



**Program Directory for
Advanced Communication Function (ACF)
Network Control Program (NCP)**

Version 7 Release 8, Modification Level 1

Program Number 5648-063

for Use with
VM/ESA®

Document Date: July 2001

GI10-6622-00

Note

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

This program directory, dated July 2001, applies to Network Control Program Version 7 Release 8, Modification Level 1 (NCP V7R8.1 VM), Program Number 5648-063 for the following:

COMPIDs	Feature Numbers	System Name
564806300	5831/5832/6488	VM/ESA®

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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 NCP V7R8.1 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 3 identifies the basic and optional program materials and documentation for NCP V7R8.1 VM.
- 3.0, "Program Support" on page 9 describes the IBM support available for NCP V7R8.1 VM.
- 4.0, "Program and Service Level Information" on page 10 lists the APARs (program level) and PTFs (service level) incorporated into NCP V7R8.1 VM.
- 5.0, "Installation Requirements and Considerations" on page 12 identifies the resources and considerations for installing and using NCP V7R8.1 VM.
- 6.0, "Installation Instructions" on page 27 provides detailed installation instructions for NCP V7R8.1 VM.
- 7.0, "Service Instructions" on page 38 provides detailed servicing instructions for NCP V7R8.1 VM.
- Appendix A, "Applying an RSU Tape for NCP V7R8.1 VM" on page 47 provides detailed Recommended Service Upgrade instructions for NCP V7R8.1 VM.
- Appendix B, "Create Product Parameter File (PPF) Override" on page 54 provides detailed information on overriding the Product Parameter File (PPF).

Before installing NCP V7R8.1 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.

The 3746 Model 900 CSS feature is a licensed offering that allows the operation of an IBM 3746 Model 900 attached to a 3745 Communication Controller. Prior to NCP V7R6, you were required to license, order, and install separate software media. Starting with NCP V7R6 the media containing the 3746 Model 900 CSS feature code has been incorporated into the base code of NCP. You are no longer required to install separate 3746 Model 900 CSS software media when attaching the IBM 3746 Model 900 to a 3745 Communication Controller. Please note that you **must** still obtain a license for the 3746 Model 900 CSS feature. Refer to the NCP V7R6 announcement letter dated September 9, 1997 for additional licensing instructions."

Starting with EP R14, users of EP Standalone must install NCP. A single EP installation can now be used in environments requiring both PEP and EP Standalone.

A good place to start any task regarding this program is *NCP V7R8, SSP V4R8, and EP Release 14 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.

1.1 Program Description

NCP V7R8.1 VM executes in the IBM 3745 Communication Controller for which it has been generated and into which it has been loaded.

NCP V7R8.1 VM performs a wide range of functions for the data communication network, such as transmission control, communication control, error recording and recovery, and diagnosis.

2.0 Program Materials

An IBM program is identified by a program number. The program number for Network Control Program Version 7 is 5648-063.

The program announcement material describes the features supported by NCP V7R8.1 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 27 for more information about how to install the program. Figure 1 describes the tape or cartridge. Figure 2 describes the file content of the program tape or cartridge.

Figure 1. Basic Material: Program Tape

Feature Number	Medium	Physical Volume	Tape Content	External Tape Label
5831	6250 tape	1	NCP V7R8.1 VM	V7R8.1 VM
5832	3480 cart.	1	NCP V7R8.1 VM	V7R8.1 VM
6488	4mm cart.	1	NCP V7R8.1 VM	V7R8.1 VM

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

Tape File	Content
7	NCP V7R8.1 VM Service
8	NCP V7R8.1 VM Service
9	NCP V7R8.1 VM Base Code
10	NCP V7R8.1 VM Executable Code

2.2 Optional Machine-Readable Material

There are no optional machine-readable materials for NCP V7R8.1 VM. The IBM 3746 Model 900 Feature had been optional machine-readable material, but has recently been incorporated in the base code of NCP. Please see Section 1.0 for more information.

2.3 Program Publications

The following sections identify the basic and optional publications for NCP V7R8.1 VM.

2.3.1 Basic Program Publications

One copy of the following publications is included when you order the basic materials for NCP V7R8.1 VM. For additional copies, contact your IBM representative.

Figure 3. Basic Material: Unlicensed Publications

Publication Title	Form Number
<i>Licensed Program Specifications: Network Control Program Version 7 Release 8 Modification Level 1</i>	GC31-6226
<i>Network Control Program Version 7 Release 8 Migration Guide</i>	SC30-4024
<i>Network Control Program, System Support Programs, and Emulation Program Resource Definition Guide</i>	SC31-6223
<i>Network Control Program, System Support Programs, and Emulation Program Resource Definition Reference</i>	SC31-6224
<i>Planning for NetView, NCP, and VTAM</i>	SC31-8063
<i>Planning for Integrated Networks</i>	SC31-8062
<i>NCP and 3745/46 Today</i>	G325-3426

2.3.2 Optional Program Publications

Figure 4 on page 5 identifies the optional *unlicensed* program publications for NCP V7R8.1 VM. One copy of each of these publications is included when you order the optional materials for NCP V7R8.1 VM. For additional copies, contact your IBM representative.

An asterisk (*) beside the Form Number indicates it contains “Restricted Materials of IBM.”

<i>Figure 4. Optional Material: Unlicensed Publications</i>		
Publication Title	Form Number	Feature Number
NCP Version 7 and X.25 NPSI Version 3 Planning and Installation	SC30-3470	None

Figure 5 identifies the optional *licensed* program publications for NCP V7R8.1 VM. The first copy is available at no charge to licensees of the optional material by ordering the 7xxx Feature Number. Order additional copies using the 8xxx Feature Number. A fee is charged for additional copies.

<i>Figure 5. Optional Material: Licensed Publications</i>		
Publication Title	Form Number	Feature Number
Network Control Program and Emulation Program Reference Summary and Data Areas	LY43-0030*	7100-8100
Network Control Program and Emulation Program Reference	LY43-0029*	7101-8101
Network Control Program (NCP) X.25 Diagnosis, Customization, and Tuning	LY30-5610*	7105-8103

2.3.3 Softcopy Publications

All NCP V7R8.1 VM manuals, licensed and unlicensed, except for *NCP Licensed Program Specifications*, are offered in displayable softcopy form on the media listed in Figure 6. 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 (*) beside the Form Number indicates it contains “Restricted Materials of IBM.”

<i>Figure 6. Optional Material: Licensed Publications</i>		
Publication Title	Form Number	Feature Number
ACF/NCP, ACF/SSP, EP, NPSI, and NTuneMON Softcopy Collection Kit CD-ROM	LK2T-0414*	7110-8110

You can read the books on the Softcopy Collection Kit CD-ROM using any of the following products:

- IBM Library Reader, a limited-function BookManager product shipped on the CD.
- The full-function IBM BookManager product, available for a variety of platforms, including MVS. For more information, or to order BookManager for your platform, refer to the IBM BookManager home page at <http://booksrv2.raleigh.ibm.com>.
- Adobe Acrobat Reader, available for downloading at <http://www.adobe.com/prodindex/acrobat/readstep.html>. The Softcopy Collection Kit CD-ROM includes Acrobat Reader (PDF) book files for NCP V7R7 and later.

2.3.4 Publications Associated with NCP V7R8.1 VM

Figure 7 lists publications that may be helpful when you use this program. To order copies, contact your IBM representative. A fee is charged for each publication.

An asterisk (*) beside the Form Number indicates it contains “Restricted Materials of IBM.”

<i>Figure 7 (Page 1 of 2). Publications Associated with NCP V7R8.1 VM</i>	
Publication Title	Form Number
<i>Network Control Program, System Support Programs, and Emulation Program Diagnosis Guide</i>	LY43-0033*
<i>Network Control Program, System Support Programs, and Emulation Program Messages and Codes</i>	SC31-6222
<i>Network Control Program, System Support Programs, and Emulation Program Generation and Loading Guide</i>	SC31-6221

Figure 7 (Page 2 of 2). Publications Associated with NCP V7R8.1 VM

Publication Title	Form Number
<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>Network Control Program and System Support Programs Customization Guide</i>	LY43-0031*
<i>Network Control Program and System Support Programs Customization Reference</i>	LY43-0032*
<i>Network Control Program, System Support Programs, and Emulation Program Trace Analysis Handbook</i>	LY43-0037*

2.4 View Program Listings Support

Microfiche support for NCP V7R8.1 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 8 or Figure 9, depending on your VM/ESA release, may be useful during the installation of NCP V7R8.1 VM. To order copies, contact your IBM representative.

Figure 8. 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 9 (Page 1 of 2). 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

Figure 9 (Page 2 of 2). Publications Useful During Installation / Service on VM/ESA Version 2.3.0 or higher

Publication Title	Form Number
<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 NCP V7R8.1 VM.

3.1 Preventive Service Planning

Before installing NCP V7R8.1 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 10. PSP Upgrade and Subset ID

Retain			
COMPID	Release	Upgrade	Subset
564806300	781	NCP781	781

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 11 identifies the component ID (COMPID), Retain Release and Field Engineering Service Number (FESN) for NCP V7R8.1 VM.

Figure 11. Component IDs

Retain			
COMPID	Release	Component Name	FESN
564806300	781	NCP V7R8.1 VM	0466620

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of NCP V7R8.1 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 NCP have been incorporated into this release.

IR41339	IR42059	IR43187
IR41343	IR42082	IR43197
IR41345	IR42166	IR43304
IR41347	IR42300	IR43376
IR41349	IR42305	IR43580
IR41351	IR42308	IR43684
IR41354	IR42370	IR43730
IR41355	IR42409	IR43743
IR41433	IR42422	IR44025
IR41492	IR42442	IR44236
IR41524	IR42460	IR44304
IR41526	IR42481	IR44429
IR41552	IR42546	IR44510
IR41572	IR42557	IR44621
IR41679	IR42597	IR44867
IR41723	IR42599	IR44878
IR41736	IR42600	IR45042
IR41822	IR42608	IR45560
IR41896	IR42860	IR45561
IR41936	IR42920	IR45562
IR41969	IR43069	IR45698
IR41979	IR43158	

4.2 Service Level Information

Check the NCP781 PSP bucket for any additional PTFs that should be installed or any additional install information.

4.3 Cumulative Service Tape

Cumulative service for NCP V7R8.1 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 NCP V7R8.1 VM.

5.1 Hardware Requirements

This program operates on any IBM 3745 Communication Controller. The Controller Load and Dump Program (CLDP) is used to load and dump the 3745 when attached to the host via an OEMI channel, ESCON channel, or remotely via a 3745 base frame SDLC link through another controller. For other connections, loads and dumps require an active NCP and an owning VTAM. The MODIFY DUMP and MODIFY LOAD transfer facility commands of the owning VTAM are then used to load and dump the IBM 3745. For more information, refer to *IBM 3720/3745 Communication Controllers Remote Loading/Activation Guide* (SA33-0161).

The IBM 3745 Communication Controller must have the appropriate features and microcode level installed when the IBM 3745 expansion frame, the IBM 3746 Model 900, is installed. The IBM 3746 Model 900 provides ESCON attachment capability for the IBM 3745, as well as additional higher performance token-ring adapters, communication line adapters, and frame relay capability on the communication line adapters for the IBM 3745. The communication line adapters support SDLC, frame relay, X.25 NPSI with NPSI V3R8 or later, and X.25 ODLC.

When the 3746 Model 900 is attached, the NCP V7R8.1 VM 3746 Model 900 feature license is required at the appropriate usage tier level.

For 3746 Model 900 IP internal coupling with NCP, the 3746 Model 900 Network Node Processor Feature 5022 or 5122, the IP Routing Feature 5033, and either Feature 5810 or Feature 5811 are required.

For 3746 Model 900 Frame Relay and ISDN DYNWIND Keyword expanded options, either Feature 5810 or Feature 5811 is required.

For the higher performance frame relay capability on the communication line adapters in the 3746 Model 900, either Feature 5810, Feature 5811, or ECA number 134 is required.

For Automatic Network Routing (ANR) over ESCON, either Feature 5810, Feature 5811, or ECA number 137 is required.

For High Performance Routing (HPR) using frame-relay on the communication line adapters in the 3746 Model 900, either Feature 5810, Feature 5811, or ECA number 137 is required.

For 3746 Model 900 processor performance and storage utilization NPM information, either Feature 5810, Feature 5811, or ECA number 137 is required.

For 3746 Model 900 TIC3 utilization NPM information, either Feature 5810, Feature 5811, or ECA number 137 is required.

For 3746 Model 900 communication line adapter X.25 NPSI support, either Feature 5810, Feature 5811, or ECA number 137 is required.

For 3746 Model 900 frame-relay Boundary Access Node (BAN) support, either Feature 5810, Feature 5811, or ECA number 138 is required.

For 3746 Model 900 frame-relay SAP multiplexing support, either Feature 5810, Feature 5811, or ECA number 138 is required.

For 3746 Model 900 frame-relay HPR NPM information, either Feature 5810, Feature 5811, or ECA number 138 is required.

For 3746 Model 900 Network Node tier C level support, either Feature 5810, Feature 5811, or ECA number 146 (EC # D22560D) is required.

For 3746 Model 900 X.25 support, either Feature 5810, Feature 5811, or ECA number 146 (EC # D22560D) is required.

For 3746 Model 900 frame-relay frame handler switching, either Feature 5810, Feature 5811, or ECA number 146 (EC # D22560D) is required.

For 3746 Model 900 native IP over ESCON support, either Feature 5810, Feature 5811, or ECA number 142 (EC # D22510) is required.

For 3746 Model 900 ESCON reporting of an offline sequence as an INOP01, microcode fix MCF MD22414.418 is required.

For 3746 Model 900 HPR non-ERP over TIC3 support, either Feature 5810, Feature 5811, or ECA number 146 (EC # D22560D) is required.

For 3746 Model 900 ISDN primary rate, either Feature 5810, Feature 5811, or ECA number 159 (EC # D22570D) is required.

For 3746 Model 900 duplicate TIC addressing, either Feature 5810, Feature 5811, or ECA number 157 (EC # D22570C) is required.

For 3746 Model 900 frame-relay Boundary Access Node (BAN) for subarea links, either Feature 5810, Feature 5811, or ECA number 157 (EC # D22570C) is required.

For 3746 Model 900 TIC3 and ESCON port sharing between the network node processor (NNP) and NCP, either Feature 5810, Feature 5811, or ECA number 155 is required.

For 3746 Model 900 frame-relay port sharing between the network node processor (NNP) and NCP, either Feature 5810, Feature 5811, or ECA number 157 is required.

For 3746 Model 900 X.25 port sharing between the network node processor (NNP) and NCP, either Feature 5810, Feature 5811, or ECA number 167 is required.

For 3746 Model 900 Automatic Network Routing (ANR) over frame-relay Boundary Access Node (BAN), either Feature 5810, Feature 5811, or ECA number 155 is required.

For 3746 Model 900 NPM support for ISDN, either Feature 5810, Feature 5811, or ECA number 167 is required.

For 3746 Model 900 HPR over X.25 ODLC, either Feature 5810, Feature 5811, or ECA number 146 (EC # D22560D) is required.

For 3746 Model 900 Frame Relay automatic backup over ISDN, either Feature 5810, Feature 5811, or ECA number 167 is required.

For 3746 Model 900 ESCON retrying of the activation if the host is powered off, microcode fix MCF MD22714.403 is required.

For 3746 Model 900 duplicate TIC addressing for subarea connections, EC # D46130 is required.

For 3746 Model 900 support for RIP V2 multicasting, ESS microcode patch EGAL2 is required.

A microcode EC for the 3745 is required for the Dynamic Internet Protocol routing function of this program when using the Ethernet Subsystem (ESS). Following are the minimum 3745 microcode EC levels to support this function:

<i>Figure 12. Minimum Microcode Levels for the 3745</i>	
EC Number	Model
C37967	210, 310, 410, 610
C38006	130, 150, 160, 170
D39894	21A, 31A, 41A, 61A
D40002	17A

For 3746 Model 900 support for the following, Feature 5810 or Feature 5811 and ECA 185 are required:

- Committed Information Rate (CIR) on frame-relay lines controlled by NCP
- Frame-relay switched support for frame-relay switched lines controlled by NCP
- Routing information change (RIF) notification to NTuneMON after a nondisruptive route switch for connections on a TIC3

In addition to Feature 5810 or Feature 5811 and ECA 185, the above three items require:

- Service Processor Type 2 (Feature 5052)
- Service Processor Part Number 55H7630 (Feature 5021 - type 3172 with Pentium 90 processor) equipped with
 - CD-ROM drive (Feature 5051)
 - Service Processor memory expansion (Feature 5028)

For 3746 Model 900 support for the following, either Feature 5810 or Feature 5811 and type 3 processors are required:

- 32 logical connections on ESCON
- Token Ring (TIC3) connection balancing
- Frame Relay BAN connection balancing

For 3746 Model 900 support for the following, Feature 5812 is required:

- Token Ring (TIC3) DYNWIND Keyword expanded options
- PLPIGGYB Keyword and NETTYPE Keyword enhancements for 3746 Model 900 X.25

The NCP V7R8.1 minimum size load module may exceed 1 megabyte. This is supported in base microcode levels for the x1A and 17A models. Patches exist for x10 and 1x0 models. Please see Technical Data Recording (TDR) H124890 for more information.

5.2 Program Considerations

The following sections list the programming considerations for installing NCP V7R8.1 VM and activating its functions.

5.2.1 Operating System Requirements

NCP V7R8.1 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 NCP V7R8.1 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

5.2.2.1 Programming Requirements

A platform-dependent BookManager product is required to display softcopy publications on CD-ROM. Limited function DOS, Windows, and OS/2 versions of these products are available on your CD-ROM. For more information or to order full-function releases of these products, or VM or MVS versions, refer to the IBM BookManager home page at <http://booksrv2.raleigh.ibm.com>.

5.2.2.2 Minimum Requisites

A minimum requisite is defined as one of the following:

- *Installation Requisite:* A product that is required at installation time. i.e. this product **will not install** successfully unless this requisite is met.
- *Run Time Requisite:* A product that is **not** required for the successful installation of this product, but **is** needed at run time in order for this product to work.

TCAM or VTAM can reside in the host depending upon the specific requirements of the customer installation.

This program is generated using SSP V4R8.1 for VM. In addition to providing the generation function for this release, SSP provides utilities for loading, dumping, and trace formatting for NCP.

NCP V7R8.1 VM is supported in conjunction with the following licensed programs at the function level of the version and release for as long as program services are available for the particular version and release. The following are host-resident programs:

- SSP V4R8.1
- Telecommunication Access Method (TCAM) V2R4

- SNA Services feature of eNetwork Communications Server for OS/390 V2R4 or later
- SNA Services feature of eNetwork Communications Server for OS/390 R1, R2, or R3
- VTAM V4R2 or later
- VTAM V3R4.1 or later

5.2.2.3 Functional Requisites

This program is supported with the following licensed programs at the function level of the version and release for as long as program services are available for the particular version and release.

The following are host-resident programs:

- NTuneMON V3R2
- TME 10 NetView for OS/390 V1R1 or higher
- Netview V3R1
- NetView V2R3 or later
- NetView Performance Monitor V2R2 or later
- NetView Performance Monitor V1R6
- Transaction Processing Facility (TPF) V4

Either Type 5 or Type 2.1 attachment capability is provided. Type 5 attachment requires SNA Network Interconnection (SNI) support in the channel-attached NCP.

- IP Services feature of eNetwork Communications Server for OS/390 V2R4 or later
- IP Services feature of eNetwork Communications Server for OS/390 R1, R2, or R3
- TCP/IP V3R1 or later
- TCP/IP V2R4

The following are controller-resident programs:

- Emulation Program (EP) R14
- Network Terminal Option (NTO) R11
- Network Routing Facility (NRF) R9
- X.25 NCP Packet Switching Interface (NPSI) V3R9
- X.21 Short Hold Mode/Multiple Port Sharing (X.21 SH/MPS) V2 R3.1
- X.25 SNA Interconnection (XI) Program Product V2R4.2

The following levels of NCP are supported as communicating with NCP V7R8.1 VM as long as program services are available for the particular level of NCP.

- NCP V7R1 or higher
- NCP V6R2 or higher
- NCP V5R4
- NCP V4R3.1

5.2.2.4 Compatibility Requisites

The following sections describe cross product service considerations for NCP, NPSI, VTAM, NPM, TCAM, and TCP/IP.

5.2.2.4.1 NCP:

The NCP APAR listed in Figure 13 is required for NCP V7R1 NTRI Subarea Links to be compatible with NCP V7R8.1.

<i>Figure 13. NCP APAR Required for NCP V7R1 Compatibility with NCP V7R8.1</i>	
Product Name	APAR
NCP V7R1	IR32286

5.2.2.4.2 NPSI:

The NPSI APAR listed in Figure 14 is required for an alert to be issued when a NPSI incoming call fails due to a lack of logical resources.

<i>Figure 14. NPSI APAR Required for incoming call failure alert</i>	
Product Name	APAR
NPSI V3R9	IR40805

5.2.2.4.3 VTAM:

The VTAM APARs listed in Figure 15 are required to cause a BIND to be extended, if the BF(SLU) is an APPN link.

<i>Figure 15. VTAM APARs Required to Cause a BIND to be Extended</i>	
Product Name	APAR
OS/390 V2R7	OW36244
OS/390 V2R6	OW36244
OS/390 V2R5	OW36244
VTAM V4R4	OW32193
VTAM V4R3 MVS/ESA	OW32193

The VTAM APARs listed in Figure 16 are required for IP support over 3745 frame-relay switched physical lines.

<i>Figure 16. VTAM APARs Required for IP Support Over 3745 Frame-Relay Switched Physical Lines</i>	
Product Name	APAR
VTAM V4R4	OW34198
OS/390 V2R5	OW34198
OS/390 V2R6	OW34198

The VTAM APAR listed in Figure 17 is required for 3745 and 3746 Model 900 Frame Relay Switched Dial Backup support.

<i>Figure 17. VTAM APAR Required for Frame Relay Switched Dial Backup Support</i>	
Product Name	APAR
VTAM V4R4	OW27985

The VTAM APAR listed in Figure 18 is required for APPN Logical Resource Depletion Notification.

<i>Figure 18. VTAM APAR Required for APPN Logical Resource Depletion Notification</i>	
Product Name	APAR
VTAM V4R4	OW25754

The VTAM APAR listed in Figure 19 is required for PU and LU Name Association between Host and Downstream device support.

<i>Figure 19. VTAM APAR Required for PU and LU Name Association between Host and Downstream Device Support</i>	
Product Name	APAR
VTAM V4R4	OW25501

The VTAM APARs listed in Figure 20 are required for the NCP Frame Relay over Token Ring function.

<i>Figure 20. VTAM APARs Required for NCP Frame Relay Over Token Ring</i>	
Product Name	APAR
VTAM V4R2 MVS/ESA	OW09797
VTAM V4R2 VM/ESA	VM59813
VTAM V4R2 VSE/ESA	DY44000

The VTAM APAR listed in Figure 21 is required for compatibility with NCP Spare SDLC lines support.

<i>Figure 21. VTAM APAR Required for Compatibility with NCP Spare SDLC Lines</i>	
Product Name	APAR
VTAM V4R2 MVS/ESA	OW06708

The VTAM APAR listed in Figure 22 is required for compatibility with NCP Internet Protocol over Frame Relay Dynamic Reconfiguration function.

<i>Figure 22. VTAM APAR Required for Compatibility with NCP IP over FR Dynamic Reconfiguration</i>	
Product Name	APAR
VTAM V4R3 MVS/ESA	OW15600

The VTAM APARs listed in Figure 23 are required for selective NNNA support.

<i>Figure 23. VTAM APARs Required for Selective NNNA Support</i>	
Product Name	APAR
VTAM V3R4 MVS/ESA	OY52318
VTAM V3R4.1 MVS/ESA	OY52318

The VTAM APARs listed in Figure 24 are required to delay activating logical links until the associated physical resources are active.

<i>Figure 24. VTAM APARs Required to Delay Activating Logical Links</i>	
Product Name	APAR
VTAM V3R4.1 MVS/ESA	OY55462
VTAM V3R4.1 MVS/ESA	OY55304

The VTAM APARs listed in Figure 25 are required for compatibility with NCP Frame Relay support.

<i>Figure 25. VTAM APARs Required for Compatibility with NCP Frame Relay</i>	
Product Name	APAR
VTAM V4R2 MVS/ESA	OW04338
VTAM V4R2 MVS/ESA	OW04575
VTAM V4R2 MVS/ESA	OW05013
VTAM V4R2 MVS/ESA	OW06065

The VTAM APARs listed in Figure 26 are required to support the NCP ESCON function.

<i>Figure 26. VTAM APARs Required to Support NCP ESCON</i>	
Product Name	APAR
VTAM V3R4 MVS/ESA	OY58783
VTAM V3R4.1 MVS/ESA	OY58783
VTAM V3R4.1 MVS/ESA	OY52595
VTAM V3R4.1 MVS/ESA	OY52888
VTAM V3R4.1 MVS/ESA	OY57157

The VTAM APARs listed in Figure 27 are required to reduce the number of messages generated when a ROUTE INOP occurs.

<i>Figure 27. VTAM APARs Required to Perform Route INOP Reduction</i>	
Product Name	APAR
VTAM V3R4 MVS/ESA	OY48223
VTAM V3R4.1 MVS/ESA	OY48223
VTAM V3R4.1 VM/ESA	VM57910

The VTAM APARs listed in Figure 28 are required to avoid VTAM error messages when coding the MAXDATA keyword for PU4s in the NCP definition.

<i>Figure 28. VTAM APARs Required for Coding MAXDATA for PU4s</i>	
Product Name	APAR
VTAM V3R4 MVS/ESA	OY58078
VTAM V3R4.1 MVS/ESA	OY58078
VTAM V3R4.1 VM/ESA	VM54904
VTAM V3R4.1 VSE/ESA	DY42989

The VTAM APARs listed in Figure 29 are required for users of NetView and STATMON.

<i>Figure 29. VTAM APARs Required for NetView and STATMON</i>	
Product Name	APAR
VTAM V3R4.1 MVS/ESA	OY55988
VTAM V3R4.1 VM/ESA	VM59204

5.2.2.4.4 NPM:

The NPM APAR listed in Figure 30 is required for compatibility with NCP V7R8.1 VM. This APAR is also required for the NCP Internet Protocol over Token Ring function.

<i>Figure 30. NPM APAR Required for NCP V7R8.1 VM and NCP IP Over Token Ring</i>	
Product Name	APAR
NPM V2R2 MVS/ESA	OW12520

The NPM APAR listed in Figure 31 is required for ODLC LAN HPR data collection.

<i>Figure 31. NPM APAR Required for ODLC LAN HPR Data Collection</i>	
Product Name	APAR
NPM V2R2 MVS/ESA	OW17876

The NPM APAR listed in Figure 32 is required for the 3746 Model 900 TIC3 utilization NPM information function.

<i>Figure 32. NPM APAR Required for 3746 Model 900 TIC3</i>	
Product Name	APAR
NPM V2R2 MVS/ESA	OW10584

The NPM APAR listed in Figure 33 is required for the 3746 Model 900 processor utilization NPM information function.

<i>Figure 33. NPM APAR Required for 3746 Model 900 Processor</i>	
Product Name	APAR
NPM V2R2 MVS/ESA	OW08565

The NPM APAR listed in Figure 34 is required for the 3746 Model 900 X.25 NPSI function.

<i>Figure 34. NPM APAR Required for 3746 Model 900 X.25 NPSI</i>	
Product Name	APAR
NPM V2R2 MVS/ESA	OW10583

The NPM APAR listed in Figure 35 is required for the NCP Dynamic Control Blocks function.

<i>Figure 35. NPM APAR Required for NCP Dynamic Control Blocks</i>	
Product Name	APAR
NPM V2R2 MVS/ESA	OW09271

The NPM APAR listed in Figure 36 is required for compatibility with NCP.

<i>Figure 36. NPM APAR Required for NCP</i>	
Product Name	APAR
NPM V1R6 MVS	OY66928

The NPM APARs listed in Figure 37 are required for compatibility with NCP Frame Relay on 3746 Model 900 support.

<i>Figure 37. NPM APARs Required for Compatibility with NCP Frame Relay</i>	
Product Name	APAR
NPM V2R2 MVS/ESA	OW07715
NPM V2R2 VM	VM61164

The NPM APAR listed in Figure 38 is required for the 3746 Model 900 X.25 ODLC function.

<i>Figure 38. NPM APAR Required for 3746 Model 900 X.25 ODLC Function</i>	
Product Name	APAR
NPM V2R2	OW19297

5.2.2.4.5 TCAM:

The TCAM APAR listed in Figure 39 is required if your NCP is channel-attached to TCAM.

<i>Figure 39. TCAM APAR</i>	
Product Name	APAR
TCAM V2R4 MVS	OY25731

5.2.2.4.6 TCP/IP:

The TCP/IP APAR listed in Figure 40 is required for Variable Length Subnet Mask support.

<i>Figure 40. TCP/IP APAR Required for Variable Length Subnet Mask</i>	
Product Name	APAR
TCP/IP V3R2	PQ02781

The TCP/IP APAR listed in Figure 41 is required for RIP V2 support.

<i>Figure 41. TCP/IP APAR Required for RIP V2 Support</i>	
Product Name	APAR
TCP/IP V3R2	PQ02781

The TCP/IP APARs listed in Figure 42 are required for the Dynamic Internet Routing over Frame Relay function.

<i>Figure 42. TCP/IP APARs Required for Dynamic Routing Over Frame Relay</i>	
Product Name	APAR
TCP/IP V3R1 MVS	PN66582
TCP/IP V3R1 MVS	PN68188
TCP/IP V3R1 MVS	PN69619
TCP/IP V3R1 MVS	PN69951
TCP/IP V3R1 MVS	PN72929

The TCP/IP APAR listed in Figure 43 is required for Direct IP Channel Communication.

<i>Figure 43. TCP/IP APAR Required for Direct IP Channel Communication</i>	
Product Name	APAR
TCP/IP V3R1 MVS	PN75734

The TCP/IP APAR listed in Figure 44 is required for the IP NCPROUTE Direct over Channel function.

<i>Figure 44. TCP/IP APAR Required for IP NCPROUTE Direct over Channel</i>	
Product Name	APAR
TCP/IP V3R1 MVS	PN80904

5.2.3 Program Installation and Service Considerations

This section describes items that should be considered before you install or service NCP V7R8.1 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 NCP V7R8.1 VM strictly using the MAINT user ID, but will use a new user ID--P648063L. 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 NCP V7R8.1 VM" step 6 on page 29, rather than after you have installed this product.

5.3 DASD Storage and User ID Requirements

Figure 45 lists the user IDs, minidisks and default SFS directory names that are used to install and service NCP V7R8.1 VM.

Important Installation Notes:

- User ID(s) and minidisks or SFS directories will be defined in 6.2, "Plan Your Installation For NCP V7R8.1 VM" on page 28 and are listed here so that you can get an idea of the resources that you will need prior to allocating them.
- P648063L 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 NCP V7R8.1 VM" step 6 on page 29.
- If you choose to install NCP V7R8.1 VM on a common user ID the default minidisk addresses for NCP V7R8.1 VM may already be defined. If any of the default minidisks required by NCP V7R8.1 VM are already in use you will have to create an override to change the default minidisks for NCP V7R8.1 VM so they are unique.

Figure 45. 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
P648063L	2B2	3390 3380 9345	60 70 70	87000	11000	Contains all the base code shipped with NCP V7R8.1 VM VMSYS:P648063L.NCP.OBJECT
P648063L	2C2	3390 3380 9345	4 5 5	6000	750	Contains customization files. This disk may also be used for local modifications. VMSYS:P648063L.NCP.SAMPLE
P648063L	2D2	3390 3380 9345	16 20 20	36000	4500	Contains serviced files VMSYS:P648063L.NCP.DELTA
P648063L	2A6	3390 3380 9345	16 20 20	24000	3000	Contains AUX files and software inventory tables that represent the test service level of NCP V7R8.1 VM VMSYS:P648063L.NCP.APPLYALT
P648063L	2A2	3390 3380 9345	16 20 20	24000	3000	Contains AUX files and software inventory tables that represent the service level of NCP V7R8.1 VM that is currently in production. VMSYS:P648063L.NCP.APPLYPROD
P648063L	400	3390 3380 9345	90 115 115	138000	17250	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.
P648063L	401	3390 3380 9345	90 115 115	138000	17250	Production BUILD disk. Files from the test BUILD disk are copied here for application use.
P648063L	191	3390 3380 9345	90 115 115	138000	17250	P648063L user ID's 191 minidisk VMSYS:P648063L.

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. 74000 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 NCP V7R8.1 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 NCP V7R8.1 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 NCP V7R8.1 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 NCP V7R8.1 VM using VMSES/E.

- Plan Your Installation

Use the VMFINS command to load several VMSES/E files from the product tape and to obtain NCP V7R8.1 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 NCP V7R8.1 VM.

- Install the NCP V7R8.1 VM Product

Use the VMFINS command to load the NCP V7R8.1 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 36.

- Place NCP V7R8.1 VM Files into Production

Once the product files have been tailored and the operation of NCP V7R8.1 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 NCP V7R8.1 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 NCP V7R8.1 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 NCP V7R8.1 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 NCP V7R8.1 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 NCP V7R8.1 VM.

Notes:

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

vmfins install ppf 5648063L {NCP | NCPSFS} (plan nomemo)

Use **NCP** for installing on minidisks or **NCPSFS** 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 NCP V7R8.1 VM. For example, you will need to specify your PPF override file name instead of 5648063L 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 5648063L NCP
             :PRODID. 5648063L%NCP?
             Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5648063L NCP :PRODID
             5648063L%NCP
VMFREQ1909I 5648063L PLANINFO created on your A-disk
VMFREQ2805I Product :PPF 5648063L NCP :PRODID 5648063L%NCP
             has passed requisite checking
VMFINT2603I Planning for the installation of product :PPF 5648063L NCP
             :PRODID 5648063L%NCP
VMFRMT2760I VMFRMT processing started
VMFRMT2760I VMFRMT processing completed successfully
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

6.3 Allocate Resources for Installing NCP V7R8.1 VM

Use the planning information in the 5648063L PLANINFO file, created in the **PLAN** step, to:

- Create the P648063L user directory for minidisk install

OR

- Create the P648063L user directory for SFS install

6.3.1 Installing NCP V7R8.1 VM on Minidisk

- 1** Obtain the user directory from the 5648063L 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 P648063L 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 P648063L. Use Figure 45 on page 25 to obtain the minidisk requirements.

- 3** Add the P648063L directory entry to the system directory. Change the password for P648063L 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 P648063L user ID must be formatted before installing NCP V7R8.1 VM.

6.3.2 Installing NCP V7R8.1 VM in SFS Directories

- 1** Obtain the user directory from the 5648063L 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 P648063L user ID. Use the directory entry found in PLANINFO as a model as input to your system directory.

- 2** Add the P648063L directory entry to the system directory. Change the password for P648063L 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 NCP V7R8.1 VM SFS directories, the 4K block requirements for the directories are summarized in Figure 45 on page 25.

This information will be used when enrolling the user ID, P648063L, in the VMSYS filepool.

- b** Enroll user P648063L in the VMSYS filepool using the ENROLL USER command:

```
ENROLL USER P648063L 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 NCP V7R8.1 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 NCP V7R8.1 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 5648063L 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:P648063L.NCP  
create directory vmsys:P648063L.NCP.object  
:
```

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

A complete list of default NCP V7R8.1 VM SFS directories is provided in Figure 45 on page 25.

- e If you intend to use an SFS directory as the work space for the P648063L user ID, include the following IPL control statement in the P648063L directory entry:

```
IPL CMS PARM FILEPOOL VMSYS
```

This will cause CMS to automatically access the P648063L's top directory as file mode A.

6.4 Install NCP V7R8.1 VM

The *ppfname* used throughout these installation instructions is **5648063L**, which assumes you are using the PPF supplied by IBM for NCP V7R8.1 VM. If you have your own PPF override file for NCP V7R8.1 VM, you should use your file's *ppfname* instead of **5648063L**. The *ppfname* you use should be used **throughout** the rest of this procedure.

- 1 Logon to the installation user ID **P648063L**.
- 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 NCP V7R8.1 VM installation tape mounted and attached to P648063L at virtual address 181. The VMFINS EXEC requires the tape drive to be at virtual address 181.

6 Install NCP V7R8.1 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 (5648063L), 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 5648063L {NCP | NCPSFS} (nomemo nolink

Use **NCP** for installing on minidisks or **NCPSFS** 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 5648063L NCP
:PRODID. 5648063L%NCP?
Enter 0 (No), 1 (Yes) or 2 (Exit)

0
VMFINS2603I Processing product :PPF 5648063L NCP :PRODID
5648063L%NCP
VMFREQ2805I Product :PPF 5648063L NCP :PRODID 5648063L%NCP
has passed requisite checking
VMFINT2603I Installing product :PPF 5648063L NCP :PRODID
5648063L%NCP
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 NCP V7R8.1 VM

- 1 Update the VM SYSBLDS software inventory file for NCP V7R8.1 VM.

vmfins build ppf 5648063L {NCP | NCPSFS} (serviced nolink

Use **NCP** for installing on minidisks or **NCPSFS** 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 5648063L 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 NCP V7R8.1 VM Into Production

6.6.1 Copy NCP V7R8.1 VM Files Into Production

- 1 Logon to MAINT if you plan to put NCP V7R8.1 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 NCP V7R8.1 VM code.

a If installing using minidisks

access 400 e

access 401 f

vmfcopy * * e = = f2 (prodid 5648063L%NCP olddate replace

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

b If installing using Shared File System

access P648063L.NCP.tbuild e

access 19e f

vmfcopy * * e = = f2 (prodid 5648063L%NCP olddate replace

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

NCP V7R8.1 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 NCP V7R8.1 VM. VMSES/E is used to install service for NCP V7R8.1 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 NCP V7R8.1 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 NCP V7R8.1 VM

RSU Note

If applying a NCP V7R8.1 VM RSU go to the instructions in Appendix A, “Applying an RSU Tape for NCP V7R8.1 VM” on page 47. You will return to a step in this chapter as specified in that appendix.

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 **5648063L**, which assumes you are using the PPF supplied by IBM for NCP V7R8.1 VM. If you have your own PPF override file for NCP V7R8.1 VM, you should use your file's *ppfname* instead of **5648063L**. The *ppfname* you use should be used **throughout** the rest of this procedure, unless otherwise stated differently.

1 Logon to NCP V7R8.1 VM service user ID **P648063L**

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 NCP V7R8.1 VM CORrective service tape mounted and attached to **P648063L**. (If you have a SERVLINK file make sure that it is available on the A-disk.)
- 4** Establish the correct minidisk access order.

vmfsetup 5648063L {NCP | NCPSFS}

5648063L is the PPF that was shipped with the product. If you have your own PPF override you should substitute your PPF name for 5648063L.

Use **NCP** for installing on minidisks or **NCPSFS** 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 (5648063L MEMO) before going on.

- 8** Setup the correct product access order.

vmfsetup 5648063L {NCP | NCPSFS}

Use **NCP** for installing on minidisks or **NCPSFS** 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.

vmfmrdsd 5648063L {NCP | NCPSFS} apply

Use **NCP** for installing on minidisks or **NCPSFS** 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 5648063L {NCP | NCPSFS}

Use **NCP** for installing on minidisks or **NCPSFS** 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 5648063L {NCP | NCPSFS} (env vptfnum

Use **NCP** for installing on minidisks or **NCPSFS** 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 5648063L {NCP | NCPSFS}

Use **NCP** for installing on minidisks or **NCPSFS** 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 NCP V7R8.1 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 **5648063L**
- **esa** should be **5648063L**
- *compname* should be **NCP** or **NCPSFS** (minidisk or SFS)
- *appid* should be **5648063L**
- *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 43.

7.2.4 Update the Build Status Table

- 1 Update the Build Status Table with serviced parts.

vmfbld ppf 5648063L {NCP | NCPSFS} (status

Use **NCP** for installing on minidisks or **NCPSFS** 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 5648063L \$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 5648063L \$PPF
on 191 (A) from level \$PFnnnnn

vmfppf 5648063L *

Note: If you've created your own PPF override then use your PPF name instead of 5648063L.

**copyfile 5648063L \$PPF a = = d (olddate replace
erase 5648063L \$PPF a**

Note: **Do not** use your own PPF name in place of 5648063L for the COPYFILE and ERASE commands.

vmfblld ppf 5648063L {NCP | NCPSFS} (status

1 Re-issue VMFBLD to complete updating the build status table.
Use **NCP** for installing on minidisks or **NCPSFS** 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 NCP V7R8.1 VM serviced parts.

vmfbld ppf 5648063L {NCP | NCPSFS} (serviced

Use **NCP** for installing on minidisks or **NCPSFS** 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 NCP V7R8.1 VM Service Into Production

7.3.1 Copy the New NCP V7R8.1 VM Serviced Files Into Production

- 1 Logon to MAINT if you plan to put NCP V7R8.1 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 NCP V7R8.1 VM code.

- a If installing using minidisks

```
link P648063L 400 400 rr
access 400 e
access 401 f
vmfcopy * * e = = f2 (prodid 5648063L%NCP olddate replace
```

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

- b If installing using Shared File System

access P648063L.NCP.tbuild e

access 19e f

vmfcopy * * e = = f2 (prodid 5648063L%NCP olddate replace

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

You have finished servicing NCP V7R8.1 VM.

Appendix A. Applying an RSU Tape for NCP V7R8.1 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 NCP V7R8.1 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 NCP V7R8.1 VM RSU

A.1.1 Prepare Your System for Service Refresh

The *ppfname* used throughout these instructions is **5648063L**, which assumes you are using the PPF supplied by IBM for NCP V7R8.1 VM. If you have your own PPF override file for NCP V7R8.1 VM you should use your file's *ppfname* instead of **5648063L**. 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 Network Control Program service user ID P648063L
- 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 NCP V7R8.1 VM documentation (5648063L MEMO D) received in the previous step.

7 Setup the correct minidisk access order

vmfsetup 5648063L {NCP | NCPSFS}

Use **NCP** for installing on minidisks or **NCPSFS** for installing in Shared File System directories.

8 Merge the APPLY disks for NCP V7R8.1 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 5648063L {NCP | NCPSFS} apply

Use **NCP** for installing on minidisks or **NCPSFS** 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 5648063L {NCP | NCPSFS}

Use **NCP** for installing on minidisks or **NCPSFS** 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 NCP V7R8.1 VM service disks by loading new service from the RSU.

a If receiving the RSU from tape

vmfins install ppf 5648063L {NCP | NCPSFS} (nomemo link

Use **NCP** for installing on minidisks or **NCPSFS** for installing in Shared File System directories.

b If receiving the RSU from an envelope file

vmfins install ppf 5648063L {NCP | NCPSFS} (nomemo link env rptfnum

Use **NCP** for installing on minidisks or **NCPSFS** 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 5648063L
           NCP :PRODID 5648063L%NCP?
           Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5648063L NCP :PRODID
           5648063L%NCP
VMFREQ2805I Product :PPF 5648063L NCP :PRODID 5648063L%NCP
           has passed requisite checking
VMFINT2603I Installing product :PPF 5648063L NCP :PRODID
           5648063L%NCP
VMFSET2760I VMFSETUP processing started for 5648063L NCP
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 5648063L {NCP | NCPSFS}

Use **NCP** for installing on minidisks or **NCPSFS** 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 (5648063L 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 43. This will also lead you into the steps to place NCP V7R8.1 VM into production.

A.1.5 Service Next Component

Refer to the 5648063L MEMO on the 51D disk, special instructions section, to see if you have another NCP V7R8.1 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 49.

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 NCP V7R8.1 VM Service Into Production” on page 45 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 NCP V7R8.1 VM files reside.

Note: Do **not** modify the product supplied 5648063L \$PPF or 5648063L PPF files to change the file pool name or any other installation parameters. If the 5648063L \$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 'myNCP') 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 NCPSFS override area, so that it resembles the :DCL. section shown below. This override will be used for the installation of NCP V7R8.1 VM.

```

:OVERLST. NCPSFS
*
* ===== *
* Override Section for Initial Installation (Using SFS Directories) *
* ===== *
:NCPSFS. NCPSFS 5648063L
:DCL. REPLACE
&INST191 DIR MYP00L1:P648063L.
&BASE DIR MYP00L1:P648063L.NCP.OBJECT
&LOCALSAM DIR MYP00L1:P648063L.NCP.SAMPLE
&DELTA DIR MYP00L1:P648063L.NCP.DELTA
&APPLY2 DIR MYP00L1:P648063L.NCP.APPLYALT
&APPLY1 DIR MYP00L1:P648063L.NCP.APPLYPROD
&BUILD0 LINK P648063L 400 400 MR
&BUILD2 LINK P648063L 200 200 MR
&BUILD3 LINK P648063L 100 100 MR
&P648063L USER P648063L
:EDCL.
:END.
*

```

(This override will replace the :DCL. section of the NCPSFS override area of the 5648063L \$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* NCPSFS

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 5648063L as the PPF name to be used for those VMSES/E commands that require a PPF name.

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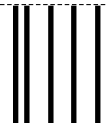


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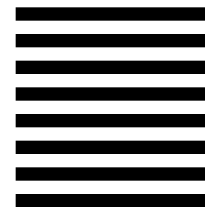
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