



**Program Directory for
Advanced Communication Function (ACF)
System Support Programs (SSP)**

Version 4 Release 8, Modification Level 1

Program Number 5654-009

for Use with
VM/ESA®

Document Date: July 2001

GI10-6619-00

Note

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

This program directory, dated July 2001, applies to System Support Programs Version 4 Release 8, Modification Level 1 (SSP V4R8.1 VM), Program Number 5654-009.

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1.0 Introduction

This program directory is intended for the system programmer responsible for program installation and maintenance. It contains information concerning the material and procedures associated with the installation of SSP V4R8.1 VM. You should read all of this program directory before installing the program and then keep it for future reference.

The program directory contains the following sections:

- 2.0, "Program Materials" on page 4 identifies the basic and optional program materials and documentation for SSP V4R8.1 VM.
- 3.0, "Program Support" on page 9 describes the IBM support available for SSP V4R8.1 VM.
- 4.0, "Program and Service Level Information" on page 10 lists the APARs (program level) and PTFs (service level) incorporated into SSP V4R8.1 VM.
- 5.0, "Installation Requirements and Considerations" on page 11 identifies the resources and considerations for installing and using SSP V4R8.1 VM.
- 6.0, "Installation Instructions" on page 23 provides detailed installation instructions for SSP V4R8.1 VM.
- 7.0, "Service Instructions" on page 35 provides detailed servicing instructions for SSP V4R8.1 VM.
- Appendix A, "Applying an RSU Tape for SSP V4R8.1 VM" on page 45 provides detailed Recommended Service Upgrade instructions for SSP V4R8.1 VM.
- Appendix B, "Create Product Parameter File (PPF) Override" on page 52 provides detailed information on overriding the Product Parameter File (PPF).

Before installing SSP V4R8.1 VM, read 3.1, "Preventive Service Planning" on page 9. This section tells you how to find any updates to the information and procedures in this program directory.

This release builds the ASM3705 assembler. A link to the CMSTOOLS (193) disk is added.

Starting with ACF/NCP V7R7, important changes have been made to the NCP generation assembler support. Beginning with ACF/SSP V4R7, the Network Definition Facility (NDF) will offer exclusive support for the High Level Assembler (HLAS) program product, 5696-234. Prior to ACF/SSP V4R7, two different assemblers were shipped with ACF/SSP. Support for the IFZ assembler (VSE) and IHR90 assembler (MVS and VM) will be discontinued starting with ACF/NCP V7R7. You will now be required to use the High Level Assembler for generating NCP V7R7 and later load modules.

If the High Level Assembler does not come installed on your system, you will need to order it.

Figure 1 shows the operating systems and indicates whether the High Level Assembler is integrated.

<i>Figure 1. High Level Assembler Integrated with Operating System</i>		
Operating System	High Level Assembler V1R2	High Level Assembler V1R3
MVS/ESA V5R1 and later (5655-068, 5655-069)	Order separately	Order separately
OS/390 R1, R2, R3 (5645-001)	Integrated	Order separately
OS/390 V2R4, V2R5, V2R6 (5647-A01)	Integrated	Order separately
OS/390 V2R7, V2R8 (5647-A01)	n/a	Integrated
VM/ESA V2R2, V2R3 (5654-030)	Order separately	Order separately
VM/ESA V2R4 (5654-030)	n/a	Order separately
VSE/ESA V1R4.3, V1R4.4 (5750-ACD)	Order separately	Order separately
VSE/ESA V2R2, V2R3 (5690-VSE)	Integrated	Order separately
VSE/ESA V2R4 (5690-VSE)	n/a	Integrated

In addition to the High Level Assembler requirements, the APARs listed in Figure 36 on page 19 are required.

The IFZ and IHR90 assemblers will still be shipped with ACF/SSP V4R8.1 for use with levels of ACF/NCP prior to NCP V7R7.

A good place to start any task regarding this program is *NCP V7R8, SSP V4R8, and EP R14 Library Directory*, SC30-4025. This directory gives you an overview of NCP, SSP, and EP and directs you to a variety of tasks related to these programs.

At the end of this program directory you will find a Reader's Comment Form. Please take time to complete this form and return it to the address shown on the form. Your comments and suggestions help improve this program directory and make installation easier.

1.1 Program Description

ACF/SSP Version 4 provides the following functions:

- Allows generation of ACF/Network Control Program (ACF/NCP), its partitioned emulation programming (PEP) extension, and the Emulation Program (EP). Refer to the programming requirements section for a list of supported NCP and EP levels.
- Loads the IBM 3720, 3725, or 3745 Communication Controller with a specified load module.
- Dumps the storage and register contents (in formatted or unformatted mode) of the IBM 3720, 3725, or 3745 Communication Controller.
- Formats the maintenance operator subsystem (MOSS) and communication scanner processor (CSP) dump data sets of the IBM 3720, 3725, or 3745.
- Allows the EP user to: (1) obtain a dynamic dump of EP line trace table entries; (2) activate or deactivate the EP line trace function; (3) obtain a dump of the IBM 3720, 3725, or 3745 storage; (4) format MOSS and CSP dump data sets; or (5) display portions of storage at the system console.
- Assembles programs written in the communication controller assembler language.
- Provides a configuration report, that can be tailored by the user to provide meaningful and representative information on the resources and resource attributes of the user's network.
- Utilizes the ACF/Trace Analysis Program (ACF/TAP) to provide a common trace facility for use with the appropriate release of ACF/VTAM and ACF/NCP for the IBM 3720, 3725, 3745, or 3746 model 950 for SDLC, BSC, SS, X.25 NPSI, Token-Ring, frame-relay, or ISDN lines.
- Provides command lists (CLIST) to display selected NCP dump information online without formatting or printing the dump.

2.0 Program Materials

An IBM program is identified by a program number. The program number for System Support Programs Version 4 is 5654-009.

The program announcement material describes the features supported by SSP V4R8.1 VM. Ask your IBM marketing representative for this information if you have not already received a copy.

The following sections identify:

- basic and optional program materials available with this program
- publications useful during installation.

2.1 Basic Machine-Readable Material

The distribution medium for this program is 9-track magnetic tape (written at 1600 or 6250 BPI), 3480 tape cartridge, or 1/4-inch tape cartridge. The tape or cartridge contains all the programs and data needed for installation. See section 6.0, "Installation Instructions" on page 23 for more information about how to install the program. Figure 2 describes the tape or cartridge. Figure 3 describes the file content of the program tape or cartridge.

Figure 2. Basic Material: Program Tape

Feature Number	Medium	Physical Volume	Tape Content	External Tape Label
5801	6250 tape	1	SSP V4R8.1 VM	V4R8.1 VM
5802	3480 cart.	1	SSP V4R8.1 VM	V4R8.1 VM
5700	4mm cart.	1	SSP V4R8.1 VM	V4R8.1 VM

Figure 3 (Page 1 of 2). Program Tape: File Content

Tape File	Content
1	Tape Header
2	Tape Header
3	Product Header
4	Product Memo
5	Service Apply Lists
6	PTFPARTs

Figure 3 (Page 2 of 2). Program Tape: File Content

Tape File	Content
7	SSP V4R8.1 VM Service
8	SSP V4R8.1 VM Service
9	SSP V4R8.1 VM Base Code
10	SSP V4R8.1 VM Executable Code

2.2 Optional Machine-Readable Material

There are no optional machine-readable materials for SSP V4R8.1 VM.

2.3 Program Publications

The following sections identify the basic and optional publications for SSP V4R8.1 VM.

2.3.1 Basic Program Publications

One copy of the following publications is included when you order the basic materials for SSP V4R8.1 VM. For additional copies, contact your IBM representative.

Figure 4. Basic Material: Unlicensed Publications

Publication Title	Form Number
<i>Network Control Program, System Support Programs, and Emulation Program Generation and Loading Guide</i>	SC31-6221
<i>Network Control Program, System Support Programs, and Emulation Program Messages and Codes</i>	SC31-6222
<i>Licensed Program Specifications: System Support Programs Version 4 Release 8 Modification Level 1 for VM</i>	GC31-6227
<i>Network Control Program Version 7 Release 8, System Support Programs Version 4 Release 8, and Emulation Program Release 14 Library Directory</i>	SC30-4025
<i>NCP and 3745/46 Today</i>	G325-3426

Figure 5 on page 5 identifies the basic *licensed* program publications for SSP V4R8.1 VM. The first copy is available at no charge to licensees of the basic material by ordering the 7xxx feature number. Order additional copies using the 8xxx feature number. A fee is charged for additional copies.

An asterisk (*) next to the form number indicates that it contains “Restricted Materials of IBM.”

Figure 5. Basic Material: Licensed Publications

Publication Title	Form Number	Feature Number
Network Control Program, System Support Programs, and Emulation Program Diagnosis Guide	LY43-0033*	8010
Network Control Program, System Support Programs, and Emulation Program Trace Analysis Handbook	LY43-0037*	8140

2.3.2 Optional Program Publications

There is no optional unlicensed program publications for SSP V4R8.1 VM.

Figure 6 identifies the optional licensed program publications for SSP V4R8.1 VM. The first copy is available at no charge to licensees of the basic material by ordering the 7xxx feature number. Order additional copies using the 8xxx feature number. A fee is charged for additional copies.

An asterisk (*) next to the form number indicates that it contains “Restricted Materials of IBM.”

Figure 6. Optional Material: Licensed Publications

Publication Title	Form Number	Feature Number
Network Control Program and System Support Programs Customization Guide	LY43-0031*	7011-8011
Network Control Program and System Support Programs Customization Reference	LY43-0032*	7012-8012

2.3.3 Softcopy Publications

All SSP V4R8.1 VM manuals, licensed and unlicensed, except for *SSP Licensed Program Specifications*, are offered in displayable softcopy form on the media listed in Figure 7. The first copy is available at no charge to licensees of the basic material by ordering the 7xxx feature number. Order additional copies using the 8xxx feature number. A fee is charged for additional copies.

An asterisk (*) next to the form number indicates that it contains “Restricted Materials of IBM.”

Figure 7. Softcopy Publications

Title	Form Number	Feature Number
ACF/NCP, ACF/SSP, EP, NPSI, and NTuneMON Softcopy Collection Kit	LK2T-0414*	7110-8110
Note: Order this collection kit under the NCP product. (It is not orderable under SSP.)		

2.3.4 Publications Associated with SSP V4R8.1 VM

Figure 8 identifies publications that may be helpful when you use SSP V4R8.1 VM. To order copies, contact your IBM representative. A fee is charged for each copy of these publications.

Publication Title	Order/Form Number
Network Control Program Version 7 Release 8 Migration Guide	SC30-4024
Network Control Program, System Support Programs, and Emulation Program Resource Definition Guide	SC31-6223
Network Control Program, System Support Programs, and Emulation Program Resource Definition Reference	SC31-6224
Planning for NetView, NCP, and VTAM	SC31-8063
Planning for Integrated Networks	SC31-8062

2.4 View Program Listings Support

Microfiche support for SSP V4R8.1 VM for VM/ESA has been replaced by equivalent support through the View Program Listings (VPL) application from SMS, Boulder, Colorado. VPL is replacing the microfiche by providing this information online. External customers can access this information by using ServiceLink or Dial IBM. Internal users can access VPL by dialing to VPL.

2.5 Publications Useful During Installation

The publications listed in Figure 9 or Figure 10 on page 8, depending on your VM/ESA release, may be useful during the installation of SSP V4R8.1 VM. To order copies, contact your IBM representative.

Figure 9. Publications Useful During Installation / Service on VM/ESA Version 2.2.0

Publication Title	Form Number
<i>VM/ESA: VMSES/E Introduction and Reference</i>	SC24-5747
<i>VM/ESA: Service Guide</i>	SC24-5749
<i>VM/ESA: Planning and Administration</i>	SC24-5750
<i>VM/ESA: CMS Command Reference</i>	SC24-5776
<i>VM/ESA: CMS File Pool Planning, Administration, and Operation</i>	SC24-5751
<i>VM/ESA: System Messages and Codes</i>	SC24-5784

Figure 10. Publications Useful During Installation / Service on VM/ESA Version 2.3.0 or higher

Publication Title	Form Number
<i>VM/ESA: VMSES/E Introduction and Reference</i>	GC24-5837
<i>VM/ESA: Service Guide</i>	GC24-5838
<i>VM/ESA: Planning and Administration</i>	SC24-5750
<i>VM/ESA: CMS Command Reference</i>	SC24-5776
<i>VM/ESA: CMS File Pool Planning, Administration, and Operation</i>	SC24-5751
<i>VM/ESA: System Messages and Codes</i>	GC24-5841

3.0 Program Support

This section describes the IBM support available for SSP V4R8.1 VM.

3.1 Preventive Service Planning

Before installing SSP V4R8.1 VM, check with your IBM Support Center or use IBMLink™ (ServiceLink) to see whether there is additional Preventive Service Planning (PSP) information. To obtain this information, specify the following UPGRADE and SUBSET values:

Figure 11. PSP Upgrade and Subset ID

Retain			
COMPID	Release	Upgrade	Subset
565400900	481	SSP481	481

3.2 Statement of Support Procedures

Report any difficulties you have using this program to your IBM Support Center. If an APAR is required, the Support Center will tell you where to send any needed documentation.

Figure 12 identifies the component ID (COMPID), Retain Release and Field Engineering Service Number (FESN) for SSP V4R8.1 VM.

Figure 12. Component IDs

Retain			
COMPID	Release	Component Name	FESN
565400900	481	SSP V4R8.1 VM	0466643

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of SSP V4R8.1 VM. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs shipped with this product. Information about the cumulative service tape is also provided.

4.1 Program Level Information

The following APAR fixes against the previous releases of SSP have been incorporated into this release.

IR41497	IR42640	IR45089
IR41514	IR42662	IR45100
IR41517	IR42664	IR45103
IR41799	IR42855	IR45106
IR41847	IR43127	IR45108
IR41933	IR43195	IR45148
IR42170	IR43204	IR45171
IR42376	IR43562	IR45173
IR42378	IR43882	IR45245
IR42618	IR44050	IR45249
IR42636	IR44541	IR45254
IR42638	IR45081	IR45256

4.2 Service Level Information

Check the SSP481 PSP bucket for any additional PTFs that should be installed or any additional install information.

4.3 Cumulative Service Tape

Cumulative service for SSP V4R8.1 VM is available through a monthly corrective service tape, Expanded Service Option, ESO.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating SSP V4R8.1 VM.

5.1 Hardware Requirements

There are no special hardware requirements for SSP V4R8.1 VM.

5.2 Program Considerations

The following sections list the programming considerations for installing SSP V4R8.1 VM and activating its functions.

5.2.1 Operating System Requirements

SSP V4R8.1 VM supports the following VM operating systems for as long as program services are available for the particular version and release.

- VMSES/E on VM/ESA® V2R2 or later. Prior to installing SSP V4R8.1 VM, one of the following must be installed:
 - RSU 9904 for VM/ESA 2.2.0 with PTF UM29440
 - RSU 9905 for VM/ESA 2.3.0 with PTF UM29441
 - RSU 9904 for VM/ESA 2.4.0 with PTF UM29442

5.2.2 Other Program Product Requirements

VM/ESA APAR VM61534 is required to use the High Level Assembler.

SSP V4R8.1 VM supports the following licensed VM programs at the function level of the version and release for as long as program services are available for the particular version and release.

- NCP V7R1 or later
- NCP V6R3
- NCP V5R4
- NCP V4R3.1

5.2.2.1 Functional Requisites:

The IFWNET CLIST requires NetView V2R3, or later, with REXX support.

SSP V4R8.1 VM supports the following licensed VM programs at the function level of the version and release for as long as program services are available for the particular version and release.

- Emulation Program R14
- Emulation Program R12
- Emulation Program R11
- Emulation Program R9
- Emulation Program R8
- Emulation Program R6.1

5.2.2.2 Compatibility Requisites:

The following sections describe cross product service considerations for NCP, NPSI, DFSMS, and VSE.

5.2.2.3 NCP:

The NCP APARs listed in Figure 13 are required to generate NCP with SSP NDF.

<i>Figure 13. NCP APARs Required to Generate NCP with SSP NDF</i>	
Product Name	APAR
NCP V4R3.1	IR82746
	IR83237
	IR83303
	IR83307
	IR83826
	IR83952
	IR86790
	IR89297

The NCP APAR listed in Figure 14 is required if you want to code RNRLIMIT on a NTRI logical GROUP definition statement in NCP V5R4.

<i>Figure 14. NCP APAR Required to Code RNRLIMIT</i>	
Product Name	APAR
NCP V5R4	IR99583

The NCP APARs listed in Figure 15 are required if your generation definition contains frame-relay boundary access node (BAN) connections.

<i>Figure 15. NCP APARs Required to Code BAN Connections</i>	
Product Name	APAR
NCP V7R1	IR28397
NCP V7R2	IR28239

The NCP APAR listed in Figure 16 is required to code a default TCP/IP route in NCP V7R1.

<i>Figure 16. NCP APAR required to Code a Default TCP/IP Route in NCP V7R1</i>	
Product Name	APAR
NCP V7R1	IR26000

The NCP APARs listed in Figure 17 are required if you use the ADDIFG keyword to increase the inter-frame gap for IBM 3746 Model 900 frame relay, SDLC, or X.25 physical lines.

<i>Figure 17. NCP APARs Required to Increase the Inter-Frame Gap</i>	
Product Name	APAR
NCP V6R3	IR27091
NCP V7R1	IR27090

The NCP APARs listed in Figure 18 are required if you want NCP to initiate the deactivation of an out-of-sequence virtual route (VR).

<i>Figure 18. NCP APARs Required to Initiate Deactivation of an Out-of-Sequence Virtual Route (VR)</i>	
Product Name	APAR
NCP V7R1	IR35146
NCP V7R2	IR35146
NCP V7R3	IR35146
NCP V7R4	IR35146
NCP V7R5	IR35146

The NCP APAR listed in Figure 19 is required if you want to use a duplicate TIC configuration for subarea connections.

<i>Figure 19. NCP APAR Required to Use a Duplicate TIC Configuration for Subarea Connections</i>	
Product Name	APAR
NCP V7R5	IR35842

The NCP APAR listed in Figure 20 is required if you generate backup channel connections for the NCP-NCPROUTE IP interface.

<i>Figure 20. NCP APAR Required to Generate Backup Channel Connections for NCP-NCPROUTE IP Interface</i>	
Product Name	APAR
NCP V7R5	IR33961

The NCP APAR listed in Figure 21 is required if you generate INN connections using LIC16 ISDN to ISDN TA.

<i>Figure 21. NCP APAR Required to Generate INN Connections</i>	
Product Name	APAR
NCP V7R5	IR34013

The NCP APAR listed in Figure 22 is required if you code MAXDLCI for an ISDN physical line (D-Channel).

<i>Figure 22. NCP APAR Required to Code MAXDLCI for D-Channel</i>	
Product Name	APAR
NCP V7R5	IR33979

The NCP APARs listed in Figure 23 are required if you code USGTIER=1, 2, 2.5, or 3 and have only channel links defined, and you wish to take advantage of the higher limits regarding the number of channel links that can be defined.

<i>Figure 23. NCP APARs Required If You Code USGTIER=1, 2, 2.5, or 3</i>	
Product Name	APAR
NCP V7R1	IR34014
NCP V7R2	IR34014
NCP V7R3	IR34014
NCP V7R4	IR34014
NCP V7R5	IR34014

The NCP APAR listed in Figure 24 is required if you code QSZALERT on the BUILD statement to determine if a session or station is using an inordinate number of buffers.

<i>Figure 24. NCP APAR Required to Include QSZALERT Function in NCP V7R5.</i>	
Product Name	APAR
NCP V7R5	IR36167

The NCP APARs listed in Figure 25 are required if you want to use CIR (Committed Information Rate) for bandwidth management of the 3746 Model 900 frame-relay lines.

<i>Figure 25. NCP APARs Required for Committed Information Rate (CIR)</i>	
Product Name	APAR
NCP V7R3	IR36380
NCP V7R4	IR36380
NCP V7R5	IR36380
NCP V7R6	IR36484

The NCP APAR listed in Figure 26 is required if you want to code TRANSBUF to indicate the number of transmission head buffers allocated for 3745 frame-relay physical lines.

<i>Figure 26. NCP APAR Required for Transmission Head Buffers</i>	
Product Name	APAR
NCP V7R6	IR36886

The NCP APARs listed in Figure 27 are required to support up to 32 ESCON stations on the 3746 Model 900.

<i>Figure 27. NCP APARs Required to Support 32 ESCON Stations</i>	
Product Name	APAR
NCP V7R7 MVS, VM	IR40131
NCP V7R6 MVS, VM	IR40131
NCP V7R7 VSE	IR40134
NCP V7R6 VSE	IR40134

The NCP APARs listed in Figure 28 are required to support 3746 Model 900 Token Ring (TIC 3) connection balancing.

<i>Figure 28. NCP APARs Required to Support TIC 3 Connection Balancing</i>	
Product Name	APAR
NCP V7R7 MVS, VM	IR40132
NCP V7R6 MVS, VM	IR40132
NCP V7R7 VSE	IR40135
NCP V7R6 VSE	IR40135

The NCP APARs listed in Figure 29 are required to support 3746 Model 900 Frame Relay BAN connection balancing.

<i>Figure 29. NCP APARs Required to Support Frame Relay BAN Connection Balancing</i>	
Product Name	APAR
NCP V7R7 MVS, VM	IR40133
NCP V7R7 VSE	IR40136

The NCP APARs listed in Figure 30 are required if you generate EP R14 standalone with NCP V7R7.

<i>Figure 30. NCP APARs Required to Generate EP R14 Standalone with NCP V7R7</i>	
Product Name	APAR
NCP V7R7 MVS, VM	IR41021
NCP V7R7 VSE	IR41022

The NCP APARs listed in Figure 31 are required if you predefine a bridged Token Ring 3745 subarea route.

<i>Figure 31. NCP APARs Required to Predefine a bridged TR 3745 subarea route</i>	
Product Name	APAR
NCP V7R8 MVS, VM	IR42305
NCP V7R8 VSE	IR42306

The NCP APARs listed in Figure 32 are required if you want to validate the state of DYNPOOL control blocks when they are placed on the dispatching queue.

Figure 32. NCP APARs Required for DYNPOOL control blocks validation

Product Name	APAR
NCP V7R2 MVS	IR42308
NCP V7R3 MVS, VM	IR42308
NCP V7R4 MVS, VM	IR42308
NCP V7R4 VSE	IR42321
NCP V7R5 MVS, VM	IR42308
NCP V7R5 VSE	IR42321
NCP V7R6 MVS, VM	IR42308
NCP V7R6 VSE	IR42321
NCP V7R7 MVS, VM	IR42308
NCP V7R7 VSE	IR42321
NCP V7R8 MVS, VM	IR42308
NCP V7R8 VSE	IR42321

The NCP APARs listed in Figure 33 are required if you code PLPIGGYB or NETTYPE=3 for 3746 Model 900 X.25 lines.

Figure 33. NCP APARs Required to code PLPIGGYB or NETTYPE for 3746 Model 900 X.25

Product Name	APAR
NCP V7R8 MVS, VM	IR42600
NCP V7R8 VSE	IR42602

The NCP APARs listed in Figure 34 are required if you code the dw or dwc suboperand on the DYNWIND keyword for 3746 Model 900 Token Ring resources.

Figure 34. NCP APARs Required to use DYNWIND enhancements for 3746 Model 900 TR

Product Name	APAR
NCP V7R8 MVS, VM	IR42608
NCP V7R8 VSE	IR42611

5.2.2.4 NPSI:

The NPSI APARs shown in Figure 35 are required to generate NPSI V3R8 with NCP V7R4, NCP V7R5, or NCP V7R6.

Figure 35. NPSI APARs Required to Generate NPSI V3R8 with NCP V7R4, NCP V7R5, or NCP V7R6

Product Name	APAR
NCP NPSI V3R8	IR32271 IR37825

5.2.2.5 DFSMS:

The APARs listed in Figure 36 are required to use the High Level Assembler.

Figure 36. APARs Required to Use the High Level Assembler

Product Name	APAR
DFSMS/MVS Binder	OW26738
DFSMS/MVS Linkage Editor	OW27802
VM/ESA Linkage Editor	VM61534

5.2.2.6 VSE:

The APARs listed in Figure 37 are required to use the High Level Assembler

<i>Figure 37. APARs Required to Use the High Level Assembler</i>	
Product Name	APAR
VSE/ESA V2	DY45166
VSE/ESA V1R4	DY45163

5.2.2.7 EP/PEP:

The EP APAR shown in Figure 38 is required to generate EP/PEP R14 with SSP NDF.

<i>Figure 38. EP APAR Required to Generate EP/PEP R14 with SSP NDF.</i>	
Product Name	APAR
EP/PEP R14	IR39913

5.2.3 Program Installation and Service Considerations

This section describes items that should be considered before you install or service SSP V4R8.1 VM.

- VMSES/E is required to install and service this product.
- If multiple users install and maintain licensed products on your system, there may be a problem getting the necessary access to MAINT's 51D disk. If you find that there is contention for write access to the 51D disk, you can eliminate it by converting the Software Inventory from minidisk to Shared File System (SFS). See the *VMSES/E Introduction and Reference* manual, section "Changing the Software Inventory to an SFS Directory", for information on how to make this change.
- Customers will no longer install and service SSP V4R8.1 VM strictly using the MAINT user ID, but will use a new user ID--P654009G. This is the IBM suggested user ID name. You are free to change this to any user ID name you wish; however, a PPF override must be created.

Note: It may be easier to make the above change during the installation procedure 6.2, "Plan Your Installation For SSP V4R8.1 VM" step 6 on page 25, rather than after you have installed this product.

5.3 DASD Storage and User ID Requirements

Figure 39 on page 21 lists the user IDs, minidisks and default SFS directory names that are used to install and service SSP V4R8.1 VM.

Important Installation Notes:

- User ID(s) and minidisks or SFS directories will be defined in 6.2, “Plan Your Installation For SSP V4R8.1 VM” on page 24 and are listed here so that you can get an idea of the resources that you will need prior to allocating them.
- P654009G is a default user ID and can be changed. If you choose to change the name of the installation user ID you need to create a Product Parameter Override (PPF) to reflect this change. This can be done in 6.2, “Plan Your Installation For SSP V4R8.1 VM” step 6 on page 25.
- If you choose to install SSP V4R8.1 VM on a common user ID the default minidisk addresses for SSP V4R8.1 VM may already be defined. If any of the default minidisks required by SSP V4R8.1 VM are already in use you will have to create an override to change the default minidisks for SSP V4R8.1 VM so they are unique.

Figure 39 (Page 1 of 2). DASD Storage Requirements for Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		FB-512 Blocks	SFS 4K Blocks	Usage
		DASD	CYLS			Default SFS Directory Name
P654009G	2B2	3390 3380 9345	37 45 45	53500	6700	Contains all the base code shipped with SSP V4R8.1 VM VMSYS:P654009G.SSP.OBJECT
P654009G	2C2	3390 3380 9345	4 5 5	6000	750	Contains customization files. This disk may also be used for local modifications. VMSYS:P654009G.SSP.SAMPLE
P654009G	2D2	3390 3380 9345	16 20 20	36000	4500	Contains serviced files VMSYS:P654009G.SSP.DELTA
P654009G	2A6	3390 3380 9345	16 20 20	24000	3000	Contains AUX files and software inventory tables that represent the test service level of SSP V4R8.1 VM VMSYS:P654009G.SSP.APPLYALT
P654009G	2A2	3390 3380 9345	16 20 20	24000	3000	Contains AUX files and software inventory tables that represent the service level of SSP V4R8.1 VM that is currently in production. VMSYS:P654009G.SSP.APPLYPROD

Note: Cylinder values defined in this table are based on a 4K block size. FB-512 block and SFS values are derived from the 3380 cylinder values in this table. The FBA blocks are listed as 1/2K but should be CMS formatted at 1K size. 31450 4K blocks are needed for SFS install.

Figure 39 (Page 2 of 2). DASD Storage Requirements for Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		FB-512 Blocks	SFS 4K Blocks	Usage
		DASD	CYLS			Default SFS Directory Name
P654009G	400	3390 3380 9345	25 30 30	36000	4500	Test build disk. This code will be copied to a production disk, (e.g. MAINT 19E) so the production disk will also require this amount of free space.
P654009G	401	3390 3380 9345	25 30 40	3600	4500	Production BUILD disk. Files from the test BUILD disk are copied here for application use.
P654009G	191	3390 3380 9345	25 30 30	36000	4500	P654009G user ID's 191 minidisk VMSYS:P654009G.

Note: Cylinder values defined in this table are based on a 4K block size. FB-512 block and SFS values are derived from the 3380 cylinder values in this table. The FBA blocks are listed as 1/2K but should be CMS formatted at 1K size. 31450 4K blocks are needed for SFS install.

6.0 Installation Instructions

This chapter describes the installation methods and the step-by-step procedures to install and activate SSP V4R8.1 VM.

The step-by-step procedures are in two column format. The steps to be performed are in bold large numbers. Commands for these steps are on the left hand side of the page in bold print. Additional information for a command may exist to the right of the command. For more information about the two column format see "Understanding Dialogs with the System" in the *VM/ESA Installation Guide*.

Each step of the installation instructions must be followed. Do not skip any step unless directed to do so.

Throughout these instructions, the use of IBM-supplied default minidisk addresses and user IDs is assumed. If you use different user IDs, minidisk addresses, or SFS directories to install SSP V4R8.1 VM, adapt these instructions as needed for your environment.

Note

The sample console output presented throughout these instructions was produced on a VM/ESA 2.2.0 system. If you're installing SSP V4R8.1 VM on a different VM/ESA system, the results obtained for some commands may differ from those depicted here.

6.1 VMSES/E Installation Process Overview

The following is a brief description of the main steps in installing SSP V4R8.1 VM using VMSES/E.

- Plan Your Installation

Use the VMFINS command to load several VMSES/E files from the product tape and to obtain SSP V4R8.1 VM resource requirements.

- Allocate Resources

The information obtained from the previous step is used to allocate the appropriate minidisks (or SFS directories) and user IDs needed to install and use SSP V4R8.1 VM.

- Install the SSP V4R8.1 VM Product

Use the VMFINS command to load the SSP V4R8.1 VM product files from tape to the test BUILD and BASE minidisks/directories. VMFINS is then used to update the VM SYSBLDS file used by VMSES/E for software inventory management.

- Perform Post-installation Tasks

Information about file tailoring and initial activation of the program is presented in 6.5, "Post-Installation Considerations (optional)" on page 33.

- Place SSP V4R8.1 VM Files into Production

Once the product files have been tailored and the operation of SSP V4R8.1 VM is satisfactory, the product files are copied from the test BUILD disk(s) to production BUILD disk(s).

For a complete description of all VMSES/E installation options refer to *VMSES/E Introduction and Reference*.

6.2 Plan Your Installation For SSP V4R8.1 VM

The VMFINS command will be used to plan the installation. This section has 2 main steps that will:

- load the first tape file, containing installation files
- generate a 'PLANINFO' file listing
 - all user ID and mdisks/SFS directory requirements
 - required products

To obtain planning information for your environment:

1 Log on as SSP V4R8.1 VM installation planner.

This user ID can be any ID that has read access to MAINT's 5E5 minidisk and write access to the MAINT 51D minidisk.

2 Mount the SSP V4R8.1 VM installation tape and attach it to the user ID at virtual address 181. The VMFINS EXEC requires the tape drive to be at virtual address 181.

3 Establish read access to the VMSES/E code.

**link MAINT 5e5 5e5 rr
access 5e5 b**

The 5E5 disk contains the VMSES/E code.

4 Establish write access to the Software Inventory disk.

**link MAINT 51d 51d mr
access 51d d**

The MAINT 51D disk is where the VMSES/E system-level Software Inventory and other dependent files reside.

Note: If another user already has the MAINT 51D minidisk linked in write mode (R/W), you will only obtain read access (R/O) to this minidisk. If this occurs, you will need to have that user re-link the 51D in read-only mode (RR), and then re-issue the above LINK and ACCESS commands. Do not continue with these procedures until a R/W link is established to the 51D minidisk.

5 Load the SSP V4R8.1 VM product control files to the 51D minidisk.

vmfins install info (nomemo)

The NOMEMO option will load the memos from the tape but will not issue a prompt to send them to the system printer. Specify the MEMO option if you want to be prompted for printing the memo.

This command will perform the following:

- load Memo-to-Users
- load various product control files, including the Product Parameter File (PPF) and the PRODPART files
- create VMFINS PRODLIST on your A-disk. The VMFINS PRODLIST contains a list of products on the installation tape.

```
VMFINS2760I VMFINS processing started
VMFINS1909I VMFINS PRODLIST created on your A-disk
VMFINS2760I VMFINS processing completed successfully
Ready;
```

6 Obtain resource planning information for SSP V4R8.1 VM.

Notes:

- a. The product will **not** be loaded by the VMFINS command at this time.

vmfins install ppf 5654009G {SSP | SSPSFS} (plan nomemo)

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

The PLAN option indicates that VMFINS will perform requisite checking, plan system resources, and provide an opportunity to override the defaults in the product parameter file.

You can override any of the following:

- the name of the product parameter file
- the default user IDs
- minidisk/directory definitions

Notes:

- a. If you change the PPF name, a default user ID, or other parameters via a PPF override, you will need to use your changed values instead of those indicated (when appropriate), throughout the rest of the installation instructions, as well as the instructions for servicing SSP V4R8.1 VM. For example, you will need to specify your PPF override file name instead of 5654009G for certain VMSES/E commands.
- b. If you're not familiar with creating PPF overrides using VMFINS, you should review the "Using the Make Override Panel" section in Chapter 3 of the *VMSES/E Introduction and Reference* before you continue.
- c. For more information about changing the VMSYS file pool name refer to Chapter 3 in the *VMSES/E Introduction and Reference*.

```
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5654009G SSP
             :PRODID. 5654009G%SSP?
             Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5654009G SSP :PRODID
             5654009G%SSP
VMFREQ1909I 5654009G PLANINFO created on your A-disk
VMFREQ2805I Product :PPF 5654009G SSP :PRODID 5654009G%SSP
             has passed requisite checking
VMFINT2603I Planning for the installation of product :PPF 5654009G SSP
             :PRODID 5654009G%SSP
VMFRMT2760I VMFRMT processing started
VMFRMT2760I VMFRMT processing completed successfully
VMFINS2760I VMFINS processing completed successfully
```

Note

Complete this step only if you received message VMFREQ2806W.

If you receive the following VMFREQ2806W message, you must do some additional processing.

```
VMFREQ2806W The following requisites for product :PPF 5654009G SSP
:PRODID 5654009G%SSP are not satisfied:
```

Type	Product	Component	PTF
-----	-----	-----	-----
Requisite	&reqprodnumb.		

This message indicates that &reqprodid., product &reqprodname. is a pre-requisite product for SSP V4R8.1 VM. Since &reqprodid. is not in VMSES/E format it will not be in the system inventory. If you're certain &reqprodid. is installed on your system you will need to update the VMSES/E system inventory before proceeding with the install of SSP V4R8.1 VM. Update the software inventories by issuing the following commands:

vmfsim modify vm sysrecs d tdata :prodid &reqprodid. :PPF &reqprodid. lib :stat received

VM SYSRECS is the default name of the Receive Status table.

vmfsim modify vm sysapps d tdata :prodid &reqprodid. :PPF &reqprodid. lib :stat applied

VM SYSAPPS is the default name of the Apply Status table.

vmfsim modify vm sysreqt d tdata :prodid &reqprodid.

VM SYSREQT is the default name of the Requisite table.

For additional information about the System Inventory files and the VMFSIM command see the *VMSES/E Introduction and Reference*.

- 7** Review the install message log (\$VMFINS \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use on-line HELP.

vmfview install

6.3 Allocate Resources for Installing SSP V4R8.1 VM

Use the planning information in the 5654009G PLANINFO file, created in the **PLAN** step, to:

- Create the P654009G user directory for minidisk install

OR

- Create the P654009G user directory for SFS install

6.3.1 Installing SSP V4R8.1 VM on Minidisk

- 1** Obtain the user directory from the 5654009G PLANINFO file.

Note: The user directory entry is located in the resource section of the PLANINFO file, at the bottom; these entries will contain all of the links and privilege classes necessary for the P654009G user ID. Use the directory entry found in PLANINFO as a model as input to your system directory.

- 2** Add the MDISK statements to the directory entry for P654009G. Use Figure 39 on page 21 to obtain the minidisk requirements.
- 3** Add the P654009G directory entry to the system directory. Change the password for P654009G from xxxxx to a valid password, in accordance with your security guidelines.
- 4** Place the new directories on-line using VM/Directory Maintenance (DIRMAINT) or an equivalent CP directory maintenance method.

Note

All minidisks for the P654009G user ID must be formatted before installing SSP V4R8.1 VM.

6.3.2 Installing SSP V4R8.1 VM in SFS Directories

- 1** Obtain the user directory from the 5654009G PLANINFO file.

Note: The user directory entry is located in the resource section of the PLANINFO file, at the bottom; these entries will contain all of the links and privilege classes necessary for the P654009G user ID. Use the directory entry found in PLANINFO as a model as input to your system directory.

- 2** Add the P654009G directory entry to the system directory. Change the password for P654009G from xxxxx to a valid password, in accordance with your security guidelines.
- 3** Place the new directories on-line using VM/Directory Maintenance (DIRMAINT) or an equivalent CP directory maintenance method.

4 An SFS installation will also require the following steps:

- a** Determine the number of 4K blocks that are required for SFS directories by adding up the 4K blocks required for each SFS directory you plan to use.

If you intend to use all of the default SSP V4R8.1 VM SFS directories, the 4K block requirements for the directories are summarized in Figure 39 on page 21.

This information will be used when enrolling the user ID, P654009G, in the VMSYS filepool.

- b** Enroll user P654009G in the VMSYS filepool using the ENROLL USER command:

```
ENROLL USER P654009G VMSYS: (BLOCKS blocks
```

where *blocks* is the number of 4K blocks that you calculated in the previous step.

Note: This must be done from a user ID that is an administrator for VMSYS: filepool.

- c** Determine if there are enough blocks available in the filepool to install SSP V4R8.1 VM. This information can be obtained from the QUERY FILEPOOL STATUS command. Near the end of the output from this command is a list of minidisks in the filepool and the number of blocks free. If the number of blocks free is smaller than the total 4K blocks needed to install SSP V4R8.1 VM you will need to add space to the filepool. See the *VM/ESA SFS and CRR Planning, Administration, and Operation* manual for information on adding space to a filepool.

- d** Create the necessary subdirectories listed in the 5654009G PLANINFO file using the CREATE DIRECTORY command.

**set filepool vmsys:
create directory *dirid***

dirid is the name of the SFS directory you're creating. An example of the create command is:

```
create directory vmsys:P654009G.SSP  
create directory vmsys:P654009G.SSP.object  
:
```

If necessary, see the *VM/ESA CMS Command Reference* manual for more information about the CREATE DIRECTORY command.

A complete list of default SSP V4R8.1 VM SFS directories is provided in Figure 39 on page 21.

- e If you intend to use an SFS directory as the work space for the P654009G user ID, include the following IPL control statement in the P654009G directory entry:

```
IPL CMS PARM FILEPOOL VMSYS
```

This will cause CMS to automatically access the P654009G's top directory as file mode A.

6.4 Install SSP V4R8.1 VM

The *ppfname* used throughout these installation instructions is **5654009G**, which assumes you are using the PPF supplied by IBM for SSP V4R8.1 VM. If you have your own PPF override file for SSP V4R8.1 VM, you should use your file's *ppfname* instead of **5654009G**. The *ppfname* you use should be used **throughout** the rest of this procedure.

- 1 Logon to the installation user ID **P654009G**.
- 2 Create a PROFILE EXEC that will contain the ACCESS commands for MAINT 5E5 and 51D minidisks.

```
xedit profile exec a
====> input /**/
====> input 'access 5e5 b'
====> input 'access 51d d'
====> file
```

If either 5E5 or 51D is in a shared file system (SFS) then substitute your SFS directory name in the access command.

- 3 Run the profile to access MAINT's minidisks.

profile

- 4 If the Software Inventory disk (51D) was accessed R/O (read only) then establish write access to the Software Inventory disk.

Note: If the MAINT 51D minidisk was accessed R/O, you will need to have the user who has it linked R/W link it as R/O. You then can issue the following commands to obtain R/W access to it.

```
link MAINT 51d 51d mr
access 51d d
```

- 5 Have the SSP V4R8.1 VM installation tape mounted and attached to P654009G at virtual address 181. The VMFINS EXEC requires the tape drive to be at virtual address 181.

6 Install SSP V4R8.1 VM.

Notes:

- a. If you've already created a PPF override file, you should specify your override file name, in place of the default PPF name (5654009G), after the **PPF** keyword for the following VMFINS command.
- b. You may be prompted for additional information during VMFINS INSTALL processing depending on your installation environment. If you're unsure how to respond to a prompt, refer to the "Installing Products with VMFINS" and "Install Scenarios" chapters in the *VMSES/E Introduction and Reference* to decide how to proceed.

vmfins install ppf 5654009G {SSP | SSPSFS} (nomemo nolink

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

The NOLINK option indicates that you don't want VMFINS to link to the appropriate minidisks, only access them if not accessed.

```

VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5654009G SSP
:PRODID. 5654009G%SSP?
Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5654009G SSP :PRODID
5654009G%SSP
VMFREQ2805I Product :PPF 5654009G SSP :PRODID 5654009G%SSP
has passed requisite checking
VMFINT2603I Installing product :PPF 5654009G SSP :PRODID
5654009G%SSP
VMFSET2760I VMFSETUP processing started
VMFUTL2205I Minidisk|Directory Assignments:
String Mode Stat Vdev Label/Directory
VMFUTL2205I LOCALSAM E R/W 2C2 SES2C2
VMFUTL2205I APPLY F R/W 2A6 SES2A6
VMFUTL2205I G R/W 2A2 SES2A2
VMFUTL2205I DELTA H R/W 2D2 SES2D2
VMFUTL2205I BUILD0 I R/W 400 SES400
VMFUTL2205I BASE1 J R/W 2B2 SES2B2
VMFUTL2205I ----- A R/W 191 SES191
VMFUTL2205I ----- B R/O 5E5 MNT5E5
VMFUTL2205I ----- D R/W 51D SES51D
VMFUTL2205I ----- S R/O 190 MNT190
VMFUTL2205I ----- Y/S R/O 19E MNT19E
VMFSET2760I VMFSETUP processing completed successfully
VMFREC2760I VMFREC processing started
VMFREC1852I Volume 1 of 1 of INS TAPE 9400
VMFREC1851I (1 of 6) VMFRCAXL processing AXLIST
VMFRCX2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (2 of 6) VMFRCPTF processing PARTLST
VMFRCP2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (3 of 6) VMFRCCOM processing DELTA
VMFRC2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (4 of 6) VMFRCALL processing APPLY
VMFRC2159I Loading part(s) to APPLY 2A6 (F)
VMFRC2159I Loaded 1 part(s) to APPLY 2A6 (F)
VMFREC1851I (5 of 6) VMFRCALL processing BASE
VMFRC2159I Loading part(s) to BASE1 2B2 (J)
VMFRC2159I Loaded 541 part(s) to BASE1 2B2 (J)
VMFREC1851I (6 of 6) VMFRCALL processing BUILD
VMFRC2159I Loading part(s) to BUILD0 400 (I)
VMFRC2159I Loaded 36 part(s) to BUILD0 400 (I)
VMFREC2760I VMFREC processing completed successfully
VMFINT2603I Product installed
VMFINS2760I VMFINS processing completed successfully

```

7 Review the install message log (\$VMFINS \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use on-line HELP.

vmfview install

6.4.1 Update Build Status Table for SSP V4R8.1 VM

- 1 Update the VM SYSBLDS software inventory file for SSP V4R8.1 VM.

vmfins build ppf 5654009G {SSP | SSPSFS} (serviced nolink

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

The **SERVICED** option will build any parts that were not built on the installation tape (if any) and update the Software Inventory build status table showing that the product 5654009G has been built.

- 2 Review the install message log (\$VMFINS \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use on-line HELP.

vmfview install

6.5 Post-Installation Considerations (optional)

6.6 Place SSP V4R8.1 VM Into Production

6.6.1 Copy SSP V4R8.1 VM Files Into Production

- 1 Logon to MAINT if you plan to put SSP V4R8.1 VM general use code on the 'Y' disk (product code or MAINT's 19E disk). Or logon to the owner of the disk that will contain the 'production' level of the SSP V4R8.1 VM code.

a If installing using minidisks

access 400 e

access 401 f

vmfcopy * * e = = f2 (prodid 5654009G%SSP olddate replace

The VMFCOPY command will update the VMSES PARTCAT file on the 401 disk.

b If installing using Shared File System

access P654009G.SSP.tbuild e

access 19e f

vmfcopy * * e = = f2 (prodid 5654009G%SSP olddate replace

The VMFCOPY command will update the VMSES PARTCAT file on the 401 disk.

SSP V4R8.1 VM is now installed and built on your system.

7.0 Service Instructions

This section of the Program Directory contains the procedure to install CORrective service to SSP V4R8.1 VM. VMSES/E is used to install service for SSP V4R8.1 VM.

To become more familiar with service using VMSES/E, you should read the introductory chapters in the *VMSES/E Introduction and Reference*. This manual also contains the command syntax for the VMSES/E commands listed in the procedure.

Note: Each step of the servicing instructions must be followed. Do not skip any step unless directed to do so. All instructions showing accessing of disks assume the use of default minidisk addresses. If different minidisk addresses are used, or if using a shared file system, change the instructions appropriately.

7.1 VMSES/E Service Process Overview

The following is a brief description of the main steps in servicing SSP V4R8.1 VM using VMSES/E.

- Setup Environment
Access the software inventory disk. Use VMFSETUP command to establish the correct minidisk access order.
- Merge Service
Use the VMFMRDSK command to clear the alternate apply disk before receiving new service. This allows you to remove the new service if a serious problem is found.
- Receive Service
The VMFREC command receives service from the delivery media and places it on the Delta disk.
- Apply Service
The VMFAPPLY command updates the version vector table (VVT), which identifies the service level of all the serviced parts. In addition, AUX files are generated from the VVT for parts that require them.
- Reapply Local Service (if applicable)
All local service (mods) must be entered into the software inventory to allow VMSES/E to track the changes and build them into the system. Refer to Chapter 7 in the *VM/ESA Service Guide* for this procedure.
- Build New Levels
The build task generates the serviced level of an object and places the new object on a test BUILD disk.
- Place the New Service into Production

Once the service is satisfactorily tested it should be put into production by copying the new service to the production disk, re-saving the NSS (Named Saved System) or DCSS (Discontiguous Saved Segments), etc.

7.2 Servicing SSP V4R8.1 VM

7.2.1 Prepare to Receive Service

Electronic Service (envelope file)

If you have received the service electronically or on CD-ROM, follow the appropriate instructions to retrieve and decompact the envelope file to your A-disk. The decompaction is currently done by using the DETERSE MODULE. The file names of the decompacted files will be of the format:

- VLST*num* for the documentation envelope
- VPTF*num* for the service envelope

The file type for both of these files must be SERVLINK. You will need to enter the file name on the VMFREC commands that follow.

The *ppfname* used throughout these servicing instructions is **5654009G**, which assumes you are using the PPF supplied by IBM for SSP V4R8.1 VM. If you have your own PPF override file for SSP V4R8.1 VM, you should use your file's *ppfname* instead of **5654009G**. The *ppfname* you use should be used **throughout** the rest of this procedure, unless otherwise stated differently.

1 Logon to SSP V4R8.1 VM service user ID **P654009G**

2 If the Software Inventory disk (51D) was accessed R/O (read only) then establish write access to the Software Inventory disk.

Note: If the MAINT 51D minidisk was accessed R/O, you will need to have the user that has it accessed R/W link it R/O. You then can issue the following commands to obtain R/W access to it.

**link MAINT 51d 51d mr
access 51d d**

The 51D minidisk is where the VMSES/E Software Inventory files and other product dependent files reside.

3 Have the SSP V4R8.1 VM CORrective service tape mounted and attached to **P654009G**. (If you have a SERVLINK file make sure that it is available on the A-disk.)

4 Establish the correct minidisk access order.

vmfsetup 5654009G {SSP | SSPSFS}

5654009G is the PPF that was shipped with the product. If you have your own PPF override you should substitute your PPF name for 5654009G.

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

5 Receive the documentation.

a If receiving the service from tape

vmfrec info

The INFO option loads the documentation (including the product service memo) to the 191 disk and displays a list of products on the tape.

b If receiving the service from an envelope file

vmfrec info (env vlstnum

The INFO option loads the documentation (including the product service memo) to the 191 disk and displays a list of products on the tape.

6 Check the receive message log (\$VMFREC \$MSGLOG) for warning and error messages.

vmfview receive

Also make note of which products and components have service on the tape. To do this, use the PF5 key to show all status messages which identify the products on the tape.

7 Read the product memo (5654009G MEMO) before going on.

8 Setup the correct product access order.

vmfsetup 5654009G {SSP | SSPSFS}

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

9 Merge previously applied service to ensure that you have a clean alternate APPLY disk for new service.

vmfmrdsn 5654009G {SSP | SSPSFS} apply

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

This command clears the alternate APPLY disk.

- 10** Review the merge message log (`$VMFMRD $MSGLOG`). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use on-line HELP.

vmfview mrd

7.2.2 Receive the Service

Note: If you are installing multiple service tapes, you can receive all of the service for this prodid before applying and building it.

For **each** service tape or electronic envelope you want to receive, do the following:

- 1** Receive the service.

- a** If receiving the service from tape

vmfrec ppf 5654009G {SSP | SSPSFS}

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

This command receives service from your service tape. All new service is loaded to the DELTA disk.

- b** If receiving the service from the PTF envelope file

vmfrec ppf 5654009G {SSP | SSPSFS} (env vptfnum

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

This command receives service from your service envelope. All new service is loaded to the DELTA disk.

- 2** Review the receive message log (`$VMFREC $MSGLOG`). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use on-line HELP.

vmfview receive

7.2.3 Apply the Service

- 1** Apply the new service.

vmfapply ppf 5654009G {SSP | SSPSFS}

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

This command applies the service that you just received. The version vector table (VVT) is updated with all serviced parts and all necessary AUX files are generated on the alternate APPLY disk.

You must review the VMFAPPLY message log if you receive a return code (RC) of a 4, as this may indicate that you have local modifications that need to be reworked.

- 2** Review the apply message log (\$VMFAPP \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use on-line HELP.

vmfview apply

Note

If you get the message VMFAPP2120W then re-apply any local modifications before building the new SSP V4R8.1 VM. Refer to chapter 7 in the *VM/ESA Service Guide*. Follow the steps that are applicable to your local modification.

The following substitutions need to be made:

- **esalcl** should be **5654009G**
- **esa** should be **5654009G**
- *compname* should be **SSP** or **SSPSFS** (minidisk or SFS)
- *appid* should be **5654009G**
- *fm-local* should be the fm of 2C2
- *fm-applyalt* should be the fm of 2A6
- **outmode localmod** should be **outmode localsam**

If you have changed any of the installation parameters through a PPF override, you need to substitute your changed values where applicable.

Keep in mind that when you get to the "Return to the Appropriate Section to Build Remaining Objects" or "Rebuild Remaining Objects" step in the *VM/ESA Service Guide*, you should return back to this program directory at 7.2.4, "Update the Build Status Table" on page 40.

7.2.4 Update the Build Status Table

- 1 Update the Build Status Table with serviced parts.

vmfbld ppf 5654009G {SSP | SSPSFS} (status

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

This command updates the Build Status Table.

Note

If the \$PPF files have been serviced you will get the following prompt:

VMFBLD2185R The following source product parameter files have been serviced:

VMFBLD2185R 5654009G \$PPF

VMFBLD2185R When source product parameter files are serviced, all product parameter files built from them must be recompiled using VMFPPF before VMFBLD can be run.

VMFBLD2185R Enter zero (0) to have the serviced source product parameter files built to your A-disk and exit VMFBLD so you can recompile your product parameter files with VMFPPF.

VMFBLD2185R Enter one (1) to continue only if you have already recompiled your product parameter files with VMFPPF.

0

Enter a 0 and complete the following steps before you continue.

VMFBLD2188I Building 5654009G \$PPF
on 191 (A) from level \$PFnnnnn

vmfppf 5654009G *

Note: If you've created your own PPF override then use your PPF name instead of 5654009G.

**copyfile 5654009G \$PPF a = = d (olddate replace
erase 5654009G \$PPF a**

Note: **Do not** use your own PPF name in place of 5654009G for the COPYFILE and ERASE commands.

vmfbl d ppf 5654009G {SSP | SSPSFS} (status

1

Re-issue VMFBLD to complete updating the build status table.

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories. When you receive the prompt that was previously displayed, enter a 1 to continue.

2 Use VMFVIEW to review the build status messages, and see what objects need to be built.

vmfview build

7.2.5 Build Serviced Objects

- 1 Rebuild SSP V4R8.1 VM serviced parts.

vmfbld ppf 5654009G {SSP | SSPSFS} (serviced

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

Note: If your software inventory disk (51D) is not owned by the MAINT user ID then make sure the VMSESE PROFILE reflects the correct owning user ID.

- 2 Review the build message log (\$VMFBLD \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use on-line HELP.

vmfview build

7.3 Place the New SSP V4R8.1 VM Service Into Production

7.3.1 Rebuild the Saved Segments

- 1 Prepare to build the segments.

- a IPL CMS to clear the virtual storage

ipl cms parm clear nosprof instseg no

**** DO NOT press ENTER at the VM READ!****

IPL CMS to clear your virtual machine. This command bypasses the execution of the system profile (SYSPROF EXEC) and without loading the installation saved segment (CMSINST).

access (nosprof

Bypass the execution of the PROFILE EXEC.

- b Access the VMSES/E code

access 5e5 b

C Establish write access the Software Inventory Disk

```
link MAINT 51d 51d mr
access 51d d
```

2 Re-save the SSP V4R8.1 VM segments.

```
vmfbld ppf segbld esasegs segblist &segname. (serviced
```

Note: If you received the message:

```
VMFBDS2003W The SYSTEM SEGID D(51D) file has been changed and must
            be moved to the S disk.
```

then the SYSTEM SEGID file on the CMS system disk (MAINT 190) and CMS test system disk (MAINT 490) must be updated. You need to log on to your MAINT user ID and copy the SYSTEM SEGID file from the MAINT 51D disk to the MAINT 190 and MAINT 490 disks.

3 Review the build message log (\$VMFBLD \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM/ESA: System Messages and Codes*, or use on-line HELP.

```
vmfview build
```

7.3.2 Copy the New SSP V4R8.1 VM Serviced Files Into Production

1 Logon to MAINT if you plan to put SSP V4R8.1 VM general use code on the 'Y' disk (product code or MAINT's 19E disk). Or logon to the owner of the disk that will contain the 'production' level of the SSP V4R8.1 VM code.

a If installing using minidisks

```
link P654009G 400 400 rr
access 400 e
access 401 f
vmfcopy * * e = = f2 (prodid 5654009G%SSP olddate replace
```

The VMFCOPY command will update the VMSES PARTCAT file on the 401 disk.

b If installing using Shared File System

```
access P654009G.SSP.tbuild e
access 19e f
vmfcopy * * e = = f2 (prodid 5654009G%SSP olddate replace
```

The VMFCOPY command will update the VMSES PARTCAT file on the 401 disk.

You have finished servicing SSP V4R8.1 VM.

Appendix A. Applying an RSU Tape for SSP V4R8.1 VM

The RSU is structured to install all PTFs included on the tape plus the tape files containing the preapplied service and prebuilt objects. All PTF-related files are loaded to the DELTA disk. The tape file containing the preapplied service, i.e. containing the results of VMFAPPLY, is loaded to the alternate APPLY disk and the contents of the tape files containing prebuilt objects are loaded to the appropriate build disks.

Points to consider about using the Product Service Upgrade procedure are:

- This process will not alter any of your tailored flat files (files serviced full part replacement only) in any way. Local modifiable files you may have updated will have to be re-worked to include any new service to these files.
- Planning must be done (such as determining disk sizes, and determining what service, if any, on your existing system is not contained on the RSU) prior to actually loading the service from the RSU. These tasks will be discussed.

The following outline is an overview of what tasks need to be performed during the Preventive Service procedure (PSU) using the RSU tape:

- **Prepare System**
In this task, you will receive the documentation contained on the RSU and determine the DASD required to install the RSU.
- **Merge Service**
Use the VMFMRDSK command to clear the alternate APPLY disk before receiving the RSU. This allows you to remove the new service if a serious problem is found.
- **Receive Service**
The VMFINS command receives service from the RSU and places it on the DELTA disk.
- **Apply Additional Service**
The VMFAPPLY command updates the version vector table (VVT), which identifies the service level of all the serviced parts. In addition, AUX files are generated from the VVT for parts that require them. These steps are used to reapply service that was not contained on the RSU tape that was already installed for SSP V4R8.1 VM.
- **Reapplying Local Modifications (if applicable)**
All local modifications must be entered into the software inventory to allow VMSES/E to track the changes and build them into the system.
- **Building New Levels**
The build tasks generates the serviced level of an object and places the new object on a BUILD disk.
- **Placing the New Service into Production**

Once the service is satisfactorily tested it should be put into production by copying the new service to the production disk, re-saving the NSS (Named Saved System) or DCSS (Discontiguous Saved Segments), etc.

A.1 Apply SSP V4R8.1 VM RSU

A.1.1 Prepare Your System for Service Refresh

The *ppfname* used throughout these instructions is **5654009G**, which assumes you are using the PPF supplied by IBM for SSP V4R8.1 VM. If you have your own PPF override file for SSP V4R8.1 VM you should use your file's *ppfname* instead of **5654009G**. The *ppfname* you use should be used **throughout** the rest of this procedure.

Electronic Service (envelope file)

If you have received the RSU as an envelope file or on CD-ROM, follow the appropriate instructions to retrieve and decompact the envelope file to your A-disk. The decompaction is currently done by using the DETERSE MODULE. The file name of the decompacted file will be of the format RPTF*num*. The file type must be SERVLINK. You will need to enter the file name on the VMFINS commands.

- 1 Read through the latest RSU information hard copy memo.
- 2 Logon to the System Support Programs service user ID P654009G
- 3 If the Software Inventory disk (51D) was accessed R/O (read only) then establish write access to the Software Inventory disk.

Note: If the MAINT 51D minidisk was accessed R/O, you will need to have the user who has it linked R/W link it as R/O. You then can issue the following commands to obtain write access to it. Do not use *mw* mode.

**link MAINT 51d 51d mr
access 51d d**

The MAINT 51D disk is where the VMSES/E system level software inventory files reside.

- 4 Mount the RSU tape on the tape drive as virtual device 181. You must use 181. (If you have a SERVLINK file make sure that it is available on the A-disk.)

- 5 Receive the documentation

Receive the documentation on the RSU. This step will also load the cumulative Apply Status Table (SRVAPPS) which identifies all preapplied service contained on the tape. These files are loaded to the 51D disk.

a If receiving the RSU from tape

vmfins install info (nomemo

b If receiving the RSU from an envelope file

vmfins install info (nomemo env rptfnum

6 Determine DASD sizes for disks to receive service

In order to receive the service from the RSU, you need to have adequate space available on the alternate APPLY and DELTA disks. The required sizes are identified in the SSP V4R8.1 VM documentation (5654009G MEMO D) received in the previous step.

7 Setup the correct minidisk access order

vmfsetup 5654009G {SSP | SSPSFS}

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

8 Merge the APPLY disks for SSP V4R8.1 VM

Next, you must prepare your system to receive the service from the RSU. To do this, you must first clear the alternate APPLY disk for receipt of the service from the RSU.

Enter the VMFMRDSK command to merge the alternate apply disk to the APPLY disk. This will clear the alternate APPLY disk.

vmfmrdsk 5654009G {SSP | SSPSFS} apply

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

9 You can obtain additional information about the service on the RSU and how it will affect your local modifications by invoking the VMFPSU command. This command creates an output file, **appid PSUPLAN**, which you can review. See *VM/ESA Service Guide* for an explanation of this file.

vmfpsu 5654009G {SSP | SSPSFS}

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

This command produces an output file that contains information about the service on the RSU compared against the service and local modifications on your system. The file name is **appid PSUPLAN**, where **appid** is specified in the PPF file.

A.1.2 Receive the Preapplied, Prebuilt Service

- 1 Refresh the SSP V4R8.1 VM service disks by loading new service from the RSU.

a If receiving the RSU from tape

vmfins install ppf 5654009G {SSP | SSPSFS} (nomemo link

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

b If receiving the RSU from an envelope file

vmfins install ppf 5654009G {SSP | SSPSFS} (nomemo link env rptfnum

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.


```

VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5654009G
             SSP :PRODID 5654009G%SSP?
             Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5654009G SSP :PRODID
             5654009G%SSP
VMFREQ2805I Product :PPF 5654009G SSP :PRODID 5654009G%SSP
             has passed requisite checking
VMFINT2603I Installing product :PPF 5654009G SSP :PRODID
             5654009G%SSP
VMFSET2760I VMFSETUP processing started for 5654009G SSP
VMFUTL2205I Minidisk|Directory Assignments:
             String   Mode  Stat  Vdev  Label/Directory
VMFUTL2205I LOCALSAM E    R/W  2C2   SES2C2
VMFUTL2205I LOCALMOD F    R/W  2C4   SES2C4
VMFUTL2205I APPLY    G    R/W  2A6   SES2A6
VMFUTL2205I          H    R/W  2A2   SES2A2
VMFUTL2205I DELTA    I    R/W  2D2   SES2D2
VMFUTL2205I BUILD0    J    R/W  49A   SES49A
VMFUTL2205I BUILD2    K    R/W  493   SES493
VMFUTL2205I BUILD4    L    R/W  402   SES402
VMFUTL2205I BASE1    M    R/W  2B2   SES2B2
VMFUTL2205I ----- A    R/W  191   USR191
VMFUTL2205I ----- B    R/O  5E5   MNT5E5
VMFUTL2205I ----- C    R/O  292   ISP192
VMFUTL2205I ----- D    R/W  51D   MNT51D
VMFUTL2205I ----- S    R/O  190   MNT190
VMFUTL2205I ----- Y/S  R/O  19E   MNT19E
VMFSET2760I VMFSETUP processing completed successfully
VMFREC2760I VMFREC processing started
VMFREC1852I Volume 1 of 1 of INS TAPE yynn
:
VMFREC2760I VMFREC processing completed successfully
VMFINT2760I VMFINST processing completed successfully
VMFINS2760I VMFINS processing completed successfully
Ready;

```

- 2** Check the receive message log (\$VMFREC \$MSGLOG) for warning and error messages. If necessary, correct any problems before going on. For information about handling specific receive messages, see *VM/ESA: System Messages and Codes*, or use online HELP.

vmfview install

A.1.3 Process Additional Service

- 1** Apply additional service

The VMFAPPLY command is used to reapply service that was not contained on the refresh tape that was already installed for the component.

Applying service with preapplied, prebuilt service will reapply any reach-ahead service that may be on the system **or** indicate that there are no reach-ahead PTFs to be applied.

vmfapply ppf 5654009G {SSP | SSPSFS}

Use **SSP** for installing on minidisks or **SSPSFS** for installing in Shared File System directories.

Messages VMFAPP2122E and VMFAPP2109R will be displayed only if you have reach-ahead service that needs to be reapplied. If you receive these messages, enter **1** in reply to VMFAPP2109R to reapply the reach-ahead service (as shown in the example below).

VMFAPP2122E The set of PTFs in the Apply Status Table (5654009G SRVAPPS) on the 2A2 (G) disk is not a subset of the PTFs in the highest Level Apply Status Table on the 2A6 (F) disk. This is an inconsistent state.

VMFAPP2109R VMFAPPLY will automatically correct the problem identified by message 2122E by including the missing PTFs in the current Apply List. Enter (1) to continue; (0) to quit.

1 If you receive these messages, enter **1** for VMFAPPLY to reapply the reach-ahead service.

2 Check the apply message log (\$VMFAPP \$MSGLOG) for warning and error messages. If necessary, correct any problems before going on. For information about handling specific apply messages, see *VM/ESA: System Messages and Codes*, or use online HELP.

vmfview apply

3 If necessary, rework **local modifications**.

The output from the VMFPSU command (which was run in an earlier step), *appid* **PSUPLAN** file, can be used to indicate what local service or mods are affected by the RSU Tape. If a PTF is applied and it contains service to a part for which you have a local modification, you will need to rework the local modification. Refer to the *VM/ESA Service Guide*.

A.1.4 Build the New Service Level and Place Into Production

To rebuild all objects that were affected by reach-ahead service that was reapplied, local modifications, and saved segments continue with the instructions in 7.2.4, “Update the Build Status Table” on page 40. This will also lead you into the steps to place SSP V4R8.1 VM into production.

A.1.5 Service Next Component

Refer to the 5654009G MEMO on the 51D disk, special instructions section, to see if you have another SSP V4R8.1 VM component on the RSU Tape to service. If so, then continue with A.1.1, “Prepare Your System for Service Refresh” step 7 on page 47.

A.1.6 Place Product Service into Production

After all of the components have been serviced, follow the instructions in section 7.3, “Place the New SSP V4R8.1 VM Service Into Production” on page 42 to copy test build disks to production build disks.

A.1.7 Determine RSU Service Level

The service contained on each RSU constitutes a new service level. Use this service level when ordering corrective service. The service level is updated in the system inventory when the RSU is installed.

The following command is used to query the current service level of the system.

vmfsim query vm sysrecls tdata :ppf *ppfname* :stat The output from this command is similar to the following console log. The last part of the status line indicates the RSU service level: 9901

```
VMFSIP2408I RESULTS FOR
          TDATA :PPF ppfname :STAT
:PPF ppfname compname
:STAT RECEIVED.mm/dd/yy.hh:mm:ss.userid.RSU-9901
```

Appendix B. Create Product Parameter File (PPF) Override

This section provides information to help you create a product parameter file (PPF) override. The example used in this section shows how to change the shared file system (SFS) file pool where SSP V4R8.1 VM files reside.

Note: Do **not** modify the product supplied 5654009G \$PPF or 5654009G PPF files to change the file pool name or any other installation parameters. If the 5654009G \$PPF file is serviced, the existing \$PPF file will be replaced, and any changes to that file will be lost; by creating your own \$PPF override, your updates will be preserved.

The following process describes changing the default file pool name, VMSYS, to MYPOOL1:

- 1 Create a new \$PPF override file, or edit the override file created via the 'Make Override Panel' function.

xedit *overname* \$PPF *fm*2

overname is the PPF override file name (such as 'mySSP') that you want to use.

fm is an appropriate file mode. If you create this file yourself, specify a file mode of A.

If you modify an existing override file, specify a file mode of A or D, based on where the file currently resides (A being the file mode of a R/W 191 minidisk, or equivalent; D, that of the MAINT 51D minidisk).

- 2 Create (or modify as required) the Variable Declarations (:DCL.) section for the SSPSFS override area, so that it resembles the :DCL. section shown below. This override will be used for the installation of SSP V4R8.1 VM.

```

:OVERLST. SSPSFS
*
* ===== *
* Override Section for Initial Installation (Using SFS Directories) *
* ===== *
:SSPSFS. SSPSFS 5654009G
:DCL. REPLACE
&INST191 DIR MYP00L1:P654009G.
&BASE DIR MYP00L1:P654009G.SSP.OBJECT
&LOCALSAM DIR MYP00L1:P654009G.SSP.SAMPLE
&DELTA DIR MYP00L1:P654009G.SSP.DELTA
&APPLY2 DIR MYP00L1:P654009G.SSP.APPLYALT
&APPLY1 DIR MYP00L1:P654009G.SSP.APPLYPROD
&BUILD0 LINK P654009G 400 400 MR
&BUILD2 LINK P654009G 200 200 MR
&BUILD3 LINK P654009G 100 100 MR
&P654009G USER P654009G
:EDCL.
:END.
*

```

(This override will replace the :DCL. section of the SSPSFS override area of the 5654009G \$PPF file.)

- 3 If your \$PPF override file was created at file mode A, copy it to file mode D—the Software Inventory minidisk (MAINT 51D). Then erase it from file mode A.

file

copyfile *overname* \$PPF *fm* = = d (olddate)

erase *overname* \$PPF *fm*

- 4 Compile your changes to create the usable *overname* PPF file.

vmfppf *overname* **SSPSFS**

where *overname* is the file name of your \$PPF override file.


Now that the *overname* PPF file has been created, you should specify *overname* instead of 5654009G as the PPF name to be used for those VMSES/E commands that require a PPF name.

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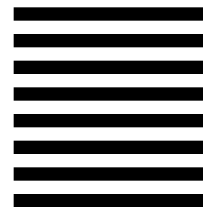
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