



**Program Directory for  
IBM Z NetView  
US English**

Version 6 Release 4, Modification Level 00

Program Number 5697-NV6

FMIDs HNV640B, JNV640E

for Use with  
z/OS

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**Note**

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 36.

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## 1.0 Introduction

This program directory is intended for system programmers who are responsible for program installation and maintenance. It contains information about the material and procedures associated with the with the installation of the IBM® Z NetView® licensed program (5697-NV6). This publication refers to IBM Z NetView as NetView.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 5 identifies the basic program materials and documentation for IBM Z NetView.
- 3.0, “Program Support” on page 10 describes the IBM support available for IBM Z NetView.
- 4.0, “Program and Service Level Information” on page 12 lists the APARs (program level) and PTFs (service level) that have been incorporated into IBM Z NetView.
- 5.0, “Installation Requirements and Considerations” on page 13 identifies the resources and considerations that are required for installing and using IBM Z NetView.
- 6.0, “Installation Instructions” on page 25 provides detailed installation instructions for IBM Z NetView. It also describes the procedures for activating the functions of IBM Z NetView, or refers to appropriate publications.

Before installing IBM Z NetView, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that are supplied with this program in softcopy format and this program directory; after which, keep the documents for your reference. Section 3.2, “Preventive Service Planning” on page 10 tells you how to find any updates to the information and procedures in this program directory.

IBM Z NetView is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The program directory that is provided in softcopy format on the CBPDO tape is identical to the hardcopy format if one was included with your order. All service and HOLDDATA for IBM Z NetView are included on the CBPDO tape.

Do not use this program directory if you install IBM Z NetView with a ServerPac. When you use one of those offerings, use the jobs and documentation supplied with the offering. The offering will point you to specific sections of this program directory as needed.

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### 1.1 IBM Z NetView Description

IBM Z NetView 6.4 provides automation, and network and systems management to address your requirements for business agility on IBM Z. Key capabilities and advanced functions include networking and automation, enhanced enterprise integration, client time-to-value, and ease of use. System and network automation is provided by IBM Z NetView and addresses the continued drive for increased IT workload and automation. Because network requirements are ever-increasing, largely because of mobile phones, the need for a robust network management solution becomes increasingly important.

IBM Z NetView 6.4 continues to provide a modernized user experience through the integration of technologies that make it easier and faster to increase productivity. This is accomplished by introducing three new IBM Z NetView plug-ins for Zowe CLI:

- Base plug-in enables clients to access core NetView information and issue most NetView commands. The specific categories of data are:
  - Canzlog messages
  - Task utilization information
  - List of NetView domains to which commands can be sent
  - Authentication to NetView through the NetView REST Server

**Note:** You must download this plug-in if you want to use the network and automation plug-ins.

- Automation plug-in enables you to manage automation table members or statements:
  - Activate an automation table members
  - Download an automation tables member
  - List active automation tables
  - Run a simulated test of an automation table statement
  - Upload an automation table statement
  - Validate an automation table member
- Network plug-in enables you to monitor your network:
  - Display distributed DVIPA (DDVIPA) health information
  - Display distributed DVIPA (DDVIPA) statistics

IBM Z NetView provides the following additional enhancements:

- Display of messages queued on attended and automated operator tasks. This enables the user to see what is queued up on a task behind a process that is not completing, thus allowing the user to make an informed decision on whether to recycle, stop, or reset the task.
- Support the z/OS symbol names of up to 16 characters with a maximum substitution test of up to 44 characters (including spaces), as defined by z/OS. The following areas have been enhanced for this support:
  - Some configuration samples, such as CxxSTGEN, CNMSTUSR, and CNMPOLCY
  - PIPE SUBSYM stage
- Network management enhancements:
  - IBM z/OS V2.5 Communications Server enhanced the z/OS Encryption Readiness Technology (zERT) function to provide enforcement of network encryption standards. The zERT policy-based enforcement (zERT enforcement) solution allows policy-based rules that describe different levels of cryptographic protection along with optional actions to take when TCP connections match those rules. zERT enforcement action enable immediate notification through messages, auditing through



SMF records, and automatic connection termination when NetView catches the syslogd and SMF record notifications and generates a message upon which users can automate an action.

- The SNMP requirement is removed for:
  - Displaying of interfaces using Discovery Manager
  - Packet trace

This enhancement provides time to value because SNMP no longer needs to be configured for this function.

- The NVSNMP command support for SNMPv3 allows additional security parameters to be issued. SNMPv3 requires a username, and authentication and encryption can optionally be specified.

- Security

- The use of encrypted data sets, as supported by DFSMS and IBM z/OS Integrated Cryptographic Service Facility (ICSF). IBM Z NetView supports encrypted:
  - Partitioned data set extended (PDSEs), such as DSIPARM and Canzlog archive data sets
  - VSAM data sets, such as DSILOGP/DSILOGS
- Ability to prevent the echoing, logging and tracing of sensitive information on a command. See the CNMSELTE DSIPARM member.

- NetView Enterprise Management Agent

- Support is provided for Extended Access Volume usage for history performance information. The IBM Z NetView Enterprise Management Agent now includes the use of the OMEGAMON persistent data store (PDS V2) large file setup for history information. This increases the amount of information that can be stored and retrieved from history to populate product workspaces.

The following functions are no longer available in IBM Z NetView 6.4:

- NetView Web Services Gateway (SOAP Server)
- SNA Topology Manager
- The NetView task DSIWBTSK that provided support for the NetView Web Application Server
- Correlation Engine
- MultiSystem Manager support
- SECOPT.AUTHCHK.TARGETID command authorization security option

**Important:** If you try to install both the NetView US English and the NetView Japanese feature into the same zones, most features will not install correctly.

---

## 1.2 IBM Z NetView FMIDs

IBM Z NetView consists of the following FMIDs:

HNV640B  
JNV640E

The order is important because IBM Z NetView has many dependencies between components. These dependencies will cause unresolved external reference messages to be generated during the APPLY.

**APPLY all FMIDs together in a single APPLY job step.**

---

## 2.0 Program Materials

An IBM program is identified by a program number and a feature number. The program number for IBM Z NetView is 5697-NV6, and the feature number is 5802.

Basic machine-readable materials are materials that are supplied under the base license and feature numbers, and are required for the use of the product. Optional machine-readable materials are orderable under separate feature numbers, and are not required for the product to function.

The program announcement material describes the features supported by IBM Z NetView. Ask your IBM representative for this information if you have not already received a copy.

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### 2.1 Basic Machine-Readable Material

The distribution medium for this program is physical media or downloadable files. This program is in SMP/E RELFILE format and is installed by using SMP/E. See 6.0, "Installation Instructions" on page 25 for more information about how to install the program.

You can find information about the physical media for the basic machine-readable materials for IBM Z NetView in the *CBPDO Memo To Users Extension*.

#### Notes:

1. The data set attributes in this table should be used in the JCL of jobs reading the data sets, but because the data sets are in IEBCOPY unloaded format, their actual attributes might be different.
2. If any RELFILEs are identified as PDSEs, ensure that SMPTLIB data sets are allocated as PDSEs.

Figure 1 (Page 1 of 2). Program File Content Base Tape

<b>Name</b>	<b>O R G</b>	<b>R E C F M</b>	<b>L R E C L</b>	<b>BLK SIZE</b>
SMPMCS	SEQ	FB	80	8800
HNV640B.F1	SEQ	FB	80	8800
HNV640B.F2	SEQ	FB	80	8800
HNV640B.F3	SEQ	FB	80	8800
HNV640B.F4	SEQ	U	0	6144
HNV640B.F5	SEQ	FB	80	8800
HNV640B.F6	SEQ	FB	80	8800
HNV640B.F7	SEQ	FB	80	8800

Figure 1 (Page 2 of 2). Program File Content Base Tape

<b>Name</b>	<b>O R G</b>	<b>R E C F M</b>	<b>L R E C L</b>	<b>BLK SIZE</b>
HNV640B.F8	SEQ	U	0	6144
HNV640B.F9	SEQ	FB	80	8800
HNV640B.F10	SEQ	FB	80	8800
HNV640B.F11	SEQ	FB	80	8800
HNV640B.F12	SEQ	FB	80	8800
HNV640B.F13	SEQ	VB	516	8256
HNV640B.F14	SEQ	FB	80	8800
HNV640B.F16	SEQ	FB	80	8800
HNV640B.F17	SEQ	FB	80	8800
HNV640B.F18	SEQ	FB	80	8800
HNV640B.F19	SEQ	U	0	6144
HNV640B.F20	SEQ	VB	2333	27998

Figure 2. Program File Content English Language Tape

<b>Name</b>	<b>O R G</b>	<b>R E C F M</b>	<b>L R E C L</b>	<b>BLK SIZE</b>
JNV640E.F1	SEQ	FB	80	8800
JNV640E.F2	SEQ	FB	80	8800
JNV640E.F3	SEQ	FB	80	8880
JNV640E.F4	SEQ	FB	80	8800
JNV640E.F5	SEQ	FB	80	8800
JNV640E.F6	SEQ	U	0	6144
JNV640E.F7	SEQ	FB	80	8800
JNV640E.F8	SEQ	FB	80	8800
JNV640E.F9	SEQ	FB	80	8800
JNV640E.F10	SEQ	FB	125	3125

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## 2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for IBM Z NetView.

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## 2.3 Program Publications

The following sections identify the basic publications for IBM Z NetView.

Figure 3 identifies the basic unlicensed publications for IBM Z NetView. Publications can be accessed at the IBM Publications Center website at <http://www.ibm.com/resources/publications>.

<i>Figure 3 (Page 1 of 2). Basic Material: Unlicensed</i>		
<b>Publication Title</b>	<b>Form Number</b>	<b>Media Format</b>
<i>IBM Z NetView Administration Reference</i>	SC27-2869	web
<i>IBM Z NetView Application Programmer's Guide</i>	SC27-2870	web
<i>IBM Z NetView Automation Guide</i>	SC27-2846	web
<i>IBM Z NetView Command Reference Volume 1 (A-N)</i>	SC27-2847	web
<i>IBM Z NetView Command Reference Volume 2 (O-Z)</i>	SC27-2848	web
<i>IBM Z NetView Customization Guide</i>	SC27-2849	web
<i>IBM Z NetView Data Model Reference</i>	SC27-2850	web
<i>IBM Z NetView Installation: Configuring Additional Components</i>	GC27-2851	web
<i>IBM Z NetView Installation: Configuring Graphical Components</i>	GC27-2852	web
<i>IBM Z NetView Installation: Configuring the NetView Enterprise Management Agent</i>	GC27-2853	web
<i>IBM Z NetView Installation: Getting Started</i>	GI11-9443	web
<i>IBM Z NetView Installation: Migration Guide</i>	GC27-2854	web
<i>IBM Z NetView IP Management</i>	SC27-2855	web
<i>IBM Z NetView Licensed Program Specifications</i>	GI13-2201	web
<i>IBM Z NetView Messages and Codes Volume 1(AAU-DSI)</i>	GC27-2856	web
<i>IBM Z NetView Messages and Codes Volume 2(DUI-IHS)</i>	GC27-2857	web
<i>IBM Z NetView Programming: Assembler</i>	SC27-2858	web
<i>IBM Z NetView Programming: Pipes</i>	SC27-2859	web
<i>IBM Z NetView Programming: PL/I and C</i>	SC27-2860	web

Figure 3 (Page 2 of 2). Basic Material: Unlicensed

<b>Publication Title</b>	<b>Form Number</b>	<b>Media Format</b>
<i>IBM Z NetView Programming: REXX and the NetView Command List Language</i>	SC27-2861	web
<i>IBM Z NetView Resource Object Data Manager and GMFHS Programmer's Guide</i>	SC27-2862	web
<i>IBM Z NetView Security Reference</i>	SC27-2863	web
<i>IBM Z NetView Troubleshooting Guide</i>	GC27-2865	web
<i>IBM Z NetView Tuning Guide</i>	SC27-2874	web
<i>IBM Z NetView User's Guide: Automated Operations Network</i>	SC27-2866	web
<i>IBM Z NetView User's Guide: NetView</i>	SC27-2867	web
<i>IBM Z NetView User's Guide: NetView Management Console</i>	SC27-2868	web
<i>IBM Z NetView User's Guide: NetView Enterprise Management Agent</i>	SC27-2876	web

The IBM Z NetView product information can be found at the IBM Documentation website:

<http://https://www.ibm.com/docs/en/z-netview/6.4.0>

### 2.3.1 Optional Program Publications

No optional publications are provided for IBM Z NetView.

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## 2.4 Program Source Materials

No program source materials or viewable program listings are provided for IBM Z NetView.

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## 2.5 Publications Useful During Installation

You might want to use the publications that are listed in Figure 4 during the installation of IBM Z NetView.

Figure 4 (Page 1 of 2). Publications Useful During Installation

<b>Publication Title</b>	<b>Form Number</b>
<i>IBM SMP/E for z/OS User's Guide</i>	SA22-7773
<i>IBM SMP/E for z/OS Commands</i>	SA22-7771

Figure 4 (Page 2 of 2). Publications Useful During Installation

<b>Publication Title</b>	<b>Form Number</b>
<i>IBM SMP/E for z/OS Reference</i>	SA22-7772
<i>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</i>	GA22-7770
<i>z/OS UNIX® System Services Command Reference</i>	SA22-7802
<i>z/OS UNIX System Services Messages and Codes</i>	SA22-7807
<i>z/OS Communications Server: IP Configuration Guide</i>	SC31-8775
<i>z/OS Communications Server: IP Configuration Reference</i>	SC31-8776
<i>MVS Custom-Built Offering Planning and Installation</i>	SC23-0352
<i>IBM Tivoli Monitoring: Installation and Setup Guide</i>	GC32-9407
<i>IBM Tivoli Management Services on z/OS Configuring the Tivoli Enterprise Monitoring Server on z/OS</i>	SC27-2313
<i>IBM Tivoli OMEGAMON® XE and Tivoli Management Services on z/OS Common Planning and Configuration Guide</i>	SC23-9734

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## 3.0 Program Support

This section describes the IBM support that is available for IBM Z NetView.

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### 3.1 Program Services

Contact your IBM representative for specific information about available program services.

To report issues or defects related to functions used by IBM Z Distribution for Zowe, use the IBM Z Distribution for Zowe program number 5698-ZWE.

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### 3.2 Preventive Service Planning

Before you install IBM Z NetView, make sure that you have reviewed the current Preventive Service Planning (PSP) information. Review the PSP Bucket for General Information, Installation Documentation, and the Cross Product Dependencies sections. For the Recommended Service section, instead of reviewing the PSP Bucket, it is recommended you use the IBM.ProductInstall-RequiredService fix category in SMP/E to ensure you have all the recommended service installed. Use the **FIXCAT(IBM.ProductInstall-RequiredService)** operand on the **APPLY CHECK** command. See 6.1.13, “Perform SMP/E APPLY” on page 31 for a sample APPLY command.

If you obtained IBM Z NetView as part of a CBPDO, HOLDDATA is included.

If the CBPDO for IBM Z NetView is older than two weeks by the time you install the product materials, you can obtain the latest PSP Bucket information by going to the following web site:

<http://www14.software.ibm.com/webapp/set2/psearch/search?domain=psp>

You can also use S/390 SoftwareXcel or contact the IBM Support Center to obtain the latest PSP Bucket information.

For program support, access the Software Support web site at <http://www.ibm.com/software/support/>.

PSP Buckets are identified by UPGRADEs, which specify product levels; and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for IBM Z NetView are included in Figure 5.

*Figure 5. PSP Upgrade and Subset ID*

UPGRADE	SUBSET	Description
TIVNETV640	HNV640B	NetView Base
TIVNETV640	JNV640E	NetView US English



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### 3.3 Statement of Support Procedures

Report any problems that you think might be an error in the product materials to your IBM Support Center. You might be asked to gather and submit additional diagnostics to assist the IBM Support Center in their analysis.

Figure 6 on page 11 identifies the component IDs (COMPID) for IBM Z NetView.

<i>Figure 6. Component IDs</i>			
<b>FMID</b>	<b>COMPID</b>	<b>Component Name</b>	<b>RETAIN Release</b>
HNv640B	5697NV600	NetView Base	40B
JNV640E	5697NV600	NetView US English	40E

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## 4.0 Program and Service Level Information

This section identifies the program and relevant service levels of IBM Z NetView. The program level refers to the APAR fixes that were incorporated into the program. The service level refers to the PTFs that were incorporated into the program.

---

### 4.1 Program Level Information

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### 4.2 Service Level Information

PTFs containing APAR fixes against this release of IBM Z NetView have been incorporated into this product package. For a list of included PTFs, examine the ++VER statement in the product's SMPMCS.

```
HNVL12B  -- UA75118 UA75214 UA75231 UA75284 UA75367 UA75465 UA75633
           UA75676 UA75708 UA75799 UA75870 UA75882 UA75884 UA75904
           UA75916 UA75925 UA75927 UA75939 UA76184 UA76210 UA76483
           UA76519 UA76661 UA76747 UA76822 UA76842 UA76982 UA77289
           UA77291 UA77404 UA77412 UA77567 UA77624 UA77643 UA77733
           UA77877 UA78111 UA78113 UA78248 UA78359 UA78507 UA78587
           UA78747 UA78751 UA78907
HNV621B  -- UA75115 UA75379 UA75602 UA75631 UA75679 UA75774 UA75883
           UA75893 UA75902 UA76253 UA76406 UA76481 UA77544 UA77885
           UA78097 UA78319 UA78361
JNVL12E  -- UA75119 UA75468 UA75677 UA76152 UA76432 UA76664 UA77294
           UA78360 UA78588
HNVL13B  -- UJ04376 UJ04561 UJ04677 UJ04693 UJ04694 UJ04697 UJ04700
           UJ04775 UJ04791 UJ04823 UJ04920 UJ04935 UJ04876 UJ05194
           UJ05201 UJ05564 UJ05772 UJ05743 UJ06416 UJ06648 UJ06763
           UJ06957
HNV630B  -- UJ03907 UJ03970 UJ04563 UJ04714 UJ04730 UJ04959
JNVL13E  -- UJ04564 UJ04679 UJ05773 UJ05744
```

Frequently check the IBM Z NetView PSP Bucket for HIPER and SPECIAL attention PTFs against all FMIDs that you must install. You can also receive the latest HOLDDATA, then add the **FIXCAT(IBM.PRODUCTINSTALL-REQUIREDSERVICE)** operand on your APPLY CHECK command. You can then review the recommended and critical service that should be installed with your FMIDs.

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## 5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating IBM Z NetView. The following terminology is used:

- *Driving system*: the system on which SMP/E is executed to install the program.  
The program might have specific operating system or product level requirements for using processes, such as binder or assembly utilities during the installation.
- *Target system*: the system on which the program is configured and run.  
The program might have specific product level requirements, such as requiring access to the library of another product for link-edits. These requirements, either mandatory or optional, might directly affect the element during the installation or in its basic or enhanced operation.

In many cases, you can use a system as both a driving system and a target system. However, you can make a separate clone that you can IPL of the running system to use as a target system. The clone must include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB data sets.

Use separate driving and target systems in the following situations:

- When you install a new level of a product that is already installed, the new level of the product replaces the old one. By installing the new level onto a separate target system, you can test the new level and keep the old one in production at the same time.
- When you install a product that shares libraries or load modules with other products, the installation can disrupt the other products. By installing the product onto a separate target system, you can assess these impacts without disrupting your production system.

---

### 5.1 Driving System Requirements

This section describes the environment of the driving system that is required to install IBM Z NetView.

#### 5.1.1 Machine Requirements

The driving system can run in any hardware environment that supports the required software.

#### 5.1.2 Programming Requirements

Figure 7. Driving System Software Requirements

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5650-ZOS	z/OS	V2R3M0	N/A	No

**Note:** Installation might require migration to new z/OS releases to be service supported. See [http://www.ibm.com/systems/z/os/zos/support/zos\\_eos\\_dates.html](http://www.ibm.com/systems/z/os/zos/support/zos_eos_dates.html).

## 5.2 Target System Requirements

This section describes the environment of the target system that is required to install and use IBM Z NetView.

### 5.2.1 Machine Requirements

The target system can run in any hardware environment that supports the required software.

### 5.2.2 Programming Requirements

#### 5.2.2.1 Installation Requisites

Installation requisites identify products that are required by and *must* be present on the system or products that are not required by but *can* be present on the system for the successful installation of this product.

Mandatory installation requisites identify products that are required on the system for the successful installation of this product. These products are specified as PREs or REQs.

Figure 8. Target System Mandatory Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5650-ZOS	z/OS	V2R3M0	N/A	No

**Note:** Installation might require migration to new z/OS releases to be service supported. See [http://www.ibm.com/systems/z/os/zos/support/zos\\_eos\\_dates.html](http://www.ibm.com/systems/z/os/zos/support/zos_eos_dates.html).

Conditional installation requisites identify products that are *not* required for successful installation of this product but can resolve such things as certain warning messages at installation time. These products are specified as IF REQs.

*Figure 9. Target System Conditional Installation Requisites*

Program Number	Product Name	Minimum VRM	Minimum Svc Lvl to satisfy these APARs	Function for which this is a Req't	Included in the shipped product?
5668-854	ACF/NCP	v4.3.1 or later	N/A	All functions related to the ACF/NCP program	No

### 5.2.2.2 Operational Requisites

Operational requisites are products that are required by and *must* be present on the system or products that are not required by but *can* be present on the system for this product to operate all or part of its functions.

Mandatory operational requisites identify products that are required for this product to operate its basic functions. These products are specified as PREs or REQs.

Conditional operational requisites identify products that are *not* required for this product to operate its basic functions but are required at run time for this product to operate specific functions. These products are specified as IF REQs.

*Figure 10. Target System Conditional Operational Requisites*

Program Number	Product Name and Minimum VRM/Service Level	Function
5698-ZWE	V1.0.0	IBM Z Distribution for Zowe

Zowe is required if you want to use the IBM Service Management Unite Automation integration with Zowe. Integrated with Zowe, IBM Service Management Unite Automation offers functions that allow interaction with automation, Canzlog, and network resources managed by the NetView program in the IBM Service Management Unite Automation dashboards. For detailed information, refer to the IBM Knowledge Center link:

**<https://www.ibm.com/docs/en/smu/1.1.9?topic=zowe-overview>**

**For information on the IBM Z NetView Enterprise Management Agent feature, see the *IBM Z NetView Enterprise Management Agent Program Directory*, GI11-9446.**

### 5.2.2.3 Toleration/Coexistence Requisites

Toleration/coexistence requisites identify products that must be present on sharing systems. These systems can be other systems in a multisystem environment (not necessarily sysplex), a shared DASD environment (such as test and production), or systems that reuse the same DASD environment at different time intervals.

IBM Z NetView has no toleration/coexistence requisites.

### 5.2.2.4 Incompatibility (Negative) Requisites

Negative requisites identify products that must *not* be installed on the same system as this product.

IBM Z NetView has no negative requisites.

## 5.2.3 DASD Storage Requirements

IBM Z NetView libraries can reside on all supported DASD types.

Figure 11 lists the total space that is required for each type of library.

<i>Figure 11. Total DASD Space Required by IBM Z NetView</i>	
<b>Library Type</b>	<b>Total Space Required in 3390 Trks</b>
Target	4561
Distribution	5350
zFS	1650
Canzlog archive	10000 cyls (1)
<b>Note:</b> (1) This estimate is based on the average message traffic over 7 days of archiving data. To calculate specific storage requirements for your installation, see the <i>IBM Z NetView Tuning Guide</i> .	

#### Notes:

1. For non-RECFM U data sets, use system-determined block sizes for efficient DASD utilization. For RECFM U data sets, use a block size of 32760, which is most efficient for performance and DASD utilization.
2. The following abbreviations are used for data set types:
  - U** Unique data set, allocated by this product and used by only this product. This table provides all the required information to determine the correct storage for this data set. You do not have to refer to other tables or program directories for the data set size.

- S** Shared data set, allocated by this product and used by this product and other products. To determine the correct storage required for this data set, add the storage size specified in this table to the sizes in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size specified in this table.
- E** Existing shared data set, used by this product and other products. This data set is *not* allocated by this product. To determine the correct storage for this data set, add the storage size specified in this table to the sizes in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size specified in this table.

If you have a previous release of this product installed in these libraries, the installation of this release deletes the old release and reclaims the space that was used by the old release and any service that had been installed. You can determine whether these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the free space in the libraries.

For more information about the names and sizes of the required data sets, see 6.1.8, “Allocate SMP/E Target and Distribution Libraries” on page 30.

3. The following abbreviations are used for the file system path type:

- N** New path, created by this product  
**X** Path created by this product, but might already exist from a previous release  
**P** Previously existing path, created by another product.

4. All target and distribution libraries listed have the following attributes:

- The default name of the data set can be changed.
- The default block size of the data set can be changed.
- The data set can be merged with another data set that has equivalent characteristics.
- The data set can be either a PDS or a PDSE data set.

5. All target libraries listed have the following attributes:

- These data sets can be SMS-managed, but they are not required to be SMS-managed.
- These data sets are not required to reside on the IPL volume.
- The values in the Member Type column might not be the actual SMP/E element types that are identified in the SMPMCS.

6. All target libraries that are listed and contain load modules have the following attributes:

- These data sets can be in the LPA, but they are not required to be in the LPA.
- These data sets can be in the LNKLIST.
- These data sets are not required to be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install IBM Z NetView. The storage requirements of IBM Z NetView must be added to the storage required by other programs that have data in the same library or path.

**Note:** Use the data in these tables to determine which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

<i>Figure 12. Storage Requirements for SMPCSI Data Sets for SMP/E for IBM Z NetView</i>		
<b>DASD</b>	<b>Tracks Required for SMPCSI Data</b>	<b>Tracks Required for SMPCSI Index</b>
3390	1230	61

<i>Figure 13. Storage Requirements for SMP/E Work Data Sets</i>							
<b>Library DDNAME</b>	<b>T Y P E</b>	<b>O R G</b>	<b>R E C F M</b>	<b>L R E C L</b>	<b>No. of 3390 Trks</b>	<b>No. of DIR Blks</b>	
SMPWRK1	S	PDS	FB	80	10	250	
SMPWRK2	S	PDS	FB	80	10	250	
SMPWRK3	S	PDS	FB	80	10	250	
SMPWRK4	S	PDS	FB	80	10	250	
SMPWRK6	S	PDS	FB	80	25	250	
SYSUT1	U	SEQ	--	--	3	-	
SYSUT2	U	SEQ	--	--	2	-	
SYSUT3	U	SEQ	--	--	2	-	
SYSUT4	U	SEQ	--	--	2	-	

The following table provides an estimate of the storage that is required in the SMP/E data sets for IBM Z NetView. Add the estimates to those of any other programs and service that you install to determine the total additional storage requirements.

<i>Figure 14. Storage Requirements for SMP/E Work Data Sets</i>							
<b>Library DDNAME</b>	<b>T Y P E</b>	<b>O R G</b>	<b>R E C F M</b>	<b>L R E C L</b>	<b>No. of 3390 Trks</b>	<b>No. of DIR Blks</b>	
SMPMTS	S	PDS	FB	80	1	1	
SMPPTS	S	PDS	FB	80	24	1	
SMPSCDS	S	PDS	FB	80	8	5	
SMPSTS	S	PDS	FB	80	1	1	



The following figures describe the target and distribution libraries and file system paths that are required to install IBM Z NetView. The storage requirements of IBM Z NetView must be added to the storage required by other programs having data in the same library or path.

**Note:** Use the data in these tables when determining which of the libraries can be merged into common data sets. Because some ALIAS names might not be unique, ensure that you do not introduce naming conflicts before you merge the libraries.

*Figure 15 (Page 1 of 2). Storage Requirements for IBM Z NetView Target Libraries*

<b>Library DDNAME</b>	<b>Member Type</b>	<b>Target Volume</b>	<b>T Y P E</b>	<b>O R G</b>	<b>R E C F M</b>	<b>L R E C L</b>	<b>No. of 3390 Trks</b>	<b>No. of DIR Blks</b>
BNJPNL1	PNL	ANY	U	PO	FB	80	900	350
BNJPNL2	PNL	ANY	U	PO	FB	80	15	10
BNJSRC1	Source	ANY	U	PO	FB	80	15	5
CNMCLST	CLIST	ANY	U	PO	FB	80	1000	100
CNMINST	SAMP	ANY	U	PO	FB	80	5	5
CNMLINK	LMOD	ANY	U	PO	U	0	1000	250
CNMPNL1	PNL	ANY	U	PO	FB	80	800	200
CNMSAMP	SAMP	ANY	U	PO	FB	80	400	50
DSIPARM	SAMP	ANY	U	PO	FB	80	150	25
DSIPRF	SAMP	ANY	U	PO	FB	80	5	5
NVULIB	LMOD	ANY	U	PO	U	0	10	10
SAQNCLST	CLIST	ANY	U	PO	FB	80	5	5
SAQNLINK	LMOD	ANY	U	PO	U	0	5	5
SAQNPARM	SAMP	ANY	U	PO	FB	80	5	5
SAQNSAMP	SAMP	ANY	U	PO	FB	80	5	5
SCNMLNKN	LMOD	ANY	U	PO	U	0	5	5
SCNMLNK1	LMOD	ANY	U	PO	U	0	5	5
SCNMLPA1	LMOD	ANY	U	PO	U	0	5	5
SCNMMAC1	MACRO	ANY	U	PO	FB	80	175	25
SCNMPLIB	PNL	ANY	U	PO	FB	80	5	5
SCNMUXCL	EXEC	ANY	U	PO	VB	516	11	5
SDSIMSG1	MSG	ANY	U	PO	FB	80	5	5
SDSIOPEN	SAMP	ANY	U	PO	FB	80	5	5
SDUIMSG1	MSG	ANY	U	PO	FB	80	5	5

Figure 15 (Page 2 of 2). Storage Requirements for IBM Z NetView Target Libraries

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SEKGLANG	MSG	ANY	U	PO	FB	125	5	5

Figure 16. IBM Z NetView File System Paths

DDNAME	T Y P E	Path Name
SCNMUX00	N	/usr/lpp/netview/v6r4/bin/IBM/
SCNMUX01	N	/usr/lpp/netview/v6r4/samples/IBM/
SCNMUX02	N	/usr/lpp/netview/v6r4/lib/IBM/
SCNMUX03	N	/usr/lpp/netview/v6r4/mibs/IBM/
SCNMUX09	N	/usr/lpp/netview/v6r4/samples/at-tls/IBM
SCNMUX20	N	usr/lpp/netview/v6r4/restsrvr/bin/IBM
SCNMUX22	N	usr/lpp/netview/v6r4/restsrvr/lib/IBM
SCNMUX24	N	usr/lpp/netview/v6r4/restsrvr/samples/IBM
SCNMUX26	N	usr/lpp/netview/v6r4/restsrvr/samples/zowe/ NetViewSample/IBM

Figure 17 (Page 1 of 2). Storage Requirements for IBM Z NetView Distribution Libraries

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
AAQNCLST	U	PO	FB	80	5	5
AAQLINK	U	PO	U	0	5	5
AAQNPARM	U	PO	FB	80	5	5
AAQSAMP	U	PO	FB	80	5	5
ABNJPNL1	U	PO	FB	80	450	350
ABNJPNL2	U	PO	FB	80	12	10
ABNJSRC1	U	PO	FB	80	15	10
ACNMCLST	U	PO	FB	80	1000	100
ACNMINST	U	PO	FB	80	5	5

Figure 17 (Page 2 of 2). Storage Requirements for IBM Z NetView Distribution Libraries

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ACNMLINK	U	PO	U	0	1500	1000
ACNMMAC1	U	PO	FB	80	175	25
ACNMPLIB	U	PO	FB	80	5	5
ACNMPNL1	U	PO	FB	80	800	200
ACNMSAMP	U	PO	FB	80	400	50
ACNMUXCL	U	PO	VB	516	147	15
ADSIMSG1	U	PO	FB	80	5	5
ADSIOPEN	U	PO	FB	80	5	5
ADSIPARM	U	PO	FB	80	150	25
ADSIPRF	U	PO	FB	80	5	5
ADUIMSG1	U	PO	FB	80	5	5
AEJNUNIX	U	PO	VB	2333	1500	5
AEKGLANG	U	PO	FB	125	5	5
ANVULIB	U	PO	U	0	10	10

### 5.3 FMIDs Deleted

Installing IBM Z NetView might result in the deletion of other FMIDs. To see the FMIDs that will be deleted, examine the ++VER statement in the SMPMCS of the product.

If you do not want to delete these FMIDs at this time, install IBM Z NetView into separate SMP/E target and distribution zones.

**Note:** These FMIDs are not automatically deleted from the Global Zone. If you want to delete these FMIDs from the Global Zone, use the SMP/E REJECT NOFMID DELETEFMID command. See the SMP/E Commands book for details.

---

## 5.4 Special Considerations

The order is important because IBM Z NetView has many dependencies between components. These dependencies will cause unresolved external reference messages to be generated during the APPLY. **APPLY all FMIDs together in a single APPLY job step.**

The following table identifies readme file names and installation methods that are associated with the noted IBM Z NetView components.

<i>Figure 18. Readme file names and installation methods for IBM Z NetView Components</i>			
<b>Component name</b>	<b>Web page (1)</b>	<b>DVD (2)</b>	<b>Readme file</b>
NetView management console topology console	x	x	egvread1.me
NetView management console topology server	x	x	egvread2.me
Viewer for Log XML files	x	x	logxmlviewer_readme.html
NetView Plug-ins for Zowe CLI	x	x	README.html
(1) URL: <a href="http://www.ibm.com/software/tivoli/products/netview-zos/">http://www.ibm.com/software/tivoli/products/netview-zos/</a>			
(2) The readme documentation on the IBM Z NetView DVD is located in the readmes directory.			

NetView plug-ins for Zowe CLI can be found at URL:  
<https://www.npmjs.com/package/@ibm/znetview-base-for-zowe-cli>

The following NetView functions and features require the specified program levels or subsequent upward-compatible levels unless stated otherwise:

### 5.4.1 Event/Automation Service

Event/Automation Service requires the following program levels for the alert adapter service and the message adapter service:

- IBM Tivoli Netcool/OMNIBus V8.1 (5724-S44)

### 5.4.2 OSA Discovery Manager Support

- RODM for display
- OSA SNMP subagent (IOBSNMP)
- SNMP agent (OSNMPD)

### 5.4.3 NetView Management Console Server Audit Log

To use a web browser to view the audit log requires a browser that supports XSL (eXtensible Stylesheet Language). The following browsers support XSL:

- Mozilla Firefox 60 (ESR), or later

### 5.4.4 NetView Functional Extensions with Zowe

IBM Z Distribution of Zowe V1.0.0, or later, available from ShopZ, is required for users:

- To write web applications using NetView RESTful APIs in Zowe
- To use Zowe API Mediation Layer (APIML) for authentication with the NetView REST Server or plug-ins for Zowe Command Line Interface (CLI)

IBM Zowe Distribution is a supporting program for Zowe use cases related to NetView extensions

### 5.4.5 SAF Security Checking

z/OS (5694-A01) Security Server RACF or an equivalent SAF product is required for SAF security checking of each of the following functions:

- RODM connections
- NetView operator passwords
- RMTCMD through the RMTOPS Class
- NetView command authorization
- NetView Span of Control access
- NetView operator logon information
- Graphical View security
- List RACF® profile for NetView operators
- NetView program using NetView IP services for IP management or operator use, must define SAF OMVS segments for those operators
- IBM Multi-Factor Authentication for z/OS V1R3 or higher

### 5.4.6 Server Communications with IBM Z NetView using LU 6.2

- For LU 6.2 connections, one of the following systems is required:
  - AIX System
    - IBM Communications Server for AIX, Version 6.4 (5765-E51)
  - Windows System

- IBM Communications Server for Windows 2012 or later

### **5.4.7 IBM Z NetView Enterprise Management Agent**

The IBM Z NetView Ent Mgmt Agent requires IBM Tivoli Monitoring v6.3.0 with the most recent Fixpack along with all available PTF service. For information on software requirements for IBM Tivoli Monitoring, see the *IBM Tivoli Monitoring: Installation and Setup Guide*, GC32-9407.

You need approximately 1275 cylinders of DASD space for the generation of your runtime environment (RTE).

The IBM Z NetView Enterprise Management Agent is a separately orderable feature code that has its own FMID, DVD media, and program directory. The NetView for z/OS Enterprise Management Agent Program Directory describes how to do the SMP/E installation for the NetView agent.

### **5.4.8 NetView Dashboards in IBM Service Management Unite Automation**

IBM Service Management Unite (SMU) Automation v1.1.8 or later and the IBM Z NetView REST Server are required to view new IBM Z NetView dashboards in SMU. Refer to LCD8-2753 **Accessing IBM Service Management Unite Automation CD-ROM** for information on downloading the SMU code.

### **5.4.9 z/OS Encryption Readiness Technology (zERT) Support**

The zERT support in IBM Z NetView requires IBM z/OS Communications Server v2.3. zERT policy-based enforcement in IBM Z NetView requires IBM z/OS Communications Server v2.5.

You are now aware of all of the installation requirements for IBM Z NetView. Proceed to 6.0, “Installation Instructions” on page 25 to begin your product installation.

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## 6.0 Installation Instructions

This chapter describes the installation method and the procedures to install and to activate the functions of IBM Z NetView.

If you obtained IBM Z NetView as part of a CBPDO, you can use the RIMLIB job to run the SMP/E RECEIVE and any service, HOLDDATA, or preventive service planning (PSP) information included with the CBPDO. For more information about the RIMLIB job, refer to the *MVS CBPDO Memo to User Extension* that is included with the CBPDO.

If you obtained IBM Z NetView as part of a DVD CBPDO, review the *MVS Custom-Built DVD CBPDO Memo to Users* before you begin installation. The DVD contains files similar to those provided with an electronic delivery, along with other documentation and samples useful for DVD installation.

This release of the IBM Z NetView program is installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands.

The procedure outlined in this chapter assumes that the user has knowledge of SMP/E based on the *SMP/E User's Guide*. To resolve any SMP/E related problems in the procedure, refer to the *SMP/E User's Guide* and the *SMP/E Reference*. This installation process does not cover the PARMLIB or other changes to the z/OS product that are required to run IBM Z NetView. The z/OS changes that are required to run IBM Z NetView are discussed in the *IBM Z NetView Installation: Getting Started, GI11-9443*.

Please note the following points:

- If you want to install IBM Z NetView into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets. Additionally, to assist you in doing this, IBM has provided samples to help you create an SMP/E environment at:  
**<http://www.ibm.com/support/docview.wss?rs=660&context=SSZJDU&uid=swg21066230>**
- You can use the sample jobs that are provided to perform part or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries that are required for SMP/E execution have been defined in appropriate zones.
- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.
- If you install the IBM Library for REXX on zSeries (5695-014) for use with IBM Z NetView, refer to its Program Directory for instructions on how to perform the installation.

You can install the IBM Z NetView using one of the following methods:

- Install into new target and distribution zones.

This is the recommended method for installing IBM Z NetView if you want to keep your prior release of the NetView program and the new NetView program available for use at the same time (as in choice 1).

SMP/E jobs load the necessary code into the appropriate libraries, and try to delete any prior releases of the NetView program. Because you are installing into new CSI zones there is nothing to delete. SMP/E will continue indicating that there was nothing deleted. You do not have to use any dummy library names for your prior NetView program because SMP/E has no way to know that a previous release was ever installed.

When your testing is finished and you have migrated completely to IBM Z NetView, you can run a delete job to remove the old NetView program, MultiSystem Manager, and AON/ANO FMIDs from the CSI zones. At that time, you provide the SMP/E program with access to the old LPALIB and LINKLIB libraries. For more information see 6.1.13.1, “APPLYing IBM Z NetView on a System Having the NetView Program Already Installed” on page 33. The *IBM Z NetView Installation: Configuring Additional Components, GC27-2851* contains additional information on running more than one NetView in a single host.

- Install the NetView program within existing target and distribution zones.

This is the recommended method for installing IBM Z NetView if you want to delete your prior release of the NetView program and do not have to use a prior version of the NetView program after the NetView V6R4M0 program has been installed.

If you install IBM Z NetView into the same zone, you must provide access to your prior libraries using DDDEFs or DD statements. SMP/E removes all traces of your previous release of the NetView program, including the FMIDs. If there are traces of prior releases that still exist in SMP/E even though the libraries were deleted, SMP/E recognizes this and you must allocate dummy libraries for SMP/E and then apply again. When the apply and accept are complete, you can delete the dummy libraries. Be careful not to delete your real SYS1.LPALIB and SYS1.LINKLIB libraries. For more information, see 6.1.13.1, “APPLYing IBM Z NetView on a System Having the NetView Program Already Installed” on page 33.

If you install IBM Z NetView into existing SMP/E zones or existing target and distribution libraries, or both, you must first make a backup of the zones, the target and distribution libraries, and other SMP/E data sets that are changed during the installation. You use this backup to start over in case a severe error occurs during installation.

There is no SYSGEN support for IBM Z NetView. If a SYSGEN is performed after the installation of IBM Z NetView is complete, the GENERATE facility of SMP/E can be used to reinstall IBM Z NetView.

---

## 6.1 Installing IBM Z NetView

The samples that are provided with IBM Z NetView must be customized to work in your system's environment. Where possible, the samples call attention to places where customization is necessary; however, it is possible that additional customization might be required. For example, job statement information might have to be customized. In addition to this program directory, read the comments in the JCL samples. They are designed to make it easy to find required changes. Some of the JCL values that require verification and are most likely to require customization are coded in lowercase; a JCL error occurs if the values are overlooked.



## 6.1.1 SMP/E Considerations for Installing IBM Z NetView

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of IBM Z NetView.

## 6.1.2 SMP/E Environment

All SMP/E installation jobs that are provided assume that all necessary DD statements for the execution of SMP/E are defined using DDDEFs.

Sample jobs are provided to assist you in installing IBM Z NetView. After the RECEIVE step is completed, if you used the defaults supplied, the sample jobs are in SMPTLIB: **NETVIEW.JNV640E.F5**. If you did not use the value of NETVIEW for the HLQ, then the sample jobs are in the data set with the name that you chose. Make a copy of these jobs in your own library, and modify them to use during the installation of IBM Z NetView. Or, you can use the UNLOAD job that is provided in the program directory to copy the installation JCL from the tape. See 6.1.6, “Sample Jobs” on page 28.

**Note:** If you are using a DVD CBPDO rather than tape, use the UNLOAD job after running the GIMUNZIP job.

## 6.1.3 SMP/E CSI for IBM Z NetView

You can install IBM Z NetView by using one of the following methods:

- Use an existing Consolidated Software Inventory (CSI).
- Create a separate set of distribution and target zones in your existing CSI.
- Allocate new CSI data sets and create new global, distribution, and target zones.

For information on how to do this, see the *IBM SMP/E for z/OS User's Guide*.

## 6.1.4 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 19. Using values that are lower than the recommended values can result in failures in the installation. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. See the SMP/E manuals for instructions on updating the global zone.

<i>Figure 19. SMP/E Options Subentry Values</i>		
<b>Subentry</b>	<b>Value</b>	<b>Comment</b>
DSSPACE	(300,500,900)	Use 900 directory blocks
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

## 6.1.5 SMP/E CALLLIBS Processing

IBM Z NetView uses the CALLLIBS function that is provided in SMP/E to resolve external references during installation. When IBM Z NetView is installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB
- SCEELKED
- SEZADPIL
- SEZACMTX
- SIEASID
- SISPLOAD

If these DDDEFs do not already exist, they are created by the CNMDDEFE sample as described in 6.1.6, “Sample Jobs.” See 6.1.12, “Create DDDEF Entries” on page 31 for information on running this job.

**Note:** CALLLIBS uses the previous DDDEFs only to resolve the link-edit for IBM Z NetView. These data sets are not updated during the installation of IBM Z NetView.

## 6.1.6 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install IBM Z NetView:

<i>Figure 20. Sample Installation Jobs</i>			
Job Name	Job Type	Description	RELFILE
CNMALOCE	ALLOCATE	Allocate job for target and distribution libraries for IBM Z NetView host.	IBM.JNV640E.F5
CNMSZFSE	ALLOMZFS	Allocate job for zFS target file system data set for IBM Z NetView zFS files. (Optional)	IBM.JNV640E.F5
CNMJMKPE	MKDIR	Sample job to create the mount point directory. Must be done from ID with root authority.	IBM.JNV640E.F5
CNMJMKME	MKDIR	REXX exec called by the CNMJMKPE job to create the mount point directory.	IBM.JNV640E.F5
CNMJMKXE	MKDIR	Sample job that creates directories for the NetView program in the z/OS UNIX System Services environment. This must be done from an ID with root authority.	IBM.JNV640E.F5
CNMJMKDE	MKDIR	REXX exec called by the CNMJMKXE job to create directories for the NetView program in the z/OS UNIX System Services environment.	IBM.JNV640E.F5
CNMDDEFE	DDDEF	Sample job to define SMP/E DDDEFs for the NetView program	IBM.JNV640E.F5

You can access the sample installation jobs by performing a SMP/E RECEIVE (refer to 6.1.7, “Perform SMP/E RECEIVE” on page 29) and then copy the jobs from the RELFILES to a work data set for editing and submission. See Figure 20 to find the appropriate relfile data set.

You can also copy the sample installation jobs from the product files by submitting the following job. Depending on your distribution medium, use the //FILEIN DD statement. Before you submit the job, add a job card and change the lowercase parameters to uppercase values to meet the requirements of your site.

```
//UNLOAD EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//FILEIN DD DSN=IBM.JNV640E.F5,UNIT=SYSALLDA,DISP=SHR,
// VOL=SER=filevol
//OUT DD DSNAME=jcl-library-name.V6R4M0.INSTALL,
// DISP=(NEW,CATLG,DELETE),
// VOL=SER=dasdvol,UNIT=SYSALLDA,
// SPACE=(TRK,(5,1,15))
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
COPY INDD=xxxxIN,OUTDD=OUT
/*
```

See the following information to update the statements in the previous sample:

FILEIN:

**filevol** is the volume serial of the DASD device where the downloaded files reside.

OUT

**jcl-library-name** is the name of the output data set where the sample jobs are stored.

**dasdvol** is the volume serial of the DASD device where the output data set resides.

SYSIN

**xxxxIN** is either TAPEIN or FILEIN depending on your input DD statement.

## 6.1.7 Perform SMP/E RECEIVE

Perform an SMP/E RECEIVE for IBM Z NetView.

If you obtained IBM Z NetView as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the IBM Z NetView FMIDs, service, and HOLDDATA that are included with the CBPDO media. For more information about the RCVPDO job, see the documentation that is included in the CBPDO.

If your delivery media is a DVD, your SMPMCS and relfile data will be in MVS data set format on DASD volumes. Ensure that the SMPPTFIN DD statement in the RECEIVE job specifies the SMPMCS data set for the installation of this product.

## 6.1.8 Allocate SMP/E Target and Distribution Libraries

Edit and submit the CNMALOCE job to allocate the SMP/E target and distribution libraries for IBM Z NetView. Consult the instructions in the sample job for more information.

The SCNMLPA1 target data set must be cataloged in either the system master catalog or in a user catalog so that it can later be concatenated to the SYS1.LPALIB data set using the LPALSTxx member of the SYS1.PARMLIB data set.

The normal process for installing and starting the NetView program for the first time requires restarting the MVS system, in order to load required LPA modules and activate required subsystems. If this is not practical, you can avoid restarting the MVS system by completing the same steps manually. For information about the LPALIB concatenation or about starting the NetView program without restarting the MVS system, see *IBM Z NetView Installation: Getting Started, G111-9443*.

**Expected Return Codes and Messages:** The CNMALOCE job is successful if you receive a return code of 0.

## 6.1.9 Allocate File System Paths

Before you run the sample job to create the paths in the file system, ensure that UNIX system services is active on the driving system, and that the file system of the target system is mounted to the driving system. If you install IBM Z NetView into a zFS file system, the zFS address space must be active on the driving system.

If you plan to install IBM Z NetView into a new file system, create the mountpoint, and mount the new file system to the driving system. You can use the CNMJMKPE job to create the mount point. The CNMJMKPE job must be run by a user ID that has SAF READ access to BPX.SUPERUSER resource. For IBM Z NetView, the recommended mountpoint is <PathPrefix>/usr/lpp/netview/v6r4/.

**Note:** Use this same <PathPrefix> value when you edit the CNMDDEFE job. The default value in IBM Z NetView is null. Remember that path names in z/OS UNIX System Services are case sensitive.

**Expected Return Codes and Messages:** The CNMJMKPE job is successful if you receive a return code of 0.

## 6.1.10 Allocate File System Data Sets (Optional)

If you plan to allocate a new file system, edit and submit the sample CNMSZFSE job to allocate a separate zFS data set for IBM Z NetView. This data set is mounted to the root file system and is used as the location into which the NetView UNIX System Services code is installed. For more information on the CNMSZFSE job, see the instructions in the job.

If you create a new file system for this product, consider updating the BPXPRMxx PARMLIB member to mount the new file system at IPL time. This action can be helpful if an IPL occurs before the installation is completed.

**Expected Return Codes and Messages:** The CNMSZFSE job is successful if you receive a return code of 0.

### 6.1.11 Create Additional File System Paths

Edit and submit the sample CNMJMKXE job to create the NetView directory paths in the z/OS UNIX System Services environment. For more information, see the instructions in the sample job.

**Expected Return Codes and Messages:** The CNMJMKXE job is successful if you receive a return code of 0.

### 6.1.12 Create DDDEF Entries

Edit and submit the sample CNMDDEFE job to create DDDEF entries for the SMP/E target and distribution libraries for IBM Z NetView. Consult the instructions in the sample job for more information.

**Note:** Because path names in z/OS UNIX System Services are case sensitive, be sure that if you change <PathPrefix> in the DDDEF3 step, that you do not change the case of any characters in the path name.

**Expected Return Codes and Messages:** The CNMDDEFE job is successful if you receive a return code of 0.

### 6.1.13 Perform SMP/E APPLY

Perform an SMP/E APPLY CHECK for IBM Z NetView.

The latest HOLDDATA is available through several different portals, including <http://service.software.ibm.com/holddata/390holddata.html>. The latest HOLDDATA may identify HIPER and FIXCAT APARs for the FMIDs you will be installing. An APPLY CHECK will help you determine if any HIPER or FIXCAT APARs are applicable to the FMIDs you are installing. If there are any applicable HIPER or FIXCAT APARs, the APPLY CHECK will also identify fixing PTFs that will resolve the APARs, if a fixing PTF is available.

You should install the FMIDs regardless of the status of unresolved HIPER or FIXCAT APARs. However, do not deploy the software until the unresolved HIPER and FIXCAT APARs have been analyzed to determine their applicability. That is, before deploying the software either ensure fixing PTFs are applied to resolve all HIPER or FIXCAT APARs, or ensure the problems reported by all HIPER or FIXCAT APARs are not applicable to your environment.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the APPLY CHECK. The SMP/E root cause analysis identifies the cause only of *errors* and not of *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings, instead of errors).

Here are sample APPLY commands:

1. To ensure that all recommended and critical service is installed with the FMIDs, receive the latest HOLDDATA and use the APPLY CHECK command as follows

```
APPLY S(fmid,fmid,...) CHECK
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND .
```

Some HIPER APARs might not have fixing PTFs available yet. You should analyze the symptom flags for the unresolved HIPER APARs to determine if the reported problem is applicable to your environment and if you should bypass the specific ERROR HOLDS in order to continue the installation of the FMIDs.

This method requires more initial research, but can provide resolution for all HIPERs that have fixing PTFs available and are not in a PE chain. Unresolved PEs or HIPERs might still exist and require the use of BYPASS.

2. To install the FMIDs without regard for unresolved HIPER APARs, you can add the BYPASS(HOLDCLASS(HIPER)) operand to the APPLY CHECK command. This will allow you to install FMIDs even though one or more unresolved HIPER APARs exist. After the FMIDs are installed, use the SMP/E REPORT ERRSYSMODS command to identify unresolved HIPER APARs and any fixing PTFs.

```
APPLY S(fmid,fmid,...) CHECK
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND
BYPASS(HOLDCLASS(HIPER)) .
..any other parameters documented in the program directory
```

This method is quicker, but requires subsequent review of the Exception SYSMOD report produced by the REPORT ERRSYSMODS command to investigate any unresolved HIPERs. If you have received the latest HOLDDATA, you can also choose to use the REPORT MISSINGFIX command and specify Fix Category IBM.PRODUCTINSTALL-REQUIREDSERVICE to investigate missing recommended service.

If you bypass HOLDS during the installation of the FMIDs because fixing PTFs are not yet available, you can be notified when the fixing PTFs are available by using the APAR Status Tracking (AST) function of ServiceLink or the APAR Tracking function of ResourceLink.

After you take actions that are indicated by the APPLY CHECK, remove the CHECK operand and run the job again to perform the APPLY.

**Note:** The GROUPEXTEND operand indicates that SMP/E applies all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

If you previously installed NetView into target libraries that you will continue to use with IBM Z NetView, let SMP/E remove the old NetView program from those target libraries at APPLY time. See section 6.1.13.1,

“APPLYing IBM Z NetView on a System Having the NetView Program Already Installed” on page 33 for more information.

APPLY the following NetView components:

1. HNV640B
2. JNV640E

The order is important because IBM Z NetView has many dependencies between components. These dependencies will cause unresolved external reference messages to be generated during the APPLY. **APPLY all FMIDs together in a single APPLY job step.**

The APPLY job must be run by a user ID that has SAF READ access to BPX.SUPERUSER.

**Important:** Because IBM Z NetView has four FMIDs, some load modules are built with parts from multiple FMIDs. SMP/E handles this automatically for you by keeping track of what parts are needed and adding them into load modules as they are applied. However, this means that some linkage editor steps initially finish with a return code of 4. To keep the APPLY step from ending prematurely, you must set SMP/E to allow a return code of 4. To do this, use the SMP/E dialogs or UCLIN commands to set the return code for specific utilities such as IEWL, the binder.

**Expected Return Codes and Messages from APPLY CHECK:** This job is successful if you receive a return code of 0.

**Expected Return Codes and Messages from APPLY:** This job is successful if you receive a return code of 0.

After installing new function, you should perform two operations:

1. Create a backup of the updated data sets, including any SMP/E data sets affected, in case something happens to the data sets during the next phase.
2. Do some testing before putting the new function into production.

After you are satisfied that an applied SYSMOD has performed reliably in your target system, you can install it in your distribution libraries using the ACCEPT process.

Another good practice is to accept most SYSMODs, particularly FMIDs, before performing another APPLY process. This provides you the ability to use the RESTORE process of SMP/E and to support the scenario where SMP/E needs to create a new load module from the distribution libraries during the APPLY process.

### **6.1.13.1 APPLYing IBM Z NetView on a System Having the NetView Program Already Installed**

If you previously installed the NetView program into system libraries and you will use those libraries again with IBM Z NetView, but you do not want to continue using this release after your IBM Z NetView install, you must use SMP/E to remove the previous NetView version data sets from those libraries when SMP/E installs IBM Z NetView.

For SMP/E to remove the previous release of the NetView program from your system libraries, do the following steps:

1. Run your APPLY job referencing the previous release NetView libraries and SMP/E zone. Make sure that these libraries are large enough to hold the new release. Some libraries grew in size because of data set consolidation and additional functions. Refer to Figure 15 on page 19 for the minimum NetView library sizes.
2. During an APPLY job, all the elements from a previous release are deleted from your target libraries. If you already deleted previous release libraries or elements within a library, the SMP/E entry for them still exists. An attempt is made to delete elements, and processing continues whether or not they are found. However, if SMP/E cannot find the data sets, it halts the APPLY job until you provide access to them. In this case, allocate dummy libraries and delete them after the APPLY job.
3. Any previous release of NetView data sets that are deleted must be removed from your SMP/E zone DDDEFs (CNMDDEFE). If you have a previous version of MultiSystem Manager or AON or ANO installed, delete those data sets.

**Note:** If an existing (older) level of the NetView program was loaded at the last IPL, you can either re-IPL your system or perform an LLA refresh after the SMP/E APPLY step is complete so that the resident NetView code is refreshed. If an IPL is not practical, you can avoid restarting the MVS system by completing the same steps manually. For information about starting the NetView program without restarting the MVS system, see *IBM Z NetView Installation: Getting Started, G111-9443*.

## 6.1.14 Perform SMP/E ACCEPT

Perform an SMP/E ACCEPT CHECK for IBM Z NetView.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the ACCEPT CHECK. The SMP/E root cause analysis identifies the cause of *errors* but not *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings rather than errors).

Before you use SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. In this way, you can save the entries that are produced from JCLIN in the distribution zone whenever a SYSMOD that contains inline JCLIN is accepted. For more information about the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E Commands book for details.

After you take actions that are indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

**Note:** The GROUPEXTEND operand indicates that SMP/E accepts all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

**Expected Return Codes and Messages from ACCEPT CHECK:** This job is successful if you receive a return code of 0.

If PTFs that contain replacement modules are accepted, SMP/E ACCEPT processing will link-edit or bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder might issue



messages that indicate unresolved external references, which will result in a return code of 4 during the ACCEPT phase. You can ignore these messages, because the distribution libraries are not executable and the unresolved external references do not affect the executable system libraries.

**Expected Return Codes and Messages from ACCEPT:** This job is successful if you receive a return code of 0.

### **6.1.14.1 ACCEPTing IBM Z NetView on a System Having the NetView Program Already Installed**

If you previously installed the NetView program into system libraries and you will reuse those libraries with IBM Z NetView, but you do not want to continue using this release after your IBM Z NetView installation, you need to let SMP/E remove the old NetView programs from those libraries when SMP/E installs IBM Z NetView.

To have SMP/E remove the old NetView programs from your system libraries, do the following steps:

1. Run your ACCEPT job using your previous release of NetView libraries and SMP/E zone. Make sure that these libraries are large enough to hold the new release. Some libraries grew in size because of data set consolidation and additional functions. Refer to Figure 17 on page 20 for the minimum NetView library sizes.
2. During an ACCEPT job, all the elements from a previous release are deleted from your distribution libraries. If you previously deleted old libraries or elements within a library, the SMP/E entry for them still exists. An attempt is made to delete them and processing continues whether or not the element is found. However, if SMP/E cannot find the data sets, it stops the ACCEPT job until you provide access to them. In this case, allocate dummy libraries and delete them after the ACCEPT job.
3. Any old NetView data sets that are deleted must also be removed from your SMP/E zone DDDEFs. If you have a previous version of MultiSystem Manager or AON/ANO installed, you must also delete those data sets.

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## **6.2 Activating IBM Z NetView**

If you mount the file system in which you installed IBM Z NetView in read-only mode during execution, then you do not have to take further actions to activate IBM Z NetView.

The *IBM Z NetView Installation: Getting Started, G111-9443* publication contains the step-by-step procedures to activate the functions of IBM Z NetView.

The publication *IBM Z NetView Installation: Migration Guide* describes the new functions provided by the current release of the NetView product and the migration of the base functions from a previous release.

For additional information refer to the publications noted in Figure 3 on page 7.

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