands* for more information about the ACTIONALLOC setting.

In the message text:

logstream
Name of the log stream for which the offload data set switch was attempted.

strname
For a coupling facility log stream: Name of the structure that is associated with the log stream.

For a non-coupling facility based log stream: *NOT APPLICABLE*

System action: System logger continues the current offload for the log stream.

Subsequent IXGWRITE requests are accepted as long as there is sufficient room in the log stream interim or primary storage media. Logger periodically attempts to acquire advanced-current offload data sets as use of the log stream continues. If obtaining a new offload data set becomes necessary for an offload activity versus preparing some in advance, and logger is unable to obtain a new one, then error message IXG324I is issued. See message IXG324I for more information.

Operator response: None.

System programmer response: Monitor further occurrences of this message for the named log stream. Also look for other log stream error messages, such as IXG251I, IXG258I, IXG263E, IXG267I, IXG268I, IXG301I, IXG324I, and so on, in the system log, for information on any offload data set switch errors. If you are unable to determine the cause of the data set switch errors, contact IBM support and collect documentation. Provide IBM support with the following diagnostic information: the system logger component trace buffer dump, address space dump, structure dump (if applicable), and copies of and LISTCAT information for any relevant offload data sets.

For more information about obtaining logger dumps, see "Operator Command in an IEADMCxx Parmlib Member" and "Obtaining a Dump of System Logger Information" in *z/OS MVS Diagnosis: Tools and Service Aids* .

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGA1SWT, IXGA1AUS (ixgwortn)

Routing code: 2,10

IXG326I LS_ALLOCAHEAD NOT IN EFFECT ON SYSTEM *sysname* FOR LOGSTREAM *logstream*, IN STRUCTURE *strname* ALLOCAHEAD(NO) SPECIFIED FOR MANAGE OFFLOAD OPTIONS

Explanation: System logger encountered a log stream that is connected on the identified system. The LS_ALLOCAHEAD attribute on the log stream specifies an intent to make use of advanced-current offload data sets. However, the logger parameter options for the particular system indicate ALLOCAHEAD(NO) within the MANAGE OFFLOAD settings.

In the message text:

logstream
Name of the log stream for which the condition was recognized.

strname
For a coupling facility log stream: Name of the structure that is associated with the log stream.

For a non-coupling facility based log stream: *NOT APPLICABLE*

sysname
Name of the system on which the condition was recognized.

System action: System logger continues processing the log stream. When an offload occurs on the system for the log stream, logger does not proactively manage any advanced-current log stream offload data sets for the log stream. Access to any new or existing offload data sets for use to move log data from the primary or interim storage to DASD are managed on the system only as needed and when requested. This means that the system allocates and opens the actual current offload data set only when it is explicitly needed for an offload activity to move log data to DASD on this system.

Note: If an offload occurs for this log stream on any connected system with ALLOCAHEAD(YES) specified, then advanced-current offload data sets are brought back to the point of meeting the policy goals for the log stream.

Operator response: None.

System programmer response: Ensure that the log stream and system settings are as intended. If the settings are not as intended, then complete either of the following steps:

- Update the log stream definition to specify LS_ALLOCAHEAD(0). For more information, see *z/OS MVS Setting Up a Sysplex* .
- Change to use ALLOCAHEAD(YES) in the logger parameter options for the system. For more information, see the IXGCNFxx parmlib member in *z/OS MVS Initialization and Tuning Reference* and the SET IXGCNF= or SETLOGR commands in *z/OS MVS System Commands* .

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: (many)

Routing code: 2,10

IXG327I LS_ALLOCAHEAD IS NOW IN EFFECT ON SYSTEM *sysname* FOR LOGSTREAM *logstream*, IN STRUCTURE *strname*

Explanation: System logger encountered a log stream that is connected on the identified system. The LS_ALLOCAHEAD attribute on the log stream specifies an intent to make use of advanced-current offload data sets. The system is proactive in managing the current and intended number of advanced-current offload data sets.

In the message text:

logstream
Name of the log stream for which the condition was recognized.

strname
For a coupling facility log stream: Name of the structure that is associated with the log stream.

For a non-coupling facility based log stream: *NOT APPLICABLE*

sysname
Name of the system on which the condition was recognized.

System action: System logger continues processing the log stream. See "Offloading log data from interim storage by freeing and/or moving it to DASD" in *z/OS MVS Setting Up a Sysplex* for more information about the logger behavior concerning log stream offload processing.

Operator response: None.

System programmer response: Ensure that the log stream and system settings are as intended. If the settings are not as intended, then complete either of the following steps:

- See *z/OS MVS Setting Up a Sysplex* for information about the LS_ALLOCAHEAD parameter description for a LOGSTREAM definition.
- See the IXGCNFxx parmlib member in *z/OS MVS Initialization and Tuning Reference* and the SET IXGCNF= or SETLOGR commands in *z/OS MVS System Commands* .

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: (many)

Routing code: 2,10

IXG351E RESOURCE MANAGER EXIT *rmname* **DISABLED ON SYSTEM** *sysname* **FOR LOG STREAM** *logstream*

Explanation: The system logger has disabled the Resource Manager Exit because it abended and did not properly recover.

In the message text:

rmname
is the name of the resource manager connected to the log stream.

sysname
is the name of the effected system.

logstream
is the name of the log stream that the resource manager was connected to.

System action: The resource manager exit is no longer called on the identified system.

Operator response: Cancel the resource manager application.

System programmer response: You should correct the error in the resource manager exit and then restart the resource manager application.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF2WRT, IXGF2DEL

Routing code: 2

Descriptor code: 4

IXG352I RESOURCE MANAGER *rmname* **FOR LOG STREAM** *logstream* **NOT CONNECTED TO LOG STREAM ON SYSTEM** *sysname*

Explanation: A log stream defined as resource manager managed has active connections but the resource manager is not connected to the log stream.

In the message text:

rmname
is the name of the resource manager associated with the log stream.

logstream
is the name of the log stream.

sysname
is the name of the system where the log stream is not connected.

System action: Log block delete requests issued by the active connections are not processed.

Operator response: Start the resource manager application so that it connects to the log stream.

System programmer response: Determine why the resource manager is not executing on the identified system.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF1TRX

Routing code: 2

Descriptor code: 4

IXG353I RESOURCE MANAGER *rmname* **FOR LOG STREAM** *logstream* **CONNECTED TO LOG STREAM ON SYSTEM** *sysname*

Explanation: A log stream is defined as resource manager managed. The resource manager has connected to the log stream on the system identified.

In the message text:

rmname
is the name of the resource manager associated with the log stream.

logstream
is the name of the log stream.

sysname
is the name of the system.

System action: Processing continues.

Operator response: None. Informational message only.

System programmer response: None. Informational message only.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4CON

Routing code: 2

Descriptor code: 4

IXG354I RESOURCE MANAGER *rmname* **FOR LOG STREAM** *logstream* **DISCONNECTED FROM LOG STREAM ON SYSTEM** *sysname*

Explanation: A log stream is defined as resource manager managed. The resource manager has disconnected from the log stream on the system identified.

In the message text:

rmname
is the name of the resource manager associated with the log stream.

logstream
is the name of the log stream.

sysname
is the name of the system.

System action: Processing continues.

Operator response: None. Informational message only.

System programmer response: None. Informational message only.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4DIS

Routing code: 2

Descriptor code: 4

IXG371E ZAI LOGSTREAM CLIENT MANAGER UNAVAILABLE REASON: *reason*

Explanation: The z/OS IBM zAware (ZAI) log stream client manager (controller task) is unavailable for the stated condition. It either could not be established or was established and then became unavailable.

In the message text:

reason
Is one of the following:

ZAI SERVER(NONE) SPECIFIED IN LOGGER PARMS.
Logger parameter specification ZAI SERVER(NONE) indicates no z/OS IBM zAware (ZAI) log stream client communications (re: IXGCNFxx parmlib).

ZAI CLIENT ENVIRONMENT ERROR.
An error was encountered that impacted all the z/OS IBM zAware (ZAI) log stream clients on this z/OS image.

OMVS NOT INITIALIZED OR IS UNAVAILABLE.
OMVS has not been initialized or z/OS UNIX System Services (USS) are not available.

OMVS SEGMENT FAILURE FOR IXGLOGR.
System logger has determined the IXGLOGR address space does not have the appropriate security permission for z/OS UNIX System Services. The user security profile is either missing, incomplete, or the OMVS segment is not defined for the user.

OMVS BPX-SERVICE ERROR.
An error was encountered on a BPX-service request.

SETLOGR COMMAND REQUEST.
A ZAIQUIESCE,ALL request was issued on the SETLOGR FORCE command.

System action: System logger cannot establish or maintain z/OS IBM zAware log stream client connections with the IBM zAware server, so no log stream data can be sent to the IBM zAware server. The issue identified in the reason text of this message could mean that system logger will not be able to establish any z/OS IBM zAware log stream clients.

For the SETLOGR FORCE,ZAIQUIESCE,ALL request case, system logger has quiesced connection activity to the IBM zAware server for z/OS IBM zAware one or more log stream clients on the target z/OS image. See message IXG382I to identify the impacted log streams. These log streams will be marked as "QUIESCED", and will be disconnected from the IBM zAware server if connected. No z/OS IBM zAware log stream client data will be maintained for the log stream while in the quiesced (socket disconnected) state, meaning the buffers holding the log data for this purpose will be released (freed). In addition, the z/OS IBM zAware log stream client manager state will be set as "NOT AVAILABLE". Any log streams subsequently connected on this system with the ZAI=YES specification will also be placed in the "QUIESCED" state.

When the z/OS IBM zAware log stream client manager state changes to "AVAILABLE", as a result of a SETLOGR

FORCE,ZAICONNECT command, then any log streams that are newly connected to the z/OS image with the ZAI=YES specification will be allowed to attempt z/OS IBM zAware log stream client connections with the IBM zAware server.

However, any log streams that were affected by the ZAIQUIESCE,ALL command will not be allowed to connect to the IBM zAware server until the appropriate SETLOGR FORCE,ZAICONNECT command is issued for these log stream(s), or the log stream is disconnected from the z/OS image and is then newly connected after the z/OS IBM zAware log stream client manager state has been set to "AVAILABLE".

For the ZAI SERVER(NONE) reason, message IXG371E is issued for operations awareness, then the message is immediately DOMed since this condition normally means not expecting communications with IBM zAware server on this system.

Operator response: Notify the System Programmer.

System programmer response: See Preparing for z/OS IBM zAware log stream client usage in *z/OS MVS Setting Up a Sysplex* for more information on the z/OS IBM zAware log stream client.

Do one of the following, depending on the text of this message:

- When the IBM zAware server location information is not specified in the logger parameters, either update the IXGCNFxx parmlib statement as needed or update the log stream definition to specify ZAI(NO).
- For a z/OS IBM zAware client environment error condition, check for related messages IXG373I, IXG382I and/or IXG384I, and make any necessary corrections.
- When OMVS is not initialized or available, ensure OMVS is started.
- When an OMVS segment failure occurred, fix the security profile and verify that IXGLOGR has permissions to an OMVS segment and the security product is running.
- For a BPX-service error case, check for related error message IXG372I, and correct any error conditions.

Use the D LOGGER,IXGCNF[,ZAI] and D LOGGER,STatus,ZAI commands to display the details on the system logger view of the IBM zAware server and any potential z/OS IBM zAware log stream client socket connections.

You might need to check on the IBM zAware server level and location to be certain it is installed and running where expected. Ensure the IXGCNFxx parmlib member ZAI SERVER and PORT information correctly identifies the IBM zAware server location and that communication is allowed (such as sockets connections being allowed over any firewalls).

Then take action to get the desired z/OS IBM zAware log stream client connected, for example, see command SETLOGR FORCE,ZAICONNECT.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZACC

Routing code: 2,10

Descriptor code: 3

IXG372I ZAI LOGSTREAM CLIENT MANAGER ERROR FOR *item logstream* **FUNCTION=***function* **ERRNO=***errno* **ERRNOJR=***errnojr*

Explanation: The z/OS IBM zAware (ZAI) log stream client manager (or the specific client) was attempting to perform the requested z/OS UNIX system service, but an error was encountered.

In the message text:

item
One of the following:

LOGSTREAM
Message issued as a result of activity for log stream resource.

DISPLAY
Message issued as part of the operation for DISPLAY LOGGER,ST,ZAI,VERIFY request.

logstream
identifies the log stream name. When a specific log stream is not identified, the text will contain "UNIDENTIFIED". It will contain "ZAI,VERIFY" when message is issued for a DISPLAY LOGGER,ST,ZAI,VERIFY request.

function
is the z/OS UNIX system service function or (BPX-) service that was operating when the failure or error was encountered.

errno
z/OS UNIX system services errorno hexadecimal value returned on the identified service call.

errnojr
z/OS UNIX system services errornojr hexadecimal value returned on the identified service call.

System action: The specified service request failed, but the system logger z/OS IBM zAware log stream client action will be based on the type of error condition. Look for related messages, such as IXG371E and/or IXG384I, indicating whether the z/OS IBM zAware log stream client could not be established or failed.

Operator response: Notify the System Programmer.

System programmer response: See Preparing for z/OS IBM zAware log stream client usage in *z/OS MVS Setting Up a Sysplex* for more general information on the z/OS IBM zAware log stream client. Also, see Resolving system logger z/OS IBM zAware log stream client errors in *z/OS MVS Diagnosis: Reference* for additional guidance on handling errors.

For socket host server related issues, see the following topics in *z/OS UNIX System Services Messages and Codes*:

1. Return Codes (Errnos), and
2. Reason Codes (Errnojrs).

Also see the following topics in *z/OS V2R2.0 Communications Server: IP and SNA Codes*:

1. Sockets return codes (ERRNOs), and
2. Sockets extended ERRNOs.

In addition, you can also see *z/OS V2R2.0 Communications Server: IP Sockets Application Programming Interface Guide and Reference* along with macro EZBREHST for any Resolver related errors.

The following are some examples of error conditions included in the IXG372I message:

FUNCTION=BPX1GAI ERRNO=00000002 ERRNOJR=78801000
Logger BPX1GAI request to determine the location (getaddrinfo) as the ZAI SERVER value could not be satisfied since the 'Resolver' is not available. Ensure the Resolver is started.

FUNCTION=BPX1GAI ERRNO=00000001 ERRNOJR=78AE1004
Logger BPX1GAI requests to determine the location (getaddrinfo) as the ZAI SERVER value could not be satisfied since the 'Resolver service did not find the specified host name.'

If you make any changes to the DNS or local host file, then you need to refresh the resolver.

FUNCTION=BPX1SOC ERRNO=00000070 ERRNOJR=12CA00B6
Logger BPX1SOC requests to create a socket to the IBM zAware server as it could not be satisfied since the physical file system (PFS) was not available.

FUNCTION=BPX1SOC ERRNO=0000045A ERRNOJR=112B0000
Logger BPX1SOC request to create a socket to the IBM zAware server could not be satisfied since the IPv6 address family is not supported. Ensure all the routers in the path of the socket connection support IPv6 format addresses, or use an IPv4 format address for the IBM zAware server location.

FUNCTION=BPX4AIO ERRNO=0000008C ERRNOJR=76697242
Logger BPX4AIO request to send log data failed since it is likely the IBM zAware server dropped the socket connection for this z/OS image.

You can also see macro BPXZERNO for additional details on BPX-services.

Check on the IBM zAware server level and location to be certain it is installed and running where expected. Ensure the IXGCNFxx parmlib member ZAI SERVER and PORT information correctly identifies the IBM zAware server location and that communication is allowed (such as sockets connections being allowed over any firewalls).

Correct the error and retry the operation. If the problem persists, search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM support center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZACC, IXGWZASC

Routing code: 2,10

Descriptor code: 4

IXG373I ZAI LOGSTREAM CLIENT MANAGER TASK ATTACH ERROR FOR *item logstream* **REASON:** *reason*

Explanation: The z/OS IBM zAware (ZAI) log stream client is unavailable because of an error was encountered attempting to ATTACH a logger sub-task for establishing the z/OS IBM zAware log stream client.

In the message text:

item
One of the following:

LOGSTREAM
Message issued as a result of activity for log stream resource.

DISPLAY
Message issued as part of operation for DISPLAY LOGGER,ST,ZAI,VERIFY request.

logstream
Identifies the log stream name. When a specific log stream is not identified, the text will contain "UNIDENTIFIED". Will contain "ZAI,VERIFY" when message is issued for a DISPLAY LOGGER,ST,ZAI,VERIFY request.

reason
One of the following:

UNEXPECTED ERROR
An unexpected ATTACH error occurred.

MAXIMUM LIMIT REACHED
System logger has reached its maximum number of z/OS IBM zAware log stream client socket connections on this system (that is 256).

System action: System logger cannot establish a z/OS IBM zAware log stream client with the IBM zAware server, so no log stream data can be sent to the IBM zAware server for a named log stream.

Operator response: Notify the System Programmer.

System programmer response: Search the problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZACC

Routing code: 2,10

Descriptor code: 4

IXG375E ZAI LOGSTREAM CLIENT MANAGER BUFFER WARNING PERCENT IN USE: *nn* LOGBUFMAX: *value* (Gigabytes)

Explanation: System logger is using the percentage of storage buffers as indicated for the z/OS IBM zAware (ZAI) log stream client processing. This message was issued as per the ZAI LOGBUFWARN parmlib policy specification.

In the message text:

nn Indicates the percent of z/OS IBM zAware log stream client storage buffers in use.

value
Indicates the maximum amount of storage buffers that can be used for z/OS IBM zAware log stream client processing.

System action: System logger continues processing the log data for one or more z/OS IBM zAware log stream clients. As the buffer pool is expanded/extended, system logger will issue an updated instance of IXG375E with the new buffer storage percent in use indication. As in-use system logger z/OS IBM zAware log stream client buffers are no longer needed, the buffers will be released and message IXG375E will be issued for the new percent in use. The updated IXG375E message instances will occur in approximately 7 increments of the range between 100% of the LOGBUFMAX and LOGBUFWARN % value.

Once the overall percentage of buffers in use is at least 5% below the LOGBUFWARN value, system logger will DOM message IXG375E.

If the overall percentage of buffers in use reaches 100%, then system logger will take the action specified in the ZAI LOGBUFFULL parmlib policy specification.

Operator response: Notify the System Programmer.

System programmer response: Verify the z/OS IBM zAware log stream client status is as expected using the D LOGGER,STatus,ZAI and D LOGGER,IXGCNF[,ZAI] commands. Check for messages IXG371E and IXG372I or other related z/OS IBM zAware client messages and make any necessary corrections if necessary.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF2WRT

Routing code: 2

Descriptor code: 3,4

IXG376E ZAI LOGSTREAM CLIENT MANAGER BUFFER MAXIMUM REACHED LOGBUFFULL(*keyword*) IN EFFECT

Explanation: The z/OS IBM zAware (ZAI) log stream client manager was unable to send to the IBM zAware server all the intended log stream data. Logger used all the storage available for buffering the data. The amount of storage available for buffers is provided on the logger ZAI LOGBUFMAX policy specification in parmlib member IXGCNFxx. Also see message IXG375E, which was issued prior to IXG376E.

In the message text:

keyword
One of the following:

- MSG
- QUIESCE

System action: System logger will take the action as indicated in the ZAI LOGBUFFULL parmlib policy specification.

When the LOGBUFFULL designation is "MSG", then logger continues processing the log data for one or more z/OS IBM zAware log stream clients. However, each z/OS IBM zAware log stream client will keep a count of the number of log blocks (one per IXGWRITE request) for that log stream. When the buffer full condition clears, message IXG383I will be issued indicating the number of skipped log blocks.

When the LOGBUFFULL designation is "QUIESCE", then logger stops processing the log data for one or more z/OS

IBM zAware log stream clients by quiescing (disconnecting) all the z/OS IBM zAware log stream client connections from the IBM zAware server. The socket connection will remain disconnected until either a SETLOGR comand (for example, SETLOGR FORCE,ZAICONNECT,ALL) or SET IXGCNF command that has specifications to connect to the IBM zAware server. No z/OS IBM zAware log stream client data will be maintained while in the quiesced state, meaning the buffers holding the log data for this purpose will be released (freed).

Operator response: Notify the System Programmer.

System programmer response: Verify the z/OS IBM zAware log stream client status is as expected using the D LOGGER,STatus,ZAI and D LOGGER,IXGCNF,ZAI commands. Check for messages IXG371E and IXG372I or other related z/OS IBM zAware client messages and make any necessary corrections if necessary.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF2WRT, IXGWZACC

Routing code: 2,10

Descriptor code: 3

IXG377I ZAI LOGSTREAM CLIENT MANAGER LOCAL TIME OFFSETS CHANGED

Explanation: Logger was notified through ENF 53 signal that the local time offsets had changed.

System action: Since the local time offsets are communicated to the IBM zAware server as part of the z/OS IBM zAware (ZAI) log stream client management, system logger will re-establish the connections and promote the current local time offsets to the IBM zAware server.

Operator response: Notify the System Programmer.

System programmer response: Verify the z/OS IBM zAwarelog stream client status is as expected using the D LOGGER,STatus,ZAI and D LOGGER,IXGCNF,ZAI commands.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZACC

Routing code: 2,10

Descriptor code: 4

IXG380I ZAI LOGSTREAM CLIENT ESTABLISHED FOR *item logstream*

Explanation: Logger z/OS IBM zAware (ZAI) log stream client is established and designated log stream data will be sent to the IBM zAware server.

In the message text:

item
One of the following:

LOGSTREAM
Message issued as a result of activity for log stream resource.

DISPLAY
Message issued as part of operation for DISPLAY LOGGER,ST,ZAI,VERIFY request.

logstream
identifies the log stream name. Will contain "ZAI,VERIFY" when message is issued for a DISPLAY LOGGER,ST,ZAI,VERIFY request.

System action: System logger has been established as a client to send log stream data to IBM zAware server. When

log data is written to the specified logstream, logger will cause the data to be sent to the IBM zAware server for analysis.

Operator response: None. Informational message only.

System programmer response: Confirm the installation configuration is intended for z/OS system logger to send log stream data to the IBM zAware server.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZASC

Routing code: 2,10

Descriptor code: 4

IXG381I ZAI LOGSTREAM CLIENT DISCONNECTED FOR LOGSTREAM *logstream*

Explanation: Logger z/OS IBM zAware (ZAI) log stream client was disconnected from the IBM zAware server.

In the message text:

logstream
identifies the log stream name.

System action: System logger has stopped communication between the z/OS IBM zAware log stream client and the IBM zAware server for the noted logstream.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZASC

Routing code: 2,10

Descriptor code: 4

IXG382I ZAI LOGSTREAM CLIENT QUIESCED FOR LOGSTREAM *logstream* **REASON:** *reason*

Explanation: Logger z/OS IBM zAware (ZAI) log stream client was disconnected from the IBM zAware server because of the quiesce type reason.

In the message text:

logstream
Identifies the log stream name.

reason
One of the following:

LOGBUFFULL POLICY
The maximum storage buffers used for the z/OS IBM zAware clients to send log stream data to the IBM zAware server was reached and the parmlib policy setting (QUIESCE) was to disconnect all thez/OS IBM zAware log stream clients.

SETLOGR COMMAND REQUEST
A ZAIQUIESCE request was issued on the SETLOGR command.

ZAI CLIENT ENVIRONMENT ERROR
An error was encountered that impacted this specific z/OS IBM zAware log stream client.

ZAI CLIENT STORAGE MANAGER ERROR
A request by the z/OS zAware log stream client storage manager could not be completed. This error impacts only the named log stream.

System action: System logger has stopped communication between the identified z/OS IBM zAware log stream client and the IBM zAware server for the noted reason.

OMVS ABEND conditions indicating "COMPON=BPX,COMPID=SCPX1..." might occur as part of system logger terminating the socket communications with the IBM zAware server.

Operator response: Notify the System Programmer.

System programmer response: Verify that the z/OS IBM zAware log stream client is acceptable to be disconnected (quiesced). If it is intended and expected to be connected, then check for related messages IXG384I, IXG371E and/or IXG372I and make any necessary corrections. Also, check on the IBM zAware server level and location to be certain it is installed and running where expected.

Then take action to get the z/OS IBM zAware log stream client connected, for example, see command SETLOGR FORCE,ZAICONNECT,LSN=logstream.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZACC, IXGWZASC

Routing code: 2,10

Descriptor code: 4

IXG383I ZAI LOGSTREAM CLIENT SKIPPED LOG BLOCKS: *nnnnnnnnn* **BUFFERS FULL FOR LOGSTREAM** *logstream*

Explanation: The logger z/OS IBM zAware (ZAI) log stream client was unable to send to the IBM zAware server all the log data that was written into the log stream because the maximum storage buffers allowed was reached. When the buffer full condition clears, message IXG383I is issued to indicate the number of the log blocks skipped and not sent to the IBM zAware server.

In the message text:

nnnnnnnnn
indicates the number of blocks (meaning each IXGWRITE request) that could not be sent to the IBM zAware server because of the buffer full condition.

logstream
identifies the log stream name.

System action: System logger continues processing the log data for one or more z/OS IBM zAware log stream clients, and if message IXG376E had been issued, it will be DOMed.

Operator response: Notify the System Programmer.

System programmer response: Verify the z/OS IBM zAware log stream client status is as expected using the D LOGGER,STatus,ZAI and D LOGGER,IXGCNF[,ZAI] commands. Check for other related z/OS IBM zAware log stream client messages, such as IXG372I, and make any necessary corrections if necessary.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGF2WRT

Routing code: 2,10

Descriptor code: 4

IXG384I ZAI LOGSTREAM CLIENT ERROR OCCURRED FOR *item logstream* **REASON:** *reason* **DIAG=***diag*

Explanation: The z/OS IBM zAware (ZAI) log stream client encountered the stated error condition.

In the message text:

item
One of the following:

LOGSTREAM
Message is issued as a result of activity for log stream resource.

DISPLAY
Message issued as part of operation for DISPLAY LOGGER,ST,ZAI,VERIFY request.

logstream
Identifies the log stream name and ill contain "ZAI,VERIFY" when message is issued for a DISPLAY LOGGER,ST,ZAI,VERIFY request.

reason
Is one of the following:

ZAI CLIENT/SERVER VALIDATION FAILURE,
An error occurred during the z/OS IBM zAware log stream client and IBM zAware server initial validation. More details are provided in *diag* information below.

OMVS BPX-SERVICE ERROR,
An error was encountered on a BPX-service request.

OMVS BPX-SERVICE ERROR - LOGGER WILL RETRY THE REQUEST,
A retry-able error was encountered on a BPX-service request. See details in related message IXG372I. System logger will retry the request. Successful re-drive cases will simply continue. Error cases will cause system logger to retry a number of times and if still unsuccessful, system logger will issue IXG384I error message without the text "-LOGGER WILL RETRY THE REQUEST", and take the appropriate action at that time.

ZAI CLIENT STORAGE REQUEST FAILURE,
An error occurred in z/OS IBM zAware log stream client storage manager processing.

SETLOGR COMMAND ZAICONN REQUEST WHEN ZAI(NO) DEFINED,
A ZAICONNECT request was issued on the SETLOGR command for a specific log stream, but the log stream is defined with ZAI(NO) specification. No action taken.

diag
is the internal Diagnostic Data reason "ZAI CLIENT/SERVER VALIDATION FAILURE." The following hexadecimal values indicate the type of IBM zAware server/client validation activity that was considered in error:

- X'00000000' Not a specific validation error.
- X'FD000000' Logger was unable to receive enough data from the IBM zAware server to interpret the server response as part of socket connection processing.
- X'FE000000' Logger encountered an internal error while attempting to process the DISPLAY Logger,ST,ZAI,VERIFY request.
- X'FF0000nn' *diag* values in this range indicate the IBM zAware server provided an error indication while a socket connection was being attempted.
- X'FF000001' z/OS IBM zAware client may be up-level for the IBM zAware server.
- X'FF000002' IBM zAware server does not support the z/OS IBM zAware log stream client.
- X'FF000003' z/OS IBM zAware client may be up-level for the IBM zAware server.
- X'FF000004' z/OS IBM zAware client may be up-level for the IBM zAware server.
- X'FF000005' Log stream ZAIDATA value not supported by IBM zAware server.
- X'FF000006' z/OS IBM zAware client may be up-level for the IBM zAware server.
- X'FF000007' IBM zAware server encountered an internal error.
- X'FF000008' IBM zAware encountered an error while receiving z/OS IBM zAware client data.

System action: Based on the type of error encountered, logger will also issue related messages IXG371E, IXG372I

and IXG382I. If a z/OS IBM zAware log stream client storage request failed, also check for related RSM ABEND CODES DC2 and DC4.

If logger had a z/OS IBM zAware log stream client connection to the IBM zAware server, then it will now be disconnected, unless the error condition is retryable and logger succeeds at re-establishing the connection to the IBM zAware server. The issue identified in the text of this message could mean that system logger will not be able to establish any new z/OS IBM zAware log stream clients or the error could be *logstream* specific.

Operator response: Notify the System Programmer.

System programmer response: See the related messages identified in the system action section, and take the necessary corrective actions. See the topic Preparing for z/OS IBM zAware log stream client usage in *z/OS MVS Setting Up a Sysplex* for more information on the z/OS IBM zAware log stream client. Also, check on the IBM zAware server level and location to be certain it is installed and running where expected.

Use the D LOGGER,IXGCNF,ZAI and D LOGGER,STatus,ZAI commands to display the details on the system logger view of the IBM zAware server and any z/OS IBM zAware log stream client socket connections.

Then take action to get the desired z/OS IBM zAware log stream client connected, for example, see command SETLOGR FORCE,ZAICONNECT,LSN=logstream.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZACC, IXGWZASC

Routing code: 2,10

Descriptor code: 4

IXG385I ZAI LOGSTREAM CLIENT CONNECT PENDING FOR LOGSTREAM *logstream* **WAITING ON SYSTEM SERVICES AVAILABILITY:** *service*

Explanation: System logger was unable to complete the initial socket connection to the IBM zAware for a z/OS IBM zAware log stream client, but will retry periodically. All the required services to establish the socket connection are not yet available (initialized) or there may be network issues preventing the connection from completing.

- When "OMVS" is included in the message text, the condition can occur following a system IPL or restart of system logger address space, and when OMVS has not yet fully initialized.
- When "TCPIP OR NETWORK FLOW" is included in the message text, TCPIP might not have completed initialization. Or the successful socket connection could be inhibited by a network issue or from network congestion.

In the message text:

logstream
Identifies the log stream name.

service
One of the following:
- OMVS
- TCPIP OR NETWORK FLOW

System action: System logger continues retrying to establish the socket connection to the IBM zAware server for a period of time.

- When "OMVS" is included in the message text, the retry period will continue until the logger IXGCNFxx parameter options LOGBUFMAX and LOGBUFFULL come into effect. When the buffers become full:
  - and LOGBUFFULL(QUIESCE) is specified, then system logger will quiesce the zai client at that point.
  - and LOGBUFFULL(MSG) is specified (or defaulted), then system logger will continue retrying for an additional period. If a successful socket connection does not occur after 20 more minutes, the zai client will be quiesced.
- When "TCPIP OR NETWORK FLOW" is included in the message text, system logger periodically continues retrying to establish the socket connection for approximately 20 minutes after the initial issuance of message IXG385I for this condition.

During the retry periods, when log data is written to the specified log stream, system logger will buffer the log data for this z/OS IBM zAware log stream client. If a successful socket connection is established with the IBM zAware server, then logger will cause the buffered log data to be sent to the IBM zAware server for analysis. For additional information, refer to system logger message IXG380I.

If after the retry period expires and a successful socket connection did not occur, then the z/OS IBM zAware log stream client could not be established and the buffered log data is discarded since the zai client is quiesced. Refer to messages IXG382I and IXG384I.

Operator response: Notify the System Programmer.

System programmer response: Ensure OMVS, z/OS Communication Server and TCPIP services are initialized and available on the system. Verify the z/OS IBM zAware log stream client status and logger parameters are as expected using the D LOGGER,Status,ZAI and D LOGGER,IXGCNF,ZAI commands.

Check for messages IXG380I, IXG382I or IXG384I and IXG372I , and take any necessary actions.

When "TCPIP OR NETWORK FLOW" is included in the message text, confirm the IXGCNFxx SERVER and PORT values correctly specify the IBM zAware location. Verify the network communications between the z/OS image and the IBM zAware server location.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZASC

Routing code: 2,10

Descriptor code: 4

IXG386I ZAI LOGSTREAM CLIENT CONNECT ATTEMPT IN PROGRESS FOR *item logstream* **STATUS:** *service*

Explanation: System logger z/OS IBM zAware log stream client is in the process of attempting a connect to the IBM zAware server. Before each step of the process, the status line will display the request about to be attempted. After the request completes, IXG386I will be issued to indicate success or failure.

In the message text:

item
One of the following:

LOGSTREAM
Message issued as a result of activity for log stream resource.

DISPLAY
Message issued as part of operation for DISPLAY LOGGER,ST,ZAI,VERIFY request.

logstream
Identifies the log stream name. Will contain "ZAI,VERIFY" when the message is issued for a DISPLAY LOGGER,ST,ZAI,VERIFY request.

service
One of the following:

- RETRIEVING IP ADDRESS
- IP ADDRESS RETRIEVE SUCCESSFUL
- IP ADDRESS RETRIEVE FAILED
- ATTEMPTING SOCKET CREATE
- SOCKET CREATE SUCCESSFUL
- SOCKET CREATE FAILED
- ATTEMPTING SOCKET CONNECT
- SOCKET CONNECT SUCCESSFUL
- SOCKET CONNECT FAILED

- INITIATING SOCKET VALIDATION
- SOCKET VALIDATION SUCCESSFUL
- SOCKET VALIDATION FAILED

System action: System logger continues processing the ZAI connect request.

Operator response: None.

System programmer response: Ensure OMVS, Communication Server and TCPIP services are initialized and available on the system. Verify the z/OS IBM zAware log stream client status is expected using the D LOGGER,Status,ZAI and D LOGGER,IXGCNF,ZAI commands. Check for messages IXG380I, IXG382I or IXG384I, if necessary, take any necessary actions.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZASC

Routing code: 2,10

Descriptor code: 4

IXG387I ZAI LOGSTREAM CLIENT CONNECTION ENDED SUMMARY FOR LOGSTREAM *Logstream* **CONNECTION WAS ESTABLISHED AT:** *datemdy4 timehmsc* **LOCAL LOG BLOCKS SENT TO SERVER OK:** *blkok*, **FAILED:** *blkfailed*

Explanation: The z/OS IBM zAware (ZAI) log stream client was disconnected from the IBM zAware server or quiesced. Summary connection data is displayed in this message corresponding to the number of successful and failed attempts to send data to the IBM zAware server, as well as the time of the initial successful connect to the IBM zAware server, which corresponds to when the IXG380I message was issued.

In the message text:

logstream
Identifies the log stream name.

datemdy4
Is the LOCAL date that system logger connected to the IBM zAware server for this log stream.

timehmsc
Is the LOCAL TIME that system logger connected to the IBM zAware server for this log stream.

blkok
Number of log blocks sent to the IBM zAware server successfully during this connection.

blkfailed
The number of log blocks that were attempted to be sent over the socket to the IBM zAware server, but eventually failed to be sent. System logger moves on to the next buffered log block for the log stream to send to the IBM zAware server.

System action: System logger has stopped communication between the z/OS IBM zAware log stream client and the IBM zAware server for the noted logstream. See messages IXG38x or IXG37x for the reason why the connection ended or for indications why any log block sent attempts may have failed.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGWZASC

Routing code: -

Descriptor code: -

IXG405I NO *recordtype* RECORDS FOUND THAT MATCH PATTERN *name*

Explanation: The LOGR Policy Processing successfully completed processing of a LIST control statement, however, no records of type *recordtype* were found that match the pattern *name*.

In the message text:

recordtype
One of the following:

LOGSTREAM
Log stream record type.

STRUCTURE
Structure record type.

name
is the naming pattern used to search for matching records of type *recordtype*.

System action: The LOGR Policy Processing processes the next control statement if more exist.

Operator response: None.

System programmer response: If you expect to find a match, consider making the *name* pattern more generic (example NAME(*)) and then rerun the job.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3RLS

Routing code: -

Descriptor code: -

IXG432E DSN/DSNAME AND VOLSER KEYWORDS FOR TYPE(LOGR) ARE NOT SUPPORTED ON THE CURRENT LEVEL OF THE SYSTEM.

Explanation: The IXCMIAPU utility processing ended because either DSN/DSNAME or VOLSER was specified for DATA TYPE(LOGR). IXCMIAPU does not support DSN/DSNAME or VOLSER for DATA TYPE(LOGR) because system logger supports only one active LOGR policy data set.

System action: The IXCMIAPU utility processing for the LOGR policy ends.

Operator response: None.

System programmer response: If necessary, resubmit the IXCMIAPU utility without specifying DSN/DSNAME or VOLSER.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: Many

Routing code: -

Descriptor code: -

IXG433E **IXG433E SYNTAX ERROR: WHEN** *parameter* **IS SPECIFIED, THE FOLLOWING MAY NOT BE SPECIFIED:** *parameter_list* **ONE OF THE FOLLOWING MUST ALSO BE SPECIFIED:** *parameter_list*

Explanation: The IXCMIAPU utility processing ended because of an incorrect combination of parameters specified on the statement identified in the preceding IXG005I message. This message shows parameters that may not be specified with parameter *parameter* and ones that must be specified with *parameter*.

In the message text:

parameter
The parameter that has been specified with the wrong combination of other parameters.

parameter_list
Lists of parameters that may not be or must be specified with *parameter*.

System action: The IXCMIAPU utility processing for the LOGR policy ends.

Operator response: None.

System programmer response: Specify a valid parameter combination and resubmit the IXCMIAPU job.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI1PPI

Routing code: -

Descriptor code: -

IXG434E *parameter_list*

Explanation: The IXCMIAPU utility processing ended because of an incorrect combination of parameters. This message continues the list of parameters from message IXG433E.

In the message text:

parameter_list
Lists of parameters that either may not be or must be specified with the parameter displayed in message IXG433E.

System action: The IXCMIAPU utility processing for the LOGR policy ends.

Operator response: None.

System programmer response: Specify a valid parameter combination and resubmit the IXCMIAPU job.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI1PPI

Routing code: -

Descriptor code: -

IXG440E *ehlq* **IS NOT VALID FOR THE EHLQ PARAMETER**

Explanation: The extended high level qualifier for the log stream data sets specified on the EHLQ parameter was not valid. This could be caused by a syntax error or from specifying EHLQ and HLQ on the same request.

In the message text:

ehlq
The value specified for the EHLQ parameter.

System action: The log stream is not defined.

Operator response: None.

System programmer response: Specify a valid extended high level qualifier (EHLQ) or a high level qualifier (HLQ) and reissue the request.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: Many

Routing code: -

Descriptor code: -

IXG441E EHLQ VALUE *ehlq* COMBINED WITH LOGSTREAM NAME IS LONGER THAN 35 CHARACTERS

Explanation: The combined length of the extended high level qualifier (EHLQ value) and the log stream name (with a period delimiter) exceeds 35 characters. The combined length of the EHLQ value, the log stream name, and the logger suffix (with period delimiters) cannot exceed 44 characters.

In the message text:

ehlq
The value specified for the EHLQ parameter.

System action: The log stream is not defined.

Operator response: None.

System programmer response: Specify a valid number of characters for the extended high level qualifier (EHLQ) or a high level qualifier (HLQ) for the log stream and reissue the request.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: Many

Routing code: -

Descriptor code: -

IXG442E THE SPECIFIED OR PENDING HIGH OFFLOAD VALUE MUST BE GREATER THAN THE SPECIFIED OR PENDING LOW OFFLOAD VALUE.

Explanation: The value specified for the LOWOFFLOAD or HIGHOFFLOAD keyword is not with the acceptable value range. The resulting low offload value must be less than the resulting high offload value.

System action: The log stream is not defined to the LOGR Inventory.

Operator response: None.

System programmer response: Change either the LOWOFFLOAD parameter or the HIGHOFFLOAD parameter so that the low offload value is less than the high offload value.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI3INV

Routing code: -

Descriptor code: -

IXG445W UPDATE WARNING - LOGSTREAM RENAMED TO NEW NAME, BUT AN ERROR OCCURRED RENAMING AT LEAST ONE STAGING DATA SET.

Explanation: The system issues this message after a log stream is renamed and an existing log stream staging data set could not be renamed using the new log stream name.

System action: System logger continues with the UPDATE LOGSTREAM NEWSTREAMNAME request and will result in a return code 4, reason code "418" condition (see IxgRsnCodeUpdateNewnameWarning in IXGCON macro).

Operator response: Notify the system programmer.

System programmer response: Check for any IXG277E and IXG251I hard-copy messages and see the system programmer response for the message identifier that is included in message IXG251I. See *z/OS DFSMS Access Method Services Commands* for the IDCAMS return code information, and correct the condition that caused the error.

After correcting the error condition, submit the necessary IDCAMS ALTER entryname NEWNAME() job to get the existing log stream staging data set name updated to match the new stream name change. This will need to be done before defining a new instance of a log stream that uses the same name as the log stream identified in this message. Failure to get the staging data set renamed correctly can result in a "loss of data" condition when a connection occurs for the log stream that was renamed.

If you cannot identify the problem source or correct the error, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: -

Descriptor code: -

IXG446E LOGR POLICY PROCESSING FOUND AN ERROR BUT CONTINUED. FIRST ERROR FOUND: LINE#*linenumber* **RETCODE=***retcode* **RSNCODE=***rsncode* **TOTAL NUMBER OF ERRORS FOUND:***numErrors*

Explanation: The IXCMIAPU utility is used to call system logger to update the LOGR policy. LOGR Policy processing encounters errors when it is updating the policy. Because the CONTINUE keyword is specified, LOGR Policy processing executes the remaining requests. If CONTINUE is omitted, LOGR Policy processing would stop executing requests when it encounters the error.

In the message text:

linenumber
The line number of the first failing request.

retcode
The return code from the first failing request.

rsncode
The reason code from the first failing request.

numErrors
The number of the errors found while processing LOGR Policy updates when CONTINUE was specified.

System action: For requests that fail, LOGR Policy processing does not update the LOGR policy. For requests that succeed, LOGR Policy processing updates the LOGR policy.

Operator response: None.

System programmer response: See the job's output log. Messages IXG447I and IXG003I help you determine why some requests failed.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGI1PPI

IXG447I LOGR POLICY PROCESSING FOUND AN ERROR BUT CONTINUES WITH RETCODE=*retcode* **RSNCODE=***rsncode*

Explanation: The IXCMIAPU utility is used to call system logger to update the LOGR policy. LOGR Policy processing encounters errors when it is processing the input line identified in message IXG005I. Because the CONTINUE keyword is specified, LOGR Policy processing executes the remaining requests. If the CONTINUE keyword is omitted, LOGR Policy processing will stop executing requests when it encounters the error.

In the message text:

retcode
The return code.

rsncode
The reason code.

System action: Processing of the IXCMIAPU utility LOGR policy continues.

Operator response: None.

System programmer response: See the return and reason code description documented for IXGINVNT – Managing the LOGR Inventory Couple Data Set in *z/OS MVS Programming: Assembler Services Reference IAR-XCT*. The return and reason codes documented for the IXGINVNT service apply to the IXCMIAPU utility.

IXG003I accompanies this message and might provide additional diagnostic data. Other messages are produced for selected return and reason codes. Look for these in your joblog or in syslog. The return and reason code description documented for the IXGINVNT service lists the messages that accompany each return code.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

IXG448I LOGGER PENDING DUPLEX OPTION CHANGES NOW IN EFFECT FOR LOGSTREAM *logstream*, **CURRENT ATTRIBUTE VALUES: LOGGERDUPLEX({UNCOND | COND}) LOGGERDUPLEX({YES | NO}) DUPLEXMODE([COND | UNCOND | DRXRC])**

Explanation: The log stream duplexing options that were pending from the last IXGINVNT REQUEST=UPDATE,TYPE=LOGSTREAM or IXCMIAPU DATA TYPE(LOGR) UPDATE LOGSTREAM requests have been applied and are now in effect for the log stream definition. See Updating a Log Stream's Attribute in *z/OS MVS Setting Up a Sysplex* for more information about how system logger handles update requests for log stream duplexing options.

In the message text:

logstream
is the name of the log stream.

System action: System logger will attempt to make use of the desired log data duplexing options for the log stream.

Operator response: None.

System programmer response: Check to ensure the desired log stream duplexing options are being used for the log stream. The DISPLAY LOGGER,C,LSN=logstream,Detail command reveals the duplexing methods being used for the log stream. Even though this message says certain duplexing options are in effect, system logger might not be able to use them.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 10

Descriptor code: 12

IXG501I SYSTEM LOGGER SUBSYSTEM (*ssname*) IS ACTIVE

Explanation: The system logger subsystem functions are active and available for use on this system.

In the message text:

ssname
is the installation defined subsystem name for system logger.

System action: None.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGSSINT

Routing code: 2

Descriptor code: 4

IXG502I SYSTEM LOGGER SUBSYSTEM (*ssname*) INITIALIZATION FAILED SERVICE: *ssiservice* - RETURN/REASON CODE: *retcode*/*rsncode*

Explanation: The system logger subsystem functions are not active and are unavailable on this system because of the error received from the *ssiservice* service.

In the message text:

ssname
is the installation defined subsystem name for system logger.

ssiservice
is the name of the failing SSI service used during system logger subsystem initialization. The value of ssiservice is either IEFSSI or IEFSSVT.

retcode
Return code for the *ssiservice*.

rsncode
Reason code for the *ssiservice*.

System action: None.

Operator response: None.

System programmer response: Consult the documentation for the failed service ssiservice. Iefssi is documented in *z/OS MVS Programming: Authorized Assembler Services Reference EDT-IXG*. Iefssvt is documented in *z/OS MVS Programming: Authorized Assembler Services Reference EDT-IXG*.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGSSINT

Routing code: 2,10

Descriptor code: 4

IXG503I LOGGER SUBSYSTEM DATA SET LOAD ERROR FOR EXIT *exitname*

Explanation: The system logger subsystem data set interface could not load the *exitname* routine.

In the message text:

exitname
is the name of the exit that could not be loaded.

System action: None.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 11

Descriptor code: 6

IXG504I LOGGER SUBSYSTEM (*ssname***) EXIT PROVIDED AN ERROR RETURN DD=***ddname* **EXIT=***exitname* **FUNCTION= {CONVERTER | ALLOCATION | OPEN | CLOSE | UNALLOCATION} RETCODE=** *retcode*

Explanation: The system logger subsystem exit routine provided a return code that indicates the job or job step be terminated.

In the message text:

ssname
is the installation defined subsystem name for system logger.

ddname
is the name of the DD statement or equivalent dynamic allocation DD name with the SUBSYS= specification. The name will be blanks for the converter function or for the allocation function and a concatenated DD.

exitname
is the name of the exit specified (either explicitly or by default) on the SUBSYS= keyword.

CONVERTER
Indicates that the subsystem converter function encountered the error.

ALLOCATION
Indicates that the subsystem allocation function encountered the error.

OPEN
Indicates that the subsystem open function encountered the error.

CLOSE
Indicates that the subsystem close function encountered the error.

UNALLOCATION
Indicates that the subsystem unallocation function encountered the error.

retcode
The return code from the exit routine.

System action: The job terminates for CONVERTER requests. The job step terminates for ALLOCATION requests of JCL DD SUBSYS= statements. Dynamic Allocation requests return with an error and the request is rejected.

Operator response: None.

System programmer response: None.

User response: Check the return code with the provider of the exit routine that was specified on the SUBSYS=

keyword and make the appropriate corrections. If the name of the exit is IXGSEXIT, then system logger is the provider of the exit. Return codes for IXGSEXIT can be found in the macro IXGSXCMP. General information about IXGSEXIT can be found in Reading Data From Log Streams in Data Set Format of the *z/OS MVS Programming: Assembler Services Guide*, and in IXGSEXIT – Log Stream Subsystem Exit of the *z/OS MVS Installation Exits*.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 11

Descriptor code: 6

IXG505I SYSTEM LOGGER SUBSYSTEM (*ssname*) INITPARM ERROR, INPUT IGNORED

Explanation: The system logger subsystem initialization routine (IXGSSINT) detected that the specified INITPARM value is not valid. The input is ignored.

If the INITPARM keyword is used for the system logger subsystem, then the valid input option is:

IXGLOGR=NOSTART

Only the above input is valid for this parameter and all other input is ignored.

In the message text:

ssname The installation defined subsystem name for system logger.

System action: System logger subsystem initialization will continue as if no INITPARM value was specified. The system logger subsystem (*ssname*) will become active, and the system service IXGLOGR address space will also be initialized following Master Scheduler Initialization.

Operator response: None.

System programmer response: Correct the error in the INITPARM keyword of the IEFSSNxx parmlib member that was used for the system logger subsystem initialization specification. The changes will not be able to take effect until the next IPL of the system with the updated specification.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGSSINT

Routing code: 2,10

Descriptor code: 4

IXG510I *ssname* **{CONVERTER | ALLOCATION} PARSE ERROR -** *text*

Explanation: The system logger subsystem function encountered a parse error for the SUBSYS= parameter.

In the message text:

ssname
is the installation defined subsystem name for system logger.

CONVERTER
indicates that the subsystem Converter function identified the parse error.

ALLOCATION
indicates that the subsystem allocation function identified the parse error.

SEVERE ERROR
indicates that a severe processing error was encountered during the parsing of the SUBSYS= parameters.

SYNTAX ERROR
indicates that a syntax error was encountered during the parsing of the SUBSYS= parameters.

INVALID EXIT NAME
indicates that the exit name specified as the second positional parameter of the SUBSYS= specification was not valid.

MUTUAL EXCLUSION FAILURE
indicates that a mutual exclusion error was detected in the subsys-options1 parameters.

FROM= GREATER THAN TO=
indicates that the FROM= value resolved to a date and time more recent (younger) than the TO= resolved value. The TO parameter can be 20*xx*, where *xx* depends on the level of z/OS that is running.

System action: The job terminates for CONVERTER requests. The job step terminates for ALLOCATION requests of JCL DD SUBSYS= statements. Dynamic Allocation requests return with an error and the request is rejected.

Operator response: None.

System programmer response: None.

User response: Correct the SUBSYS= specification and resubmit the job.

Programmer response: Correct the SUBSYS= specification and resubmit the job or the dynamic allocation request.

Source: System logger (SCLOG)

Module: IXGSDPIR

Routing code: 11

Descriptor code: 6

IXG511I **LOGGER SUBSYSTEM (***ssname***) EXIT SYSTEM LOGGER SERVICE ERROR DD=***ddname***
EXIT=***exitname*** **FUNCTION= {OPEN| GET| CLOSE| UNALLOCATION} SERVICE=***ixgservice*
RETCODE=*retcode* **RSNCODE=***rsncode* **ANSDIAG=***diagfld1, diagfld2, diagfld3, diagfld4*

Explanation: The system logger subsystem exit function encountered an error condition from the *ixgservice* service.

In the message text:

ssname
is the installation defined subsystem name for system logger.

ddname
is the name of the DD JCL statement or the equivalent dynamic allocation DD name with the SUBSYS= specification. The name will be blanks for a concatenated DD.

exitname
is the name of the logger exit, IXGSEXIT.

OPEN Indicates that the subsystem open exit function encountered the error.

GET Indicates that the subsystem get or read exit access method function encountered the error.

CLOSE Indicates that the subsystem close exit function encountered the error.

UNALLOCATION
Indicates that the subsystem unallocation exit function encountered the error.

Ixgservice
The name of the service that failed. For example, this could be IXGBRWSE or IXGCONN.

retcode
is the return code from the *ixgservice*.

rsncode
is the reason code from the *ixgservice*.

diagfld1, *diagfld2*, *diagfld3*, *diagfld4*
The answer area, IXGANSAA, diagnostic fields 1–4.

System action: The job terminates for CONVERTER requests. The job step terminates for ALLOCATION requests of JCL DD SUBSYS= statements. Dynamic Allocation requests return with an error and the request is rejected.

Operator response: None.

System programmer response: Correct the SUBSYS= specification and resubmit the job or the dynamic allocation request.

User response: See *z/OS MVS Programming: Assembler Services Reference IAR-XCT* for information about system logger service and the associated return and reason code displayed in this message. Check the SUBSYS= specification and, if necessary, correct it and resubmit the job. If the problem persists, search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM support center.

Programmer response: Correct the SUBSYS= specification and resubmit the job or the dynamic allocation request.

Source: System logger (SCLOG)

Module: MANY

Routing code: 11

Descriptor code: 6

IXG513I LOGGER SUBSYSTEM (*ssname***) EXIT ENCOUNTERED POSSIBLE LOSS OF DATA DD=***ddname*** LOGSTREAM=***logstream*** EXIT=***exitname*** SERVICE=***ixgservice*** RSNCODE=***rsncode***

Explanation: The system logger subsystem exit function encountered a response from the *ixgservice* service that indicates a loss of data occurred or a gap exists in the log stream.

In the message text:

ssname
is the installation defined subsystem name for system logger.

ddname
is the name of the DD JCL statement or equivalent dynamic allocation DD name with the SUBSYS= specification. The name will be blanks for a concatenated DD.

logstream
is the name of the log stream where the possible loss of data or gap condition was encountered.

exitname
is the name of the logger subsystem exit

ixgservice
The name of the service that detected the loss of data. For example, this could be IXGBRWSE or IXGCONN.

rsncode
is the reason code from the *ixgservice*.

System action: Processing continues.

Operator response: None.

System programmer response: None.

User response: Take the possible loss of data condition into account when making use of the returned record. See *z/OS MVS Programming: Assembler Services Reference IAR-XCT* for information about the system logger service and the associated reason code displayed in this message.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 11

Descriptor code: 6

IXG514I LOGGER SUBSYSTEM ALLOCATION ERROR ENCOUNTERED

Explanation: The system logger subsystem function routine or the subsystem exit routine provided an error indication during allocation processing. This message is provided when no other specific error message is returned to allocation along with the error result.

System action: The job step stops for ALLOCATION requests of JCL DD SUBSYS= statements. Dynamic allocation requests return with an error and the request is rejected.

Operator response: None.

System programmer response: None.

User response: Check for additional job log messages related to the system logger subsystem and exit routines. Check the return code with the provider of the exit routine that was specified on the SUBSYS= keyword and make the appropriate corrections.

Programmer response: Same as User Response.

Source: System logger (SCLOG)

Module: IXGSDSAL

Routing code: (job log)

Descriptor code: None.

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation: When the operator enters the DISPLAY LOGGER command, this message displays information about system logger.

The first line of the message always appears in each variation of the display message to be shown.

See the Display Logger command in *z/OS MVS System Commands* for information displayed in the various forms of the IXG601I message output.

In the message text:

hh.mm.ss
The hour, minute and second at which the system processed the display command. *00.00.00* appears in this field if the time-of-day (TOD) clock is not working.

id A decimal identifier used with the CONTROL C,D command to cancel status displays that are written on typewriter or printer consoles or displayed inline on a display console. The identifier does not appear when the display appears in a display area on a display console.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
SYSTEM LOGGER STATUS:
 SYSTEM    SYSTEM LOGGER STATUS
sysname1   status
                    reason1
                    reason2
```

The operator issued the DISPLAY LOGGER,STATUS command. The output includes the operational status of system logger.

In the message text:

sysname
The system name.

status
The IXGLOGR address space status. Possible values can be:

NOT AVAILABLE FOR IPL
The system logger will not be available for the life of this IPL.

INITIALIZING
The system logger is in progress of initializing.

ACTIVE
The system logger is up and running.

NOT ACTIVE
The system logger has terminated.

reason
An optional line, that gives further detail about the status. Possible values can be:

XCFLOCAL MODE
Indicates the system was IPLed with PLEXCFG=XCFLOCAL.

NOSTART SPECIFIED
Indicates IXGLOGR=NOSTART was specified on the INITPARM keyword for the LOGR subsystem.

LOGR CDS IS NOT AVAILABLE
Indicates that system logger does not have access to the LOGR Couple Data Set that is necessary for its operation.

MANAGE LOGRCDS ALLOWACCESS(NO) SPECIFIED
Indicates that logger is not accessing the LOGR couple data set because of the specified logger parameter option in the IXGCNFxx member of SYS1.PARMLIB.

DRXRC CONVERSION NOT DONE
Indicates that system logger has not completed converting all DRXRC-type resources in response to DRMODE=YES IPL option. See messages IXG068D and IXG070D.

LOGGER SERVICES DISABLED FOR GROUP: TEST
Indicates that logger is not able to perform work on TEST group log streams.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
SYSTEM LOGGER STATUS:
SYSTEM    SYSTEM LOGGER STATUS
------    --------------------
SY1       ACTIVE
          LOGGER DATA SET RECALLS
            GROUP: PRODUCTION
              SECONDS    DATA SET NAME
              00000030    IXGLOGR.SOME.LOG.STREAM.A0000011
            GROUP: TEST
              NO DATA SET RECALLS WAITING
```

The operator issued the DISPLAY LOGGER,STATUS,RECALLS command.

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
SYSTEM LOGGER STATUS:
SYSTEM    SYSTEM LOGGER STATUS
------    --------------------
SL0       ACTIVE
ZAI LOGSTREAM CLIENTS: zai-logstream-clients-status
BUFFERS IN USE: 00 gb 0000 mb

LOGGER PARAMETER OPTIONS
KEYWORD           SOURCE    VALUE
----------------- ---------------
ZAI
 keyword          source [(xx0) value
```

The operator issued the DISPLAY LOGGER,Status, ZAI command. The display contains the status of system logger, the z/OS IBM zAware client overall state information, and (using the format from message IXG607I) the logger parameter options stemming from IXGCNFxx parmlib and/or SETLOGR commands.

In the message text:

zai-logstream-clients-status
Refers to the system logger status of the z/OS environment as a whole, not to any particular log stream. To obtain more details on any particular log stream, refer to the DISPLAY,LOGGER,Connection,ZAI and DISPLAY LOGGER,Logstream,ZAI commands.

Where the possible *zai-logstream-clients-status* values can be:

AVAILABLE
System logger is available to communicate with the IBM zAware server, but there are currently no z/OS IBM zAware log stream clients currently established.

ACTIVE
There is at least one z/OS IBM zAware log stream client in communication with the IBM zAware server.

NOT AVAILABLE - *notavailrsn*
There is an inhibitor to system logger establishing a z/OS IBM zAware log stream client.

Where:

notavailrsn
Indicates the reason the zai log stream clients are not available. Reasons can be:

ZAI SERVER(NONE)

OMVS UNAVAILABLE

QUIESCED - *quiescedrsn*
System logger has or was requested to quiesce any activity for z/OS IBM zAware log stream clients. Look for messages IXG371E, IXG376E or IXG382I for additional details on what might have led to the quiesced

state. For this quiesced state, log streams will not be allowed to connect to the IBM zAware server until the appropriate SETLOGR FORCE,ZAICONNECT command is issued.

Where:

quiescedrsn
Indicates the reason the z/OS image and its zai log stream clients are in a quiesced state. Reasons can be:

```
SETLOGR ZAIQUI,ALL COMMAND
LOGBUFFULL(QUIESCE)POLICY
OMVS UNAVAILABLE
ENVIRONMENT ERROR
```

For details on *keyword, source* [(*xx*)] *value* refer to message IXG607I and system logger parmlib member IXGCNFxx. For example, if parmlib member IXGCNFZA contained ZAI SERVER(9.12.5.127), then the following would be included in the display output.

```
ZAI
 SERVER     IPV4  IPL (ZA) 9.12.5.127
 PORT             DEFAULT  2001
 LOGBUFMAX        DEFAULT  02
 LOGBUFWARN       DEFAULT  75
 LOGBUFFULL       DEFAULT  MSG
```

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
SYSTEM LOGGER STATUS:
SYSTEM    SYSTEM LOGGER STATUS
------    --------------------
SY1       ACTIVE

ZAI LOGSTREAM CLIENTS: NOT AVAILABLE - ZAI SERVER(NONE)
BUFFERS IN USE:   00 GB 0000 MB

LOGGER PARAMETER OPTIONS
KEYWORD           SOURCE   VALUE
----------------- -------- ------------------------------
ZAI
 SERVER           DEFAULT NONE
 PORT             DEFAULT  2001
 LOGBUFMAX        DEFAULT  02
 LOGBUFWARN       DEFAULT  75
 LOGBUFFULL       DEFAULT  MSG
```

The operator issued the DISPLAY LOGGER,Status,ZAI command when all the logger parameter option defaults were taken for the ZAI specifications. The display contains the status of system logger, the z/OS IBM zAware client overall state information, and (using the format from message IXG607I) the logger parameter options.

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
SYSTEM LOGGER STATUS:
SYSTEM    SYSTEM LOGGER STATUS
------    --------------------
SY1       ACTIVE

ZAI LOGSTREAM CLIENTS: AVAILABLE
BUFFERS IN USE:   00 GB 0000 MB
ZAI VERIFY INITIATED,  CHECK FOR MESSAGES IXG37X, IXG38X

LOGGER PARAMETER OPTIONS
KEYWORD           SOURCE   VALUE
----------------- -------- ------------------------------
ZAI
```

```
SERVER     IPV4  IPL (ZA) 9.12.5.127
PORT             DEFAULT  2001
LOGBUFMAX        DEFAULT  02
LOGBUFWARN       DEFAULT  75
LOGBUFFULL       DEFAULT  MSG
```

The operator issued the DISPLAY LOGGER,STATUS,ZAI,VERIFY command. The display contains the status of system logger, the z/OS IBM zAware client overall state information, and (using the format from message IXG607I) the logger parameter options.

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

CONNECTION INFORMATION BY LOGSTREAM FOR SYSTEM *sysname*
LOGSTREAM STRUCTURE #CONN STATUS
logstreamname *strname* *num_conn* *status*

NUMBER OF LOGSTREAMS: *nnnnnn*

The operator issued the DISPLAY LOGGER,CONN command. The output includes information pertaining to a log stream with one or more connections on the system that the command was issued from.

In the message text:

sysname
The system name.

logstreamname
The log stream name.

strname
The CFRM structure name.

Note: For all displays, when a DASD only configured log stream is displayed, the STRUCTURE field of the display will contain the text ***DASDONLY***.

num_conn
The number of active connections from this system to this log stream by that job. The number of the connections field is 6 bytes in length.

status
The log stream status. Possible values can be:

AVAILABLE
The log stream is available for connects.

IN USE
The log stream is available and has a current connection.

CONNECT PENDING
The system logger needed to perform recovery operations asynchronous to the application's connect request and will remain in this state until recovery is done. The system logger will then complete the connect request on behalf of the application.

OFFLOAD IN PROGRESS
The system logger is in the process of offloading data from the coupling facility structure to DASD.

DISCONNECT PENDING
The system logger is completing the applications disconnect request asynchronously. When complete, the application is disconnected from the log stream.

STRUCTURE FULL
The coupling facility structure space allocated for this log stream is full.

LOSS OF DATA
There is a loss of data condition present in the log stream.

REBUILD IN PROGRESS
The coupling facility structure is temporarily unavailable and a rebuild of the structure is in progress.

DUPLEXING REBUILD
The coupling facility structure is temporarily unavailable because a duplexing rebuild of the structure is in progress.

DUPLEX TO SIMPLEX
The coupling facility structure has transitioned from duplex-mode to simplex-mode and system logger is processing the transition.

REBUILD FAILED
The coupling facility structure is unavailable and will remain so until a successful rebuild is completed.

LOST CONNECTIVITY
No connectivity exists to the coupling facility associated with the log stream. The system logger will either attempt to rebuild the log stream in another coupling facility or the log stream will be disconnected.

DS DIRECTORY FULL
The log stream's DASD data set directory is full. The system logger cannot offload any further data from the coupling facility structure to DASD.

DELETE IN PROGRESS
Deletion of the log stream is in progress.

nnnnnn
The number of log streams included in the view for the display output.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

CONNECTION INFORMATION BY LOGSTREAM FOR SYSTEM *sysname*

LOGSTREAM	STRUCTURE	#CONN	STATUS
logstreamname1	*strname*	*num_conn*	*status*
logstreamname2	*strname*	*num_conn*	*status*
logstreamname3	*strname*	*num_conn*	*status*

NUMBER OF LOGSTREAMS: *nnnnnn*

The operator issued the DISPLAY LOGGER,CONN,LSN=*logstreamname**,SUMM command. The output includes information pertaining to a log stream with one or more connections on the system that the command was issued from. Only output pertaining to log streams that match the filter will be displayed.

In the message text:

sysname
The system name.

logstreamname
The log stream name.

strname
The CFRM structure name.

Note: For all displays, when a DASD only configured log stream is displayed, the STRUCTURE field of the display will contain the text ***DASDONLY***.

num_conn
The number of active connections from this system to this log stream by that job. The number of the connections field is 6 bytes in length.

status
The log stream status. Possible values can be:

AVAILABLE
The log stream is available for connects.

IN USE
The log stream is available and has a current connection.

CONNECT PENDING
The system logger needed to perform recovery operations asynchronous to the application's connect request and will remain in this state until recovery is done. The system logger will then complete the connect request on behalf of the application.

OFFLOAD IN PROGRESS
The system logger is in the process of offloading data from the coupling facility structure to DASD.

DISCONNECT PENDING
The system logger is completing the applications disconnect request asynchronously. When complete, the application is disconnected from the log stream.

STRUCTURE FULL
The coupling facility structure space allocated for this log stream is full.

LOSS OF DATA
There is a loss of data condition present in the log stream.

REBUILD IN PROGRESS
The coupling facility structure is temporarily unavailable and a rebuild of the structure is in progress.

DUPLEXING REBUILD
The coupling facility structure is temporarily unavailable because a duplexing rebuild of the structure is in progress.

DUPLEX TO SIMPLEX
The coupling facility structure has transitioned from duplex-mode to simplex-mode and system logger is processing the transition.

REBUILD FAILED
The coupling facility structure is unavailable and will remain so until a successful rebuild is completed.

LOST CONNECTIVITY
No connectivity exists to the coupling facility associated with the log stream. The system logger will either attempt to rebuild the log stream in another coupling facility or the log stream will be disconnected.

DS DIRECTORY FULL
The log stream's DASD data set directory is full. The system logger cannot offload any further data from the coupling facility structure to DASD.

DELETE IN PROGRESS
Deletion of the log stream is in progress.

nnnnnn
The number of log streams included in the view for the display output.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
CONNECTION INFORMATION BY LOGSTREAM FOR SYSTEM sysname
LOGSTREAM          STRUCTURE     #CONN          STATUS
logstreamname      strname       num_conn       status
DUPLEXING: duplexing-method
  STGDSN: datasetname
          VOLUME=volume    SIZE=nnnnn    % IN-USE=used
GROUP: groupname    zai client info
OFFLOAD DSN FORMAT: offload-datasetname-format.<SEQ#>
          CURRENT DSN OPEN: YES|NO                              SEQ#: sequence#
          ADV-CURRENT DSN OPEN: YES|NO                        SEQ#: sequence#
DISCONNECT PENDING FOR xxxx MINUTES
FORCE DISCONNECT IN PROGRESS
 JOBNAME: mvs_jobname1   ASID: mvs_asid1
  R/W CONN: read-conn-count | write-conn-count
  RES MGR./CONNECTED: resource-mgr-name / yes|no
  IMPORT CONNECT: yes|no
 JOBNAME: mvs_jobname2   ASID: mvs_asid2
  R/W CONN: read-conn-count | write-conn-count
  RES MGR./CONNECTED: resource-mgr-name / yes|no
  IMPORT CONNECT: yes|no

NUMBER OF LOGSTREAMS:  nnnnn
```

The operator issued the DISPLAY LOGGER,CONN,LSN=*logstreamname*,DETAIL, or the DISPLAY LOGGER,CONN,LSN=*logstreamname* ,JOB=*mvsjobname*,DETAIL command. The output includes detailed information for a specified connected log stream(s) if filters were used. The display shows the connected log stream(s) that match the filters on the system that the DISPLAY LOGGER command was issued.

In the message text:

sysname
The system name.

groupname
The name of the group that the log stream belongs to.

mvs_jobname
The jobname.

zai client info
When a log stream has ZAI(YES) specified, the following will be included:

`ZAI CLIENT: YES - zaiclientstatus`

Where the possible *zaiclientstatus* values can be:

CONNECTED

`ZAIDATA: zaidatavalue`
`LOG BLOCKS SENT TO SERVER OK: blkok, FAILED: blkfailed`

Indicates z/OS system logger has established a connection to the IBM zAware server for the log stream, and any log data written into the log stream will be sent to the server.

Where:

zaidatavalue
The value specified for the log stream ZAIDATA attribute.

blkok
Number of log blocks sent to the IBM zAware server successfully during this connection.

blkfailed
The number of log blocks that were attempted to be sent over the socket to the IBM zAware server, but eventually failed to be sent. System logger moves on to the next buffered log stream to send to the IBM zAware server.

CONNECTING
Indicates z/OS system logger is attempting to establish a connection to the IBM zAware server for the log stream. Any log data written into the log stream during this period will be buffered and when the connection is established it will be sent to the server.

NOT CONNECTED
Indicates z/OS system logger has no connection to the IBM zAware server for the log stream since the z/OS image is not configured for it.

QUIESCED
Indicates z/OS system logger has no connection to the IBM zAware server for the log stream. No log data will be buffered or sent to the server while in this state.

offload-datasetname-format
Identifies the format of the offload data set name for the log stream. The offload data set name is constructed from the HLQ or EHLQ, the log stream name, and a generated low level qualifier (cnnnnnnn). The low level qualifier is also called the offload data set sequence number, and its position is denoted by the text "<SEQ#>".

sequence#
Identifies the sequence number of the current offload data set name (low level qualifier) when this system has the data set ready for offload processing.

When the preceding text contains "CURRENT DSN OPEN: YES", then this z/OS image, meaning the *sysname* identified in the IXG601I main line, has the current offload data set open for offload processing. The current offload data set sequence number is included as the *sequence#* in the message.

When the preceding text contains "CURRENT DSN OPEN: NO", then this z/OS image does not have the current offload data set open for offload processing. For this case, the *sequence#* value is displayed as "-NONE- ".

adv-current-dsn-seq#
Identifies an advanced-current offload data set name sequence number (low level qualifier) when this system has the data set ready for offload processing.

When the preceding text contains "ADV-CURRENT DSN OPEN: YES", then this z/OS image has the first advanced-current offload data set open for offload processing. The advanced-current offload data set sequence number is included as the *adv-current-dsn-seq#* in the message.

When the preceding text contains "ADV-CURRENT DSN OPEN: NO", then this z/OS image does not have an advanced-current offload data set open for offload processing. For this case, the *adv-current-dsn-seq#* value is displayed as "-NONE- ".

mvs_asid
The ASID.

logstreamname
The log stream name.

strname
The CFRM structure name.

Note: For all displays, when a DASD only configured log stream is displayed, the STRUCTURE field of the display will contain the text ***DASDONLY***.

num_conn
The number of active connections from this system to this log stream by that job. The number of the connections field is 6 bytes in length.

status
The log stream status. Possible values can be:

AVAILABLE
The log stream is available for connects.

IN USE
The log stream is available and has a current connection.

CONNECT PENDING
The system logger needed to perform recovery operations asynchronous to the application's connect request and will remain in this state until recovery is done. The system logger will then complete the connect request on behalf of the application.

OFFLOAD IN PROGRESS
The system logger is in the process of offloading data from the coupling facility structure to DASD.

DISCONNECT PENDING
The system logger is completing the applications disconnect request asynchronously. When complete, the application is disconnected from the log stream.

STRUCTURE FULL
The coupling facility structure space allocated for this log stream is full.

LOSS OF DATA
There is a loss of data condition present in the log stream.

REBUILD IN PROGRESS
The coupling facility structure is temporarily unavailable and a rebuild of the structure is in progress.

DUPLEXING REBUILD
The coupling facility structure is temporarily unavailable because a duplexing rebuild of the structure is in progress.

DUPLEX TO SIMPLEX
The coupling facility structure has transitioned from duplex-mode to simplex-mode and system logger is processing the transition.

REBUILD FAILED
The coupling facility structure is unavailable and will remain so until a successful rebuild is completed.

LOST CONNECTIVITY
No connectivity exists to the coupling facility associated with the log stream. The system logger will either attempt to rebuild the log stream in another coupling facility or the log stream will be disconnected.

DS DIRECTORY FULL
The log stream's DASD data set directory is full. The system logger cannot offload any further data from the coupling facility structure to DASD.

DELETE IN PROGRESS
Deletion of the log stream is in progress.

duplexing-method
One of the following:

LOCAL BUFFERS
Indicates system logger is duplexing the log data in the data spaces associated with the IXGLOGR address space.

LOCAL BUFFERS, STAGING DRXRC
Indicates logger is duplexing the log data in the data spaces asssociated with the IXGLOGR address space, and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPL'd with DRMODE=YES.

STAGING DATA SET
Indicates system logger is duplexing the log data in a staging data set associated with the system's connection to the log stream and structure.

STRUCTURE, LOCAL BUFFERS
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is duplexing the log data in data spaces associated with the IXGLOGR address space.

STRUCTURE, LOCAL BUFFERS, STAGING DRXRC
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and

logger is duplexing the log data in data spaces associated with the IXGLOGR address space, and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPL'd with DRMODE=YES.

STRUCTURE, STAGING DATA SETS
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is duplexing the log data in a staging data set associated with the system's connection to the log stream and structure.

STRUCTURE, STAGING DRXRC
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when recovery system was IPL'd with DRMODE=YES.

STRUCTURE
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is not explicitly duplexing the log data using its own means.

IN TRANSITION
Indicates system logger is transitioning because of a duplexing rebuild or because the structure has changed from duplex-mode to simplex-mode.

STGDSN information:

datasetname
Name of the staging data set where logger data is being duplexed.

volume
Name of the volume where the staging data set resides.

nnnn
Represents the size of the staging data set in 4K increments.

used
Indicates the percentage usage for the staging data set.

R/W CONN
Displayed after the jobname that connected to the log stream. Lists the number of read and/or write connections made to this log stream by this job.

RES MGR./CONNECTED
The name of the remote site recovery resource manager that is associated with the log stream and its connection status. If there is no resource manager defined, then the field will display ***NONE*** for the resource manager name and NO for whether or not it is connected.

IMPORT CONNECT
Displays if there is an import connect active for this log stream on this system.

Disconnect Pending Line:
When the log stream is being disconnected from the system, the 'DISCONNECT PENDING FOR *xxxx*MINUTES' line will be displayed if the log stream was in that state for over 2 minutes. The *status* text for the log stream could be one of the following: 'DISCONNECT PENDING', 'DS DIRECTORY FULL' or 'OFFLOAD IN PROGRESS'.

xxxx
Number of minutes the log stream has been in the disconnect Pending state.

Force Disconnect Line:
When a force disconnect command has been entered against the log stream, the line 'FORCE DISCONNECT IN PROGRESS' will be shown until the log stream is disconnected from the system. If the first force disconnect attempt does not proceed, and this display command shows this line, a second force disconnect should be issued. The second force disconnect attempt will cause current quiesce activity for existing connectors to cease, and the log stream disconnect from the system to continue.

nnnnn
The number of log streams included in the view for the display output.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
CONNECTION INFORMATION BY JOBNAME FOR SYSTEM sysname
JOBNAME: mvs_jobname1   ASID: mvs_asid1
LOGSTREAM          STRUCTURE      #CONN          STATUS
logstreamname1     strname1       num_conn1      status1
logstreamname2     strname2       num_conn2      status2
logstreamname3     strname3       num_conn3      status3

JOBNAME: mvs_jobname2   ASID: mvs_asid2
LOGSTREAM          STRUCTURE      #CONN          STATUS
logstreamname1     strname1       num_conn1      status1
logstreamname2     strname2       num_conn2      status2

JOBNAME: mvs_jobname3   ASID: mvs_asid3
LOGSTREAM          STRUCTURE      #CONN          STATUS
logstreamname1     strname1       num_conn1      status1
logstreamname2     strname2       num_conn2      status2

NUMBER OF LOGSTREAMS:  nnnnnn
```

The operator issued the DISPLAY LOGGER,CONN,JOBNAME=*jobname*,SUMM command. The output will show all log streams that the specified jobname has connected to.

In the message text:

sysname
The system name.

mvs_jobname
The jobname.

mvs_asid
The ASID.

logstreamname
The log stream name.

strname
The CFRM structure name.

Note: For all displays, when a DASD only configured log stream is displayed, the STRUCTURE field of the display will contain the text ***DASDONLY***.

num_conn
The number of active connections from this system to this log stream by that job. The number of the connections field is 6 bytes in length.

status
The log stream status. Possible values can be:

AVAILABLE
The log stream is available for connects.

IN USE
The log stream is available and has a current connection.

CONNECT PENDING
The system logger needed to perform recovery operations asynchronous to the application's connect request and will remain in this state until recovery is done. The system logger will then complete the connect request on behalf of the application.

OFFLOAD IN PROGRESS
The system logger is in the process of offloading data from the coupling facility structure to DASD.

DISCONNECT PENDING
The system logger is completing the applications disconnect request asynchronously. When complete, the application is disconnected from the log stream.

STRUCTURE FULL
The coupling facility structure space allocated for this log stream is full.

LOSS OF DATA
There is a loss of data condition present in the log stream.

REBUILD IN PROGRESS
The coupling facility structure is temporarily unavailable and a rebuild of the structure is in progress.

DUPLEXING REBUILD
The coupling facility structure is temporarily unavailable because a duplexing rebuild of the structure is in progress.

DUPLEX TO SIMPLEX
The coupling facility structure has transitioned from duplex-mode to simplex-mode and system logger is processing the transition.

REBUILD FAILED
The coupling facility structure is unavailable and will remain so until a successful rebuild is completed.

LOST CONNECTIVITY
No connectivity exists to the coupling facility associated with the log stream. The system logger will either attempt to rebuild the log stream in another coupling facility or the log stream will be disconnected.

DS DIRECTORY FULL
The log stream's DASD data set directory is full. The system logger cannot offload any further data from the coupling facility structure to DASD.

DELETE IN PROGRESS
Deletion of the log stream is in progress.

nnnnnn
The number of log streams included in the view for the display output.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
CONNECTION INFORMATION BY LOGSTREAM FOR SYSTEM SY1
LOGSTREAM          STRUCTURE          #CONN       STATUS
---------          ---------          -----       ------
NICKJ.TEST.LOGSTREAM       LIST01      00002       DISCONNECT PENDING
  DUPLEXING: STAGING DATA SET
    STGDSN: IXGLOGR.NICKJ.TEST.LOGSTREAM.PLEX1
      VOLUME=ALL001  SIZE=0040000      % IN-USE=30
  GROUP: groupname                              zai client info
  OFFLOAD DSN FORMAT: offload-datasetname-format.<SEQ#>
          CURRENT DSN OPEN: YES|NO                                  SEQ#: sequence#
          ADV-CURRENT DSN OPEN: YES|NO                             SEQ#: sequence#
  DISCONNECT PENDING FOR 0003 MINUTES
  FORCE DISCONNECT IN PROGRESS
 JOBNAME: LOGTEST1 ASID: LOGTAS1
  R/W CONN: 0003
  RES MGR./CONNECTED: no
  IMPORT CONNECT: no
 JOBNAME: LOGTEST2 ASID: LOGTAS2
R/W CONN: 0003
  RES MGR./CONNECTED: no
  IMPORT CONNECT: no

NUMBER OF LOGSTREAMS: 000001

CONNECTION INFORMATION BY JOBNAME FOR SYSTEM sysname
JOBNAME: mvs_jobname1  ASID: mvs_asid1
LOGSTREAM          STRUCTURE     #CONN          STATUS
logstreamname      strname             num_conn      status
DUPLEXING: duplexing-method
  STGDSN: datasetname
            VOLUME=volume    SIZE=nnnnn    % IN-USE=used
 GROUP: groupname                zai client info
 OFFLOAD DSN FORMAT: offload-datasetname-format.<SEQ#>
          CURRENT DSN OPEN: YES|NO                                  SEQ#: sequence#
          ADV-CURRENT DSN OPEN: YES|NO                             SEQ#: sequence#
    R/W CONN: read-conn-count | write-conn-count
  RES MGR./CONNECTED: resource-mgr-name / yes|no
  IMPORT CONNECT: yes|no
DISCONNECT PENDING FOR xxxx MINUTES
FORCE DISCONNECT IN PROGRESS
logstreamname2     strname             num_conn      status
DUPLEXING: duplexing-method
  R/W CONN: read-conn-count | write-conn-count
  RES MGR./CONNECTED: resource-mgr-name / yes|no
  IMPORT CONNECT: yes|no

JOBNAME: mvs_jobname2  ASID: mvs_asid2
LOGSTREAM          STRUCTURE     #CONN          STATUS
logstreamname      strname             num_conn      status
DUPLEXING: duplexing-method
 GROUP: groupname                zai client info
 OFFLOAD DSN FORMAT: offload-datasetname-format.<SEQ#>
          CURRENT DSN OPEN: YES|NO                                  SEQ#: sequence#
          ADV-CURRENT DSN OPEN: YES|NO                             SEQ#: sequence#
    R/W CONN: read-conn-count | write-conn-count
  RES MGR./CONNECTED: resource-mgr-name / yes|no
  IMPORT CONNECT: yes|no

NUMBER OF LOGSTREAMS:  nnnnnn
```

The operator issued the DISPLAY LOGGER,CONN,JOBNAME=*mvsjobname*,DETAIL command. For this jobname output, the *num_conn* field is the number of connections on that system made to that log stream by that job.

In the message text:

sysname
: The system name.

mvs_jobname
: The jobname.

mvs_asid
: The ASID.

logstreamname
: The log stream name.

strname
: The CFRM structure name.

  Note: For all displays, when a DASD only configured log stream is displayed, the STRUCTURE field of the display will contain the text ***DASDONLY***.

num_conn
The number of active connections from this system to this log stream by that job. The number of the connections field is 6 bytes in length.

status
The log stream status. Possible values can be:

AVAILABLE
The log stream is available for connects.

IN USE
The log stream is available and has a current connection.

CONNECT PENDING
The system logger needed to perform recovery operations asynchronous to the application's connect request and will remain in this state until recovery is done. The system logger will then complete the connect request on behalf of the application.

OFFLOAD IN PROGRESS
The system logger is in the process of offloading data from the coupling facility structure to DASD.

DISCONNECT PENDING
The system logger is completing the applications disconnect request asynchronously. When complete, the application is disconnected from the log stream.

STRUCTURE FULL
The coupling facility structure space allocated for this log stream is full.

LOSS OF DATA
There is a loss of data condition present in the log stream.

REBUILD IN PROGRESS
The coupling facility structure is temporarily unavailable and a rebuild of the structure is in progress.

DUPLEXING REBUILD
The coupling facility structure is temporarily unavailable because a duplexing rebuild of the structure is in progress.

DUPLEX TO SIMPLEX
The coupling facility structure has transitioned from duplex-mode to simplex-mode and system logger is processing the transition.

REBUILD FAILED
The coupling facility structure is unavailable and will remain so until a successful rebuild is completed.

LOST CONNECTIVITY
No connectivity exists to the coupling facility associated with the log stream. The system logger will either attempt to rebuild the log stream in another coupling facility or the log stream will be disconnected.

DS DIRECTORY FULL
The log stream's DASD data set directory is full. The system logger cannot offload any further data from the coupling facility structure to DASD.

DELETE IN PROGRESS
Deletion of the log stream is in progress.

duplexing-method
One of the following:

LOCAL BUFFERS
Indicates system logger is duplexing the log data in the data spaces associated with the IXGLOGR address space.

LOCAL BUFFERS, STAGING DRXRC
Indicates logger is duplexing the log data in the data spaces asssociated with the IXGLOGR address space, and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPL'd with DRMODE=YES.

STAGING DATA SET
Indicates system logger is duplexing the log data in a staging data set associated with the system's connection to the log stream and structure.

STRUCTURE, LOCAL BUFFERS
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is duplexing the log data in data spaces associated with the IXGLOGR address space.

STRUCTURE, LOCAL BUFFERS, STAGING DRXRC
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and logger is duplexing the log data in data spaces associated with the IXGLOGR address space, and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPL'd with DRMODE=YES.

STRUCTURE, STAGING DATA SETS
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is duplexing the log data in a staging data set associated with the system's connection to the log stream and structure.

STRUCTURE, STAGING DRXRC
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPL'd with DRMODE=YES.

STRUCTURE
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is not explicitly duplexing the log data using its own means.

IN TRANSITION
Indicates system logger is transitioning because of a duplexing rebuild or because the structure has changed from duplex-mode to simplex-mode.

STGDSN information:

datasetname
Name of the staging data set where logger data is being duplexed.

volume
Name of the volume where the staging data set resides.

nnnn
Represents the size of the staging data set in 4K increments.

used
Indicates the percentage usage for the staging data set.

groupname
The name of the group that the log stream belongs to.

zai client info

```
ZAI CLIENT: YES - CONNECTED [| CONNECTING | NOT CONNECTED | QUIESCED]
 ZAIDATA: OPERLOG
 LOG BLOCKS SENT TO SERVER OK: blkok, FAILED: blkfailed
```

Where:

blkok
Number of log blocks sent to the IBM zAware server successfully during this connection.

blkfailed
The number of log blocks that were attempted to be sent over the socket to the IBM zAware server, but eventually failed to be sent. System logger moves on to the next buffered log block for the log stream to send to the IBM zAware server.

offload-datasetname-format
Identifies the format of the offload data set name for the log stream. The offload data set name is constructed from the HLQ or EHLQ, the log stream name, and a generated low level qualifier (cnnnnnnn). The low level qualifier is also called the offload data set sequence number, and its position is denoted by the text "<SEQ#>".

sequence#
Identifies the sequence number of the current offload data set name (low level qualifier) when this system has the data set ready for offload processing.

When the preceding text contains "CURRENT DSN OPEN: YES", then this z/OS image, meaning the *sysname* identified in the IXG601I main line, has the current offload data set open for offload processing. The current offload data set sequence number is included as the *sequence#* in the message.

When the preceding text contains "CURRENT DSN OPEN: NO", then this z/OS image does not have the current offload data set open for offload processing. For this case, the *sequence#* value is displayed as "-NONE- ".

adv-current-dsn-seq#
Identifies an advanced-current offload data set name sequence number (low level qualifier) when this system has the data set ready for offload processing.

When the preceding text contains "ADV-CURRENT DSN OPEN: YES", then this z/OS image has the first advanced-current offload data set open for offload processing. The advanced-current offload data set sequence number is included as the *adv-current-dsn-seq#* in the message.

When the preceding text contains "ADV-CURRENT DSN OPEN: NO", then this z/OS image does not have an advanced-current offload data set open for offload processing. For this case, the *adv-current-dsn-seq#* value is displayed as "-NONE- ".

R/W CONN
Displayed after the jobname that connected to the log stream. Lists the number of read and/or write connections made to this log stream by this job.

RES MGR./CONNECTED
The name of the remote site recovery resource manager that is associated with the log stream and its connection status. If there is no resource manager defined, then the field will display ***NONE*** for the resource manager name and NO for whether or not it's connected.

IMPORT CONNECT
Displays if there is an import connect active for this log stream on this system.

Disconnect Pending Line:
When the log stream is being disconnected from the system, the 'DISCONNECT PENDING FOR *xxxx* MINUTES' line will be displayed if the log stream was in that state for over 2 minutes. The *status* text for the log stream could be one of the following: 'DISCONNECT PENDING', 'DS DIRECTORY FULL' or 'OFFLOAD IN PROGRESS'.

xxxx
Number of minutes the log stream has been in the disconnect Pending state.

Force Disconnect Line:
When a force disconnect command has been entered against the log stream, the line 'FORCE DISCONNECT IN PROGRESS' will be shown until the log stream is disconnected from the system. If the first force disconnect attempt does not proceed, and this display command shows this line, a second force disconnect should be issued. The second force disconnect attempt will cause current quiesce activity for existing connectors to cease, and the log stream disconnect from the system to continue.

nnnnnn
The number of log streams included in the view for the display output.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
CONNECTION INFORMATION BY LOGSTREAM FOR SYSTEM sysname
LOGSTREAM          STRUCTURE     #CONN          STATUS
logstreamname1     strname1          num_conn1     status1
  JOBNAME: mvs_jobname1   ASID: mvs_asid1
  JOBNAME: mvs_jobname2   ASID: mvs_asid2
  JOBNAME: mvs_jobname3   ASID: mvs_asid3
  JOBNAME: mvs_jobname4   ASID: mvs_asid4
logstreamname2     strname2          num_conn2     status2
  JOBNAME: mvs_jobname1   ASID: mvs_asid1
  JOBNAME: mvs_jobname2   ASID: mvs_asid2
logstreamname3     strname3          num_conn3     status3
  JOBNAME: mvs_jobname1   ASID: mvs_asid1

NUMBER OF LOGSTREAMS:  nnnnnn
```

The operator issued the DISPLAY LOGGER,CONN,LSN=*,JOB=*,SUMM command. The output will show all log streams that match filtering and all jobs that are connected to each log stream.

In the message text:

sysname
The system name.

mvs_jobname
The jobname.

mvs_asid
The ASID.

logstreamname
The log stream name.

strname
The CFRM structure name.

Note: For all displays, when a DASD only configured log stream is displayed, the STRUCTURE field of the display will contain the text ***DASDONLY***.

num_conn
The number of active connections from this system to this log stream by that job. The number of the connections field is 6 bytes in length.

status
The log stream status. Possible values can be:

AVAILABLE
The log stream is available for connects.

IN USE
The log stream is available and has a current connection.

CONNECT PENDING
The system logger needed to perform recovery operations asynchronous to the application's connect request and will remain in this state until recovery is done. The system logger will then complete the connect request on behalf of the application.

OFFLOAD IN PROGRESS
The system logger is in the process of offloading data from the coupling facility structure to DASD.

DISCONNECT PENDING
The system logger is completing the applications disconnect request asynchronously. When complete, the application is disconnected from the log stream.

STRUCTURE FULL
The coupling facility structure space allocated for this log stream is full.

LOSS OF DATA
There is a loss of data condition present in the log stream.

REBUILD IN PROGRESS
The coupling facility structure is temporarily unavailable and a rebuild of the structure is in progress.

DUPLEXING REBUILD
The coupling facility structure is temporarily unavailable because a duplexing rebuild of the structure is in progress.

DUPLEX TO SIMPLEX
The coupling facility structure has transitioned from duplex-mode to simplex-mode and system logger is processing the transition.

REBUILD FAILED
The coupling facility structure is unavailable and will remain so until a successful rebuild is completed.

LOST CONNECTIVITY
No connectivity exists to the coupling facility associated with the log stream. The system logger will either attempt to rebuild the log stream in another coupling facility or the log stream will be disconnected.

DS DIRECTORY FULL
The log stream's DASD data set directory is full. The system logger cannot offload any further data from the coupling facility structure to DASD.

DELETE IN PROGRESS
Deletion of the log stream is in progress.

nnnnnn
The number of log streams included in the view for the display output.

Note: When the log stream is being disconnected from the system, then the new line will be displayed if the log stream was in that state for over 2 minutes. The *status* text for the log stream could be one of the following: 'DISCONNECT PENDING', 'DS DIRECTORY FULL' or 'OFFLOAD IN PROGRESS'.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

CONNECTION INFORMATION FOR SYSPLEX *plexname*
LOGSTREAM STRUCTURE #CONN STATUS
logstreamname1 strname1 num_conn status
SYSNAME: *sysname1*
DUPLEXING: *duplexing-method*
GROUP: *groupname*
SYSNAME: *sysname2*
DUPLEXING: *duplexing-method*
GROUP: *groupname*
SYSNAME: *sysname3*
DUPLEXING: *duplexing-method*
GROUP: *groupname*
logstreamname2 strname1 num_conn status
SYSNAME: *sysname1*
DUPLEXING: *duplexing-method*
GROUP: *groupname*
SYSNAME: *sysname2*
DUPLEXING: *duplexing-methodv*

NUMBER OF LOGSTREAMS: *nnnnnn*

The operator issued the DISPLAY LOGGER,CONN,SYSPLEX command.

In the message text:

sysname
The system name.

plexname
The sysplex name.

logstreamname
The log stream name.

strname
The CFRM structure name.

num_conn
The number of active connections from this system to this log stream by that job.

status
The log stream status. Possible values are:

AVAILABLE
The log stream is available for connects.

IN USE
The log stream is available and has a current connection.

LOSS OF DATA
There is a loss of data present in the log stream.

DELETE IN PROGRESS
Deletion of the log stream is in progress.

duplexing-method
One of the following:

LOCAL BUFFERS
Indicates system logger is duplexing the log data in the data spaces associated with the IXGLOGR address space.

LOCAL BUFFERS, STAGING DRXRC
Indicates logger is duplexing the log data in the data spaces associated with the IXGLOGR address space, and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPLed with DRMODE=YES.

STAGING DATA SET
Indicates system logger is duplexing the log data in a staging data set associated with the system's connection to the log stream and structure.

STRUCTURE, LOCAL BUFFERS
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is duplexing the log data in data spaces associated with the IXGLOGR address space.

STRUCTURE, LOCAL BUFFERS, STAGING DRXRC
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and logger is duplexing the log data in data spaces associated with the IXGLOGR address space, and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPL'd with DRMODE=YES.

STRUCTURE, STAGING DATA SETS
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is duplexing the log data in a staging data set associated with the system's connection to the log stream and structure.

STRUCTURE, STAGING DRXRC
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPL'd with DRMODE=YES.

STRUCTURE
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is not explicitly duplexing the log data using its own means.

IN TRANSITION
Indicates system logger is transitioning because of a duplexing rebuild or because the structure has changed from duplex-mode to simplex-mode.

groupname
The name of the group that the log stream belongs to.

nnnnnn
The number of log streams included in the view for the display output.

Note: The filter LSNAME may be used to curtail the display to show only specific log streams. If the LSNAME filter is specified, only the log streams that match the filter will be displayed. The log streams that are displayed are defined and have one or more active connections.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
INVENTORY INFORMATION BY LOGSTREAM
LOGSTREAM          STRUCTURE     #CONN
STATUS
logstreamname1     strname1      num_conn
status
logstreamname2     strname1      num_conn
status
  SYSNAME: sysname1
    DUPLEXING: duplexing-method
  SYSNAME: sysname2
    DUPLEXING: duplexing-method
  SYSNAME: sysname3
    DUPLEXING: duplexing-method
  GROUP: groupname2
logstreamname3     strname1      num_conn
 status
  SYSNAME: sysname1
    DUPLEXING: duplexing-method
  GROUP: groupame3

NUMBER OF LOGSTREAMS:  nnnnnn
```

The operator issued the DISPLAY LOGGER,LOGSTREAM command.

In the message text:

sysname
The system name.

groupname
The name of the group that the log stream belongs to. Can be PRODUCTION or TEST. This line is shown when *num_conn* is greater than 0.

logstreamname
The log stream name.

strname
The CFRM structure name.

num_conn
Represents the total number of systems connected to this log stream by that job. If this field contains zero, then this is a defined log stream that has no active connection to it.

status
The log stream status. Possible values are:

AVAILABLE
The log stream is available for connects.

IN USE
The log stream is available and has a current connection.

LOSS OF DATA
There is a loss of data present in the log stream.

DELETE IN PROGRESS
Deletion of the log stream is in progress.

duplexing-method
One of the following:

LOCAL BUFFERS
Indicates system logger is duplexing the log data in the data spaces associated with the IXGLOGR address space.

LOCAL BUFFERS, STAGING DRXRC
Indicates logger is duplexing the log data in the data spaces associated with the IXGLOGR address space, and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPL'd with DRMODE=YES.

STAGING DATA SET
Indicates system logger is duplexing the log data in a staging data set associated with the system's connection to the log stream and structure.

STRUCTURE, LOCAL BUFFERS
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is duplexing the log data in data spaces associated with the IXGLOGR address space.

STRUCTURE, LOCAL BUFFERS, STAGING DRXRC
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and logger is duplexing the log data in data spaces associated with the IXGLOGR address space, and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPL'd with DRMODE=YES.

STRUCTURE, STAGING DATA SETS
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is duplexing the log data in a staging data set associated with the system's connection to the log stream and structure.

STRUCTURE, STAGING DRXRC
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and logger is also duplexing the log data in a staging data set but it is only used for log stream recovery when the recovery system was IPL'd with DRMODE=YES.

STRUCTURE
Indicates the log data is being duplexed in a second copy of the coupling facility structure (by XES), and system logger is not explicitly duplexing the log data using its own means.

IN TRANSITION
Indicates system logger is transitioning because of a duplexing rebuild or because the structure has changed from duplex-mode to simplex-mode.

nnnnnn
The number of log streams included in the view for the display output.

Note: The system name and duplexing information will only be displayed if the log stream has at least one active connection. For model log streams, the *num_conn* field will always contain 0 for the number of connections. Also, the STRUCTURE field may contain a name or can possibly be blanks. Therefore, for model log streams, the additional system name and staging data set information will not be seen since there can be no active connection on a model log stream. For a model log stream, the status field will contain the text ***MODEL***.
The filters LSNAME|LSN and/or STRNAME|STRN may be used to curtail the display to show only specific log streams or structures.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
INVENTORY INFORMATION BY STRUCTURE
STRUCTURE           GROUP              CONNECTED
---------           -----              ---------
LIST01              PRODUCTION
  ZOBES.STRLOG.STRM130                   YES
LIST02
  *NO LOGSTREAMS DEFINED*                N/A

NUMBER OF STRUCTURES:  000002
```

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**
INVENTORY INFORMATION BY STRUCTURE
STRUCTURE GROUP
CONNECTED
strname1 *groupname1*
logstreamname1 **yes/no**
logstreamname2 **yes/no**
logstreamname3 **yes/no**
strname2 *groupname2*
logstreamname1 **yes/no**
logstreamname2 **yes/no**
NUMBER OF STRUCTURES: *nnnnnn*

Explanation: The operator issued the DISPLAY LOGGER,STRUCTURE command. The CDS structure information is retrieved from the system logger inventory, and represents all log streams defined or all log streams defined to a specific structure if the STRNAME filter is used. An indication of whether the log stream has an active connection is also displayed.

If there are no log streams defined to a structure, then the text ***NO LOGSTREAMS DEFINED*** will be displayed

where a log stream name would be displayed and the text N/A will be displayed where the connection status would be displayed.

In the message text:

logstreamname
The log stream name.

strname
The CFRM structure name.

groupname
The group that the structure belongs to. Can be PRODUCTION or TEST. Set to blanks if the structure does not have any log streams defined to it.

yes/no
Indicates whether the log stream has an active connection or not.

nnnnnn
The number of logger structures included in the view for the display output.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
INVENTORY INFORMATION BY STRUCTURE

NUMBER OF STRUCTURES: nnnnnn
 FORMATTED LSTRR #:  nnnnfs
```

The operator issued the DISPLAY LOGGER,STRUCTURE,SUMM command. The couple data set structure information is retrieved from the system logger inventory. Because only the summary is requested, only the counts are displayed.

If there are no structures defined in the logger inventory, then the text ***NO LOGSTREAMS DEFINED*** is displayed.

Note: The DISPLAY XCF,Couple,TYPE=LOGR command can be used to reveal the full set of logger records that are formatted in the couple data set.
In the message text:

nnnnnn
The number of logger structures that are included in the view for the display output.

nnnnfs
The total number of logger structure records that are formatted in the primary LOGR couple data set (CDS). This value represents the LSTRR number that is used on the IXCL1DSU format utility.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG601I *hh.mm.ss* **LOGGER DISPLAY [***id***]**

Explanation:

```
INVENTORY INFORMATION BY LOGSTREAM

NUMBER OF LOGSTREAMS: nnnnnn
 FORMATTED LSR #: nnnnfl

 DSEXTENT RECORDS FORMATTED #: nnnnfd / INUSE #: nnnnud
```

The operator issued the DISPLAY LOGGER,LOGSTREAM,SUMM command or the DISPLAY LOGGER,LOGSTREAM,LSN=*,SUMM command. The information related to the couple data set log stream is retrieved from the system logger inventory. Because only the summary is requested, only the counts are displayed.

If there are no log streams defined in the logger inventory, then the text ***NO LOGSTREAMS DEFINED*** is displayed.

Note: The DISPLAY XCF,Couple,TYPE=LOGR command can be used to reveal the full set of logger records that are formatted in the couple data set.
In the message text:

nnnnnn
The number of log streams that are defined in the logger inventory.

nnnnfl
The total number of logger log stream records that are formatted in the primary LOGR couple data set (CDS). This value represents the LSR number that is used on the IXCL1DSU format utility.

nnnnfd
The total number of logger data set extent records that are requested for formatting in the primary LOGR couple data set (CDS). This value represents the DSEXTENT number that is used on the IXCL1DSU format utility.

nnnnud
The number of logger data set extent records that are assigned to log streams for offload data set management.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: #

Descriptor code: 5,8,9

IXG602I DISPLAY LOGGER COMMAND NOT PROCESSED, THE SYSTEM LOGGER IS NOT ACTIVE

Explanation: The display logger command was successfully processed. No information was displayed because the system logger address space was not available.

System action: The system continues processing. System logger output is not shown.

Operator response: None.

System programmer response: None.

User response: Activate system logger and reissue the display logger command.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: 2

Descriptor code: 4

IXG603I DISPLAY LOGGER FAILURE DUE TO INTERNAL ERROR DIAGNOSTIC INFORMATION: *diag1 diag2 diag3 diag4*

Explanation: An internal error has occurred while processing the display logger command.

In the message text:

diag1, *diag2*, *diag3*, *diag4*
is diagnostic information relating to the failure, used by IBM Support Center for problem determination.

System action: Processing continues.

Operator response: None.

System programmer response: None.

User response: Provide IBM with the diagnostic information provided.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: 2

Descriptor code: 4

IXG604I DISPLAY LOGGER COMMAND NOT PROCESSED, THE SYSTEM LOGGER COUPLE DATASET IS NOT AVAILABLE

Explanation: The display logger command was successfully processed. There was no information displayed because the couple data set was unavailable.

System action: Processing continues.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: 2

Descriptor code: 4

IXG605I DISPLAY LOGGER COMMAND NOT PROCESSED, *reason*

Explanation: This message is displayed when the display command was not processed. The possible reasons are also displayed. For the inventory internal error reason additional diagnostic information is provided in message IXG606I which will follow:

In the message text:

reason
One of the following:

THE COUPLE DATASET IS TEMPORARILY UNAVAILABLE
CDS unavailable.

A PREVIOUS DISPLAY LOGGER COMMAND IS OUTSTANDING
Previous display outstanding.

AN INVENTORY INTERNAL ERROR WAS ENCOUNTERED
Inventory internal error.

Note: Message IXG606I is issued along with message IXG605I to the hardcopy log when an internal error in an inventory service is encountered. IXG606I contains diagnostic information pertaining to the error.

System action: Processing continues.

Operator response: None.

System programmer response: None

User response: Correct the error and reissue the display command.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: 2

Descriptor code: 4

IXG606I DISPLAY LOGGER COMMAND FAILURE DUE TO INTERNAL ERROR FROM AN INVENTORY SERVICE, RETURN CODE: *retcode* **AND REASON CODE:** *rsncode*, **DIAGNOSTIC INFORMATION:***diag1 diag2 diag3 diag4*

Explanation: This message will only be displayed if the display command was invoked to display sysplex information. This variation on the display logger command was unsuccessful.

In the message text:

retcode
System logger internal return code.

rsncode
System logger internal reason code.

diag1–diag4
is diagnostic information relating to the failure, used by IBM Support Center for problem determination.

System action: Processing continues.

Operator response: None.

System programmer response: Search the IXGCON mapping macro for the return code and reason code, and take the action suggested. If the error cannot be corrected, contact the IBM Support Center.

User response: Retry the command. If the error persists, contact the system programmer.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: 2

Descriptor code: 4

IXG607I *hh:mm:ss* **LOGGER DISPLAY**
LOGGER PARAMETER OPTIONS
KEYWORD SOURCE VALUE
keyword *source* **[(xx)]** *value*

Explanation: This message is issued:

1. In response to a DISPLAY LOGGER,IXGCNF[,*options*] command.
2. During system logger (IXGLOGR) initialization processing at IPL or when logger (IXGLOGR address space is restarted.
3. During SET IXGCNF command processing.
4. During SETLOGR IXGCNF command processing.

In the message text:

keyword
The system logger keyword parameter. Each keyword will be displayed on its own message line. See SYS1.PARMLIB member IXGCNFxx for a description of the logger parameters.

source`[(xx)]`
The origin of the keyword parameter, which is one of the following:

DEFAULT
system logger default parameter value.

IPL (*xx***)**
parameter value used as a result of IXGCNF= specification in IEASYSxx or in response to "SPECIFY SYSTEM OPTIONS" during z/OS IPL.

SET (*xx***)**
parameter value used as a result of the SET IXGCNF= command.

SETLOGR
parameter value used as a result of the SETLOGER command.

Where *xx* represents the suffix of a IXGCNFxx parmlib member, when displayed.

value
The value for the keyword parameter. If the value is too long for the single line, then the value will be truncated on the first line followed by the text ' +', and then the remainder of the value will be continued on the second line.

When keyword is CTRACE, the *value* is the last specified CTiLOGnn *parmlib_member_name* from the IXGCNFxx parmlib member or SETLOGR CTRACE command. The CTRACE *parmlib_member_name* might not represent the current in use logger CTRACE options if an error occurred during logger's processing of the specified *parmlib_member_name*. To view the current logger CTRACE options, issue a D TRACE,COMP=SYSLOGR command.

System action: System logger reveals the parameter information and then continues.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGP1DSP

Routing code: 2, #

Descriptor code: 5,8,9

IXG651I SETLOGR *operation action* **COMMAND ACCEPTED FOR** *resourcetype*=*resourcename*

Explanation: The SETLOGR command was accepted.

In the message text:

operation
The type of SETLOGR operation.

One of the following:

FORCE
Force action against logger resources.

MANAGE
Update logger resource management variables.

MONITOR
Update logger monitor variables.

ZAI
Update logger ZAI variables.

CTRACE
Update logger Ctrace parmlib.

action
The type of SETLOGR action.

One of the following:

DISCONNECT
action to remove (disconnect) all the connections to the named log stream from the system.

DELETE
action to delete the log stream from the LOGR CDS.

DEALLOCCURDS
action to close and unallocate any current or advanced-current offload data sets that are allocated on the system.

NORECALL
action to cause Logger to stop waiting on an outstanding asynchronous recall for the data set.

ZAIQUIESCE
action to cause logger to quiesce one or all ZAI server connections.

ZAICONNECT
action to cause logger to attempt to connect to the ZAI server.

resourcetype
One of the following:

LOGSTREAM=
Indicates that a log stream resource is the target of the command.

DSNAME=
This indicates that a log stream data set resource is the target of the command.

ALL LOGSTREAMS
indicates all log streams are the target of the command.

LOGGER SYSTEM CONFIGURATION CHANGE
indicates the systems configuration parameters are the target of the command.

resourcename
When *resourcetype* is LOGSTREAM, it identifies the name of the target log stream name.

When *resourcetype* is DSNAME, it identifies the name of the target log stream data set name.

Blank when *resourcetype* is ALL LOGSTREAMS or LOGGER SYSTEM CONFIGURATION CHANGE.

System action: The command has been sent to system logger and it will be processed.

Operator response: Check the log for messages IXG661I, IXG662I or related messages to determine the success or failure of the force operation. You can also issue a display command to check the status:

For a DELETE operation, issue DISPLAY LOGGER,L to check if the force delete completed.

For a DISCONNECT operation, issue DISPLAY,LOGGER,C to check if the force disconnect completed.

For a DEALLOCCURDS operation, issue DISPLAY,LOGGER,C,LSN=*lsname*,DETAIL to check if the force deallocate completed.

For a NORECALL operation, issue DISPLAY,LOGGER,STATUS,RECALLS to check if the force completed.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGSETLG

Routing code: 2

Descriptor code: 5

IXG652I **SETLOGR** *operation action* **COMMAND NOT PROCESSED, FOR** *resourcetype*=*resourcename* **DUE TO:** *reason*

Explanation: The SETLOGR command was not successfully processed. The action failed due to the given reason.

In the message text:

operation
The type of SETLOGR operation:

One of the following:

FORCE
Force action against logger resources.

MANAGE
Update logger resource management variables.

MONITOR
Update logger monitor variables.

ZAI
Update the logger ZAI variables.

CTRACE
Update logger Ctrace parmlib.

action
The type of SETLOGR action.

One of the following:

DISCONNECT
action to remove (disconnect) all the connections to the named log stream from the system.

DELETE
action to delete the log stream from the LOGR CDS.

DEALLOCCURDS
action to close and unallocate any current or advanced-current offload data sets that are allocated on the system.

NORECALL
action to cause Logger to stop waiting on an outstanding asynchronous recall request for the data set.

ZAIQUIESCE
action to cause logger to quiesce one or all IBM zAware server connections.

ZAICONNECT
action to cause logger to attempt to connect to the IBM zAware server.

resourcetype
One of the following:

LOGSTREAM=
Indicates that a log stream resource is the target of the command.

DSNAME=
This indicates that a log stream data set resource is the target of the command.

ALL LOGSTREAMS
indicates all log streams are the target of the command.

LOGGER SYSTEM CONFIGURATION CHANGE
indicates the systems configuration parameters are the target of the command.

resourcename
When *resourcetype* is LOGSTREAM, it identifies the name of the target log steam name.

When *resourcetype* is DSNAME, it identifies the name of the target log stream data set name.

Blank when *resourctype* is ALL LOGSTREAMS or LOGGER SYSTEM CONFIGURATION CHANGE.

reason
One of the following:

THE SPECIFIED LOGSTREAM IS NOT CONNECTED ON THIS SYSTEM
The log stream resource specified by the Isn= parameter is not connected to the system.

THE SPECIFIED DATA SET IS NOT BEING RECALLED ON THIS SYSTEM
The log stream data set name specified by the DSNAME= parameter is not currently in the asynchronous recall list on this system.

THE REQUEST FAILED FOR AN UNEXPECTED REASON
System logger returned an unexpected error code.

LOGR COUPLE DATA SET NOT AVAILABLE
System logger indicated there is no LOGR Couple data set currently in use.

THE SYSTEM LOGGER IS NOT AVAILABLE
System logger address space is not yet available for function requests on this system.

LOGGER PARAMETER PROCESSING IS NOT AVAILABLE
Logger is not accepting SETLOGR requests altering logger system parameters due to a Logger or system error, see message IXG733I.

System action: Processing of the SETLOGR FORCE command stops before it is completed.

Operator response: If the command failed because the log stream is not connected on the target system then a force disconnect is not necessary. If the request failed for an unexpected reason, system logger component encountered an error, contact the System Programmer. If there is no LOGR Couple data set currently in use, contact the System Programmer. If the system logger is not active, ask the System Programmer to activate system logger and reissue the desired commands.

System programmer response: Verify that all of the following are true:

- System logger is active
- The log stream exists and is connected
- A LOGR Couple data set is currently in use.

Search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM Support Center. Supply the diagnostic data presented in IXG653I, which you will find in the system log.

User response: None.

Programmer response: None.

IXG653I

Source: System logger (SCLOG)

Module: IXGSETLG

Routing code: 2

Descriptor code: 5

| **IXG653I** **SETLOGR** *operation* **COMMAND NOT PROCESSED FOR** *resourcetype*=*resourcename*
RETCODE=*retcode*, **RSNCODE=***rsncode* **DIAGNOSTIC INFORMATION:** *diag1 diag2 diag3 diag4*

| **Explanation:** IXG653I adds to the diagnostic information presented by message IXG652I.

In the message text:

operation
One of the following:

FORCE
Force action against logger resources.

| **MANAGE**
| Update logger resource management variables.

MONITOR
Update logger monitor variables.

ZAI
Update logger ZAI variables.

CTRACE
Update logger Ctrace parmlib.

resourcetype
One of the following:

LOGSTREAM=
Indicates that a log stream resource is the target of the command.

DSNAME=
Indicates that a log data set resource is the target of the command.

ALL LOGSTREAMS
Indicates all log streams are the target of the command.

LOGGER SYSTEM CONFIGURATION CHANGE
Indicates the systems configuration parameters are the target of the command.

resourcename
When *resourcetype* is LOGSTREAM, it identifies the name of the target log stream name.

When *resourcetype* is DSNAME, it identifies the name of the target log stream data set name.

Blank when *resourcetype* is ALL LOGSTREAMS or LOGGER SYSTEM CONFIGURATION CHANGE.

retcode
Return code from internal system logger processing, used by the IBM Support Center for problem determination.

rsncode
Reason code from internal system logger processing, used by the IBM Support Center for problem determination.

diag1 diag 2 diag3 diag4
These four diagnostic fields (diag1–diag4) are diagnostic information relating to the failure. They may be used by IBM Support Center for problem determination.

| **System action:** Processing of the SETLOGR command stops before it is completed.

Operator response: Contact the system programmer.

System programmer response: See response for IXG652I.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGSETLG

Routing code: 10

Descriptor code: 12,5

IXG661I SETLOGR FORCE *action* **PROCESSED SUCCESSFULLY FOR** *resourcetype=resourcename*

Explanation: The SETLOGR FORCE command processing completed successfully.

In the message text:

action
One of the following types of operations for SETLOGR FORCE:
- DISCONNECT
- DELETE
- DEALLOCCURDS
- NORECALL

resourcetype
One of the following:

LOGSTREAM
This indicates that a log stream resource is the target of the command.

DSNAME
This indicates that a log stream data set resource is the target of the command.

resourcename
When *resourcetype* is LOGSTREAM, it identifies the name of the target log stream name.

When *resourcetype* is DSNAME, it identifies the name of the target log stream data set name.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 2

Descriptor code: 4

IXG662I SETLOGR FORCE *action* **FAILED**
FOR *resourcetype=resourcename***DUE TO:** *text***DIAG1=***retcode***, DIAG2=***rsncode*

Explanation: The SETLOGR FORCE command failed during processing.

In the message text:

action
One of the following types of operations for SETLOGR FORCE
- DISCONNECT
- DELETE
- DEALLOCCURDS

- NORECALL

resourcetype
One of the following:

LOGSTREAM
This indicates that a log stream resource is the target of the command.

DSNAME
This indicates that a log stream data set resource is the target of the command.

resourcename
When *resourcetype* is LOGSTREAM, it identifies the name of the target log stream name. When *resourcestype* is DSNAME, it identifies the name of the target log stream data set name.

retcode
Diagnostic return code from the SETLOGR request.

rsncode
Diagnostic reason code from the SETLOGR request.

text
One of the following:

THE SPECIFIED LOGSTREAM IS NOT DEFINED
The log stream resource specified by the Lsname= parameter does not exist.

THE LOGSTREAM HAS ACTIVE CONNECTIONS
System logger is unable to delete the log stream because it has active connections.

THE REQUEST FAILED FOR AN UNEXPECTED REASON
The request failed for an unexpected reason, with the given return and reason codes.

System action: The system continues processing.

Operator response: Consult the reason text: if the log stream is not defined the force operation is unnecessary, issue a D LOGGER,L,LSN=*logstream_name* to confirm that the log stream is no longer defined to the LOGR CDS. If a delete operation is specified and the log stream has active connections, disconnect from the log stream and retry the delete operation.

If the information in the message contains DIAG1=00000008,DIAG2=000008B0, then system logger is unable to connect to the structure as part of the log stream delete operation because a structure rebuild is in progress. There are two courses of action to continue with the log stream delete request for this case:

1. Wait for the structure rebuild activity to complete. Look for XES (IXL- and IXC-) and system logger (IXG-) messages indicating the structure rebuild is done or at least stopped.
2. If the log stream has a zero connect count, meaning an IXG601I message in response to a D Logger,L command shows #CONN and STATUS as '000000 AVAILABLE', you can update the log stream to name a new structure. For a description of the IXCMIAPU utility see Administrative Data Utility of *z/OS MVS Setting Up a Sysplex*. In this case, the new structure name for the log stream can be a dummy structure, meaning it does not have to be an existing structure or even have to be defined in the CFRM policy. After the log stream is mapped to the new structure, then issue the SETLOGR FORCE,DEL command to delete the log stream.

If the failure is due to an unexpected reason, contact the system programmer.

System programmer response: If the failure is due to an unexpected reason, issue either a DISPLAY,LOGGER,C,LSN=*lsname*,DETAIL or D LOGGER,L command to check the log stream status, and consult the diag fields. The diag fields might correspond to existing return and reason codes in IXGCON. Search problem reporting databases for a fix for the problem. If no fix exists, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 2

Descriptor code: 4

IXG663I STRUCTURE LIST CLEANUP ERROR ENCOUNTERED FOR STRUCTURE=*structname*, CONTINUING FORCE DELETE OF LOGSTREAM=*logstream*

Explanation: Clean up of list entries in the structure for the log stream failed during a force deletion operation. Structure lists will be left as is, and may be cleaned up during the first connection of a new log stream to the structure.

In the message text:

structname
The name of the structure.

logstream
The name of the log stream.

System action: The force delete operation continues processing.

Operator response: None.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGC4DIS

Routing code: 10

Descriptor code: 12

IXG701I NO TRACING IN EFFECT FOR SYSTEM LOGGER - SYSLOGR COMPONENT TRACE DEFINE FAILED. DIAG1: *diag1* **DIAG2:** *diag2*

Explanation: System logger tried to initialize component tracing for SYSLOGR but failed to define tracing to MVS component trace. system logger is running without component tracing active.

In the message text:

diag1, *diag2*
Return code and reason code from a CTRACE DEFINE request, used by IBM Support Center for problem determination.

System action: System logger initialization continues without component tracing for SYSLOGR. The system issues other messages explaining the problem.

Operator response: See the operator response for the component trace messages (prefix ITT) accompanying this message.

System programmer response: See the system programmer response for component trace messages (prefix ITT) accompanying this message.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGV1CTI

Routing code: 1,2

Descriptor code: 12

IXG702I NO TRACING IN EFFECT FOR SYSTEM LOGGER - SYSLOGR COMPONENT TRACE RESOURCE INITIALIZATION FAILED. DIAG: *diag1*

Explanation: System logger tried to initialize component tracing for SYSLOGR, but failed to obtain the required storage needed to store the component trace data. System logger is running without component tracing active.

In the message text:

diag1
Return code received from the STORAGE macro when system logger Initialization attempted to obtain storage for use by SYSLOGR component tracing.

System action: System logger initialization continues without component tracing for SYSLOGR.

Operator response: Notify system programmer.

System programmer response: See *z/OS MVS Programming: Authorized Assembler Services Reference SET-WTO* for the action to take when return code *diag1* is issued by the STORAGE OBTAIN macro.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 1,2

Descriptor code: 12

IXG703I THE NUMBER OF LOGSTREAMS SPECIFIED EXCEEDS THE MAXIMUM.

Explanation: While processing the TRACE CT command, the system found more than eight log stream names specified on the STRMNAME component trace option for SYSLOGR. Only eight log stream names can be specified on the STRMNAME option.

System action: The system rejects the TRACE CT command.

Operator response: None.

System programmer response: Enter the TRACE CT command again with eight or less log stream names specified on the STRMNAME option.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGV1SSE

Routing code: 1,2

Descriptor code: 12

IXG704I SYNTAX ERROR IN THE STRMNAME OPTION. *name* **IS NOT A VALID LOGSTREAM NAME VALUE. RE-ENTER THE COMMAND WITH A VALID STRMNAME OPTION.**

Explanation: While processing the TRACE CT command, a syntax error was found in a log stream name specified on the STRMNAME component trace option for SYSLOGR. *name* contains a syntax error.

In the message text:

name
is the log stream name in the STRMNAME options that contains a syntax error.

System action: The system rejects the TRACE CT command.

Operator response: None.

System programmer response: Enter the TRACE CT command again with valid log stream names in the STRMNAME option.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGV1SSE

Routing code: 1,2

Descriptor code: 12

IXG705I A LOGSTREAM NAME SPECIFIED IN THE STRMNAME OPTION IS NOT VALID.

Explanation: A string found after STRMNAME= and before the closing right parenthesis is not a valid log stream name. It either contains more than 26 characters or contains unacceptable characters.

System action: The system rejects the TRACE CT command.

Operator response: None.

System programmer response: Verify that all log stream names that are specified in the STRMNAME option are less than 26 characters in length and do not contain invalid characters. Enter the TRACE CT command again with valid log stream names.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGV1SSE

Routing code: 1,2

Descriptor code: 12

IXG706I *traceoptn* **IS NOT A VALID TRACE OPTION FOR SYSLOGR. ALLOWABLE OPTIONS ARE ALL, CONNECT, LOGSTRM, INVENTRY, MISC, DATASET, STORAGE, LOCBUFF, SERIAL, RECOVERY AND STRMNAME.**

Explanation: The string *traceoptn* was received as part of the trace options. This string does not represent a valid SYSLOGR trace option.

In the message text:

traceoptn
is the value of the incorrect trace option specified.

System action: The system rejects the TRACE CT command.

Operator response: None.

System programmer response: Issue the TRACE CT command again and supply valid SYSLOGR trace options.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGV1SSE

Routing code: 1,2

Descriptor code: 12

IXG707I THE NUMBER OF ASIDS SPECIFIED EXCEEDS THE MAXIMUM.

Explanation: While processing the TRACE CT command, the system found more than eight ASIDs specified on the component trace options for SYSLOGR. Only eight ASIDs can be specified for SYSLOGR.

System action: The system rejects the TRACE CT command.

Operator response: None.

System programmer response: Enter the TRACE CT command again with eight or less ASIDs specified for SYSLOGR tracing.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGV1SSE

Routing code: 1,2

Descriptor code: 12

IXG708I SYSLOGR COMPONENT TRACE IS UNAVAILABLE. REASON: *text*

Explanation: System logger component tracing is unavailable due to internal errors that have occurred in the system logger address space.

In the message text:

SYSTEM LOGGER ADDRESS SPACE NOT AVAILABLE
The system logger address space is currently unavailable.

The system programmer should determine why the system logger address space is not available and insure that it is available before attempting to start, modify or stop SYSLOGR component tracing.

SYSLOGR COMPONENT TRACE RESOURCES NOT AVAILABLE
The SYSLOGR internal trace buffers are not available at this time.

Try issuing the TRACE CT command again if this reason is the cause of the unavailability..

System action: The TRACE CT command is not processed by SYSLOGR component trace.

Operator response: Report this message to the system programmer.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGV1SSE

Routing code: 1,2

Descriptor code: 12

IXG709I SYSLOGR COMPONENT TRACE IS UNAVAILABLE. A FAILURE OCCURRED DURING OPTIONS PROCESSING. DIAG: *diaginfo*

Explanation: System logger component tracing is unavailable due to internal errors that have occurred during the processing of the TRACE CT operator command.

In the message text:

diaginfo
is diagnostic information returned when an unexpected error occurs during trace options processing. Save this value and provide it to the IBM support center.

System action: The TRACE CT command is not processed by SYSLOGR component trace.

Operator response: Report this message to the system programmer.

System programmer response: Correct any syntax errors on the TRACE CT command or in the parmlib member referenced in the command and re-issue the command. If the problem persists, search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center. Provide the *diaginfo* value returned in the message text to the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGV1SSE

Routing code: 1,2

Descriptor code: 12

IXG710I NO TRACING IN EFFECT FOR SYSTEM LOGGER - UNEXPECTED ERROR IN SYSLOGR COMPONENT TRACE.

Explanation: System logger tried to initialize or perform component tracing for SYSLOGR but failed with an unexpected error. system logger is running without component tracing active.

System action: System logger continues without component tracing for SYSLOGR.

Operator response: Report this message to the system programmer.

System programmer response: Search problem reporting data bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: MANY

Routing code: 1,2

Descriptor code: 12

IXG711I LIMITED TRACING IN EFFECT FOR SYSTEM LOGGER - SYSLOGR COMPONENT TRACE DATA SPACE INITIALIZATION FAILED. DIAG1: *diag1* **DIAG2:** *diag2*

Explanation: System logger tried to initialize component tracing SYSLOGR, but either failed to obtain the data space needed to store component trace data, or was unable to add the data space to system logger access list. System logger is running without a component trace data space available.

diag1
Return code received from the DSPSERV macro or the ALESERV macro when system logger attempted to create a data space for use by SYSLOGR component tracing and add it to the system logger access list.

diag2
If DIAG2 is X'04X' then DIAG1 is the return code from DSPSERV. If DIAG2 is X'08X' then DIAG1 is the return code from ALESERV.

System action: System logger initialization continues with limited component tracing for SYSLOGR.

Operator response: Notify the system programmer.

System programmer response: See *z/OS MVS Programming: Authorized Assembler Services Reference ALE-DYN* for the action to take when return code *diag1* is issued by the DSPSERV CREATE or the ALESERV ADD macros.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 1,2

Descriptor code: 12

IXG721I SET IXGCNF COMMAND ACCEPTED

Explanation: The SET IXGCNF command was accepted.

In the message text:

System action: The command has been sent to system logger and it will be processed.

Operator response: Check the log for messages IXG731I, IXG735I, or related messages to determine the success or failure of the set operation.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGSETCF

Descriptor code: 5

IXG722I SET IXGCNF COMMAND FAILED DUE TO: *reason*

Explanation: The SET IXGCNF command was not successfully processed. The action failed due to the given reason.

In the message text:

reason
One of the following:

THE REQUEST FAILED FOR AN UNEXPECTED REASON
System logger returned an unexpected error code.

THE SYSTEM LOGGER IS NOT AVAILABLE
System logger Address Space is not yet available for function requests on this system.

LOGGER PARAMETER PROCESSING IS NOT AVAILABLE
Logger is not accepting SET IXGCNF requests due to a Logger or system error, see message IXG733I.

System action: Processing of the SET IXGCNF command stops before it is completed.

Operator response: If the request failed for an unexpected reason, then system logger component encountered an error, contact the System programmer. If system logger is not active, ask the System programmer to activate system logger and reissue desired commands.

System programmer response: Verify that system logger is active. If the problem persists contact IBM Support.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGSETCF

Descriptor code: 5

IXG731I LOGGER PARAMETER PROCESSING COMPLETED SUCCESSFULLY FOR *request*

Explanation: Logger parameter processing completes successfully.

In the message text:

request
One of the following:

SET IXGCNF REQUEST
A SET IXGCNF= system command request.

SETLOGR REQUEST
A SETLOGR system command request.

A SETLOGR system command request.
Logger startup is processing parmlib members specified at IPL.

System action: The parameter updates have been processed successfully by system logger and logger processing continues. Logger issues a DISPLAY LOGGER,IXGCNF and the whole parameter set is displayed in message IXG601I.

Operator response: Check the log for messages IEE536I, to show which parmlibs were processed, or message IXG601I for which parameters are in effect.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGE3CNF

Routing code: 2

Descriptor code: 4,5

IXG732I ERROR IN *type memname* **KEYWORD:** *errorkey type2 linenum type3 col* **REASON:** *reason*

Explanation: Logger parameter processing failed due to an error interpreting keyword at position for the reason.

In the message text:

type
One of the following:
- PARMLIB MEMBER
- SETLOGR REQUEST

memname
parmlib member in error or blank for setlogr request.

errorkey
keyword in error.

type2
One of the following:
- LINE
- POS

linenum
line/position of error.

type3
One of the following:
- COL

col
column of error.

reason
One of the following:
- UNEXPECTED CHARACTERS
- TOO SHORT
- TOO LONG
- UNRECOGNIZED KEYWORD

- OUT OF RANGE
- OTHER UNEXPECTED ERROR

System action: Logger parameter processing fails and no parameters have been updated. Logger will process remaining parameters for syntax.

Operator response: Correct the noted parameters and re-enter the desired parameters by SET IXGCNF command or SETLOGR command.

System programmer response: None.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGE3CNF

Routing code: 2

Descriptor code: 4,5

IXG733I LOGGER PARAMETER PROCESSING UNAVAILABLE

Explanation: Logger parameter processing is unavailable for the life of IXGLOGR.

System action: Parameters specified during IPL for IXGCNF are not in effect, SET IXGCNF and related SETLOGR commands are not accepted. Logger operations continue with defaults.

Operator response: Notify the system programmer.

System programmer response: The system will continue with default parameters. If this is not acceptable, restart logger-- FORCE IXGLOGR,ARM then S IXGLOGRS, to clear the situation, or contact IBM Support.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGBLF01

Routing code: 2,10

Descriptor code: 4

IXG735I LOGGER PARAMETER PROCESSING FAILED FOR *request* **REASON:** *reason*

Explanation: Logger parameter processing failed.

In the message text:

request
One of the following:
- SET IXGCNF REQUEST
- SETLOGR REQUEST
- STARTUP IXGCNF PROCESSING

reason
One of the following:
- IXGCNF MEMBER ERROR
- SETLOGR COMMAND ERROR
- PARMLIB ALLOCATION FAILURE
- PARMLIB SERVICE LOAD ERROR
- ZAI SERVER CONNECTED
- LOGRCDS ALLOWACCESS(NO) CHANGE NOT SUPPORTED

- THE REQUEST FAILED FOR AN UNEXPECTED REASON

System action: No logger parameters are changed, system logger processing continues

Operator response: Notify the system programmer.

System programmer response: For IXGCNF MEMBER ERROR, correct errors noted by IXG732I messages and submit a SET IXGCNF command. For SETLOGR COMMAND ERROR, correct errors noted by IXG732I messages and re-submit the SETLOGR command. For ZAI SERVER CONNECTED, remove the SERVER or PORT options from your request or quiesce the z/OS IBM zAware connections and re-submit the request by a SET IXGCNF or SETLOGR request.

For LOGRCDS ALLOWACCESS(NO) CHANGE NOT SUPPORTED, remove the ALOWAACCESS(NO) option from your request.

For PARMLIB ALLOCATION FAILURE, determine why SYS1.PARMLIB can not be allocated or contact IBM Support. For other reasons, contact IBM Support.

User response: None.

Programmer response: None.

Source: System logger (SCLOG)

Module: IXGE3CNF

Routing code: 2

Descriptor code: 4,5

IXGH messages

IXGH001I System logger is not active. Start system logger (S IXGLOGRS) in order to run this check. When system logger is active, the check is run again.

Explanation: System logger is not active on this system. This check cannot be run.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: System logger must be activated to run the checks.

Problem determination: n/a

Source: System logger (SCLOG)

Module: IXGHC1CK

Descriptor code: 3

Reference Documentation: *z/OS MVS Setting Up a Sysplex*

IXGH002I The control blocks required to run this check were not located.

Explanation: One or more control blocks required to run this check cannot be located. This check cannot be run.

System action: The check is not run at this time; the system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Schedule a time to recycle the system logger address space, so system logger can obtain the required control blocks.

Problem determination: Most likely system logger failed to obtain storage for the required control blocks. System logger might have issued IXG077I the last time it initialized. Review syslog and logrec for any system logger errors the last time system logger initialized. Search for storage obtain failure records.

Source: System logger (SCLOG)

Module: IXGHC1CK

Descriptor code: 3

Automation: n/a

Reference Documentation:

- *z/OS MVS Diagnosis: Reference*
- *IBM Health Checker for z/OS User's Guide*

IXGH003I Incorrect parameter syntax. Valid parameters are 'ALL' and 'TIME(mm/dd/yyyy hh:mm:ss)'. For the 'TIME(mm/dd/yyyy hh:mm:ss)' parameter, the date must be valid, after 01/01/2000 00:00:00, and not in the future.

Explanation: An error was detected on the PARM input for the IXGLOGR_STRUCTUREFULL, IXGLOGR_STAGINGDSFULL, or IXGLOGR_ENTRYTHRESHOLD checks. The check cannot be run.

System action: The check is stopped, the system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Use the MODIFY hzsproc command to correct the error.

The command is F hzsproc,UPDATE,CHECK(IBMIXGLOGR,IXGLOGR_checkname), PARM(valid parm value) where valid parm value is one of 'ALL' or 'TIME(mm/dd/yyyy hh:mm:ss)'.

Note: If you specify 'TIME(mm/dd/yyyy hh:mm:ss)' for the parameter, the value given must be in the requested format, and must be a valid date, after 01/01/2000 00:00:00, and not in the future.
See the reference documentation for more information about the parameters.

Problem determination: Specify a valid parameter input. You can specify 'ALL' to return to default behavior.

Source: System logger (SCLOG)

Module: IXGHC1CK

Routing code: -

Descriptor code: 3

Automation: n/a

Reference Documentation: *IBM Health Checker for z/OS User's Guide*.

IXGH004I This system has not encountered any log stream structure element full conditions since *start date* **(GMT).**

Explanation: No log stream on this system has utilized 100% of the elements allotted to it by system logger since the noted date.

In the message text:

start date
The time the check begins reporting conditions on in mm/dd/yyyy hh:mm:ss format. This value varies based on the input parameters: for ALL, it defaults to the time logger started; for TIME(value), it represents the requested value.

System action: The system continues processing.

Operator response: n/a

System programmer response: n/a

Problem determination: Ensure that SMF recording is active on this system.

Source: System logger (SCLOG)

Module: IXGHC1CK

Routing code: n/a

Descriptor code: n/a

Automation: n/a

Reference Documentation:

- *z/OS MVS System Management Facilities (SMF)*
- *z/OS MVS Diagnosis: Reference*
- *IBM Health Checker for z/OS User's Guide*

IXGH005I This system has not encountered any log stream staging data set full conditions since *start date* **(GMT).**

Explanation: This system has not encountered any log stream staging data set full conditions since the noted date.

In the message text:

start date
The time the check begins reporting conditions on in mm/dd/yyyy hh:mm:ss format. This value varies based on the input parameters: for ALL, it defaults to the time logger started; for TIME(value), it represents the requested value.

System action: The system continues processing.

Operator response: n/a

System programmer response: n/a

Problem determination: Ensure that SMF recording is active on this system.

Source: System logger (SCLOG)

Module: IXGHC1CK

Routing code: n/a

Descriptor code: n/a

Automation: n/a

Reference Documentation:

- *z/OS MVS Setting Up a Sysplex*
- *z/OS MVS System Management Facilities (SMF)*
- *IBM Health Checker for z/OS User's Guide*

IXGH006I This system has not encountered any structure entry threshold conditions since *start date* **(GMT).**

Explanation: This system has not encountered any structure entry threshold conditions since the noted date. System logger defines the entry threshold to be 90% of the entries for any system logger structure.

In the message text:

start date
The time the check begins reporting conditions on in mm/dd/yyyy hh:mm:ss format. This value varies based on the input parameters: for ALL, it defaults to the time logger started; for TIME(value), it represents the requested value.

System action: The system continues processing.

Operator response: n/a

System programmer response: n/a

Problem determination: Ensure that SMF recording is active on this system.

Source: System logger (SCLOG)

Module: IXGHC1CK

Routing code: n/a

Descriptor code: n/a

Automation: n/a

Reference Documentation:

- *z/OS MVS Setting Up a Sysplex*
- *z/OS MVS System Management Facilities (SMF)*
- *IBM Health Checker for z/OS User's Guide*

IXGH007E One or more log streams encountered a structure element full condition since *start date* **(GMT).**

Log Stream	Structure	Count	Time of Last Condition
report line			

Explanation: One or more log streams defined to a structure have encountered a structure element full condition. This means that the log stream used all of the elements in its portion of the structure. Additional log streams writes to the structure fail until the full condition is relieved. Applications using the affected log streams might experience a slow down or possibly an outage if the condition is not resolved timely.

In the message text:

start date
The time the check begins reporting conditions on in mm/dd/yyyy hh:mm:ss format. This value varies based on the input parameters: for ALL, it defaults to the time logger started; for TIME(value), it represents the requested value.

For each affected log stream, the report details are:

- The log stream
- The structure the log stream resides in
- The count of the number of structure element full conditions encountered for this log stream on this system
- The timestamp of the last structure full encounter per log stream.

The report keeps track of the most recent 16 structure full conditions that occurred. A log stream is reported only once in the list for structure full conditions, but might also have staging-data-set-full or entry-threshold conditions.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Consider taking one or more of the following actions:

- Resolve any log stream offload constraints.
- Use the CFSizer to determine an appropriate size for the structure. Update the CFRM policy accordingly.
- Decrease the HIGHOFFLOAD for one or more of the affected log streams.
- Increase the LOWOFFLOAD for one or more of the affected log streams.
- Move some log streams to a new structure if there are multiple log streams in the structure.
- Ensure that log streams in the structure have a similar entry to element ratio. If they do not, consider moving the log stream with a different entry to element ratio to another structure.

After correcting a log stream condition, consider using the MODIFY command to update the 'TIME(mm/dd/yyyy hh:mm:ss)' parameter to a time after this condition occurred so it is no longer displayed as an exception. See the *IBM Health Checker for z/OS User's Guide* for instructions on updating the parameters of the check.

Problem determination: n/a

Source: System logger (SCLOG)

Module: IXGHC1CK

Routing code: -

Descriptor code: 12

Automation: n/a

Reference Documentation:

- *z/OS MVS Setting Up a Sysplex*
- *z/OS MVS System Management Facilities (SMF)*
- *z/OS MVS Initialization and Tuning Reference*
- *z/OS MVS Programming: Assembler Services Reference IAR-XCT*
- *z/OS MVS System Commands*
- *IBM Health Checker for z/OS User's Guide*

IXGH008E **One or more log streams encountered a staging data set full condition since** *start date* **(GMT).**

```
                                                Time of Last
Log Stream              Structure      Count  Condition
report line
```

Explanation: One or more log stream using a staging data set to duplex data encountered a staging data set full condition. New write operations to the log stream fail when the staging data set is full. Applications using the log streams might experience a slow down or an outage if the condition is not resolved timely.

In the message text:

start date
The time the check begins reporting conditions on in mm/dd/yyyy hh:mm:ss format. This value varies based on the input parameters: for ALL, it defaults to the time logger started; for TIME(value), it represents the requested value.

For each affected log stream, the report details are:
- The log stream
- The structure the log stream resides in
- The count of the number of staging data set full conditions encountered for this log stream on this system
- The timestamp of the last staging data set full condition for the log stream.

The report keeps track of the most recent 16 staging data set full conditions that occurred. A log stream is reported only once in the list for staging data set full conditions, but might also have structure full or entry threshold conditions.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Consider taking one or more of the following actions:
- Resolve any log stream offload constraints.
- Increase the size of the staging data set.
- Decrease the HIGHOFFLOAD for one or more of the affected log streams.
- Increase the LOWOFFLOAD for one or more of the affected log streams.
- Use the CFSizer to obtain an appropriate size for the structure if the log stream is structure-based.

After correcting a log stream condition, consider using the MODIFY command to update the 'TIME(mm/dd/yyyy hh:mm:ss)' parameter to a time after this condition occurred so it is no longer displayed as an exception. See the *IBM Health Checker for z/OS User's Guide* for instructions on updating the parameters of the check.

Problem determination: n/a

Source: System logger (SCLOG)

Module: IXGHC1CK

Routing code: -

Descriptor code: 12

Automation: n/a

Reference Documentation:
- *z/OS MVS Setting Up a Sysplex*

- *z/OS MVS System Management Facilities (SMF)*
- *z/OS MVS Initialization and Tuning Reference*
- *z/OS MVS Programming: Assembler Services Reference IAR-XCT*
- *z/OS MVS System Commands*
- *z/OS MVS Planning: Operations*
- *IBM Health Checker for z/OS User's Guide*

IXGH009E One or more log streams encountered a structure entry threshold condition since *start date* **(GMT).**

Log Stream	Structure	Count	Time of Last Condition
report line			

Explanation: One or more log streams defined to a structure has encountered a structure entry threshold condition. This means that the structure had 90% of the entries in use at one time. When the entries reach 100%, write operations to all of the log streams in the structure fail until the full condition is resolved. Applications using the affected log streams might experience a slow down or possibly an outage if the condition is not resolved timely.

This condition might not indicate a problem for a log stream that does not share its structure with other log streams. Also, a log stream indicated below might be the consequence of a misconfiguration of another log stream that resides in the same structure as the listed log stream.

In the message text:

start date
The time the check begins reporting conditions on in mm/dd/yyyy hh:mm:ss format. This value varies based on the input parameters: for ALL, it defaults to the time logger started; for TIME(value), it represents the requested value.

For each affected log stream, the report details are:

- The log stream
- The structure the log stream resides in
- The count of the number of entry threshold reached conditions encountered for this log stream on this system
- The timestamp of the last entry threshold reached for the log stream.

The report keeps track of the most recent 16 entry threshold conditions that occurred. A log stream is reported only once in the list for entry threshold conditions, but might also have structure full or staging data set full conditions.

System action: The system continues processing.

Operator response: Report this problem to the system programmer.

System programmer response: Consider taking one or more of the following actions:

- Resolve any log stream offload constraints.
- Use the CFSizer to determine an appropriate size for the structure. Update the CFRM policy accordingly.
- Decrease the HIGHOFFLOAD for the affected log streams.
- Increase the LOWOFFLOAD for the affected log streams.
- Move some log streams to a new structure if there are multiple log streams in the structure.
- Ensure that log streams in the structure have a similar entry to element ratio. If they do not, consider moving the odd log stream to another structure.

After correcting a log stream condition, consider using the MODIFY command to update the 'TIME(mm/dd/yyyy hh:mm:ss)' parameter to a time after this condition occurred so it is no longer displayed as an exception. See the *IBM Health Checker for z/OS User's Guide* for instructions on updating the parameters of the check.

Problem determination: n/a

Source: System logger (SCLOG)

Module: IXGHC1CK

Routing code: -

Descriptor code: 12

Automation: n/a

Reference Documentation:

- *z/OS MVS Setting Up a Sysplex*
- *z/OS MVS System Management Facilities (SMF)*
- *z/OS MVS Initialization and Tuning Reference*
- *z/OS MVS Programming: Assembler Services Reference IAR-XCT*
- *z/OS MVS System Commands*
- *z/OS MVS Planning: Operations*
- *IBM Health Checker for z/OS User's Guide*

Chapter 4. IXL messages

IXL001W XES TIMER DIE COULD NOT BE ESTABLISHED

Explanation: XES was unable to establish the timer DIE routine that is used to periodically monitor certain XES functions.

System action: The system is placed in a nonrestartable wait state.

Operator response: Not applicable.

System programmer response: Determine why the system was unable to establish a timer DIE routine for XES.

Source: Cross System Extended Services (XES)

Module: IXLM2DIE

Routing code: 1,2,10

Descriptor code: 1

IXL002I SYNTAX ERROR IN SYSXES COMPONENT TRACE OPTIONS. *keyword* **IS AN UNKNOWN KEYWORD.**

Explanation: A syntax error was found in the SYSXES component trace option specification. In the message text:

keyword
Keyword that the system could not process.

System action: The system continues processing. The change in component trace options is rejected.

Operator response: Correct the indicated syntax error and re-enter the command. For information on changing trace options see *z/OS MVS System Commands*.

System programmer response: Not applicable.

Source: Cross System Extended Services (XES)

Module: IXLC2EM1

Routing code: #

Descriptor code: 5

IXL003I SYNTAX ERROR IN SYSXES COMPONENT TRACE OPTIONS. *option* **WAS SEEN WHERE ONE OF:** *optiona optionb optionc optiond optione optionf optiong optionh optionj optionk* **WAS EXPECTED.**

Explanation: A syntax error was found in the SYSXES component trace option specification. In the message text:

option
The specified trace option that the system could not process.

optiona
A valid choice for a SYSXES CTRACE option.

optionb
A valid choice for a SYSXES CTRACE option.

optionc
A valid choice for a SYSXES CTRACE option.

optiond
A valid choice for a SYSXES CTRACE option.

optione
A valid choice for a SYSXES CTRACE option.

optionf
A valid choice for a SYSXES CTRACE option.

optiong
A valid choice for a SYSXES CTRACE option.

optionh
A valid choice for a SYSXES CTRACE option.

optionj
A valid choice for a SYSXES CTRACE option.

optionk
A valid choice for a SYSXES CTRACE option.

System action: The system continues processing. The change in component trace options is rejected.

Operator response: Correct the indicated syntax error and re-enter the command. For information on changing trace options, see *z/OS MVS System Commands*.

System programmer response: Not applicable.

Source: Cross System Extended Services (XES)

Module: IXLC2EM1, IXLR3LOP

Routing code: #

Descriptor code: 5

IXL004W CHANNEL SUBSYSTEM HAS BEEN ISOLATED

Explanation: The system has been isolated from all I/O resources as part of the sysplex partitioning process.

System action: The system is placed in a nonrestartable wait state.

Operator response: Determine the reason why the system was removed from the sysplex. If it was the result of an error then it may be desirable to take a stand-alone dump of the system, or take other actions to diagnose or correct the error. Then re-IPL the system.

System programmer response: Not applicable.

Source: Cross System Extended Services (XES)

Module: IXLE2REC, IXLR3LOP

Routing code: #

Descriptor code: 5

IXL005I SYSXES COMPONENT TRACE FAILED FOR PARMLIB MEMBER *n*. DIAG1: *n n* DIAG2: *n* TRACING WILL BE INITIALIZED USING {CTIXES00.|DEFAULT TRACE OPTIONS.}

Explanation: The SYSXES component encountered an error during initialization while defining component trace for SYSXES. This can occur when an error is found while reading the component trace parmlib member, CTIXESxx, or in component trace processing.

In the message text:

CTIXES00.
XCF will continue processing with parmlib CTIXES00.

DEFAULT TRACE OPTIONS.
SYSXES will continue processing with default trace options.

System action: The SYSXES component continues component tracing with the options defined in the default component trace parmlib member, CTIXES00, or default trace options, depending on the action specified in message IXL005I. The system issues component trace messages explaining the error.

Operator response: See the operator response for message ITT010I, if the system issues it, or other component trace messages.

System programmer response: See the system programmer response for message ITT010I, if the system issues it, or other component trace messages.

Source: Cross System Extended Services (XES)

Module: IXLC2DEF, IXLR3LOP

Routing code: 1,2

Descriptor code: 12

IXL006I SYSXES COMPONENT TRACE FAILED FOR DEFAULT TRACE OPTIONS. DIAG1: *n n* **DIAG2:** *n* **NO TRACING IN EFFECT.**

Explanation: The SYSXES component tried to initialize component tracing using default options. The system is now running without component tracing for SYSXES.

System action: Initialization continues without component tracing for SYSXES. The system issues component trace messages (prefix ITT) explaining the problem.

Operator response: See the operator response for the component trace messages (prefix ITT) accompanying this message.

System programmer response: See the system programmer response for component trace messages (prefix ITT) accompanying this message.

Source: Cross System Extended Services (XES)

Module: IXLC2DEF, IXLR3LOP

Routing code: 1,2

Descriptor code: 12

IXL007I THE SYSXES GLOBAL SUBTRACE COULD NOT BE DEFINED. DIAG1: *n n* **DIAG2:** *n*

Explanation: The SYSXES component failed to define the global subtrace. This system, is now running without a global subtrace for the SYSXES component.

System action: Initialization continues without a global subtrace for SYSXES. The system issues component trace messages (prefix ITT) explaining the problem.

Operator response: See the operator response for the component trace messages (prefix ITT) accompanying this message.

System programmer response: See the system programmer response for component trace messages (prefix ITT) accompanying this message.

Source: Cross System Extended Services (XES)

Module: IXLC2DEF

Routing code: 1,2

Descriptor code: 12

IXL008I PATH *chpid* **HAS BEEN INVALIDATED TO CUID:** *cuid* **COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid*

Explanation: A sender path has been found to have been miscabled. The path has been marked invalid and will not be used by the system. The coupling facility is identified by the node descriptor. See mapping IXLYNDE.

In the message text:

chpid
Coupling facility sender CHPID.

cuid
Control unit number of the facility.

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (See ndecpcid in IXLYNDE).

System action: The system will discontinue any use of the path and the path will be deactivated if possible.

Operator response: Contact the system programmer if connectivity to the coupling facility is desired and cannot be established.

System programmer response: Determine why the path has not been connected correctly.

Issue a Display CF command to determine the current configuration. If the chpids that have a miscabled status are listed under the correct CF in the display then use the following procedure to correct the problem:

1. Use the MVS (CONFIG CHP) command for each path to configure all the miscabled links offline.
2. Reconnect the miscabled links to their correct place, and use the MVS (CONFIG CHP) command to configure the sender links back online.

If the chpids that have a miscabled status are listed under the incorrect CF in the display then use the following procedure to correct the problem. This will cause a loss of connectivity to one or more CFs.

1. Use the MVS (CONFIG CHP) command for each path to configure ALL the sender links on this system offline. (This will cause a loss of connectivity to ALL CFs.)
2. Reconnect the miscabled links to their correct place, and use the MVS (CONFIG CHP) command to configure the sender links back online.

If a problem still exists after performing the two previously detailed procedures:

1. Take the system down and make sure the miscabled links are connected to their correct place.
2. Re-IPL the system.

Source: Cross System Extended Services (XES)

Module: IXLC3VSC

Routing code: 1,2,10

Descriptor code: 11

IXL009W HSA Shortage

Explanation: The system did not have enough HSA storage to define a vector for the processing of asynchronous operations to the coupling facility.

System action: The system is placed in a nonrestartable wait state.

Operator response: Determine the reason for the shortage. Correct the problem to relieve the constraint and re-IPL the system.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLI1SIN

Routing code: 1,2,10

Descriptor code: 11

IXL010E NOTIFICATION RECEIVED FROM COUPLING FACILITY *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid* **NAMED** *cfname cfservrecord*

Explanation: A notification has been received from the coupling facility. The reporting coupling facility is identified by its node descriptor (see IXLYNDE) and coupling facility name. A notification generated by the coupling facility may result in this message to the operator, a logrec entry, or both. Each such notification will be processed by one and only one system in the sysplex, unpredictably, so that a sequence of notifications from the CF may appear as messages and/or logrec entries on multiple systems. The format and content of the notification are entirely at the discretion of the CF.

In the message text:

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (See ndecpcid in IXLYNDE).

cfname
Name of the coupling facility from the CFRM active policy.

cfservrecord
Coupling facility service record.

System action: The system continues normal processing. The system takes no actions based on the content of the notification, which is not interpreted nor understood by the system.

Operator response: Notify the system programmer.

System programmer response: Analyze the contents of the notification (message and/or logrec information) to determine what actions, if any, need to be taken. The notification may pertain to hardware problems detected by the CF, in which case the content of the notification message and/or logrec entry should be made available to hardware service personnel for analysis.

Source: Cross System Extended Services (XES)

Module: IXLE1LOG, IXLI1SIN

Routing code: 1,2,10

Descriptor code: 11

IXL011I XES HARDWARE SUPPORT IS NOT INSTALLED. REASON: *hdwreas*

Explanation: XES was unable to initialize coupling facility related functions because the required hardware support is not installed on this system. In the message text:

hdwreas
Reason code describing which particular component of coupling facility hardware support was not present.

1 Neither XES (Message Facility)-support instructions nor channel subsystem call support are installed.

2 XES (Message Facility)-support instructions are not installed.

3 Channel subsystem call support is not installed.

4 Channel subsystem call has failed.

System action: The system continues without the ability to use XES services.

Operator response: Not applicable.

System programmer response: If you are trying to use a coupling facility, record the reason code (*hdwreas*) and contact hardware support. If you are not trying to use a coupling facility, you can ignore this message. (The system checks to see if coupling facility hardware is present and issues this message whenever the hardware support is not installed.)

Source: Cross System Extended Services (XES)

Module: IXLI1SIN

Routing code: 1,2,10

Descriptor code: 12

IXL012I IXLCONN REQUEST FAILED, RETCODE: *return-code*, **RSNCODE:** *reason-code*

Explanation: An attempt to connect to a coupling facility structure via the IXLCONN macro failed. In the message text:

return-code
IXLCONN return code.

reason-code
IXLCONN reason code.

System action: The system continues. The program which issued the IXLCONN will not be able to use the structure.

Operator response: Notify the system programmer of this failure.

System programmer response: Determine the reason why the connect request could not be satisfied.

- *z/OS MVS Programming: Sysplex Services Reference* contains the IXLCONN return and reason codes.
- The system logrec symptom record contains detailed information in the form of the IXLCONN parameter list and the Connect Answer Area.

Make the appropriate corrections. If needed, restart or reinitialize the program so that the IXLCONN request is attempted again.

Source: Cross System Extended Services (XES)

Module: IXLC1CON

Routing code: 10

Descriptor code: 12

IXL013I *requesttype* **REQUEST FOR STRUCTURE** *structure-name* **FAILED. JOBNAME:** *jobname* **ASID:** *asid* **CONNECTOR NAME:** *connector-name* **IXLCONN RETURN CODE:** *return-code*, **REASON CODE:** *reason-code errortype* **CONADIAG***diagn: diagvalue*

Explanation: An attempt to connect to a coupling facility structure via the IXLCONN macro failed. In the message text:

requesttype
One of the following request types:

IXLCONN
IXLCONN macro service

IXLCONN REBUILD
IXLCONN macro service for a REBUILD connect

structure-name
Name of the structure for which information is being recorded.

jobname
Jobname of the application issuing the IXLCONN.

asid
ASID of the application issuing the IXLCONN.

connector-name
Connection name specified by the application issuing the IXLCONN, if applicable.

return-code
IXLCONN return code

reason-code
IXLCONN reason code

errortype
One of the following:

CONNECTOR WITH SAME NAME ALREADY CONNECTED TO STRUCTURE
The ConName specified is not unique. There is an active connection to this structure with the specified name.

NOT AUTHORIZED TO CONNECT TO STRUCTURE
The user does not have proper SAF authorization.

IXLCONN PARAMETER ERROR
The IXLCONN request had a parameter error.

REBUILD PROTOCOL ERROR
An IXLCONN REBUILD was requested but the structure is either not in rebuild or in the wrong phase of rebuild.

STRUCTURE HAS THE MAXIMUM NUMBER OF PERMITTED CONNECTORS
The structure has the maximum number of permitted connections.

IXCJOIN FAILED
IXCJOIN return and reason codes are in ConaDiag1 and ConaDiag2.

ALL SYSPLEX COUPLE DATA SET GROUP RECORDS IN USE
The maximum number of groups already exist.

ALL SYSPLEX COUPLE DATA SET MEMBER RECORDS FOR GROUP IN USE
The maximum number of members in the group already exist.

STRUCTURE NOT DEFINED IN THE CFRM ACTIVE POLICY
The CFRM active policy for the installation does not specify the structure.

NO CONNECTIVITY TO THE STRUCTURE
The system does not have connectivity to the coupling facility containing the specified structure.

NO CONNECTIVITY TO THE DUPLEXING REBUILD OLD STRUCTURE
There is no connectivity to the coupling facility that contains the specified duplex old structure.

NO SUITABLE COUPLING FACILITY IN PREFERENCE LIST
Structure allocation failed because no suitable coupling facility was found in the structure's preference list. See message IXL015I to determine the reason why the coupling facilities listed in the preference list were not suitable.

NO CONNECTIVITY TO THE DUPLEXING REBUILD NEW STRUCTURE
There is no connectivity to the coupling facility containing the specified duplex new structure.

FAILURE DEFINING LOCAL VECTOR
The local vector requested on the connect could not be defined.

FAILURE CREATING DATA SPACE
Storage management could not create a data space.

THE MAXIMUM NUMBER OF CONNECTORS IN THIS ADDRESS SPACE EXIST
The maximum number of serialized connections for this address space are already active.

FAILURE ADDING ENTRY TO PASN ACCESS LIST
There was an error adding a dataspace to the PASN access list.

MORE CONNECT RECORDS REQUIRED IN CFRM COUPLE DATA SET
There is a failed-persistent connection with the same connection name that has not been reconciled into the policy.

STRUCTURE FAILURE
Structure failure has occurred.

COUPLE DATA SET FOR CFRM NOT AVAILABLE
XES function is not active or the CFRM couple data set is not available to this system.

REBUILD CONNECT NOT SUCCESSFUL BECAUSE REBUILD STOP OCCURRED
The IXLCONN REBUILD request was not successful because a rebuild stop occurred.

STRUCTURE HAS NO INFORMATION IN THE CFRM ACTIVE POLICY
The IXLCONN REBUILD request was not successful because there is no policy information for this structure in the CFRM active policy. Start a CFRM policy that includes the definition for this structure.

CONNECTOR DOES NOT SUPPORT THE CURRENTLY ACTIVE REBUILD PROCESS
The connect request was not successful either because the connector specified ALLOWREBLD=NO and a rebuild is in progress, or because the connector specified ALLOWDUPREBLD=NO and a duplexing rebuild is in progress.

CFLEVEL REQUESTED EXCEEDS MAX SUPPORTED CFLEVEL
The user specified a CFLEVEL that is greater than what is supported by this system.

ALLOCATED STRUCTURE DOES NOT MEET MINCFLEVEL REQUIREMENT
The minimum CFLEVEL requested is greater than the level of the coupling facility where the structure is allocated.

XES FUNCTION NOT AVAILABLE
XES functions are not available. This can be because the hardware necessary to provide XES functions is not present.

XES COMPONENT ERROR
Failure has occurred in XES processing. If the conditions that caused the error cannot be determined, contact the IBM Support Center. Supply the error data included in the message, along with other data from the system log including the IXLYCONA from the LOGREC symptom record, if any.

CONNECTIONS TO THE STRUCTURE ARE BEING PREVENTED AT THIS TIME
Connections to the requested structure are being prevented at this time.

IXLCONN ENVIRONMENTAL ERROR
The IXLCONN request had an environmental error.

CONADIAG*diagn*
diagn specifies the number used to determine the specific diagnostic field form the IXLYCONA. The diagnostic field name is CONADIAGn when *diagn* is concatenated to the end of the string CONADIAG. For example, if *diagn* is 9 then the diagnostic field from the IXLYCONA is CONADIAG9.

diagvalue
Optional diagnostic information. Based on the IXLCONN return and reason codes additional diagnostic information from the IXLYCONA is provided. See the explanation in IXLCONN of the specified return and reason codes in order to analyze the value provided by *diagvalue* which is from IXLYCONA field CONADIAGn, when n is obtained from *diagn*.

See *z/OS MVS Programming: Sysplex Services Reference* for a detailed explanation of the return and reason codes for IXLCONN failures.

System action: The system continues. The program that issued the IXLCONN will not be able to use this structure.

Operator response: Notify the system programmer of this failure.

System programmer response: Examine the system LOGREC symptom record which contains detailed information in the form of the IXLCONN parameter list and the Connect Answer Area (IXLYCONA). Based on the return code from the IXLCONN macro service, additional information from diagnostic fields in IXLYCONA may also be provided in the message text to aid in problem determination. Determine the reason why the connect request could not be satisfied. Make the appropriate corrections. If needed, restart or reinitialize the program so that the IXLCONN request is attempted again.

Source: Cross System Extended Services (XES)

Module: IXLC1CON

Routing code: 10

Descriptor code: Note 26

IXL014I *requesttype* **REQUEST FOR STRUCTURE** *structure-name* **WAS SUCCESSFUL. JOBNAME:** *jobname* **ASID:** *asid* **CONNECTOR NAME:** *connector name* **CFNAME:** *cfname*[*statusinfo*]

Explanation: A connect to a coupling facility structure via the IXLCONN macro was successful. In the message text:

requesttype
One of the following request types:

IXLCONN
IXLCONN macro service

IXLCONN REBUILD
IXLCONN macro service for a REBUILD connect

structure-name
Name of the structure for which information is recorded.

jobname
Jobname of the application issuing the IXLCONN.

asid
ASID of the application issuing the IXLCONN.

connector-name
Connection name specified by the application issuing the IXLCONN or generated by XES.

cfname
Name of the coupling facility in which the structure was allocated.

statusinfo
Additional status information, which may include:

ADDITIONAL STATUS INFORMATION:
This line is issued whenever the XES Connect (IXLCONN) service completes with the IxlRetCodeWarning return code and the IxlRsnCodeSpecialConn reason code, and additional status information has been provided in the ConaFlags field of the Connect Answer Area. It is followed by one or more of the following lines to summarize the status returned in the ConaFlags field.

- CONNECTION HAS BEEN REESTABLISHED

  The ConName specified on connect matched the ConName of a failed persistent connection. The connection has been reestablished. Issued when ConaReconnected is set.

- REBUILD IS IN PROGRESS

  Rebuild is in progress for this structure. Issued when ConaRebuild is set.
- REBUILD STOP IS IN PROGRESS

  Rebuild Stop or Stop Duplex is in progress for this structure. Issued when ConaRebuildStop is set.
- USER SYNC POINT EVENT IS SET

  A user sync point event is set. Issued when ConaUsyncEventSet is set.
- ALTER IS IN PROGRESS

  Alter is in progress for the structure. Issued when ConaAlterInProgress is set.

System action: The system continues. The program that issued the IXLCONN is now able to use the structure. The system writes this message to the system hardcopy log.

System programmer response: None. However, please note that one or more IXL013I messages may have been issued prior to this success message. This is due to the program attempting several IXLCONNs in an attempt to maximize the available resources. This message negates the errors issued in those related IXL013I messages.

Also, note that an IXL message might have been issued prior to this message, providing additional information about where the system allocated the structure and why.

Source: Cross System Extended Services (XES)

Module: IXLC1CON

Routing code: 10

Descriptor code: 12

| **IXL015I** *strtype* **ALLOCATION INFORMATION FOR STRUCTURE** *structure-name* **CONNECTOR NAME** *connector-name***CONNECTIVITY=***connectivity***CFNAME ALLOCATION STATUS/FAILURE REASON------ --------------------------------***cfname text* **[***diag***]**

Explanation: A program attempted to connect to a coupling facility structure. The IXLCONN returned allocation information to the program in the IXLYCONA. This information is recorded in the hardcopy log for debugging if the results are unexpected. The actual disposition of the IXLCONN invocation can be found by examining message IXL013I (for IXLCONN failures) or message IXL014I (for successful IXLCONN connects).

In the message text:

strtype
: One of the following:
- STRUCTURE
- REBUILD NEW STRUCTURE

structure-name
: Name of the structure for which information is recorded.

connector-name
: Connection name specified by the application issuing the IXLCONN or generated by XES, if applicable.

connectivity
: Describes how the eligibility queue is sorted with regards to sysplex connectivity and SFM weight. *connectivity* can be one of the following:
- BESTGLOBAL

  The connector specified CONNECTIVITY=BESTGLOBAL. When the coupling facilities are being ordered for allocation, the eligibility queue is primarily sorted by SFM weight. Note that all systems are considered to have equal SFM weight if no SFM policy is active.
- DEFAULT

  The connector specified CONNECTIVITY=DEFAULT or did not specify CONNECTIVITY. When the coupling facilities are being ordered for allocation, the eligibility queue is primarily sorted by attribute weight.
- SYSPLEX

The connector specified CONNECTIVITY=SYSPLEX. When the coupling facilities are being ordered for allocation, any coupling facility that does not have connectivity to every system in the sysplex is removed from the eligibility queue.

•

cfname
Name of the coupling facility for which information is recorded.

text
Describes the status of the structure or the reason for the allocation failure. *text* can be one of the following:

STRUCTURE ALLOCATED
Structure is successfully allocated in the coupling facility. (Text corresponds to IXLCONN reason code CONARSNSUCCESS.)

NO CONNECTIVITY
The active CFRM policy indicates that this system does not have connectivity to the coupling facility. You must re-establish physical connectivity to the coupling facility and then reissue the connect request. (Text corresponds to IXLCONN reason code CONARSNNOCONNPOLICY.) See message IXC518I for possible reasons why the system does not have connectivity to the coupling facility.

FACILITY NOT IN ACTIVE POLICY
The coupling facility is not defined in the active CFRM policy. Verify that the set of coupling facilities currently in use in the sysplex is correct and matches the CFRM administrative policy most recently activated. (Text corresponds to IXLCONN reason code CONARSNFACILITYNOTINPOLICY.)

CONNECTIVITY LOST
Connectivity to the coupling facility has been lost. Reestablish physical connectivity to the coupling facility and then reissue the connect request. (Text corresponds to IXLCONN reason code CONARSNNOCONN.)

FACILITY FAILURE
The coupling facility has failed. (Text corresponds to IXLCONN reason code CONARSNFACILITYFAILURE.)

STRUCTURE FAILURE
The structure failed during the allocate process. (Text corresponds to IXLCONN reason code CONARSNSTRFAILURE.)

PARAMETER ERROR
The structure attributes are inconsistent with the model-dependent attributes of the coupling facility. Change the attributes of the structure based on the model-dependent limits returned for each coupling facility. (Text corresponds to IXLCONN reason code CONAPARAMETERERROR.)

INVALID STRUCTURE SIZE: *invalidsize uinitsizesource* **MUST BE AT LEAST:** *initsize u*
The structure size *invalidsize* used for the initial allocation was too small to allocate the structure with the attributes specified. The integer size unit *u* specification is K (kilobytes), M (megabytes), G (gigabytes), or T (terabytes). The minimum storage required to allocate the structure in this coupling facility with the requested attributes is *initsize*.

initsizesource
The source from which the initial allocation was determined. It can be one of the following:

INITSIZE
The initial allocation size was determined using the INITSIZE (or SIZE if not specified) specified in the CFRM policy. To fix the problem, increase the INITSIZE in the CFRM policy.

STRSIZE
The initial allocation size was determined using the STRSIZE specified on the IXLCONN invocation. See message IXL013I for more details on the failing application.

Note: The size unit displayed may be converted to the largest size unit that can be used to represent the size and avoids any rounding. For example, an *initsize* of 1048576K may be converted to an *initsize* of 1G for the purpose of messages. An *initsize* of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes.

Ensure that you do not define SIZE substantially larger than INITSIZE. The amount of storage needed for the structure includes both control areas required by coupling facility control code and data areas used by

the application. When allocating the structure initially, the system attempts to build all control structures that are required to support the maximum size of the structure.

The amount of storage required by the structure also increases as a function of the CFRM policy SCMMAXSIZE specification. Requesting a large amount of storage-class memory can significantly increase the minimum structure size.

Several factors determine how much storage is needed for control structures. Those factors include CFRM policy specification, application program specification on the IXLCONN service, coupling facility storage constraints, coupling facility storage increment and coupling facility level. See 'Requesting Structure Size' in 'Setting Up a Sysplex' for a complete discussion of structure allocation.

You can use the CF Sizer tool, available on the Parallel Sysplex website http://www.ibm.com/systems/support/z/cfsizer/, for help in determining structure SIZE, INITSIZE, and SCMMAXSIZE attributes.

INSUFFICIENT SPACE FOR *space u*
There was not sufficient space in the coupling facility to allocate the structure. The integer size unit *u* specification is K (kilobytes), M (megabytes), G (gigabytes), or T (terabytes).

There may be enough space in the coupling facility to allocate the structure, but the allocated structure size would be smaller than MINSIZE as specified or defaulted to in the CFRM policy. Check the size attributes (such as CONAFACILITYMINREQSIZE) returned to indicate the storage required to allocate the structure in this coupling facility with the requested attributes. When the policy specifies SCMMAXSIZE for the affected structure, *space* will also include an additional component representing the amount of storage necessary to support storage-class memory. Make sure there is a coupling facility in the preference list with sufficient space. (Text corresponds to IXLCONN reason code CONARSNINSUFFICIENTSPACE.)

ALLOCATION NOT PERMITTED
New structures cannot be allocated the coupling facility according to the active CFRM policy. (Text corresponds to IXLCONN reason code CONARSNALLOCNOTPERMITTED.)

When the coupling facility status is ALLOCATION NOT PERMITTED, one or more of the following subreason lines appear:

COUPLING FACILITY IS BEING REMOVED
The coupling facility is being removed from the active policy.

CFRM INDICATES COUPLING FACILITY FAILURE
The coupling facility has failed.

COUPLING FACILITY BEING RECONCILED
The coupling facility is in the policy reconciliation process.

COUPLING FACILITY IS IN MAINTENANCE MODE
The coupling facility is in maintenance mode.

XCF COMPONENT ERROR
An XCF component error has occurred. Call IBM Service. (Text corresponds to IXLCONN reason code CONARSNXCFCOMPERROR.)

UNKNOWN HARDWARE ERROR
An unknown hardware error has occurred. Call IBM Service. (Text corresponds to IXLCONN reason code CONARSNUNKNOWN.)

RESTRICTED BY REBUILD OTHER
LOCATION=OTHER was specified on the rebuild request. Since the original structure was allocated in this coupling facility, the system did not use this coupling facility when trying to allocate the new structure for rebuild. If the structure allocation failed, make sure there is another suitable coupling facility in the structure's preference list. (Text corresponds to IXLCONN reason code CONARSNREBLDOTHER.)

RESTRICTED BY SAMESITEONLY
SAMESITEONLY was specified for the DUPLEX parameter on the structure definition. This allocation is for a duplexing rebuild and the CF is NOT defined as being at the same site as the CF containing the structure.

RESTRICTED BY REBUILD USERS
The system did not select the coupling facility for a rebuild connect request because the coupling facility

does not support a number of users greater than or equal to the highest connection ID for the original structure. (Text corresponds to IXLCONN reason code CONARSNREBLDUSERSTOOSMALL.)

INSUFFICIENT CONNECTIVITY
The system did not select the coupling facility because the coupling facility id not provide the required connectivity, as specified by the CONNECTIVITY= specification. (Text corresponds to IXLCONN reason code CONARSNINSUFFCONNECTIVITY.)

The text is followed by eight characters of hexadecimal data, which is additional diagnostic information for "INSUFFICIENT CONNECTIVITY".

PREFERRED CF ALREADY SELECTED
The system did not select the coupling facility because a more preferable coupling facility was already selected. (Text corresponds to IXLCONN reason code CONARSNPREFERREDCFSELECTED.)

When the coupling facility status is PREFERRED CF ALREADY SELECTED, the message displays one of the following lines that gives the primary reason why this coupling facility was placed lower than the previous one in the eligibility queue. Because of how different requirements are weighted, this information does not imply that all coupling facilities higher in the eligibility queue meet the requirement:

CONNECTIVITY REQUIREMENT MET BY PREFERRED CF
At least one connector to the current (old) structure does not have connectivity to this coupling facility, and there is at least one coupling facility or the reporting system does not have connectivity, and there is at least one coupling facility to which all connectors do have connectivity.

CFLEVEL REQUIREMENT MET BY PREFERRED CF
Another coupling facility was found with a more appropriate CF level.

FAILURE ISOLATION FOR DUPLEXING MET BY PREFERRED CF
This coupling facility is not failure isolated for duplexing, this is a duplexing rebuild, and at least one coupling facility exists that is failure-isolated for duplexing.

SPACE AVAILABLE FOR REQUESTED SIZE IN PREFERRED CF
This coupling facility does not have enough free space to meet the requested structure size, and at least one coupling facility exists that does have enough free space to allocate the structure at the requested size.

SPACE AVAILABLE FOR MINIMUM SIZE IN PREFERRED CF
This coupling facility does not have enough free space to meet the minimum required structure size to allocate the new structure instance based on the current object counts, and at least one coupling facility exists that does have enough free space to allocate the structure at the minimum size.

SPACE AVAILABLE FOR CHANGED DATA IN PREFERRED CF
This coupling facility does not have enough free space to meet the minimum required structure size to allocate the new structure instance based on the current in-use and changed object counts, and at least one coupling facility exists that does have enough free space to allocate the structure but with changed data only.

MORE SPACE AVAILABLE IN PREFERRED CF
This coupling facility does not have enough free space to allocate the structure at the requested size, and at least one coupling facility exists that also does not have enough free space but does have more space than this one.

STORAGE-CLASS MEMORY REQUIREMENT MET BY PREFERRED CF
This coupling facility does not have enough free storage-class memory to allocate the structure based on the current object counts, and there is at least one coupling facility that does have sufficient storage-class memory. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

SCMMAXSIZE REQUIREMENT MET BY PREFERRED CF
This coupling facility does not have enough total storage-class memory to accommodate the CFRM policy SCMMAXSIZE specification for this structure, and there is another coupling facility which does. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

MORE STORAGE-CLASS MEMORY AVAILABLE IN PREFERRED CF
This coupling facility does not have enough storage-class memory to allocate the structure with the

amount specified by the CFRM policy and there is another coupling facility that also does not have enough storage-class memory but has more than this one. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

MORE STORAGE-CLASS MEMORY CONFIGURED IN PREFERRED CF
This coupling facility does not have enough total storage-class memory to accommodate the CFRM policy SCMMAXSIZE specification for this structure, and there is another coupling facility that also does not have enough total storage-class memory but has more than this one. Note that storage-class memory is not considered to be available if the coupling facility cannot accommodate the specified SCMALGORITHM.

NON-VOLATILITY REQUIREMENT MET BY PREFERRED CF
This coupling facility is volatile, non-volatility was requested, and there is at least one coupling facility that is non-volatile.

FAILURE ISOLATION REQUIREMENT MET BY PREFERRED CF
This coupling facility is not failure-isolated from all connectors, non-volatility was requested, and at least one coupling facility exists that is failure-isolated from all connectors.

STAND-ALONE REQUIREMENT MET BY PREFERRED CF
This coupling facility is not stand-alone, non-volatility was requested, and at least one coupling facility exists that is stand-alone.

EXCLLIST REQUIREMENT FULLY MET BY PREFERRED CF
This coupling facility contains a structure from the EXCLLIST, and at least one coupling facility exists that does not contain any structures from the EXCLLIST.

EXCLLIST REQUIREMENT MET BY PREFERRED CF
This coupling facility contains a simplex structure from the EXCLLIST, and at least one coupling facility exists that contains only old or new structure instances from the EXCLLIST.

SPACE REQUIREMENT MET BY PREFERRED CF
The following conditions exist:

- System-managed duplexing rebuild is a possibility for the structure.
- The coupling facility is not connected by CF-to-CF links to any other coupling facilities in the PREFLIST that have adequate space to allocate the structure if a duplexing rebuild is to be started.
- At least one coupling facility exists that is connected by CF-to-CF links to a coupling facility that does have adequate space to allocate the structure.

REMOTE FACILITY REQUIREMENT MET BY PREFERRED CF
The following conditions exist:

- System-managed duplexing rebuild is a possibility for the structure.
- This coupling facility is not connected by CF-to-CF links to any other coupling facilities in the PREFLIST,
- At least one coupling facility exists that is connected by CF-to-CF links to a remote facility, but the remote facility does not have adequate space to allocate the structure if a duplexing rebuild is to be started.

PREFERRED CF HIGHER IN PREFLIST
This coupling facility is lower in the PREFLIST than another coupling facility that is suitable for allocation.

ENFORCEORDER(YES) AND PREFERRED CF HIGHER IN PREFLIST
This coupling facility is lower in the PREFLIST than another coupling facility that is suitable for allocation; because ENFORCEORDER(YES) was also specified for the structure in the CFRM policy, XCF did not re-order the PREFLIST.

GREATER SFM WEIGHT CALCULATED FOR PREFERRED CF
This coupling facility has a lower SFM weight than another coupling facility that is suitable for allocation. For a structure without any active connectors, the SFM weight of each coupling facility is the sum of the SFM weights of all systems connected to that coupling facility. For a structure with active connectors, only systems with active connectors are used to determine the SFM weight of the coupling facility. Note that all systems are considered to have equal SFM weight if no SFM policy is active.

RESTRICTED BY OPERATOR STOP OF DUPLEXING REBUILD
The system did not select the coupling facility because the operator had previously stopped the duplexing rebuild and the structure that was not kept was allocated in this coupling facility. (Text corresponds to IXLCONN reason code CONARSNREBLDDUPLEXOTHER.)

POPULATECF NOT SUITABLE
Facility was not selected because it was not as suitable a location for the structure as its current location.

INSUFFICIENT CFLEVEL FOR CONNECTOR EXPLOITATION
The coupling facility CFLEVEL was not at or above the minimum required for an original connector or for the current set of active and failed-persistent connectors.

CROSSSITE DUPLEXING PREFERENCE MET BY PREFERRED CF
This coupling facility does not satisfy the CROSSSITE DUPLEX preference according to the CFRM active policy, and at least one coupling facility exists that does satisfy the CROSSSITE DUPLEX preference.

SAMESITE DUPLEXING PREFERENCE MET BY PREFERRED CF
This coupling facility does not satisfy the SAMESITE DUPLEX preference according to the CFRM active policy, and at least one coupling facility exists that does satisfy the SAMESITE DUPLEX preference.

CFLEVEL FOR POTENTIAL DUPLEXING MET BY PREFERRED CF
Duplexing rebuild is a possibility for the structure, and another CF was found with a potential duplex target which has a more appropriate CF level for a duplexing rebuild.

diag
Additional diagnostic information from ConaDiag4 that can be used when a nonzero value is returned that can be used by IBM Service Personnel in evaluating structure allocation processing. For example, this data could be helpful in determining why a particular coupling facility was selected rather than another. For more information, see the message text explanation of the *data2* field in the documentation for message IXC574I.

System action: The system continues normal processing.

Source: Cross System Extended Services (XES)

Module: IXLC1CON

Routing code: 1,2

Descriptor code: Note 26

IXL016I **CONNECTOR** *conname* **TO [NEW] STRUCTURE** *strname* **[DISCONNECTING | TERMINATING]: JOB** *jobname* **ASID** *asid trigger*.

Explanation: Connector disconnect or termination processing is being performed by XES.

In the message text:

conname
The name of the CF structure connection.

strname
The name of the CF structure.

jobname
Jobname of the application that connected to the structure.

asid
Hexadecimal ASID of the application that connected to the structure.

trigger
One of the following:

REQUESTED DISCONNECT REASON=NORMAL
The connector used IXLDISC REASON=NORMAL to disconnect from the structure and the connector does not hold a lock structure resource.

REQUESTED DISCONNECT REASON=FAILURE
The connector used IXLDISC REASON=FAILURE to disconnect from the structure.

REQUESTED DISCONNECT WITH LOCK RESOURCES
The connector used IXLDISC REASON=NORMAL to disconnect from the structure, but the lock structure connector held lock resources.

CONNECTOR TASK TERMINATED
The connector task terminated.

CONNECTOR SPACE TERMINATED
The connector address space terminated.

CONNECT PROCESSING FAILED
An error occurred after connect processing established a connection, but before the results could be provided to the connector.

NEW
Indicates that connect processing was for a rebuild connect. Otherwise, the connect processing was for a normal connect.

System action: The system continues processing.

Source: Cross System Extended Services (XES)

Module: IXLC1CON, IXLC1DCN, IXLC1EOT

Routing code: Note 13

IXL017I SYSXES COMPONENT TRACE INITIALIZATION FAILED REASON: *initfailrsn* **DIAG:** *retcode rsncode*

Explanation: SYSXES component trace initialization processing experienced an error leaving the system without SYSXES global and connection component tracing for cross-system extended services (XES). *initfailrsn*provides the reason for the error.

In the message text:

initfailrsn

1 64-bit common storage (HVCOMMON) could not be obtained for the XES CTRACE buffers. *failretcode* and *failrsncode* are the failing return and reason codes returned to initialization processing by the IARV64 macro.

If *failretcode* is set to 8 and *failrsncode* is set to xx0017xx, insufficient free common storage was available to satisfy the request. The amount of 64-bit common storage is controlled by the HVCOMMON parameter in parmlib member IEASYSxx. For more information, about this parameter, see *z/OS MVS Initialization and Tuning Reference*. Use the MVS console command D VIRTSTOR,HVCOMMON to display summary information about the current use of the HVCOMMON storage on the MVS system. Review the value specified on the HVCOMMON parameter to determine whether it should be increased.

2 Undefined.

3 Storage for internal control blocks used to manage trace buffers could not be obtained. *failretcode* is the failing return code returned to initialization processing by the STORAGE macro.

failretcode
Diagnostic information used for problem determination. This is the return code from a system service that failed during SYSXES component trace initialization. The system service that returned the return code can be identified based on the *initfailrsn*.

failrsncode
Diagnostic information used for problem determination. This is the reason code from a system service that failed during SYSXES component trace initialization. The system service that returned the reason code can be identified based on the *initfailrsn*.

System action: Initialization continues without SYSXES Global and Connection sublevel component tracing for XES. CTRACE data will not be available in dumps for analysis under IPCS. Message ITT10003I will be issued when attempting to view SYSXES CTRACE data using the IPCS CTRACE subcommand for COMP(SYSXES).

Operator response: Contact the system programmer.

System programmer response: Investigate the cause of the error further by looking up the *failretcode* and *failrsncode* in the corresponding *z/OS MVS Programming: Authorized Assembler Services Reference* for the respective service

| identified by *initfailrsn*. If the error cannot be resolved or the problem persists, search the problem reporting data
| bases for a fix for the problem. If no fix exists, contact the IBM Support Center.

| **Source:** Cross System Extended Services (XES)

| **Module:** IXLC2LIN

| **Routing code:** 1, 2

| **Descriptor code:** 12

IXL020I **CLEANUP FOR LOCK STRUCTURE** *structure-name*, **CONNECTION ID** *conid*, **STARTED BY CONNECTOR** *connector-name* **INFO:** *n*

Explanation: XES is starting to perform lock structure cleanup on behalf of the recovering connector. This is due to the failure or disconnection of another connector to the lock structure.

In the message text:

structure-name
Structure name.

conid
Connection identifier of the failing connector.

connector-name
Connection name of the recovering connector.

n Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: The system continues. Note that until lock structure cleanup is complete, any new IXLLOCK requests submitted by the recovering connector might be delayed.

Operator response: If the failure or disconnection of the lock structure connector was unexpected, notify the system programmer.

System programmer response: Determine the reason why the lock structure connector unexpectedly failed or disconnected.

Source: Cross System Extended Services (XES)

Module: IXLR2SSD

Routing code: 10

IXL021I **GLOBAL CLEANUP FOR LOCK STRUCTURE** *structure-name*, **CONNECTION ID** *conid*, **BY CONNECTOR** *connector-name* **HAS COMPLETED. INFO:***n*

Explanation: XES has completed the global phase of lock structure cleanup on behalf of the recovering connector.

In the message text:

structure-name
Structure name.

conid
Connection identifier of the failing connector.

connector-name
Connection name of the recovering connector.

n Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: Lock structure cleanup continues.

Source: Cross System Extended Services (XES)

Module: IXLR2SSD

Routing code: 10

Descriptor code:

IXL022I **LOCAL CLEANUP FOR LOCK STRUCTURE** *structure-name*, **CONNECTION ID** *conid*, **BY CONNECTOR** *connector-name* **HAS COMPLETED. INFO:** *n*

Explanation: XES has completed the local phase of lock structure cleanup on behalf of the recovering connector.

In the message text:

structure-name
Structure name.

conid
Connector identifier of the failing connector.

connector-name
Connection name of the recovering connector.

n Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: Lock structure cleanup continues.

Source: Cross System Extended Services (XES)

Module: IXLR2SSD

Routing code: 10

Descriptor code:

IXL023I **CLEANUP FOR LOCK STRUCTURE** *structure-name*, **CONNECTION ID** *conid*, **BY CONNECTOR** *conname* **HAS COMPLETED. INFO:** *n*

Explanation: XES has completed lock structure cleanup on behalf of the recovering connector.

In the message text:

structure-name
Structure name.

conid
Connector identifier of the failing connector.

conname
Connection name of the recovering connector.

n Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: The system will process requests that were delayed during cleanup. New IXLLOCK requests submitted by the recovering connector will be processed normally.

Source: Cross System Extended Services (XES)

Module: IXLR2SSD

Routing code: 10

Descriptor code:

IXL024I *text* **PRIORITY DEFERRED GLOBAL LOCK MANAGER PROCESSING FOR LOCK STRUCTURE** *strname*, **BY CONNECTOR** *conname* **HAS COMPLETED. INFO:** *n*

Explanation: XES has completed deferred global lock manager processing. In the message text:

text
One of the following:

NORMAL
Normal priority deferred global lock manager processing has completed.

HIGH
High priority deferred global lock manager processing has completed.

strname
Structure name.

conname
Connection name of the global manager connector.

n Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: The system continues.

Source: Cross System Extended Services (XES)

Module: IXLM1TMR, IXLR1GLB, IXLR1GLC, IXLR2SSD, IXLX1RES

Routing code: 10

Descriptor code: N/A

IXL030I CONNECTOR STATISTICS FOR LOCK STRUCTURE *structure-name*, **CONNECTOR** *connector-name*: *n*

Explanation: XES is reporting connector statistical information for a connector that is stopped, disconnected, rebuilt, that is recovering for another connection, or that is monitored for a delay due to limited XES SRB scheduling.

In the message text:

structure-name
Structure name.

connector-name
Connection name of the connector.

n Statistical information that is provided to assist IBM service personnel with problem determination.

System action: The system continues.

Source: Cross System Extended Services (XES)

Module: IXLM1TMR, IXLR2SSD, IXLR2SSF

Routing code: 10

Descriptor code: _

IXL031I CONNECTOR CLEANUP FOR LOCK STRUCTURE *structure-name*, **CONNECTOR** *connector-name*, **HAS COMPLETED. INFO:** *n*

Explanation: XES has completed connector cleanup processing for a connector who has terminated, disconnected, or rebuilt. In the message text:

structure-name
Structure name.

connector-name
Connection name of the connector.

n Diagnostic data that is provided to assist IBM service personnel with problem determination.

System action: The system continues.

Source: XES

Module: IXLR2SSR

Routing code: 10

Descriptor code:

IXL040E **CONNECTOR NAME:** *connector-name*, **JOBNAME:** *jobname*, **ASID:** *asid* **HAS** *text*. *process* **FOR STRUCTURE** *structure-name* **CANNOT CONTINUE. MONITORING FOR RESPONSE STARTED:** *mondate montime*. **DIAG:** *x*

Explanation: An XES process is in a possible hang condition because the identified connector did not provide a required response to an event. In the message text:

connector-name
Connection name of the connector failing to provide the required response.

jobname
Jobname of the connector failing to provide the required response.

asid
Hexadecimal ASID of the connector failing to provide the required response.

text
One of the following:

NOT RESPONDED TO THE REBUILD QUIESCE EVENT.
The specified connector is not responding to the rebuild quiesce event.

NOT RESPONDED TO THE REBUILD CONNECT EVENT, IXLCONN REBUILD EXPECTED.
The specified connector has not responded to the rebuild connect event.

NOT RESPONDED TO THE REBUILD CONNECT EVENT, IXLREBLD REQUEST=COMPLETE EXPECTED.
The specified connector has not responded with the IXLREBLD REQUEST=COMPLETE request.

NOT RESPONDED TO THE REBUILD SWITCH EVENT.
The specified connector is not responding to the rebuild switch event of a duplexing rebuild.

NOT RESPONDED TO THE REBUILD CLEANUP EVENT.
The specified connector is not responding to the rebuild cleanup event.

NOT RESPONDED TO THE REBUILD STOP EVENT.
The specified connector is not responding to the rebuild stop event.

NOT RESPONDED TO THE USER SYNC POINT EVENT.
The specified connector is not responding to the user sync point event.

NOT RESPONDED TO THE STRUCTURE TEMPORARILY UNAVAILABLE EVENT
The specified connector is not responding to the structure temporarily unavailable event.

NOT RESPONDED AFTER CONNECTING DURING THE REBUILD QUIESCE PHASE.
The specified connector has connected during the rebuild quiesce phase and has not provided the required response.

NOT RESPONDED AFTER CONNECTING DURING THE REBUILD CONNECT PHASE, IXLCONN REBUILD EXPECTED.
The specified connector has connected during the rebuild connect phase of a duplexing rebuild and has not provided the required IXLCONN REBUILD request.

NOT RESPONDED AFTER CONNECTING DURING THE REBUILD CONNECT PHASE, IXLREBLD REQUEST=COMPLETE EXPECTED.
The specified connector has connected during the rebuild connect phase of a duplexing rebuild and has not provided the required IXLREBLD REQUEST=COMPLETE request.

NOT RESPONDED AFTER CONNECTING DURING THE DUPLEX ESTABLISHED PHASE.
The specified connector has connected during the duplex established phase of a duplexing rebuild and has not provided the required response.

NOT RESPONDED AFTER CONNECTING DURING THE REBUILD SWITCH PROCESS, IXLCONN REBUILD EXPECTED.
The specified connector has connected during the rebuild switch processing of a duplexing rebuild and has not provided the required response.

NOT RESPONDED AFTER CONNECTING DURING THE REBUILD SWITCH PROCESS, IXLREBLD REQUEST=DUPLEXCOMPLETE EXPECTED.
The specified connector has connected during the rebuild switch processing of a duplexing rebuild and has not provided the required response.

NOT RESPONDED AFTER CONNECTING DURING A USER SYNC POINT.
The specified connector has connected to the structure when a user sync point was established and has not provided the required response.

NOT RESPONDED AFTER CONNECTING DURING THE REBUILD STOP PROCESS.
The specified connector has connected during the rebuild stop process and has not provided the required response.

NOT RESPONDED AFTER AN IXLCONN REBUILD PRIOR TO THE REBUILD CONNECT EVENT, IXLREBLD REQUEST=COMPLETE EXPECTED.
The specified connector did an IXLCONN REBUILD prior to receiving the rebuild connect event and has not provided the required IXLREBLD REQUEST=COMPLETE response.

process
XES process that can not continue until the specified connector provides the required response.

- REBUILD PROCESSING
- DUPLEXING REBUILD PROCESSING
- SYSTEM-MANAGED REBUILD PROCESSING
- SYSTEM-MANAGED DUPLEXING REBUILD PROCESSING
- USER SYNC POINT PROCESSING

structure-name
The name of the structure.

mondate
The date when the system started waiting for a response (mm/dd/yyyy). The date is in months (01–12), days (01–31), and year.

montime
The time when the system started waiting for a response (hh:mm:ss). The time is in hours (00–23), minutes (00–59), and seconds (00–59).

x Diagnostic data

System action: The XES process cannot continue until all the necessary responses are received from all active connectors. The system issues message IXL049E stating whether it will initiate automatic hang relief action and if so, at what time. The system may also issue ABEND X'026' reason X'08118001' and initiate a dump.

If the hung connector provides the overdue response or the system terminates the hung process or connector, the system issues message IXL047I.

Operator response: Notify the system programmer.

System programmer response: Check on the status of the indicated connector and the system on which the connector is running. Take appropriate action to correct the situation or cancel/terminate the connector if necessary. If it is necessary to terminate the connector, first collect diagnostic information for the application causing the hang condition. The following information should be collected: system log, application log, and an appropriate dump (the dump generated by the ABEND X'026' reason X'08118001', if applicable). Then, using the application's instructions, end the connection not providing the required response.

Source: Cross System Extended Services (XES)

Module: IXLM1TMR

Routing code: 2,10

Descriptor code: 7,11

IXL041E **CONNECTOR NAME:** *connector-name*, **JOBNAME:** *jobname*, **ASID:** *asid* **HAS NOT RESPONDED TO THE** *event* **FOR SUBJECT CONNECTION:** *subject-connector-name*. *process* **FOR STRUCTURE** *structure-name* **CANNOT CONTINUE. MONITORING FOR RESPONSE STARTED:** *mondate montime*. **DIAG:** *x*

Explanation: An XES process is in a possible hang condition because the indicated connector did not provide a required response to an event. In the message text:

connector-name
Connection name of the connector failing to provide the required response.

jobname
Jobname of the connector failing to provide the required response.

asid
ASID of the connector failing to provide the required response.

event
The event to which the connector has not responded.

- DISCONNECTED/FAILED CONNECTION EVENT
- REBUILD CONNECT FAILURE EVENT

subject-connector-name
Connection name of the connector that disconnected from the structure or suffered a rebuild connect failure.

process
XES process that cannot continue until the specified connector provides the required response.

- REBUILD PROCESSING
- DUPLEXING REBUILD PROCESSING
- DISCONNECT/FAILURE PROCESSING

structure-name
The name of the structure.

mondate
The date when the system started waiting for a response (mm/dd/yyyy). The date is in months (01–12), days (01–31), and year.

montime
The time when the system started waiting for a response (hh:mm:ss). The time is in hours (00–23), minutes (00–59), and seconds (00–59).

x Diagnostic data

System action: The XES process cannot continue until all the necessary responses are received from all active connectors. The system issues message IXL049E stating whether it will initiate automatic hang relief action and if so, at what time. The system may also issue ABEND X'026' reason X'08118001' and initiate a dump.

If the hung connector provides the overdue response or the system terminates the hung process or connector, the system issues message IXL048I.

Operator response: Notify the system programmer.

System programmer response: Check on the status of the indicated connector and the system on which the connector is running. Take appropriate action to correct the situation or cancel/terminate the connector if necessary. If it is necessary to terminate the connector, first collect diagnostic information for the application causing the hang condition. The following information should be collected: system log, application log, and an appropriate dump (the dump generated by the ABEND X'026' reason X'08118001', if applicable). Then, using the application's instructions, end the connection not providing the desired response.

Source: Cross System Extended Services (XES)

Module: IXLM1TMR

Routing code: 2,10

Descriptor code: 7,11

IXL044I COUPLING FACILITY *cfname* **HAS EXPERIENCED** *IfccCount* **INTERFACE CONTROL CHECKS ON CHPID** *chpid* **DURING THE LAST** *interval* **SECONDS.**

Explanation: The indicated coupling facility has experienced the indicated number of Interface Control Checks (IFCCs) on the indicated coupling facility CHPID over the indicated period of time preceding the issuance of this message. Note that this count only reflects IFCCs on requests from this system, not all systems in the sysplex.

In the message text:

cfname
Name of the coupling facility from the CFRM active policy.

IfccCount
Count of Interface Control Checks during interval.

chpid
Coupling facility CHPID which experienced IFCCs.

interval
Number of seconds in the interval.

System action: The system continues operation. Normally, Interface Control Checks are fully recoverable by the system. If the IFCC resulted from a more serious failure condition (for example, the failure of a CF or of a coupling facility CHPID), other messages will be issued to describe those conditions.

Operator response: Notify the system programmer.

System programmer response: If the indicated coupling facility CHPID, or the coupling facility as a whole, is experiencing small numbers of IFCCs on a sporadic basis, generally no action is needed. Such sporadic IFCCs may be caused by events such as a temporary CF link problem, a workload spike or temporary delay in the CFF image, a system joining or leaving the sysplex, structure rebuild or other structure recovery actions, and the like. However, larger numbers of IFCCs occurring on a frequent or continual basis may indicate a hardware problem that requires further analysis or action. More detailed information on each IFCC is recorded in LOGREC for analysis, and hardware logging may also be taking place for these errors. Frequent or continual IFCCs may indicate that the CF is running with degraded performance due to a hardware or microcode problem. Consult IBM service personnel if the IFCCs cannot be understood in terms of normal events taking place in the configuration.

Source: Cross System Coupling

Module: IXLM2TAM

Routing code: 2,10

Descriptor code: 12

IXL045E [REBUILD] CONNECTOR NAME: *connector-name*, **JOBNAME:** *jobname*, **ASID:** *asid* **FOR STRUCTURE** *structure-name* **MAY BE ENCOUNTERING DELAYS DUE TO LIMITED XES SRB SCHEDULING.**

Explanation: An XES connector to a lock structure may be encountering delays due to limited XES SRB scheduling. IXL030I diagnostic information has been recorded in the hardcopy log and system LOGREC symptom record information containing diagnostic information has also been generated.

In the message text:

[REBUILD]
Rebuild connector.

connector-name
Connection name of the connector that encounters delays related to XES SRB scheduling.

jobname
Job name of the connector that encounters delays related to XES SRB scheduling.

asid
ASID of the connector that encounters delays related to XES SRB scheduling.

structure-name
The name of the structure.

System action: The XES connector to the lock structure will continue to encounter the delays until a sufficient number of currently running XES SRBs complete their processing.

Operator response: Notify the system programmer.

System programmer response: When the delay does not clear itself in a timely enough fashion, take appropriate action by trying to redistribute work or changing the workload. Keep in mind that the connector encountering the delay might be a victim rather than the cause of the delay (for example, when resource contention occurs on another system and holds up processing on the system that discovers the delay, or the structure is quiesced during rebuilds

such as during the process of establishing or breaking duplexing). Use system commands when possible to aid in determining where the contention is occurring (for example, commands to display GRS waiting queue contention). As a last resort, you can terminate the connector.

If it is necessary to terminate the connector, first collect diagnostic information for any applications related to the connector that might also be encountering a delay. The following information should be collected: system log, system LOGREC symptom record information that contains diagnostic information provided along with this message, application log, and an appropriate dump. Use the application's instructions to end the connection encountering the delay.

Source: Cross System Extended Services (XES)

Module: IXLM1TMR

Routing code: 2,10

Descriptor code: 7,11

IXL046I [REBUILD] CONNECTOR NAME: *connector-name*, **JOBNAME:** *jobname*, **ASID:** *asid* **FOR STRUCTURE** *structure-name* **IS NO LONGER ENCOUNTERING DELAYS DUE TO LIMITED XES SRB SCHEDULING.**

Explanation: An XES connector to a lock structure is no longer encountering delays due to limited XES SRB scheduling. IXL030I diagnostic information has been recorded in the hardcopy log and system LOGREC symptom record information that contains diagnostic information has also been generated.

In the message text:

[REBUILD]
Rebuild connector.

connector-name
Connection name of the connector that no longer encounters delays related to XES SRB scheduling.

jobname
Job name of the connector that no longer encounters delays related to XES SRB scheduling.

asid
ASID of the connector that no longer encounters delays related to XES SRB scheduling.

structure-name
The name of the structure.

System action: The system will continue processing. Message IXL045E will be deleted using the DOM macro.

Operator response: None.

System programmer response: None.

Source: Cross System Extended Services (XES)

Module: IXLM1TMR, IXLR2SSF

Routing code: 2,10

Descriptor code: 12

IXL046I [REBUILD] CONNECTOR NAME: *connector-name*, **JOBNAME:** *jobname*, **ASID:** *asid* **FOR STRUCTURE** *structure-name* **IS NO LONGER ENCOUNTERING DELAYS DUE TO LIMITED XES SRB SCHEDULING.**

Explanation: An XES connector to a lock structure is no longer encountering delays due to limited XES SRB scheduling. IXL030I diagnostic information has been recorded in the hardcopy log and system LOGREC symptom record information that contains diagnostic information has also been generated.

In the message text:

[REBUILD]
Rebuild connector.

connector-name
Connection name of the connector that no longer encounters delays related to XES SRB scheduling.

jobname
Job name of the connector that no longer encounters delays related to XES SRB scheduling.

asid
ASID of the connector that no longer encounters delays related to XES SRB scheduling.

structure-name
The name of the structure.

System action: The system will continue processing. Message IXL045E will be deleted using the DOM macro.

Operator response: None.

System programmer response: None.

Source: Cross System Extended Services (XES)

Module: IXLM1TMR, IXLR2SSF

Routing code: 2,10

Descriptor code: 12

IXL047I THE RESPONSE REQUIRED FROM CONNECTOR NAME: *conname* **TO STRUCTURE** *strname*, **JOBNAME:** *jobname*, **ASID:** *asid responsetype* **IS NO LONGER EXPECTED. REASON:** *reason*

Explanation: A structure-related process is no longer in a possible hang or delay condition because the outstanding connector response that has been delaying the process is either no longer outstanding or no longer required.

In the message text:

conname
Connection name of the connector no longer required to provide a response.

strname
The name of the structure with which the affected process is associated.

jobname
Job name of the connector.

asid
Hexadecimal ASID of the connector.

responsetype
The event or process for which the connector owed a response. One of the following:

- FOR THE REBUILD QUIESCE EVENT
- FOR THE REBUILD CONNECT EVENT (IXLCONN REBUILD)
- FOR THE REBUILD CONNECT EVENT (IXLREBLD REQUEST=COMPLETE)
- FOR THE REBUILD SWITCH EVENT
- FOR THE REBUILD CLEANUP EVENT
- FOR THE REBUILD STOP EVENT
- FOR THE STRUCTURE TEMPORARILY UNAVAILABLE EVENT
- FOR THE USER SYNC POINT EVENT
- AFTER CONNECTING DURING THE REBUILD QUIESCE PHASE
- AFTER CONNECTING DURING REBUILD CONNECT (IXLCONN REBUILD)
- AFTER CONNECTING DURING THE REBUILD CONNECT PHASE
- AFTER CONNECTING DURING DUPLEX ESTABLISHED (IXLREBLD REQUEST=COMPLETE)
- AFTER CONNECTING DURING REBUILD SWITCH (IXLCONN REBUILD)
- AFTER CONNECTING DURING REBUILD SWITCH (IXLREBLD REQUEST=COMPLETE)
- AFTER CONNECTING DURING A USER SYNC POINT
- AFTER CONNECTING DURING THE REBUILD STOP PROCESS

- AFTER AN IXLCONN REBUILD PRIOR TO THE REBUILD CONNECT EVENT

reason
One of the following reasons:
- CONNECTOR HAS PROVIDED THE REQUIRED RESPONSE
- CONNECTOR HAS DISCONNECTED/FAILED
- REBUILD STOPPED
- REBUILD COMPLETION

System action: The system deletes message IXL040E, if it was issued, using the DOM macro and continues with the process.

Source: Cross System Extended Services (XES)

Module: IXLC1CON, IXLX1EEI, IXLX1EER

Routing code: 2,10

Descriptor code: 12

IXL048I THE RESPONSE REQUIRED FROM CONNECTOR NAME: *conname* **TO STRUCTURE** *strname*, **JOBNAME:** *jobname*, **ASID:** *asid* **FOR THE** *event* **FOR SUBJECT CONNECTION** *subjectconnname* **IS NO LONGER EXPECTED. REASON:** *reason*

Explanation: A structure-related process is no longer in a possible hang condition because the outstanding connector response that has been delaying the process is either no longer outstanding or no longer required.

In the message text:

conname
Connection name of the connector no longer required to provide a response.

strname
The name of the structure with which the affected process is associated.

jobname
Job name of the connector.

asid
Hexadecimal ASID of the connector.

event
The event for which the connector owed a response. One of the following:
- DISCONNECTED/FAILED CONNECTION EVENT
- REBUILD CONNECT FAILURE EVENT

subjectconnname
Connection name of the connector that disconnected, failed, or suffered a rebuild connect failure.

reason
One of the following reasons:
- CONNECTOR HAS PROVIDED THE REQUIRED RESPONSE
- CONNECTOR HAS DISCONNECTED/FAILED
- REBUILD STOPPED
- REBUILD COMPLETION

System action: The system deletes message IXL041E using the DOM macro and continues with the process.

Source: Cross System Extended Services (XES)

Module: IXLC1CON, IXLX1EEI, IXLX1EER

Routing code: 2,10

Descriptor code: 12

IXL049E HANG RESOLUTION ACTION FOR CONNECTOR NAME: *conname* **TO STRUCTURE** *strname*, **JOBNAME:** *jobname*, **ASID:** *asid*: *actiontext*

Explanation: An XES process is in a possible hang condition because the connector did not provide a required response to one or more events, described by message IXL040E or IXL041E. This message indicates whether and when the system will take automatic action to relieve the hang.

In the message text:

conname
Name of the connector with one or more overdue responses.

strname
The name of the structure with which the affected connector is associated.

jobname
Job name of the connector.

asid
Hexadecimal ASID of the connector.

actiontext
One of the following:

SFM POLICY NOT ACTIVE, MANUAL INTERVENTION REQUIRED
There is no SFM policy active on the local system, so the system will not take action to remedy the problem. The installation should immediately investigate and resolve the problem.

SFM POLICY REQUIRES MANUAL INTERVENTION
CFSTRHANGTIME(NO) is in effect for the local system (either defaulted or explicitly specified in the SFM policy), so the system will not take action to remedy the problem. The installation should immediately investigate and resolve the problem.

SYSTEM IS TAKING ACTION
The system is taking immediate action to remedy the problem, either because the SFM policy specified CFSTRHANGTIME(0) for the local system or because an SFM policy change activated a new value of CFSTRHANGTIME which, when applied to the hang detection time, caused action to be required at the present time.

SYSTEM WILL TAKE ACTION AT *termdate termtime*
If the outstanding response has not been provided by the date and time indicated, the system will take action to remedy the problem.

SYSTEM ACTION UNSUCCESSFUL, MANUAL INTERVENTION REQUIRED
The system has attempted all forms of automatic action of which it is capable. The connector response remains outstanding, and the affected process remains hung. The installation should investigate and resolve the problem.

termdate
The date when the system will take action to resolve the hang caused by the unresponsive connector (mm/dd/yyyy). The date is in months (01-12), days (01-31), and year.

termtime
The time when the system will take action to resolve the hang caused by the unresponsive connector (hh:mm:ss). The time is in hours (00-23), minutes (00-59), and seconds (00-59).

System action: If SFM is in use on the local system and an SFM policy is active, the system uses the CFSTRHANGTIME specification from the currently active policy to determine whether and when to initiate automatic action to resolve the hang.

If the system is not using SFM, the default behavior is to take no automatic action, as if CFSTRHANGTIME(NO) is specified.

If the message indicates that manual intervention is required, the system continues to monitor the situation.

If the message indicates that the system is taking action, the system will initiate progressively more aggressive actions as necessary to resolve the hang. System actions may include stopping a rebuild, terminating the connector's task or address space, or partitioning the issuing system. If connector termination is necessary, the system will initiate

a dump. The system will issue message IXL050I to indicate that action is being taken against the hung connector to resolve the problem.

If the message indicates that the system will take action at a specific time, the CFSTRHANGTIME specification of the SFM policy has been applied to calculate the maximum amount of time that the connector will be permitted to remain unresponsive. If the outstanding response has not been provided by the specified time, the system will then initiate action to resolve the hang. If automatic action becomes necessary, the system will issue message IXL050I and may initiate a dump.

Operator response: Notify the system programmer.

System programmer response: Refer to the documentation for messages IXL040E and IXL041E.

Source: Cross System Extended Services (XES)

Module: IXLM1TMR

Routing code: 2,10

Descriptor code: 7, 11

IXL050I CONNECTOR NAME: *conname* **TO STRUCTURE** *strname*, **JOBNAME:** *jobname*, **ASID:** *asid* **HAS NOT PROVIDED A REQUIRED RESPONSE AFTER** *noresponsetime* **SECONDS. TERMINATING** *termtarget* **TO RELIEVE THE HANG.**

Explanation: A structure connector failed to provide an expected response to a structure-related event. The system is taking action to relieve the resulting hang because the time limit for providing the response has expired.

In the message text:

conname
Connection name of the connector failing to provide the required response.

strname
The name of the structure to which the unresponsive connector is connected.

jobname
Job name of the connector.

asid
Hexadecimal ASID of the connector.

termtarget
One of the following:

REBUILD
The system is stopping the rebuild in an attempt to relieve the hang. This action applies only to the following scenario:

- A system-managed or user-managed rebuild (including duplexing rebuilds) is in progress.
- The rebuild has not progressed beyond the point where the process can be stopped.
- Termination of the rebuild will not create a situation in which no viable structure instance survives (for example, when rebuild was initiated because of structure failure or loss of connectivity).

SIGNAL PATHS (ATTEMPT *n***)**
The system is stopping its signal paths (PATHIN and PATHOUT) through the affected structure. This is the nth attempt to terminate paths. The system will attempt to stop paths up to three times, and each stop attempt is progressively more aggressive. This termination action applies only to XCF signaling structures.

CONNECTION
The system is terminating the connection. This termination action applies only to XCF signaling structures.

CONNECTOR TASK
The system is terminating the connector's task. The task will terminate with completion code X'026' and reason code X'08110102'.

CONNECTOR SPACE (WITH RECOVERY)
The system is terminating the connector's address space. Tasks in the address space will terminate with completion code X'026' and reason code X'08110102'. Task recovery and task-level resource managers will

receive control. The system uses this form of termination if the connector's IXLCONN TERMLEVEL specification indicates that termination should begin at the address space level.

CONNECTOR SPACE (NO RECOVERY)
The system is terminating the connector's address space. Tasks in the address space will terminate with completion code X'026' and reason code X'08110102'. Task recovery and task-level resource managers will not receive control. The system uses this form of termination if a previous attempt to terminate either the connector's task or the connector's address space was unsuccessful in relieving the hang.

CONNECTOR SYSTEM
The system is initiating partitioning to remove itself from the sysplex. The system will terminate with wait state code X'0A2' and reason code X'188'.

noresponsetime
The total elapsed time in seconds since the event requiring the response was initially presented to the connector. This includes:

- The time between presentation of the event and the issuing of message IXL040E or IXL041E reporting the overdue response
- The time between message IXL040E or IXL041E and initiation of termination processing

For the first termination attempt, the second component of the time will be approximately equal to the CFSTRHANGTIME value specified in the SFM policy.

System action: The system takes the action specified in the message to attempt to relieve the hang previously reported by message IXL040E or IXL041E.

Operator response: Notify the system programmer.

System programmer response: Collect diagnostic information for the application causing the hang condition. The following information should be collected: system log, application log, and the dump initiated by the abnormal termination of the connector, if applicable.

Source: Cross System Extended Services (XES)

Module: IXLM1TMR

Routing code: 2,10

Descriptor code: 7, 12

IXL051E *dumptype* **DUMP OF COUPLING FACILITY** *cfnametype.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid***INITIATED BY THE** *requestor* **[FOR STRUCTURE** *strname* **SID** *sid***] [DIAG DATA:** *diagdata***]**

Explanation: A dump of the named coupling facility (CF) has been initiated to capture diagnostic data.

In the message text:

dumptype
One of the following:

DISRUPTIVE
The coupling facility took a disruptive dump, resulting in failure of the CF. All systems observe a loss of connectivity to the CF.

NON-DISRUPTIVE
The coupling facility took a non-disruptive dump. The CF continues operating.

cfname
Name of the affected coupling facility.

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for side. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- **blank** means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (See ndecpcid in IXLYNDE).

requestor
One of the following:

SYSTEM
z/OS requested that the CF initiate a dump.

CF The coupling facility initiated the dump.

OPERATOR
The operator requested the CF dump via SETXCF DUMPCF.

strname
Name of the structure associated with the problem for which the CF is being dumped. A value of **N/A** indicates that the system could not determine the structure name. Present only when *requestor* is **SYSTEM**.

sid
Structure ID of the structure associated with the problem for which the CF is being dumped. Present only when *requestor* is **SYSTEM**.

diagdata
Diagnostic data to assist IBM personnel in determining the reason for the dump. Present only when *requestor* is **SYSTEM** or **OPERATOR**.

System action: If *requestor* is **SYSTEM**, the system initiates an SDUMP to document its perception of the error. If the system determines that a structure can no longer be used as a result of the error, it initiates processing to stop using the affected structure. If *dumptype* is DISRUPTIVE, all systems recognize a loss of connectivity to the affected CF.

Operator response: Notify the system programmer.

System programmer response: Capture the CF dump and, if applicable, the z/OS dump, and contact IBM. Once the CF dump has been captured, you can delete message IXL051E from the Action Message Retention Facility (AMRF) (if in use) by issuing the K C,E,*id* command, where *id* is the message ID associated with IXL051E.

Source: Cross System Extended Services (XES)

Module: IXLM2SG

Routing code: 1, 10

Descriptor code: 3

IXL052E **IXL052I SYSTEM:** *system-name*, **CONNECTOR:** *connector-name*,
JOBNAME: *jobname,* **ASID:** *asid*,
FOR STRUCTURE: *structure-name*, **HAS TIMED OUT**
REQUEST: *request*
text.
actions.
MONITORING FOR TIMEOUT STARTED: *mm/dd/yyyy hh:mm:ss.*
TIMEOUT DETECTED: *mm/dd/yyyy hh:mm:ss.*
RESOURCE: *resource-id.*

Explanation: XES has detected a possible hang condition from an IXLLOCK request.

In the message text:

system-name
Name of the system associated with the condition

connector-name
Connection name of the connector associated with the condition.

jobname
Jobname of the connector associated with the condition.

asid
Hexadecimal ASID of the connector associated with the condition.

structure-name
The name of the structure.

mm/dd/yyyy
The date when the system detected the timeout or started monitoring the resource for the hang condition. The date is in months (01-12), days (01-31), and year.

hh:mm:ss
The time when the system detected the timeout or started monitoring the resource for the hang condition. The time is in hours (00-23), minutes (00-59), and seconds (00-59).

seconds
The duration in seconds used to trigger the timeout.

text
One of the following:

WAITING FOR PENDING RESOURCE.
The timeout occurred waiting for a pending resource to become available.

WAITING FOR PENDING RESOURCE.
The timeout occurred while holding a resource.

RELEASING RESOURCE.
The timeout occurred while releasing a resource.

request
One of the following:

- OBTAIN.
- ALTER.
- RELEASE.
- PROCESSMULT.

actions
One of the following:

DOCUMENTATION GATHERED.
Diagnostic documentation has been gathered as a result of the timeout.

REQUESTOR NOTIFIED.
The connectors complete exit for which the timeout occurred has been notified.

REQUEST CANCELLED.
The pending request for the lock has been cancelled. When globally managed, the exploiters contention exit is called with an updated resource request queue.

resource-id
Internal identifier of the resource associated with the condition.

This is a hash value and resource name (which can be up to 300 bytes long) that uniquely identifies the IXLLOCK requestor.

System action: No action was taken, but symptoms were observed.

Operator response: Notify the system programmer.

System programmer response: If desired, a CF dump may be requested by some other means.

Source: Cross System Extended Services (XES)

Module: IXLM2TAM

Routing code: 10

Descriptor code: 12

IXL057I **CONNECTOR NAME:** *conname*, **JOBNAME:** *jobname*, **ASID:** *asid*
HAS NOT RESPONDED *responsetext*
process **FOR STRUCTURE:** *strname* **IS DELAYED.**
MONITORING FOR RESPONSE STARTED: *mondate montime.*
CONNECTOR IS *status*
[RESPONSIBLE CONNECTOR NAME: *respconname* **ON SYSTEM** *respsysname***]**
[*usertext***]**

Explanation: The identified connector has not provided an expected response to a structure-related event but either appears to be making progress (as measured by the criteria established by the connector for the affected process) or is waiting for another connector to complete the required processing. The system will issue this message in the following cases:

- When the delay is first recognized.
- If the connector is declared hung with respect to the specified event, but later resumes making progress towards completion of the processing required by the event.
- If the connector changes status, (for example, from WAITING FOR ANOTHER CONNECTOR to REPORTING PROGRESS).
- If the connector specifies IXLREBLD REQUEST=POPULATING or WAITING with updated user text.
- If the connector specifies IXLREBLD REQUEST=WAITING with information describing a different master connector.

In the message text:

conname
Name of the connector which has not yet provided the expected response.

jobname
Jobname associated with the connector which has not yet provided the expected response.

asid
Hexadecimal ASID of the connector which has not yet provided the expected response.

responsetext
One of the following:

TO THE REBUILD CONNECT EVENT, IXLREBLD REQUEST=COMPLETE EXPECTED
The specified connector has not responded with the IXLREBLD REQUEST=COMPLETE request.

AFTER CONNECTING DURING THE REBUILD CONNECT PHASE, IXLREBLD REQUEST=COMPLETE EXPECTED
The specified connector has connected during the rebuild connect phase of a duplexing rebuild and has not initiated the required IXLREBLD REQUEST=COMPLETE request.

AFTER CONNECTING DURING THE REBUILD SWITCH PROCESS, IXLREBLD REQUEST=DUPLEXCOMPLETE EXPECTED
The specified connector has connected during rebuild switch processing for a duplexing rebuild and has not initiated the required IXLREBLD REQUEST=DUPLEXCOMPLETE request.

process
Process that cannot continue until the specified connector has provided the required response. One of the following:

- REBUILD PROCESSING
- DUPLEXING REBUILD PROCESSING

strname
The name of the structure.

mondate
The date when the system started waiting for a response (mm/dd/yyyy). The date is in months (01-12), days (01-31), and year.

montime
The time when the system started waiting for a response (hh:mm:ss). The time is in hours (00-23), minutes (00-59), and seconds (00-59).

status
Connector status. One of the following:

REPORTING PROGRESS
The connector is making progress toward completion of the required processing as indicated by periodic reports to the system (IXLREBLD REQUEST=POPULATING).

PROGRESS
The connector is making progress toward completion of the required processing as indicated by system observation of coupling facility request rate.

WAITING FOR ANOTHER CONNECTOR
The connector has no process-related work of its own to accomplish, and is waiting for another connector to complete the necessary processing.

respconname
Name of the connector responsible for completing the processing for which the specified connector is waiting. Information on the responsible connector appears only when status is WAITING FOR ANOTHER CONNECTOR.

respsysname
System on which the connector responsible for completing the processing resides, or UNKNOWN if not provided on the waiting connector's IXLREBLD REQUEST=WAITING invocation and not otherwise available.

usertext
Optional text supplied by the connector owing the response for the delayed process. This line may appear when status is REPORTING PROGRESS or WAITING FOR ANOTHER CONNECTOR, and is present only if the connector's most recent IXLREBLD REQUEST=POPULATING or REQUEST=WAITING invocation supplied USERTEXT.

System action: The system continues processing. If this message is issued after a hang has previously been declared, the system DOMs hang declaration message IXL040E, DOMs hang resolution action message IXL049E, and stops counting down toward automatic hang resolution action, if applicable (as determined by the SFM policy CFSTRHANGTIME setting). If the delay persists longer than 15 minutes, the system will initiate a diagnostic dump.

If the delayed connector provides the overdue response or the system terminates the delayed process or connector, the system issues message IXL047I.

Operator response: None.

System programmer response: If the delay is unexpected, either capture the diagnostic dump initiated by the system, if any, or initiate a manual dump of the connector and XCFAS address spaces and associated data spaces.

Source: Cross System Extended Services (XES)

Module: IXLM1TMR

Routing code: 2,10

Descriptor code: 12

IXL103I VARY REJECTED, COUPLING FACILITY *cfname* IS NOT ACCESSIBLE

Explanation: The operator entered a VARY PATH command for a path to the coupling facility *cfname*. However, the coupling facility is not accessible by this system.

In the message text:

cfname
Name of the coupling facility from the CFRM active policy.

System action: Processing for the coupling facility *cfname* terminates. The system continues processing.

Operator response: If *cfname* does not indicate the desired coupling facility name, enter the command again with the desired name.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Routing code: 5

Descriptor code: _

IXL104I VARY REJECTED, PATH(*cfname*,*chpid*) DOES NOT EXIST

Explanation: A VARY PATH command requested that a path to the coupling facility *cfname* through channel path *chpid* be varied online or offline. However, the path does not exist.

In the message text:

cfname
Name of the coupling facility from the CFRM active policy.

chpid
Coupling facility sender CHPID.

System action: Processing for the coupling facility *cfname* is terminated. The system continues processing.

Operator response: If *chpid* does not indicate the desired channel path, enter the command again with the desired path.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Routing code: #

Descriptor code: 5

IXL105I VARY REJECTED, PATH(*cfname*,*chpid*) LAST PATH TO FACILITY

Explanation: A VARY PATH command requested that the last path *chpid* to the coupling facility *cfname* be varied offline. However, varying the last path to a coupling facility offline is not allowed.

In the message text:

cfname
Name of the coupling facility from the CFRM active policy.

chpid
Coupling facility sender CHPID.

System action: Processing for the coupling facility *cfname* is terminated. The system continues processing.

Operator response: If the path is to be varied offline unconditionally, enter the command again with UNCOND parameter.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Routing code: #

Descriptor code: 5

IXL106I VARY REJECTED, PATH(*cfname*,*chpid*) LAST PATH TO ACTIVE FACILITY

Explanation: A VARY PATH command requested that the last path *chpid* to the coupling facility *cfname* be varied offline. However, the coupling facility is in use by connectors on this system and the last path to it may not be varied offline.

In the message text:

cfname
Name of the coupling facility from the CFRM active policy.

chpid
Coupling facility sender CHPID.

System action: Processing for the coupling facility *cfname* is terminated. The system continues processing.

Operator response: If *cfname* does not indicate the desired coupling facility name, enter the command again with the desired name.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Routing code: #

Descriptor code: 5

IXL124I CONFIG REJECTED, CHP(*chpid*) LAST PATH TO COUPLING FACILITY *cfname*

Explanation: A CONFIG CHP command requested that the last path *chpid* to a coupling facility be configured offline. However, the last path to coupling facility *cfname* may not be configured offline.

In the message text:

chpid
Coupling facility sender CHPID.

cfname
Name of the coupling facility from the CFRM active policy.

System action: Processing for the path *chpid* is terminated. The system continues processing.

Operator response: If the path is to be configured offline unconditionally, enter the command again with UNCOND parameter.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3POP

Routing code: #

Descriptor code: 5

IXL125I CONFIG REJECTED, CHP(*chpid*) LAST PATH TO ACTIVE COUPLING FACILITY *cfname*

Explanation: A CONFIG CHP command with UNCOND parameter requested that the last path *chpid* to coupling facility *cfname* be configured offline. However, the coupling facility is in use by connectors on this system hence the last path may not be configured offline.

In the message text:

chpid
Coupling facility sender CHPID.

cfname
Name of the coupling facility from the CFRM active policy.

System action: Processing for the path *chpid* is terminated. The system continues processing.

Operator response: If *chpid* does not indicate the desired path, enter the command again with the desired path.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3POP

Routing code: #M

Descriptor code: 5

IXL126I CONFIG WILL FORCE OFFLINE LAST CHP(*chpid*) TO COUPLING FACILITY *cfname*

Explanation: A CONFIG CHP command with FORCE parameter requested that the last path *chpid* to coupling facility *cfname* be configured offline. The operator will be asked to confirm this action.

In the message text:

chpid
Coupling facility sender CHPID.

cfname
Name of the coupling facility from the CFRM active policy.

System action: System processing stops until the operator replies to message IXL127A.

Operator response: Reply to message IXL127A.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3POP

Routing code: 1

Descriptor code: 2

IXL127A REPLY CANCEL OR CONTINUE

Explanation: A CONFIG CHP command with FORCE parameter requested that the last path *chpid* to coupling facility *cfname* be configured offline. The operator has been asked to confirm or cancel this action.

System action: System processing stops until the operator replies to message IXL127A.

Operator response: Choose either CANCEL to cancel the offline request or CONTINUE to continue processing the offline request.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3POP

Routing code: #

Descriptor code: 5

IXL128I SYNTAX NOT VALID

Explanation: A syntax error was found in the response to message IXL127A.

System action: System processing remains stopped until the operator replies correctly to message IXL127A.

Operator response: Correct the syntax error and re-enter the command. Choose either CANCEL to cancel the command or CONTINUE to continue processing the command.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3POP

Routing code: 1

Descriptor code: 2

IXL129I CONFIG CHP(*chpid*) CANCELLED BY THE OPERATOR

Explanation: A CONFIG CHP command with FORCE parameter requested that the last path *chpid* to a coupling facility be configured offline. The operator has been asked to confirm or cancel this action. The operator replied CANCEL.

In the message text:

chpid
Coupling facility sender CHPID.

System action: Processing for the path *chpid* is terminated. The system continues processing.

Operator response: Not Applicable.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3POP

Routing code: #

Descriptor code: 5

IXL140I GETMAIN FAILED, INSUFFICIENT STORAGE

Explanation: Getmain failed to obtain storage to process the display command.

System action: The system continues processing.

Operator response: Determine the cause of the storage shortage to try to relieve the constraint. Enter the display command again.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3DCH

Routing code: #

Descriptor code: 5

IXL150I hh.mm.ss DISPLAY CF *text*

Explanation: In the message, *text* is:

```
COUPLING FACILITY   type.mfg.plant.sequence
                    PARTITION:       partition side  CPCID: cpcid
                    LP NAME:         lparname        CPC NAME: cpcname
                    CONTROL UNIT ID: cuid
NAMED cfname
COUPLING FACILITY SPACE UTILIZATION
  ALLOCATED SPACE                      DUMP SPACE UTILIZATION
    STRUCTURES:  strspace u    STRUCTURES DUMP TABLES:    strdumpspace u
    DUMP SPACE:  dumpspace u   TABLE COUNT:               tablecount
    FREE SPACE:  freespace  u  FREE DUMP SPACE:           freedumpspace u
    TOTAL SPACE: totalspace u  TOTAL DUMP SPACE:          totaldumpspace u
                               MAX REQUESTED DUMP SPACE:  maxreqdumpspace u
        VOLATILE:  {YES|NO}
        CFLEVEL:   cflevel
        CFCC RELEASE  release1.release2, SERVICE LEVEL service1.service2

        BUILT ON      mm/dd/yyyy AT hh:mm:ss
        STORAGE INCREMENT SIZE:               stgincrement u
        STORAGE-CLASS MEMORY INCREMENT SIZE:  scmincrement u
COUPLING FACILITY HAS ONLY ONE ONLINE SENDER PATH


[COUPLING FACILITY HAS ONLY SHARED PROCESSORS|COUPLING FACILITY HAS ONE OR MORE DEDICATED PROCESSORS]
```

```
[COUPLING FACILITY HAS shr SHARED AND ded DEDICATED PROCESSORS
  DYNAMIC CF DISPATCHING: {ON | OFF | THIN INTERRUPTS]

COUPLING FACILITY IS standalonestate
COUPLING THIN INTERRUPTS: cti
[COUPLING FACILITY HAS ONLY ONE ONLINE SENDER PATH]

mtofstatus
[REASON: mtofreason]

STORAGE CONFIGURATION
                        ALLOCATED         FREE             TOTAL
CONTROL SPACE:          allocspace u      freespace u      totalspace u
NONCONTROL SPACE:       allocspace u      freespace u      totalspace u
[STORAGE-CLASS MEMORY:  allocspace u      freespace u      totalspace  u      ]

[NO COUPLING FACILITY SPACE DATA AVAILABLE]
[NOT CONNECTED TO SYSTEM]
[NOT IN THE CFRM ACTIVE POLICY]
[NOT IN USE BY SYSTEM]
PATH             PHYSICAL            LOGICAL        CHANNEL TYPE        AID PORT
chpid[/pchid]    phystatus           logstatus      chtype [pathmode]   aid port

COUPLING FACILITY SUBCHANNEL STATUS
 TOTAL: number1  IN USE: number2  NOT USING: number3  NOT USABLE: number4
 OPERATIONAL DEVICES / SUBCHANNELS:
       device / subchannel    device / subchannel
       device / subchannel    device / subchannel
 NOT OPERATIONAL DEVICES / SUBCHANNELS:
       device / subchannel    device / subchannel
       device / subchannel    device / subchannel

REMOTELY CONNECTED COUPLING FACILITIES
       CFNAME               COUPLING FACILITY
       -------              -----------------
       rfcfname             rftype.rfmfg.rfplant.rfsequence
                            PARTITION: partition rfside CPCID: rfcpcid
                            CHPIDS ON cfname CONNECTED TO REMOTE FACILITY
                            RECEIVER:    CHPID      TYPE
                                         rfchpid    rfchtype [rfpmode]
                            SENDER:      CHPID      TYPE
                                         rfchpid    rfschtype [rfspmode]
                             [* = PATH OPERATING AT REDUCED CAPACITY]

[NO REMOTELY CONNECTED COUPLING FACILITY DATA AVAILABLE]
[THE SIGNALLING VECTOR WAS NOT CREATED IN THIS CF]
NOT OPERATIONAL CHPIDS ON cfname
 rfinochpid rfinochpid rfinochpid rfinochpid
 rfinochpid rfinochpid rfinochpid rfinochpid
```

Sender Path data will not be available if no channel paths are currently defined to the Coupling Facility control unit. In this case, the **SENDER PATH** section is replaced with **NO PATH STATUS AVAILABLE**.

Coupling Facility Subchannel data will not be available if no subchannels/devices are currently defined for this Coupling Facility control unit. In this case, the **COUPLING FACILITY DEVICE** section is replaced with **NO COUPLING FACILITY DEVICE STATUS AVAILABLE**.

Information about one or more coupling facilities was requested by a D CF command. Information displayed will contain space utilization and configuration data of the requested facility or all coupling facilities. Sender CHPIDs and coupling facility subchannels are also displayed with their status for each coupling facility. If the coupling facility is level 10 or higher, then available information is also displayed about any remotely connected coupling facilities and the CHPIDs that may be used to connect them.

The Display CF command also displays information on the CF request time ordering function:

In the message text:

hh.mm.ss
The time in hours (00-23), minutes (00-59), and seconds (00-59).

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (See ndecpcid in IXLYNDE).

lparname
Name assigned to the logical partition on which the CF is running. N/A indicates that the name is not available.

cpcname
Name assigned to the CPC on which the CF is running. N/A indicates that the name is not available.

cuid
Control unit number of the coupling facility.

cfname
Name of the coupling facility from the CFRM active policy.

strspace
Total amount of facility storage in use by allocated structures.

u The integer size unit specification. One of the following:

- K (kilobytes)
- M (megabytes)
- G (gigabytes)
- T (terabytes)

Note: The size unit displayed will be the highest one which can be used to show the storage increment size value. For example, a storage increment size of 1048576K may be converted to a storage increment size of 1G for the purpose of messages. A storage increment size of 120000K will not cause the displayed size to be converted because it is not an even multiple of megabytes, gigabytes, or terabytes. All the other size units (for example, *strspace*, *strdumpspace*, *dumpspace*, *freespace*, *freedumpspace*, and *totalspace*) will be displayed with the same unit specification chosen for the storage increment size. This will allow for better readability of the size counts when compared to the total counts for the specific coupling facility.

strdumpspace
Total amount of facility dump storage assigned to dump tables.

dumpspace
Total amount of storage assigned to dumping storage.

tablecount
Current number of dump tables assigned to structures.

freespace
Total amount of storage available for assignment to structures.

freedumpspace
Total amount of dumping storage available for assignment in a dump table.

totalspace
Total amount of storage available, for the allocation of structures.

totaldumpspace
Total amount of storage assigned as dumping storage.

maxreqdumpspace
Maximum amount of dump space requested to be assigned to dump tables.

NO COUPLING FACILITY SPACE DATA AVAILABLE
Coupling Facility data is not available. The COUPLING FACILITY SPACE UTILIZATION and the STORAGE CONFIGURATION sections are not provided.

NOT CONNECTED TO SYSTEM
Coupling Facility data is not available because the system is not connected to the Coupling Facility. The COUPLING FACILITY SPACE UTILIZATION and the STORAGE CONFIGURATION sections are not provided.

NOT IN THE CFRM ACTIVE POLICY
Coupling Facility data is not available because the Coupling Facility is not defined in the active CFRM policy. The COUPLING FACILITY SPACE UTILIZATION and the STORAGE CONFIGURATION sections are not provided.

NOT IN USE BY SYSTEM
Coupling Facility data is not available because the Coupling Facility is not being used by the system. Either the system has not completed the gain ownership process, there was an error in the gain ownership process, the operator replied NO to IXC501A or IXC560A, or takeover was prohibited. The COUPLING FACILITY SPACE UTILIZATION and the STORAGE CONFIGURATION sections are not provided.

YES
The facility space is volatile.

NO The facility space is non-volatile.

stgincrement
Storage increment size for this facility.

cflevel
Coupling facility level for this facility

release1
Coupling facility release level part 1

release2
Coupling facility release level part 2

service1
Coupling facility service level part 1

service2
Coupling facility service level part 2

mm/dd/yyyy
The date in month, day, and year.

hh:mm:ss
The time in hours, minutes, and seconds.

stgincrement
Storage increment size for this facility.

scmincrement
Storage-class memory increment size for this facility.

standalonestate
One of the following:

STANDALONE
The CF resides on a CEC with no general-purpose processors, so that no z/OS image can run on the CEC.

NOT STANDALONE
The CF resides on a CEC with at least one general-purpose processor, so it is possible to configure a z/OS image on the same CEC.

cti
One of the following:

ENABLED
Coupling thin interrupts is enabled for the coupling facility.

NOT-ENABLED
Coupling thin interrupts is not enabled for the coupling facility.

NOT-AVAILABLE
Coupling thin interrupts is not available in the coupling facility. A CFLEVEL of 19 or higher has the coupling thin interrupt functionality available for enablement.

text
text is one of the following:

CF REQUEST TIME ORDERING: REQUIRED AND ENABLED
The CF request time ordering function is required for operations to the CF. The required hardware (CF request time ordering function installed on both the CECs where the CF and z/OS systems are running) is available. The CF and z/OS system are synchronized in the same timing network.

CF REQUEST TIME ORDERING: NOT-REQUIRED AND ENABLED
The CF request time ordering function is not required for operations to the CF. The required hardware (CF request time ordering function installed on both the CECs where the CF and z/OS systems are running) is available. The CF and z/OS system are synchronized in the same timing network.

CF REQUEST TIME ORDERING: NOT-REQUIRED AND NOT-ENABLED
The CF request time ordering function is not required for operations to the CF. The CF request time ordering function is not enabled: either the required hardware (CF request time ordering function installed on both the CECs where the CF and z/OS systems are running) is not available, or the CF and z/OS system are not synchronized in the same timing network.

CF REQUEST TIME ORDERING: REQUIRED AND NOT-ENABLED
The CF request time ordering function is required for operations to the CF; however, the CF request time ordering function is not enabled: either the required hardware (CF request time ordering function installed on both the CECs where the CF and z/OS systems are running) is not available, or the CF and z/OS system are not synchronized in the same timing network.. The reason CF request time ordering is not enabled is described in the REASON message text.

CF REQUEST TIME ORDERING: REQUIRED AND WILL NOT BE ENABLED
The CF request time ordering function is required for operations to the CF. However, the timing characteristics of the CF are not consistent with timing characteristics of the of the z/OS system.

REASON: *reason*
reason is one of the following:

REASON: FUNCTION NOT INSTALLED ON THIS SYSTEM
The CF request time ordering function is required for operations to the CF; however, the function is not installed on the CEC running the z/OS system.

REASON: ETR NOT CONNECTED TO COUPLING FACILITY
The CF request time ordering function is required for operations to the CF; however, there is no ETR connected to the CEC where the CF is running.

REASON: REQUEST TIME ORDERING FUNCTION FAILURE
The CF request time ordering function is required for operations to the CF; however, the CF request time ordering function has encountered a non-recoverable error. The ETR connected to the sender z/OS system and the receiver CF system may not be functioning properly.

REASON: REQUEST TIME ORDERING NOT INSTALLED ON THIS SYSTEM
The CF request time ordering function is required for operations to the CF; however, the CF request

time ordering function is not available or not installed on the CEC running the z/OS system. CF request time ordering function must be installed on both CECs where the sender z/OS system and the receiver CF are running in order for CF request time ordering to be enabled.

REASON: CTNID MISMATCH - CF CTNID: *cfstpid*
The CF request time ordering function is required for operations to the CF; however, the CTNID that is defined for the CEC that is running the CF does not match the CTNID that is defined for the CEC that is running the z/OS system. The *cfstpid* is the eight-byte STP portion of the CTNID that has been defined for the CEC running the CF. The sysplex is running in a Coordinated Timing Network that is using STP to steer the local clock. The ETR portion of the CNTID is not displayed.

Issue D ETR to obtain CTN information for the CEC running the z/OS system.

REASON: ETR NETID MISMATCH - CF ETR NETID: *etr netid*
The CF request time ordering function is required for operations to the CF; however, the ETR that is connected to the CEC that is running the CF does not match the ETR that is connected to the CEC that is running the z/OS system. Issue D ETR to obtain the ETR NetID of the ETR connected to the z/OS system.

REASON: CF IS OUT OF SYNCH WITH TIMING NETWORK
The CF request time ordering function is required for operations to the CF; however, the TOD clock for the CF is not in synchronization with the timing network in use by the other systems in the sysplex. The timing network is defined by the CTNID for the CEC the CF is running on.

COUPLING FACILITY HAS ONLY SHARED PROCESSORS
All central processors in the coupling facility are defined to be shared. IBM recommends using dedicated CPs for production coupling facility LPARs which will allow the best performance and throughput. See the *PR/SM Planning Guide* for more information regarding processor considerations for coupling facility LPARs.

COUPLING FACILITY HAS ONE OR MORE DEDICATED PROCESSORS
One or more central processors in the coupling facility is defined to be dedicated. This is an optimal configuration. See the *PR/SM Planning Guide* for more information regarding processor considerations for coupling facility LPARs.

COUPLING FACILITY HAS *num1* **SHARED AND** *num2* **DEDICATED PROCESSORS**
The number of shared and dedicated processors in the coupling facility. This line is displayed only for a CFLEVEL 15 facility from a z/OS V1R9 system or from a z/OS system with the software support installed. See the *PR/SM Planning Guide* for more information about processor considerations for coupling facility LPARs.

DYNAMIC CF DISPATCHING: ON | OFF | THIN INTERRUPTS
The Dynamic CF Dispatching setting for the coupling facility. This line is displayed only for a CFLEVEL 15 facility from a z/OS V1R9 system or from a z/OS system with the software support installed. The Dynamic CF Dispatching setting will be THIN INTERRUPTS when the Dynamic CF Dispatching setting is OFF, but coupling thin interrupts is enabled for the coupling facility. The Dynamic CF Dispatching setting will display THIN INTERRUPTS only for a CFLEVEL 19 facility from a z/OS V2R1 system or from a z/OS system with the software support installed.See the *PR/SM Planning Guide* for more information about the use of the Dynamic CF Dispatching function for coupling facility LPARs.

allocspace
The total amount of storage of the indicated type currently allocated for use by structures.

freespace
The total amount of storage of the indicated type currently available for the allocation of structure objects.

totalspace
The total amount of storage of the indicated type in the facility.

chpid
Coupling facility sender CHPID.

pchid
Coupling facility sender PCHID.

phystatus
One of the following:

ONLINE
The path *chpid* to the coupling facility *cfname* is physically available for use. The *chpid* is configured online and is operational.

ONLINE - DEGRADED
The path *chpid* to the coupling facility *cfname* is physically available for use. The *chpid* is configured online and is operating, but at a reduced capacity.

OFFLINE
The path *chpid* to the coupling facility *cfname* is configured offline.

MISCABLED
The path *chpid* to the coupling facility *cfname* is not connected to the correct facility.

NOT OPERATIONAL
The path *chpid* to the coupling facility *cfname* is not operational.

FACILITY PAUSED
The path *chpid* to the coupling facility *cfname* is not operational. The most recent path validation operation attempted for this path received a facility paused status condition.

PATH NOT AVAILABLE
The path *chpid* to the coupling facility *cfname* is not operational. The most recent path validation operation attempted for this path received a path not available status condition. A path not available status is reported when the CF is not responding. One reason for this might be low LPAR weight assigned to the CF LPAR.

NOT IN CONFIGURATION
The path *chpid* to the coupling facility *cfname* is defined to a control unit that is accessible by this partition; however the channel path is not accessible by the partition (the channel path is not in the access list nor in the candidate list for this partition). The partition cannot access this channel path.

logstatus
One of the following:

ONLINE
The path *chpid* to the coupling facility *cfname* is logically online.

OFFLINE
The path *sender chpid* to the coupling facility *cfname* is logically offline.

channel type
One of the following:

CFS
The channel path type description of path *chpid* is Coupling Facility Sender.

CBS
The channel path type description of path *chpid* is Coupling Facility Integrated Cluster Bus Sender.

ICS
The channel path type description of path *chpid* is Internal Coupling Sender.

CBP
The channel path type description of path *chpid* is Coupling Facility Integrated Cluster Bus Peer.

CFP
The channel path type description of path *chpid* is Coupling Facility Peer.

ICP
The channel path type description of path *chpid* is Internal Coupling Peer.

CIB
The channel path type description of path *chpid* is Coupling over Infiniband.

CS5
The channel path type description of path *chpid* is Coupling over PCIe.

pathmode
One of the following:

H The channel path supports a 1.0625 Gb/sec data rate (half rate).

F The channel path supports a 2.125 Gb/sec data rate (full rate). It may operate at either 1.0625 or 2.125 Gb/sec.

1X-IFB
The channel path is operating at 1X bandwidth using the IFB protocol.

12X-IFB
The channel path is operating at 12X bandwidth using the IFB protocol.

12X-IFB3
The channel path is operating at 12X bandwidth using the IFB3 protocol.

8X-PCIE3
The channel path is operating at 8X bandwidth using the third generation PCIe protocol.

aid
The adapter identifier associated with path *chpid*, if applicable and available.

port
The port associated with path *chpid*, if applicable and available.

COUPLING FACILITY SUBCHANNEL STATUS

TOTAL:*number1*
Number of coupling facility subchannels that have been defined for this system.

IN USE:*number2*
Number of coupling facility subchannels that are currently being used by this system to execute requests to the coupling facility. This is equal to the number of concurrent operations that can be initiated to this coupling facility minus any subchannels that are not being used because of subchannel tuning actions.

NOT USING:*number3*
Number of coupling facility subchannels that are eligible to be used but are not currently being used by this system to execute requests to the coupling facility. This is equal to the number of subchannels that have been taken out of the pool of usable subchannels by subchannel tuning actions. This count may temporarily include some number of subchannels when a readjusting of the IN USE subchannel count is in progress as a result of configuration actions against CF Links for this facility.

NOT USABLE:*number4*
Number of coupling facility subchannels that have been defined for this system that can not be used to execute requests to the coupling facility. Equal to the number of subchannels defined that are in excess of the number of concurrent operations that can be initiated to this coupling facility. This count also includes the number of not-operational subchannels, if any.

OPERATIONAL DEVICES / SUBCHANNELS:
The list of coupling facility subchannels to the coupling facility that are operational and available for operations.

NOT OPERATIONAL DEVICES / SUBCHANNELS:
The list of coupling facility subchannels to the coupling facility that are not operational and not available for operations.

device
Coupling facility device.

subchannel
Coupling facility subchannel.

rfcname
Name of coupling facility from CFRM active policy. If N/A is displayed, then the coupling facility which is remotely-connected is not also connected to the system on which the D CF command was issued.

rftype
Node type (See ndetype in IXLYNDE).

rfmfg
Node manufacturer ID (See ndemfg in IXLYNDE).

rfplant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

rfsequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

rfside
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for side. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

rfcpcid
Node Central Processor Complex (CPC) ID (See ndecpcid in IXLYNDE).

rfchpid
CHPID installed on cfname that is being used for a peer connection between coupling facility cfname and coupling facility rfcfname. An asterisk following the CHPID indicates that the path is operating at reduced capacity.

rfrchanpathtype
One of the following:

CBP
The channel path type description of path *chpid* is Coupling Facility Integrated Cluster Bus Peer.

CFP
The channel path type description of path *chpid* is Coupling Facility Peer.

ICP
The channel path type description of path *chpid* is Internal Coupling Peer.

CFR
The channel path type description of path *chpid* is Coupling Facility Receiver.

CBR
The channel path type description of path *chpid* is Coupling Facility Integrated Cluster Bus Receiver.

ICR
The channel path type description of path *chpid* is Internal Coupling Receiver.

CIB
The channel path type description of path *chpid* is Coupling over Infiniband.

CS5
The channel path type description of path *chpid* is Coupling over PCIe.

rfpmode
One of the following:

H The channel path supports a 1.0625 Gb/sec data rate (half rate).

F The channel path supports a 2.125 Gb/sec data rate (full rate). It may operate at either 1.0624 or 2.125 Gb/sec.

1X-IFB
The channel path is operating at 1X bandwidth using the IFB protocol.

12X-IFB
The channel path is operating at 12X bandwidth using the IFB protocol.

12X-IFB3
The channel path is operating at 12X bandwidth using the IFB3 protocol.

8X-PCIE3
The channel path is operating at 8X bandwidth using the third generation PCIe protocol.

rfschanpathtype
One of the following:

CFS
The channel path type description of path *chpid* is Coupling Facility Sender.

CBS
The channel path type description of path *chhpid* is Coupling Facility Integrated Cluster Bus Sender.

ICS
The channel path type description of path *chpid* is Internal Coupling Sender.

CBP
The channel path type description of path *chpid* is Coupling Facility Integrated Cluster Bus Peer Channel.

CFP
The channel path type description of path *chpid* is Coupling Facility Peer Channel.

ICP
The channel path type description of path *chpid* is Internal Coupling Peer Channel.

CIB
The channel path type description of path *chpid* is Coupling over InfiniBand.

CS5
The channel path type description of path *chpid* is Coupling over PCIe.

rfspmode
One of the following:

H The channel path supports a 1.0625 Gb/sec data rate (half rate).

F The channel path supports a 2.125 Gb/sec data rate (full rate). It may operate at either 1.0624 or 2.125 Gb/sec.

1X-IFB
The channel path is operating at 1X bandwidth using the IFB protocol.

12X-IFB
The channel path is operating at 12X bandwidth using the IFB protocol.

12X-IFB3
The channel path is operating at 12X bandwidth using the IFB3 protocol.

8X-PCIE3
The channel path is operating at 8X bandwidth using the third generation PCIe protocol.

rfinochpid
CHPID installed on *cfname* that is currently not operational. The list of not operational CHPIDs may span multiple lines, with up to eight CHPIDs per line.

etr netid
The ETR Net ID of the ETR connected to the Coupling Facility.

System action: The system continues processing.

Operator response: Not Applicable.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3DSF

Routing code: #

Descriptor code: 5,8,9

IXL151I DISPLAY CF SYNTAX IS NOT VALID - *text*

Explanation: A syntax error was found in the D CF command. In the message text:

EXPECTING "CFNAME=" OR "CFNM="
The keyword that was specified is not valid.

SYNTAX SPECIFIED IS NOT VALID
Syntax specified is not correct.

CFNAME SPECIFIED IS NOT VALID
The *cfname* is not a valid CF Name.

EXPECTING NAME IN PARENTHESES
Expected left parenthesis is missing.

MISSING RIGHT PARENTHESIS
Expected right parenthesis is missing.

EXTRA DATA AFTER PARENTHESIS
Incorrect data was specified after the parenthesis.

System action: The system continues processing.

Operator response: Correct the syntax error and re-enter the command.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3DSF

Routing code: -

Descriptor code: 5

IXL152I DISPLAY CF COMMAND FAILED - *text*

Explanation: While processing a D CF command an error occurred. The display could not be processed.

In the message text:

UNEXPECTED ERROR
An unexpected error was encountered while processing the command.

STORAGE IS NOT AVAILABLE
There is not enough system storage to process the command.

NO COUPLING FACILITIES ARE AVAILABLE
There is no coupling facility data to process.

System action: The system continues processing.

Operator response: Do one of the following:

If an unexpected error occurred, re-enter the command.

If the cause of the failure is a storage shortage, determine the cause of the storage shortage to try to relieve the constraint and re-enter the command.

If there are no coupling facilities available, no further action is required.

System programmer response: Not applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3DSF

Routing code: -

Descriptor code: 5

IXL154I UNKNOWN CFNAME: *name*

Explanation: An error occurred while processing a D CF command. The *name* entered was not recognized.

In the message text:

name
The *name* specified is either not a valid coupling facility name, or the *name* specified does not represent a valid coupling facility.

System action: The system continues processing.

Operator response: Correct the error and re-enter the command. The command may be entered without a specific *cfname* to display all of the coupling facilities connected to the system and their *cfnames*.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLR3DSF

Routing code: -

Descriptor code: 5

IXL157I PATH *chpid* **IS NOW OPERATIONAL TO CUID:** *cuid* **COUPLING FACILITY** *type.mfg.plant.sequence* **PARTITION:** *partition side* **CPCID:** *cpcid*

Explanation: Sender chpid *chpid* that was not in use by the system to communicate with the coupling facility identified, has now become operational. The coupling facility is identified by the node descriptor. See mapping IXLYNDE.

In the message text:

chpid
Coupling facility sender CHPID.

cuid
Control unit number of the facility.

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (See ndecpcid in IXLYNDE).

System action: The system will start using the operational path. If this was the first path to the coupling facility, this resulted in a gain of connectivity.

Operator response: Not Applicable.

System programmer response: Not Applicable.

Source: Cross System Extended Services (XES)

Module: IXLC3VSC

Routing code: 2,10

Descriptor code: 12

IXL158I **PATH** *chpid* **IS NOW NOT-OPERATIONAL TO CUID:** *cuid* **COUPLING FACILITY** *type*.*mfg*.*plant*.*sequence* **PARTITION:** *partition side* **CPCID:** *cpcid*

Explanation: Sender chpid *chpid* that was in use by the system to communicate with the identified coupling facility has become not operational. The cause is either a path failure or loss of the coupling facility. The coupling facility is identified by the node descriptor. See mapping IXLYNDE.

In the message text:

chpid
Coupling facility sender CHPID.

cuid
Control unit number of the facility.

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (See ndecpcid in IXLYNDE).

System action: The system discontinues using the not-operational path. If this was the last path to the coupling facility, this will result in a loss of connectivity.

Operator response: Notify the system programmer if the connection to the coupling facility identified is critical for system operations.

System programmer response: Determine the cause of the path failure and correct it.

Source: Cross System Extended Services (XES)

Module: IXLC3BBC, IXLC3VSC, IXLD3CMP

Routing code: 2,10

Descriptor code: 11

IXL159E **COUPLING SUPPORT FACILITY HARDWARE ERROR DETECTED.**

Explanation: A hardware error was detected. The list notification vector was found to be incorrect. A notification vector used to indicate the completion of asynchronous command operations has not been updated correctly by the coupling support facility.

System action: The system continues using the notification vector. Performance and system throughput may be affected. Asynchronous operation completion processing may take longer than usual.

Operator response: Notify the system programmer.

System programmer response: Examine the system LOGREC symptom record which contains detailed information on the hardware error. Contact hardware support.

Source: Cross System Extended Services (XES)

Routing code: 1,2,10.

Descriptor code: 11,12

IXL160E CF REQUEST TIME ORDERING: REQUIRED AND NOT-ENABLED *text reason*

Explanation: The CF request time ordering is required for operations to this coupling facility, however not all hardware and connectivity requirements are available. The coupling facility is identified by the node descriptor. See mapping IXLYNDE. The reason CF request time ordering is not enabled is described in the message text.

In the message text:

text

text is

```
COUPLING FACILITY   type.mfg.plant.sequence
                    PARTITION: partition side  CPCID: cpcid
```

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (See ndecpcid in IXLYNDE).

reason

reason is one of the following:

REASON: ETR NOT CONNECTED TO COUPLING FACILITY
The CF request time ordering function is required for operations to the CF; however, there is no ETR connected to the CEC where the CF is running.

REASON: REQUEST TIME ORDERING FUNCTION FAILURE
The CF request time ordering function is required for operations to the CF; however, the CF request time ordering function has encountered a non-recoverable error.

REASON: CF IS OUT OF SYNCH WITH TIMING NETWORK
The CF request time ordering function is required for operations to the CF; however, the TOD clock for the CF is not in synchronization with the timing network in use by the other systems in the sysplex. The timing network is defined by the CTNID for the CEC the CF is running on.

REASON: REQUEST TIME ORDERING NOT INSTALLED ON THE CF
The CF request time ordering function is required for operations to the CF; however, the CF request time ordering function is not available or not installed on the CEC running the CF. CF request time ordering function must be installed on both CECs where the sender z/OS system and the receiver CF are running in order for CF request time ordering to be enabled.

REASON: REQUEST TIME ORDERING NOT INSTALLED ON THIS SYSTEM
The CF request time ordering function is required for operations to the CF; however, the CF request time ordering function is not available or not installed on the CEC running the z/OS system. CF request time ordering function must be installed on both CECs where the sender z/OS system and the receiver CF are running in order for CF request time ordering to be enabled.

REASON: ETR NETID MISMATCH - CF ETR NETID: *cfetrid*
The CF request time ordering function is required for operations to the CF; however, the ETR that is connected to the CEC that is running the CF does not match the ETR that is connected to the CEC that is running the z/OS system. The *cfetrid* is the ETR Network ID of the ETR that is connected to the Coupling Facility.

Issue D ETR to obtain the ETR NetID of the ETR connected to the CEC running the z/OS system.

Note: This message and reason may be issued during. IPL if the system is running in XCF-Local mode and the XES CF link connectivity and ETR validation code executes before the z/OS system has obtained the ETR Netid from the hardware. If the CEC where the CF is running does have the ETR Netid correctly defined, then this message (IXL160E) will be DOMed and message IXL161I will be issued approximately 30 seconds later when the CF ETR validation code is executed again.

REASON: CTNID MISMATCH - CF CTNID: *cfstpid-cfetrid*
The CF request time ordering function is required for operations to the CF; however, the CTNID that is defined for the CEC that is running the CF does not match the CTNID that is defined for the CEC that is running the z/OS system. The *cfstpid* is the eight-byte STP portion of the CTNID that has been defined for the CEC running the CF. The *cfetrid* is the ETR Network ID of the ETR that is connected to the Coupling Facility.

Issue D ETR to obtain CTN information for the CEC running the z/OS system.

REASON: CTNID MISMATCH - CF CTNID: *cfstpid*
The CF request time ordering function is required for operations to the CF; however, the CTNID that is defined for the CEC that is running the CF either has not been correctly assigned or has been incorrectly assigned and does not match the CTNID that is defined for the CEC that is running the z/OS system. The *cfstpid* is the eight-byte STP portion of the CTNID that has been defined for the CEC running the CF. The sysplex is running in a Coordinated Timing Network that is using STP to steer the local clock. The ETR portion of the CNTID is not displayed.

Issue D ETR to obtain CTN information for the CEC running the z/OS system.

System action: The system discontinues using the coupling facility.

Operator response: Notify the system programmer if the coupling facility identified is critical for system operations.

System programmer response: Based on the *reason* message text, determine the cause of the failure and correct it.

Source: Cross System Extended Services (XES)

Module: IXLC3VSC

Routing code: 1,2,10

Descriptor code: 11

IXL161I CF REQUEST TIME ORDERING: *text1 text2*

Explanation: The CF request time ordering function is enabled for operations to the coupling facility or the CF request time ordering function is not enabled and not required. The coupling facility is identified by the node descriptor. See mapping IXLYNDE.

In the message text, *text1* is:

REQUIRED AND ENABLED
The CF request time ordering is required for operations to the coupling facility. The required hardware (CF request time ordering function installed on both the CECs where the CF and z/OS systems are running) is available. The CF and z/OS system are synchronized in the same timing network.

NOT-REQUIRED AND ENABLED
The CF request time ordering is not required for operations to the coupling facility. The required hardware (CF

request time ordering function installed on both the CECs where the CF and z/OS systems are running) is available. The CF and z/OS system are synchronized in the same timing network.

NOT-REQUIRED AND NOT-ENABLED
The CF request time ordering is not required for operations to the coupling facility. The CF request time ordering function is not enabled: either the required hardware (CF request time ordering function installed on both the CECs where the CF and z/OS systems are running) is not available, or the CF and z/OS system are not synchronized in the same timing network.

In the message text, *text2* is:

```
COUPLING FACILITY   type.mfg.plant.sequence
                    PARTITION: partition side  CPCID: cpcid
```

In the message text:

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Value and meaning are:

- **SIDE: 0** means the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means the coupling facility is on SIDE 1 of a partitionable CPC.
- blank means the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (See ndecpcid in IXLYNDE).

System action: The system will request CF request time ordering function to be executed on each operation to the coupling facility if it is enabled. The system will not request CF request time ordering if the function is not enabled

System programmer response: None.

Source: Cross System Extended Services (XES)

Module: IXLC3VSC

Routing code: 2,10

Descriptor code: 12

IXL162E CF REQUEST TIME ORDERING: REQUIRED AND WILL NOT BE ENABLED *text reason*

Explanation: CF request time ordering is required for operations to this coupling facility; however the timing characteristics of the coupling facility are not consistent with timing characteristics of the z/OS system. The coupling facility is identified by the node descriptor. See mapping macro IXLYNDE. The reason why that CF request time ordering will not be enabled is described in the message text.

text
text is

```
COUPLING FACILITY   type.mfg.plant.sequence
                    PARTITION: partition side  CPCID: cpcid
```

type
Node type (See ndetype in IXLYNDE).

mfg
Node manufacturer ID (See ndemfg in IXLYNDE).

plant
Node manufacturer plant ID (See ndeplant in IXLYNDE).

sequence
Node sequence number (See ndesequence in IXLYNDE).

partition
Node LPAR partition number (See ndepartition in IXLYNDE).

side
The node PP/SI mode indicator and configuration code from the IXLYNDE are used to determine the value for *side*. Value and meaning are:

- **SIDE: 0** means that the coupling facility is on SIDE 0 of a partitionable CPC.
- **SIDE: 1** means that the coupling facility is on SIDE 1 of a partitionable CPC.
- Blank means that the coupling facility is in a non-partitionable CPC.

cpcid
Node Central Processor Complex (CPC) ID (See ndecpcid in IXLYNDE).

reason
reason is one of the following:

REASON: CTNID MISMATCH - CF CTNID: *cfstpid-cfetrid*
The CF request time ordering function is required for operations to the CF; however, the CTNID that is defined for the CEC that is running the CF does not match the CTNID that is defined for the CEC that is running the z/OS system. The *cfstpid* is the eight-byte STP portion of the CTNID that has been defined for the CEC running the CF. The *cfetrid* is the ETR Network ID of the ETR that is connected to the Coupling Facility.

Issue D ETR to obtain CTN information for the CEC running the z/OS system.

In the message text:

System action: The system will discontinue using the coupling facility if the timing characteristics are not corrected within 24 seconds.

Operator response: Notify the system programmer if the coupling facility identified is critical for system operations.

System programmer response: Based on the reason described in the message, determine the cause of the failure and correct it.

Source: Cross System Extended Services (XES)

Module: IXLC3VSC

Routing code: 1,2,10

Descriptor code: 11

IXL163I COUPLING THIN INTERRUPTS NOT *action* **FOR SYSTEM** *sysname: reasonnotenabled* **DIAG:** *diagdata*

Explanation: Coupling thin interrupts which provides for improved performance and throughput for coupling facility workloads is not enabled (or not disabled) due to *reasonnotenabled*. When COUPLINGTHININT is not enabled for system *sysname*, the system will continue to process coupling related workloads as efficiently as possible.

In the message text:

action

ENABLED
The system attempted to enable coupling thin interrupts in the channel subsystem.

DISABLED
The system attempted to disable coupling thin interrupts in the channel subsystem.

sysname
The system where coupling thin interrupts is not enabled or disabled.

reasonnotenabled

CHANNEL SUBSYSTEM CALL FAILED
A channel subsystem call (CHSC) command to enable or disable coupling thin interrupts has failed.

COUPLINGTHININT FUNCTION DISABLED
The COUPLINGTHININT modifiable optional function is currently disabled by the installation. The system can not enable coupling thin interrupts for the system because the installation has disabled the COUPLINGTHININT function by specifying DISABLE(COUPLINGTHININT) either on the COUPLExx parmlib member FUNCTIONS statement or on a SETXCF FUNCTIONS command. Refer to *z/OS MVS Setting Up a Sysplex* for a description of the COUPLINGTHININT function.

INTERRUPT HANDLER NOT REGISTERED
A call to IOS Adapter Services to register a coupling interrupt handler has failed.

diagdata
Diagnostic data to help determine the cause of the service failure.

System action: The system continues processing without the ability to use coupling thin interrupts to process coupling workloads if enablement was requested or continues processing with coupling thin interrupts if disablement was requested.

Operator response: None.

System programmer response: If *reasonnotenabled* indicates that coupling thin interrupts was not enabled because the installation has disabled the COUPLINGTHININT function and enablement is desired, then enable the COUPLINGTHININT function using the SETXCF FUNCTIONS operator command. The system will begin exploiting coupling thin interrupts (subject to the establishment of any other prerequisites that may be required).

If *reasonnotenabled* indicates another reason for why coupling thin interrupts was not enabled or disabled and you have coupling facilities in your configuration, record the reason code (*reasonnotenabled*) and contact IBM software and/or hardware support. If you do not have coupling facilities in your configuration, you can ignore this message.

Source: Cross System Extended Services (XES)

Module: IXLLI1SIN, IXLE1CRW

Routing code: 2,10

Descriptor code: 12

IXL164I COUPLING THIN INTERRUPTS ENABLED FOR SYSTEM *sysname*

Explanation: Coupling thin interrupts which provides for improved performance and throughput for coupling facility workloads is enabled in the channel subsystem.

In the message text:

sysname
The system where coupling thin interrupts is enabled for.

System action: The system continues processing.

Operator response: None.

System programmer response: None.

Source: Cross System Extended Services (XES)

Module: IXLLI1SIN, IXLE1CRW

Routing code: 2

Descriptor code: 4

IXL165I SETXCF FUNCTIONS REQUEST FOR COUPLINGTHININT OPTION ACCEPTED: *result*

Explanation: An operator issued a SETXCF FUNCTIONS command to ENABLE or DISABLE the COUPLINGTHININT installation-controllable option. The request was accepted by the system and the status of the COUPLINGTHININT installation-controllable optional function has been set to either ENABLED or DISABLED as requested by the SETXCF FUNCTIONS command.

result indicates whether the system has begun processing coupling thin interrupts when requested to be enabled or stops processing coupling thin interrupts when requested to be disabled.

In the message text:

results

HARDWARE SUPPORT NOT INSTALLED
The required hardware support for coupling thin interrupts which provides for improved performance and throughput for coupling facility workloads is not installed on this system.

COUPLING INTERRUPT HANDLER NOT REGISTERED
A call to IOS Adapter Services to register a coupling interrupt handler failed. Coupling thin interrupts processing is not enabled. See message IXL163I in the system log to determine the reason for the registration failure and suggested action.

COUPLING THIN INTERRUPTS ALREADY ENABLED
Coupling thin interrupts is already enabled in the channel subsystem.

COUPLING RELATED ADAPTER INTERRUPTS ENABLED
Coupling thin interrupts is enabled in the channel subsystem to deliver coupling related adapter interrupts.

COUPLING THIN INTERRUPTS DISABLED
Coupling thin interrupts has been disabled in the channel subsystem. Although coupling thin interrupts is disabled, the system will continue to process coupling related workloads as efficiently as possible.

System action: The system continues processing.

Operator response: None.

System programmer response: If the system did not successfully enable or disable coupling thin interrupts due to system prerequisites not being met (e.g. the required hardware support for coupling thin interrupts is not installed on the central processor complex (CPC) that the system is running on), refer to *PR/SM Planning Guide* for more information on prerequisites for enabling coupling thin interrupts for an LPAR that the z/OS system is running on.

Source: Cross System Extended Services (XES)

Module: IXLM2TAM

Routing code: 2

Descriptor code: 4

Chapter 5. IXP messages

See *Input/Output Configuration Program User's Guide and Reference* for additional messages.

IXP050D SHOULD *jobname* WRITE TO LEVEL *xxx* IOCDS? REPLY 'YES', 'NO', OR 'CANCEL'

Explanation: A job processed the input/output configuration program (IOCP) with a WRTCDS option other than NO on the PARM parameter of an EXEC statement.

In the message text:

jobname The jobname.

xxx The specified level.

System action: IOCP issues this message to request permission from the system operator for the job to write to the specified level input/output configuration data set (IOCDS) in the processor controller. If two or more jobs are allowed to update concurrently the specified level IOCDS, the outcome could be an IOCDS that is logically inconsistent with the input from any one job. Using this IOCDS at power-on reset or SYSIML CLEAR could produce undesirable results.

Operator response: A reply of 'YES' allows the job to continue processing and, if no errors are encountered, to replace the input/output configuration data in the specified level IOCDS in the processor controller with the input/output configuration data generated by this job. The operator should use the IOCDSM frame or Input/Output Configuration panel to ensure the level IOCDS is not write-protected.

A reply of 'NO' allows the job to continue generating input/output configuration data in storage and to produce reports, but does not permit the job to replace the input/output configuration data in the level IOCDS in the processor controller.

A reply of 'CANCEL' ends the job immediately with system completion code X'222'.

Source: Input/output configuration program (IOCP)

Routing code: 1,11

Descriptor code: 7

IXP056I IOCP JOB *jobname* FAILED. DID NOT BUILD LEVEL *xxx* IOCDS.

Explanation: A job was processing the input/output configuration program (IOCP) with a WRTCDS option other than NO on the PARM parameter of an EXEC statement.

In the message text:

jobname The jobname.

xxx The specified level.

System action: IOCP ends the job with return code 8. IOCP issues this message to inform the system operator, who had previously responded to message IXP050D, that this job failed to build the level indicated input/output configuration data set (IOCDS).

Operator response: Notify the system programmer that the job failed.

System programmer response: Review the messages on the job listing, and take the necessary actions.

Source: Input/output configuration program (IOCP)

Routing code: 2,11

Descriptor code: 6

IXP057I IOCP JOB *jobname* **SUCCESSFUL. LEVEL** *xxx* **IOCDS REPLACED.**

Explanation: A job was processing the input/output configuration program (IOCP) with a WRTCDS option other than NO on the PARM parameter of an EXEC statement.

In the message text:

jobname The jobname.

xxx The specified level.

System action: IOCP ends the job with a return code of 0 or 4. IOCP issues this message to inform the system operator, who had previously granted permission to write the IOCDS in response to message IXP050D, that this job successfully replaced the level indicated input/output configuration data set (IOCDS).

Operator response: Follow the installation procedures.

Source: Input/output configuration program (IOCP)

Routing code: 2,11

Descriptor code: 6M

Chapter 6. IXZ messages

IXZ0001I CONNECTION TO JESXCF COMPONENT ESTABLISHED, GROUP *xcfgroup* **MEMBER** *xcfmember*

Explanation: A JES member *xcfmember* has successfully established a connection to the JESXCF component in group *xcfgroup*.

In the message text:

xcfgroup
XCF group to which this member belongs

xcfmember
The XCF member attempting to join the *xcfgroup*

System action: The JES member is successfully connected to the *xcfgroup*, and JESXCF is ready to respond to requests from *xcfmember*.

Operator response: None.

System programmer response: None.

Source: JES common coupling services (JESXCF)

Routing code: 2

Descriptor code: 7

IXZ0002I CONNECTION TO JESXCF COMPONENT DISABLED, GROUP *xcfgroup* **MEMBER** *xcfmember*

Explanation: A JES member *xcfmember* has successfully disconnected from JESXCF group *xcfgroup*.

In the message text:

xcfgroup
XCF group to which this member belongs

xcfmember
The XCF member disconnecting from the *xcfgroup*

System action: The JES member is successfully disconnected from the *xcfgroup*, and JESXCF is no longer available to respond to requests from *xcfmember*.

Operator response: None.

System programmer response: None.

Source: JES common coupling services (JESXCF)

Routing code: 2

Descriptor code: 7

IXZ0003I CONNECTION TO JESXCF COMPONENT BROKEN GROUP *xcfgroup* **MEMBER** *xcfmember*

Explanation: A JES member *xcfmember* has terminated either normally or abnormally.

In the message text:

xcfgroup
XCF group to which this member belongs

xcfmember
The XCF member that lost its connection to *xcfgroup*

System action: The JES member is disconnected from the *xcfgroup*, and JESXCF is no longer available to respond to requests from *xcfmember*.

Operator response: Notify your system programmer.

System programmer response: Restart *xcfmember* to reestablish the connection to the JESXCF component.

Source: JES common coupling services (JESXCF)

Routing code: 2

Descriptor code: 7

IXZ0004E JESXCF COMPONENT FAILED, CONNECTION BROKEN TO GROUP *xcfgroup* **MEMBER** *xcfmember*

Explanation: An abend occurred in the JESXCF component while JESXCF was processing on behalf of JES member *xcfmember* in group *xcfgroup*.

In the message text:

xcfgroup
XCF group to which this member belongs

xcfmember
The XCF member that lost its connection to *xcfgroup*

System action: The JES member *member* terminates abnormally with a completion code of X'EC5' and a system dump is provided.

Operator response: Notify your system programmer.

System programmer response: Search the problem reporting data bases for a fix to this coding problem. If a fix exists, correct the problem and then restart *xcfmember* to reestablish the connection to the JESXCF component. If no fix exists for this particular problem, record the return and reason codes, and contact your IBM Support Center.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 7

IXZ0005E THE OPTIONAL JES3 FEATURE IS NOT ENABLED TO RUN ON THIS SYSTEM

Explanation: Parmlib member IFAPRDxx indicated JES3 is disabled and can not register as an z/OS element.

System action: JES3 fails to be enabled on this system. z/OS issues abend EC5 RC=*n* where *n* is either:

2 JES3 is not ENABLED

3 The JES release specified on the JESXCF ATTACH is not supported by z/OS.

System programmer response: Verify that the system is using the correct parmlib member (IFAPRDxx) and that the state (ENABLE or DISABLE) is correct.

Source: JES common coupling services (JESXCF)

Module: IZXIXMF

Routing code: 10

Descriptor code: 4

IXZ0006E UNSUPPORTED LEVEL OF JES ATTEMPTED TO JOIN JESXCF GROUP

Explanation: The JES FMID specified on the JESXCF ATTACH macro is not an z/OS-supported release.

System action: JES fails to be enabled on this system. MVS issues abend EC5 RC=*n* where *n* is either:

2 JES3 is not ENABLED

3 The JES release specified on the JESXCF ATTACH is not supported by z/OS.

System programmer response: Verify that the release specified on the JESXCF ATTACH is valid. If another IBM z/OS element or product issued the JESXCF ATTACH macro, contact the IBM Support Center.

Source: JES common coupling services (JESXCF)

Module: IZXIXMF

Routing code: 10

Descriptor code: 7

IXZ0100E FAILURE DURING THE XCF JOIN TO XCF, GROUP *xcfgroup* **BY MEMBER** *xcfmember* **RET=***return-code* **RSN=***reason-code*

Explanation: An attempt by JES member *xcfmember* to join group *xcfgroup* failed.

In the message text:

xcfgroup
XCF group to which these members belong

xcfmember
The XCF member that failed to join to *xcfgroup*

return-code
The hexadecimal return code from the IXCJOIN macro

reason-code
The hexadecimal reason code from the IXCJOIN macro

System action: JES component initialization terminates.

Operator response: Notify your system programmer.

System programmer response: Using the return and reason code, determine whether the problem is either a program or environmental error. Refer to the IXCJOIN macro description in *z/OS MVS Programming: Sysplex Services Reference* for an explanation of *return-code* and *reason-code*. If the problem is a configuration error, correct the problem and restart the JES member. If the problem is a coding problem, search problem reporting data bases for a fix for the problem. If no fix exists, contact your IBM Support Center and provide the return and reason codes.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 7

IXZ0101E FAILURE DURING QUERY OF A JES MEMBER'S XCF DATA, BY GROUP *xcfgroup* **MEMBER** *xcfmember* **RET=***return-code* **RSN=***reason-code*

Explanation: An XCF query attempt to determine the initial status of a JES member failed.

In the message text:

xcfgroup
XCF group to which this member belongs

xcfmember
XCF member being queried

return-code
The hexadecimal return code from the IXCQUERY macro

reason-code
The hexadecimal reason code from the IXCQUERY macro

System action: JES member *xcfmember* terminates with a system dump.

Operator response: Notify your system programmer.

System programmer response: Using the return and reason code, determine whether the problem is either a program or environmental error. Refer to the IXCQUERY macro description in *z/OS MVS Programming: Sysplex Services Reference* for an explanation of *return-code* and *reason-code*. If the problem is a configuration error, correct the problem and restart the JES member. If the problem is a coding problem, search problem reporting data bases for a fix for the problem. If no fix exists, contact your IBM Support Center and provide the return and reason codes.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 7

IXZ0102E FAILURE DURING THE REMOVAL OF THIS MEMBER FROM XCF PARTICIPATION, GROUP *xcfgroup* **MEMBER** *xcfmember* **RET=***return-code* **RSN=***reason-code*

Explanation: An JES member *xcfmember* failed while attempting to leave (using IXZXIXDT services) group *xcfgroup*.

In the message text:

xcfgroup
XCF group to which the member belongs

xcfmember
XCF member leaving the group

return-code
The hexadecimal return code from the IXCLEAVE macro

reason-code
The hexadecimal reason code from the IXCLEAVE macro

System action: JES member *xcfmember* terminates with a system dump.

Operator response: Notify your system programmer.

System programmer response: Using the return and reason code, determine whether the problem is either a program or environmental error. Refer to the IXCLEAVE macro description in *z/OS MVS Programming: Sysplex Services Reference* for an explanation of *return-code* and *reason-code*. If the problem is a configuration error, correct the problem and restart JES. If the problem is a coding problem, search problem reporting data bases for a fix for the problem. If no fix exists, contact your IBM Support Center and provide the return and reason codes.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 7

IXZ0103E FAILURE DURING THE DELETE OF THIS MEMBER FROM XCF PARTICIPATION, GROUP *xcfgroup* **MEMBER** *xcfmember* **RET=***return-code* **RSN=***reason-code*

Explanation: An attempt to delete an inactive JES member *xcfmember* from group *xcfgroup* failed. This message does not always indicate an error condition. That is, you can consider it informational if it is being issued because an aged group member(s) (a member that has remained across a sysplex IPL state for more than 24 hours) has been identified as aged and subsequently being deleted by more than one member currently joining the *xcfgroup*. In this situation, JESXCF also issues IXZ0104I noting the 'aged' member.

In the message text:

xcfgroup
XCF group to which the member belongs

xcfmember
XCF member being deleted

return-code
The hexadecimal return code from the IXCDELET macro

reason-code
The hexadecimal reason code from the IXCDELET macro

System action: Processing continues.

Operator response: Notify your system programmer.

System programmer response: Using the return and reason code, determine whether the problem is either a program or environmental error. Refer to the IXCDELET macro description in *z/OS MVS Programming: Sysplex Services Reference* for an explanation of *return-code* and *reason-code*. If the problem is a configuration error, correct the problem and restart the JES member. If the problem is a coding problem, search problem reporting data bases for a

fix for the problem. If no fix exists, contact your IBM Support Center and provide the return and reason codes.

Source: JES common coupling services (JESXCF)

Routing code: 2

Descriptor code: 7

IXZ0104I AGED XCF MEMBER DATA HAS BEEN DELETED, GROUP *xcfgroup* **MEMBER** *xcfmember*

Explanation: JES member *xcfmember* of XCF group *xcfgroup* has been deleted from the XCF group because it is **aged**. A member becomes aged when it remains across a sysplex IPL and in a failed state for more than 24 hours.

In the message text:

xcfgroup
XCF group to which the member belongs

xcfmember
XCF member deleted

System action: Member data for *xcfmember* in *xcfgroup* is deleted.

Operator response: Notify your system programmer.

System programmer response: None.

Source: JES common coupling services (JESXCF)

Routing code: 2

Descriptor code: 7

IXZ0105E FAILURE DURING THE XCF JOIN BECAUSE A DUPLICATE JES XCF MEMBER IS ACTIVE, GROUP *xcfgroup* **MEMBER** *xcfmember*

Explanation: JES member *xcfmember* is attempting to join group *xcfgroup*, but its name duplicates that of a member already active in *xcfgroup*.

In the message text:

xcfgroup
XCF group to which the member belongs

xcfmember
XCF member attempting to join the *xcfgroup*

System action: JES component terminates. Group *xcfgroup* is removed.

Operator response: Determine whether:

- The JES member is being started with the correct start parameter set, rather than another member's parameter set.
- Another member is already active with the same member name (as defined in the initialization data set).

Notify your system programmer.

System programmer response: Based on the information that your operator supplies, either correct the use of the wrong parameter set, terminate the current member, or rename the new member attempting to join the XCF group. Be certain that no two members of the same JES2 multi-access spool (MAS) configuration or JES3 complex are defined with the same XCF member name. If two members are defined with the same name, must be terminated prior to starting this member, or this member must be renamed and then added to the XCF group.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 7

IXZ0106E FAILURE DURING THE XCF JOIN BECAUSE THE MAXIMUM NUMBER OF XCF GROUPS ARE ACTIVE, GROUP *xcfgroup* **MEMBER** *xcfmember*

Explanation: JES member *xcfmember* attempted to join XCF group *xcfgroup*. The attempt failed because the maximum number of groups defined to the sysplex has already been attained. The maximum number of groups is specified on the MAXGROUP parameter of the DEFINEDS statement in the JCL for the XCF couple data set format utility.

In the message text:

xcfgroup
XCF group to which the member belongs

xcfmember
XCF member attempting to join the group

System action: The JES member terminates.

Operator response: Notify your system programmer.

System programmer response: Format the XCF couple data set with a sufficient maximum value to include all XCF groups in your sysplex. Refer to *z/OS MVS Setting Up a Sysplex* for information on how to specify the MAXGROUP parameter on the DEFINEDS statement.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 7

IXZ0107E FAILURE DURING THE XCF JOIN BECAUSE THE MAXIMUM NUMBER OF XCF MEMBERS ARE ACTIVE, GROUP *xcfgroup* **MEMBER** *xcfmember*

Explanation: JES member *xcfmember* attempted to join XCF group *xcfgroup*. The attempt failed because the maximum number of members defined to the sysplex has already been attained. The maximum number of members is specified on the MAXMEMBER parameter of the DEFINEDS statement in the JCL for the XCF couple data set format utility.

In the message text:

xcfgroup
XCF group to which the member belongs

xcfmember
XCF member attempting to join the group

System action: The JES member terminates.

Operator response: Notify your system programmer.

System programmer response: Format the XCF couple data set with a sufficient maximum value to include the total number of members in your sysplex. Refer to *z/OS MVS Setting Up a Sysplex* for information on how to specify the MAXMEMBER parameter on the DEFINEDS statement.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 7

IXZ0108E COMMUNICATION FROM *xcfmember1* **TO** *xcfmember2* **HAS BEEN LOST, GROUP** *xcfgroup*

Explanation: JES member *xcfmember1* is unable to communicate with *xcfmember2*. If *xcfmember2* is active, it may be hung or in a loop.

In the message text:

xcfmember1
The XCF member attempting to send a message to *xcfmember2*

xcfmember2
The XCF member to which *xcfmember1* sent a message

xcfgroup
XCF group to which these members belong

System action: JESXCF is unable to complete the message communication. This highlighted message remains until *xcfmember2* eventually responds or fails. Processing does not continue until the IXZ0108 message is deleted

Operator response: Notify your system programmer if this message is not automatically deleted within several minutes.

System programmer response: Check the system log for additional messages associated with *xcfmember1* and *xcfmember2*. Request a dump of *xcfmember1*, *xcfmember2*, the JESXCF address space and its associated data spaces on each member's system. Gather documentation for any other components indicated in associated error messages. Search problem reporting data bases for a fix for the problem. If no fix exists, contact your IBM Support Center and supply the system log data and any related dump data.

For additional information on dumping JES and JESXCF address spaces, as well as restarting the JESXCF address space, see *z/OS MVS Programming: JES Common Coupling Services*.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 2,7

IXZ0110E JOIN OF MEMBER *xcfmember* **TO GROUP** *xcfgroup* **FAILED BECAUSE** *sysname* **IS BEING PARTITIONED OUT OF THE SYSPLEX**

Explanation: JES member *xcfmember* has requested to attach to JESXCF group *xcfgroup*, but the join to XCF failed because the requesting system is being partitioned out of the SYSPLEX. All requests from this system to join any XCF group are permanently suspended.

In the message text:

xcfmember
The XCF member attempting to attach.

xcfgroup
The XCF group to which *xcfmember* is attempting to attach.

sysname
The system name which is being partitioned out of the SYSPLEX.

System action: Initialization of JES2, JES3, or a JES3 Functional Subsystem ends. Additional messages and/or abends can be produced by the address space that attempted the attach.

Operator response: Notify your system programmer.

System programmer response: After SYSPLEX partitioning for the system in question is complete, re-IPL that system.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 7

IXZ0300E FAILED TO JOIN XCF GROUP RC=*retcode* **RSN=***reason-code*

Explanation: An internal JESXCF function attempted to attach to the JESXCF component using the JESXCF attach service (IXZXIXAT). The attach was unsuccessful.

In the message text:

retcode The return code from the JESXCF attach service

reason-code
The reason code from the JESXCF attach service

System action: The JESXCF function ends. Depending on the situation, the JESXCF function might attempt a restart.

Operator response: Notify your system programmer.

System programmer response: Search the problem reporting data bases for a fix to this coding problem. If a fix exists, correct the problem and then restart the system to reinitialize the failed JESXCF function. If no fix exists for this particular problem, record the message number and the return and reason codes, and contact your IBM Support Center.

Source: JES common coupling services (JESXCF)

Module: IXZRCEC

Routing code: 10

Descriptor code: 7

IXZ0301E FAILED TO ATTACH TASK *modname* **RC=***retcode*

Explanation: The JESXCF component attempted to attach a task on behalf of an internal JESXCF function. The attach was unsuccessful.

In the message text:

modname
The name of the module that was to be attached as a task

retcode The return code from the MVS attach service

System action: JESXCF processing continues.

Operator response: Notify your system programmer.

System programmer response: Search the problem reporting data bases for a fix to this coding problem. If a fix exists, correct the problem and then restart the system to reinitialize the failed JESXCF function. If no fix exists for this particular problem, record the message number and the return code, and contact your IBM Support Center.

Source: JES common coupling services (JESXCF)

Module: IXZRCAT

Routing code: 10

Descriptor code: 2,12

IXZ0302E FAILED TO {BUILD | CLEAR} MAILBOX *mailboxname* **RC=***retcode* **RSN=***reason-code*

Explanation: An internal JESXCF function attempted to perform an action on a JESXCF mailbox using a JESXCF mailbox service. The action was unsuccessful.

In the message text:

mailboxname
The name of the JESXCF mailbox being processed

retcode The return code from the specified JESXCF mailbox service

reason-code
The reason code from the specified JESXCF mailbox service

System action: The JESXCF function ends. Depending on the situation, the JESXCF function might attempt a restart.

Operator response: Notify your system programmer.

System programmer response: Search the problem reporting data bases for a fix to this coding problem. If a fix exists, correct the problem and then restart the system to reinitialize the failed JESXCF function. If no fix exists for this particular problem, record the message number and the return and reason codes, and contact your IBM Support Center.

Source: JES common coupling services (JESXCF)

Module: IXZRCEC

Routing code: 10

Descriptor code: 2,12

IXZ0109E FAILURE IN JESXCF, UNABLE TO POST JES MEMBER *xcfmember* **GROUP** *xcfgroup*

Explanation: JESXCF was unable to post JES member *xcfmember* in group *xcfgroup*. If active, *xcfmember* is probably hung or in a loop.

In the message text:

xcfgroup
the XCF group to which the member to be posted belongs

xcfmember
The XCF member name of the member being posted

System action: JESXCF processing continues.

Operator response: Notify your system programmer if this message is not automatically deleted within several minutes.

System programmer response: Check the system log for additional messages associated with *xcfmember*. Request a dump of *xcfmember*, and the JESXCF address space and its associated data spaces on the member's system. If the problem is due to a coding error, search problem reporting data bases for a fix for the problem. If no fix exist, contact your IBM Support Center and supply the system log data and any related dump data.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 2,12

IXZ0763E OPTIONS FOR SYSJES COMPONENT TRACE ARE NOT VALID.

Explanation: The parameter that you specified with the OPTIONS keyword is not valid. OPTIONS is not a required parameter for SYSJES CTRACE. The OPTIONS parameter is always the same as the "SUB" name even if it is not specified.

System action: The CTRACE state remains unchanged.

Operator response: Reissue the TRACE CT command and either correct the incorrect parameter or omit OPTIONS. For example, in response to *ITT006A SPECIFY OPERAND(S) for TRACE CT COMMAND* the following are equivalent: *R id,OPTIONS=(USREXIT),END* and *R id.END*. Refer to *z/OS MVS IPCS Commands* for the correct syntax of the CTRACE command.

System programmer response: None.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 2,12

IXZ0765E CTRACE DEFINE FOR *subname* **FAILED WITH PARMLIB MEMBER** *membername***, NO PARMLIB MEMBER WILL BE USED**

Explanation: JESXCF attempted to use the parmlib member *membername* in SYS1.PARMLIB for CTRACE define processing, but a parmlib error was detected. An error was found in a referenced parmlib member (CTIJES01, CTIJES02, CTIJES03, or CTIJES04).

In the message text:

subname
The name of the "SUB" level event

membername
The parmlib member (CTIJES01, CTIJES02, CTIJES03, or CTIJES04) with the error

System action: JESXCF attempts to use its own default parmlib settings rather than those defined in *membername*.

Operator response: Notify your system programmer.

System programmer response: Check the specified SYS1.PARMLIB member for syntax errors. Correct the error

before you next re-IPL your system. JESXCF will not re-read the parmlib member until JESXCF is again initialized.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 2,12

IXZ0766E CTRACE DEFINE FOR SYSJES FAILED, TRACING WILL NOT BE INITIALIZED

Explanation: JESXCF could not define a SYSJES CTRACE due to a system error.

System action: The SYSJES CTRACE define failed and tracing is unavailable for the specified SYSJES.

Operator response: Notify your system programmer.

System programmer response: Check the system log for additional messages associated with this failure and gather appropriate documentation. Search problem reporting data bases for a fix for the problem. If no fix exists, contact your IBM Support Center.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 2,12

IXZ0767E SYSJES INTERNAL ERROR, TRACING WILL NOT BE INITIALIZED

Explanation: An internal error was detected during JESXCF processing.

System action: Tracing is not available for the JESXCF component.

Operator response: Notify your system programmer.

System programmer response: Check the system log for additional messages associated with this failure and gather appropriate documentation. Search problem reporting data bases for a fix for the problem. If no fix exist, contact your IBM Support Center.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 2,12

IXZ0769E SYSJES CTRACE IS UNAVAILABLE

Explanation: You attempted to start SYSJES TRACE when tracing is inactive. Tracing may be inactive because JESXCF was previously cancelled with an MVS FORCE command.

System action: Tracing is not available for the JESXCF component.

Operator response: Notify your system programmer.

System programmer response: Check the system log for additional messages associated with this failure and gather appropriate documentation. Search problem reporting data bases for a fix for the problem. If no fix exists, contact your IBM Support Center.

Source: JES common coupling services (JESXCF)

Routing code: 10

Descriptor code: 2,12

Chapter 7. IYP messages

See *Input/Output Configuration Program User's Guide and Reference* for additional messages.

IYP050D SHOULD *jobname* WRITE TO LEVEL *xx* IOCDS? REPLY 'YES', 'NO', OR 'CANCEL'

Explanation: A job processed the input/output configuration program (IOCP) with a WRTCDS option other than NO on the PARM parameter of an EXEC statement.

In the message text:

jobname The jobname.

xx The specified level.

Note: If the CBD.CPC.IOCDS resource of the FACILITY class exists in an installed security product (for example, RACF), IOCP does not issue this message to the system operator. IOCP determines your authorization to write an input/output configuration data set (IOCDS) from your authorization to update the CBD.CPC.IOCDS resource. If the security administrator has authorized you to update this resource, IOCP writes the IOCDS. If you are not authorized to update the resource, IOCP does not write the IOCDS.

System action: IOCP issues this message to request permission from the system operator for the job to write to the specified level IOCDS in the support element. If two or more jobs are allowed to update concurrently the specified level IOCDS, the outcome could be an IOCDS that is logically inconsistent with the input from any one job. Using this IOCDS at power-on reset or SYSIML CLEAR could produce undesirable results.

Operator response: A reply of 'YES' allows the job to continue processing and, if no errors are encountered, to replace the input/output configuration data in the specified level IOCDS in the support element with the input/output configuration data generated by this job. The operator should use the Input/Output Configuration panel to ensure the level IOCDS is not write-protected.

A reply of 'NO' allows the job to continue generating input/output configuration data in storage and to produce reports, but does not permit the job to replace the input/output configuration data in the level IOCDS in the support element.

A reply of 'CANCEL' ends the job immediately with system completion code X'222'.

Source: Input/output configuration program (IOCP)

Routing code: 1,11

Descriptor code: 7

IYP056I IOCP JOB *jobname* FAILED. DID NOT BUILD LEVEL *xx* IOCDS.

Explanation: A job was processing the input/output configuration program (IOCP) with a WRTCDS option other than NO on the PARM parameter of an EXEC statement.

In the message text:

jobname The jobname.

xx The specified level.

System action: IOCP ends the job with return code 8. IOCP issues this message to inform the programmer and the system operator, if the operator previously responded to message IYP050D, that this job failed to build the level indicated input/output configuration data set (IOCDS).

One of the following occurred:

- An error was found in the IOCP input statements
- The system operator previously replied 'NO' to message IYP050D

- The CBD.CPC.IOCDS resource of the FACILITY class has been defined to an installed security product and you have not been authorized by the security administrator to update access to the CBD.CPC.IOCDS resource.

Operator response: Notify the system programmer that the job failed.

System programmer response: Review the messages on the job listing, and take the necessary actions.

Source: Input/output configuration program (IOCP)

Routing code: 2,11,Note 32

Descriptor code: 6

IYP057I IOCP JOB *jobname* **SUCCESSFUL. LEVEL** *xx* **IOCDS REPLACED.**

Explanation: A job was processing the input/output configuration program (IOCP) with a WRTCDS option other than NO on the PARM parameter of an EXEC statement.

In the message text:

jobname The jobname.

xx The specified level.

System action: IOCP ends the job with a return code of 0, 2, or 4. IOCP issues this message to inform the programmer and the system operator, if the operator previously granted permission to write the IOCDS in response to message IYP050D, that this job successfully replaced the level indicated input/output configuration data set (IOCDS).

Operator response: Follow the installation procedures.

Source: Input/output configuration program (IOCP)

Routing code: 2,11,Note 32

Descriptor code: 6

Chapter 8. IZP messages

See *Input/Output Configuration Program User's Guide and Reference* for additional messages.

IZP050D SHOULD *jobname* WRITE TO LEVEL *xxx* IOCDS? REPLY 'YES', 'NO', OR 'CANCEL'

Explanation: A job processed the input/output configuration program (IOCP) with a WRTCDS option other than NO on the PARM parameter of an EXEC statement.

In the message text:

jobname The jobname.

xxx The specified level.

Note: If IOCP is running on MVS/ESA SP 3.1.3 or later and the CBD.CPC.IOCDS resource of the FACILITY class exists in an installed security product (for example, RACF), IOCP does not issue this message to the system operator. IOCP determines your authorization to write an input/output configuration data set (IOCDS) from your authorization to update the CBD.CPC.IOCDS resource. If the security administrator has authorized you to update this resource, IOCP writes the IOCDS. If you are not authorized to update the resource, IOCP does not write the IOCDS.

System action: IOCP issues this message to request permission from the system operator for the job to write to the specified level IOCDS in the processor controller or support element. If two or more jobs are allowed to update concurrently the specified level IOCDS, the outcome could be an IOCDS that is logically inconsistent with the input from any one job. Using this IOCDS at power-on reset or SYSIML CLEAR could produce undesirable results.

Operator response: A reply of 'YES' allows the job to continue processing and, if no errors are encountered, to replace the input/output configuration data in the specified level IOCDS in the processor controller or support element with the input/output configuration data generated by this job. The operator should use the IOCDSM frame or Input/Output Configuration panel to ensure the level IOCDS is not write-protected.

A reply of 'NO' allows the job to continue generating input/output configuration data in storage and to produce reports, but does not permit the job to replace the input/output configuration data in the level IOCDS in the processor controller or support element.

A reply of 'CANCEL' ends the job immediately with system completion code X'222'.

Source: Input/output configuration program (IOCP)

Routing code: 1,11

Descriptor code: 7

IZP056I IOCP JOB *jobname* FAILED. DID NOT BUILD LEVEL *xxx* IOCDS.

Explanation: A job was processing the input/output configuration program (IOCP) with a WRTCDS option other than NO on the PARM parameter of an EXEC statement.

In the message text:

jobname The jobname.

xxx The specified level.

System action: IOCP ends the job with return code 8. IOCP issues this message to inform the programmer and the system operator, if the operator previously responded to message IZP050D, that this job failed to build the level indicated input/output configuration data set (IOCDS).

One of the following occurred:

- An error was found in the IOCP input statements
- The system operator previously replied 'NO' to message IZP050D

- The CBD.CPC.IOCDS resource of the FACILITY class has been defined to an installed security product and IOCP is running on MVS/ESA SP 3.1.3 or later and you have not been authorized by the security administrator to update access to the CBD.CPC.IOCDS resource.

Operator response: Notify the system programmer that the job failed.

System programmer response: Review the messages on the job listing, and take the necessary actions.

Source: Input/output configuration program (IOCP)

Routing code: 2,11,Note 33

Descriptor code: 6

IZP057I IOCP JOB *jobname* **SUCCESSFUL. LEVEL** *xxx* **IOCDS REPLACED.**

Explanation: A job was processing the input/output configuration program (IOCP) with a WRTCDS option other than NO on the PARM parameter of an EXEC statement.

In the message text:

jobname The jobname.

xxx The specified level.

System action: IOCP ends the job with a return code of 0, 2, or 4. IOCP issues this message to inform the programmer and the system operator, if the operator previously granted permission to write the IOCDS in response to message IZP050D, that this job successfully replaced the level indicated input/output configuration data set (IOCDS).

Operator response: Follow the installation procedures.

Source: Input/output configuration program (IOCP)

Routing code: 2,11,Note 33

Descriptor code: 6

Appendix. Accessibility

Accessible publications for this product are offered through IBM Knowledge Center (http://www.ibm.com/support/knowledgecenter/SSLTBW/welcome).

If you experience difficulty with the accessibility of any z/OS information, send a detailed message to the "Contact us" web page for z/OS (http://www.ibm.com/systems/z/os/zos/webqs.html) or use the following mailing address.

IBM Corporation
Attention: MHVRCFS Reader Comments
Department H6MA, Building 707
2455 South Road
Poughkeepsie, NY 12601-5400
United States

Accessibility features

Accessibility features help users who have physical disabilities such as restricted mobility or limited vision use software products successfully. The accessibility features in z/OS can help users do the following tasks:

- Run assistive technology such as screen readers and screen magnifier software.
- Operate specific or equivalent features by using the keyboard.
- Customize display attributes such as color, contrast, and font size.

Consult assistive technologies

Assistive technology products such as screen readers function with the user interfaces found in z/OS. Consult the product information for the specific assistive technology product that is used to access z/OS interfaces.

Keyboard navigation of the user interface

You can access z/OS user interfaces with TSO/E or ISPF. The following information describes how to use TSO/E and ISPF, including the use of keyboard shortcuts and function keys (PF keys). Each guide includes the default settings for the PF keys.

- *z/OS TSO/E Primer*
- *z/OS TSO/E User's Guide*
- *z/OS V2R2 ISPF User's Guide Vol I*

Dotted decimal syntax diagrams

Syntax diagrams are provided in dotted decimal format for users who access IBM Knowledge Center with a screen reader. In dotted decimal format, each syntax element is written on a separate line. If two or more syntax elements are always present together (or always absent together), they can appear on the same line because they are considered a single compound syntax element.

Each line starts with a dotted decimal number; for example, 3 or 3.1 or 3.1.1. To hear these numbers correctly, make sure that the screen reader is set to read out

punctuation. All the syntax elements that have the same dotted decimal number (for example, all the syntax elements that have the number 3.1) are mutually exclusive alternatives. If you hear the lines 3.1 USERID and 3.1 SYSTEMID, your syntax can include either USERID or SYSTEMID, but not both.

The dotted decimal numbering level denotes the level of nesting. For example, if a syntax element with dotted decimal number 3 is followed by a series of syntax elements with dotted decimal number 3.1, all the syntax elements numbered 3.1 are subordinate to the syntax element numbered 3.

Certain words and symbols are used next to the dotted decimal numbers to add information about the syntax elements. Occasionally, these words and symbols might occur at the beginning of the element itself. For ease of identification, if the word or symbol is a part of the syntax element, it is preceded by the backslash (\) character. The * symbol is placed next to a dotted decimal number to indicate that the syntax element repeats. For example, syntax element *FILE with dotted decimal number 3 is given the format 3 * FILE. Format 3* FILE indicates that syntax element FILE repeats. Format 3* * FILE indicates that syntax element * FILE repeats.

Characters such as commas, which are used to separate a string of syntax elements, are shown in the syntax just before the items they separate. These characters can appear on the same line as each item, or on a separate line with the same dotted decimal number as the relevant items. The line can also show another symbol to provide information about the syntax elements. For example, the lines 5.1*, 5.1 LASTRUN, and 5.1 DELETE mean that if you use more than one of the LASTRUN and DELETE syntax elements, the elements must be separated by a comma. If no separator is given, assume that you use a blank to separate each syntax element.

If a syntax element is preceded by the % symbol, it indicates a reference that is defined elsewhere. The string that follows the % symbol is the name of a syntax fragment rather than a literal. For example, the line 2.1 %OP1 means that you must refer to separate syntax fragment OP1.

The following symbols are used next to the dotted decimal numbers.

? indicates an optional syntax element
The question mark (?) symbol indicates an optional syntax element. A dotted decimal number followed by the question mark symbol (?) indicates that all the syntax elements with a corresponding dotted decimal number, and any subordinate syntax elements, are optional. If there is only one syntax element with a dotted decimal number, the ? symbol is displayed on the same line as the syntax element, (for example 5? NOTIFY). If there is more than one syntax element with a dotted decimal number, the ? symbol is displayed on a line by itself, followed by the syntax elements that are optional. For example, if you hear the lines 5 ?, 5 NOTIFY, and 5 UPDATE, you know that the syntax elements NOTIFY and UPDATE are optional. That is, you can choose one or none of them. The ? symbol is equivalent to a bypass line in a railroad diagram.

! indicates a default syntax element
The exclamation mark (!) symbol indicates a default syntax element. A dotted decimal number followed by the ! symbol and a syntax element indicate that the syntax element is the default option for all syntax elements that share the same dotted decimal number. Only one of the syntax elements that share the dotted decimal number can specify the ! symbol. For example, if you hear the lines 2? FILE, 2.1! (KEEP), and 2.1 (DELETE), you know that (KEEP) is the

default option for the FILE keyword. In the example, if you include the FILE keyword, but do not specify an option, the default option KEEP is applied. A default option also applies to the next higher dotted decimal number. In this example, if the FILE keyword is omitted, the default FILE(KEEP) is used. However, if you hear the lines 2? FILE, 2.1, 2.1.1! (KEEP), and 2.1.1 (DELETE), the default option KEEP applies only to the next higher dotted decimal number, 2.1 (which does not have an associated keyword), and does not apply to 2? FILE. Nothing is used if the keyword FILE is omitted.

*** indicates an optional syntax element that is repeatable**

The asterisk or glyph (*) symbol indicates a syntax element that can be repeated zero or more times. A dotted decimal number followed by the * symbol indicates that this syntax element can be used zero or more times; that is, it is optional and can be repeated. For example, if you hear the line 5.1* data area, you know that you can include one data area, more than one data area, or no data area. If you hear the lines 3* , 3 HOST, 3 STATE, you know that you can include HOST, STATE, both together, or nothing.

Notes:

1. If a dotted decimal number has an asterisk (*) next to it and there is only one item with that dotted decimal number, you can repeat that same item more than once.
2. If a dotted decimal number has an asterisk next to it and several items have that dotted decimal number, you can use more than one item from the list, but you cannot use the items more than once each. In the previous example, you can write HOST STATE, but you cannot write HOST HOST.
3. The * symbol is equivalent to a loopback line in a railroad syntax diagram.

+ indicates a syntax element that must be included

The plus (+) symbol indicates a syntax element that must be included at least once. A dotted decimal number followed by the + symbol indicates that the syntax element must be included one or more times. That is, it must be included at least once and can be repeated. For example, if you hear the line 6.1+ data area, you must include at least one data area. If you hear the lines 2+, 2 HOST, and 2 STATE, you know that you must include HOST, STATE, or both. Similar to the * symbol, the + symbol can repeat a particular item if it is the only item with that dotted decimal number. The + symbol, like the * symbol, is equivalent to a loopback line in a railroad syntax diagram.

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for service, and current service activity will cease if a problem is determined to be associated with out-of-support devices. In such cases, fixes will not be issued.

Minimum supported hardware

The minimum supported hardware for z/OS releases identified in z/OS announcements can subsequently change when service for particular servers or devices is withdrawn. Likewise, the levels of other software products supported on a particular release of z/OS are subject to the service support lifecycle of those products. Therefore, z/OS and its product publications (for example, panels, samples, messages, and product documentation) can include references to hardware and software that is no longer supported.

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