



**Program Directory for
Open Systems Adapter Support Facility for VM**

function level 440

Program Number 5741-A05

for Use with
z/VM version 5

Document Date: December 2005

GI11-4801-01

Note!

Before using this information and the product it supports, be sure to read the general information under "Notices" on page 53.

This program directory, dated December 2005, applies to Open Systems Adapter Support Facility for VM, function level 440 (OSA/SF for VM), Program Number 5741-A05.

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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 OSA/SF for 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 2 identifies the program materials and documentation for OSA/SF for VM.
- 3.0, “Program Support” on page 5 describes the IBM support available for OSA/SF for VM.
- 4.0, “Program and Service Level Information” on page 6 lists the APARs (program level) and PTFs (service level) incorporated into OSA/SF for VM.
- 5.0, “Installation Requirements and Considerations” on page 7 identifies the resources and considerations for installing, migrating and using OSA/SF for VM.
- 6.0, “Installation Instructions” on page 12 provides detailed installation instructions for OSA/SF for VM.
- 7.0, “Service Instructions” on page 27 provides detailed servicing instructions for OSA/SF for VM.
- Appendix A, “Applying a Recommended Service Upgrade (RSU) for OSA/SF for VM” on page 38 provides detailed Recommended Service Upgrade instructions for OSA/SF for VM.
- Appendix B, “Moving OSA/SF for VM to SFS Directories and Creating a PPF Override” on page 46 describes how to move OSA/SF for VM into SFS and how to create a Product Parameter File (PPF) override.

Before installing OSA/SF for VM, read 3.1, “Preventive Service Planning” on page 5. This section tells you how to find any updates to the information and procedures in this program directory.

1.1 Program Description

Open Systems Adapter Support Facility for VM lets one customize the integrated Open Systems Adapter (OSA) hardware feature for the OSA modes, change the settable OSA port parameters, and obtain status about the OSA.

OSA/SF for VM graphical user interface has changed. It now runs on any platform that supports Java-based applications.

Through the System Authorization Facility (SAF) interface of the system image on which it is running, OSA/SF lets you use the Resource Access Control Facility (RACF®), or equivalent, to authorize or deny access to OSA/SF commands.

2.0 Program Materials

An IBM program is identified by a program number. The program number for Open Systems Adapter Support Facility for VM, function level 440 is 5741-A05.

The program announcement material describes the features supported by OSA/SF for 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

Open Systems Adapter Support Facility for VM is distributed pre-installed on the z/VM version 5 System deliverables. Refer to the z/VM version 5 Software Announcement for information on ordering z/VM version 5 and its features.

2.2 Optional Machine-Readable Material

There are no optional machine-readable materials for OSA/SF for VM.

2.3 Program Publications

The following sections identify the basic and other publications for OSA/SF for VM.

2.3.1 Basic Program Publications

One copy of the following publication is included when you order OSA/SF for VM.

Figure 1. Basic Material: Unlicensed Publications

| Publication Title | Form Number |
|--|-------------|
| Program Directory for Open Systems Adapter Support Facility for VM | GI11-4801 |

2.3.2 Base Program Publications

Figure 2 identifies the program publications for OSA/SF for VM.

Figure 2. Material: Program Publications

| Publication Title | Form Number |
|--|-------------|
| eServer® zSeries® : Open Systems Adapter-Express Customer's Guide and Reference | SA22-7935 |
| eServer zSeries: Open Systems Adapter-Express Integrated Console Controller User's Guide | SA22-7990 |
| eServer zSeries 900: Planning for Open Systems Adapter-2 Feature | GA22-7477 |

2.3.3 Softcopy Publications

/ The OSA/SF for VM publications are available on the *IBM Online Library: z/VM Collection* in
/ BookManager® and Adobe™ Portable Document Format (PDF). One copy of the *z/VM Collection* on
/ CD-ROM is included when you order the basic materials for z/VM V5.1 and z/VM V5.2. For z/VM V5.2
/ one copy of the *z/VM Collection* on DVD is also included.

The OSA/SF publications can also be found in Adobe Portable Document Format off of the z/VM World Wide Web home page at url:

www.ibm.com/eserver/zseries/zvm

They can also be ordered separately for a fee using the specific publication number through the IBM Publication Center at :

www.ibm.com/shop/publications/order

The Publications Center is a world wide central repository for IBM product publications and marketing material. Furthermore, a large number of publications are available online in various file formats (e.g. Adobe PDF), which can currently be downloaded free of charge.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for OSA/SF for VM.

2.5 Publications Useful During Installation and Service

The publications listed in Figure 3 may be useful during the installation of OSA/SF for VM. To order copies, contact your IBM representative.

Figure 3 (Page 1 of 2). Publications Useful During Installation / Service on z/VM version 5

| Publication Title | Form Number |
|--|-------------|
| z/VM: VMSES/E Introduction and Reference | GC24-6130 |
| z/VM: Service Guide | GC24-6117 |
| z/VM: CMS Commands and Utilities Reference | SC24-6073 |

Figure 3 (Page 2 of 2). Publications Useful During Installation / Service on z/VM version 5

| Publication Title | Form Number |
|--|--------------------|
| z/VM: CMS File Pool Planning, Administration, and Operation | SC24-6074 |
| / z/VM: System Messages and Codes - AVS, Dump Viewing Facility, GCS, TSAF, and VMSES/E / (V5.1) | GC24-6120 |
| / z/VM: System Messages and Codes - CMS and REXX/VM (V5.1) | GC24-6118 |
| / z/VM: System Messages and Codes - CP (V5.1) | GC24-6119 |
| / z/VM: Other Components Messages and Codes (V5.2) (2*) | GC24-6120 |
| / z/VM: CMS and REXX/VM Messages and Codes (V5.2) (2*) | GC24-6118 |
| / z/VM: CP Messages and Codes (V5.2) (2*) | GC24-6119 |
| z/VM: Guide for Automated Installation and Service | GC24-6099 |

Notes:

1. The OSA/SF for VM GUI (graphical user interface) provides online help.
- / 2. The names of the messages and codes publications have been changed on z/VM V5.2 but the
/ publication numbers are the same.

3.0 Program Support

This section describes the IBM support available for OSA/SF for VM.

3.1 Preventive Service Planning

Before installing OSA/SF for 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 4. PSP Upgrade and Subset ID

| RETAIN® | | | |
|-----------|---------|------------|---------|
| COMPID | Release | Upgrade | Subset |
| 565510400 | 440 | VMOSASF440 | OSASF |
| 565510400 | 440 | VMOSASF440 | yynnRSU |

RSU-BY-LVL information can also be obtained from the z/VM service RSU web site at url:

www.ibm.com/eserver/zseries/zvm/service/rsu

3.2 Statement of Support Procedures

With Open Systems Adapter Support Facility for VM you are entitled to support under the basic warranty for z/VM version 5. Also, note that the Software Subscription and Support (5741-SNS) for z/VM version 5 is *automatically* added to your order - this provides zSeries service to which you are likely accustomed. If you do not want the Software Subscription and Support for z/VM, then you must take specific action to decline it when ordering z/VM. Refer to the z/VM version 5 Software Announcement for ordering information.

Report any difficulties you have using this program to your IBM Support Center. If an APAR is required, the Support Center will provide the address to which any needed documentation can be sent.

Figure 5 identifies the component ID (COMPID), RETAIN Release and Field Engineering Service Number (FESN) for OSA/SF for VM.

Figure 5. Component IDs

| RETAIN | | | |
|-----------|---------|----------------------|---------|
| COMPID | Release | Component Name | FESN |
| 565510400 | 440 | OSA/SF for VM, FL440 | 0401298 |

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of OSA/SF for 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.

Note: If you have access to the IBM Problem Solving Database, APARs/PTFs, (for example through the SIS function in ServiceLink or from the IBM eServer zSeries Support web page) be aware that you need to have your search look in the MVS™ Library or S/390 Operating Systems product. The reason VM OSA/SF is in the MVS library is to allow an OSA/SF APAR to be shared across different platforms.

4.1 Program Level Information

All APAR fixes against the previous release of OSA/SF for VM, FL2.2.0, up to and including, OA01565 have been incorporated into this release.

4.2 Service Level Information

Before you install and configure OSA/SF for VM, you should review the the VMOSASF440 PSP (Preventive Service Planning) bucket for updated installation information that you should be aware of, or for information about PTFs that should be installed. Specify upgrade and subset values of **VMOSASF440** and **OSASF**, respectively, when you request or obtain this information.

4.3 Cumulative Service - RSU Information

Cumulative service for OSA/SF for VM function level 440 is available through a periodic preventive service deliverable, the Recommended Service Upgrade (RSU). The RSU is used to provide service updates for multiple z/VM components and features (including OSA/SF for VM) and is often referred to as a *stacked* RSU.

The stacked RSU tape can be obtained by **ordering PTF UM975n0**; where *n* indicates the release of z/VM version 5.

Check the PSP bucket upgrade VMOSASF440 and subset yynnRSU, where yynn is the level associated with an RSU, for the latest RSU available. For a list of the PTFs included on the RSU, see the service memo from the tape or refer to the RSU-BY-LVL information obtained from the VM service RSU web site at:

www.ibm.com/eserver/zseries/zvm/service/rsu

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating OSA/SF for VM.

5.1 Hardware Requirements

Depending on your OSA hardware feature, refer to the appropriate OSA planning or customer's guide and reference manual.

For information on the OSA/SF for VM GUI you need to use publication *eServer zSeries: Open Systems Adapter-Express Customer's Guide and Reference* as it supersedes all other OSA related publications that mention the GUI.

5.2 Program Considerations

The following sections list the programming considerations for installing OSA/SF for VM and activating its functions.

5.2.1 Operating System Requirements

OSA/SF for VM supports the following VM operating systems:

- z/VM version 5 (which includes Language Environment for z/VM V4.4)

5.2.2 Other Program Product Requirements

If the OSA/SF for VM GUI interface is to be used then you also need the following requisites:

- Microsoft® Windows® 98 or higher, Microsoft Windows NT with Service Pack 6a or higher, Microsoft Windows 2000 or XP or higher, or Linux® Kernel 2.4 or higher.
- Java Runtime 1.4 or higher, and JavaHelp™ Files 1.1.2 or higher, on the workstation.
- For TCP/IP communication:
 - TCP/IP (Transmission Control Program/Internet Protocol) Feature for z/VM (Level 510)
 - TCP/IP on the workstation

The following product is optional and may be helpful in running OSA/SF for VM:

- RACF Feature for z/VM, version 1 release 10 (5741-A05) or RACF version 1 release 10 (5740-XXH) to provide access control for OSA/SF for VM commands.

5.2.3 Migration Considerations

5.2.3.1 Customizable Parts

There have been no changes to the supplied UCOMDIR and \$SERVER\$ files (SAMPNAME) or supplied profile exec files (IOAOSASF, IOAMAIN and IOADMIN SAMPPROF) for the user ID's associated with OSA/SF for VM; therefore you can migrate your existing OSA/SF FL2.2.0 versions to this new release. Be aware that if you were using SFS instead of minidisk and you had updated the PROFILE EXECs for OSASF, OSAMAIN or OSADMINx to reflect SFS names on access commands then you will need to update those to reflect the new 4OSASF40 name (opposed to 2VMVMV20) in the SFS directory name.

There have been no changes to the other supplied sample files therefore you can migrate your existing OSA/SF FL2.2.0 versions to this new release.

/ If you use the new migration procedure, as documented in the *z/VM: Guide for Automated Installation and Service*, to migrate OSA/SF for VM, FL440 from a z/VM V5.1 system to a newer level of z/VM version 5, / then the customizable files will be migrated to the newer z/VM system, where possible. If the / customizable files have been serviced on the new level of z/VM version 5 and you have made changes to / them on your z/VM V5.1 system, then you will be told to rework your changes. The OSASF production / build disk (default 200) will be migrated therefore any other sample files on that disk that you have / renamed and changed will be migrated. The 7F00 disk will not be migrated.

5.2.3.2 Workstation Graphical Interface (GUI)

The OSA/SF FL2.2.0 GUI, that used Windows or OS/2®, **WILL NOT WORK** with OSA/SF FL4.4. You need to install the new OSA/SF FL4.4 GUI, that is Java based (IOAJAVA BIN file).

5.2.4 Program Installation/Service Considerations

This section describes items that should be considered before you install or service OSA/SF for VM.

- The appropriate OSA planning or customer's guide and reference manual, depending on your hardware setup, should be reviewed before installing OSA/SF for VM.

For information on the OSA/SF for VM GUI you need to use publication *eServer zSeries: Open Systems Adapter-Express Customer's Guide and Reference* as it supersedes all other OSA related publications that mention the GUI.

- VMSES/E is required to install and service this product.
- OSA/SF for VM is pre-installed on the z/VM version 5 System deliverables.
- 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.
- If you choose to move OSA/SF for VM from minidisk to SFS (Shared File System), and you did not do it at initial z/VM install time, or if you want to change from the default SFS file pool or directories, you will need to follow the steps in Appendix B, "Moving OSA/SF for VM to SFS Directories and Creating

a PPF Override” on page 46, as pointed to in section 6.2, “Allocate/Review OSA/SF for VM Resources” on page 13 section of this program directory. These steps will have you create the SFS directories, move the files to the SFS directories and create a PPF override.

— **Note - z/VM Automated Service Procedure** —

If you modify any of the IBM-supplied default user IDs, minidisk addresses, or SFS directory names associated with OSA/SF for VM and you plan on using the z/VM automated service procedure (the **SERVICE** and **PUT2PROD** commands) to service your z/VM system, then you must create a PPF override for the **SERV2P \$PPF** file.

You must also use the **VMFUPDAT** command to update the VM SYSSUF software inventory file, so that your PPF override for SERV2P is used for automated service processing. For more information about PPF overrides, see the *z/VM:VMSES/E Introduction and Reference*.

- RSUs will be supplied as necessary. Service between RSUs can be obtained through CORrective service.

5.3 DASD Storage and User ID Requirements

Figure 6 lists the user IDs and minidisks that are used to install and service OSA/SF for VM.

Important Installation Notes:

- Important information on setting up the 70cc minidisks for each processor type can be found in the appropriate OSA planning or customer's guide and reference manual. You should review this manual before performing the installation step 6.2, “Allocate/Review OSA/SF for VM Resources” on page 13.
- User ID(s) and minidisks shown in Figure 6 are already defined after you install OSA/SF for VM from the z/VM System deliverables. The **exception** to this is the OSASF user ID's 70cc minidisks. Those minidisks still need to be defined.
- The OSAMAIN user ID **SHOULD NOT** be changed. OSA/SF for VM requires that a user ID of OSAMAIN exist.
- The storage requirements for some minidisks may be revised over time, which may require existing minidisk sizes to be increased. The minidisks changes will be indicated in updated levels of this document by revision characters in the left margin of Figure 6.

Some minidisk storage requirement changes will need to be assessed locally, for your specific environment. For example, the capacity of the **DELTA** minidisk (4OSASF40 2D2, by default), periodically may need to be increased, based on the specific preventive and corrective service applied to your system. An updated version of this document will show the size of the minidisk as shipped on the latest z/VM System deliverables.

Figure 6 (Page 1 of 2). DASD Storage Requirements for Target Minidisks

| Minidisk owner (user ID) | Default Address | Storage in Cylinders | | SFS 4K Blocks | Usage |
|--------------------------|-----------------|----------------------|------|---------------|---|
| | | DASD | CYLS | | Default SFS Directory Name |
| 4OSASF40 | 2B2 | 3390 | 15 | 2700 | Contains all the base code shipped with OSA/SF for VM. VMSYS:4OSASF40.OSA.OBJECT |
| 4OSASF40 | 2C2 | 3390 | 4 | 720 | Contains customization files. This disk also will be used for local modifications. VMSYS:4OSASF40.OSA.SAMPLE |
| 4OSASF40 | 2D2 | 3390 | 150 | 27000 | Contains serviced files. VMSYS:4OSASF40.OSA.DELTA |
| 4OSASF40 | 2A6 | 3390 | 5 | 900 | Contains AUX files and software inventory tables that represent the test service level of OSA/SF for VM. VMSYS:4OSASF40.OSA.APPLYALT |
| 4OSASF40 | 2A2 | 3390 | 5 | 900 | Contains AUX files and software inventory tables that represent the service level of OSA/SF for VM that is currently in production. VMSYS:4OSASF40.OSA.APPLYPROD |
| 4OSASF40 | 100 | 3390 | 15 | 2700 | Test build disk. This disk will be copied to OSA/SF for VM's production code build disk. VMSYS:4OSASF40.OSA.TBLDCODE |
| 4OSASF40 | 300 | 3390 | 23 | 4140 | Test build IMAGE file disk. This disk will be copied to OSA/SF for VM's IMAGE production build disk. VMSYS:4OSASF40.OSA.TBLDIMAGE |
| 4OSASF40 | 7F00 | 3390 | 10 | NOSFS | Test build common LPAR disk. This disk will be copied to OSA/SF for VM's common LPAR production build disk. This disk MUST be address 7F00. |
| 4OSASF40 | 191 | 3390 | 10 | 1800 | 4OSASF40 user ID's 191 minidisk. VMSYS:4OSASF40. |
| OSASF | 200 | 3390 | 15 | 2700 | Production build disk. Contains OSA/SF for VM's executable code. VMSYS:4OSASF40.OSA.PBLDCODE |
| OSASF | 400 | 3390 | 23 | 4140 | OSA/SF for VM's IMAGE file production build disk. VMSYS:4OSASF40.OSA.PBLDIMAGE |
| OSASF | 70cc | 3390 | 5 | NOSFS | Set of minidisks that correspond to each OSA CHPID being used. (ex. cc = OSA CHPID) |
| OSASF | 191 | 3390 | 10 | NOSFS | OSASF user ID's 191 minidisk. |

Notes:

1. Cylinder values defined in this table are based on a 4K block size.
2. A total 47700 SFS 4K blocks are needed for the addresses that can be defined in SFS for an SFS install.

Figure 6 (Page 2 of 2). DASD Storage Requirements for Target Minidisks

| Minidisk owner (user ID) | Default Address | Storage in Cylinders | | SFS 4K Blocks | Usage |
|--------------------------|-----------------|----------------------|------|---------------|---|
| | | DASD | CYLS | | Default SFS Directory Name |
| OSAMAIN | 7F00 | 3390 | 10 | NOSFS | OSA/SF for VM's common LPAR production build disk. This disk MUST be address 7F00. |
| OSAMAIN | 191 | 3390 | 10 | NOSFS | OSAMAIN user ID's 191 minidisk. |
| OSADMIN1 | 191 | 3390 | 10 | NOSFS | OSADMIN1 user ID's 191 minidisk. |
| OSADMIN2 | 191 | 3390 | 10 | NOSFS | OSADMIN2 user ID's 191 minidisk. |
| OSADMIN3 | 191 | 3390 | 10 | NOSFS | OSADMIN3 user ID's 191 minidisk. |

Notes:

1. Cylinder values defined in this table are based on a 4K block size.
2. A total 47700 SFS 4K blocks are needed for the addresses that can be defined in SFS for an SFS install.

6.0 Installation Instructions

This chapter describes the installation methods and the step-by-step procedures to complete the installation and activation of OSA/SF for VM.

If you plan on using OSA/SF for VM then you **NEED TO FINISH THE INSTALLATION** as documented in this chapter.

OSA/SF for VM is pre-installed, using VMSES/E, on the z/VM System deliverables.

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.

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 OSA/SF for VM, adapt these instructions as needed for your environment.

Note

The sample console output presented throughout these instructions was produced on a z/VM system.

6.1 VMSES/E Installation Process Overview

The following is a brief description of the main steps to complete the installation of OSA/SF for VM using VMSES/E.

- Allocate Resources

Some resources still need to be allocated for OSA/SF for VM. Other resources need to be reviewed to see if any changes are needed for your installation.

- Perform Post-installation Tasks

Information about file tailoring and initial activation of the program is presented in 6.4, "Update PROFILE EXEC and NAMES Files" on page 16 through 6.5, "Installing the GUI for OSA/SF for VM" on page 19.

6.2 Allocate/Review OSA/SF for VM Resources

OSA/SF for VM has been installed as part of the z/VM System deliverables using VMSES/E. This means that several of the VMSES/E installation steps have been performed on your behalf. Among these are the:

- addition of the OSA/SF for VM installation user ID, 4OSASF40, entry to the VM CP system directory
- addition of the OSASF, OSAMAIN, OSADMIN1, OSADMIN2, and OSADMIN3 user ID entries to the VM CP system directory
- creation of the 4OSASF40 user ID PROFILE EXEC. This PROFILE EXEC contains the accesses to the VMSES/E code disk, MAINT 5E5, and the VMSES/E Software Inventory disk, MAINT 51D.
- allocation of most of the OSA/SF for VM minidisks (or SFS subdirectories)
- loading of the OSA/SF for VM product files to the minidisks (or SFS subdirectories), using VMSES/E commands
- installation of the OSA/SF for VM RSU, if one was available.

There are still some additional resources that need to be defined. There are also some other resources that may need to be changed or defined, depending on your installation environment. The following sections talk about these resources.

6.2.1 Additional Resources

The following resources need to be defined.

- 1** You **need to** add the appropriate 70cc minidisk addresses to the OSASF user ID. You need to have a 70cc minidisk address to correspond to each OSA CHPID utilized in the specified processor (ex. cc = OSA CHPID). Refer to Figure 6 on page 9 for the size of the 70cc minidisks.

Notes:

- a. Important information on setting up the 70cc minidisks for each processor type can be found in the appropriate OSA planning or customer's guide and reference manual. You should review this manual to help you to set up the 70cc minidisks in this step.
- b. If the OSA channel path is defined as being shared among logical partitions, the minidisks should be defined on Cross System Extensions (CSE) DASD.
- c. You must format the 70cc minidisks before you continue the installation of OSA/SF for VM.

6.2.2 CP System Directory Updates

Depending on your system environment there may be some other CP directory changes that need to be made for the OSA/SF for VM user IDs.

Note: If you make any of the following changes do not forget to place the new CP directory online.

- 1** If the administrator user ID, OSADMINx, is going to be used for the OSA/SF GUI then the user ID must have a privilege class of B.
- 2** If using any security product, that makes use of the RACROUTE interface, e.g. RACF, then you **must** add the following statement to the CP directory for the OSASF user ID and for any administrator user ID, OSADMINx, that will have a TCP/IP connection.

```
IUCV ANY PRIORITY MSGLIMIT 255
```

If you want to limit the communications authorization to only the security product, e.g. the RACF service virtual machine, replace the 'ANY' operand with the user ID of the security service virtual machine (e.g. RACFVM for RACF).
- 3** If necessary, change the passwords for the 4OSASF40, OSASF, OSAMAIN, OSADMIN1, OSADMIN2 and OSADMIN3 user IDs from the default passwords to a valid password, in accordance with your security guidelines.
- 4** If you are not going to use the OSA/SF GUI, then you need to remove the LINK statement to the TCP/IP 492 disk in the CP directory entry for 4OSASF40.

6.2.3 (Optional) Changing or Moving the Default OSA/SF for VM Resources

Note - z/VM Automated Service Procedure

If you modify any default user IDs, minidisk addresses, or SFS directory names and plan on using the automated service procedure, the SERVICE and PUT2PROD commands, then you will need to create a PPF override to the SERVP2P \$PPF file. You must also update the VM SYSSUF table, by using VMFUPDAT, to use your new PPF override file instead of the SERVP2P PPF.

If you want to change any of the default OSA/SF for VM user IDs, minidisks or SFS directories you should do so at this time. In order to do this you will need to create an override to the Product Parameter File (PPF).

If you want to use SFS for OSA/SF for VM, and you did not choose it during initial installation of z/VM, you will have to create the SFS directories, move the code to those directories and reflect these new directories in a PPF override.

Refer to Appendix B, “Moving OSA/SF for VM to SFS Directories and Creating a PPF Override” on page 46 for instructions on moving OSA/SF for VM into SFS and creating a PPF override.

6.3 (OPTIONAL) Set Up Security, e.g. RACF Permits

OSA/SF for VM communicates with a security product using the RACROUTE interface.

If you are using a security product, e.g. RACF, then you need to continue with this step and set up the permits to the production build disk of OSASF to the administrator (OSADMINx) user IDs.

Note: If you are not using the RACF security product, but a different product that uses the RACROUTE interface, then refer to that product's documentation to accomplish the equivalent RACF steps below.

If you are not using a security product, continue with section 6.4, “Update PROFILE EXEC and NAMES Files” on page 16.

1 Logon to the OSA server machine ID **OSASF**.

Note: This user ID must be authorized to issue RAC commands.

2 Issue the RACF permit command to give read access to all of the OSADMINx user IDs to OSASF's product production build disk (200).

racfperm

Fill in the panels to give read access to all of the OSADMINx user IDs to 4OSASF40's product production build disk.

3 Define a profile named ICHCONN in class FACILITY (if it does not already exist).

rac rdefine facility ichconn uacc(none)

4 Give UPDATE authority to ICHCONN in the FACILITY class to OSASF.

rac permit ichconn class(facility) id(osasf) access(update)

5 Activate the FACILITY class (if it is not already active).

rac setropts classact(facility)

6.4 Update PROFILE EXEC and NAMES Files

The PROFILE EXEC and NAMES files for each of the OSA/SF for VM server and administration user IDs need to be set up.

1 Logon to the installation user ID **4OSASF40**.

2 Access OSASF's 191 A-disk.

access 291 f

3 Update the PROFILE EXEC on OSASF's 191 A-disk, using the XEDIT command. Make any updates to reflect:

- If you have changed any of the minidisk addresses for the OSA/SF for VM production build disks or are using SFS for those disks, you need to change the addresses in the corresponding 'ACC' or access statements.
- Set up any link and accesses to your own tools disks. If you do not have a MAINT 19A then you need to change or remove that statement.
- Remove command lines or information in command lines for products you are not using. For example if you are not using TCP/IP then remove the 'EXEC VMLINK TCPIP <592 H>' statement and also remove COMMTXT from the GLOBAL TXTLIB command.
- Set up correct location of disks for products that you are using. For example change the information in the 'EXEC VMLINK TCPIP <592 H>' statement or change the whole statement to use LINK and ACCESS, if you do not use VMLINK.
- If a security product, e.g. RACF, is not being used, remove the RPIUCMS INIT command.

4 For the server virtual machine (OSASF), a names file called **\$\$SERVERS\$ NAMES** is needed. This is needed for APPC communications. The default names file is shipped with the following entry in it. You can update this names file to use any nickname but the nickname you choose also needs to be used on the :tpn. statement in the UCOMDIR NAMES file that is on the A-disks of the administrator user IDs.

```
:nick.IOASERV :list.OSADMIN1
                OSADMIN2
                OSADMIN3
                :module.IOACMAIN
```

5 Update the sample PROFILE EXEC and UCOMDIR NAMES files on all the administrator user ID's 191 A-disks.

access 491 f

a Access the first administrator user ID, OSADMIN1, 191 A-disk.

b Update the PROFILE EXEC on OSADMIN1's 191 A-disk, using the XEDIT command. Make any updates to reflect:

- If you have changed any of the minidisk addresses for the OSA/SF for VM production build disks or are using SFS for those disks, you need to change the addresses in the corresponding 'ACC' or access statements.
- Set up any links and accesses to your own tools disks. If you do not have a MAINT 19A then you need to change or remove that statement.
- Remove command lines or information in command lines for products you are not using. For example if you are not using TCP/IP then remove the 'EXEC VMLINK TCPIP <592 H>' statement and also remove COMMTXT from the GLOBAL TXTLIB command.
- Set up correct location of disks for products that you are using. For example change the information in the 'EXEC VMLINK TCPIP <592 H>' statement or change the whole statement to use LINK and ACCESS, if you do not use VMLINK.
- If a security product, e.g. RACF, is not being used, remove the RPIUCMS INIT command.

c For the requestor virtual machines (or OSA administrator user IDs) OSADMIN1 through OSADMIN3, a names file called **UCOMDIR NAMES** is needed. This is needed for APPC communications. The default names file is shipped with the following entry in it. If you changed the nickname in the \$SERVER\$ NAMES file in a previous step, then you need to update the :tpn. statement in the **UCOMDIR NAMES** file to reflect the change.

```
:nick.IOASERVR :luname.*USERID OSASF
                :tpn.IOASERV
```

Notes:

- 1) *USERID is a keyword. Type it exactly as shown. Do not substitute a userid in its place. OSASF is a variable and can be changed if you used a User ID other than OSASF.
- 2) In an ISFC environment, where different OSA devices are installed on individual systems, the OSASF server for each real system needs to be identified uniquely. The OSASF user ID in each CP directory needs to be changed to a unique name. The UCOMDIR

NAMES file on each OSADMINx user ID needs to reflect the new user ID for the OSASF server in the :luname field.

```
:nick.IOASERVR :luname.*USERID newname
                :tpn.IOASERV
```

- d** If you made changes to OSADMIN1's PROFILE EXEC or UCOMDIR NAMES file then copy them to the second, OSADMIN2 and third, OSADMIN3, administration user IDs 191 A-disks.

```
access 591 k
copyfile profile exec f = = k (olddate replace
copyfile ucomdir names f = = k (olddate replace
access 691 k
copyfile profile exec f = = k (olddate replace
copyfile ucomdir names f = = k (olddate replace
```

- 6** Access OSAMAIN'T's 191 A-disk.

```
access 391 f
```

- 7** Update the PROFILE EXEC on OSAMAIN'T's 191 A-disk, using the XEDIT command. Make any updates to reflect:
- If you have changed any of the minidisk addresses for the OSA/SF for VM production build disks or are using SFS for those disks, you need to change the addresses in the corresponding 'ACC' or access statements.
 - Remove command lines or information in command lines for products you are not using. For example if you are not using TCP/IP then remove the 'EXEC VMLINK TCPIP <592 H>' statement.
 - Set up correct location of disks for products that you are using. For example change the information in the 'EXEC VMLINK TCPIP <592 H>' statement or change the whole statement to use LINK and ACCESS, if you do not use VMLINK.
 - Set up any links and accesses to your own tools disks. If you do not have a MAINT 19A then you need to change or remove that statement.
- 8** Logoff of the installation user ID **4OSASF40**.

6.5 Installing the GUI for OSA/SF for VM

If you plan on using the OSA/SF GUI then the OSA/SF for VM GUI file needs to be downloaded and installed on the workstation. The OSA/SF for VM GUI can be used on any workstation platform that supports graphics in a Java 1.4 environment. Only the Microsoft Windows or Linux system platforms will be discussed here.

6.5.1 Setting Up APPC on the VM Host

APPC is used to pass commands from the requestor virtual machine (OSA administrator) to the server virtual machine and to send the results back.

The requestor ID and the server ID must be in the same VM system (logical partition).

The set up for the APPC communications should have been done in previous install steps. They incorporated:

- Having the IUCV ALLOW statement in the CP directory entry for the server virtual machine (default user ID OSASF). This statement is already in the OSASF's directory as shipped on the z/VM System deliverable.
- Having the \$SERVER\$ NAMES file set up under the server (OSASF) virtual machine. (This should have been done in section 6.4, "Update PROFILE EXEC and NAMES Files" on page 16.)
- Having the UCOMDIR NAMES files set up under the administrator (OSADMINx) user IDs. (This should have been done in section 6.4, "Update PROFILE EXEC and NAMES Files" on page 16.)

6.5.2 Setup the OSA/SF Host TCP/IP Connection

The OSA/SF GUI makes use of TCP/IP as its communication interface to the OSA/SF server on the VM host. Use one of the methods of instructions below to set up the TCP/IP communications between the OSA/SF GUI and OSA/SF on the host.

TCP/IP for z/VM needs to be running on the z/VM host. The instructions in the method that you choose need to be executed on the z/VM host.

Method 1:

1. Determine which user IDs need to be authorized to use the GUI and provide CP Privilege Class B authority for those IDs. For example, if you choose the OSADMINx user ID's then you would have already set them up in section 6.2.2, "CP System Directory Updates" on page 14.
2. Verify that TCPMAINT 592 is accessed as the 'H' disk in the PROFILE EXEC on the user ID you are authorizing.

3. In the PROFILE EXEC for the user ID (OSADMINx) you are authorizing use XEDIT to add **IOAXTSRV 2000** to the end of the PROFILE EXEC. This allows the authorized user IDs to connect to socket 2000.
4. If you do not want to log on to the authorized user ID every time you want to use the OSA/SF GUI, you can have the authorized user ID autologged by your VM System Administrator.

Method 2:

1. Determine which user IDs need to be authorized to use the GUI and provide CP Privilege Class B authority for those IDs. For example, if you choose the OSADMINx user ID's then you would have already set them up in section 6.2.2, "CP System Directory Updates" on page 14.
2. Verify that TCPMAINT 592 is accessed as the 'H' disk in the PROFILE EXEC on the user ID you are authorizing.
3. Verify that REXECD is running on the host by issuing QUERY REXECD command.

Default value for REXECD is to FORCE OFF the user if no screen activity occurs after 240 seconds. This value can be changed by the TCP/IP administrator by changing the startup profile for the REXECD server.

4. Enter the following from a Windows command prompt or Linux command window to start the server:

```
REXEC <hostname> -L <authorized_userID> -P <password> IOAXTSRV 2000
```

Where you have to supply the hostname, authorized_userID and its VM logon password.

When the command is entered, the ID will be autologged on by VM and receive the IOAXTSRV 2000 command. This makes it ready to accept TCP/IP communications from the workstation.

If the command is successful, the window where the command was entered will appear to be waiting for FORCE or LOGOFF of the ID.

You can use the NETSTAT and PING commands to verify the connection between the host and workstation.

6.5.3 Download and Install the Java Runtime and JavaHelp™ Files

In order to run the OSA/SF for VM GUI you need to install Java 1.4 Runtime and JavaHelp™ Files 1.1.2 or higher on your workstation.

Follow your company installation instructions for downloading the latest Java runtime files and JavaHelp files from the Internet.

6.5.4 Download the OSA/SF for VM GUI Code

In order to download the OSA/SF for VM GUI you need to create a directory on the workstation and then download the OSA/SF for VM GUI code to it.

6.5.4.1 Create a Directory for GUI Code

You need to create a directory on your workstation where you can place the code for the GUI (ioajava.jar). For example, you might create the following directory:

```
mkdir osajavagui
```

For Linux, you can define a subdirectory off of the user directory:

```
mkdir /usr/osajavagui
```

6.5.4.2 Download the OSA/SF GUI

You need to download the OSA/SF GUI file, IOAJAVA BIN, from the VM Host to the workstation.

If you have 3270 emulator support, go to 6.5.4.2.1, “Download the IOAJAVA GUI Code Using Personal Communications Manager/3270” to download using Personal Communications.

If you do not have 3270 emulator support, go to 6.5.4.2.2, “Download the IOAJAVA GUI Code Using FTP” on page 23 to download using FTP.

6.5.4.2.1 Download the IOAJAVA GUI Code Using Personal Communications

Manager/3270: The following instructions assume that you have 3270 emulator support from Personal Communications Manager/3270 on your workstation. It also assumes that the VM host system has the IND\$FILE MODULE so that you can receive files from the host to the workstation. (If you do not have 3270 emulator support, you can use FTP to transfer the OSA/SF for VM GUI file from VM to your workstation. See 6.5.4.2.2, “Download the IOAJAVA GUI Code Using FTP” on page 23.)

- 1** Close any current OSA/SF for VM GUI session on your workstation.
- 2** Establish a 3270 emulator session on the workstation. You might have to start Personal Communications/3270 if no server (host) sessions are started.

To install the emulator on Linux, download the RPM file from the following website:

www.rpmfind.net

then use the following command to install the RPM:

```
rpm -ivh x3270-3.2.19-1mdk.i586.rpm
```

- 3 Log on to one of the OSA administration user IDs (OSADMIN1) that can access the OSA/SF product production build disk (200). This disk is where the OSA/SF for VM GUI code, IOAJAVA BIN file, resides.

link OSASF 200 200 rr
acc 200 c

Link and access the OSA/SF for VM's product code production build disk. If you are using SFS, skip the link and change the access command to access the correct SFS product code production directory (default is VMSYS:4OSASF40.OSA.PBLDCODE).

- 4 Make sure the VM user ID has the READY prompt.
- 5 On the menu bar of the emulator screen, select **Actions** or **Transfer**. (This might vary depending on the level of software you are using. Also make sure that **VM/CMS** is selected as the Host Type.) From the pull down, select **Receive File from Host**. You will get a transfer screen.
- 6 On the transfer screen, ensure that the following fields are set:

- For **Host File**

ioajava bin c

- Specify the following for **PC File** name depending on whether you are downloading to Windows or Linux.

Windows:

c:\osajavagui\ioajava.jar

In the above example the directory is called *osajavagui*. You should specify the name of the directory that you chose in step 6.5.4.1, "Create a Directory for GUI Code" on page 21. This is where the code will reside.

Linux:

/usr/osajavagui/ioajava.jar

In the above example the directory is called *usr/osajavagui*. You should specify the name of the directory that you chose in step 6.5.4.1, "Create a Directory for GUI Code" on page 21. This is where the code will reside.

- For **Transfer Type**

binary

- 7 Click on the **Receive** box to transfer the file to the workstation or Linux system.

6.5.4.2.2 Download the IOAJAVA GUI Code Using FTP: If you are not using Personal Communications Manager/3270 on a workstation, you can use FTP to download the GUI code from VM.

- 1** Ensure that TCP/IP is active on the VM Host system.
- 2** From a Windows command prompt or Linux shell, initiate an FTP session to the VM host, by issuing the following command, where you have to supply the *vm_host_ip_address* variable:

```
ftp vm_host_ip_address
```

- 3** Login using the OSA/SF for VM installation and service user ID, 4OSASF40 and then change the directory to the test build disk (100) or SFS directory name (default SFS directory name is VMSYS:4OSASF40.OSA.TBLDCODE, which you would use on the CD command below). This is where the OSA/SF for VM GUI code, IOAJAVA BIN file, resides. You have to supply the, 4OSASF40 user ID to the User prompt and VM logon *password* for this user ID to the Password prompt and then do the **cd** command as follows:

```
4OSASF40
password
cd 4OSASF40.100
```

- 4** Change to the directory where you want to place the GUI code, establish a binary transfer mode, retrieve the IOAJAVA BIN file and then end the ftp session, after successful transmission. In the following the directory name is the default used in previous examples for Windows. You need to use the Windows or Linux directory name that you created in step 6.5.4.1, "Create a Directory for GUI Code" on page 21. This example is a Windows example.

```
lcd c:\osajavagui
bin
get ioajava.bin ioajava.jar
bye
```

6.5.5 Define CLASSPATH Environment Variable

After you have downloaded the OSA/SF for VM GUI code you need to define the CLASSPATH environment variable for Windows or Linux.

6.5.5.1 Define CLASSPATH Variable for Windows 2000, NT or XP

If you are running Windows then follow one set of the following instructions to define the CLASSPATH variable. If you want to define the CLASSPATH variable using the Control panel continue with 6.5.5.1.1, "Define CLASSPATH with Control panel" on page 24. If you want to define the CLASSPATH variable using a Window command prompt continue with 6.5.5.1.2, "Define CLASSPATH with Windows command prompt" on page 25.

If you are running Linux, go to 6.5.5.2, “Define CLASSPATH Environment Variable for Linux” on page 25 for instructions on doing the define.

6.5.5.1.1 Define CLASSPATH with Control panel

1 Go to the **Control Panel** on the workstation.

For Windows 2000 or NT:

- a. Double click the **System** icon.
- b. Click on the **Advanced** tab.
- c. Click on **Environment Variables**

For Windows XP:

- a. Double click on **Performance and Maintenance**.
- b. Click on **System**.
- c. Click on **Advanced Page**
- d. Click on **Environment Variables**

2 On the **System Variables** window, select the following variable and click **Edit**:

CLASSPATH

If you do not find CLASSPATH listed, click **New** to create it.

3 For CLASSPATH **Variable Value**, specify the directories where you have stored the Java runtime libraries, Java help files and the OSA/SF for VMGUI code that you downloaded.

Note: Java runtime libraries need to be specified in the Windows PATH system environment variable or through the SET PATH command from a Windows command prompt.

For example, you might have the following CLASSPATH definitions for **Variable Value**:

```
C:\ProgramFiles\Java\jh1.1.3\java\help\lib\jh.jar;C:\osajavagui\ioajava.jar
```

If you are creating CLASSPATH for the first time, you need to specify the name for **Variable Name** in the window.

4 Click **OK** on each open window to save the data and exit.

6.5.5.1.2 Define CLASSPATH with Windows command prompt

- 1 From a Windows command prompt, type SYSEDIT to display a window that includes CONFIG.SYS. Set the variable in CONFIG.SYS as follows:

```
CLASSPATH=directory_path
```

where *directory_path* is the location of the JavaHelp files and the ioajava.jar file.

For the runtime Java files, ensure that you have defined the location as follows:

```
PATH=directory_path
```

where *directory_path* is the location of the Java runtime files.

Note: You can also set CLASSPATH and PATH variables through the following Windows commands:

```
SET CLASSPATH=directory_path  
SET PATH=directory_path
```

where *directory_path* is the location of the appropriate Java files. You can define or append directories to an existing string.

- 2 To verify if the variables are set correctly, issue the following commands:

```
echo %CLASSPATH%  
echo %PATH%
```

6.5.5.2 Define CLASSPATH Environment Variable for Linux

If you are running Linux then follow these instructions to define the CLASSPATH variables.

- 1 Issue the export command for CLASSPATH and specify the directories where you have stored the Java runtime libraries (for the PATH statement), the Java help files, and the OSA/SF for VM GUI code that you downloaded. For example, you might issue the following command with these definitions for **Variable Value:**

```
export CLASSPATH=/usr/osajavagui/ioajava.jar:/usr/java/jh1.1.3/javahelp/lib/jh.jar
```

- 2 To verify if the variable is set correctly, issue the following command:

```
echo $CLASSPATH
```

You can update the .bash_profile so that you do not need to retype the export CLASSPATH command each time that you log on. You update the file depending on how you log on, as follows:

- If you log on as root, update the file in /root
/root/.bash_profile

- If you log on as a user, update the file in the `/home/userid` directory, where *userid* is the id of the user. Edit the `.bash_profile` file and add the export command to the bottom of the file. (You might need to create the `/home/userid` directory and the `.bash_profile` file if they do not exist. Update the attributes to make the file executable:

```
chmod +x.bash_profile
```

OSA/SF for VM is now installed and built on your system.

Refer to the *eServer zSeries: Open Systems Adapter-Express Customer's Guide and Reference* manual for instructions on setting up OSA/SF for VM and using the GUI.

7.0 Service Instructions

Note - z/VM Automated Service Procedure

The **preferred** method for installing service to OSA/SF for VM is to use the z/VM automated service procedure (use of the **SERVICE** and **PUT2PROD** commands).

If you have chosen to use the automated procedure to apply preventive (RSU) and CORrective service to your z/VM system, you need to follow the service instructions documented in the *z/VM: Guide for Automated Installation and Service* manual, instead of those presented here.

RSU Note

If applying an OSA/SF for VM RSU go to Appendix A, "Applying a Recommended Service Upgrade (RSU) for OSA/SF for VM" on page 38. You will return to a step in this chapter as specified in that appendix.

This section of the Program Directory contains the procedure to install CORrective service to OSA/SF for VM. VMSES/E is used to install service for OSA/SF for 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 OSA/SF for VM using VMSES/E.

- Prepare to Receive Service

Use the VMFMRDSK command to clear the alternate apply disk before receiving new service. This allows you to easily 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 *z/VM: 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.

7.2 Servicing OSA/SF for VM

7.2.1 Prepare to Receive Service

Electronic Service (envelope file)

If you have received service electronically or on CD-ROM, follow the appropriate instructions to retrieve and decompress the envelope files to your A-disk. The decompression is currently done by using the DETERSE module (shipped with VMSES/E).

/ The documentation envelope and the service (PTF) envelope files must have a file type of SERVLINK.
/ Make note of the file names that you are using as you will need to enter them in place of the variable
/ *envfilename* in the VMFREC commands that follow.

The *ppfname* used throughout these servicing instructions is **4OSASF40**, which assumes you are using the PPF supplied by IBM for OSA/SF for VM. If you have your own PPF override file for OSA/SF for VM, you should use your file's *ppfname* instead of **4OSASF40**. The *ppfname* you use should be used **throughout** the rest of this procedure, unless otherwise stated differently.

- 1** Logon to OSA/SF for VM service user ID **4OSASF40**.

Note: The PROFILE EXEC for the service user ID, 4OSASF40, should already contain the ACCESS commands for the VMSES/E disk (MAINT 5E5) and the Software Inventory disk (MAINT 51D).

- 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 because someone else has it R/W, you will need to have that user 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 the default minidisk where the VMSES/E Software Inventory files and other product dependent files reside.

If your VMSES/E Software Inventory is on a different minidisk or in shared file (SFS), use that address or SFS directory name instead.

- 3** Have the OSA/SF for VM CORrective service tape mounted and attached to **4OSASF40**. (If you have a service envelope (SERVLINK) file make sure that it is available on the A-disk or any disk accessed as C).
- 4** Establish the correct minidisk access order.

vmfsetup 4OSASF40 {OSA | OSASFS}

4OSASF40 is the PPF that was shipped with the product. If you have your own PPF override you should substitute your PPF name for 4OSASF40.

Use **OSA** for installing on minidisks or **OSASFS** for installing in Shared File System directories.

- 5** Receive the documentation. VMFREC, with the INFO option, loads the documentation and displays a list of all the products on the tape.

a If receiving the service from tape

vmfrec info

This command will load the service memo to the 191 disk.

b If receiving the service from an envelope file

/ vmfrec info (env envfilename
/

envfilename is the file name of the documentation envelope (SERVLINK) file.

This command will load the service memo to the 191 disk.

- 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. To do this, use the PF5 key to show all status messages which identify the products with service.

- 7 Merge previously applied service to ensure that you have a clean alternate apply disk for new service.

vmfmrdsd 4OSASF40 {OSA | OSASFS} apply Use **OSA** for installing on minidisks or **OSASFS** for installing in Shared File System directories.
This command clears the alternate APPLY disk.

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

vmfview mrd

7.2.2 Receive the Service

- 1 Receive the service.

a If receiving the service from tape

vmfrec ppf 4OSASF40 {OSA | OSASFS} Use **OSA** for installing on minidisks or **OSASFS** for installing in Shared File System directories.
This command receives service from your service tape. All new service is loaded to the alternate DELTA disk.

b If receiving the service from the PTF envelope file

/ vmfrec ppf 4OSASF40 {OSA | OSASFS} (env envfilename

/
/

Use **OSA** for installing on minidisks or **OSASFS** for installing in Shared File System directories.
envfilename is the file name of the service (PTF) envelope (SERVLINK) file.
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 the appropriate *z/VM: System Messages and Codes*, or use on-line HELP.

vmfview receive

7.2.3 Apply the Service

1 Apply the new service.

vmfapply ppf 4OSASF40 {OSA | OSASFS}

Use **OSA** for installing on minidisks or **OSASFS** 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.

Note: If you receive a return code of 4 this may indicate that you have local modifications that need to be reworked so make sure you review the VMFAPPLY message log as documented in the next step.

- 2 Review the apply message log (\$VMFAPP \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see the appropriate *z/VM: 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 OSA/SF for VM. Refer to chapter 7 in the *z/VM: Service Guide*. Follow the steps that are applicable to your local modification.

The following substitutions need to be made:

- **zvm** should be **4OSASF40**
- *compname* should be **OSA** or **OSASFS** (minidisk or SFS)
- *appid* should be **4OSASF40**
- *fm-local* should be the fm of 2C2
- *fm-applyalt* should be the fm of 2A6

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 "Rebuild Remaining Objects" step in the *z/VM: Service Guide*, you should return back to this program directory at 7.2.4, "Update the Build Status Table."

7.2.4 Update the Build Status Table

- 1 If you have TCP/IP installed, make sure the minidisk that has the TCP/IP **COMMTXT TXTLIB** on it is linked and accessed.
- 2 Make sure that the LE (Language Environment) **SCEERUN LOADLIB** and **SCEELKED TXTLIB** are on a linked and accessed minidisk.
- 3 Update the Build Status Table with serviced parts.
Note: Neither the SCEELKED TXTLIB nor the COMMTXT TXTLIB should be globalized before you run the VMFBLD.

vmfbld ppf 4OSASF40 {OSA | OSASFS} (status

Use **OSA** for installing on minidisks or **OSASFS** for installing in Shared File System directories.

This command updates the Build Status Table.

Note

If message VMFBLD2185R was issued then the \$PPF file has been serviced. You will then need to reply to the prompts as shown here.

VMFBLD2185R The following source product parameter files have been serviced:

VMFBLD2185R 4OSASF40 \$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 4OSASF40 \$PPF
on 191 (A) from level \$PFnnnnn

vmfppf 4OSASF40 *

Note: If you've created your own PPF override then use your PPF name instead of 4OSASF40.

**copy 4OSASF40 \$PPF a = = d (oldd replace
erase 4OSASF40 \$PPF a**

Note: Do not use your own PPF name in place of 4OSASF40 for the COPY and ERASE commands.

vmfbld ppf 4OSASF40 {OSA | OSASFS} (status

1

Re-issue VMFBLD to complete updating the build status table. If you have your own PPF name then you should use it on the VMFBLD command.

Use **OSA** for installing on minidisks or **OSASFS** for installing in Shared File System directories.

When you receive the prompt that was previously displayed, enter a 1 to continue.

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

vmfview build

Note: Some PTF applications will delete objects or executables from the test build disks or directories but these files will not get deleted from the production build disks or directories. Having the deleted files on the production build disks should not cause any problems. If you do not want the deleted files on the production build disk/directory you can erase them directly after you do the step 7.3, "Place the New OSA/SF for VM Service Into Production" on page 35.

7.2.5 Build Serviced Objects

- 1 If you have TCP/IP installed, make sure the minidisk that has the TCP/IP **COMMTXT TXTLIB** on it is linked and accessed.

- 2 Make sure that the LE (Language Environment) **SCEERUN LOADLIB** and **SCEELKED TXTLIB** are on a linked and accessed minidisk.

- 3 Rebuild OSA/SF for VM serviced parts.

Note: Neither the SCEELKED TXTLIB nor the COMMTXT TXTLIB should be globalized before you run the VMFBLD.

vmfbld ppf 4OSASF40 {OSA | OSASFS} (serviced Use **OSA** for installing on minidisks or **OSASFS** for installing in Shared File System directories.

The following messages that are issued when building the IOACMAIN MODULE are normal and can be ignored.

```
DMSLI0202W Duplicate identifier SVMAENV
:
DMSLI0202W Duplicate identifier STRACE
DMSLI0202W Duplicate identifier FP
VMFPMD1966W The command, LOAD, completed with return code 4 while
processing object IOACMAIN.MODULE. It was operating upon
file CPOBJ TEXT
```

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

vmfview build

7.3 Place the New OSA/SF for VM Service Into Production

7.3.1 Copy the New OSA/SF for VM Serviced Files Into Production

- 1 Logoff (or shutdown) the OSA/SF for VM service machines. This needs to be done since files will be copied to minidisks owned by the OSASF user ID and the OSAMAIN user ID hence write authority is needed by the 4OSASF40 user ID.
- 2 Logon to the installation user ID **4OSASF40**.
- 3 Copy OSA/SF for VM code on to OSASF's production code build disk.

a If using minidisks

| | |
|---|---|
| access 100 e | The VMFCOPY command will update the VMSES |
| access 200 f | PARTCAT file on the 200 disk. |
| vmfcopy * * e = = f (prodid 4OSASF40%OSA olddate replace | |

b If using Shared File System

| | |
|--|--|
| access vmsys:4osaf40.osa.tbldcode e | The VMFCOPY command will update the VMSES |
| access vmsys:4osaf40.osa.pbldcode f | PARTCAT file on the production code directory. |
| vmfcopy * * e = = f2 (prodid 4OSASF40%OSA olddate replace | |

If you are not using the default SFS directory names then substitute in your names in the access commands.

- 4 Copy OSA/SF for VM IMAGE files on to OSASF's production IMAGE build disk.

a If using minidisks

| | |
|---|---|
| access 300 e | The VMFCOPY command will update the VMSES |
| access 400 f | PARTCAT file on the 400 disk. |
| vmfcopy * * e = = f (prodid 4OSASF40%OSA olddate replace | |

b If using Shared File System

| | |
|---|---|
| access vmsys:4osaf40.osa.tbldimage e | The VMFCOPY command will update the VMSES |
| access vmsys:4osaf40.osa.pbldimage f | PARTCAT file on the production image directory. |
| vmfcopy * * e = = f (prodid 4OSASF40%OSA olddate replace | |

If you are not using the default SFS directory names then substitute in your names in the access commands.

- 5 Copy OSA/SF for VM common LPAR files on to OSAMAIN'T's production common LPAR build disk.

access 7F00 e

access 8F00 f

vmfcopy * * e = = f (prodid 4OSASF40%OSA olddate replace

The VMFCOPY command will update the VMSES PARTCAT file on the OSAMAIN'T 7F00 disk.

7.3.2 Copy the New OSA/SF for VM GUI Serviced Files Into Production

If you received message VMFBLD2250W then the OSA/SF for VM GUI was serviced, IOAJAVA BIN file. To place the new serviced IOAJAVA BIN file into production follow the instructions in section 6.5.4.2.1, "Download the IOAJAVA GUI Code Using Personal Communications Manager/3270" on page 21 or 6.5.4.2.2, "Download the IOAJAVA GUI Code Using FTP" on page 23, depending on your environment.

Where to next

To complete the service application continue with 7.3.3, "Place Serviced Sample Files Into Production."

7.3.3 Place Serviced Sample Files Into Production

- 1 If a SAMPPROF or SAMPNAME file has been serviced then you have to update your copy of the file. You can look in the \$VMFBLD \$MSGLOG to see if the file has been serviced.

The new serviced copy of the SAMPPROF or SAMPNAME file will be on the local/sample disk (2C2) or SFS directory (VMSYS:4OSASF40.OSA.SAMPLE). You will need to compare your real copy of these files, PROFILE EXEC or NAMES files on the different OSA/SF user ID's (OSASF, OSAMAIN'T, OSADMINx), to the new copy and update your copy accordingly.

Note: The OSASF user ID PROFILE EXEC **must** set LDRTBLS to 6 (or higher). If the LDRTBLS are not set to 6 (or higher) the OSASF user ID will give an APPC failed message.

- 2 If a SAMPPROF file has been serviced and you previously have copied those files to the OSASF's production build disk (200) then you need to refresh the existing copy with the serviced copy.

a If using minidisks

access 2C2 e

access 200 f

vmfcopy * sampprof e = = f (prodid 4OSASF40%OSA olddate replace

The VMFCOPY command will update the VMSES
PARTCAT file on the 200 disk.

b If using shared file system

access vmsys:4osASF40.osa.sample e

access vmsys:4osASF40.osa.pbldcode f

vmfcopy * sampprof e = = f (prodid 4OSASF40%OSA olddate replace

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

If you are not using the default SFS directory
names then substitute in your names in the access
commands.

You have finished servicing OSA/SF for VM.

Appendix A. Applying a Recommended Service Upgrade (RSU) for OSA/SF for VM

Note - z/VM Automated Service Procedure

The **preferred** method for installing service to OSA/SF for VM is to use the z/VM automated service procedure (use of the **SERVICE** and **PUT2PROD** commands).

If you have chosen to use the automated procedure to apply preventive (RSU) and CORrective service to your z/VM system, you need to follow the service instructions documented in the *z/VM: Guide for Automated Installation and Service* manual, instead of those presented here.

An RSU is structured to install all PTFs included on the RSU plus the files containing the preapplied service and prebuilt objects. All PTF-related files are loaded to the delta disk. The files containing the preapplied service, i.e. containing the results of VMFAPPLY, is loaded to the alternate apply disk and the contents of the 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 as full part replacement only) in any way. Local modifiable assemble 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 is an overview of the tasks that need to be performed during the Preventive Service procedure (PSU) using the RSU:

- 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 easily 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 that was already installed for OSA/SF for 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 generate the serviced level of an object and place 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 disks, etc.

A.1 Apply OSA/SF for VM RSU

A.1.1 Prepare Your System for Service Refresh

The *ppfname* used throughout these instructions is **4OSASF40**, which assumes you are using the PPF supplied by IBM for OSA/SF for VM. If you have your own PPF override file for OSA/SF for VM you should use your file's *ppfname* instead of **4OSASF40**. 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 decompress the envelope file file to your A-disk. The decompression is currently done by using the DETERSE MODULE (shipped with VMSES/E).

/ The service (RSU PTF) envelope files must have a file type of SERVLINK. Make note of the file
/ names that you are using as you will need to enter them in place of the variable *envfilename* in the
/ VMFINS commands that follow.

/ The documentation envelope file will be a readable flat file after DETERSE is run against it. It will not
/ get used in the following RSU application instructions.

1 Read through the latest RSU information hard copy memo.

2 Logon to the OSA/SF for VM service user ID **4OSASF40**.

Note: The PROFILE EXEC for the service user ID, 4OSASF40, should already contain the ACCESS commands for the VMSES/E disk (MAINT 5E5) and the Software Inventory disk (MAINT 51D).

- 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 because someone else has it R/W, you will need to have that user 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 the default minidisk where the VMSES/E Software Inventory files and other product dependent files reside.

If your VMSES/E Software Inventory is on a different minidisk or in shared file (SFS), use that address or SFS directory name instead.

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

- 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 RSU. 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 envfilename      envfilename is the file name of service (RSU PTF)
/                                                    envelope file (SERVLINK) that represents volume 1
/                                                    of the RSU.
```

- 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 OSA/SF for VM documentation (4OSASF40 MEMO D) received in the previous step.

- 7 Setup the correct minidisk access order

vmfsetup 4OSASF40 {OSA | OSASFS}

Use **OSA** for installing on minidisks or **OSASFS** for installing in Shared File System directories.

8 Merge the APPLY disks for OSA/SF for 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 4OSASF40 {OSA | OSASFS} apply

Use **OSA** for installing on minidisks or **OSASFS** 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 *z/VM: Service Guide* for an explanation of this file.

vmfpsu 4OSASF40 {OSA | OSASFS}

Use **OSA** for installing on minidisks or **OSASFS** 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 OSA/SF for VM service disks by loading new service from the RSU

a If receiving the RSU from tape

vmfins install ppf 4OSASF40 {OSA | OSASFS} (nomemo nolink

Use **OSA** for installing on minidisks or **OSASFS** for installing in Shared File System directories.

b If receiving the RSU from an envelope file

/ vmfins install ppf 4OSASF40 {OSA | OSASFS} (nomemo nolink env envfilename

/
/
/
/
/

Use **OSA** for installing on minidisks or **OSASFS** for installing in Shared File System directories.

envfilename is the file name of service (RSU PTF) envelope file (SERVLINK) that represents volume 1 of the RSU. You will be prompted for the other RSU volume envelope file names, if or when they are needed.

```

VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 40SASF40
           OSA :PRODID 40SASF40%OSA?
           Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 40SASF40 OSA :PRODID
           40SASF40%OSA
VMFREQ2805I Product :PPF 40SASF40 OSA :PRODID 40SASF40%OSA
           has passed requisite checking
VMFINT2603I Installing product :PPF 40SASF40 OSA :PRODID
           40SASF40%OSA
VMFSET2760I VMFSETUP processing started for 40SASF40 OSA
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 the appropriate *z/VM: 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 4OSASF40 {OSA | OSASFS}

Use **OSA** for installing on minidisks or **OSASFS** 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 (4OSASF40 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

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 the appropriate *z/VM: 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 *z/VM: Service Guide*.

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

To rebuild all objects that were flagged serviced on the RSU, affected by reach-ahead service that was reapplied and local modifications continue with the instructions in 7.2.4, "Update the Build Status Table" on page 32. This will also lead you into the steps to place OSA/SF for VM into production.

A.2 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.

To find out the current service level for OSA/SF for VM you can use the VMFSIM QUERY command or if you use the automated service procedures you can use SERVICE command with the STATUS operand.

The following is an example of using the VMFSIM command to query the current RSU service level.

vmfsim query vm sysrecs 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: 0501

```
VMFSIP2408I RESULTS FOR
          TDATA :PPF 40SASF40 :STAT
:PPF 40SASF40 OSA
:STAT RECEIVED.mm/dd/yy.hh:mm:ss.userid.RSU-0501
```

The following is an example of using the SERVICE command to query the current RSU service level.

service OSA status

The output from this command is similar to the following console log. The last part of message VMFSRV1225I indicates the RSU service level: 0501

```
VMFSRV2760I SERVICE processing started  
VMFSRV1225I OSA (40SASF40) is at service level RSU-0501  
VMFSRV2760I SERVICE processing completed successfully
```

Appendix B. Moving OSA/SF for VM to SFS Directories and Creating a PPF Override

By default, Open Systems Adapter Support Facility for VM is installed to minidisks as part of the z/VM System deliverables unless you choose to install OSA/SF for VM to SFS during the initial z/VM installation. If you did not install OSA/SF for VM into SFS directories and want to move it now, you can. Refer to Figure 6 on page 9 to see which minidisks can reside in SFS. You can use either the default file pool, VMSYS, or a file pool of your choice.

A summary of the steps that are needed to place OSA/SF for VM into SFS are:

- Allocate space in the user-defined file pool
- Provide the installation user ID, 4OSASF40, access to the file pool
- Create the necessary OSA/SF for VM subdirectories
- Copy files from the minidisks to the new SFS subdirectories
- Create a PPF override, if not using the default file pool or subdirectory names.

Where to next

You need to do one of the following:

- If you want to place OSA/SF for VM into SFS directories **using the defaults defined in the 4OSASF40 PPF file** you should use the MOVE2SFS command, as documented in the *z/VM: CP Commands and Utilities Reference* manual.
- If you want to place OSA/SF for VM into your **own user-defined file pool or SFS directories**, continue with the instructions in B.1, "Setup SFS File Pool and Directories" on page 47.
- If you need to **just create a PPF override**, continue with the instructions in B.3, "Create Product Parameter File (PPF) Override" on page 49.

After you have chosen one of the previous options and completed the steps required (whether in this appendix or in the *z/VM CP Commands and Utilities Reference*) you need to return to the section that pointed you to this appendix and continue from there (if you were pointed to this appendix).

B.1 Setup SFS File Pool and Directories

Notes:

1. The steps that follow help you determine the OSA/SF for VM file pool space requirements, file pool enrollment, and SFS directory definitions. If not all of these steps are required - for example, you are changing only SFS directory or subdirectory names - adapt these instructions as needed for your environment.
2. The steps that follow assume that a user-defined SFS file pool name is being used. If you will be using the VM default VMSYS file pool name, substitute it in any place you see 'user-defined file pool' or *userfilepool*.
3. For more information about planning for, generating and managing a file pool and server, see *z/VM File Pool Planning, Administration and Operation*.

- 1** 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 OSA/SF for VM SFS directories, the 4K block requirements for each directory are summarized in Figure 6 on page 9.

This information is used when enrolling the 4OSASF40 to the user-defined file pool.

- 2** Enroll user 4OSASF40 in the user-defined file pool using the ENROLL USER command:

```
ENROLL USER 4OSASF40 userfilepool: (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 the user-defined file pool.

- 3** Determine if there are enough blocks available in the file pool to install OSA/SF for VM. This information can be obtained from the QUERY FILEPOOL STORGRP command. The output from this command is a list of storage groups and the number of 4K blocks free. If the number of 4K blocks free is smaller than the total 4k blocks needed to install OSA/SF for VM you need to add space to the file pool. See *z/VM CMS File Pool Planning, Administration, and Operation* manual for information on adding space to a file pool.

- 4** Create the necessary subdirectories using the CREATE DIRECTORY command.

Note: All of the OSA/SF for VM subdirectories are shown in the create directory commands. If you are not planning on creating them all then just enter the commands for the ones you are planning on creating.

A complete list of default OSA/SF for VM SFS directories is provided in Figure 6 on page 9.

| | |
|---|--|
| set filepool <i>userfilepool:</i> | If you have changed any of the default SFS |
| create directory <i>userfilepool:4OSASF40.osa</i> | directory names then use your new name in place |
| create directory <i>userfilepool:4OSASF40.osa.object</i> | of the old name in the create directory command. |
| create directory <i>userfilepool:4OSASF40.osa.applyalt</i> | If necessary, see the <i>z/VM CMS Commands and</i> |
| create directory <i>userfilepool:4OSASF40.osa.applyprod</i> | <i>Utilities Reference</i> manual for more information |
| create directory <i>userfilepool:4OSASF40.osa.delta</i> | about the CREATE DIRECTORY command. |
| create directory <i>userfilepool:4OSASF40.osa.sample</i> | |
| create directory <i>userfilepool:4OSASF40.osa.tbldcode</i> | |
| create directory <i>userfilepool:4OSASF40.osa.tbldimage</i> | |
| create directory <i>userfilepool:4OSASF40.osa.pblldcode</i> | |
| create directory <i>userfilepool:4OSASF40.osa.pblldimage</i> | |

- 5** Give the OSASF and the OSAMAIN user IDs READ and WRITE authority and the administrator user IDs just READ authority to the production code and production image directories, using the GRANT AUTHORITY command.

```
grant auth userfilepool:4OSASF40.osa.PBLDCODE to OSASF (write newwrite)
grant auth userfilepool:4OSASF40.osa.PBLDCODE to OSAMAIN (write newwrite)
grant auth userfilepool:4OSASF40.osa.PBLDIMAGE to OSASF (write newwrite)
grant auth userfilepool:4OSASF40.osa.PBLDIMAGE to OSAMAIN (write newwrite)
grant auth userfilepool:4OSASF40.osa.PBLDCODE to OSADMINx. (read newread)
grant auth userfilepool:4OSASF40.osa.PBLDIMAGE to OSADMINx. (read newread)
```

If necessary, see the *z/VM CMS Commands and Utilities Reference* manual for more information about the GRANT AUTHORITY command.

- 6** Give the OSASF user ID READ authority to the test code directory, using the GRANT AUTHORITY command.

```
grant auth userfilepool:4OSASF40.osa.TBLDCODE to OSASF (read newread)
```

If necessary, see the *z/VM CMS Commands and Utilities Reference* manual for more information about the GRANT AUTHORITY command.

- 7** If you intend to use an SFS directory as the work space for the 4OSASF40 user ID, include the following IPL control statement in the 4OSASF40 directory entry:

```
IPL CMS PARM FILEPOOL VMSYS
```

This will cause CMS to automatically access 4OSASF40's top directory as file mode A.

B.2 Copy Minidisk (or SFS) Files to SFS Directories

- 1** Copy the files from the OSA/SF for VM minidisks (or from the VMSYS file pool, if OSA/SF for VM is already installed there) to your new user-defined SFS file pool and directories using the VMFCOPY command.

Note: Repeat the ACCESS and VMFCOPY commands, that follow, for each disk or SFS directory you need to copy. Refer to Figure 6 on page 9 for the default minidisk and SFS directory names for OSA/SF for VM.

```
access vdev e
```

```
access dirid f
```

```
vmfcopy * * e = f (prodid 4OSASF40%OSA olddate replace
```

Where

- *vdev* is the minidisk you are copying files from. If you are copying from SFS then substitute in the SFS directory name in place of *vdev*.
- *dirid* is the name of the (target) SFS directory that you are copying files to.
- 4OSASF40%OSA is the PRODID defined within the 4OSASF40 PPF file for the minidisk and SFS OSA/SF for VM components.

The VMFCOPY command will update the VMSES PARTCAT file on the target directory.

B.3 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 is how to change the shared file system (SFS) file pool where OSA/SF for VM files reside. Refer to the *VMSES/E Introduction and Reference* for more information on PPF overrides.

Note: Do **not** modify the product supplied 4OSASF40 \$PPF or 4OSASF40 PPF files to change the VMSYS file pool name or any other installation parameters. If the 4OSASF40 \$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 "MYPOOL":

1 Create a new \$PPF override file or edit an existing override file.

xedit *overname* \$PPF *fm2*

overname is the PPF override file name (such as "myosa") 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, or whatever disk or SFS directory contains the VMSES/E system software inventory files.)

2 Create (or modify as required) the Variable Declarations (:DCL.) section for the OSASFS override area so that it resembles the :DCL. section as shown below.

```
:OVERLST. OSASFS
*
*=====*
:OSASFS OSA 40SASF40
*=====*
:DCL. UPDATE
&INST191 DIR MYPPOOL:40SASF40.
&LOCALSAM DIR MYPPOOL:40SASF40.OSA.SAMPLE
&DELTA DIR MYPPOOL:40SASF40.OSA.DELTA
&APPLY1 DIR MYPPOOL:40SASF40.OSA.APPLYPROD
&APPLY2 DIR MYPPOOL:40SASF40.OSA.APPLYALT
&BUILD0 DIR MYPPOOL:40SASF40.OSA.TBLDCODE
&BUILD1 DIR MYPPOOL:40SASF40.OSA.PBLDCODE
&BUILD4 DIR MYPPOOL:40SASF40.OSA.TBLDIMAGE
&BUILD5 DIR MYPPOOL:40SASF40.OSA.PBLDIMAGE
&BASE DIR MYPPOOL:40SASF40.OSA.OBJECT
:EDCL.
:END.
*=====*
*
```


This override will replace the **:DCL.** section of the OSASFS override area of the 4OSASF40 \$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).

file

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

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

vmfppf *overname* **osasfs**

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 4OSASF40 as the PPF name to be used for any VMSES/E commands that require a PPF name.

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