

VM/XA SP RELEASE 2.1

Contents

Announcement Letter Number 289-590 dated October 24, 1989
US - Last Revised on October 24, 1989

Brief Description of Announcement, Charges, and Availability.

Virtual Machine/Extended Architecture (TM) System Product (VM/XA (TM) SP) Release 2.1 provides service updates to VM/XA SP Release 2. Important new function, including IBM 3990 Model 3, 3490, 3480 with Improved Data Recording Capability features, and Telegraph Terminal Control -- Type 2 (TTC2) device support is also included. (TTC2 support will be available in April 1990.) In addition, support to run VM/XA SP Release 2.1 in a logical partition (LPAR) mode for CMS production is provided. Upon general availability of VM/XA SP Release 2.1, VM/XA SP Release 2 will no longer be available for ordering.

PROGRAM NUMBER: 5664-308

GROUP	GRADUATED	GRADUATED	GRADUATED
	ONE-TIME CHARGE	MONTHLY LICENSE CHARGE	MONTHLY LICENSE CHARGE *
18	\$ 118,100	N/A	\$ 3,625
20	118,100	N/A	3,815
30	118,100	\$ 4,015	4,015
40	240,950	4,725	5,020
50	338,850	5,430	6,275

* Effective January 1, 1990.

NOTE: The charges applicable to Group 30 also apply to Groups 25 and 28. The charges applicable to Group 40 also apply to Groups 32, 35 and 38.

Planned Availability Date: December 29, 1989

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Customer Letter Section

HIGHLIGHTS

- o Support to run VM/XA SP Release 2.1 in LPAR mode for CMS production
- o VM/XA SP Release 2.1 now runs as a V=R or V=F guest of VM/XA SP Release 2.1
- o Enhanced device support
 - 3990 Model 3 Storage Control basic support
 - 3490 and 3480 Magnetic Tape Subsystem support
 - TTC2 I/O support
- o Integrated C2 Trusted Computer Base for Department of Defense (DoD) security

- o Integration of corrective service to VM/XA SP Release 2 that was available through September 15, 1989

DESCRIPTION

- o Support to run VM/XA SP Release 2.1 in LPAR mode for CMS production.

VM/XA SP Release 2.1 can run in LPAR mode for CMS production on most of the new ES/3090 (TM) J and JH models. In addition, with the installation of an RPQ some ES/3090 S models can be upgraded so that VM/XA SP Release 2.1 can be run in a logical partition for CMS production.

Refer to the TECHNICAL INFORMATION section of this announcement for specific models.

- o Device Support

- Support for the IBM 3990 Model 3 Storage Control.

VM/XA SP Release 2.1 support for the 3990 Model 3 includes support of basic caching operations equivalent to that previously provided for the 3880 Models 13 and 23 Storage Controls. Both control program (CP) and guest virtual machine use of the cache is supported.

This support, previously announced in Programming Announcement 289-058, dated February 7, 1989, to be provided in a PTF format for VM/XA SP Release 2, will now be included in VM/XA SP Release 2.1 only.

The extended functions (DASD Fast Write and Dual Copy) and Cache Fast Write are not supported.

- Support for the IBM 3490 Magnetic Tape Subsystem and the 3480 Magnetic Tape Subsystem with the Improved Data Recording Capability features.
- TTC2 I/O support (available April 1990).

Provides direct host support for the TTC2 family of terminal devices, bringing the support for these devices into line with that provided by VM/SP and VM/SP HPO. Users of such terminals will be able to use them either to log on to VM/XA SP Release 2.1, or to DIAL to a virtual machine that has the appropriate virtual communication defined in its configuration.

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System operator command functions will be extended to handle native TTC2 terminals. Native TTC2 terminals are devices such as 2741, 3767, and the teletype (type 33) family -- 3161, 3162, 3163, 3101 and 3151.

- o Integrated into this release of VM/XA SP is the operating system support for the Trusted Computer Base, designed to meet the Department of Defense C2 level of security.

NATIONAL LANGUAGE SUPPORT (NLS)

The VM/XA SP Release 2 NLS base, plus available VM/XA SP Release 2.1 translated updates, will be supplied December 29, 1989. The untranslated information for German, French, Kanji and Brazilian Portuguese will be made available in upper case English until translation is complete.

The availability of complete NLS versions of German, Kanji and Brazilian Portuguese is April 1990. The availability of the complete French NLS version will be determined at a future point in time.

These translations will be made available via an APAR.

SCHEDULE

The planned availability date is December 29, 1989.

TECHNICAL INFORMATION

SPECIFIED OPERATING ENVIRONMENT

MACHINE REQUIREMENTS: VM/XA SP Release 2.1 supports IBM processors running in the System/370 (TM) Extended Architecture (System/370-XA) mode or Enterprise Systems Architecture/370 (TM) (ESA/370 (TM)) mode.

It does not operate on a processor that is running in System/370 mode. However, VM/XA SP Release 2.1 can simulate the existence of System/370 mode processors (both uniprocessors and multiprocessors) for System/370 mode guests, via the SIE instruction.

VM/XA SP Release 2.1 supports guest operating systems that utilize the Enterprise Systems Architecture/370 (ESA/370) on processors running in ESA/370 mode. No native VM support of ESA/370 is provided.

A programming enhancement to VM/XA SP Release 2.1 will be available in March 1990, to allow a MVS/SP (TM) Version 3, Release 3.1 guest (V=F only) to utilize the Hiperbatch facility of MVS.

Support for multiple preferred guests and logical partitioning requires the IBM ES/3090 PR/SM (TM) feature.

Support to run VM/XA SP Release 2.1 in LPAR mode for CMS production and support to run a VM/XA SP Release 2.1, V=R or V=F guest of VM/XA SP Release 2.1 requires the following processors:

- o ES/3090 Models 180J, 200J, 280J and above
- o ES/3090 Models 150JH, 170JH and 250JH
- o ES/3090 Models 180S, 200S, 280S and above with RPQ 8P1367.

(Refer to Product Announcement 189-176, dated October 24, 1989, for further details.)

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A tape drive is required to service VM/XA SP. Refer to the MINIMUM HARDWARE CONFIGURATION section of the VM/XA SYSTEM PRODUCT RELEASE 2 GENERAL INFORMATION MANUAL (GC23-0362) for details.

PROGRAMMING REQUIREMENTS

- o Assembler H Version 2 (5668-962) with APAR PL50926 or equivalent is required to:
 - Generate XA instruction streams
 - Generate VM/XA SP
 - Service VM/XA SP.
- o EREP Release 3.4 (5654-260)
- o DSF Release 1.10 (5747-DS10).

COMPATIBILITY: VM/XA SP Release 2.1 is upwardly compatible with VM/XA SP Release 2.

USER GROUP REQUIREMENTS: This announcement satisfies, or partially satisfies, seven requirements from one or more of the worldwide user group communities, which include Australian GUIDE SHARE (ASG), COMMON, GUIDE, European G.U.I.D.E., Japan GUIDE SHARE (JGS), Latin American GUIDE (LAG), SEAS, and SHARE.

The requirements satisfied or partially satisfied concern TTC2 I/O support and the ability to run VM/XA SP in production in LPAR mode for CMS production.

PLANNING INFORMATION

CUSTOMER RESPONSIBILITIES: The macro libraries on the VM/XA SP Release 2.1 product tape have been restructured to clearly differentiate the supported programming interfaces. Refer to the PROGRAM DIRECTORY for further information.

SECURITY, AUDITABILITY AND CONTROL

The security and auditability features of VM/XA SP Release 2.1 follow:

- o Integrated into this release of VM/XA SP is the operating system support for the Trusted Computer Base, designed to meet the Department of Defense C2 level of security.

For additional information on all enhancements in support of C2 security and for information on other products that comprise the C2 Trusted Computer Base, refer to Programming Announcement 289-349, dated July 6, 1989.

- o Each guest and CMS user runs in a unique virtual machine.
- o VM/XA SP Release 2.1 works in combination with IBM 370-XA architecture features to prevent a user from accessing another's data in storage (unless specifically allowed through shared segments).

- o VM/XA SP Release 2.1 works in conjunction with IBM 370-XA channel facilities to provide protection against channel programs accessing another user's virtual addresses.
- o Minidisk security is provided by a password facility to control both read-only and read-write access.
- o Logon ID and password checking is provided.
- o Customer definition of user classes is available.
- o Option to clear the PFKEY Retrieve Buffer is provided.

User management is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

ORDERING INFORMATION

CURRENT LICENSEES

Current licensees of VM/XA SP must order this release via MES. Ordering instructions are scheduled to be mailed from IBM Software Distribution to all current licensees by January 12, 1990.

NEW LICENSEES

Orders for new licenses will be accepted now. Unless a later date is specified, orders entered prior to December 29, 1989, will be scheduled for shipment January 5, 1990.

Orders entered after December 29, 1989, will be scheduled for the week following order entry.

New users of VM/XA SP Release 2.1 should specify:

TYPE	MODEL
5664	308

BASIC LICENSE: Table A:

To order a basic license specify the program number and feature number 9001 for asset registration. For a graduated one-time charge or graduated monthly license charge specify one of the following feature numbers as applicable and corresponding to the group that contains the designated machine. Also, specify the feature number of the desired distribution medium.

GROUP	BASIC	BASIC
	GRADUATED	GRADUATED
	ONE-TIME CHARGE	MONTHLY LICENSE CHARGE
	FEATURE NUMBER	FEATURE NUMBER
18	2355	2351
20	2356	2352
30	1463	0215
40	1464	0216

50 1864 0217

Use the feature number applicable to Group 30 for machines in Groups 25 and 28. Use the feature number applicable to Group 40 for machines in Groups 32, 35 and 38.

NOTE: The group can be determined by referring to the Exhibit for IBM System/370 Machines (Z125-3901) or the Exhibit for Non-IBM Machines (Z125-3902) that is associated with the Agreement for IBM Licensed Programs (Z125-3358).

BASIC MACHINE-READABLE MATERIAL: To order, select the feature number of the desired distribution medium.

All systems are supplied in the VMSUP format.

NOTE: Each of the following features includes a starter system, product tapes and displayable softcopy publications.

FEATURE		
ENVIRONMENT	NUMBER	DISTRIBUTION MEDIUM
3350	5305	9/6250 Magnetic Tape*
3350	5306	3480 Cartridge System Tape*
3375	5315	9/6250 Magnetic Tape*
3375	5316	3480 Cartridge System Tape*
3380	5326	9/6250 Magnetic Tape*
3380	5327	3480 Cartridge System Tape*

* Contains RESTRICTED MATERIAL OF IBM.

NOTE: The following two feature numbers provide VMSUP refreshes and are available to customers who previously ordered one of the features 5305 through 5327. Features 5335 and 5336 do not supply the customer with starter system or entitled publications, since this was supplied with the original order. Features 5335 and 5336 include distribution media, and informal publications -- VMSUP Memo and Program Directory. When VMSUP refreshes are available, a Memo to Current Licensees is sent to inform current licensees of availability.

FEATURE		
ENVIRONMENT	NUMBER	DISTRIBUTION MEDIUM
VMSUP		
Refresh	5335	9/6250 Magnetic Tape*
VMSUP		
Refresh	5336	3480 Cartridge System Tape*

* Contains RESTRICTED MATERIAL OF IBM.

OPTIONAL MACHINE-READABLE MATERIAL: To order, select the feature

number for the desired distribution medium:

DESCRIPTION	FEATURE NUMBER	DISTRIBUTION MEDIUM
CP/CMS/GCS Source	6695	9/6250 Magnetic Tape*
Listing	6696	3480 Cartridge System Tape*
PUBS --		
SOFTCOPY Source	7050	9/6250 Magnetic Tape*
PUBS --		
SOFTCOPY Source	7051	3480 Cartridge System Tape*

NATIONAL LANGUAGE SUPPORT FEATURES:

LANGUAGE	FEATURE NUMBER	DISTRIBUTION MEDIUM
Kanji	5027	9/6250 Magnetic Tape*
	5062	3480 Cartridge System Tape*
French	5356	9/6250 Magnetic Tape*
	5357	3480 Cartridge System Tape*
German	5023	9/6250 Magnetic Tape*
	5025	3480 Cartridge System Tape*
Brazilian Portuguese	5377	9/6250 Magnetic Tape*
	5378	3480 Cartridge System Tape*

* Contains RESTRICTED MATERIAL OF IBM.

DSLO LICENSE: To order a DSLO license specify the program number and the feature number for a graduated one-time charge or graduated monthly license charge that corresponds to the group containing the designated machine.

DSLO	DSLO
GRADUATED	GRADUATED
ONE-TIME CHARGE	MONTHLY LICENSE CHARGE

GROUP	FEATURE NUMBER	FEATURE NUMBER
18	2357	2353
20	2358	2354
30	1467	0218
40	1468	0219
50	1865	0220

Use the feature number applicable to Group 30 for machines in Groups 25 and 28. Use the feature number applicable to Group 40 for machines in Groups 32, 35 and 38.

For DSLO graduated one-time charge or graduated monthly license charge specify feature number 9901 for asset registration.

Ordering a DSLO feature will result in IBM maintaining a record of this customer location as a DSLO user only. All material for the DSLO license must be ordered by the basic licensee. If a user selects DSLO, no other feature numbers are valid for this order and no program materials or updates will be shipped.

UNLICENSED DOCUMENTATION

NOTE: The VM/XA SP Release 2.1 publications are planned to be updated with statements to clearly define the supported programming interfaces. These statements replace the information formerly contained in the DIRECTORY OF PROGRAMMING INTERFACES FOR CUSTOMERS.

A memo, program directory, and one copy of the following publications are supplied automatically with the basic machine-readable material:

TITLE	ORDER NUMBER
Virtual Machine/Extended Architecture System Product Release Guide VM/XA SP Release 2.1	GC23-0510
VM/XA System Product Licensed Program Specification (Release 2.1)	GC23-0366
VM/XA System Product General Information	GC23-0362
VM at a Glance: Large Systems Quick Reference	GC23-0360 SX23-0391
VM/XA System Product Installation and Service	SC23-0364
VM/XA System Product Serviceability Enhancements Program Update Information APAR VM37518	 GC23-0503
VM/XA System Product Planning and	

Administration	GC23-0378
VM/XA System Product Conversion Notebook	SC23-0357
VM/XA System Product Real System Operation	SC23-0371
VM/XA System Product Virtual Machine Operation	SC23-0377
VM/XA System Product CP Command Reference	SC23-0358
VM/XA System Product CMS Command Reference	SC23-0354
VM/XA System Product CMS User's Guide	SC23-0356
VM/XA System Product CMS Primer	SC23-0368
VM/XA System Product CMS Primer Summary of Commands	SC23-0421
VM/XA System Product Release 2 Guide to Saved Segments	SC23-0457
VM ECF/PASF Coexistence with IBM Enhanced Connectivity Facilities for VM/SP (APARS VM36495, VM37139)	GC24-5488
VM Alternate Format Execs and Alternate Exec Language Processor Support (APARS VM36990, VM36991, VM36992 and VM37841)	GC24-5489
VM/SP Restructured Extended Executor Language Enhancements (APARS VM36993, VM36994 and VM36988)	GC24-5406
Using Online Documentation	GC23-0522

ORDER

TITLE	NUMBER
VM/XA System Product System Product Editor User's Guide	SC23-0373
VM/XA System Product System Product Editor Command and Macro Reference	SC23-0372
VM/XA System Library Guide, Glossary, and Master Index	GC23-0367

VM/XA System Product CP Programming Services	SC23-0370
VM/XA System Product CMS Application Program Development Guide	SC23-0355
VM/XA System Product CMS Application Program Development Reference	SC23-0402
VM/XA System Product CMS Application Program Development Conversion Guide	SC23-0403
VM/XA System Product Application Development Guide for FORTRAN and COBOL	SC23-0369
VM/XA System Product GCS Command and Macro Reference	SC23-0433
VM/XA System Product System Product Interpreter User's Guide	SC23-0375
VM/XA System Product System Product Interpreter Reference	SC23-0374
VM/XA System Product EXEC2 Reference	SC23-0361
VM/XA System Product System Messages and Codes Reference	SC23-0376
VM/XA Dump Viewing Facilities Operation Guide and Reference	SC23-0359
NLS File Naming Convention Enhancements	GC24-5418
VM Backward Macro Compatibility Enhancement	GC24-5423
VM CMS Session Services Command Restructure	GC24-5482

NOTE: All of the above publications may be ordered by using one bill of forms (BOF) number. Customers have a choice of three BOFs:

Virtual Machine/Extended Architecture

System Product Release 2.1 Library SBOF-2941

(Includes all unlicensed VM/XA SP Release 2 publications and new VM/XA SP Release 2.1 publications but without the three-ring binders and spine and cover inserts.)

Virtual Machine/Extended Architecture

System Product Release 2.1 Library SBOF-2942

(Includes all unlicensed VM/XA SP Release 2 publications, new VM/XA SP Release 2.1 publications plus

three-ring binders with spine
and cover inserts for the binders.)

Virtual Machine/Extended Architecture

System Product Release 2.1 Library SBOF-2943

For current VM/XA SP Release 2 users.

(Includes only those unlicensed
manuals that have been updated for
Release 2.1).

Additional copies of unlicensed publications will be available
for a fee after product availability. These copies may be ordered
from your IBM representative through the system library subscription
service (SLSS) or by direct order.

LICENSED DOCUMENTATION: The following licensed material is available
from IBM immediately.

The first copy of the following publications are supplied
automatically with the basic machine-readable material. Use the 8XXX
feature number to order additional copies for a fee.

ADDITIONAL
COPIES

TITLE	ORDER NUMBER	FEATURE NUMBER
CMS Data Area and Control Blocks	LY27-8051	8272
CMS Diagnosis Reference	LY27-8052	8273
CP Data Areas and Control Blocks	LY27-8053	8268
CP Diagnosis Reference	LY27-8054	8269
Diagnosis Guide	LY27-8056	8271
Features Summary	LY27-8058	8285
GCS Diagnosis Reference	LY27-8060	8449

The following microfiche will be available from IBM in first
quarter 1990. To order, contact your IBM representative.

The first copy of the following material is available at no
charge to licensees of basic material by specifying the 7XXX feature
number. Use the 8XXX feature number to order additional copies for a
fee.

SINGLE COPY ADDITIONAL COPIES
ORDER FEATURE FEATURE

TITLE	NUMBER	NUMBER	NUMBER
CP			
Source			
Listings	LYC7-0347	7150	8450
CMS			
Source			
Listings	LYC7-0348	7150	8451
GCS			
Source			
Listings	LYC7-0349	7150	8418
DVF			
Source			
Listings	LYC7-0350	7150	8452

Subsequent updates (technical newsletters or revisions between releases) to the publications shipped with the product will be distributed to the user of record for as long as a license for this software remains in effect. A separate publication order or subscription is not needed.

TERMS AND CONDITIONS

The terms and conditions for VM/XA SP Release 2.1 are unaffected by this announcement, except as noted below:

- o Volume discounting is no longer applicable
- o Version to version upgrade credits apply to a replacement product, if any, as announced in Marketing Announcement 389-116, dated August 1, 1989.

CHARGES

PROGRAM NUMBER: 5664-308

GROUP	GRADUATED		GRADUATED		GRADUATED	
	ONE-TIME		MONTHLY		MONTHLY	
	CHARGE	DSLO	BASIC	DSLO	BASIC	DSLO
18	\$118,100	\$88,575	N/A	N/A	\$3,625	\$2,718
20	118,100	88,575	N/A	N/A	3,815	2,861
30	118,100	88,575	\$4,015	\$3,005	4,015	3,011
40	240,950	180,712	4,725	3,540	5,020	3,765
50	338,850	254,137	5,430	4,070	6,275	4,706

* Effective January 1, 1990.

NOTE: The charges applicable to Group 30 also apply to Groups 25 and

28. The charges applicable to Group 40 also apply to Groups 32, 35 and 38.

ONE-TIME CHARGE: Customers who pay a one-time charge for a licensed

program receive enhancements and future releases, if any, at no additional charge. Significant new function may be offered as an optional feature and charged for separately. If a replacement program is announced and the customer elects to license the replacement program and replace the prior program, an upgrade credit will apply.

For additional information, refer to Programming Announcements 287-241, dated June 11, 1987; 288-142, dated March 29, 1988; 288-197, dated April 19, 1988; 288-739, dated December 20, 1988, and 289-349, dated July 6, 1989.
