Program Directory for

Tivoli NetView for z/OS

US English

Version 5 Release 1, Modification Level 00

Program Number 5697-ENV

FMID HENV510

for Use with
z/OS

Document Date: June 2004

GI10-3194-02

Note!

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

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APAR numbers are provided in this document to assist in locating PTFs that may be required. Ongoing problem reporting may result in additional APARs being created. Therefore, the APAR lists in this document may not be complete. To obtain current service recommendations and to identify current product service requirements, always contact the Tivoli or IBM Customer Support Center or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

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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 Tivoli NetView for z/OS. This publication refers to Tivoli NetView for z/OS as Tivoli NetView for z/OS Version 5 Release 1. You should read all of this program directory before installing the program and then keep it for future reference.

The program directory contains the following sections:

- 2.0, “Program Materials” on page 4 identifies the basic and optional program materials and documentation for Tivoli NetView for z/OS Version 5 Release 1.
- 3.0, “Program Support” on page 10 describes the Tivoli support available for Tivoli NetView for z/OS Version 5 Release 1.
- 4.0, “Program and Service Level Information” on page 12 lists the APARs (program level) and PTFs (service level) incorporated into Tivoli NetView for z/OS Version 5 Release 1.
- 5.0, “Installation Requirements and Considerations” on page 13 identifies the resources and considerations for installing and using Tivoli NetView for z/OS Version 5 Release 1.
- 6.0, “Installation Instructions” on page 34 provides detailed installation instructions for Tivoli NetView for z/OS Version 5 Release 1. It also describes the procedures for activating the functions of Tivoli NetView for z/OS Version 5 Release 1, or refers to appropriate publications.
- Appendix A, “Program Level Information” on page 54 provides program level information for Tivoli NetView for z/OS Version 5 Release 1.

Before installing Tivoli NetView for z/OS Version 5 Release 1, read 3.2, “Preventive Service Planning” on page 10. This section tells you how to find any updates to the information and procedures in this program directory.

Do not use this program directory if you are installing Tivoli NetView for z/OS Version 5 Release 1 with a SystemPac or ServerPac. When using these offerings, use the jobs and documentation supplied with the offering. This documentation may point you to specific sections of the program directory as required.

If you are installing Tivoli NetView for z/OS Version 5 Release 1 using the Custom-Built Product Delivery Offering (CBPDO, 5751-CS3), a softcopy program directory is provided on the CBPDO tape which is identical to the printed copy shipped with your order. Your CBPDO contains a softcopy preventive service planning (PSP) upgrade for this product. All service and HOLDDATA for Tivoli NetView for z/OS Version 5 Release 1 are included on the CBPDO tape.

1.1 Tivoli NetView for z/OS Version 5 Release 1 Description

Building on the already rich functionality of Tivoli NetView for OS/390 Version 1 Release 4, Version 5 Release 1 provides these additional enhancements.

- TCP/IP Management
  - IP Resource Discovery and Management on Linux on zSeries
  - Support for Dynamic Virtual IP Addressing (DVIPA)
  - TCP/IP Connection Monitoring and Thresholding
- Enhanced Web Console
  - Redesigned Web interface
  - SNMP services from the Web Console
  - TCP/IP Stack Management
- Time to Value
  - Simpler customization through enhancements to the NetView Style Sheet
  - Streamlined Packaging
- NetView Management Console (NMC)
  - NMC Topology Server now supports Linux on zSeries
  - NMC Topology Console now supports Linux on Intel platforms
- Enhanced Security
  - SAF surrogate authority for TSO commands
  - Automatic logging of suppressed operator commands
  - Command Authorization Checking in context
  - Additional NMC Security
- IP Packet Tracing
  - Capture and view formatted TCP/IP packet trace data in real time

1.2 Tivoli NetView for z/OS Version 5 Release 1 FMIDs

Tivoli NetView for z/OS Version 5 Release 1 consists of the following FMIDs:

HENV510
JENV511
JENV513
JENV514

2.0 Program Materials

A Tivoli program is identified by a program number and a feature number. The program number for Tivoli NetView for z/OS Version 5 Release 1 is 5697-ENV.

Basic Machine-Readable Materials are materials that are supplied under the base license and feature code, and are required for the use of the product. Optional Machine-Readable Materials are orderable under separate feature codes, and are not required for the product to function.

The program announcement material describes the features supported by Tivoli NetView for z/OS Version 5 Release 1. Ask your Tivoli representative for this information if you have not already received a copy.

2.1 Basic Machine-Readable Material

The distribution medium for this program is magnetic tape or downloadable files. It is installed using SMP/E, and is in SMP/E RELFILE format. See 6.0, “Installation Instructions” on page 34 for more information about how to install the program.

Figure 1 describes the physical tapes. Figure 2 on page 5 and Figure 3 on page 5 describe the file content.

Notes:

1. The data set attributes in these tables should be used in the JCL of jobs reading the data sets, but since the data sets are in IEBCOPY unloaded format, their actual attributes may be different.
2. If you are installing Tivoli NetView for z/OS Version 5 Release 1 using the Custom-Built Product Delivery Offering (CBPDO) (5751-CS3), some of the information in these figures may not be valid. Consult the CBPDO documentation for actual values.
3. If any RELFILEs are identified as PDSEs, ensure that SMPTLIB data sets are allocated as PDSEs.

Figure 1 (Page 1 of 2). Basic Material: Program Tape

Medium	Feature Number	Physical Volume	External Label	R/M *	VOLSER
3480 cart	5802	1	E 1/2 VOLSER=ENV510	N	ENV510
3480 cart	5802	2	E 2/2 VOLSER=ENV510	N	ENV513
4mm cart	5702	1	E 1/2 VOLSER=ENV510	N	ENV510
4mm cart	5702	2	E 2/2 VOLSER=ENV510	N	ENV513

Figure 1 (Page 2 of 2). Basic Material: Program Tape

Medium	Feature Number	Physical Volume	External Label	R/M *	VOLSER
CDROM			LCD4-4916 Tivoli NetView for z/OS	N	
CDROM			LK2T-6175 Tivoli NetView for z/OS Online Library	N	
CDROM			LCD4-4928 Integrated TCP/IP Services	N	

* R/M = Restricted Materials of IBM

Figure 2. Program File Content Base tape

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	8800
HENV510.F1	SEQ	FB	80	8800
HENV510.F2	SEQ	FB	80	8800
HENV510.F3	SEQ	U	0	6144
HENV510.F4	SEQ	FB	80	8800
HENV510.F5	SEQ	FB	125	3125
HENV510.F6	SEQ	VB	1028	23648
JENV511.F1	SEQ	FB	80	8800
JENV511.F2	SEQ	FB	80	8800

Figure 3 (Page 1 of 2). Program File Content Base tape 2

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	8800

Figure 3 (Page 2 of 2). Program File Content Base tape 2

Name	ORG	RECFM	LRECL	BLK SIZE
JENV513.F1	SEQ	FB	80	8800
JENV513.F2	SEQ	FB	80	8800
JENV513.F3	SEQ	U	0	6144
JENV513.F4	SEQ	FB	80	8800
JENV513.F5	SEQ	VB	1028	23648
JENV514.F1	SEQ	FB	80	8800
JENV514.F2	SEQ	FB	125	3125
JENV514.F3	SEQ	FB	80	8800
JENV514.F4	SEQ	U	0	6144
JENV514.F5	SEQ	VB	516	8256

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for Tivoli NetView for z/OS Version 5 Release 1.

2.3 Program Publications

The following sections identify the basic and optional publications for Tivoli NetView for z/OS Version 5 Release 1.

2.3.1 Basic Program Publications

Figure 4 identifies the basic unlicensed program publications for Tivoli NetView for z/OS Version 5 Release 1. One copy of each of these publications is included when you order the basic materials for Tivoli NetView for z/OS Version 5 Release 1. For additional copies, contact your IBM and/or Tivoli representative.

Figure 4 (Page 1 of 2). Basic Material: Unlicensed Publications

Publication Title	Form Number
Tivoli NetView for OS/390 Licensed Program Specifications	GC31-8848
Tivoli NetView for OS/390 Installation: Getting Started	SC31-8872

Figure 4 (Page 2 of 2). Basic Material: Unlicensed Publications	
Publication Title	**Form Number**
Tivoli NetView for OS/390 Installations: Migration Guide	SC31-8873
Tivoli NetView for OS/390 Tuning Guide	SC31-8869

Figure 5 identifies the basic licensed program publications for Tivoli NetView for z/OS Version 5 Release 1. 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.

Figure 5. Basic Material: Licensed Publications		
Publication Title	**Form Number**	**Feature Number**
Tivoli NetView for OS/390 Diagnosis Guide	LY43-0093	

2.3.2 PDF format only Program Publications

Figure 6 identifies the basic unlicensed program publications for Tivoli NetView for z/OS Version 5 Release 1 that will only be delivered in softcopy PDF format. You may print as many copies of these publications as you need.

Figure 6 (Page 1 of 2). Basic Material: Unlicensed Publications	
Publication Title	**Form Number**
Tivoli NetView for OS/390 Administration Reference	SC31-8854
Tivoli NetView for OS/390 Security Reference	SC31-8870
Tivoli NetView for OS/390 Installation: Configuring Graphical Components	SC31-8875
Tivoli NetView for OS/390 Installation: Configuring Additional Components	SC31-8874
Tivoli NetView for OS/390 User's Guide	GC31-8849
Tivoli NetView for OS/390 Application Programmer's Guide	SC31-8855
Tivoli NetView for OS/390 Automation Guide	SC31-8853
Tivoli NetView for OS/390 Command Reference Volume I	SC31-8857
Tivoli NetView for OS/390 Command Reference Volume II	SC31-8858
Tivoli NetView for OS/390 Messages and Codes	SC31-8866
Tivoli NetView for OS/390 Customization Guide	SC31-8859
Tivoli NetView for OS/390 Customization: Using Assembler	SC31-8860
Tivoli NetView for OS/390 Customization: Using PL/I and C	SC31-8861

Figure 6 (Page 2 of 2). Basic Material: Unlicensed Publications	
Publication Title	**Form Number**
Tivoli NetView for OS/390 Customization: Using REXX and the NetView Command List Language	SC31-8862
Tivoli NetView for OS/390 Data Model Reference	SC31-8864
Tivoli NetView for OS/390 RODM & GMFHS Programmer's Guide	SC31-8865
Tivoli NetView for OS/390 Customization: Using Pipes	SC31-8863
Tivoli NetView for OS/390 Automated Operations Network User's Guide	GC31-8851
Tivoli NetView for OS/390 Automated Operations Network Customization Guide	SC31-8871
Tivoli NetView for OS/390 SNA Topology Manager and APPN Accounting Manager Implementation Guide	SC31-8868
Tivoli NetView for OS/390 NetView Management Console User's Guide	GC31-8852
Tivoli NetView for OS/390 MultiSystem Manager User's Guide	GC31-8850

2.3.3 Optional Program Publications

No optional publications are provided for Tivoli NetView for z/OS Version 5 Release 1.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for Tivoli NetView for z/OS Version 5 Release 1.

2.5 Publications Useful During Installation

The publications listed in Figure 7 may be useful during the installation of Tivoli NetView for z/OS Version 5 Release 1. To order copies, contact your IBM and/or Tivoli representative or visit the IBM and/or Tivoli Publications Center at http://www.elink.ibmlink.ibm.com/applications/public/applications/publications/cgibin/pbi.cgi on the Internet.

Figure 7 (Page 1 of 2). Publications Useful During Installation	
Publication Title	**Form Number**
IBM SMP/E for z/OS and OS/390 User's Guide	SA22-7773
IBM SMP/E for z/OS and OS/390 Commands	SA22-7771
IBM SMP/E for z/OS and OS/390 Reference	SA22-7772

Figure 7 (Page 2 of 2). Publications Useful During Installation	
Publication Title	**Form Number**
IBM SMP/E for z/OS and OS/390 Messages, Codes, and Diagnosis	GA22-7770
z/OS UNIX System Services Command Reference	SC28-1892
z/OS UNIX System Services Messages and Codes	SC28-1908
IBM Communications Manager Configuration Guide	S04G-1002
MVS Custom-Built Offering Planning and Installation	SC23-0352

3.0 Program Support

This section describes the Tivoli support available for Tivoli NetView for z/OS Version 5 Release 1.

3.1 Program Services

Contact your IBM and/or Tivoli representative for specific information about available program services.

3.2 Preventive Service Planning

If you obtained IBM TIVOLI NETVIEW FOR Z/OS 5.1.0 in a CBPDO, there is HOLDDATA AND PSP information for IBM TIVOLI NETVIEW FOR Z/OS 5.1.0 on the CBPDO tape. However, before installing IBM TIVOLI NETVIEW FOR Z/OS 5.1.0, you should also check with your IBM Support Center or use either Information/Access or IBMLink(ServiceLink) to see whether there is any additional Preventive Service Planning (PSP) information which you should be aware of. To obtain this information specify the following UPGRADE and SUBSET values:

Figure 8. PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
TIVNETV510	HENV510/0412	NetView System Services Base
	JENV511/0412	NetView System Services US English
	JENV513/0412	NetView Enterprise Base
	JENV514/0412	NetView Enterprise US English

If you obtained IBM TIVOLI NETVIEW FOR Z/OS 5.1.0 individually from IBM Software Distribution, then, before installing IBM TIVOLI NETVIEW FOR Z/OS 5.1.0 you should also check with your IBM Support Center or use either Information/Access or IBMLink(ServiceLink) to see whether there is any additional PSP information which you should be aware of.

NOTE: The PSP SUBSET name reflects the Function Module Identifier (FMID) that was updated and the corresponding CBPDO weekly service tape that was used to supply the integrated PTFS. (Example; FMID/YYWW, where YY is the year and WW is the week of the CBPDO weekly service tape.).

The CBPDO weekly Service tape is the Service Level Indicator for any products updated by the Software Manufacturing Center (SMC) processes. If you wish to determine the latest level of PUT maintenance installed in this product, please refer to the 'Program and Service Level Information' section of this program directory.

3.3 Statement of Support Procedures

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

Figure 9 on page 11 identifies the component IDs (COMPID) for Tivoli NetView for z/OS Version 5 Release 1.

Figure 9. Component IDs

FMID	COMPID	Component Name	RETAIN Release
HENV510	5697ENV00	NetView System Services Base	510
JENV511	5697ENV00	NetView System Services US English	511
JENV513	5697ENV00	NetView Enterprise Base	513
JENV514	5697ENV00	NetView Enterprise US English	514
	5698NVW05	ITSC dNetView	711

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of Tivoli NetView for z/OS Version 5 Release 1. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs integrated.

This program is at Service Level SMC0412.

4.1 Program Level Information

Appendix A, “Program Level Information” on page 54 lists the APAR fixes for previous releases of NetView that have been incorporated into Tivoli NetView for z/OS Version 5 Release 1.

4.2 Service Level Information

PTFs containing APAR fixes against this release of Tivoli NetView for z/OS Version 5 Release 1 have been incorporated into this product tape. For a list of included PTFs, examine the ++VER statement in the product's SMPMCS.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating Tivoli NetView for z/OS Version 5 Release 1. The following terminology is used:

- *Driving system*: the system used to install the program.
- *Target system*: the system on which the program is installed.

In many cases, the same system can be used as both a driving system and a target system. However, you may want to set up a clone of your system to use as a target system by making a separate IPL-able copy of the running system. The clone should include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Some cases where two systems should be used include the following:

- When installing a new level of a product that is already installed, the new product will delete the old one. By installing onto a separate target system, you can test the new product while still keeping the old one in production.
- When installing a product that shares libraries or load modules with other products, the installation can disrupt the other products. Installing onto a test system or clone will allow you to assess these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system required to install Tivoli NetView for z/OS Version 5 Release 1.

5.1.1 Machine Requirements

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

5.1.2 Programming Requirements

Figure 10. Driving System Software Requirements

Program Number	Product Name and Minimum VRM/Service Level
Any **one** of the following:	
5647-A01	OS/390 SMP/E Version 2 Release 10 or higher with PTF UR51068
5694-A01	z/OS Version 1 Release 1 or higher
5655-G44	IBM SMP/E for z/OS and OS/390 Version 3 Release 1 or higher

5.2 Target System Requirements

This section describes the environment of the target system required to install and use Tivoli NetView for z/OS Version 5 Release 1.

Tivoli NetView for z/OS Version 5 Release 1 installs in the MVS (Z038) SREL.

5.2.1 Machine Requirements

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

5.2.2 Programming Requirements

5.2.2.1 Mandatory Requisites

A mandatory requisite is defined as a product that is required without exception; this product either **will not install** or **will not function** unless this requisite is met. This includes products that are specified as REQs or PREs.

Figure 11. Mandatory Requisites

Program Number	Product Name and Minimum VRM/Service Level
Any **one** of the following:	
5647-A01	OS/390 Release 10
5694-A01	z/OS Version 1 Release 1 or higher

5.2.2.2 Functional Requisites

A functional requisite is defined as a product that is **not** required for the successful installation of this product or for the basic function of the product, but **is** needed at run time for a specific function of this product to work. This includes products that are specified as IF REQs.

Figure 12 (Page 1 of 2). Functional Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5695-014	IBM Compiler for SAA* REXX/370 Release 3	Compiling REXX Clists or Programs (See notes 1 & 2 below)
-	ACF/NCP Version 4.3.2 or later	All functions related to the ACF/NCP program

Figure 12 (Page 2 of 2). Functional Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
-	OS/390 Version 2.10 or z/OS IP Services	All functions using TCP/IP communications from OS/390 or z/OS
5695-014	IBM Library for SAA* REXX/370 Release 3 (FMID HWJ9130) - or - REXX Alternate Library (FMID HWJ9133) US English shipped with Tivoli NetView for OS/390	Running Compiled REXX Clists or Programs (See notes 1 & 2 below)
-	Tivoli NetView for z/OS Functions	(See note 3)
-	Tivoli NetView for z/OS Automated Operations Network (AON) Component	(See note 4)
-	Tivoli NetView for z/OS MultiSystem Manager Component	(See note 5)
5697-D10	Tivoli Management Framework for OS/390 Version 3.6.1	Installation of Graphical Enterprise Workstation Components from OS/390 using Tivoli Software Installation Service (SIS)

Notes:

1. If you compile AON REXX Command Lists, the IBM Compiler for SAA REXX/370 R3(or higher) is needed.
2. Several components of NetView have REXX programs that have been compiled with the ALTERNATE option. If you access the REXX library from NetView (or from z/OS UNIX System Services for NetView's z/OS UNIX System Services Related Components), these REXX programs are run in compiled mode. Otherwise, the REXX alternate library is used and these REXX programs are run in the interpreted mode. Some of the components of NetView that have compiled REXX programs are MultiSystem Manager, UNIX for OS/390 Command Server, and the TSO Command Server.

   Note: Your OS/390 environment must be modified so that the REXX data set you are using (either SEAGLMD or SEAGALT) is APF-authorized. Edit your APF member in SYS1.PARMLIB and add the

REXX data set (SEAGLMD or SEAGALT) if it is not already there. Re-IPL OS/390 if necessary. If your system is set up to use dynamic APF services, you can avoid re-IPLing OS/390 by using the SETPROG command to dynamically update the APF list. Refer to the Initialization and Tuning Reference for your OS/390 system for more information on authorizing data sets.

Note: The TSO server jobs themselves are either batch TSO jobs or started tasks which should be set up to access the REXX library so that the TSO server REXX program will run in compiled mode. Otherwise, the REXX alternate library is used and the server will run in interpreted mode.

3. For additional functional requisite information regarding specific Tivoli NetView for z/OS functions refer to 5.4, “Special Considerations” on page 22.
4. For additional functional requisite information regarding the Automated Operations Network component refer to 5.4.23, “Considerations for Tivoli NetView for z/OS Version 5 Release 1 Automated Operations Network Component” on page 28.
5. For additional functional requisite information regarding the MultiSystem Manager component(s) refer to 5.4.24, “Special Considerations for Tivoli NetView for z/OS Version 5 Release 1 MultiSystem Manager Component” on page 29.

5.2.2.3 Toleration/Coexistence Requisites

A toleration/coexistence requisite is defined as a product which must be present on a sharing system. These systems can be other systems in a multisystem environment (not necessarily sysplex), a shared DASD environment (such as test and production), or systems that reuse the same DASD at different time intervals.

Tivoli NetView for z/OS Version 5 Release 1 has no toleration/coexistence requisites.

5.2.2.4 Incompatibility (Negative) Requisites

A negative requisite identifies products which must *not* be installed on the same system as this product.

Tivoli NetView for z/OS Version 5 Release 1 has no negative requisites.

5.2.3 DASD Storage Requirements

Tivoli NetView for z/OS Version 5 Release 1 libraries can reside on all supported DASD types.

Figure 13 lists the total space required for each type of library.

Figure 13 (Page 1 of 2). Total DASD Space Required by Tivoli NetView for z/OS Version 5 Release 1

Library Type	Total Space Required
Target	3094 Tracks of 3390
Distribution	3408 Tracks of 3390

Figure 13 (Page 2 of 2). Total DASD Space Required by Tivoli NetView for z/OS Version 5 Release 1

Library Type	Total Space Required
HFS	120 Tracks of 3390

Notes:

1. Tivoli recommends use of system determined block sizes for efficient DASD utilization for all non-RECFM U data sets. For RECFM U data sets, Tivoli recommends a block size of 32760, which is the most efficient from a performance and DASD utilization perspective.
2. Abbreviations used for the data set type are:

   U Unique data set, allocated by this product and used only by this product. To determine the correct storage needed for this data set, this table provides all required information; no other tables (or program directories) need to be referenced for the data set size.

   S Shared data set, allocated by this product and used by this product and others. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

   E Existing shared data set, used by this product and others. This data set is NOT allocated by this product. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other program directories). This existing data set must have enough free space to accommodate the storage size given in this table.

   If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old one and reclaim the space used by the old release and any service that had been installed. You can determine whether or not these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the free space in the libraries.

   For more information on the names and sizes of the required data sets, please refer to 6.1.8, “Allocate SMP/E Target and Distribution Libraries and Paths” on page 41.
3. Abbreviations used for the HFS Path type are:

   N New path, created by this product.
   X Path created by this product, but may already exist from a previous release.
   P Previously existing path, created by another product.
4. All target and distribution libraries listed have the following attributes:

   - The default name of the data set may be changed
   - The default block size of the data set may be changed
   - The data set may be merged with another data set that has equivalent characteristics
   - The data set may be either a PDS or a PDSE
5. All target libraries listed have the following attributes:

- The data set may be SMS managed
- It is not required for the data set to be SMS managed
- The data set may be in the LPA
- It is not required for the data set to be in the LPA
- The data set may be in the LNKLST
- It is not required for the data set to be APF authorized
- It is not required for the data set to reside on the IPL volume
- The values in the "Member Type" column are not necessarily the actual SMP/E element types identified in the SMPMCS.

Figure 14 estimates the storage requirements for the SMPCSI data set for SMP/E. This estimate must be added to those of any other programs and services being installed to determine the total additional space requirements.

Figure 14. Storage Requirements for SMPCSI Data Sets for SMP/E for Tivoli NetView for z/OS Version 5 Release 1

DASD	Tracks Required for SMPCSI Data	Tracks Required for SMPCSI Index
3390	1230	61

Figure 15. Storage Requirements for SMP/E Work Data Sets

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SMPWRK1	S	PDS	FB	80	150	250
SMPWRK2	S	PDS	FB	80	150	250
SMPWRK3	S	PDS	FB	80	150	250
SMPWRK4	S	PDS	FB	80	150	250
SMPWRK6	S	PDS	FB	80	150	250
SYSUT1	U	SEQ	--	--	30	-
SYSUT2	U	SEQ	--	--	30	-
SYSUT3	U	SEQ	--	--	30	-
SYSUT4	U	SEQ	--	--	30	-

The following table provides an estimate of the storage needed in the SMP/E data sets for Tivoli NetView for z/OS Version 5 Release 1. The estimates must be added to those of any other programs and service being installed to determine the total additional storage requirements.

If the table indicates that the SMPLTS data set must be a PDSE, but your existing SMPLTS is a PDS, you will need to allocate a new PDSE and copy your existing SMPLTS into it, and then change the SMPLTS DDDEF entry to indicate the new PDSE data set.

Figure 16. Storage Requirements for SMP/E Data Sets

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SMPLTS	S	PDS	U	0	391	17
SMPMTS	S	PDS	FB	80	1	1
SMPPTS	S	PDS	FB	80	47	1
SMPSCDS	S	PDS	FB	80	5	1
SMPSTS	S	PDS	FB	80	1	1

The following figures describe the target and distribution libraries and HFS paths required to install Tivoli NetView for z/OS Version 5 Release 1. The storage requirements of Tivoli NetView for z/OS Version 5 Release 1 must be added to the storage required by other programs having data in the same library or path.

Note: The data in these tables should be used when determining which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

5.2.3.1 Target Libraries for Tivoli NetView for z/OS Version 5 Release 1

Figure 17 (Page 1 of 2). Storage Requirements for Tivoli NetView for z/OS Version 5 Release 1 Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
BNJPNL1	LMOD	ANY	U	PO	FB	80	381	233
BNJPNL2	LMOD	ANY	U	PO	FB	80	8	5
BNJSRC1	LMOD	ANY	U	PO	FB	80	12	3
CNMCLST	LMOD	ANY	U	PO	FB	80	735	51
CNMINST	LMOD	ANY	U	PO	FB	80	6	2
CNMLINK	LMOD	ANY	U	PO	U	0	711	200
CNMPNL1	LMOD	ANY	U	PO	FB	80	629	170
CNMSAMP	LMOD	ANY	U	PO	FB	80	319	33

Figure 17 (Page 2 of 2). Storage Requirements for Tivoli NetView for z/OS Version 5 Release 1 Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
DSIPARM	LMOD	ANY	U	PO	FB	80	78	12
DSIPRF	LMOD	ANY	U	PO	FB	80	2	1
SDSIOPEN	LMOD	ANY	U	PO	FB	80	3	1
SEKGLANG	LMOD	ANY	U	PO	FB	125	2	1
SCNMMAC1	LMOD	ANY	U	PO	FB	80	145	13
NVULIB	LMOD	ANY	U	PO	U	0	4	6
SCNMLNK1	LMOD	ANY	U	PO	U	0	1	1
SCNMLNKN	LMOD	ANY	U	PO	U	0	1	1
SCNMLPA1	LMOD	ANY	U	PO	U	0	2	2
SDSIMSG1	LMOD	ANY	U	PO	FB	80	15	1
SDUIMSG1	LMOD	ANY	U	PO	FB	80	3	1
SFLBDAT1	LMOD	ANY	U	PO	VB	1028	6	1
SCNMUXLK	LMOD	ANY	U	PO	U	0	129	2
SCNMUXCL	LMOD	ANY	U	PO	VB	516	7	1
SCNMUXMS	LMOD	ANY	U	PO	FB	80	4	1

5.2.3.2 HFS Paths for Tivoli NetView for z/OS Version 5 Release 1 Graphical Enterprise Option

Figure 18. Tivoli NetView for z/OS Version 5 Release 1 HFS Paths

DDNAME	TYPE	Path Name
SCNMUX00	N	/usr/lpp/netview/v5r1/bin/IBM/
SCNMUX03	N	/usr/lpp/netview/v5r1/mibs/IBM/

5.2.3.3 Distribution Libraries for Tivoli NetView for z/OS Version 5 Release 1

Figure 19. Storage Requirements for Tivoli NetView for z/OS Version 5 Release 1 Distribution Libraries

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
ABNJPNL1	U	PO	FB	80	380	233
ABNJPNL2	U	PO	FB	80	8	5
ABNJSRC1	U	PO	FB	80	12	3
ACNMCLST	U	PO	FB	80	735	51
ACNMINST	U	PO	FB	80	6	2
ACNMLINK	U	PO	U	0	1004	718
ACNMPNL1	U	PO	FB	80	629	170
ACNMSAMP	U	PO	FB	80	320	33
ADSIPARM	U	PO	FB	80	78	12
ADSIPRF	U	PO	FB	80	2	1
ADSIOPEN	U	PO	FB	80	2	1
ADSIMSG1	U	PO	FB	80	2	1
ADUIMSG1	U	PO	FB	80	2	1
AEKGLANG	U	PO	FB	125	1	1
ACNMMAC1	U	PO	FB	80	129	13
ANVULIB	U	PO	U	0	4	6
AFLBDAT1	U	PO	VB	1028	4	1
ACNMUXLK	U	PO	U	0	72	2
ACNMUXCL	U	PO	VB	516	30	3
ACNMUXMS	U	PO	FB	80	2	1

5.3 FMIDs Deleted

Installing Tivoli NetView for z/OS Version 5 Release 1 may result in the deletion of other FMIDs. To see what FMIDs will be deleted, examine the ++VER statement in the product's SMPMCS.

If you do not wish to delete these FMIDs at this time, you must install Tivoli NetView for z/OS Version 5 Release 1 into separate SMP/E target and distribution zones.

Note: These FMIDs will not automatically be deleted from the Global Zone. Consult the SMP/E manuals for instructions on how to do this.

5.4 Special Considerations

The following table identifies README file names and installation methods associated with the noted Tivoli NetView for z/OS Version 5 Release 1 components.

Figure 20. README file names and installation methods for Tivoli NetView for z/OS Version 5 Release 1 Components.

Component Name	Web Page (1)	CD (2)	README
NetView Web Application	x	x	zNetViewWebApp_en.me
NMC Topology Console	x	x	EGVREAD1.ME
NMC Topology Server	x	x	EGVREAD2.ME
NetView Visual BLDVIEWS	x	x	VBVRead.ME
NetView 3270 Management Console	x	x	FLBREAD1.ME
Event Automation Service(EAS)		x	IHSREAD1.ME
(1) URL: http://www.tivoli.com/nv390_supported			
(2) The readme documentation on the Tivoli NetView for z/OS Version 5 Release 1 CDROM is located in the README\ENU directory.			

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

5.4.1 Tivoli NetView Management Console, NetView 3270 Management Console

- Topology Server
  - Any Hardware that supports any of the following operating systems
    - AIX 4.3.3.10 (5765-C34) or later with
      - C Set++ for AIX Applications xlC.rte 3.6.6.0 or later
      - IBM class libraries ibmcxx.ioc.rte 3.6.6.0 for later and ibmcxx.rt 3.6.6.0 or later
      - Information Presentation Facility ipfx.rte.2.2.0.0 or later

        Note: xlC.rte, ibmcxx.ioc.rte, ibmcxx.rte and ipfx.rte are included on the Tivoli NetView for z/OS Version 5 Release 1 product CD
    - Windows NT 4.0 Server with service pack 5 or later
    - Windows 2000 Server
    - SuSE Linux Enterprise Server 7.0 for S/390 at kernel level 2.2.16 or later supported distribution with TCP/IP and Korn shell RPM package installed

  - Processor speed of at least 350MHz
  - Minimum memory of 128MB, 256 recommended
  - 60 MB of additional fixed space
- Topology Console
  - Any Hardware that supports any of the following operating systems with TCP/IP installed
    - AIX 4.3.3.10 (5765-C34) or later with TCP/IP installed
      - PTF's U470006, U470966, U471143, U470973, U470980 and U471092
      - IBM AIX Developer Kit, Java 2 Technology Edition, Version 1.3.0 requires that the following APARS be applied to your AIX system if you are using these optional filesets and already have the base level filesets installed. U471872, U471060, U466991, U471076, U471118, U471015, and U471838.
    - Windows NT 4.0 with Service Pack 5 or later
    - Windows 2000 with TCP/IP installed
    - Red Hat 7.1 or SuSE 7.1 Linux or later supported distributions on 32-bit IA-32 Intel Architecture (e.g., Pentium III or Pentium 4 processors). Also, one of the following desktops and window managers:
      - GNOME/Sawfish (previously known as Sawmill)
      - K Desktop Environment (KDE)/KWM 2.0.1
    - HP-UX 11 or later with TCP/IP installed. Since the NMC Topology Console uses Java, patches are needed to support the Java Runtime Environment. The latest list of patches can be found at HP's Web site: http://hp.com/products1/unix/java/infolibrary/patches.html
    - Sun Solaris 2.8 or later with TCP/IP installed and patch 108940-05 or later
  - Processor speed of at least 350MHZ
  - 256MB of memory
  - 50 MB of additional fixed disk space
  - A color display with 1024 x 768, and 256 colors
  - Maximum color palette is 16-bit high color. 256-color palette recommended. 32-bit true color is not supported
- Server communications with NetView for z/OS using LU 6.2
  - For IP connections, OS/390 Version 2 Release 10 (5647-A01) IP Services, or later, or z/OS (5694-A01) IP Services
  - For LU 6.2 connections
    - For AIX, IBM Communications Server for AIX, Version 6.1 (5765-E51)
    - For Windows NT and Windows 2000, IBM Communications Server for Windows NT 6.1.1

- For additional information on installing the NetView 3270 Management Console, refer to the readme file identified in Figure 20 on page 22.

5.4.2 Considerations for NMC Server Audit Log

To use a Web browser to view the audit log requires a browser which supports XSL (eXtensible Stylesheet Language). Common browsers which support XSL include:

- Netscape 6.0 or later
- Microsoft Internet Explorer 5.5 or later

5.4.3 Considerations for NetView Web Application

- HTTP Server and Web Application Server
  - Any Hardware that supports any of the following operating systems running IBM WebSphere Application Server V4.0, Advanced Edition or the Jetty Java HTTP Server and Servlet Container from Mort Bay Consulting
    - AIX 4.3.3.10 (5765-C34) or later
      - PTF's U470006, U470966, U471143, U470973, U470980 and U471092
      - IBM AIX Developer Kit, Java 2 Technology Edition, Version 1.3.0 requires that the following APARS be applied to your AIX system if you are using these optional filesets and already have the base level filesets installed. U471872, U471060, U466991, U471076, U471118, U471015, and U471838.
    - IBM AIX Version 5.1
    - Windows NT 4.0 Server with Service Pack 5 of later
    - Windows 2000 Server with Service Pack 1 or later
    - SuSE Linux Enterprise Server version
      7.0 for S/390 at kernel level 2.2.16 or later supported distribution with pdksh Korn shell RPM package installed (available on SuSE's distributed media, CD1)
  - For additional requirements for IBM Websphere Application Server V4.0, Advanced Edition, see the WebSphere documentation for the applicable platform.
  - Jetty is an Open Source HTTP Server and Servlet Container that is packaged with Tivoli NetView for z/OS Version 5 Release 1 Jetty requires the following
    - Processor speed of at least 350MHZ
    - 256MB minimum
    - 68 MB of additional fixed disk space
  - Web Console
    - One of the following operating system and browser combinations

Note: Netscape 6.x is not supported on any operating system

- Windows 2000 with one of the following browsers
  - Microsoft Internet Explorer 5.0 or later
  - Netscape 4.73 or later 4.7x release
- Windows NT 4.0 or later with one of the following browsers
  - Microsoft Internet Explorer 5.0 or later
  - Netscape 4.73 or later 4.7x release
- AIX 4.3.3.10 (5765-C34) or later with Netscape 4.76i or later 4.7xi release
  - For AIX V4, APAR IY24043 is required
  - For AIX V5, recommended maintenance package 5100-01 is required
- HP-UX or later with Netscape 4.78 and HP-UX Java Plug-in and Runtime Environment Version 1.3.1
- Sun Solaris 2.8 or later with Netscape 4.76 or later 4.7x release with JRE 1.30_04 Plug-ins
- Red Hat 7.1 or SuSE 7.1 or later supported distributions of Linux with Netscape 4.76 or later 4.7x release

5.4.4 Considerations for DYNAMIC VIPA and Sysplex Distribution Support

NetView Web Browser Interface prerequisites

- One of the following
  - OS/390 Release 10 IP Services with APAR PQ56105
  - z/OS Release 1 IP Services with APAR PQ56105
  - z/OS Release 2 IP Services with PTFs UQ59826 and UQ59827

5.4.5 Considerations for TCP/IP Resource Discovery and Management on Linux zSeries

- SuSE Linux Enterprise Server for S/390 version 7.0 at kernel level 2.2.16 or later supported distribution
  with TCP/IP and Korn shell RPM package installed

Note: TCP/IP Resource Discovery and Management on Linux on zSeries includes the SNMP Server for the SNMP MIB Browser and Real-Time Poller/Grapher as well as the Jetty HTTP Server. If either of these servers has been installed on a Linux on zSeries logical partition (LPAR), it must be uninstalled before installing the TCP/IP Resource Discovery and Management function in that LPAR.

5.4.6 Considerations for Launching Tivoli Business System Manager (TBSM) from NMC or NMC from TBSM

- TBSM V1R5 (5698-BSM) or later

5.4.7 Considerations for SNMP MIB Browser, Real-time Poller

The prerequisites for the Web Browser Interface

5.4.8 Considerations for Event Automation Service to and from the Tivoli Enterprise Console (TEC)

- The Event Automation Service requires the following:
  - Tivoli Enterprise Console (TEC) 3.6.1 (5697-EAS, 5698-EAS)

  Using secure framework communication also requires:
  - Tivoli Management Framework for OS/390 3.6.1 (5697-D10, 5698-FRA)
- For additional information on installing Event Automation Service workstation component, refer to the readme file identified in Figure 20 on page 22.

5.4.9 Considerations for issuing Commands from Tivoli Management Environment to OS/390 or z/OS

- NetView Management Console Topology Server or Tivoli Management Framework for OS/390 3.6.1 (5697-D10, 5698-FRA)

5.4.10 Considerations for Issuing OS/390 or z/OS UNIX System Services Commands from Tivoli NetView for z/OS Version 5 Release 1

- REXX alternate run-time (same as for Tivoli NetView for z/OS Version 5 Release 1 MultiSystem Manager Component)

5.4.11 Considerations for Using the UNIX Command Server

- OS/390 APAR OW45635 must be applied

5.4.12 Considerations for OS/390 TCP/IP Stack Management and Telnet 3270 Management

- Optional: In order to be able to dynamically add to the set of resources monitored and displayed at NMC, DB2 for OS/390 Version5 Release 1 (5655-DB2) or later is required

5.4.13 Considerations for Beeper/Pager Support

- IBM NetFinity for OS/2 Version 5.0 or later (if using the IBM sample for beeper/pager requests).

5.4.14 SNA Topology Manager

- Generalized Trace Facility

5.4.15 NetView Bridge -- Support for INFO Access

- Tivoli Service Desk for OS/390 (5648-142)
- Application Programming Interface (API) requirements as applicable

5.4.16 Support for IBM LAN Network Manager Enhanced Command Interface

- IBM LAN Network Manager Version 2.0 (03H3519, 03H3523 or 03H3527)

5.4.17 Management of Frame Relay (DTE) and Ethernet

- ACF/NCP Version 6 (5688-231)

5.4.18 NetView Parallel Transmission Group Support

- ACF/NCP Version 5 Release 4 (5668-738)

5.4.19 NetView Network Asset Management

Provides NCP vital product data (VPD) and hardware device vital product information for those devices that support the Request Product Set ID (PSID) architecture or signal converters that support LPDA-2 commands:

- ACF/NCP Version 4 Release 3.1 (5668-854) for the 3725
- ACF/NCP Version 5 Release 4 (5668-738) or later for the 3720 or 3745

5.4.20 NetView Performance Monitor (NPM) Alerts

- NPM Version 1 Release 6 (5665-333 MVS) or later for session alerts

5.4.21 Considerations for SAF Security Checking

OS/390 Version 2 Release 10 (5647-A01) or z/OS (5694-A01) Security Server or later or an equivalent SAF product is required for SAF security checking of each of the following functions:

- RODM connections
- NetView operator passwords

- RMTCMD through the RMTOPS Class
- NetView command authorization
- NetView Span of Control access
- NetView operator logon information
- Graphical View security
- List RACF profile for NetView operators

5.4.22 Considerations for using Router Fault Isolation

- Tivoli NetView 6.0.3 (5698-NVW)

5.4.23 Considerations for Tivoli NetView for z/OS Version 5 Release 1 Automated Operations Network Component

- Dynamic Display Facility (DDF) requires either a 3x79 Terminal with Extended Attribute Support with a display capable of seven colors or a workstation that supports the NetView 3270 Management Console, or a workstation-based 327x terminal emulator program that provides Extended Attribute Support with a display capable of seven colors.

- The SNA Automation feature has these additional requirements for Switched Network Backup Automation:
  - IBM 586x modems (except Model 1) with 2 or 4 wire SNBU couplers, if desired, or
  - The 786x, 7855, or LPDA-2 command set capable modems

    Note: Only the 786x Models 45, 46, and 47 can automatically switch back from SNBU.

    Note: To use the SNBU automation, ACF/NCP Version 4 Release 3.1 (5684-854), or later is required. ACF/NCP Version 5 Release 4 (5668-738) or later is required for complete DMPX support of IBM 7861/8 Model 4x modems.

- TCP/IP for AIX Automation has these additional requirements:

  TCP/IP for AIX automation uses SNA to communicate between Tivoli NetView for AIX and Tivoli NetView for z/OS, and requires:
  - AIX 4.3.3.10 (5765-C34) or later
  - Tivoli NetView for AIX 6.0.3 (5698-NVW) or later
  - AIX NetView Service Point 1.3.3 (5621-107)

    Note: If 1.2.2 is already installed, PTF U473211 provides an upgrade to 1.3.3
  - IBM Communication Server for AIX 6.1 (5765-E51)

5.4.24 Special Considerations for Tivoli NetView for z/OS Version 5 Release 1 MultiSystem Manager Component

The MultiSystem Manager component of Tivoli NetView for z/OS Version 5 Release 1 requires one of the following:

- IBM Library for SAA REXX/370 Release 3.0 (5695-014)
- REXX Alternate Library (Release 3.0 level) shipped with Tivoli NetView for z/OS
  - FMID HWJ9133 US English

The following table identifies README file names and installation methods associated with the Tivoli NetView for z/OS Version 5 Release 1 MultiSystem Manager features.

Figure 21. README file names and installation methods for Tivoli NetView for z/OS Version 5 Release 1 MultiSystem Manager features.

MultiSystem Manager Agent Name	**Web Page** (1)	**CD** (2)	**README**
MSM Agent downloads	x	x	MSMAGNT.ME
IP	x	x	MSMIP.ME
LAN Network Manager	x	x	(3) & (4)
NetFinity	x	x	MSMNF.ME (3)
Open	x	x	(5)
TMR	x	x	FLCTMR1.HTML
(1) URL: http://www.tivoli.com/nv390_supported			
(2) The readme documentation on the Tivoli NetView for z/OS Version 5 Release 1 CDROM is located in the README\ENU directory.			
(3) The MultiSystem Manager topology agent for the LAN Network Manager and the NetFinity features are included with the LAN Network Manager and NetFinity products.			
(4) For additional information on installing the MultiSystem Manager LAN Network Manager feature, refer to the *Tivoli NetView for z/OS Installation: Getting Started, SC31-8872*.			
(5) For a vendor-supplied topology agent, refer to the documentation provided with the agent.			

5.4.24.1 System Considerations for the MultiSystem Manager LAN Network Manager Feature

The MultiSystem Manager LAN Network Manager feature of Tivoli NetView for z/OS Version 5 Release 1 requires:

- IBM LAN Network Manager 2.0 (03H3519, 03H3523 or 03H3527) with NetView connectivity.
- Communications Manager/2 Version 1 Release 1 (79G0258 or 79G0257) or higher

configured with Service Point Application Router (SPAR)

5.4.24.2 System Considerations for the MultiSystem Manager NetFinity Network Feature

The MultiSystem Manager NetFinity Networks feature of Tivoli NetView for z/OS Version 5 Release 1 requires:

- Any IBM Personal Computer or compatible computer as required for NetFinity will support the topology agent for NetFinity. The topology agent for NetFinity is shipped with the NetFinity product.
- NetFinity Manager Version 5.0 or later running on OS/2 or Windows NT
- Windows NT:
  - TCP/IP connectivity
- OS/2:
  - Communications Server for OS/2, Personal Communications for OS/2 or Communications Manager as per the requirements for NetFinity Manager V5.0 SNA communication

5.4.24.3 System Considerations for the MultiSystem Manager TMR Feature

The MultiSystem Manager Tivoli Management Region (TMR) feature of Tivoli NetView for z/OS Version 5 Release 1 requires:

- Tivoli Distributed Monitoring 3.6.2 or 3.7 (5697-EMN, 5698-EMN) or later
- A compatible level between 3.6.2 and 3.71 of each of the following:
  - Tivoli Management Framework (5697-FRA, 5698-FRA)
  - Tivoli Enterprise Console (TEC) (5697-EAS, 5698-EAS)
- Any of the following Operating Systems:
  - Windows NT 4.0
  - Windows 2000
  - AIX 4.3.3.10 (5765-C34) or later
  - Sun Solaris 2.6 or higher
  - HP UX 10.20 or higher

5.4.24.4 Considerations for Sending Commands from Tivoli NetView for z/OS Version 5 Release 1 to TEC

Sending commands from Tivoli NetView for z/OS Version 5 Release 1 to TEC requires:

- The MultiSystem Manager Tivoli Management Region (TMR) Feature

5.4.24.5 System Considerations for the MultiSystem Manager IP Network Feature

The MultiSystem Manager Internet Protocol feature requires the Event Automation Service (EAS) component of Tivoli NetView for z/OS.

The MultiSystem Manager Internet Protocol feature of Tivoli NetView for z/OS Version 5 Release 1 runs in many different environments. The requirements for each environment are included below:

- **AIX**

  When the MultiSystem Manager IP agent is installed on Tivoli NetView for AIX, the IP agent can communicate with Tivoli NetView for z/OS via SNA or TCP/IP. If you are using TCP/IP to communicate between the IP agent and Tivoli NetView for z/OS, the following are required:

  – AIX 4.3.3.10 (5765-C34) or later

  – Tivoli NetView for AIX 6.0.3 (5698-NVW)

  If you are using SNA to communicate between the MultiSystem Manager IP agent and Tivoli NetView for z/OS, the following are required:

  – AIX 4.3.3.10 (5765-C34) or later

  – Tivoli Netview for AIX 6.0.3 (5698-NVW) or later

  – AIX NetView Service Point Version 1 Release 3.3 (5621-107)

    Note: If 1.2.2 is already installed, PTF U473211 provides an upgrade to 1.3.3

  – IBM Communication Server for AIX V6.1 (5765-E51)

- **HP-UX**

  The MultiSystem Manager IP network feature for HP-UX uses TCP/IP to communicate between the MultiSystem Manager IP agent and Tivoli NetView for z/OS The MultiSystem Manager IP agent for HP OpenView running on HP-UX requires:

  – HP-UX Version 10 Release 20 or higher

  – Hewlett Packard Network Node Manager (HP OpenView) Version 5 Release 1, or later

  save

- **Windows NT and Windows 2000**

  The MultiSystem Manager IP network feature for Windows uses TCP/IP to communicate between the MultiSystem Manager IP agent and Tivoli NetView for z/OS The MultiSystem Manager IP agent for Tivoli Netview for Windows NT requires:

  – Windows NT Version 4 or Windows 2000

  – Tivoli NetView for NT Version 5 Release 1, or later

- **Sun Solaris**

The MultiSystem Manager IP network agent for Solaris uses TCP/IP to communicate between the MultiSystem Manager IP agent and Tivoli NetView for z/OS The agent can be installed on Tivoli NetView for Solaris or Hewlett Packard Network Node Manager.

- The MultiSystem Manager IP feature for Tivoli Netview for Solaris requires:
  - Solaris Version 2 Release 6 or later
  - Tivoli NetView for Solaris Version 5 Release 1, or later
- The MultiSystem Manager IP agent for OpenView for Solaris requires:
  - Solaris Version 2 Release 6 or later
  - Hewlett Packard Network Node Manager (HP OpenView) Version 5 Release 1 or later

5.4.25 System Considerations for using the REXX Alternate Library

(FMID HWJ9133)

Before using the REXX Alternate Library with Tivoli NetView for z/OS Version 5 Release 1 you must first apply the following PTFs.

- UN78518
- UN78525
- UN84251
- UN86020
- UN88434
- UN90776
- UN93567
- UN93568
- UN96368
- UQ02796
- UQ04867
- UQ06343
- UQ06344
- UQ06830
- UQ10660
- UQ12616
- UQ17096
- UQ18015

You are now aware of all of the installation requirements for Tivoli NetView for z/OS Version 5 Release 1. Proceed to 6.0, “Installation Instructions” on page 34 to begin your product installation.

5.4.26 System Considerations for using Packet Trace Formatting

Before the Packet Trace Formatting function can be used, the correct level of z/OS (or Communications Server) is needed. Either of the following levels are sufficient

z/OS Communications Server 1.4 with APARs PQ77244, PQ77837 and PQ79566

z/OS Communications Server 1.5

The Packet Trace Formatting README file can be found in the CNMSAMP data set as member CNMREAD2.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of Tivoli NetView for z/OS Version 5 Release 1.

If you obtained Tivoli NetView for z/OS Version 5 Release 1 as part of a CBPDO, you can use the RIMLIB job on the CBPDO tape to run the SMP/E RECEIVE as well as any service, HOLDDATA, or preventive service planning (PSP) information included on the CBPDO tape. For more information, refer to the *MVS CBPDO Memo to User Extension* included with the CBPDO.

This release of the Tivoli NetView for z/OS Version 5 Release 1 program is installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands.

The procedure outlined in this chapter assumes that the user has a knowledge of OS/390 Release 10 SMP/E or later based on the *SMP/E User's Guide*. To resolve any SMP/E related problems in the procedure, refer to the *SMP/E User's Guide* and the *SMP/E Reference*. This installation process does not cover the PARMLIB or other changes to OS/390 that are required to run Tivoli NetView for z/OS Version 5 Release 1. The OS/390 changes required to run Tivoli NetView for z/OS Version 5 Release 1 are discussed in the *Tivoli NetView for z/OS Installation: Getting Started, SC31-8872*.

Please note the following:

- The sample jobs are shown using REGION=0M. A region value equal to 0K or 0M gives the job all the storage available below and above 16 megabytes. Be aware that this can affect the performance of other jobs running in the system. If you do not choose to run with a region size of 0M, refer to z/OS SMP/E Reference, SA22-7772, for more information on how to determine region sizes.
- If you want to install Tivoli NetView for z/OS Version 5 Release 1 into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- Sample jobs have been provided to help perform some or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries required for SMP/E execution have been defined in the appropriate zones.
- The SMP/E dialogs may be used instead of the sample jobs to accomplish the SMP/E installation steps.
- If you will be installing the IBM SAA REXX/370 Alternate Library (5695-014) for use with Tivoli NetView for z/OS Version 5 Release 1 then you should refer to its Program Directory for instructions on how to perform the installation.

The two basic choices for installing Tivoli NetView for z/OS Version 5 Release 1 are:

1. **Install into new target and distribution zones. This is the recommended method for Tivoli NetView for z/OS Version 5 Release 1 for users who will continue to use a prior version of NetView after Tivoli NetView for z/OS Version 5 Release 1 has been installed.** SMP/E jobs will load the necessary code into the appropriate libraries, then try to delete any prior releases of NetView.

Since you are installing into new CSI zones there is nothing to delete. SMP/E will continue by saying there was nothing deleted. There is no need to give any dummy library names for your prior NetView because SMP/E has no way to know that a previous release was ever installed.

When your testing is finished and you have migrated completely to Tivoli NetView for z/OS Version 5 Release 1, you can run a delete job to remove the old NetView, MultiSystem Manager, and AON/ANO FMIDs from the CSI zone(s). At that time you will have to provide SMP/E with access to the old LPALIB and LINKLIB libraries. For more information see 6.1.13.1, “APPLYing Tivoli NetView for z/OS Version 5 Release 1 on a System Having NCCF or NetView Already Installed” on page 44. The *Tivoli NetView for z/OS Installation: Configuring Additional Components, SC31-8874* contains additional information on running more than one NetView in a single host.

2. **Install the NetView program within existing target and distribution zones. This is the recommended method for installing Tivoli NetView for z/OS Version 5 Release 1 for those who wish to delete their prior release of NetView without keeping the prior and the new NetView available for use at the same time (as in choice 1).** If you install Tivoli NetView for z/OS Version 5 Release 1 into the same zone, you must provide access to your prior libraries via DDDEFs or DD statements. SMP/E will remove all traces of your previous release of NetView, including the FMIDs. In addition, you have to provide access to your SYS1.LPALIB so SMP/E may remove the old LPALIB modules. If by chance there are some traces of prior releases that still exist in SMP/E even though the libraries have been deleted, SMP/E will know and you will have to allocate dummy libraries for SMP/E and then apply again. When the apply and accept are complete, you may delete the dummy libraries. Be careful not to delete your real SYS1.LPALIB and SYS1.LINKLIB libraries. For more information see 6.1.13.1, “APPLYing Tivoli NetView for z/OS Version 5 Release 1 on a System Having NCCF or NetView Already Installed” on page 44.

Note: The HFS directories used in previous release are pointed to by DDDEF statements. Some of those same DDDEF statements are used in this release, but the directory structure has changed.

If you are installing Tivoli NetView for z/OS Version 5 Release 1 into existing SMP/E zones and/or existing target and distribution libraries, you should first make a backup of the zones, the target and distribution libraries and other SMP/E data sets that will be changed during the installation. This backup will allow you to start over in case a severe error occurs during installation.

There is no SYSGEN support for Tivoli NetView for z/OS Version 5 Release 1. If a SYSGEN is performed after the installation of Tivoli NetView for z/OS Version 5 Release 1 is complete, the GENERATE facility of SMP/E can be used to re-install Tivoli NetView for z/OS Version 5 Release 1.

6.1 Installing Tivoli NetView for z/OS Version 5 Release 1

The samples provided with Tivoli NetView for z/OS Version 5 Release 1 must be customized to work in your system's environment. Where possible, the samples call attention to places where customization is necessary; however, it is possible that additional customization might be required. For example, job card information might need to be customized. In addition to this program directory, read the comments in the JCL samples. They are designed to make it easy to find required changes. Some of the JCL values

which should be verified and are most likely to need customization are coded in lower case; a JCL error occurs if the values are overlooked.

6.1.1 SMP/E Considerations for Installing Tivoli NetView for z/OS Version 5 Release 1

This release of Tivoli NetView for z/OS Version 5 Release 1 is installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands. The SMP/E dialogs may be used to accomplish the SMP/E installation steps.

6.1.2 SMP/E Environment

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

Sample jobs are provided to assist you in installing Tivoli NetView for z/OS Version 5 Release 1. After the RECEIVE step has been completed, the sample jobs can be found in SMPTLIB: **IBM.JENV511.F2**. Make a copy of these jobs in your own library and modify them to use during the installation of Tivoli NetView for z/OS Version 5 Release 1. Or you can use the UNLOAD job provided in the program directory to copy the install JCL from the tape. See 6.1.5, “Sample Jobs” on page 37.

In the sample SMP/E jobs provided, the name of the SMP/E CSI is `GLOBAL`. The global zone name in the SMP/E CSI is `GLOBAL`. The distribution zone name is `dzone`. The target zone name is `tzone`. The sample jobs should be updated to reflect the CSI and zone names used at your installation.

6.1.3 SMP/E Options Subentry Values

The recommended values for some SMP/E CSI subentries are shown in Figure 22. Use of values lower than these may result in failures in the installation process. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. Refer to the SMP/E manuals for instructions on updating the global zone.

Figure 22. SMP/E Options Subentry Values

SUB-ENTRY	Value	Comment
DSSPACE	(300,500,900)	Use 900 directory blocks
PEMAX	SMP/E Default	Tivoli recommends using the SMP/E default for PEMAX.

6.1.4 SMP/E CALLLIBS Processing

Tivoli NetView for z/OS Version 5 Release 1 uses the CALLLIBS function provided in SMP/E to resolve external references during installation. When Tivoli NetView for z/OS Version 5 Release 1 is installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB
- SCEELKED
- SCEELKEX
- SEZADPIL
- SEZACMTX

Note: The DDDEFs above are used only to resolve the link-edit for Tivoli NetView for z/OS Version 5 Release 1 using CALLLIBS. These data sets are not updated during the installation of Tivoli NetView for z/OS Version 5 Release 1.

Verify that the SMP/E SMPLTS data set has been allocated. Refer to *SMP/E Reference* for information on allocating the SMPLTS data set.

Note: For Tivoli NetView for z/OS Version 5 Release 1, 391 tracks of 3390 DASD space is adequate for the SMPLTS.

6.1.5 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install Tivoli NetView for z/OS Version 5 Release 1:

Figure 23 (Page 1 of 2). Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
CNMJSMPE	ALLOCATE	Sample job to allocate SMP/E datasets	IBM.JENV511.F2
CNMJCSIE	SMPZONE	Sample job to allocate global, target and dlib zones, define the globalzone and default options to SMP/E	IBM.JENV511.F2
CNMJUCLE	SMPZONE	Sample job to update DSSPACE and/or PEMAX if using existing zones	IBM.JENV511.F2
CNMRCVNE	RECEIVE	RECEIVE job for System Services Base	IBM.JENV511.F2
CNMRCVEE	RECEIVE	RECEIVE job for Enterprise Base	IBM.JENV511.F2
CNMALOCE	ALLOCATE	Allocate job for target and distribution libraries for Tivoli NetView for z/OS Version 5 Release 1 host.	IBM.JENV511.F2
CNMJMKPE	MKDIR	Sample job to create HFS mount point directory of target HFS data set that was allocated. Must be done from ID with root authority.	IBM.JENV511.F2
CNMJMKME	MKDIR	Rexx exec invoked by CNMJMKPE to create the HFS mount point directory of the target HFS data set.	IBM.JENV511.F2

Figure 23 (Page 2 of 2). Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
CNMJMKXE	MKDIR	Sample job to execute the exec that creates HFS directories for z/OS UNIX System Services related components. Must be done from ID with root authority.	IBM.JENV511.F2
CNMJMKDE	MKDIR	Rexx exec to create HFS directories for z/OS UNIX System Services related components HFS paths	IBM.JENV511.F2
CNMDDEFE	DDDEF	Sample job to define SMP/E DDDEFs for NetView	IBM.JENV511.F2
CNMAPLYE	APPLY	APPLY job for NetView. Must be done from ID with root authority.	IBM.JENV511.F2
CNMACPTE	ACCEPT	ACCEPT job for NetView	IBM.JENV511.F2
CNMJUMCS	PRINT	Sample job to print out SMPMCS	IBM.JENV511.F2

You may copy the jobs from the tape or product files by submitting the job below. Use either the //TAPEIN or the //FILEIN DD statement, depending on your distribution medium, and comment out or delete the other statement. Add a job card and change the lowercase parameters to uppercase values to meet your site's requirements before submitting.

```
//UNLOAD  EXEC PGM=IEBCOPY
//SYSPRINT  DD SYSOUT=*
//TAPEIN    DD DSN=IBM.JENV511.F2,UNIT=tunit,
//             LABEL=(9,SL),DISP=OLD,
//             VOL=SER=ENV510
//FILEIN    DD DSN=IBM.JENV511.F2,UNIT=SYSALLDA,DISP=SHR,
//          VOL=SER=filevol
//OUT       DD DSN=HLQ.SLQ.INSTALL,
//             DISP=(NEW,CATLG,DELETE),
//             VOL=SER=dasdvol,UNIT=SYSALLDA,
//             SPACE=(8800,(100,10,25))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
    COPY INDD=xxxxIN,OUTDD=OUT
/*
//
```

where **tunit** is the unit value matching the product tape, **filevol** is the volume serial of the DASD device where the downloaded files reside, **HLQ.SLQ.** are the high level and secondary level qualifiers for the output data set, **dasdvol** is the volume serial of the DASD device where the output data set will reside and **xxxxIN** on the SYSIN DD to either TAPEIN or FILEIN depending on your input DD statement.

You can also access the sample installation jobs by performing an SMP/E RECEIVE and then copying the jobs from the SMPTLIBs to a work data set for editing and submission. See Figure 23 on page 37 to find the appropriate SMPTLIB data set.

6.1.6 Establish the Correct SMP/E Environment for Tivoli NetView for z/OS Version 5 Release 1

6.1.6.1 SMP/E Data Sets for Tivoli NetView for z/OS Version 5 Release 1

If you chose to allocate a NetView SMP/E CSI then you may also wish to allocate separate SMP/E data sets for use with the new global zone. Sample CNMJSMPE is provided in HLQ.SLQ.INSTALL for that purpose. It is important that the data set names match between sample job CNMJSMPE and those that are specified in all of the installation jobs supplied with Tivoli NetView for z/OS Version 5 Release 1. CNMJSMPE is written to allow for a customer supplied second level qualifier to the data set names but does not require it. If you choose to add a second level qualifier you should code it in the SMPSLQ parameter and be sure it contains the trailing period (e.g. SMPSLQ=USER.).

- **Expected Return Codes and Messages:** The CNMJSMPE job is considered successful if return code zero is received.

6.1.6.2 SMP/E CSI for Tivoli NetView for z/OS Version 5 Release 1

Users who wish to allocate new CSI data sets and create a separate set of global, distribution and target zones for NetView may do so using the sample CNMJCSIE supplied in HLQ.SLQ.INSTALL. CNMJCSIE will allocate and prime a global CSI data set, allocate and prime separate CSI data sets for the target and distribution zones, and initialize the zones once the CSIs are allocated and primed. Along with following the directions specified in the comments of the CNMJCSIE sample, you should review the SMP/E options defined in CNMJCSIE. These options were chosen for maximum flexibility and a minimum number of later updates; you may wish to change some options. For example, the NOPURGE option, prevents the deletion of global zone SYSMOD entries, HOLDDATA entries, SMPPTS MCS entries and SMPTLIB data sets during ACCEPT processing. Specifying PURGE could save some disk space if the consequences are acceptable. The *SMP/E User's Guide* and the *SMP/E Reference* will be helpful in determining whether or not to specify NOPURGE.

The ACCJCLIN option tells SMP/E to save inline JCLIN in the distribution zone whenever a SYSMOD containing inline JCLIN is ACCEPTed. The ACCJCLIN option can be specified in the CNMJCSIE sample job, or a separate UCLIN job can be executed at a later time to add this option. For more information on the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E manuals.

- **Expected Return Codes and Messages:** The CNMJCSIE job is considered successful if return code zero is received. If this is the first time you have run this job, and there are no existing CSIs to delete, then you will get a return code of 8 for the delete step.

6.1.6.3 OS/390 Release 10 SMP/E or later access to Tivoli NetView for z/OS Version 5 Release 1 Data Sets

Tivoli NetView for z/OS Version 5 Release 1 now has it's own MACLIB and AMACLIB data sets instead of using the system data sets. They are SCNMMAC1 and ACNMMAC1.

To establish the correct SMP/E access to Tivoli NetView for z/OS Version 5 Release 1 data sets, complete the following steps:

- Ensure that the SMP/E space requirements outlined in Figure 15 on page 18 and Figure 16 on page 19 are met by the SMP/E environment that will be used to install Tivoli NetView for z/OS Version 5 Release 1. If you choose to use samples CNMJSMPE and CNMJCSIE to create your SMP/E environment, these requirements are met and you may continue to 6.1.7, “Perform SMP/E RECEIVE.” If you are not using CNMJSMPE and CNMJCSIE to create your SMP/E . environment, read the following items.
  - Storage requirements for the SMPCSI data sets are found in Figure 14 on page 18.
  - CNMJUCLE, found in HLQ.SLQ.INSTALL, can be used to set DSSPACE and PEMAX to the values shown in Figure 22 on page 36. CNMJUCLE should only be used if the values in your current OPTIONS entry are less than the values shown in Figure 22 on page 36.
  - Run CNMJUCLE, if necessary, before proceeding to 6.1.7, “Perform SMP/E RECEIVE” .

    Expected Return Codes and Messages: The CNMJUCLE job is considered successful if return code zero is received.

6.1.7 Perform SMP/E RECEIVE

Edit and submit sample receive jobs CNMRCVNE and CNMRCVEE to perform the SMP/E RECEIVE for Tivoli NetView for z/OS Version 5 Release 1. Consult the instructions in the sample jobs for more information. You will need to run both CNMRCVNE and CNMRCVEE.

Note: If you obtained Tivoli NetView for z/OS Version 5 Release 1 as part of a CBPDO, you can use the RCVPDO job found in the CBPDO RIMLIB data set to RECEIVE the Tivoli NetView for z/OS Version 5 Release 1 FMIDs as well as any service, HOLDDATA, or preventive service planning (PSP) information included on the CBPDO tape. For more information, refer to the documentation included with the CBPDO.

Make the changes as indicated in the JCL comments (as well as any other changes required by your site) and submit the jobs.

- **CNMRCVNE:**

  The JCL contained in the sample job CNMRCVNE should be run for all installations.

  Expected Return Codes and Messages: The CNMRCVNE job is considered successful if return code zero is received.
- **CNMRCVEE:**

The JCL contained in the sample job CNMRCVEE should be run for all installations.

Expected Return Codes and Messages: The CNMRCVEE job is considered successful if return code zero is received.

6.1.8 Allocate SMP/E Target and Distribution Libraries and Paths

6.1.8.1 Allocate SMP/E Target and Distribution Libraries

Ensure that the Tivoli NetView for z/OS Version 5 Release 1 target and distribution libraries have sufficient space. To see the minimum sizes needed refer to Figure 19 on page 20 and Figure 17 on page 19. To allow for maintenance, the space allocations in allocation samples are larger than the actual minimum space required.

If you are installing the NetView program for the first time, the allocation sample, CNMALOCE, can be used to create the target and distribution libraries which are used exclusively by Tivoli NetView for z/OS Version 5 Release 1.

Optionally, CNMALOCE can also allocate your target HFS data set, 'hhhhhh.NETVIEW.V5R1E.HFS', that will be used to install NetView code.

Note: You are not required to allocate a target HFS data set, however, it is recommended. If you do not wish to allocate a target HFS data set for NetView, you can still install into either your root HFS data set or into another HFS data set. Currently, CNMALOCE will not allocate a target HFS data set. If you wish to allocate one you must uncomment the ALLOC2 step before running the CNMALOCE sample job.

The target library SCNMLPA1 must be cataloged in the master catalog so that it can later be concatenated to SYS1.LPALIB via the LPALSTxx member of SYS1.PARMLIB. The target library CNMLINK must also be cataloged in the master catalog if it is to be added to the linklist via the LNKLSTxx member of SYS1.PARMLIB. The LPALIB and LINKLIST concatenations are discussed further in the *Tivoli NetView for z/OS Installation: Getting Started, SC31-8872*.

6.1.8.2 Tivoli NetView for z/OS Version 5 Release 1 host components

If you are allocating new Tivoli NetView for z/OS Version 5 Release 1 libraries run CNMALOCE. After running CNMALOCE you should proceed to 6.1.9, “Create Hierarchical File System Mount Point Directory” on page 42.

- **CNMALOCE:**

  Expected Return Codes and Messages: The CNMALOCE job is considered successful if return code zero is received.

6.1.9 Create Hierarchical File System Mount Point Directory

If you allocated a new HFS data set with CNMALOCE, then you can use CNMJMKPE to create the HFS mount point directory, <PathPrefix>/usr/lpp/netview/, which will be used to mount your target HFS data set. If you did not allocate a new HFS then you can continue with step 6.1.11, “Create Hierarchical File System Directories” on page 43. CNMJMKPE must be run by a userid that has superuser authority (for example, ROOT), and the UNIX System Services component of OS/390 must be active.

Note: CNMJMKPE assumes that the <PathPrefix>/usr/lpp/ directories already exist. If these directories do not exist, manually create the <PathPrefix>/usr/lpp/ directories **before** submitting CNMJMKPE.

Note: When editing sample CNMJMKPE, be sure that you use the same <PathPrefix> value when you edit sample CNMDDEFE. The default value that is shipped with Tivoli NetView for z/OS Version 5 Release 1 is null. Remember that pathnames in z/OS UNIX System Services are case sensitive.

- **CNMJMKPE:**

  Expected Return Codes and Messages: The CNMJMKPE job is considered successful if return code zero is received.

6.1.10 Mount The Target Hierarchical File System Dataset

If you chose to allocate a new HFS, as defined in sample CNMALOCE, then use the following TSO/E command to mount the target HFS dataset that was allocated by sample CNMALOCE at the mount point directory:

```
MOUNT FILESYSTEM('hhhhhh.NETVIEW.V5R1E.HFS')
      MOUNTPOINT('<PathPrefix>/usr/lpp/netview/')
      TYPE(HFS) MODE(RDWR)
```

'hhhhhh.NETVIEW.V5R1E.HFS' is the name of your target HFS dataset and <PathPrefix> is the high-level directory name that will be used in sample CNMDDEFE. Be sure to mount the target HFS dataset in read/write mode. After the steps in this program directory have been completed, you should re-mount the target HFS dataset in read only mode in order to protect the data installed. This command must be entered by a userid that has superuser authority (for example, ROOT), and the UNIX System Services component of OS/390 must be active.

Note: If you re-ipl your target system, you will have to re-enter this command in order to re-mount the target HFS dataset. To automatically mount the target HFS dataset during the ipl process, modify your BPXPRMxx member of SYS1.PARMLIB. Instructions for modifying your BPXPRMxx member are provided in the *Tivoli NetView for z/OS Installation: Getting Started, SC31-8872*.

6.1.11 Create Hierarchical File System Directories

For Tivoli NetView for z/OS Version 5 Release 1, edit and submit sample CNMJMKXE which creates HFS directories for z/OS UNIX System Services Related Components in NetView. CNMJMKXE must be run by a userid that has superuser authority (for example, ROOT), and the UNIX System Services component of OS/390 must be active.

Note: When editing sample CNMJMKXE, be sure that you use the same <PathPrefix> value in sample CNMDDEFE.

- **CNMJMKXE:**

  Expected Return Codes and Messages: The CNMJMKXE job is considered successful if return code zero is received.

6.1.12 Create DDDEF Entries

Add the DDDEFs for Tivoli NetView for z/OS Version 5 Release 1 target libraries and distribution libraries (for SMP/E RESTORE processing) to the target zone into which Tivoli NetView for z/OS Version 5 Release 1 will be APPLYed. Also add the DDDEFs for distribution libraries to the distribution zone into which Tivoli NetView for z/OS Version 5 Release 1 will be ACCEPTed.

Run CNMDDEFE before proceeding. You must make some modifications to CNMDDEFE before running it.

Note: Because pathnames in z/OS UNIX System Services are case sensitive, be sure when you change <PathPrefix> in the DDDEF7 step not to change the case of any characters in the HFS pathname.

- **CNMDDEFE:**

  Expected Return Codes and Messages: The CNMDDEFE job is considered successful if return code zero is received.

6.1.13 Perform SMP/E APPLY

Edit and submit the sample job for your installation, CNMAPLYE, to perform an SMP/E APPLY CHECK for Tivoli NetView for z/OS Version 5 Release 1. Consult the instructions in the sample job for more information.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the following on the APPLY CHECK: PRE, ID, REQ, and IFREQ. This is because the SMP/E root cause analysis identifies the cause only of **ERRORS** and not of **WARNINGS** (SYSMODs that are bypassed are treated as warnings, not errors, by SMP/E).

Once you have taken any actions indicated by the APPLY CHECK, remove the CHECK operand and run the jobs again to perform the APPLY.

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

If you have previously installed NetView or NCCF into target libraries that you will continue to use with Tivoli NetView for z/OS Version 5 Release 1, you will need to let SMP/E remove the old NetView or NCCF from those target libraries at APPLY time. See section 6.1.13.1, “APPLYing Tivoli NetView for z/OS Version 5 Release 1 on a System Having NCCF or NetView Already Installed” for more information.

The APPLY job, CNMAPLYE will apply one or more FMIDs. You may choose to apply FMIDs individually, or all at once. Make the changes as indicated in the JCL comments contained in CNMAPLYE (as well as any other changes required by your site) and submit the job. Remember, you must comment out any FMIDs that you will not be applying.

Note: It is **strongly** recommended that you APPLY the NetView components in the order listed in the sample apply job. This is because Tivoli NetView for z/OS Version 5 Release 1 has many dependencies between components. These dependencies will cause unresolved external reference messages to be generated during the APPLY. The correct order for applying is

- HENV510
- JENV511
- JENV513
- JENV514

Note: The CNMAPLYE job must be run by a userid that has superuser authority (for example, ROOT), and the UNIX System Services component of OS/390 must be active.

Warning: Because Tivoli NetView for z/OS Version 5 Release 1 has been divided into several FMIDs this release, some load modules will be built with parts from multiple FMIDs. SMP/E will handle this automatically for you by keeping track of what parts are needed and adding them into load modules as they are applied. However, this means that some linkage editor steps will initially finish with a return code of 4. In order to keep the APPLY step from ending prematurely, you must set SMP/E to allow a return code of 4. (This is done automatically if you use the SMP/E sample installation jobs provided). This can also be done by using the SMP/E dialogs or UCLIN to set the return code for specific utilities such as IEWL, the linkage editor.

- **CNMAPLYE:**

  Expected Return Codes and Messages from APPLY CHECK: The job is considered successful if return code zero is received.

  Expected Return Codes and Messages from APPLY: The job is considered successful if return code zero is received.

6.1.13.1 APPLYing Tivoli NetView for z/OS Version 5 Release 1 on a System Having NCCF or NetView Already Installed

You should do either 6.1.13.1.1, “Deleting a Previous Release of NCCF or NetView” on page 45 or 6.1.13.1.2, “Running with a Previous Release of NCCF or NetView” on page 45, but not both.

6.1.13.1.1 Deleting a Previous Release of NCCF or NetView: If you have previously installed NetView or NCCF into system libraries and you will use those libraries again with Tivoli NetView for z/OS Version 5 Release 1, but you do not want to continue using the old release after your Tivoli NetView for z/OS Version 5 Release 1 install, you will need to use SMP/E to remove the old NetView or NCCF from those libraries when SMP/E installs Tivoli NetView for z/OS Version 5 Release 1.

This is particularly important when the prior release of NetView or NCCF was installed into SYS1.LINKLIB and/or SYS1.LPALIB. If you do not remove the previous release of NetView or NCCF from SYS1.LINKLIB and SYS1.LPALIB, the newly installed system could be executing the previous NetView or NCCF modules instead of Tivoli NetView for z/OS Version 5 Release 1 modules.

For SMP/E to remove the previous release of NetView or NCCF from your system's libraries, you will have to take the following steps:

- You will have to run your APPLY job using your old NetView or NCCF libraries and SMP/E zone.
- During an APPLY, all the elements from a previous release are deleted from your target libraries. If you have previously deleted old libraries or elements within a library, the SMP/E entry for them will still exist. An attempt will be made to delete elements, and processing will continue whether or not they are found. However, if SMP/E cannot find the data sets, it will halt the APPLY until you provide access to them. In this case, allocate dummy libraries and delete them after the APPLY.
- Any old NetView data sets that are deleted should be removed from your SMP/E zone DDDEFs (CNMDDEFE). If you have a previous version of MultiSystem Manager or AON/ANO installed you will need to delete those data sets as well.
- Since the APPLY will have deleted BNJMTERM from SYS1.LPALIB, no IPLs should be performed with the CLPA option until the library SCNMLPA1 is concatenated to SYS1.LPALIB via a LPALSTxx member of SYS1.PARMLIB (refer to the *Tivoli NetView for z/OS Installation: Getting Started, SC31-8872*).

Warning: If an IPL is performed with the CLPA option before SCNMLPA1 is concatenated to SYS1.LPALIB, the target system will not IPL.

To lessen the exposure to this situation, you might want to add SCNMLPA1 to the LPALSTxx member (refer to *Tivoli NetView for z/OS Installation: Getting Started, SC31-8872*) before actually APPLYing Tivoli NetView for z/OS Version 5 Release 1.

In addition, you will need to remove the HFS directories from previous releases. These can be found in section 6.1.16, “Cleaning Up Obsolete Data Sets, Paths, and DDDEFs” on page 51

6.1.13.1.2 Running with a Previous Release of NCCF or NetView: If you have previously installed NetView or NCCF and you plan to continue using this release after your Tivoli NetView for z/OS Version 5 Release 1 install, you MUST use separate SMP/E target zones for your Tivoli NetView for z/OS Version 5 Release 1 install. After your period of testing Tivoli NetView for z/OS Version 5 Release 1 is finished, you should delete the previous release of NetView or NCCF. If the previous level of NetView is earlier than Version 2 Release 1 (or NetView Version 1 Release 3 MVS/ESA) then you must manually delete the old modules from SYS1.LPALIB and SYS1.LINKLIB since the new release uses modules which are placed in

SCNMLPA1 rather than LPALIB and CNMLINK instead of LINKLIB. These modules in SCNMLPA1 are downward compatible with previous releases and the most recent version should be used.

When your migration is complete and you wish to delete your previous release of NCCF or NetView, you may run an SMP/E job using a dummy FMID to delete the previous release and its parts from the old libraries and the previous release's target and distribution zones. A UCLIN job is used to clean out references to the dummy FMID from the CSI zones. This assumes you have installed Tivoli NetView for z/OS Version 5 Release 1 in a separate CSI(s) or zone(s) from the previous release. Figure 24 lists the releases prior to Tivoli NetView for z/OS Version 5 Release 1.

Figure 24 (Page 1 of 2). NetView FMIDs to delete by Version/Release

Version/Release	MVS/370	MVS/XA	MVS/ESA
NetView V1R1	HNV1102	HNV1103	N/A[1]
NetView V1R2	HNV1202	HNV1203	N/A[1]
NetView V1R3	N/A[2]	HNV1303	HVNW140
NetView V2R1	N/A[2]	HVWW101	HXYZ101
NetView V2R2	N/A[2]	HVWW200	HXYZ200
NetView V2R3	N/A[2]	HVWW300	HXYZ300
NetView V2R4	N/A[2]	N/A[3]	HXYZ400
NetView V3R1	N/A[2]	N/A[3]	HPZ8100, HPZ8130
TME 10 NetView V1R1	N/A[2]	N/A[3]	HPZ8200
TME 10 NetView V1R2	N/A[2]	N/A[3]	HPZ8300
TME 10 NetView V1R3	N/A[2]	N/A[3]	HPZ8400
Tivoli 10 NetView V1R4	N/A[2]	N/A[3]	HPZ8500
MultiSystem Manager V1R1	N/A[4]	N/A[5]	HFLC100
MultiSystem Manager V1R2	N/A[4]	N/A[5]	HFLC200
MultiSystem Manager V2R1	N/A[4]	N/A[5]	HFLC300
MultiSystem Manager V2R2	N/A[4]	N/A[5]	HFLC400

Figure 24 (Page 2 of 2). NetView FMIDs to delete by Version/Release

Version/Release	MVS/370	MVS/XA	MVS/ESA
AON/ANO FMIDs	N/A[6]	N/A[7]	HLR6110, HLR6200, HML6110, HML6111, H080100

Notes:

1. NetView was not shipped in MVS/ESA for this release.
2. NetView was not shipped in MVS/370 for this release.
3. NetView was not shipped in MVS/XA for this release.
4. MultiSystem Manager was not shipped in MVS/370.
5. MultiSystem Manager was not shipped in MVS/XA.
6. AON/ANO was not shipped in MVS/370 for this release.
7. AON/ANO was not shipped in MVS/XA for this release.

If you have not accepted all of your maintenance, you may have additional work to complete the cleanup of your global zones. You should use the REJECT command to delete any SYSMODs and HOLDDATA applicable to the dummy function and the old function. In addition, you should delete the FMIDs from the GLOBALZONE entry to prevent SMP/E from receiving any SYSMODs or HOLDDATA applicable to either of those functions. Here are examples of the commands you can use to do this:

```
SET     BDY(GLOBAL)      /* Set to global zone.       */.
REJECT HOLDDATA NOFMID   /* Reject SYSMODs, HOLDDATA  */
       DELETEFMID        /* for the deleted functions.*/
       (nvdelet fmid2dl) /* Delete the FMIDs from the */
                         /* GLOBALZONE entry.         */.
```

Figure 25. Additional delete logic

6.1.13.2 Running and Verifying the APPLY of Tivoli NetView for z/OS Version 5 Release 1

Run the apply job CNMAPLYE. It should end with a return code of 0. If the code is non zero then analyze the reports from the APPLY and take whatever action is necessary to resolve the errors. The analysis of APPLY reports is covered in detail in the *SMP/E User's Guide*.

Load module DSITCT will not be deleted during APPLY processing for customers who have the TCAM interface module, IEDQB1, installed with NCCF. This is not an error.

You should be aware that you may receive a return code of 0 and still find unresolved references in your APPLY output. This is normal and not a problem. With SMP/E R8 many modules are built twice. The first version is built without any references to HLL libraries resolved and stored in an SMP/E dataset, SMPLTS. This version will have unresolved external references. It is used by SMP/E to rebuild the module if you should update the level of any of your HLL's. SMP/E then builds the useable version of the module with the HLL libraries, resolving any external references. If the useable version builds correctly the APPLY job will end with a return code of 0. Please note that this is an explanation of how CALLLIBS works, not an

instruction to run REPORT CALLLIBS each time maintenance is applied to your high level language. This need was eliminated in Language Environment Version 1 Release 3 and is applicable to all OS/390 releases. You will still need to run REPORT CALLLIBS if your PL/I or C/390 products have maintenance applied, but not if your high level language source is LE V1R3 or higher which includes all levels of OS/390 Release 3 or higher.

Note: There are some load modules that will not have all their external references resolved by the APPLY. This is because they may need to be linked in with user code, because they are used by another FMID to build a larger load module, or because they need a part from an FMID that has not yet been applied. The ACTION column will indicate if and how the external references will be resolved. If the ACTION column says "NONE" then this module will never have its external references resolved. This is not a problem. It means that the load module is never executed by itself, but is used to build a larger load module in a different product.

Depending on the level of OS/390 used, you will receive additional warning and informational messages when you run the APPLY jobs. Most of these are not a problem. Figure 26 lists the messages, and the approximate number of times each message will occur, for each set of FMIDs. This is not meant to be an exact list, as the level of your operating system may cause variations in the results, but is meant to be used as a guide in assessing whether your APPLY ran correctly.

Figure 26. Warning and Informational Messages Received during APPLY

Message Number	**HENV510 JENV511**	**JENV513 JENV514**
GIM23913I	4825	1014
GIM23913W	3	0
GIM23914I	0	0
IEW2454W	33	175
IEW2646W	1	0
IEW2651W	1	0
IEW2650I	11	37

6.1.14 Perform SMP/E ACCEPT

Edit and submit the sample job, CNMACPTE to perform an SMP/E ACCEPT CHECK for Tivoli NetView for z/OS Version 5 Release 1. Consult the instructions in the sample jobs for more information. You may subdivide the ACCEPT job and process one FMID at a time.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the following on the ACCEPT CHECK: PRE, ID, REQ, and IFREQ. This is because the SMP/E root cause analysis identifies the cause only of **ERRORS** and not of **WARNINGS** (SYSMODs that are bypassed are treated as warnings, not errors, by SMP/E).

Before using SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. This will cause entries produced from JCLIN to be saved in the distribution zone whenever a SYSMOD containing inline JCLIN is ACCEPTed. For more information on the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E manuals.

Once you have taken any actions indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

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

If PTFs containing replacement modules are being ACCEPTed, SMP/E ACCEPT processing will linkedit/bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder may issue messages documenting unresolved external references, resulting in a return code of 4 from the ACCEPT step. These messages can be ignored, because the distribution libraries are not executable and the unresolved external references will not affect the executable system libraries.

Edit and submit sample accept jobs to perform an SMP/E ACCEPT for Tivoli NetView for z/OS Version 5 Release 1. Consult the instructions in the sample job for more information.

If you have previously installed NetView or NCCF into distribution libraries that you will continue to use with Tivoli NetView for z/OS Version 5 Release 1, you will need to let SMP/E remove the old NetView or NCCF from those distribution libraries at ACCEPT time.

CNMACPTE, supplied in HLQ.SLQ.INSTALL will accept one or more FMIDs. You will need to run this job for each FMID for which you did a RECEIVE and APPLY.

After choosing which FMIDs you should run, make the changes as indicated in the JCL comments contained in CNMACPTE (as well as any other changes required by your site) and submit the job. Remember, you must comment out any FMIDs that you will not be accepting. The analysis of ACCEPT reports is covered in detail in *SMP/E User's Guide*.

- **CNMACPTE:**

  Expected Return Codes and Messages from ACCEPT CHECK: The job is considered successful if return code 0 is received.

  Expected Return Codes and Messages from ACCEPT: The job is considered successful if return code 0 is received.

6.1.14.1 ACCEPTing Tivoli NetView for z/OS Version 5 Release 1 on a System Having NCCF or NetView Already Installed

You should do either 6.1.14.1.1, “Deleting a Previous Release of NCCF or NetView” or 6.1.14.1.2, “Running with a Previous Release of NCCF or NetView” on page 50, but not both.

6.1.14.1.1 Deleting a Previous Release of NCCF or NetView: If you have previously installed NetView or NCCF into system libraries and you will reuse those libraries with Tivoli NetView for z/OS Version 5 Release 1, but you do NOT want to continue using this release after your Tivoli NetView for z/OS Version

5 Release 1 install you will need to let SMP/E remove the old NetView or NCCF from those libraries when SMP/E installs Tivoli NetView for z/OS Version 5 Release 1.

To allow SMP/E to remove the old NetView or NCCF from your system's libraries, you will have to take the following steps:

- You will have to run your ACCEPT job using your old NetView or NCCF libraries and SMP/E zone.
- During an ACCEPT, all the elements from a previous release are deleted from your distribution libraries. If you have previously deleted old libraries or elements within a library, the SMP/E entry for them will still exist. An attempt will be made to delete them and processing will continue whether or not the element is found. However, if SMP/E cannot find the data sets, it will halt the ACCEPT until you provide access to them. In this case, allocate dummy libraries and delete them after the ACCEPT.
- Any old NetView data sets that are deleted should also be removed from your SMP/E zone DDDEFs. If you have a previous version of MultiSystem Manager or AON/ANO installed you will need to delete those data sets as well.

6.1.14.1.2 Running with a Previous Release of NCCF or NetView: If you have previously installed NetView or NCCF and you plan to continue using this release after your Tivoli NetView for z/OS Version 5 Release 1 install, you MUST use separate SMP/E distribution zones for your Tivoli NetView for z/OS Version 5 Release 1 install.

When your migration is complete and you wish to delete your previous release of NCCF or NetView, you may run the dummy SMP/E job to delete the old distribution libraries from the previous release's CSI zone. This assumes you have installed Tivoli NetView for z/OS Version 5 Release 1 in a separate CSI from the previous release. This process is described in 6.1.13.1.2, “Running with a Previous Release of NCCF or NetView” on page 45 and the jobs provided perform the receive, apply, and accept steps.

6.1.15 Installing the PTFs for Cumulative Maintenance

For information concerning PTF installation, refer to *SMP/E User's Guide*.

APPLY and ACCEPT any cumulative service tape received with this product.

6.1.15.1 Publications Useful During Installation

The publications listed in Figure 27 may be useful during the installation of Tivoli NetView for z/OS Version 5 Release 1. To order copies, contact your IBM and/or Tivoli representative.

Figure 27 (Page 1 of 2). Publications Useful During Installation

Publication Title	Form Number
Tivoli Management Framework for OS/390 Program Directory, Version 3.6.1	GI10-8039

Figure 27 (Page 2 of 2). Publications Useful During Installation	
Publication Title	**Form Number**
Tivoli Management Framework for OS/390 Release Notes: Server, Gateway, and Endpoint, Version 3.6.1	GI10-9186
TME 10 Framework Release Notes, Version 3.6.1	GI10-8014
TME 10 Framework Release Notes, Version 3.6	GI10-3028
TME 10 Framework Planning and Installation Guide 3.6	SC31-8432
TME 10 Framework Reference 3.6	SC31-8434
TME 10 Framework User's Guide 3.6	GC31-8433
TME 10 Software Installation Service User's Guide 3.6	GC31-5121
TME 10 Software Installation Service Release Notes 3.6.1	GI10-8015
TME 10 Software Installation Service Release Notes 3.6	GI10-0512

6.1.16 Cleaning Up Obsolete Data Sets, Paths, and DDDEFs

The following data sets, allocated and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete data sets after you delete the previous release from your system.

- SEKGCAS1
- AEKGCAS1
- SEKGLUTB
- AEKGLUTB
- SEKGPNL1
- AEKGPNL1
- SEKGSMP1
- AEKGSMP1
- SEKGMOD1
- AEKGMOD1
- SEKGMOD2
- SEKGLNK1
- SEZLCLST
- AEZLCLST
- SEZLINST

- AEZLINST
- SEZLLINK
- AEZLLINK
- SEZLPNLU
- AEZLPNLU
- SEZLSAMP
- AEZLSAMP

The following HFS paths, created and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete HFS paths after you delete the previous release from your system.

- /usr/lpp/netview/bin/IBM/
- /usr/lpp/netview/samples/IBM/
- /usr/lpp/netview/lib/IBM/
- /usr/lpp/netview/mibs/IBM/
- /usr/lpp/netview/doc/IBM/
- /usr/lpp/netview/man/C/cat1/IBM/
- /usr/lpp/netview/samples/properties/IBM
- /usr/lpp/netview/samples/properties/startup/IBM

The following DDDEF entries, created and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete DDDEF entries after you delete the previous release from your system.

- SEKGCAS1
- AEKGCAS1
- SEKGLUTB
- AEKGLUTB
- SEKGPNL1
- AEKGPNL1
- SEKGSMP1
- AEKGSMP1
- SEKGMOD1
- AEKGMOD1
- SEKGMOD2

- SEKGLNK1
- SEZLCLST
- AEZLCLST
- SEZLINST
- AEZLINST
- SEZLLINK
- AEZLLINK
- SEZLPNLU
- AEZLPNLU
- SEZLSAMP
- AEZLSAMP
- SCNMUX01
- SCNMUX02
- SCNMUX05
- SCNMUX06
- SCNMUX07
- SCNMUX08

6.2 Activating Tivoli NetView for z/OS Version 5 Release 1

The publication *Tivoli NetView for z/OS Installation: Getting Started, SC31-8872* contains the step-by-step procedures to activate the functions of Tivoli NetView for z/OS Version 5 Release 1.

The publication *Tivoli NetView for z/OS Installation: Getting Started, SC31-8872* contains procedures for activating functions of Tivoli NetView for z/OS Version 5 Release 1. For additional information refer to the publications noted in Figure 4 on page 6.

Appendix A. Program Level Information

The following PTFs containing APAR fixes against this release of IBM TIVOLI NETVIEW FOR Z/OS 5.1.0 have been integrated into this release.

NOTE: COR-CLOSED PTFs are available for 'Corrective Service' and will be placed on the next available ESO Tape (Expanded Service Option, formerly known as PUT Tapes). The following sub-categories for COR-CLOSED PTFs have been provided by Software Delivery and Fulfillment (SDF), Poughkeepsie:

PUTyymm COR-CLOSED PTFs that are available on an ESO Tape, where 'yymm' indicates the year and the month that the ESO tape became available.

RSUyymm RSU (Recommended Service Upgrade) is a preventive service philosophy for all S/390 products that are serviced by IBM for the OS/390 and MVS platforms. RSU reduces the volume of PTFs customers need to apply for preventive maintenance. RSU became available at OS/390 Release 2 GA (9/96), and is identified via an additional SOURCEID of RSUyymm, where 'yymm' indicates the year and the month the PTF was assigned this SOURCEID.

SMCREC COR-CLOSED PTFs that are not yet available on an ESO Tape, but have been researched and recommended for installation by Software Delivery and Fulfillment (SDF) in Poughkeepsie.

SMCCOR COR-CLOSED PTFs that are not yet available on an ESO Tape and have no special recommendation for installation.

HENV510

UA00103 - RSU0306
UA00276 - RSU0306
UA00571 - RSU0306
UA00893 - RSU0306
UA01204 - RSU0306
UA01369 - RSU0306
UA01372 - RSU0306
UA01398 - RSU0306
UA01401 - RSU0306
UA01711 - RSU0309
UA01839 - RSU0306
UA02130 - RSU0309
UA02163 - RSU0309
UA02380 - RSU0309
UA02382 - RSU0309
UA02569 - RSU0306
UA02570 - RSU0309
UA02615 - RSU0309
UA02683 - RSU0309
UA02688 - RSU0309
UA02740 - RSU0309
UA02944 - RSU0309
UA03413 - RSU0309
UA03553 - RSU0312
UA03554 - RSU0312
UA03721 - RSU0312
UA03833 - RSU0312
UA03841 - RSU0312
UA03849 - RSU0312
UA03863 - RSU0312
UA03868 - RSU0312
UA03881 - RSU0312
UA03885 - RSU0312
UA03942 - RSU0309
UA03944 - RSU0309
UA03964 - RSU0312
UA04098 - RSU0312
UA04104 - RSU0312
UA04111 - RSU0312
UA04123 - RSU0312
UA04199 - RSU0312
UA04356 - PUT0311
UA04359 - RSU0312
UA04526 - RSU0312
UA04842 - PUT0310
UA04891 - PUT0310
UA05086 - PUT0310
UA05087 - PUT0310
UA05088 - PUT0310
UA05348 - PUT0310
UA05828 - PUT0310
UA05902 - PUT0310
UA06006 - PUT0310
UA06014 - PUT0310
UA06488 - PUT0311
UA06524 - PUT0311
UA06619 - PUT0311
UA06683 - PUT0310
UA06684 - PUT0310
UA06785 - PUT0311
UA06786 - PUT0311
UA06787 - PUT0311
UA06898 - PUT0311

UA06988 - PUT0401
UA07016 - PUT0311
UA07109 - PUT0312
UA07223 - PUT0401
UA07299 - PUT0312
UA07300 - PUT0312
UA07328 - PUT0312
UA07330 - PUT0312
UA07331 - RSU0401
UA07408 - PUT0312
UA07692 - PUT0401
UA07693 - PUT0401
UA07712 - PUT0402
UA07804 - PUT0401
UA07807 - PUT0401
UA07818 - PUT0401
UA08026 - PUT0401
UA08043 - PUT0402
UA08054 - PUT0401
UA08249 - PUT0402
UA08346 - PUT0401
UA08402 - PUT0401
UA08460 - RSU0402
UA08461 - PUT0401
UA08512 - PUT0402
UA08660 - PUT0402
UW87233 - RSU0204
UW87920 - RSU0209
UW87922 - RSU0209
UW88078 - RSU0209
UW88161 - RSU0209
UW88233 - RSU0209
UW88529 - RSU0209
UW88530 - RSU0209
UW89415 - RSU0209
UW89416 - RSU0209
UW89417 - RSU0306
UW89466 - RSU0209
UW89471 - RSU0212
UW89800 - RSU0209
UW92019 - RSU0212
UW92291 - RSU0212
UW92582 - RSU0212
UW92672 - RSU0212
UW92695 - RSU0212
UW92849 - RSU0209
UW92877 - RSU0212
UW92878 - RSU0212
UW93064 - RSU0212
UW93078 - RSU0212
UW93234 - RSU0212
UW93434 - RSU0212
UW93440 - RSU0212
UW93441 - RSU0212
UW93538 - RSU0212
UW93571 - RSU0212
UW93572 - RSU0212
UW93689 - RSU0212
UW94458 - RSU0303
UW94470 - RSU0303
UW94564 - RSU0303
UW95201 - RSU0303
UW95221 - RSU0306
UW95345 - RSU0303
UW95347 - RSU0303
UW95464 - RSU0309
UW95630 - RSU0303
UW95794 - RSU0303
UW96439 - RSU0306

JENV511

UA00980 - RSU0306
UA01399 - RSU0306
UA01712 - RSU0309
UA02131 - RSU0309
UA02616 - RSU0309
UA02684 - RSU0309
UA02945 - RSU0309
UA03650 - PUT0310
UA03745 - RSU0312
UA03945 - RSU0309
UA04096 - RSU0312
UA04357 - PUT0311
UA04843 - PUT0310
UA06663 - PUT0402
UA06685 - PUT0310
UA06989 - PUT0401
UA07293 - PUT0402
UA07332 - RSU0401
UA08044 - PUT0402
UA08055 - PUT0401
UA08661 - PUT0402
UW87234 - RSU0204
UW88268 - RSU0209
UW89472 - RSU0209
UW93079 - RSU0212
UW93718 - RSU0306
UW93722 - RSU0303
UW94132 - RSU0306
UW95222 - RSU0306

JENV513

UA00589 - RSU0306
UA00590 - RSU0306
UA00786 - RSU0306
UA01302 - RSU0306
UA01627 - RSU0305
UA01944 - RSU0309
UA02129 - RSU0309
UA02133 - RSU0309
UA02525 - RSU0309
UA02871 - RSU0309
UA02872 - RSU0309
UA03184 - RSU0309
UA03190 - RSU0309
UA03234 - RSU0309
UA03594 - RSU0309
UA04232 - RSU0312
UA04415 - RSU0312
UA04522 - RSU0312
UA04980 - PUT0310
UA05845 - PUT0311
UA05900 - PUT0310

UA06015 - PUT0310
UA06034 - PUT0311
UA06498 - PUT0311
UA06529 - PUT0311
UA06601 - PUT0311
UA06607 - PUT0311
UA06665 - SMCCOR
UA06682 - PUT0311
UA06686 - PUT0310
UA06741 - PUT0311
UA07098 - PUT0401
UA07224 - PUT0401
UA07379 - PUT0401
UA07787 - SMCCOR
UA07851 - SMCCOR
UA07955 - SMCCOR
UA08013 - SMCCOR
UA08025 - PUT0401
UA08516 - SMCCOR
UW87235 - RSU0204
UW87850 - RSU0209
UW87933 - RSU0209
UW88002 - RSU0209
UW88082 - RSU0209
UW88669 - RSU0209
UW88672 - RSU0209
UW88695 - RSU0209
UW89473 - RSU0209
UW89562 - RSU0209
UW92292 - RSU0212
UW92583 - RSU0212
UW92850 - RSU0209
UW92879 - RSU0212
UW93063 - RSU0212
UW93080 - RSU0212
UW93418 - RSU0212
UW93419 - RSU0210
UW93433 - RSU0212
UW93500 - RSU0212
UW94134 - RSU0306
UW94225 - RSU0303
UW94387 - RSU0303
UW95224 - RSU0306
UW95228 - RSU0303
UW95346 - RSU0303
UW95432 - RSU0303

JENV514

UA00901 - RSU0309
UA01194 - RSU0309
UA04345 - PUT0310
UA04939 - PUT0310
UA05824 - PUT0311
UA07295 - PUT0402
UA08014 - PUT0402
UA08377 - PUT0402
UA08517 - PUT0402
UW87236 - RSU0204
UW92584 - RSU0212
UW93042 - RSU0209
UW94966 - PUT0310

The following APAR fixes against previous releases of NetView have been incorporated into Tivoli NetView for z/OS Version 5 Release 1:

OW18382
OW21096
OW21358
OW21663
OW21665
OW22271
OW22747
OW23540
OW23587
OW23650
OW23683
OW23739
OW23806
OW23869
OW23954
OW23986
OW24010
OW24049
OW24053
OW24085
OW24098
OW24129
OW24130
OW24161
OW24166
OW24323
OW24351
OW24356
OW24414
OW24451
OW24457
OW24520
OW24544
OW24553
OW24555
OW24556
OW24557
OW24558
OW24559
OW24628
OW24667
OW24714
OW24782
OW24783
OW24807
OW24809
OW24810
OW24853
OW24926
OW25007
OW25015
OW25021
OW25042
OW25072
OW25087
OW25101
OW25319
OW25367
OW25444
OW25491
OW25504
OW25519
OW25591
OW25597
OW25607
OW25629
OW25630
OW25631
OW25639
OW25641
OW25680
OW25709
OW25760
OW25832
OW25852
OW25923
OW25927
OW25936
OW25942
OW25944
OW25968
OW26026
OW26048
OW26055
OW26056
OW26081
OW26083
OW26088
OW26117
OW26158

OW26165
OW26168
OW26189
OW26197
OW26268
OW26272
OW26276
OW26282
OW26294
OW26310
OW26321
OW26332
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Contacting Customer Support

For support for this or any Tivoli product, you can contact Tivoli Customer Support in one of the following ways:

Submit a problem management record (PMR) electronically at **IBMSERV/IBMLINK**.

Submit a problem management record (PMR) electronically from our Web site at http://www.tivoli.com/support.

Send e-mail to **support@tivoli.com**.

Customers in the United States can also call 1-800-TIVOLI8 (1-800-848-6548).

International customers should consult the Web site for customer support telephone numbers.

You can also review the *Customer Support Handbook*, which is available on our Web site at http://www.tivoli.com/support/handbook/.

When you contact Tivoli Customer Support, be prepared to provide identification information for your company so that support personnel can readily assist you. Company identification information may also be needed to access various online services available on the Web site.

The support Web site offers extensive information, including a guide to support services (the Customer Support Handbook); frequently asked questions (FAQs); and documentation for all Tivoli products, including Release Notes, Redbooks, and Whitepapers. The documentation for some product releases is available in both PDF and HTML formats. Translated documents are also available for some product releases.

You can order documentation by e-mail at **swdist@tivoli.com**. Please provide the publication number, part number, or order number of the desired document. Alternatively, you can provide the document title, version number, and date of publication.

We are very interested in hearing about your experience with Tivoli products and documentation. We also welcome your suggestions for improvements. If you have comments or suggestions about our documentation, please contact us in one of the following ways:

Send e-mail to **pubs@tivoli.com**.

Complete our customer feedback survey at http://www.tivoli.com/support/feedback.

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