IBM Z NetView
Version 6 Release 3

Installation: Migration Guide

GC27-2854-07

Note

Before using this information and the product it supports, read the information in “Notices” on page 171.

This edition applies to version 6, release 3 of IBM Z NetView (product number 5697-NV6) and to all subsequent versions, releases, and modifications until otherwise indicated in new editions.

This edition replaces GC27-2854-04.

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About this publication

The IBM Z® NetView® product provides advanced capabilities that you can use to maintain the highest degree of availability of your complex, multi-platform, multi-vendor networks and systems from a single point of control. This publication, the *IBM Z NetView Installation: Migration Guide*, provides information about migrating the base functions from a previous release of the NetView program. It also describes procedures to migrate from the NetView Graphic Monitoring Facility (NGMF) to the NetView management console and to migrate from the unattended feature, the procedural feature, and NetView System Services.

Intended audience

This publication is for system programmers who migrate the NetView program from a previous release to the current release.

Publications

This section lists publications in the IBM Z NetView library and related documents. It also describes how to access NetView publications online and how to order NetView publications.

IBM Z NetView library

The following documents are available in the IBM Z NetView library:

- *Administration Reference*, SC27-2869, describes the NetView program definition statements required for system administration.
- *Application Programmer's Guide*, SC27-2870, describes the NetView program-to-program interface (PPI) and how to use the NetView application programming interfaces (APIs).
- *Automation Guide*, SC27-2846, describes how to use automated operations to improve system and network efficiency and operator productivity.
- *Command Reference Volume 1 (A-N)*, SC27-2847, and *Command Reference Volume 2 (O-Z)*, SC27-2848, describe the NetView commands, which can be used for network and system operation and in command lists and command procedures.
- *Installation: Configuring Additional Components*, GC27-2851, describes how to configure NetView functions beyond the base functions.
- *Installation: Configuring the NetView Enterprise Management Agent*, GC27-2853, describes how to install and configure the IBM Z NetView Enterprise Management Agent.
- *Installation: Getting Started*, GI11-9443, describes how to install and configure the base NetView program.
- *Installation: Migration Guide*, GC27-2854, describes the new functions that are provided by the current release of the NetView product and the migration of the base functions from a previous release.
- *IP Management*, SC27-2855, describes how to use the NetView product to manage IP networks.
- *Messages and Codes Volume 1 (AAU-DSI)*, GC27-2856, and *Messages and Codes Volume 2 (DUI-IHS)*, GC27-2857, describe the messages for the NetView product, the NetView abend codes, the sense codes that are included in NetView messages, and generic alert code points.
- *Programming: Pipes*, SC27-2859, describes how to use the NetView pipelines to customize a NetView installation.
- *Programming: REXX and the NetView Command List Language*, SC27-2861, describes how to write command lists for the NetView product using the Restructured Extended Executor language (REXX) or the NetView command list language.

- *Security Reference*, SC27-2863, describes how to implement authorization checking for the NetView environment.
- *Troubleshooting Guide*, GC27-2865, provides information about documenting, diagnosing, and solving problems that occur in the NetView product.
- *Tuning Guide*, SC27-2874, provides tuning information to help achieve certain performance goals for the NetView product and the network environment.
- *User's Guide: Automated Operations Network*, SC27-2866, describes how to use the NetView Automated Operations Network (AON) component, which provides event-driven network automation, to improve system and network efficiency. It also describes how to tailor and extend the automated operations capabilities of the AON component.
- *User's Guide: NetView*, SC27-2867, describes how to use the NetView product to manage complex, multivendor networks and systems from a single point.
- *User's Guide: NetView Enterprise Management Agent*, SC27-2876, describes how to use the NetView Enterprise Management Agent.
- *Using Tivoli System Automation for GDPS/PPRC HyperSwap Manager with NetView*, GI11-4704, provides information about the Tivoli® System Automation for GDPS®/PPRC HyperSwap® Manager with NetView feature, which supports the GDPS and Peer-to-Peer Remote Copy (PPRC) HyperSwap Manager services offering.
- *Licensed Program Specifications*, GC31-8848, provides the license information for the NetView product.
- *Program Directory for IBM Z NetView US English*, GI11-9444, contains information about the material and procedures that are associated with installing the NetView product.
- *Program Directory for IBM Z NetView Japanese*, GI11-9445, contains information about the material and procedures that are associated with installing the NetView product.
- *Program Directory for IBM Z NetView Enterprise Management Agent*, GI11-9446, contains information about the material and procedures that are associated with installing the IBM Z NetView Enterprise Management Agent.

The following books are archived:

- *Customization Guide*, SC27-2849, describes how to customize the NetView product and points to sources of related information.
- *Data Model Reference*, SC27-2850, provides information about the Graphic Monitor Facility host subsystem (GMFHS), SNA topology manager, and MultiSystem Manager data models.
- *Installation: Configuring Graphical Components*, GC27-2852, describes how to install and configure the NetView graphics components.
- *Programming: Assembler*, SC27-2858, describes how to write exit routines, command processors, and subtasks for the NetView product using assembler language.
- *Programming: PL/I and C*, SC27-2860, describes how to write command processors and installation exit routines for the NetView product using PL/I or C.
- *Resource Object Data Manager and GMFHS Programmer's Guide*, SC27-2862, describes the NetView Resource Object Data Manager (RODM), including how to define your non-SNA network to RODM and use RODM for network automation and for application programming.
- *SNA Topology Manager Implementation Guide*, SC27-2864, describes planning for and implementing the NetView SNA topology manager, which can be used to manage subarea, Advanced Peer-to-Peer Networking, and TN3270 resources.
- *User's Guide: NetView Management Console*, SC27-2868, provides information about the NetView management console interface of the NetView product.

Related publications

The following publications provide information that is common to agents that work with the IBM® Tivoli Monitoring product:

- *Quick Start Guide*, GI11-8918, summarizes the installation and setup of an OMEGAMON® XE monitoring agent on z/OS®.
- *Common Planning and Configuration Guide*, SC23-9734, provides instructions for planning and configuration tasks that are common to the Tivoli Management Services components on z/OS and to the OMEGAMON XE monitoring agents on z/OS.
- *Upgrade Guide*, SC23-9745, provides instructions for complete and staged upgrades of the OMEGAMON XE V4.2.0 products.
- *End-to-End Response Time Feature Topic*, SC27-2303, provides instructions and topic information for the End-to-End Response Time Feature, which supplies response time data to several OMEGAMON XE products.
- *Reports for Tivoli Common Reporting*, SC27-2304, explains how to use the Tivoli Common Reporting tool to create reports from data that is displayed in the Tivoli Enterprise Portal and stored in the Tivoli Data Warehouse database.

You can find additional product information on the IBM Z NetView web site at https://www.ibm.com/us-en/marketplace/ibm-tivoli-netview-for-zos.

For information about the NetView Bridge function, see *Tivoli NetView for OS/390 Bridge Implementation*, SC31-8238-03 (available only in the V1R4 library).

Terminology in this Library

The following terms are used in this library:

CNMCMD
For the CNMCMD member and the members that are included in it using the %INCLUDE statement

CNMSTYLE
For the CNMSTYLE member and the members that are included in it using the %INCLUDE statement

DSIOPF
For the DSIOPF member and the members that are included in it using the %INCLUDE statement

IBM Tivoli Netcool®/OMNIbus
For either of these products:

- IBM Tivoli Netcool/OMNIbus
- IBM Tivoli OMNIbus and Network Manager

MVS™
For z/OS operating systems

MVS element
For the base control program (BCP) element of the z/OS operating system

NetView
For the following products:

- IBM Z NetView version 6 release 3
- IBM Tivoli NetView for z/OS version 6 release 2 modification 1
- NetView releases that are no longer supported

PARMLIB
For SYS1.PARMLIB and other data sets in the concatenation sequence

VTAM®
For Communications Server - SNA Services

Unless otherwise indicated, topics to programs indicate the latest version and release of the programs. If only a version is indicated, the topic is to all releases within that version.

When a topic is made about using a personal computer or workstation, any programmable workstation can be used.

Using IBM Z NetView online help

The following types of IBM Z NetView mainframe online help are available, depending on your installation and configuration:

- General help and component information
- Command help
- Message help
- Sense code information
- Recommended actions

Accessing publications online

IBM posts publications for this and all other products, as they become available and whenever they are updated, to the IBM Knowledge Center at https://www.ibm.com/support/knowledgecenter. You can find IBM Z NetView documentation on IBM Z NetView Knowledge Center.

Note: If you print PDF documents on other than letter-sized paper, set the option in the **Print** window that enables Adobe Reader to print letter-sized pages on your local paper.

Ordering publications

You can order many Tivoli publications online at http://www.ibm.com/e-business/linkweb/publications/servlet/pbi.wss

You can also order by telephone by calling one of these numbers:

- In the United States: 800-426-4968
- In Canada: 800-879-2755

In other countries, contact your software account representative to order Tivoli publications. To locate the telephone number of your local representative, perform the following steps:

1. Go to http://www.ibm.com/e-business/linkweb/publications/servlet/pbi.wss.
2. Select your country from the list and click the grey arrow button beside the list.
3. Click **About this site** to see an information page that includes the telephone number of your local representative.

Accessibility

Accessibility features help users with a physical disability, such as restricted mobility or limited vision, to use software products successfully. Standard shortcut and accelerator keys are used by the product and are documented by the operating system. Refer to the documentation provided by your operating system for more information.

For additional information, see the Accessibility appendix in the *User's Guide: NetView*.

Tivoli user groups

Tivoli user groups are independent, user-run membership organizations that provide Tivoli users with information to assist them in the implementation of Tivoli Software solutions. Through these groups, members can share information and learn from the knowledge and experience of other Tivoli users.

Support information

If you have a problem with your IBM software, you want to resolve it quickly. IBM provides the following ways for you to obtain the support you need:

Online

Please follow the instructions located in the support guide entry: https://www.ibm.com/support/home/pages/support-guide/?product=4429363.

Troubleshooting information

For more information about resolving problems with the IBM Z NetView product, see the *IBM Z NetView Troubleshooting Guide*. You can also discuss technical issues about the IBM Z NetView product through the NetView user group located at https://groups.io/g/NetView. This user group is for IBM Z NetView customers only, and registration is required. This forum is also monitored by interested parties within IBM who answer questions and provide guidance about the NetView product. When a problem with the code is found, you are asked to open an official case to obtain resolution.

Conventions used in this publication

This section describes the conventions that are used in this publication.

Typeface conventions

This publication uses the following typeface conventions:

Bold

- Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text
- Interface controls (check boxes, push buttons, radio buttons, spin buttons, fields, folders, icons, list boxes, items inside list boxes, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as **Tip:**, and **Operating system considerations**:)
- Keywords and parameters in text

Italic

- Citations (examples: titles of publications, diskettes, and CDs
- Words defined in text (example: a nonswitched line is called a *point-to-point line*)
- Emphasis of words and letters (words as words example: "Use the word *that* to introduce a restrictive clause."; letters as letters example: "The LUN address must start with the letter *L*.")
- New terms in text (except in a definition list): a *view* is a frame in a workspace that contains data.
- Variables and values you must provide: ... where *myname* represents...

Monospace

- Examples and code examples
- File names, programming keywords, and other elements that are difficult to distinguish from surrounding text
- Message text and prompts addressed to the user
- Text that the user must type
- Values for arguments or command options

Operating system-dependent variables and paths

For workstation components, this publication uses the UNIX convention for specifying environment variables and for directory notation.

When using the Windows command line, replace **$***variable* with **%***variable***%** for environment variables and replace each forward slash (**/**) with a backslash (****) in directory paths. The names of environment variables are not always the same in the Windows and UNIX environments. For example, %TEMP% in Windows environments is equivalent to $TMPDIR in UNIX environments.

Note: If you are using the bash shell on a Windows system, you can use the UNIX conventions.

Syntax diagrams

The following syntax elements are shown in syntax diagrams. Read syntax diagrams from left-to-right, top-to-bottom, following the horizontal line (the main path).

For examples of syntax, see "Syntax examples" on page xvii.

Symbols

The following symbols are used in syntax diagrams:

▶▶
Marks the beginning of the command syntax.

▶◀
Marks the end of the command syntax.

▶
Indicates that the command syntax is continued on the next line.

▶
Indicates that a statement is continued from the previous line.

|
Marks the beginning and end of a fragment or part of the command syntax.

Parameters

The following types of parameters are used in syntax diagrams:

Required
Required parameters are shown on the main path.

Optional
Optional parameters are shown below the main path.

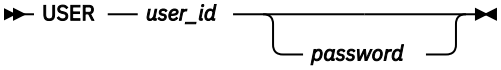
Default
Default parameters are shown above the main path. In parameter descriptions, default parameters are underlined.

Syntax diagrams do not rely on highlighting, brackets, or braces. In syntax diagrams, the position of the elements relative to the main syntax line indicates whether an element is required, optional, or the default value.

When you issue a command, spaces are required between the parameters unless a different separator, such as a comma, is specified in the syntax.

Parameters are classified as keywords or variables. Keywords are shown in uppercase letters. Variables, which represent names or values that you supply, are shown in lowercase letters and are either italicized or, in NetView help, displayed in a differentiating color.

In the following example, the USER command is a keyword, the *user_id* parameter is a required variable, and the *password* parameter is an optional variable.



Punctuation and parentheses

You must include all punctuation that is shown in the syntax diagram, such as colons, semicolons, commas, minus signs, and both single and double quotation marks.

When an operand can have more than one value, the values are typically enclosed in parentheses and separated by commas. For a single value, the parentheses typically can be omitted. For more information, see “Multiple operands or values” on page xviii.

If a command requires positional commas to separate keywords and variables, the commas are shown before the keywords or variables.

When examples of commands are shown, commas are also used to indicate the absence of a positional operand. For example, the second comma indicates that an optional operand is not being used:

```
COMMAND_NAME opt_variable_1,,opt_variable_3
```

You do not need to specify the trailing positional commas. Trailing positional and non-positional commas either are ignored or cause a command to be rejected. Restrictions for each command state whether trailing commas cause the command to be rejected.

Abbreviations

Command and keyword abbreviations are listed in synonym tables after each command description.

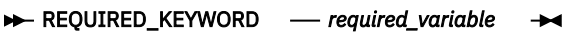
Syntax examples

The following examples show the different uses of syntax elements:

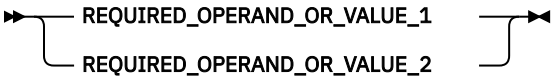
- “Required syntax elements” on page xvii
- “Optional syntax elements” on page xvii
- “Default keywords and values” on page xviii
- “Multiple operands or values” on page xviii
- “Syntax that is longer than one line” on page xviii
- “Syntax fragments” on page xviii

Required syntax elements

Required keywords and variables are shown on the main syntax line. You must code required keywords and variables.



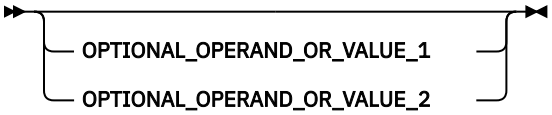
A required choice (two or more items) is shown in a vertical stack on the main path. The items are shown in alphanumeric order.



Optional syntax elements

Optional keywords and variables are shown below the main syntax line. You can choose not to code optional keywords and variables.

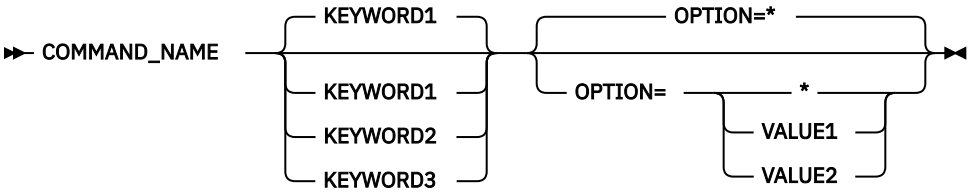
A required choice (two or more items) is shown in a vertical stack below the main path. The items are shown in alphanumeric order.



Default keywords and values

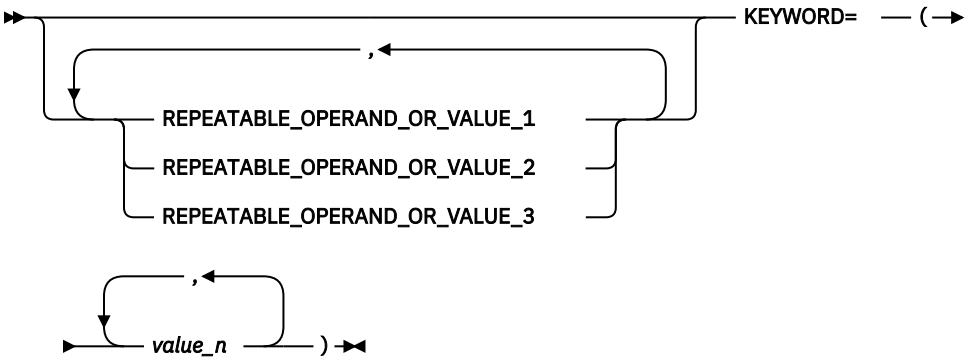
Default keywords and values are shown above the main syntax line in one of the following ways:

- A default keyword is shown only above the main syntax line. You can specify this keyword or allow it to default. The following syntax example shows the default keyword KEYWORD1 above the main syntax line and the rest of the optional keywords below the main syntax line.
- If an operand has a default value, the operand is shown both above and below the main syntax line. A value below the main syntax line indicates that if you specify the operand, you must also specify either the default value or another value shown. If you do not specify the operand, the default value above the main syntax line is used. The following syntax example shows the default values for operand OPTION=* above and below the main syntax line.



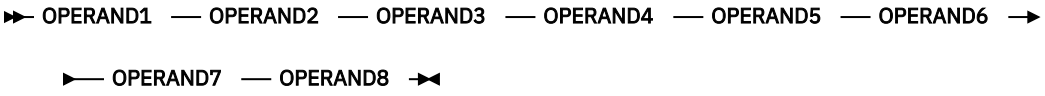
Multiple operands or values

An arrow returning to the left above a group of operands or values indicates that more than one can be selected or that a single one can be repeated.



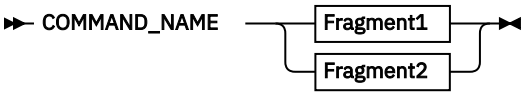
Syntax that is longer than one line

If a diagram is longer than one line, each line that is to be continued ends with a single arrowhead and the following line begins with a single arrowhead.



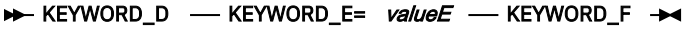
Syntax fragments

Some syntax diagrams contain syntax fragments, which are used for lengthy, complex, or repeated sections of syntax. Syntax fragments follow the main diagram. Each syntax fragment name is mixed case and is shown in the main diagram and in the heading of the fragment. The following syntax example shows a syntax diagram with two fragments that are identified as Fragment1 and Fragment2.



Fragment1

Fragment2



Chapter 1. New and Changed Functions in the NetView V6R3 Program

Whether you have a small installation or you are managing a large, distributed enterprise, the NetView program provides efficient systems and network management capability on any platform. The new and changed functions in this release are described in the following topics:

Automation Enhancements

Table 1. Automation Enhancements

Function	Description	Additional information
AUTOTEST Command Enhancement	The AUTOTEST command is enhanced with a new keyword, CZRECORD, to allow a message to be retrieved from Canzlog and recorded.	*IBM Z NetView Command Reference Volume 1 (A-N)*

Command Facility Enhancements

Table 2. Command Facility Enhancements

Function	Description	Additional information
Command Statistics (NCCF)	Controls the collection of statistics data for NetView Commands and supports storing that data as records of a new SMF sub-type (4) under record type 38.	*IBM Z NetView Command Reference Volume 1 (A-N)*

Configuration Enhancements

Table 3. Configuration Enhancements

Function	Description	Additional information
Dynamic Canzlog Archive Data Spaces	The ARCHIVE.BROWSE.MAXDSPSIZE statement defines the maximum number of megabytes that the NetView program can allocate for browsing archived Canzlog data.	*IBM Z NetView Administration Reference*

Security Enhancements

Table 4. Security Enhancements

Function	Description	Additional information
Multi-factor Authentication (MFA) Support	The NetView program currently has the capability to perform MFA authentication. This enhancement provides the capability to change MFA passwords and passphrases from the NetView program.	*IBM Z NetView Security Reference*

Additional Enhancements

Table 5. Additional Enhancements

Function	Description	Additional information
LISTA Command	The output of the LISTA command will now indicate if the user issuing the command does not have access to a data set for the specified DD and still display the member name if it exists in data sets which the user can access.	*IBM Z NetView Command Reference Volume 1 (A-N)*
NetView REST Server	The NetView REST Server enables the user to write a modern web application using NetView RESTful APIs either stand-alone or as a Zowe™ application.	*IBM Z NetView Application Programmer's Guide* *IBM Z NetView Installation: Configuring Additional Components*
Service Management Unite Automation Dashboards	NetView Service Management Unite dashboards are provided in the following areas: • NetView domains using Enterprise or Sysplex Master capabilities • Canzlog messages • Creation of automation table statements and management of automation table members • Task statistics • Distributed Distributed dynamic virtual IP address (DVIPA) statistics • NetView commands	*IBM Z NetView Application Programmer's Guide* IBM Service Management Unite Knowledge Center
Regular Expressions	Regular expression support has been added to the following areas of the NetView program: • The LOCATE and NLOCATE stages of the PIPE command • A new REXX function, MATCH • A new Automation Table Function, DSIAMMCH	*IBM Z NetView Application Programmer's Guide*
SEQUENT Command to Serialize Tasks	Capability to synchronize processing between different NetView tasks that are similar to the z/OS ENQ and DEQ functions. The function is called SEQUENT.	*IBM Z NetView Application Programmer's Guide* *IBM Z NetView Security Reference*

IP Management

Table 6. IP Management Enhancements

Function	Description	Additional information
Packet Traces in Sniffer Format	Utilize an MVS JCL Procedure to copy the CTRACE file, which is generated from the IPTRACE function, as a Sniffer trace formatted file.	*IBM Z NetView IP Management*
zERT Support	The NetView program provides information about whether a connection is encrypted, and if so, information about the encryption methods, algorithms, and certificate information including cryptographic key length.	*IBM Z NetView Installation: Configuring Additional Components*

Library Changes

Table 7. Library Changes

Publication	Description
IBM Z NetView Installation: Migration Guide	Information on migrating from NetView V5R3 and NetView V5R4 has been removed from the library.
General library changes	From NetView V6R3 program, the following product names are officially changed: • *IBM Tivoli NetView for z/OS* to *IBM Z NetView* • *IBM System Automation for z/OS* to *IBM Z System Automation* • *IBM Tivoli NetView for GDPS* to *IBM Z NetView for Continuous Availability*

Chapter 2. Preparing for Migration

This book provides information for migration to the NetView V6R3 program. Before beginning your installation, read the NetView program directory.

Other sources of information

- For detailed information about the steps required to install the NetView program, refer to *IBM Z NetView Installation: Getting Started*.
- If you are installing the NetView program on the same LPAR as an existing NetView program, see "Running Multiple NetView Programs in the Same LPAR" in *IBM Z NetView Installation: Configuring Additional Components* while completing the steps in this book.

Overview

Migration consists of:

1. Installing the NetView program from distribution media using SMP/E with the help of the NetView program directory
2. Making necessary additional preparations to your z/OS system for the current NetView release
3. Modifying your existing NetView installation to incorporate changes that were made to the current NetView release
4. Verifying the migration by testing the basic functions of the NetView program

This book is designed to guide you through the migration and verification of the NetView program in a minimum amount of time.

Hardware and Software Requirements

Refer to the NetView program directory for detailed information and an inclusive list of the hardware and software requirements for installation.

Installation Package

For detailed information about the installation package contents, refer to the NetView program directory.

Workstation-based NetView code is provided in 2 formats:

- DVD
- Electronic internet delivered .pax package

The Z NetView Enterprise Management Agent (NetView agent) is packaged as a separate FMID that is SMP/E installable. For more information about installing the NetView agent, see the Program Directory (GI11-9446).

The GDPS Continuous Availability solution functions were available as a component starting with the NetView for z/OS V6R1 product. The NetView V6R2 product required the NetView Monitoring for GDPS V6R2 product to authorize using the GDPS Continuous Availability solution functions. Starting with NetView for z/OS V6R2M1, the GDPS Continuous Availability solution functions moved from the NetView V6R2 product to the NetView Monitoring for GDPS V6R2M1 product, which is renamed to IBM Z NetView for Continuous Availability from V6R3.

Installing the New NetView Release While Running an Earlier NetView Release

If you want to keep running your installed version of the NetView program as your production system while you plan for and migrate to V6R3, the following actions can facilitate your migration:

- If you ordered this package as a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3), you must install the NetView program V6R3 files into separate SMP global and target zones from those used for your existing NetView release.
- Unless you plan to run two full NetView programs concurrently, it is a good idea to delete the old NetView release when your migration is completed.
- The modules that are copied into SCNMLPA1 during NetView program V6R3 installation are backward-compatible with the following versions of the NetView product:
  - Tivoli NetView for z/OS Version 6 Release 2 (requires PTF UA97461)
  - Tivoli NetView for z/OS Version 6 Release 1 (requires PTF UA70457 and UA97460)

  The modules in the SCNMLPA1 data set are backward-compatible with previous NetView releases. Therefore, it is recommended to run with the copy of these modules from the current release to keep the SCNMLPA1 data set up-to-date. Delete the old copy of the SCNMLPA1 data set and place the NetView program V6R3 copy of the SCNMLPA1 data set in the LPALST member. The change to the LPALST member takes effect the next time your z/OS system is restarted.

  Note, PTFs UA97461 and UA97460 change the format of Canzlog such that it can be configured to be dynamic in size. All future updates to Canzlog require these compatibility PTFs be applied.
- The ISTIECCE load module in NETVIEW.V6R3M0.SCNMLNK1 is not compatible with the ISTIECCE module from NetView V1R4. Be sure that the correct level of this module is included in the VTAMLIB DD statement in your VTAM start procedure. Using an earlier version of the ISTIECCE module or not having this module in the correct library can result in status monitor initialization failure or other unpredictable results.
- Decide how you are going to access the LNKLST modules for the previous (existing) NetView release while migrating to the NetView program V6R3 program. You can use the STEPLIB data set concatenation to access the NetView LNKLST libraries for both releases while you are migrating to the new release, or you can use a PROG*xx* PARMLIB member to access the NetView program V6R3 libraries while using the STEPLIB data set concatenation for the libraries for the NetView program from which you are migrating.

Support is provided for running two releases of the NetView program, NetView management console, and RODM on one production system. For more information about running two NetView releases on the same system, see "Running Multiple NetView Programs in the Same LPAR" in *IBM Z NetView Installation: Configuring Additional Components*.

Migration Process

Follow the steps in the process outlined in subsequent sections to migrate to the current release of the NetView program. These steps are a high-level overview of the installation process used for new users, and serve as a checklist to ensure that the environment is prepared and that the NetView program is installed properly. The environments that are prepared for the current NetView release include:

- MVS system
- UNIX System Services

After preparing these environments for the NetView program, the migration steps are grouped in the following way:

- Base NetView functions
- Graphical NetView functions

- Advanced NetView configuration

Before you begin the migration process, make a backup copy of your NetView libraries.

Preparing the MVS System

The following steps are required to update MVS for the NetView V6R3 program. These are the same basic steps required for a new installation. For additional information about these steps, refer to *IBM Z NetView Installation: Getting Started*.

Refer to Table 8 on page 7 to update members in SYS1.PARMLIB.

Table 8. SYS1.PARMLIB Members

Member Name	Suggested Updates
COUPLExx	Add the following DATA statement to identify the automatic restart manager (ARM) couple data to XCF: `DATA TYPE(ARM) PCOUPLE(primary-dsname) ACOUPLE(alternate-dsname)` Initialize the primary and alternate ARM couple data sets after you create them. If you are adding this system to a sysplex to enable the NetView program to use XCF Services, see *z/OS MVS Setting Up a Sysplex* .
PROGxx or IEAAPFxx	If these are not already authorized, authorize all the libraries included in the STEPLIB, VTAMLIB, and NCPLOAD concatenations in your VTAM and NetView start procedures: • VTAM start procedure: CNMSJ008 (CNMNET) • NetView start procedure: CNMSJ009 (CNMPROC) • NetView subsystem interface (SSI) start procedure: CNMSJ010 (CNMPSSI) • RODM start procedure: EKGXRODM • GMFHS start procedure: CNMSJH10 (CNMGMFHS) • Event/Automation Service start procedure: IHSAEVNT Verify that the following NetView libraries are authorized: • NETVIEW.V6R3M0.SCNMLNK1 • NETVIEW.V6R3M0.SCNMLPA1 • NETVIEW.V6R3M0.CNMLINK • NETVIEW.V6R3M0.SCNMLNKN • NETVIEW.V6R3M0.SAQNLINK If you are installing the Japanese NetView V6R3 program, authorize the SCNMMJPN data set. This data set is in the STEPLIB of CNMPROC. If you plan to use the Z NetView Enterprise Management Agent, authorize the following additional libraries: • RKANMOD • RKANMODL • RKANMODU • Any runtime libraries that are concatenated in the STEPLIB DDNAME and in the RKANMODL DDNAME of the IBMNA and IBMDS started tasks

Table 8. SYS1.PARMLIB Members (continued)	
Member Name	**Suggested Updates**
PROGxx or IEAAPFxx (continued)	For the REXX environment, verify that one of the following libraries is APF-authorized: • REXX/370 runtime library: SEAGLPA • REXX alternate library: SEAGALT If you plan to use the Web Services Gateway, verify that the XML toolkit runtime library (SIXMLOD1) is APF-authorized. **Usage note:** You can use the SETPROG APF command to dynamically update the list of APF-authorized libraries. Beginning with V6R2, the Web Services Gateway no longer requires the GSKit runtime library (SIEALNKE). The following data sets are no longer used by NetView V6R3 and can be removed if they are not being used for other reasons: • SCNMUXLK • SEKGLNK1 • SEKGMOD1 • SEKGMOD2 • SEKGSMP1 • SEZLLINK

IEASYMxx	Add a SYSDEF statement to identify user-defined system symbols for the NetView program, including the TCP/IP application name, RODM name, and network ID.
	Setting these system symbols can alleviate modification of many of the NetView initialization members unless some default parameter such as a TCP/IP port needs to be changed.
	For example, you can define the following system symbols (these are the default NetView symbol names):
	`SYSDEF SYMDEF(&CNMTCPN='tcpip_name')`
	`SYSDEF SYMDEF(&CNMRODM='rodm_name')`
	`SYSDEF SYMDEF(&CNMNETID='network_id')`
	The initialization members that use these system symbols are shown in Table 10 on page 13.
	If you use sample A01APPLS (CNMS0013), you can set the &CNMDOMN symbol to the NetView domain name. If you do not set this symbol, replace &CNMDOMN with the NetView domain name.
	The Z NetView Enterprise Management Agent also supports system symbols. If you need to make updates, see the *IBM Z NetView Installation: Configuring the NetView Enterprise Management Agent*.

Table 8. SYS1.PARMLIB Members (continued)

Member Name	Suggested Updates
IEASYSxx	Specify the maximum number of ASIDs and replacement ASIDs for the NetView program. Beginning with V5R3, there are one or two additional address spaces per LPAR for the NetView agent. You will have two if you run a z/OS Tivoli Enterprise Monitoring Server. • Set MAXUSER to the number of ASIDs you want available at any one time. • Set RSVNONR to the value you want for replacement values. The total of the values of MAXUSER, RSVNONR, and RSVSTRT, cannot exceed 32767. If you want a low MAXUSER value, be sure to provide a reasonably large value for RSVNONR. Add a COUPLE system parameter to identify the COUPLExx member containing the DATA statements for the automatic restart manager (ARM) or the workload manager (WLM). Add PLEXCFG=MONOPLEX or PLEXCFG=MULTISYSTEM for ARM or WLM support. If you are adding this system to a sysplex to enable the NetView program to use XCF Services, see *z/OS MVS Setting Up a Sysplex* .
IEFSSNxx	Verify that the NetView and RODM subsystem names are defined: • RODM subsystem name (EKGX is the default) • 4-character NetView subsystem name (CNMP is the default) Beginning with NetView V6R1, specify the INITRTN value (DSI4LSIT) for each NetView subsystem defined in the IEFSSN*xx* member, for example: `SUBSYS SUBNAME(CNMP) INITRTN(DSI4LSIT)` However, do not specify an INITRTN value for NetView subsystems that are intended to run with a NetView release prior to V6R1. Consider the following conditions before deciding where to place the NetView subsystem name in IEFSSN*xx* • If you place the NetView subsystem name after other subsystem names in the IEFSSN*xx* member, all MVS messages and commands that are received by the NetView subsystem are affected by the changes made by the other subsystems that are listed before the NetView subsystem. • For z/OS Version 1.12 or later, if you are defining more than one NetView subsystem (SSI) in the IEFSSN*xx* member, the first NetView subsystem must come before the BEGINPARALLEL keyword. Any remaining NetView subsystems can be defined following the BEGINPARALLEL keyword. If you are defining only one NetView subsystem, the NetView subsystem can be placed before or after the BEGINPARALLEL keyword in the IEFSSN*xx* member. For more information about IEFSSN*xx* that talks about INITPARM, see *Installation: Getting Started*.
IKJTSO*xx*	If you plan to use the NetView agent, add the KPDDSCO command in the authorized program (AUTHPGM) section: `AUTHPGM NAMES(`**`KPDDSCO`**`,`*`pgm2`*`,...)` IBM Tivoli Monitoring components require the KPDDSCO command to be authorized in the IKJTSO*xx* member for persistent data store processing.

Table 8. SYS1.PARMLIB Members (continued)

Member Name	Suggested Updates
PROGxx or LNKLSTxx	If you are using LINKLST instead of a STEPLIB DD statement in any of your NetView JCL members (for example, your startup procedure), update your PROG*xx* member in the SYS1.PARMLIB data set to include the following program libraries as extensions to the SYS1.LINKLIB data set: • NETVIEW.V6R3M0.CNMLINK • NETVIEW.V6R3M0.SCNMLNKN • NETVIEW.V6R3M0.SAQNLINK Note that the SCNMLNKN data set is used for RODM trace, MVS command exit, and DSIPHONE subroutine (which is used by CMDSERV command server and by the UNIX and TSO command servers). The SCNMLNKN data set is not referenced in the NetView program samples; JCL for those samples must specify the SCNMLNKN data set on the STEPLIB DD statement if it is not included in the PROG*xx* member. The following data sets are no longer used by NetView V6R3 and can be removed if they are not being used for other reasons: • SCNMUXLK • SEKGLNK1 • SEKGMOD1 • SEKGMOD2 • SEKGSMP1 • SEZLLINK **Note:** If you are using the Take Action security solution for z/OS products which use the Tivoli Management Services infrastructure, coding the NetView CNMLINK data set in LNKLSTxx is not sufficient. You must also concatenate in the NetView CNMLINK data set under the RKANMODL DD statement in the Tivoli Enterprise Monitoring Server or the z/OS agent. See the *IBM Z NetView Installation: Configuring the NetView Enterprise Management Agent* for information about the Take Action security.

PROGxx exit routines	• If you plan to use the CNMSMF3E sample as an IEFACTRT exit routine, associate the CNMSMF3E sample to the IEFACTRT exit by adding the following statement to your PROG*xx* member:
	`EXIT ADD EXITNAME(SYS.IEFACTRT) MODNAME(CNMSMF3E)`
	More than one exit routine can be defined for the IEFACTRT exit, so there might be more than one EXIT statement for the SYS.IEFACTRT exit in your PROG*xx* member.
	• To enable NetView subsystem preinitialization messages to be written to the Canzlog log, add this statement to the PROGxx member:
	`EXIT ADD EXITNAME(CNZ_MSGTOSYSLOG) MODNAME(DSI4LCUI)`
	The preinitialization messages are logged with an ASTYPE value of E.

LOADxx	If necessary, add an IEASYM statement to identify the IEASYMxx member to use for user-defined system symbols.

Table 8. SYS1.PARMLIB Members (continued)

Member Name	Suggested Updates
LPALSTxx	Include the SCNMLPA1 data set. If you are running a previous NetView release on the same system as NetView V6R3, add the V6R3 SCNMLPA1 to LPALST*xx*. Ensure that LPALST*xx* does not include any previous NetView SCNMLPA1. Starting with V6R2, it is no longer necessary to load the CNMCSRVP module into your LPALST*xx*. If you have the CNMCSRVP module in the LPALST*xx* member, remove it. Data sets specified in the LPALST*xx* member no longer need to be APF-authorized or cataloged in the system master catalog. If the SCNMLPA1 data set is cataloged in a user catalog, specify (in parenthesis immediately following the data set name) the 1- to 6-character VOLSER of the pack on which the SCNMLPA1 data set resides, for example: `NETVIEW.V6R3M0.SCNMLPA1(volser)`
MPFLST*xx*	If you plan to use the MVS command exit DSIRVCEX for command revision, add the following statement to your MPFLSTxx member in SYS1.PARMLIB: `.CMD USEREXIT(DSIRVCEX)` For more information about the NetView command revision function, refer to *IBM Z NetView Automation Guide*.

SCHEDxx	NetView V6R2 and later requires z/OS 1.12 or later, which includes the program properties for the NetView modules. If you have the following existing entries in SCHEDxx, remove them:
	
	• The NetView program without the hardware monitor (NPDA), PGM=DSIMNT in your NetView JCL PROC:
	`PPT PGMNAME(DSIMNT) NOSWAP KEY(8)`
	• The NetView program with the hardware monitor (NPDA), PGM=BNJLINTX in your NetView JCL PROC:
	`PPT PGMNAME(BNJLINTX) NOSWAP KEY(8)`
	• The RODM program, PGM=EKGTC000 in your RODM JCL PROC:
	`PPT PGMNAME(EKGTC000) NOSWAP NOCANCEL`
	• The NetView GMFHS program, PGM=DUIFT000 in your GMFHS JCL PROC:
	`PPT PGMNAME(DUIFT000) NOSWAP KEY(8)`

Table 8. SYS1.PARMLIB Members (continued)	
Member Name	**Suggested Updates**
SMFPRMxx	Verify that type 37 (hardware monitor), type 38 (authorization, task resource utilization, and command resource utilization), and type 39 (session monitor) SMF records are set up to be collected. The SMF 38 subtype 4 record is written on an interval. Set the SMF interval value, and if desired, the SMF synchronization value. As of V5R4, if you plan to use the CNMSMF3E sample as an IEFACTRT exit routine, verify that type 30 SMF records are set up to be collected and that the EXITS operand of the SYS specification includes the IEFACTRT exit. **Note:** Use of the supervisor call instruction (SVC) number is no longer supported in the NetView program. If you were using an SVC number, delete the following statement: `LOGSVC nnn` The corresponding SVC can be deleted from LPALIB if you are no longer running a previous release of the NetView program.

Table 9 on page 12 lists the data spaces that are created by various NetView address spaces. If you limit the size of your data spaces in your installation with the IEFUSI exit, adjustments might be necessary when activating the functions listed in Table 9 on page 12.

Table 9. Data spaces created by the NetView program	
Address Space	**Data Spaces Created**
Master Scheduler	As of V6R1, subsystem initialization for the NetView program creates a data space to contain Canzlog data. This data space is, by default, defined with 2 GB of virtual storage, which can significantly impact real and auxiliary storage requirements. For more information about defining this data space, see the *Installation: Getting Started* manual. **Usage Notes:** • **Warning**: Proper planning for real and auxiliary storage must be performed before enabling the Canzlog data space, as system slowdown and hangs can occur with insufficient storage. • As of V6R2M1, with APARs OA55071 and OA55074, the active Canzlog data space size can be significantly reduced. For more information, see the *Installation: Getting Started*.

Table 9. Data spaces created by the NetView program (continued)	
Address Space	**Data Spaces Created**
NetView	• The NetView program creates an internal trace data space at initialization that is managed through the TRSIZE parameter in the CNMPROC startup procedure. • As of V6R3, the Canzlog archiving function creates data spaces that are used for browsing archived Canzlog data. The number of data spaces that are created is limited by the specification on the ARCHIVE.BROWSE.DATASPACES or ARCHIVE.BROWSE.MAXDSPSIZE statement in the CNMSTYLE member. The data space(s) themselves will be created as necessary to accommodate usage needs, and will continue to be created until the number reaches the defined limit. • As of V6R3, if LOGSMF is enabled in Command Statistics function, a data space is created to store Command Statistics data before being written into SMF. The size of the data space is specified by CMDMON.INIT.SMFDSSIZE statement in the CNMSTYLE member. • As of V6R3, TCP/IP connection security (CONNSEC) creates a data space for each TCP/IP stack on your system. • As of V5R4, the OSA packet trace (OPKT) function creates a data space for each TCP/IP stack on your system. • As of V5R4, if the DISCOVERY tower is enabled in the CNMSTYLE member, the real-time SMF data network management interface (SYSTCPSM) creates a data space for each TCP/IP stack on your system. • As of V5R2, TCP/IP connection management (TCPCONN) creates a data space for each TCP/IP stack on your system. • As of V5R2 the IP packet trace (PKTS) function creates a data space for trace data. **Usage note:** In V6R2, the multi-trace function was added. With this function, each instance of a packet trace uses its own data space. In addition there is a global trace data space. This yields a maximum of 33 data spaces for packet trace data.
RODM	RODM creates and uses 3 data spaces. RODM allocates a 2 gigabyte data space at initialization.
Z NetView Enterprise Management Agent	As of V5R3, the NetView agent creates a data space for each NetView program with which it communicates and a second data space is created if the value of the NACMD.PERSIST statement in the CNMSTYLE member is greater than zero.

The initialization members that use system symbols are listed in Table 10 on page 13:

Table 10. System Symbol Usage by Initialization Members				
Member	**Task**	**TCP/IP NAME**	**RODM NAME**	**NETID**
		&CNMTCPN	**&CNMRODM**	**&CNMNETID**
CNMSTYLE	NetView initialization	X	X	X
DUIGINIT	GMFHS (Graphics)		X	
FLBSYSD	SNA Topology manager		X	
Note: After you run job CNMSJBUP (see Table 12 on page 16), you can use sample CNMSJM12 in data set NETVIEW.V6R3USER.INSTALL as an alternate method to do symbol substitution. CNMSJM12 replaces system symbols in NetView members.				

Additional considerations include:

- The NetView V6R3 program requires access to the REXX runtime library or the REXX alternate library.
- One of the most powerful features of the NetView program is the ability to run REXX code in the NetView environment. Many NetView components and base NetView functions exercise code that has been written in REXX. The NetView program also contains several parts that make use of the Data REXX function. Use the Data REXX function to include REXX instructions and functions in data files. To initialize the NetView program, you might need to adjust the maximum number of language processor environments defined by TSO that the system can initialize for the NetView address space.
- If you are going to run Z System Automation and the AON component of the NetView program in the same address space, enable the workload manager. For more information, refer to *IBM Z NetView Installation: Configuring Additional Components*.
- SAF access data for CNMCSSIR is no longer required.

Preparing UNIX System Services

The following steps are required to update the UNIX System Services for NetView V6R3. When you upgrade your MVS NetView components to NetView V6R3, also upgrade your UNIX System Services NetView components to V6R3.

Note:

1. Because of the way the NetView program accesses UNIX System Services configuration files, you can only run one version of the configuration files with the NetView program.
2. If you are running multiple NetView programs under one LPAR, you can only access the CNMEUNIX program from one of these NetView programs. This is because the PPI receiver is specified in the CNMEUNIX program.

These are the same basic steps required for a new installation. For additional information about these steps, refer to *IBM Z NetView Installation: Configuring Additional Components*.

1. Update member BPXPRM*xx* in SYS1.PARMLIB to specify UNIX System Services parameters.
2. The CNMSJ032 job creates directories in your z/OS UNIX System Services environment, copies application files, and MIB source files. Review the comments in the CNMSJ032 job profile and make any changes before running this job.
3. If necessary, update the z/OS UNIX System Services environment variables.
4. Review your existing RACF® definitions. For more information, refer to the *IBM Z NetView Security Reference*.
5. Enable the UNIX command server.
6. Review the Event/Automation Service startup procedure IHSAEVNT and the configuration files.
7. After installation, review the correlation engine CNMSJZCE start-up job.

The NetView program uses hierarchical file system (HFS) or zSeries file system (zFS) data sets relative to z/OS UNIX system services as described in the NetView program directory. The NetView program allocates the following directories:

```
./usr/lpp/netview/v6r3/bin
./usr/lpp/netview/v6r3/mibs
./usr/lpp/netview/v6r3/lib
./usr/lpp/netview/v6r3/samples
./usr/lpp/netview/v6r3/samples/at-tls
./usr/lpp/netview/v6r3/samples/properties
./usr/lpp/netview/v6r3/www
./usr/lpp/netview/v6r3/www/img
./usr/lpp/netview/v6r3/resetsrvr
./usr/lpp/netview/v6r3/resetsrvr/samples
./usr/lpp/netview/v6r3/resetsrvr/samples/zowe
./usr/lpp/netview/v6r3/resetsrvr/samples/zowe/NetViewSample
```

When you have completed your configuration, NetView V6R3 USS uses the directories in Table 11 on page 15:

Table 11. Directory structure used by UNIX System Services

Directory	Description
/usr/lpp/netview/v6r3/bin	Executable files
/usr/lpp/netview/v6r3/mibs	Management Information Base (MIB) files
/etc/netview/mibs	For user-defined MIBs and MIBs not included with NetView V6.3.0
/etc/netview/v6r3	Application files
/etc/netview/v6r3/properties	Application files
/tmp/netview/v6r3	Application files
/tmp/netview/v6r3/logs	Application files
/var/netview/v6r3/rulefiles	Application files
./usr/lpp/netview/v6r3/resetsrvr	REST Server subdirectory
./usr/lpp/netview/v6r3/resetsrvr/samples	REST Server subdirectory
./usr/lpp/netview/v6r3/resetsrvr/samples/zowe	REST Server subdirectory
./usr/lpp/netview/v6r3/resetsrvr/samples/zowe/NetViewSample	REST Server subdirectory

The NetView MIB collection can be found in the `/usr/lpp/netview/v6r3/mibs` directory. As provided, the NetView program looks for user-defined MIBs in the `/etc/netview/mibs/` directory. If you place your user-defined MIBs in another location, you must update the COMMON.CNMSNMP.MIBPATH statement in the CNMSTUSR or C*xx*STGEN member to reflect the locations of your MIBs. For more information about the MIB collection that is provided by the NetView program, refer to the README.mibs file in the `/usr/lpp/netview/v6r3/mibs/` directory.

Note: If, as part of your NetView migration, you upgraded the z/OS system to V1.12 or later, make sure that you run the CNMSJ032 sample to copy the MIB files to `/etc/netview/mibs`. For additional information about copying the MIB files, see the comments in the CNMSJ032 sample.

Preparing the NetView Program

Consider the steps in Table 12 on page 16 when migrating to NetView V6R3. These are the same basic steps required for a new installation. Noted in these steps are changes that affect migrating users. For additional information, refer to *IBM Z NetView Installation: Getting Started*.

Warning: After running CNMSJBUP, all of the NetView installation JCL and related members can be found in data set NETVIEW.V6R3USER.INSTALL. Only work from this data set. Continuing to work from NETVIEW.V6R3M0.CNMSAMP can cause unexpected results when you are running the installation JCL described in Table 12 on page 16.

Table 12. Installation JCL	
Member	**Description**
CNMSJBUP	Copies the installation JCL members in NETVIEW.V6R3M0.CNMSAMP into data set NETVIEW.V6R3USER.INSTALL. **Note:** The entire NetView samples library is not copied. Only a subset of the members that might need modification in data set NETVIEW.V6R3M0.CNMSAMP is copied.
CNMSJ001	Creates an ICF catalog and defines the ALIAS name NETVIEW as the high-level qualifier for the NetView data sets. Run this job if you did not define this alias name during the NetView program directory installation and you plan to use this high-level qualifier.
CNMSJ002	Allocates partitioned and sequential data sets. Allocate a set of NetView V6R3 user data sets for each NetView domain that you are installing and copy all of your customized members from the user data sets in that domain into these V6R3 data sets. **Note:** 1. Review the symbolic variables in the comments supplied in this job. Change the &UNIT and &SER JCL variables to match your installation, if needed. 2. Change the &DOMAIN JCL variable to match the NetView domain name you are installing. 3. As of V1R4, the following data sets are no longer needed: • NETVIEW.V*x*R*x*USER.&*domain*.USER.PROFILE • NETVIEW.V*x*R*x*USER.&*domain*.VIEW.OUTPUT 4. As of V5R1, the SEZLPNLU user data set is no longer used. Instead, use NETVIEW.V6R3USER.&*domain*.CNMPNL1. If you previously customized panels in the SEZLPNLU data set, migrate those changes to the panels in CNMPNL1. 5. As of V5R2, a user NETVIEW.V*x*R*x*USER.&*domain*.CNMCLST data set is provided to use for customized command lists and REXX Execs. 6. As of V5R4, the following sequential data sets are required to collect distributed DVIPA statistics: • NETVIEW.CNM01.CNMDVIPP • NETVIEW.CNM01.CNMDVIPS **Usage notes:** • Use the default (or larger) size allocations for these data sets so that the default number of records specified by the DVIPA.STATS.Pri.MAXR and DVIPA.STATS.Sec.MAXR statements in the CNMSTYLE member do not cause the data sets to reach capacity and lose data. • If you use the CNMSJ002 job to allocate new CNMDVIPP and CNMDVIPS data sets to a system that already has a previous NetView program installed, the data sets are not cataloged.

Table 12. Installation JCL (continued)

Member	Description
CNMSJ000	Changes the default NetView domain (CNM01), subarea (01), and the VSAM allocate volume (CPDLB2) in the NetView installation JCL and NetView samples. Changed samples are placed in the following data sets: • NETVIEW.V6R3USER.&domain.DSIPARM • NETVIEW.V6R3USER.INSTALL • NETVIEW.V6R3USER.&*domain*.VTAMLST If you specify a value of NOVOLSER for a VSAM volume symbol (V1, V2, and so on) in the CNMSJ000 member, this will cause the volume parameter to be removed from the IDCAMS member that allocates VSAM clusters for the associated component.
CNMSJ003	Copies NetView procedures to PROCLIB, AON members to the user DSIPARM and user CNMPNL1 data sets, and sample network VTAM members to the user VTAMLST data set. **Note:** 1. Review CNMSJI10 and make any changes before running CNMSJ003 to ensure that you do not write over existing members in your PROCLIB. Then, uncomment the //PDS2 EXEC statement in CNMSJ003. 2. As of V5R4, the copy steps for the NetView agent are no longer required.

Table 12. Installation JCL (continued)	
Member	**Description**
CNMSJ004	Allocates VSAM clusters. Consider allocating new VSAM clusters for NetView V6R3. **Note:** 1. If necessary, redefine the NetView log, including passwords and switching between primary and secondary logs. 2. For more information about allocating VSAM clusters for RODM, refer to the *IBM Z NetView Installation: Configuring Graphical Components*. 3. As of V5R2, the DSITCONP and DSITCONS VSAM clusters are new for TCP/IP connection management. 4. As of V5R2, the VSAM clusters for AON are allocated by default in CNMSJ004. 5. As of V6R1, the FKXPKTS VSAM cluster is new for the Saved Packet Trace function. 6. If you are migrating from V5R2 or V5R3, allocate new DSITCONP and DSITCONS VSAM clusters because the allocation parameters for these have changed. **Note:** If you want to continue using your existing DSITCONP and DSITCONS VSAM clusters that were allocated with a CISZ of 22528, make sure that you include buffers of this size in the VSAM buffer DATA pool defined in the DSIZVLSR module. 7. The default DSIZVLSR module is based on using 3390 DASD (using ICF catalogs). Make sure that the copy of the DSIZVLSR module that you are using is compatible with your cluster definitions. If you change the default control interval size (CISZ) values or the default number of buffers for each buffer size, use the CNMSJM01 sample job to assemble and link edit a copy of the DSIZVLSR module into a user library. For information about the DSIZVLSR module, see the *IBM Z NetView Tuning Guide*. For information about running the CNMSJM01 sample, see the *IBM Z NetView Installation: Configuring Additional Components*. 8. As of V6R2M1 with APAR OA47872, the Save/Restore (DSISVRT) VSAM cluster must be reallocated. You can use sample job CNMSJM15 to allocate a new DSISVRT cluster, copy the data from your existing DSIVSRT cluster to the new cluster, and rename the new DSISVRT cluster to be used with the NetView program. This change is required to support the increased global variable name and value lengths.
CNMSJ033	Starting with V6R1, use the CNMSJ033 job to load an initialization record into the Saved Packet Trace database that was allocated using the CNMSJ004 job.

Additional installation considerations include:

1. Reassemble or recompile any user-written NetView code.

   If you have written applications that run with the NetView program, recompile your code with the SCNMMAC1 data set. Refer to the *IBM Z NetView Customization Guide* and *IBM Z NetView Programming: Assembler* for more information.

2. The MESSAGE category is no longer supported. Message forwarding is done by users or application programs such as AON. For migration, previously included NetView message forwarding samples will continue to work. Some of these samples rely on the following common global variables to be set during NetView initialization:

&DIALTIME
Maximum time that the alert forwarding command lists processing the VARY NET,DIAL command waits for a response from the command before continuing to process data.

&WAITTIME
Maximum time that the alert forwarding command lists processing commands other than VARY NET,DIAL waits for a response from the command before continuing to process data.

&RETRYTIM
Time that the message-forwarding command lists wait between link station dial attempts if the dial fails because the link station is in a state that is not valid.

&LNK*domid*
Link station name associated with the remote domain (*domid*). You can set this variable using the SETADIAL command.

&CDRM*domid*
CDRM name associated with the remote domain (*domid*). You can set this variable using the SETADIAL command.

The following command can set the &LNK*domid* and the &CDRM*domid* variables. Code one for each host (remote domain) with which this host communicates over a switched line:

```
SETADIAL domid linkid cdrmid
```

Where:

domid
Is the 1–5 character name of the remote domain that communicates with this host over a switched line.

linkid
Is the 1–8 character cross-domain link station name associated with the remote domain.

cdrmid
Is the 1–8 character cross-domain CDRM name associated with the remote domain.

3. After the NetView program is distributed throughout the network, gradually migrate the nodes to use the RMTCMD command and LU 6.2 sessions.

   In a multiple CMC or multiple focal-point enterprise, update all CMCs or focal points to use the RMTCMD command and LU 6.2 sessions before you migrate these nodes to use extended multiple console support (EMCS) consoles. Also, in networks that use distributed automation, update all NetView programs that exchange messages to use the RMTCMD command and LU 6.2 sessions before you migrate the programs to use EMCS consoles. In both cases, if possible, complete the migration to the RMTCMD command and LU 6.2 sessions before you use EMCS consoles, to avoid losing MDB data such as highlighting and some DOM information.
4. The VIEW command processor is used to display full-screen panels from user-written programs. The VIEW command attempts to retrieve the value for any variables defined on a panel from the local dictionary of the calling procedure. If you have existing panels that need updates from global variables, you might have to isolate the VIEW call from local variables. You can do this with the REXX DROP or PROCEDURE statements or by using PIPE VAR. For more information, refer to the *IBM Z NetView Customization Guide*.

Preparing Graphical NetView Components

The graphics components are activated with TOWER statements in the CNMSTYLE member. Copy the TOWER statement to the CNMSTUSR or C*xx*STGEN member and remove the asterisk (*) from the components that you plan to use, including Graphics. Optionally, you can use a MODIFY.TOWER statement to add the graphics components.

Some changes to members included in the CNMSTYLE member (using the %INCLUDE statement) require a restart of the NetView program for them to take effect. For this reason, make all CNMSTYLE member updates at the same time for the graphics functions that you plan to use as part of this installation.

The steps that follow are required to update the graphics functions for the NetView V6R3 program:

- "RODM and GMFHS" on page 20
- "NetView Management Console" on page 20
- "SNA Topology Manager" on page 20
- "MultiSystem Manager" on page 21

For additional information about these steps, refer to *IBM Z NetView Installation: Configuring Graphical Components*.

RODM and GMFHS

Consider the following items in migrating RODM and GMFHS functions to the current release:

1. NetView VSAM clusters for the RODM log and checkpoint databases were defined when you ran sample job CNMSJ004 (see Table 12 on page 16).

   Note: Consider increasing the size of the RODM checkpoint data sets if you use the checkpoint function and the estimated number of objects that you expect to store in RODM exceeds the previous maximum supported number of approximately 524,000 objects.

2. Update the RODM start procedure EKGXRODM to match your environment.
3. Update the RODM definition member EKGCUST.
4. Review the initialization values for the RODM DSIQTSK task in DSIQTSKI.
5. Update the GMFHS start procedure CNMGMFHS to match your environment.
6. Update the GMFHS definition statements in DUIGINIT as needed.
7. Review the initialization values for the status focal point in members DUIISFP, DUIFPMEM, and DUIIGHB.
8. Use one of the following procedures to confirm that the NetView data model is current:
   - Update the CNMSJH12 sample job to refer to the data sets that contain data model definitions for the features that you are using. Then restart the RODM address space with the cold start option and run the CNMSJH12 sample job to load the data model into RODM.
   - Update the RODM start procedure to refer to the data sets that contain data model definitions for the features that you are using. Then restart the RODM address space with the cold start option and specify the INIT method (for example, EKGLISLM) to load the data model into RODM during initialization.
9. Optional: After loading the current data model into RODM, checkpoint the RODM data model so that the current NetView data model is used when the RODM address space is started with the warm start option. You can create the RODM checkpoint using the following command:

   ```
   mvs f ekgxrodm,chkpt
   ```

NetView Management Console

Consider the following items in migrating the NetView management console:

- Review your NetView management console topology server configuration.
- Review your NetView management console topology console configurations.

SNA Topology Manager

To migrate the SNA Topology manager, review the following initialization files:

- FLBEXV
- FLBOSIDS
- FLBSRT
- FLBSYSD

MultiSystem Manager

To migrate the MultiSystem Manager:

1. To enable the MultiSystem Manager aents, locate the following statement in the CNMSTYLE member:

   ```
   TOWER.MSM = ITNM OPN
   ```

   Agent names preceded by an asterisk (*) are disabled. Copy the TOWER.MSM statement to the CNMSTUSR or C*xx*STGEN member and remove or add asterisks as necessary to enable the agent that you plan to use. Optionally, you can use MODIFY.TOWER statements to enable the MSM tower and agent subtowers. When the TOWER.MSM statement is enabled, the %INCLUDE statement for FLCSOPF (used for operator profiles) is also enabled.
2. Upgrade your MultiSystem Manager agent to the current level.
3. Review your MultiSystem Manager initialization file (provided as FLCSAINP before NetView V5R1).
4. Allocate additional NetView DSRBs if necessary.
5. Review the number of REXX environments specified. For more information, refer to the *IBM Z NetView Installation: Configuring Additional Components*.
6. Review the settings for the NetView RATE and AUTORATE statements, and for the RUNCMD timeout value.
7. Review the setup for the NetView cross-domain environment.

Usage Note:

If you have the MSM ITNM subtower enabled, comment it out. The MutliSystem IBM Tivoli Network manager agent is no longer supported.

Preparing the AON Component

Make the following changes for AON:

- Copy the TOWER CNMSTYLE statement to the CNMSTUSR or C*xx*STGEN member and remove the asterisk (*) preceding the AON function. Optionally, you can use a MODIFY.TOWER statement to enable the AON function. This enables all of the AON components.
- On the subtower statement, add asterisks preceding any of the AON functions that you do not plan to use:

  ```
  TOWER.AON = SNA TCP
  ```

  For IP functions, the AON TCP subtower and IPMGT towers provide equivalent function, but are mutually exclusive.
- Optional: Define STATMON statements for AON/SNA.
- Move any TCP390 statements from AON configuration members EZLCFG01, FKXCFG01, and FKVCFG01 into the NetView base policy member CNMPOLCY.
- Update the AON control file.
- Review the AON policy definitions.
- Enable minimal AON functions if you are not using full AON automation.

Additional Considerations for Migrating DSIPARM and DSICLD Members

If your existing DSIPARM and DSICLD members contain changes that you added, you can add the changes for the new release to your existing members, instead of using the copies created during NetView installation. For more information, see one of the following topics:

- Chapter 3, “Migrating from Tivoli NetView for OS/390 V1R4,” on page 23
- Chapter 4, “Migrating from Tivoli NetView for z/OS V6R1,” on page 63
- Chapter 5, “Migrating from Tivoli NetView for z/OS V6R2,” on page 73
- Chapter 6, “Migrating from Tivoli NetView for z/OS V6R2M1,” on page 81

NetView support for the GDPS Continuous Availability solution was moved to the IBM Z NetView for Continuous Availability Configuring and Using the GDPS Continuous Availability Solution product. For migration information, see IBM Z NetView for Continuous Availability Configuring and Using the GDPS Continuous Availability Solution *Configuring and Using the GDPS Continuous Availability Solution*.

After you make any necessary changes, continue with Chapter 7, “Getting Ready to Start NetView,” on page 87.

Chapter 3. Migrating from Tivoli NetView for OS/390 V1R4

This section describes how to migrate the NetView program to run as a production system if you are migrating from the Tivoli NetView for OS/390® V1R4. The migration information is based on the NetView components included with the initial release of V1R4. Review your maintenance to see if you have already made some of the changes that are described in this chapter.

You can either add the V6R3 content into your V1R4 NetView definitions, or add your V1R4 customization to the default V6R3 members supplied with the NetView program. Either way, place the customized member into an appropriate user-allocated data set such as NETVIEW.V6R3USER.CNM01.DSIPARM. Do not customize members in the SMP/E-managed data sets such as NETVIEW.V6R3M0.DSIPARM.

Several factors can influence the method you use when migrating your NetView definition members. Factors such as the size and complexity of your network, security policies that must be followed, and established practices within your business can all influence what is the best method for your migration. The checklist that follows details the documented method of migration as outlined in this book and supported by other books in the NetView library. Choose the method of migration that is best for you.

Perform the following steps to migrate your V1R4 definitions:

1. Allocate a new set of V6R3 user data sets by running sample job CNMSJ002. You needed to have done this when you completed the steps in Table 12 on page 16.
2. Run the CNMSJMIG sample job to convert statements in various members in your V1R4 DSIPARM data set to the new CNMSTYLE format. See Appendix F, “Migrating to the CNMSTYLE and CNMCMD Members,” on page 161 for more details.
3. Run the CNMSJMIG sample job to convert the statements in your V1R4 DSICMD member to the new statement format in the CNMCMD member. See Appendix F, “Migrating to the CNMSTYLE and CNMCMD Members,” on page 161 for more details.
4. Define a unique &NV2I value (*xx*) for each NetView domain.
5. If you ran the CNMSJMIG job, move any domain-specific statements that were created from the CNMSTUSR member into the C*xx*STGEN member, where *xx* is the value of the local symbolic variable &NV2I that you defined in the previous step.
6. Review your customized V1R4 copy of the CNMSTYLE member. Move all of your domain-specific customization of V1R4 CNMSTYLE statements into the C*xx*STGEN member and all of your system-wide customization of V1R4 CNMSTYLE statements into the CNMSTUSR member, noting that some of these changes might have been added by the CNMSJMIG job. Do not copy your V1R4 CNMSTYLE member into the V6R3 user DSIPARM data set.
7. Review the CNMSTYLE information in this section and the V6R3 CNMSTNXT member shipped with the NetView program. Place any domain-specific customization of CNMSTYLE statements into the C*xx*STGEN member and any system-wide customization of CNMSTYLE statements into the CNMSTUSR member. Do not modify the V6R3 default CNMSTYLE member.
8. Review the remaining information in this chapter, and migrate your V1R4 NetView definition members and JCL procedures as appropriate, placing only those members that were modified into the V6R3 user data sets.

Figure 1 on page 24 shows the initialization flow for NetView V1R4, and Figure 2 on page 24 shows the NetView V6R3 initialization flow. Keep this new initialization flow in mind as you make changes to your DSIPARM members.

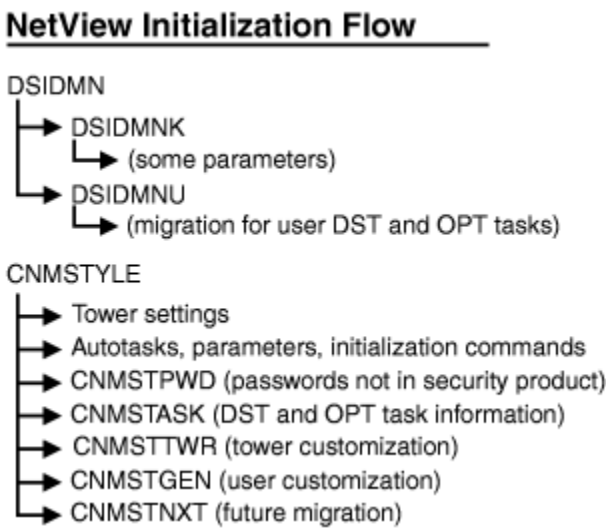


Figure 1. NetView V1R4 Initialization Flow

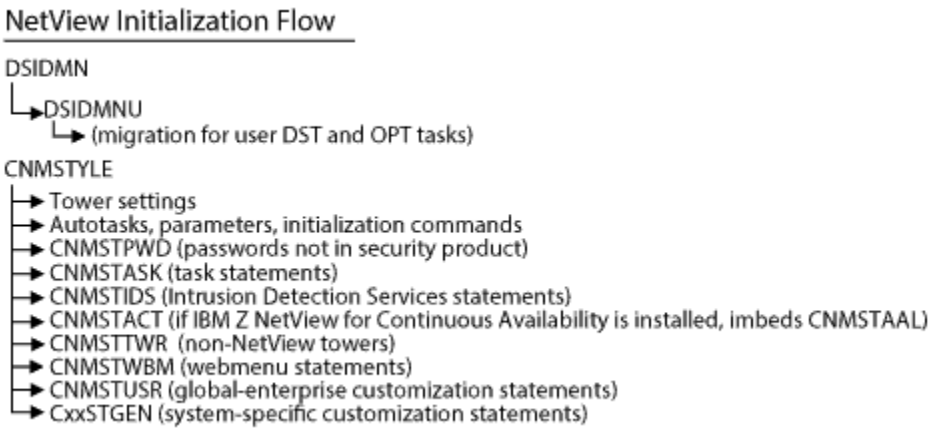


Figure 2. NetView V6R3 Initialization Flow

Note: Review CNMSTNXT to see statement changes made to CNMSTYLE members for NetView V6R3 program.

When you finish with this chapter, continue with Chapter 7, “Getting Ready to Start NetView,” on page 87.

For changes by release, including changed panels, commands, messages, and samples, see the following appendixes:

- Appendix A, “Changes from Tivoli NetView for z/OS V6R1 to Tivoli NetView for z/OS V6R2,” on page 113
- Appendix B, “Changes from Tivoli NetView for z/OS V6R2 to Tivoli NetView for z/OS V6R2M1,” on page 129
- Appendix C, “Changes from Tivoli NetView for z/OS V6R2M1 to IBM Z NetView V6R3,” on page 147

Migrating the Unattended or Procedural Feature

The NetView Unattended and Procedural options are no longer available. If you previously installed the NetView program using the Unattended or Procedural options, use the following steps to migrate to the NetView V6R3 program (Graphical Enterprise option).

Migrating to the Graphical Enterprise NetView program does not require you to run any of the graphical functions. However, there might be some additional installation steps that are required to activate the Graphical Enterprise option of NetView. You can skip certain installation steps that are marked as only applying to a graphical function that you do not want to activate. However, keep in mind that if at some point you decide to activate a graphical function, these installation steps need to be revisited to ensure that all of the necessary setup is complete.

Table 13 on page 25 lists functions that were available with the V1R4 Graphical Enterprise option that are now available to you with the NetView V6R3 program.

Table 13. Available New Functions

Function	Procedural	Unattended
GMFHS	•	•
NetView management console	•	•
MultiSystem Manager	•	•
SNA topology manager	•	•
AON		•

RODM is available at the Unattended and Procedural levels of the NetView program but is mostly utilized by the graphical functions available with the Graphical Enterprise option and therefore might not have not been activated with your Unattended or Procedural NetView program.

New Samples

Table 14 on page 25 lists new samples to review during migration.

Table 14. List of New Samples

Distributed As	Name	Description	Data Set Name
application.yml	same	Sample setup for server configuration, provided in the NetView ZFS.	/usr/lpp/netview/v6r3/restsrvr/samples
CNMCMD	same	NetView command definitions for NetView commands The CMDDEF statements provide the definitions for the commands. Some of the CMDDEF statements have command synonyms (CMDSYN). These statements provide a synonym for the command. This definition also provides the cross-domain logon definitions and the CMDDEF statements (and synonyms) for the terminal access facility (TAF) and the VTAM program. The following files are included in NETVIEW.V6R3M0.CNMSAMP: • CNMS6206 • CNMS6401 - CNMS6404 Include these files in CNMCMD so that you can use the automation command lists that are also included on the distribution media.	DSIPARM

Table 14. List of New Samples (continued)

Distributed As	Name	Description	Data Set Name
CNMCMDO	same	Command definitions for product-specific defined commands	DSIPARM
CNMCMDU	same	Command definitions for user-defined commands	DSIPARM
CNMCMENT	same	NetView command definitions	DSIPARM
CNMCMSYS	same	NetView command definitions	DSIPARM
CNMIPMGT	same	Automation policy for NetView IP management	DSIPARM
CNMPOLCY	same	Automation policy for NetView	DSIPARM
CNMS8050	ZAIGET	Connects to IBM System z® Advanced Workload Analysis Reporter (IBM zAware) and queries the IBM zAware server for data	CNMSAMP
CNMS8051	ZAIPROC	Defines the IBM zAware query and calls the ZAIGET sample	CNMSAMP
CNMS8052	ZAITIMER	Issues the ZAIPROC sample periodically	CNMSAMP
CNMS8053	same	Saves long global variables	CNMSAMP
CNMS8054	same	Restores long global variables	CNMSAMP
CNMSAF2	same	Sets RACF definitions for NetView operators and commands	CNMSAMP
CNMSBAK1	same	Backup command authorization table	DSIPARM
CNMSCAT2	same	Sample command authorization table	DSIPARM
CNMSCATU	same	User-defined command authorization table	DSIPARM
CNMSCM	same	SNMP community names for TCP/IP stacks	DSIPARM
CNMSCSDP	same	Command Statistics sample that saves command statistics records in a Comma-Separated Values (CSV) file format.	CNMSAMP
CNMSCSFM	same	Command Statistics sample that formats in-storage command statistics records for the CMDMON DISPLAY command.	CNMSAMP
CNMSCSIE	same	Command Statistics sample that shows how to include and exclude subsets of NetView commands for data collection.	CNMSAMP
CNMSCSSU	same	Command Statistics sample that summarizes the data contained in in-storage command statistics records.	CNMSAMP
CNMSDCA	same	Provides automation statements that help control the data collection autotasks that are managed by the COLLCTL command.	DSIPARM
CNMSDDCR	same	Displays distributed DVIPA connection routing information. It formats the DVIPDDCR command output (BNH815I message) into a readable format.	CNMSAMP
CNMSDSCP	same	Command Statistics Data Processor	CNMSAMP

Table 14. List of New Samples (continued)

Distributed As	Name	Description	Data Set Name
CNMSDVCG	same	Automation table member for z/OS Communications Server VIPADYNAMIC TCP/IP profile updates that is included when the DVIPA tower is enabled. The VIPADYNAMIC TCP/IP profile statements that are changed trigger rediscovery for DVIPA functions on this z/OS system.	DSIPARM
CNMSDVDS	same	Automation table member that is used for DVIPA data discovery (including rediscovery) and distributed DVIPA statistics on the master NetView program. It processes the DSIIF003I (DVIPA rediscovery), DSIIF004I (DVIPA data forwarding), DSIIF006I (DVIPA data request), and BNH867I (distributed DVIPA statistical records) messages.	DSIPARM
CNMSDVEV	same	Automation table member for DVIPA SMF runtime updates that is included when the DVIPA tower is enabled. The automation detects that a z/OS Communications Server SMF DVIPA update was received, which then triggers rediscovery for DVIPA functions on this z/OS system.	DSIPARM
CNMSDVIP	same	This sample displays the DVIPA definition and status data. It formats the DVIPSTAT command output (BNH846I message) into a readable format.	CNMSAMP
CNMSDVPC	same	Displays DVIPA connections. It formats the DVIPCONN command output (BNH849I message) into a readable format.	CNMSAMP
CNMSDVPH	same	Displays distributed DVIPA server health information. It formats the DVIPHLTH command output (BNH814I message) into a readable format.	CNMSAMP
CNMSDVST	same	Displays the data in the distributed DVIPA statistical data sets.	CNMSAMP
CNMSDVTP	same	Automation table member for DVIPA SNMP trap automation that is included when the DVIPA tower is enabled. The automation detects that a z/OS Communications Server DVIPA trap was received, which then triggers rediscovery for DVIPA functions on this z/OS system.	DSIPARM
CNMSEMAA	same	Automation table member for the NetView agent	DSIPARM
CNMSEPTL	same	Automation table sample for resource discovery	DSIPARM
CNMSHIPR	same	Displays HiperSockets configuration and status information. It formats the HIPERSOC command output (BNH598I message) into a readable format.	CNMSAMP
CNMSIFST	same	Displays IP interfaces. It formats the IFSTAT command output (BNH498I message) into a readable format.	CNMSAMP
CNMSJM14	same	Reorganizes the Saved Packet Trace database	CNMSAMP
CNMSJM15	same	Migrates the save/restore (DSISVRT) VSAM cluster	CNMSAMP

Table 14. List of New Samples (continued)

Distributed As	Name	Description	Data Set Name
CNMSJCRG	same	CNMSTYLE report generator sample job	CNMSAMP
CNMSJMIG	same	CNMSTYLE migration tool sample job	CNMSAMP
CNMSJSNF	same	A new PROCEDURE JCL needed to create Sniffer trace format data sets.	CNMSAMP
CNMSMF3A	same	Sample command list that is called by the automation table when the BNH874I message is issued. This sample is used for SMF record type 30 automation.	CNMSAMP
CNMSMF3E	same	Sample IEFACTRT SMF exit to process type 30 SMF records and send them across the program-to-program interface (PPI) to the NetView program for automation	CNMSAMP
CNMSMF3F	same	Sample that formats the BNH874I message. This sample is used for SMF record type 30 automation.	CNMSAMP
CNMSMF3R	same	Sample PPI receiver that formats the BNH874I message. This sample is used for SMF record type 30 automation.	CNMSAMP
CNMSMRT1	same	Message revision table	DSIPARM
CNMSMSIP	same	Sends a CP-MSU over IP	CNMSAMP
CNMSNVST	same	Displays NetView application information. It formats the NVSTAT command output (BNH495I message) into a readable format.	CNMSAMP
CNMSOSAP	same	Displays the OSA channel and port information. It formats the OSAPORT command output (BNH597I message) into a readable format.	CNMSAMP
CNMSPAN2	same	Sample NetView span table	DSIPARM
CNMSPLEX	same	This sample displays the DVIPA sysplex distributor data. It formats the DVIPPLEX command output (BNH847I message) into a readable format.	CNMSAMP
CNMSSMON	same	This sample provides z/OS Communications Server sysplex monitoring message automation and is included when the DVIPA tower is enabled.	DSIPARM
CNMSSTAC	same	This sample displays the TCP/IP stack configuration and status data. It formats the STACSTAT command output (BNH845I message) into a readable format.	CNMSAMP
CNMSTACT	same	This sample includes the CNMSTAAL member if the IBM Z NetView for Continuous Availability product is installed. The CNMSTACT member is used for the GDPS Continuous Availability solution.	SAQNPARM
CNMSTARG	same	This sample displays the distributed DVIPA target data. It formats the DVIPTARG command output (BNH813I message) into a readable format.	CNMSAMP

Table 14. List of New Samples (continued)

Distributed As	Name	Description	Data Set Name
CNMSTIDS	same	Includes Intrusion Detection Services (IDS) initialization statements.	DSIPARM
CNMSTNST	same	This sample displays the configuration and status information about Telnet servers. It formats the TELNSTAT command output (BNH496I message) into a readable format.	CNMSAMP
CNMSTPST	same	This sample displays the configuration and status information about Telnet server ports. It formats the TNPTSTAT command output (BNH497I message) into a readable format.	CNMSAMP
CNMSTUSR	same	Customization member for the CNMSTYLE member: include additional or modified global (enterprise) definition statements that override statements in the CNMSTYLE member.	DSIPARM
CNMSTWBM	same	Includes webmenu statements	DSIPARM
CNMSVPRT	same	Displays status information about VIPA routes. It formats the VIPAROUT command output (BNH824I message) into a readable format.	CNMSAMP
CNMSXCFA	same	Automation sample for XCF sysplex support	DSIPARM
CNMSZERT	same	Formats TCPCONN output. This sample calls the WINDOW command and displays Connection encryption information from the CONNSEC QUERY command.	CNMSAMP
DSIAUTB	same	Part list for usage of the AUTBYPAS REXX or CLIST function	DSIPARM
DSIAUTBU	same	User-defined part list for AUTBYPAS REXX or CLIST function	DSIPARM
DSIOPFAU	same	Operator definitions for existing AUTO1 and AUTO2 autotasks.	DSIPARM
DSIOPFEX	same	Example operator definitions and passwords that can be modified or deleted	DSIPARM
DSIOPFIX	same	Operator definitions that cannot be modified	DSIPARM
DSIOPFST	same	Operator definitions that can be modified	DSIPARM
DSIPROFG	same	Automated operator profile that is functionally equivalent to the DSIPROFD profile. It is provided for compatibility reasons.	DSIPRF
DSIPROFN	same	Automated operator profile for the NetView agent data collection autotasks (AUTODC*n*)	DSIPRF
DSIPROFP	same	Automated operator profile for an autotask that has high CPU processor utilization and runs with SLOGCMDR=NO	DSIPRF
DSIW3PRF	same	Properties definitions for 3270 Web sessions	DSIPARM

Table 14. List of New Samples (continued)

Distributed As	Name	Description	Data Set Name
DSIZCETB	same	Automation table sample for the event correlation engine	DSIPARM
EJNNVCMD	same	NetView REST Server command processor. This sample is derived from sample CNMS8029 (NETVCMD).	/usr/lpp/netview/v6r3/restsrvr/bin
EJNSSRST	same	Startup procedure for the NetView REST Server, provided so the server can be started as a data space within NetView.	EJNSSRST
EKG51100	same	PL/I Sample - Function (connect with password phrase) EKG_ConnectLong	CNMSAMP
EKG61100	same	C Sample - Function (connect with password phrase) EKG_ConnectLong	CNMSAMP
EZLCMENT	same	NetView command definitions for base AON commands	DSIPARM
FKVCMENT	same	NetView command definitions for AON/SNA commands	DSIPARM
FKXCMENT	same	NetView command definitions for AON/TCP commands	DSIPARM
FKXIPMTB	same	Configuration data for NetView IP management automation	DSIPARM
FKXOPFIP	same	Operator definitions for NetView IP management automation	DSIPARM
FLCAINP	same	Sample initialization file This file can be used as a template when creating the MultiSystem Manager initialization file (or files) for your site. If you rename this file, specify that file name when issuing the INITTOPO command. FLCAINP contains an example of how to use the %INCLUDE statement to include other MultiSystem Manager initialization files.	DSIPARM
IHSABCDS		The IHSABCDS sample contains the sample class definition statements for the Event/Automation Service confirmed alert adapter.	SCNMUXCL
IHSABCFG		The IHSABCFG sample is the sample configuration file for the Event/Automation Service confirmed alert adapter.	SCNMUXCL

Table 14. List of New Samples (continued)

Distributed As	Name	Description	Data Set Name
IHSANCFG		The IHSANCFG sample is the sample configuration file for the Event/Automation Service confirmed message adapter.	SCNMUXCL
IHSANFMT		The IHSANFMT sample provides sample format specification statements for the Event/Automation Service confirmed message adapter.	SCNMUXCL
NetViewRestServer.yml	same	Sample yml file for integration with Zowe™ Mediation Layer.	/usr/lpp/netview/v6r3/restsrvr/samples
NetViewSample	same	Sample application for Zowe™ that provides some guidance on how to use the new NetView APIs.	/usr/lpp/netview/v6r3/restsrvr/samples/zowe

VTAM Address Space

The samples in this section list changes for the VTAM address space.

A01APPLS (CNMS0013)

This member contains the application (APPL) major nodes coded for the NetView program.

If you did not reallocate and recopy the VTAMLST data sets, make the following changes to A01APPLS:

- Either set the domain ID (system variable &CNMDOMN) in SYS1.PARMLIB member IEASYM*xx* or change *every* occurrence of &CNMDOMN. in A01APPLS (CNMS0013) to the current domain ID.
- If you are not using the status monitor preprocessor, you can replace the APPL statements defining tasks for multiple concurrent NetView operators with one APPL statement using wildcard characters (??), for example:

```
&CNMDOMN.0?? APPL  AUTH=(NVPACE,SPO,ACQ,PASS),PRTCT=&CNMDOMN.,     X
               EAS=4,MODETAB=AMODETAB,DLOGMOD=DSILGMOD
```

- If you are not using the status monitor preprocessor, you can replace the TAF APPL statements with one APPL statement using wildcard characters (??) following the LU name, for example:

```
TAF01O?? APPL  MODETAB=AMODETAB,EAS=9,       X
               DLOGMOD=M3767
```

APPL names defined for use by other applications (such as TAF) must not be defined with the same naming scheme as terminal logon APPLs (for example, the domain name followed by a 3-character suffix). Doing so can cause these application names to be used by the NetView program for terminal logons, which can make the application names unavailable for the purpose for which they were defined.

CNMNET (CNMSJ008)

CNMNET (CNMSJ008) is the start procedure for the VTAM program.

Change CNMNET in your PROCLIB in the following way:

1. For NetView data sets ensure your high-level qualifier for system data sets points to NETVIEW.V6R3M0.

2. For NetView data sets ensure your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.

NetView Address Space

The samples in this section list changes for the NetView address space.

AAUPRMLP

The AAUPRMLP member in the DSIPARM data set contains initialization statements for the session monitor. It includes logic to extract initialization values from the CNMSTYLE member. Use the V6R3 copy of the AAUPRMLP member, and update the NLDM statements in the CNMSTUSR or C*xx*STGEN member to reflect the values previously specified in the AAUPRMLP member. Do not modify the version of the AAUPRMLP member that is included with the NetView product.

BNJMBDST

If you made changes to the BNJMBDST hardware monitor initialization member, migrate the changes to the CNMSTUSR or C*xx*STGEN member. Most BNJMBDST statements have associated statements in the CNMSTYLE member (for example, NPDA.DSRBO or NPDA.ALERTFWD).

BNJMBDST statements that apply to DST members (for example XITCI) have no associated CNMSTYLE statements. In this case, add these statements to the Data REXX version of the BNJMBDST member. Make sure that you enclose the statements in quotation marks so that the REXX program can return them as NetView data lines rather than interpreting them as REXX statements.

CNMEALUS

The CNMEALUS REXX EXEC sample is enhanced. This sample provides examples on how to add user data to alert information and pass the alert information to either the alert adapter or the confirmed alert adapter of Event/Automation Service.

CNMEMSUS

The CNMEMSUS REXX EXEC sample is enhanced. This sample provides examples on how to add user data to message information and pass the message information to either the message adapter or the confirmed message adapter of Event/Automation Service.

CNMPROC (CNMSJ009)

CNMPROC (CNMSJ009) is the start procedure for the NetView program.

Make the following changes to CNMPROC in your PROCLIB:

1. For NetView data sets ensure your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.
2. For NetView data sets ensure your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
3. Because the AON VSAM data sets have increased in size, reallocate them during migration. For more information about allocating VSAM data sets, refer to *IBM Z NetView Installation: Getting Started*. Also note that the VSAM cluster name prefixes have changed to NETVIEW.&*domain*.
4. Add the following TQ1 statement after the VQ1 statement to specify the high-level qualifier of your NetView sequential data sets:

   ```
   //       TQ1=NETVIEW,          ** SEQUENTIAL DSN HIGH LEVEL QUALIFIER
   ```

   This statement does not affect the dynamic allocation of the sequential data sets used by the archive Canzlog function.

5. The default region size was increased to 256M. If you are using the existing default region size (98304K) for the NetView product, increase the region size value:

```
//       REG=256,            ** REGION SIZE(IN M) FOR NETVIEW
```

   Depending on the components that you are running, you might want to increase the region size even more. For additional information, refer to the *IBM Z NetView Tuning Guide*.

6. Add the following REXX statement after the SQ1 statement to specify the high-level qualifier of your REXX libraries:

```
//       REXX='EAG.V1R4M0',    ** REXX DSN HIGH LEVEL QUALIFIER
```

7. Add the following TRSIZE statement and comments after the NV2I statement to allow the specification of the trace table size:

```
//       NV2I='',
//       TRSIZE=4000
//*                            ** INTERNAL TRACE TABLE SIZE - Number
//*                            ** of pages to be allocated for the
//*                            ** NetView Internal Trace table. The
//*                            ** trace table is located in a data
//*                            ** space, so the value can be up to
//*                            ** 524286. If no value is specified,
//*                            ** the default of 4000 is used. If
//*                            ** a value of 0 is passed, internal
//*                            ** trace is not started early. Trace
//*                            ** options in CNMSTYLE take effect
//*                            ** even if trace is not started early.
//*
```

8. Add the &TRSIZE variable to the NetView EXEC statement, as shown:

```
//NETVIEW  EXEC PGM=&PROG,TIME=1440,
//         REGION=&REG.K,
//         PARM=(&BFSZ.K,&SLSZ,
//           '&DOMAIN','&DOMAINPW','&ARM','&SUBSYM','&NV2I','&TRSIZE'),
//         DPRTY=(13,13)
```

9. Remove the following DD statement from the STEPLIB concatenation:

```
//         DD   DSN=&SQ1..SEKGMOD1,DISP=SHR
```

10. Add the SAQNLINK data set ahead of the CNMLINK data set in the STEPLIB concatenation:

```
//STEPLIB  DD   DSN=&SQ1..SAQNLINK,DISP=SHR
//         DD   DSN=&SQ1..CNMLINK,DISP=SHR
```

11. Change the following DD statement in the STEPLIB concatenation (change SEAGLMD to SEAGLPA):

```
//* YOU WILL NEED ACCESS TO EITHER THE REXX/370 RUNTIME LIBRARY
//* OR THE REXX ALTERNATE LIBRARY AS FOLLOWS:
//*
//* - IF YOU HAVE THE REXX/370 LIBRARY ON YOUR SYSTEM BUT SEAGLPA
//*   IS NOT ACCESSIBLE FROM THE PAGEABLE LINK PACK AREA (PLPA),
//*   THEN YOU MUST UNCOMMENT THE "SEAGLPA" LINE BELOW.
//*
//*    OR
//*
//* - IF YOU HAVE THE REXX ALTERNATE LIBRARY ON YOUR SYSTEM,
//*   BUT SEAGALT IS NOT ACCESSIBLE FROM THE PLPA OR LINKLST,
//*   THEN YOU MUST UNCOMMENT THE "SEAGALT" LINE BELOW.
//*
//* WHEN YOU UNCOMMENT EITHER OF THE LINES BELOW, MAKE SURE
//* THAT THE DSN ACTUALLY MATCHES THE NAME ON YOUR SYSTEM.
//* IN ADDITION, MAKE SURE THAT THE DATASET IS APF-AUTHORIZED.
//*
//*        DD   DSN=&REXX..SEAGLPA,DISP=SHR
//*        DD   DSN=&REXX..SEAGALT,DISP=SHR
```

Note: Either the REXX/370 runtime library or the REXX alternate library is required.

12. If you plan to use the Web Services Gateway function, uncomment the XML library DD statement.

```
//*************************************************************
//*
//* IF YOU ARE STARTING THE NETVIEW WEB SERVICES SERVER THEN
//* YOU WILL NEED ACCESS TO THE IBM XML TOOLKIT RUNTIME LIBRARY.
//*
//* - IF YOU HAVE THIS LIBRARY ON YOUR SYSTEM BUT IT IS NOT
//*   ACCESSIBLE FROM THE PLPA OR LINKLST, THEN YOU MUST
//*   UNCOMMENT THE LINE BELOW.
//*
//* WHEN YOU UNCOMMENT THE LINE BELOW, MAKE SURE THAT THE DSN
//* ACTUALLY MATCHES THE NAME ON YOUR SYSTEM.  IN addition,
//* MAKE SURE THAT THE DATA SET IS APF-AUTHORIZED.
//*
//* FOR THE LINE BELOW, THE FOLLOWING JCL SYMBOLIC IS ASSUMED:
//*      QIXM='IXM.V1R10M0', ** IBM XML TOOLKIT RUNTIME LIB.
//*
//*        DD   DSN=&QIXM..SIXMLOD1,DISP=SHR
```

13. Remove the following statements from the STEPLIB concatenation:

```
//        DD   DSN=&SQ1..SEZLLINK,DISP=SHR
```

14. If you plan to run Language Environment® (LE) HLL programs with the NetView program, and did not install the LE runtime library in the LNKLSTxx, be sure the library name in the STEPLIB of CNMPROC is correct and uncommented.
15. Update the DSICLD DD statement to add the CNMCLST and SAQNCLST data sets:

```
//DSICLD   DD   DSN=&Q1..&DOMAIN..CNMCLST,DISP=SHR
//         DD   DSN=&SQ1..SAQNCLST,DISP=SHR
//         DD   DSN=&SQ1..CNMCLST,DISP=SHR
//         DD   DSN=&SQ1..CNMSAMP,DISP=SHR
//*        DD   DSN=SYS1.PROCLIB,DISP=SHR
```

    Remove the following DD statements from the DSICLD concatenation:

```
//         DD   DSN=&SQ1..SEZLCLST,DISP=SHR
```

16. Add the SAQNPARM data set ahead of the DSIPARM data set:

```
//DSIPARM  DD   DSN=&Q1..&DOMAIN..DSIPARM,DISP=SHR
//         DD   DSN=&SQ1..SAQNPARM,DISP=SHR
//         DD   DSN=&SQ1..DSIPARM,DISP=SHR
```

17. Remove the following statements from the CNMPNL1 concatenation:

```
//         DD   DSN=&SQ1..SEKGPNL1,DISP=SHR
//* COMMENT THE FOLLOWING LINE OUT IF YOU WILL NOT BE USING AON INFORM
//* POLICY, TIMER COMMAND, CGED COMMAND OR DM COMMAND.
//         DD   DSN=&Q1..&DOMAIN..SEZLPNLU,DISP=SHR
//         DD   DSN=&SQ1..SEZLPNLU,DISP=SHR
:
//* UNCOMMENT THE SEKGPNL2 DEFINITION STATEMENT FOR A JAPANESE
//* SYSTEM WITH RODM
//*         DD   DSN=&SQ1..SEKGPNL2,DISP=SHR
```

    Update the CNMPNL1 concatenation in the following way:

```
//CNMPNL1  DD   DSN=&Q1..&DOMAIN..CNMPNL1,DISP=SHR
//* JAPANESE ONLINE HELP DATASET (PANELS)
//*        DD   DSN=&SQ1..SCNMPNL2,DISP=SHR
//* ENGLISH ONLINE HELP DATASET (PANELS)
//         DD   DSN=&SQ1..CNMPNL1,DISP=SHR
```

18. Add the following TCP connection VSAM databases:

```
//DSITCONP DD   DSN=&VQ1..&DOMAIN..DSITCONP,
//         DISP=SHR,AMP='AMORG'
//DSITCONS DD   DSN=&VQ1..&DOMAIN..DSITCONS,
//         DISP=SHR,AMP='AMORG'
```

19. Add the following data sets to collect distributed DVIPA statistics:

```
//CNMDVIPP DD   DSN=&TQ1..&DOMAIN..CNMDVIPP,DISP=SHR
//CNMDVIPS DD   DSN=&TQ1..&DOMAIN..CNMDVIPS,DISP=SHR
```

20. Update the EZLSTAT DD statement:

```
//*EZLSTAT  DD   DSN=&VQ1..&DOMAIN..STATS,
//*         DISP=SHR,AMP='AMORG,BUFNI=10,BUFND=5'
```

21. Update the EZLPSWD DD statement:

```
//*EZLPSWD  DD   DSN=&VQ1..&DOMAIN..PASSWORD,
//*         DISP=SHR,AMP='AMORG,BUFNI=10,BUFND=5'
```

22. Update the AON log DD statements:

```
//*EZLLOGP  DD   DSN=&VQ1..&DOMAIN..LOGP,
//*         DISP=SHR,AMP='AMORG,BUFNI=10,BUFND=5'
//*EZLLOGS  DD   DSN=&VQ1..&DOMAIN..LOGS,
//*         DISP=SHR,AMP='AMORG,BUFNI=10,BUFND=5'
```

23. Add the following TCP/IP translate data set information and update the statement as needed for your installation:

```
//*
//*************************************************************
//* If you are using the TCP/IP translate data set TCPXLBIN,
//* specify the appropriate data set name and uncomment the
//* following DD statement to prevent dynamic allocation
//* messages from being issued each time the data set is needed.
//*
//*CNMXLBIN  DD  DISP=SHR,DSN=datasetprefix.STANDARD.TCPXLBIN
//*
//* For more information please see your IP Configuration Guide.
```

CNMPSSI (CNMSJ010)

CNMPSSI (CNMSJ010) starts the NetView subsystem address space.

Make the following changes to CNMPSSI in your PROCLIB:

1. Ensure that the high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. The MBUF, CBUF, DSIG, MSGIFAC, and PFXREG keywords are no longer used and their values are ignored. For migration purposes, these keywords must not be removed.
3. Add the following statements after the P4000BUF parameter to set the route code. If you add these statements, add a comma after the P4000BUF=0 statement.

```
//       ROUTECDE=1           ** Route code to be used for WTOs issued
//*                           **  by the SSI address space.  Messages
//*                           **  that may be issued before this parm
//*                           **  is processed will use route code 1
//*                           **  regardless of the value set here.
```

4. Add the &ROUTECDE variable to the NetView EXEC statement, as shown:

```
//NETVIEW  EXEC PGM=&PROG,TIME=1440,REGION=&REG.K,
//         PARM=(&MBUF,&CBUF,'&DSIG','&MSGIFAC','&PPIOPT','&ARM',
//          '&PFXREG',&P256BUF,&P4000BUF,&ROUTECDE),DPRTY=(13,13)
```

Note that the &MBUF, &CBUF, &DSIG, &MSGIFAC, and &PFXREG values are ignored.

CNMSIHSA

The CNMSIHSA automation table sample is enhanced. This sample provides examples on how to automate messages and alerts in order to send message and alert data to the various Event/Automation Service adapters:

- Message adapter
- Confirmed message adapter
- Alert adapter
- Confirmed alert adapter
- Alert-to-trap adapter

CNMSTYLE

The CNMSTYLE member in the DSIPARM data set is used during NetView initialization. Make any changes to CNMSTYLE statements in the CNMSTUSR member for system-wide defaults or the C*xx*STGEN member for enterprise-wide defaults. For information about changing CNMSTYLE statements, see *IBM Z NetView Installation: Getting Started*. The CNMSTYLE member is designed to simplify the NetView initialization process.

Note:

- There are significant differences in the CNMSTYLE statements that were added or changed since the NetView V1R4 release. The default TOWER statement in the CNMSTYLE member shows towers available for the NetView V6R2M1 program:

```
    TOWER = *SA *AON *MSM *Graphics NPDA NLDM TCPIPCOLLECT
        *AMI *DVIPA *TEMA *IPMGT *NVSOA DISCOVERY
```

- You can use MODIFY.TOWER statements in either of the CNMSTUSR or CxxSTGEN members to effect needed changes. (See MODIFY.TOWER in *IBM Z NetView Administration Reference*.) For example, you can activate AON and its TCP subtower by coding this statement:

```
MODIFY.TOWER.sortkey = +AON +AON.TCP
```

- Add MODIFY.TOWER statements as needed when you are ready to customize the NetView program to activate more functions.

You can use the CNMSJMIG sample job in the NETVIEW.V6R3USER.INSTALL data set to migrate initialization members from prior releases (including the CNME1034 command list and some DSIPARM members) to the CNMSTUSR member. For more information, see Appendix F, “Migrating to the CNMSTYLE and CNMCMD Members,” on page 161.

Table 15 on page 36 lists the towers and subtowers that were added.

Table 15. Towers and subtowers that were added

Tower	Subtowers	Description
AON	TCP (IDS[1])	Enables Intrusion Detection Services (IDS) support.

Table 15. Towers and subtowers that were added (continued)

Tower	Subtowers	Description
DISCOVERY	• INTERFACES (HIPERSOCKETS, OSA) • TELNET	Enables the discovery of the following kinds of resources: • Central processor complex (CPC) • Channel subsystem identifier • Logical partition (LPAR) • Sysplex • Coupling facility • z/OS image • TCP/IP stack • TCP/IP subplex • IP interfaces • NetView applications • Telnet servers and ports • Open Systems Adapter (OSA) channels and ports • HiperSockets adapter
DVIPA	• DVCONN • DVROUT • DVTAD	Enables the collection of the following kinds of DVIPA information: • DVIPA definition and status • Distributed DVIPA • DVIPA connections • VIPA routes • Distributed DVIPA connection routing
IPMGT	• ACTMON • IDS	Enables IP management.
MSM	ITNM[1]	Enables the IBM Tivoli Network Manager feature.
NLDM		Enables the session monitor.
NPDA		Enables the hardware monitor.
NVSOA		Enables the Web Services Gateway function.
TCPIPCOLLECT	• CONNSEC • PKTS • TCPCONN	Enables the collection of encryption-related data for IP connections, TCP/IP connection, and packet trace data from z/OS Communications Server.

Table 15. Towers and subtowers that were added (continued)		
Tower	**Subtowers**	**Description**
TEMA	• CONINACT • CONNACT • CONNSEC • DVCONN • DVDEF • DVROUT • DVTAD • HEALTH • HIPERSOCKETS • OSA • SESSACT • SYSPLEX • TELNET	Enables the NetView program to communicate with the IBM Z NetView Enterprise Management Agent and also provides data collection for certain functions when the subtowers are enabled. As of V6R3, it also enables the connection and display of the encryption-related data for active TCP/IP connections.
Note: 1. Only the subtower was added.		

Table 16 on page 38 lists the towers and subtowers that were deleted.

Table 16. Towers and subtowers that were deleted		
Tower	**Subtowers**	**Description**
AON	LAN[1]	LAN automation (AON/LAN)
MSM	• ATM[1] • IP[1] • LNM[1] • NTF[1] • NVL[1] • TMR[1]	• ATM feature • IP feature • LAN Network Manager • NetFinity • Novell NetWare • Tivoli Managed Resource feature
Note: 1. Only the subtower was deleted.		

The CNMSTYLE member replaces some of the definition statements in members of the DSIPARM data set and all the initialization performed by the CNME1034 command list.

Table 17. CNMSTYLE Statement Relationship to Older DSIPARM Statements		
CNMSTYLE Statement	**DSIPARM Statement or Command**	**NetView Member**
DB2SEC=RRS	DB2RRS	DSIDMNK
DEFAULTS.*	DEFAULTS	CNME1034
FLC_DEF_NETW_VIEW	DEF_NETW_VIEW	FLCSAINP
FLC_EXCEPTION_VIEW_FILE	EXCEPTION_VIEW_FILE	FLCSAINP

Table 17. CNMSTYLE Statement Relationship to Older DSIPARM Statements (continued)		
CNMSTYLE Statement	**DSIPARM Statement or Command**	**NetView Member**
FLC_RODMINT	RODMINT	FLCSAINP
FLC_RODMNAME	RODMNAME	FLCSAINP
FLC_RODMRETRY	RODMRETRY	FLCSAINP
FLC_RUNCMDRETRY	RUNCMDRETRY	FLCSAINP
FLC_TCPNAME	TCPNAME	FLCSAINP
FLC_TN3270_FILE	TN3270_FILE	FLCSAINP
GHB.TCPANAME	TCPANAME	DUIIGHB
IPLOG	*parameters*	DSIILGCF
LOADEXIT	LOADEXIT	DSIDMNK
LUC.*	*parameters*	DSILUCTD
MSMdefault	DEF_AUTOTASK	FLCSAINP
MVSPARM.*	MVSPARM	DSIDMNK
NLDM.*	*parameters*	• AAUPRMLP • DSIAMLTD
NPDA.ALERTFWD	ALERTFWD	DSIDMNK
REXEC.*	*parameters*	DSIREXCF
RRD	RRD	DSIDMNK
RSH.*	*parameters*	DSIRSHCF
RTT.*	*parameters*	DSIRTTTD
SECOPTS.*	OPTIONS	DSIDMNK
TAMEL.*	*parameters*	DUIFPMEM
transTbl	TRANSTBL	DSIDMNK
VTAMCP.USE	VTAMCP	DSIDMNK
WEB.*	*parameters*	DSIWBMEM

The CNMSTYLE member contains descriptive comments about the types of statements that are included. Read the comments and review the defaults.

Because the NetView 3270 management console was removed, the TASK.DSITCPIP.INIT statement was deleted.

The following defaults changed:

Table 18. CNMSTYLE statements		
Statement	**Prior default**	**Current® default**
ASSIGN	STATGRP specifies: • NETOP1 • NETOP2	STATGRP specifies: • NETOP1 • NETOP2 • AUTO1 OPERGRP specifies: • OPER1 • OPER2 • OPER3 • OPER4 • OPER5 • OPER6
DEFAULTS command keywords	CMD=HIGH	CMD=LOW
	STRTSERV=SBMTJOB	STRTSERV=STRTPROC
HLLENV	Commented out in CNME1034	Initializes two environments each for PL/I and C in the CNMSTYLE member.
HLLENV keywords	PHEAP=4096	PHEAP=131072
	PSTACK=4096	PSTACK=131072
LOGONPW	CMDMDL commented out	CMDDEF enabled
MEMSTOR	Commented out in CNME1034	Enabled
	No predefined include or exclude lists	Predefined include list: • CNMPNL1.CNMKWIND • CNMPNL1.CNMBROWS • DSIOPEN.CNMKEYS • DSICLD.CNME1505 • DSICLD.CNME1096 Predefined exclude list: • DSIPARM.DSIOPF • DSIPARM.DSIOPFU • DSILIST.* • *.USERMEM

Table 18. CNMSTYLE statements (continued)

Statement	Prior default	Current® default
RMTINIT.IP	No	The initial setting in the CNMSTYLE member changed to YES. By default, not all NetView functions have RMTCMD for TCP/IP enabled. There might be additional configuration that is required for these functions. If the RMTCMD command on two NetView programs are to use TCP/IP and both are using the same TCP/IP stack, specify different ports to avoid a conflict. If you do not specify a RMTINIT.IP statement, the default value remains as N0.
Trace (NCCF)	Off	On, MODE=INT If you notice a significant increase in processor utilization during initialization, you might want to change the TRACE options or start the trace after NetView initialization is complete.
Tasks started automatically: • &DOMAIN.LUC • &DOMAIN.VMT • AAUTCNMI • AAUTSKLP • BNJDSERV • BNJMNPDA • DSIAMLUT • DSIATOPT • DSICRTR • DSIGDS • DSIKREM • DSIQTSK • DSIROVS • DSITRACE	CNME1034 included a STARTCNM ALL command that started these tasks.	The CNMSTYLE member includes these tasks as INIT=N, indicating that they no longer start automatically.

CNMSTYLE statement notes:

1. For the SECOPTS.CMDAUTH statement, the NetView program supports the SCOPE option in migration mode only. If you currently use scope of commands security definitions (CMDCLASS, KEYCLASS, VALCLASS statements in DSICMD, with matching OPCLASS statements), you can convert them into equivalent command authorization table statements using the SECMIGR command. If you initialize the NetView program using the SCOPE option, the SECMIGR command is used to convert existing scope security definitions. The converted table is written to the first DSIPARM data set and is put into effect.

Make sure the PPT has authority to write the converted command authorization table to the DSIPARM data set.

2. The SSIname statement is no longer used; if specified, it is ignored.

   The name of the subsystem router task is CNMCSSIR. Starting with NetView V6R1, changing the task name of the subsystem router has no utility and is not supported.

For information about new, changed, or deleted CNMSTYLE statements, see "CNMSTNXT" on page 42.

CNMSTACT

The CNMSTACT member includes the CNMSTAAL member if the IBM Z NetView for Continuous Availability product is installed. The CNMSTACT member is used for the GDPS Continuous Availability solution.

CNMSTIDS

The CNMSTIDS include member contains Intrusion Detection Services statements. The z/OS Communications Server Version 1 Release 13 and Version 2 Release 1 Intrusion Detection Services probes are added.

CNMSTNXT

The CNMSTNXT member contains statements that are new, changed, or deleted. Statements are grouped according to version and release level of the NetView product. Review the statements in the CNMSTNXT member and update the CNMSTUSR or C*xx*STGEN member as necessary.

If you want information about...	Refer to...
CNMSTYLE statements	*IBM Z NetView Administration Reference*

DSIAMLTD

The DSIAMLTD member in the DSIPARM data set contains initialization statements for the session monitor. It includes logic to extract initialization values from the CNMSTYLE member. Use the V6.3.0 DSIAMLTD member, and update the NLDM statements in the CNMSTUSR or C*xx*STGEN member to reflect the values specified in the DSIAMLTD member on the system from which you are migrating. Do not modify the DATA REXX version of the DSIAMLTD member.

DSICCDEF

If you made changes to DSICCDEF, merge your current copy of DSICCDEF with the sample shipped with V6R3. Note that the VTAM DISPLAY and MODIFY commands do not need CCDEF support.

DSICMD

The command definition statements in the DSICMD member were replaced by new command definitions in the CNMCMD member. NetView initialization continues to read the DSICMDU member for migration purposes. You can use the CNMSJMIG sample job to migrate the DSICMD member to the new CNMCMD format. For more information, see Appendix F, "Migrating to the CNMSTYLE and CNMCMD Members," on page 161.

If you do not convert your definitions in the DSICMDU member to the new format before NetView initialization, information contained in the DSICMDU member is converted and stored in a NetView KEEP under the PPT for 2 hours. During this time, you can use a NetView PIPE command to retrieve these converted command definitions. The following example shows one way of retrieving these definitions for display:

```
/PPT: PIPE KEEP DSICMDU | CONS
```

You can also use a similar PIPE command to write the converted definitions to the CNMCMDU member of the DSIPARM data set.

Note: Data REXX statements in DSICMDU have already been processed and therefore do not exist in the DSICMDU KEEP.

Command definitions in the DSICMDU member that duplicate command definitions found in the CNMCMSYS or CNMCMENT member are overridden by the latter. Command definitions in the DSICMDU member that duplicate commands in the NetView internal command set are considered to be in error.

To migrate your definitions from the DSICMDU member, complete the following steps:

1. Start NetView in a test environment and note any DSI234I messages for duplicate command definitions.
2. Retrieve the migrated DSICMDU command definitions from the NetView KEEP and store them in CNMCMDU, for example:

   ```
   /PPT: PIPE KEEP DSICMDU | QSAM (DSN) user.dsiparm(CNMCMDU)
   ```

   where *user.dsiparm* specifies the data set in which to place the migrated command definition statements.

   Note: You can also use sample CNMSJMIG to migrate DSICMDU definitions before you start NetView V6R3.
3. Update the CNMCMDU definitions to change any duplicate command definitions noted during NetView initialization.

Make all changes to command definitions in CNMCMSYS or CNMCMENT using CMDDEF statements in CNMCMDU.

DSICMENT

The DSICMENT member of DSIPARM was replaced by CNMCMENT. You can remove SEC=BY from some AON command definition statements. For a list of these statements, refer to Appendix E, “AON CMDDEF Statements Not Requiring SEC=BY,” on page 157.

DSICMSYS

The DSICMSYS member in the DSIPARM data set was replaced by the CNMCMSYS member.

The CNMCMSYS member does not contain a CMDMDL statement for the CNME1500 command list. As a result, the READYRMT alias (command) is no longer defined. The CNME1500 member is still available.

EZLCMD

The EZLCMD member of DSIPARM was replaced by EZLCMENT. You can remove SEC=BY from some AON command definition statements. For a list of these statements, refer to Appendix E, “AON CMDDEF Statements Not Requiring SEC=BY,” on page 157.

FKXCMD

DSIPARM member FKXCMD was replaced by FKXCMENT. You can remove SEC=BY from some AON command definition statements. For a list of these statements, refer to Appendix E, “AON CMDDEF Statements Not Requiring SEC=BY,” on page 157.

DSICTMOD

DSICTMOD is the NetView constants module that can be updated using sample job CNMS0055. Use the DSICTMOD module shipped with V6R3. If you updated CNMS0055 for your current release, merge those changes into the V6R3 CNMS0055 sample, submit it to assemble, and link edit your changes into the DSICTMOD module.

The number of task and common global variable constants are now obsolete. The NetView program dynamically increases storage as needed.

DSIDMN

The parameters set in the DSIDMN member were migrated to the CNMSTYLE member. If you do not remove existing statements, they are ignored during DSIDMN processing.

User-defined TASK statements are still supported. You can also add these statements to the CNMSTYLE member. For information about the CNMSTYLE TASK statements, see *IBM Z NetView Administration Reference*.

EXCMDSEC is no longer supported. Review your keyword and value authorizations for the EXCMD command to make sure that you maintain your preferred security. For more information, refer to *IBM Z NetView Security Reference*.

Note: Statements that were in the DSIDMNK member are now in the CNMSTYLE member. The DSIDMNK member was removed.

DSIIFR

As of NetView V6R1, the IFRAUWWI field is removed from the DSIIFR macro. To retrieve or test the WTO ID, use the IFRAUWID field instead. The IFRNLYES flag no longer has any use. Remove references to this bit.

DSIILGCF

The DSIILGCF member in the DSIPARM data set defines the initialization values for the IP log. It includes logic to extract initialization values from the CNMSTYLE member. Update IPLOG statements in the CNMSTUSR or C*xx*STGEN member to reflect the values previously specified in the DSIILGCF member.

DSILUCTD

The DSILUCTD member in the DSIPARM data set contains initialization statements for the CNM data transfer task. It includes logic to extract initialization values from the CNMSTYL member. Update LUC statements in the CNMSTUSR or C*xx*STGEN member to reflect the values specified in DSILUCTD on the system from which you are migrating.

DSIOPF

Starting with V6R2, the DSIOPF member has a new structure:

Table 19. DSIOPF structure

Include member	Description
DSIOPFAU	Includes existing AUTO1 and AUTO2 autotasks
DSIOPFEX	Includes sample operator definitions. All sample definitions in the DSIOPFEX member can be modified or deleted without affecting the operation of the NetView program.
DSIOPFIX	Includes operator definitions that cannot be changed. See the comments in the DSIOPFIX member to update necessary passwords.

Table 19. DSIOPF structure (continued)	
Include member	**Description**
DSIOPFST	Includes operator definitions for which the operator ID can be changed. The DSIOPFST member includes the following additional members associated with the specified towers: • EZLOPF (AON) • FKVOPF (AON.SNA) • FKXOPF (AON.TCP) • FKXOPFIP (IPMGT) • FLCSOPF (MSM)
DSIOPFU	Includes customer-defined operator definitions

If you modified the V1R4 DSIOPF member and you want to use the new structure, copy any changes that you made into the appropriate V6R3 member.

%INCLUDE Members

Usage notes:

1. Data REXX logic was added to conditionally define operator definitions based on the level of the NetView program installed, the towers that are enabled by the CNMSTYLE member, or both.
2. You can add Data REXX logic to conditionally define operator definitions in DSIOPFU. Data REXX files must have either `/*%DATA*/` or `/*%LOGIC*/` as the first statement. Comments can follow on the same or subsequent lines. A blank in the first column indicates a continuation of the previous statement. For more information about Data REXX, refer to *IBM Z NetView Installation: Configuring Additional Components*.
3. The FKXOPFIP member is used when the IPMGT tower is enabled. This member is not used if the AON component is enabled. Because of this, operator definitions duplicate those in the EZLOPF and FKXOPF members.

Added Operators

The following operator definitions were added:

Table 20. Added operator definitions		
Operator definition	**Description**	**%INCLUDE member**
`AUTIPM`*x* `OPERATOR PASSWORD=AUTIPM`*x* `PROFILEN EZLPRFAO`	IP management services autotasks	FKXOPFIP

Deleted Operators

The following operator definitions were deleted:

Table 21. Deleted operator definitions for V1R4

Operator definition	%INCLUDE member
AUTOATMA OPERATOR PASSWORD=AUTOATMA PROFILEN FLCSPRFB AUTOATM1 OPERATOR PASSWORD=AUTOATM1 PROFILEN FLCSPRFB AUTOEWA OPERATOR PASSWORD=AUTOEWA PROFILEN FLCSPRFB AUTOEW1 OPERATOR PASSWORD=AUTOEW1 PROFILEN FLCSPRFB AUTONWA OPERATOR PASSWORD=AUTONWA PROFILEN FLCSPRFB AUTONW1 OPERATOR PASSWORD=AUTONW1 PROFILEN FLCSPRFB FLBGMMGR OPERATOR PASSWORD=FLBGMMGR PROFILEN FLBGMMPR	FKWOPF

DSIREXCF

The DSIREXCF member in the DSIPARM data set defines the initialization values for the REXEC Server. It includes logic to extract initialization values from the CNMSTYLE member. Update REXEC statements in the CNMSTUSR or C*xx*STGEN member to reflect the values previously specified in the DSIREXCF member. Do not modify the Data REXX version of the DSIREXCF member.

DSIRSHCF

The DSIRSHCF member in the DSIPARM data set defines the initialization values for the RSH Server. It includes logic to extract initialization values from the CNMSTYLE member. Update RSH statements in the CNMSTUSR or C*xx*STGEN member to reflect the values previously specified in the DSIRSHCF member. Do not modify the Data REXX version of the DSIRSHCF member.

DSIRTTTD

The DSIRTTTD member of the DSIPARM data set contains initialization statements for the TCP/IP alert receiver. It includes logic to extract initialization values from the CNMSTYLE member. Update RTT statements in the CNMSTUSR or C*xx*STGEN member to reflect the values that you previously specified in the DSIRTTTD member. Do not modify the Data REXX version of the DSIRTTTD member.

DSIRXPRM

The DSIRXPRM load module contains the REXX initialization parameters that are required to establish a new REXX environment.

Note: If you previously added any REXX initialization parameters to the DSIRXPRM module, delete the previous version of the DSIRXPRM module. As of NetView V6R2, the NetView program is not compatible with previous versions of the DSIRXPRM module.

Define the previously added REXX initialization parameters as follows:

- If you previously added REXX command environments or REXX function package names to the DSIXPRM module, migrate those changes to the CNMSTYLE (CNMSTUSR or C*xx*STGEN) member by using the following CNMSTYLE statements. For more information about these statements, see the *Administration Reference*.
  - REXX.CMDENV.*name*
  - REXX.FUNCPKGLIST.LCL.*name*
  - REXX.FUNCPKGLIST.SYS.*name*
  - REXX.FUNCPKGLIST.USR.*name*
- If you previously added other REXX initialization parameters to the DSIRXPRM module, merge those changes into the V6.3.0 version of the CNMSJM11 sample. Ensure that you deleted the earlier version

of the DSIRXPRM module, and then run the CNMSJM11 sample to assemble and link edit your changes into the DSIRXPRM module.

Note: You must delete the earlier version of the DSIRXPRM module because it was link edited with the RENT attribute whereas the current version is link edited with the REUS attribute.

- If you previously added the system REXX function package for IBM Z System Automation to the DSIRXPRM module, drop the modified DSIRXPRM module from your environment. The System Automation INGRXFPG REXX function package is loaded automatically when the SA tower is enabled. If necessary, use the previous migration steps to include other System Automation REXX function packages.

DSISPN

The DSISPN member is now obsolete.

Use the SECMIGR migration tool to convert existing VTAMLST and DSISPN definitions into entries in the NetView span table. The SECMIGR tool creates the span table, converts your existing span of control definitions into span table statements, and loads them into the span table. When you are ready to initialize the NetView program, load the NetView span table by specifying its name on the SECOPTS.SPANAUTH statement in the CNMSTUSR or C*xx*STGEN member. For an example span table, refer to the CNMSPAN2 sample.

DSITBL01

The DSITBL01 automation table is the default NetView automation table and is required by the NetView program. The DSITBL01 automation table provides basic automation statements to respond to messages and management services units (MSUs). If the DSITBL01 automation table is not activated during NetView initialization, the DWO093W warning message is issued by the NetView program.

Some %INCLUDE statements and associated statements to start automation were replaced by entries in the CNMSTYLE member. If you modified the DSITBL01 member, merge your changes with the V6R3 DSITBL01 member. After making changes, renumber the NetView automation table. When the NetView automation table processes a message and finds a match that results in a command or command list being run, it writes the CNM493I message to the NetView log file. The CNM493I message contains the line number of the automation table entry matched.

Several messages that are supplied with the NetView product are changed with the V6R3 program. These messages are listed in the appendixes. Review the list and make any necessary changes to your automation table.

You can add your own automation table by using the AUTOCMD statement in the CNMSTUSR or C*xx*STGEN member. Place your automation table before the DSITBL01 automation table and code CONTINUE(YES) on any local customization to make sure that messages flow to the DSITBL01 automation table. For more information on the AUTOCMD statement, refer to the *IBM Z NetView Administration Reference*.

Message automation is used to update information when some discovery manager resources start and stop. Add the CNMSEPTL automation sample member for these events. The CNMSEPTL member is included when the DISCOVERY tower is enabled.

```
* Load local resource discovery table
%>IF tower('DISCOVERY') THEN
%INCLUDE CNMSEPTL
```

For DVIPA automation, add the following statements:

```
* Include the following DVIPA samples:
* CNMSDVDS - Automation for forwarding information to the master NetView
* CNMSDVTP - Samples for automating z/OS Communications Server SNMP
*            DVIPA traps
* CNMSDVCG - Samples for automating z/OS Communications Server DVIPA
*            configuration updates
* CNMSDVEV - Automation table memmber for DVIPA SMF runtime updates that
*            is included when the DVIPA tower is enabled.
```

```
* CNMSSMON - Samples for automating z/OS Communications Server
*            sysplex autonomics messages
%>IF tower('DVIPA') THEN
%>do;
     %INCLUDE CNMSDVDS
     %INCLUDE CNMSDVTP
     %INCLUDE CNMSDVCG
     %INCLUDE CNMSDVEV
     %INCLUDE CNMSSMON
%>end;
```

For XCF sysplex support, add the following statements:

```
** Load statements that relate to the z/OS sysplex master function.
%INCLUDE CNMSXCFA
```

For COLLCTL command automation, add the following statements:

```
*************** COLLCTL command AUTOMATION ***************************
%INCLUDE CNMSDCA
```

For SMF type 30 record automation using the CNMSMF3E sample, add the following statements:

```
*************** SMF 30 RECORD AUTOMATION *****************************
IF MSGID = 'BNH874I' THEN
     EXEC(CMD('CNMSMF3A')) NETLOG(Y) SYSLOG(N);
```

For more information about automating the SMF type 30 records, see *IBM Z NetView Installation: Configuring Additional Components*.

For Intrusion Detection automation for automating syslogd file archival, add the following statement:

```
%>IF TOWER('AON.TCP.IDS') | TOWER('IPMGT.IDS') THEN  /* IDS?          */
%>DO;                              /* IDS is enabled                */
* Join the two lines in a two line MLTWO and extract a file name.     */
IF MSGID='BPXF024I'
   & ACQUIRE('1.* 1 FWDLINE 1 1.* NW') =
       . 'FSUM1230 Log file ' FNAME ' was created' .
   & ATF('DSICGLOB CNMSTYLE.IDS.SYSLOGMSG') = 'Y'
   & ATF('DSICGLOB CNMSTYLE.IDS.SYSLOG.FILENAME') = VALUE(FNAME) THEN
  EXEC(CMD('/?IDS2: GO') ROUTE(ALL PPT))
  NETLOG(Y) DISPLAY(Y);
%>END;                             /* IDS is enabled                */
```

DSITCPCF

The DSITCPCF member in the DSIPARM data set defines the initialization values for the DSITCPIP task. Do not modify the Data REXX version of the DSITCPCF member. Because the NetView 3270 management console was removed, the MCON statements were removed from the DSITCPCF member.

DSITCPRF

The DSITCPRF member in the DSIPRF data set defines TCP/IP operator security profiles. The WEB_SERVER statement was added to define the encryption keys for HTTP server sessions:

```
 WEB_SERVER: default default
```

The operator ID and ANY_OTHER statements were removed.

DSIWBMEM

The DSIWBMEM member in the DSIPARM data set defines initialization values for the Web server. It now includes logic to extract initialization values from the CNMSTYLE member. Update the WEB statements in the CNMSTUSR or C*xx*STGEN member to reflect the values previously specified in the DSIWBMEM member. Do not modify the Data REXX version of the DSIWBMEM member.

DSIZVLSR

The DSIZVLSR module defines the buffer pools to be used with the VSAM LSR and DSR performance options. Update the DSIZVLSR module by using the CNMSJM01 sample job. Use the DSIZVLSR module shipped with V6R3. If you previously updated the CNMSJM01 job, merge those changes into the V6R3 CNMSJM01 job and run it to assemble and link edit your changes into the DSIZVLSR module.

The following changes were made to the DSIZVLSR module:

- The default STRNO value was increased from 30 to 40.
- New buffers were added to the index and data buffer pools for the new VSAM clusters allocated for the DSITCONT task to support the TCPCONN command.
- Removed TARA support (BNJDSE36).

DUIFPMEM

The DUIFPMEM member in the DSIPARM data set contains TCP/IP initialization statements for the CNMTAMEL task. It includes logic to extract initialization values from the CNMSTYLE member. Update TAMEL statements in the CNMSTUSR or C*xx*STGEN member to reflect the values that you previously specified in the DUIFPMEM member. Do not modify the DATA REXX version of the DUIFPMEM member.

DUIIGHB

The DUIIGHB member in the DSIPARM data set contains initialization statements for the DUIDGHB task. It includes logic to extract initialization values from the CNMSTYLE member. Update the GHB statements in the CNMSTUSR or C*xx*STGEN member to reflect the values that you previously specified in the DUIIGHB member. Do not modify the Data REXX version of the DUIIGHB member.

FKXCFG01

The FKXCFG01 member in the DSIPARM data set contains configuration information for the AON component.

TCP390 policy information was moved from the FKXCFG01 member to the CNMPOLCY member. Move any TCP390 statements in your V1R4 FKXCFG01 member to the V6R3 CNMPOLCY member. Review your other AON configuration members (for example the EZLCFG01 member and the FKVCFG01 member) and any additional members that you included to find other TCP390 statements. Move all the TCP390 statements to the CNMPOLCY member.

FLBSYSDA

The FLBSYSDA member in the DSIPARM data set is the initialization member for the APPN accounting manager. This member was removed.

FLCSAINP

The FLCSAINP member is obsolete.

In V1R4, The FLCSAINP member was the sample initialization file for the MultiSystem Manager. You can modify and rename the FLCSAINP member to either FLCAINP or another unique name. In V6R3, the FLCAINP member is used to specify the GETTOPO statements that you want to run during MultiSystem Manager initialization. All other MultiSystem Manager initialization definitions were migrated to the CNMSTYLE member.

For V6R3, use your existing FLCAINP (or other uniquely named member) and make the following updates:

1. If you made changes to initialization definitions (other than GETTOPO statements), migrate the changes to the CNMSTUSR or C*xx*STGEN member.
2. Delete the definitions (non-GETTOPO statements) that you migrated to the CNMSTYLE member.
3. Delete any GETTOPO ATM*xxx* statements.
4. Delete any GETTOPO LNM*xxx* statements.

5. Delete any GETTOPO NETF*xxx* statements.
6. Delete any GETTOPO NWCP*xxx* statements.
7. Delete any START_DISCOVERY statements.

Refer to *IBM Z NetView Installation: Configuring Graphical Components* for additional information about the FLCAINP member.

RODM Address Space

The samples in this section list changes for the RODM address space.

EKGLOADP

EKGLOADP is the sample RODM load procedure JCL.

Make the following changes to EKGLOADP:

1. For NetView data sets, ensure your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. To set the ROUTECODE parameter, add the following statement after the COPIES parameter in the PROC statement. When you add this parameter, add a comma after the COPIES=1 parameter.

```
//           ROUTECDE=1
```

3. Add the &ROUTECDE variable to the NetView EXEC statement, as shown:

```
//LOADRODM EXEC PGM=EKGLOTLM,
//         PARM=('OPERATION=&OPER,LOAD=&LOAD,NAME=&RODMNAME',
// 'LISTLEVEL=&LISTL,SEVERITY=&SEVERITY,ROUTECODE=&ROUTECDE')
```

   As a result of the addition of the ROUTECODE parameter, you also need to update the JCL procedure EKGLLOAD to specify &ROUTECDE when calling EKGLOADP.
4. If you are using the RODM component and are migrating from a previous release, remove the following statement from the STEPLIB data set concatenation:

```
//STEPLIB  DD DSN=&SQ1..SEKGMOD1,DISP=SHR
```

5. Add the following DD statement to the STEPLIB data set concatenation:

```
//STEPLIB  DD DSN=&SQ1..CNMLINK,DISP=SHR
```

6. If you are using the RODM component and are migrating from a previous release, change the following statement from:

```
//EKGLUTB  DD DSN=&SQ1..SEKGLUTB,DISP=SHR
```

   to

```
//EKGLUTB  DD DSN=&SQ1..CNMSAMP,DISP=SHR
```

7. If you are using the RODM component and are migrating from a previous release, change the following statement from:

```
//EKGIN2  DD DSN=&SQ1..SEKGCAS1,DISP=SHR
```

   to

```
//EKGIN2  DD DSN=&SQ1..CNMSAMP,DISP=SHR
```

EKGSI101

EKGSI101 is used for allocating the RODM log and checkpoint databases. This sample is used by sample job CNMSJ004.

If you allocated RODM checkpoint data sets for fewer than the maximum number of windows supported by RODM and the estimated number of objects that you expect to store in the RODM data cache exceeds the previous maximum supported number (approximately 524,000 objects), consider increasing the size of the RODM checkpoint databases.

EKGXRODM

EKGXRODM is the RODM start procedure.

Make the following changes to EKGXRODM:

1. For NetView data sets, ensure your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. For NetView data sets, ensure your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.
3. Add the following ROUTECDE parameter after the SUBSYM parameter:

```
//        SUBSYM=*SUBSYM,        ** SYMBOL SUBSTITUTION OPTION
//        ROUTECDE=1             ** ROUTE CODE FOR WTO/WTOR
```

4. Add the &ROUTECDE variable to the START EXEC statement, as shown:

```
//START    EXEC PGM=EKGTC000,REGION=0K,TIME=1440,
// PARM='&TYPE,&NAME,&INIT,&CLRSSB,&CUST,&ARM,&SUBSYM,&ROUTECDE'
```

5. If you are using the RODM component and are migrating from a previous release, replace the following statements in the STEPLIB data set concatenation:

```
//         DD DSN=&SQ1..SEKGMOD1,DISP=SHR
//         DD DSN=&SQ1..SEKGMOD2,DISP=SHR
```

   with

```
//         DD DSN=&SQ1..CNMLINK,DISP=SHR
```

6. The EKGCUST DD statement has changed to include a user DSIPARM data set:

```
//EKGCUST  DD DSN=&Q1..CNM01.DSIPARM,DISP=SHR
//         DD DSN=&SQ1..CNMSAMP,DISP=SHR
```

7. If you are using the RODM component and are migrating from a previous release, change the following statement from:

```
//EKGLUTB  DD DSN=&SQ1..SEKGLUTB,DISP=SHR
```

   to

```
//EKGLUTB  DD DSN=&SQ1..CNMSAMP,DISP=SHR
```

8. If you are using the RODM component and are migrating from a previous release, change the following statement from:

```
//EKGIN1  DD DSN=&SQ1..SEKGSMP1(EKGIN1),DISP=SHR
```

   to

```
//EKGIN1  DD DSN=&SQ1..CNMSAMP(EKGIN1),DISP=SHR
```

9. If you are using the RODM component and are migrating from a previous release, change the following statement from:

```
//EKGIN2  DD DSN=&SQ1..SEKGCAS1,DISP=SHR
```

to

```
//EKGIN2  DD DSN=&SQ1..CNMSAMP,DISP=SHR
```

10. If you have not installed the Language Environment for OS/390 runtime library in LNKLST*xx* or PROG*xx*, be sure the library name in the STEPLIB of EKGXRODM is correct and uncommented. Remove DD statements for PL/I or C/C++ runtime libraries because these libraries are no longer being used.

GMFHS Address Space

The samples in this section list changes for the GMFHS address space.

CNMGMFHS (CNMSJH10)

CNMGMFHS (CNMSJH10) is the GMFHS start procedure.

Make the following changes to CNMGMFHS:

1. For NetView data sets, ensure your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. For NetView data sets, ensure your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.
3. Add the following ROUTECDE parameter after the SUBSYM parameter:

```
//             SUBSYM=*SUBSYM, ** SYMBOL SUBSTITUTION
//             ROUTECDE=1    ** ROUTE CODE FOR ALL WTO'S
```

4. Add the &ROUTECDE variable to the STEP1 EXEC statement, as shown:

```
//STEP1    EXEC PGM=&PROG,REGION=&REG,TIME=1440,
// PARM='&AGGRST,RESWS=&RESWS,DOMAIN=&DOMAIN,ARM=&ARM,SUBSYM=&SUBSYM,  *
//              ROUTECDE=&ROUTECDE'
```

5. If you are using the RODM component and are migrating from a previous release, remove the following statement:

```
//STEPLIB  DD DSN=&SQ1..SEKGMOD1,DISP=SHR
```

6. If you are using the RODM component and are migrating from a previous release, change the following statement from:

```
//EKGLUTB  DD DSN=&SQ1..SEKGLUTB,DISP=SHR
```

to

```
//EKGLUTB  DD DSN=&SQ1..CNMSAMP,DISP=SHR
```

CNMSJH12

CNMSJH12 is the sample GMFHS/SNA Topology Manager data model load job. Because of the number of changes, use the new sample job.

DUIGINIT

DUIGINIT is the initialization member for GMFHS. It contains the initialization statements for the GMFHS host main task. These statements are system-controlling constants that are read when GMFHS is initialized. You can use symbols in DUIGINIT if symbolic substitution is enabled on your system. Ensure that the symbols are defined in member IEASYMxx of SYS1.PARMLIB.

The DOMAIN statement was commented out in the default DUIGINIT member. The preferred approach is to use the DOMAIN symbolic variable in the GMFHS start procedure (CNMGMFHS). If the default values that are provided in the DUIGINIT member that is supplied by the NetView product are acceptable for your environment, consider using the default DUIGINIT member.

Event/Automation Service Address Space

The sample in this section lists changes for the Event/Automation Service address space.

IHSAECDS

The IHSAECDS member in the SCNMUXCL data set contains class definition statements that are used by the event receiver task (EVENTRCV) of the Event/Automation Service (E/AS) to map inbound Event Integration Facility (EIF) events to alerts or to resolve Network Management Vector Transports (NMVTs).

IHSAEVNT

The IHSAEVNT sample starts the Event/Automation Service address space. Make the following changes to the IHSAEVNT member in your PROCLIB:

1. Add the following comments:

```
//*  4.  There are additional keywords and values which may be
//*      specified in the PARM string, which a) are not in the
//*      style of a UNIX System Services shell command parameter and
//*      b) do not have procedure keyword definitions in this sample
//*      procedure.  They are described as follows.
//*
//*      CMSGCFG=value
//*
//*        CMSGCFG provides the name of a member of the IHSSMP3 file
//*        containing configuration parameters for the confirmed
//*        message adapter task, MESSAGEC.  If the value is provided,
//*        it must be a valid partitioned data set member name.
//*        If the keyword is omitted or is given no value, the
//*        default value is IHSANCFG.
//*
//*      CALRTCFG=value
//*
//*        CALRTCFG provides the name of a member of the IHSSMP3 file
//*        containing configuration parameters for the confirmed
//*        alert adapter task, ALERTC.  If the value is provided,
//*        it must be a valid partitioned data set member name.
//*        If the keyword is omitted or is given no value, the
//*        default value is IHSABCFG.
//*
```

2. For NetView data sets, ensure your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
3. Remove the DD statement for the C/C++ runtime library because this library is no longer used.
4. Add the following ROUTECDE parameter after the OUTSIZE parameter:

```
//            ROUTECDE=1,    ** ROUTE CODE FOR ALL WTO'S
```

5. The SCNMUXLK data set was replaced with the CNMLINK data set. See Table 22 on page 53 for an example on how to change the STEPLIB DD statement.

Table 22. STEPLIB DD statement

Existing statement:

```
//STEPLIB  DD DSN=NETVIEW.V1R4M0.SCNMUXLK,DISP=SHR
```

Table 22. STEPLIB DD statement (continued)

Updated statement:

```
//STEPLIB  DD DSN=NETVIEW.V6R3M0.CNMLINK,DISP=SHR
```

6. The SCNMUXMS data set that was specified on the IHSMSG1 DD statement was replaced with the SDUIMSG1 data set. See Table 23 on page 54 for an example on how to change the IHSMSG1 DD statement.

Table 23. IHSMSG1 DD statement

Existing statement:

```
//IHSMSG1  DD DSN=NETVIEW.V1R4M0.SCNMUXMS,DISP=SHR
```

Updated statement:

```
//IHSMSG1  DD DSN=NETVIEW.V6R3M0.SDUIMSG1,DISP=SHR
```

7. Add the following &ROUTECDE variable after the &OUTSIZE variable:

```
INITFILE=&INITFILE OUTSIZE=&OUTSIZE ROUTECDE=&ROUTECDE
```

8. Add the following output data sets:

```
//*   EAS OUTPUT DATASETS
//IHSN     DD SYSOUT=A
//IHSB     DD SYSOUT=A
⋮
//IHSNS    DD SYSOUT=A
//IHSBS    DD SYSOUT=A
⋮
//IHSNSTD  DD SYSOUT=A
//IHSBSTD  DD SYSOUT=A
```

IHSAINIT

The IHSAINIT sample is the initialization file for the Event/Automation Service. Information was added to this sample to support the confirmed alert and message adapters. The NOSTART statements are included to prevent the Event/Automation Service from automatically starting the confirmed alert adapter and confirmed message adapter services.

```
# The following keywords are supported:
#   CMSGCFG  - Specifies the confirmed message adapter configuration file
#   CALRTCFG - Specifies the confirmed alert adapter configuration file
#
# The syntax for each keyword follows:
#   CMSGCFG=confirm_message_config_file
#   CALRTCFG=confirm_alert_config_file
#   TRACE TASK=task_designator LEVEL=trace_level IP=on_or_off
#
#     confirm_message_config_file - Specifies the name of the confirmed message
#                          adapter configuration file.  If not prefaced with the
#                          escape character (\), this is the name of a member of
#                          the IHSSMP3 file.  Otherwise, this is a complete file
#                          name.  If E/AS is an MVS started task, the default
#                          value of this keyword is IHSANCFG.  If E/AS is started
#                          in a UNIX System Services shell, the default value is
#                          /etc/netview/confirm_message_adpt.conf.
#
#     confirm_alert_config_file - Specifies the name of the confirmed alert
#                          adapter configuration file.  If not prefaced with the
#                          escape character (\), this is the name of a member of
#                          the IHSSMP3 file.  Otherwise, this is a complete file
#                          name.  If E/AS is an MVS started task, the default
#                          value of this keyword is IHSABCFG.  If E/AS is started
#                          in a UNIX System Services shell, the default value is
#                          /etc/netview/confirm_alert_adpt.conf.
#     output_destination - specifies the location where the trace and error
```

```
#                          messages will be logged. The values are:
#     SYSOUT - Specifies a system output file.  When started by an MVS startup
#              procedure, the primary and secondary files for each task are:
#
#                  IHSN and IHSNS for the MESSAGEC task
#                  IHSB and IHSBS for the ALERTC task
#
#                When started under UNIX System Services, the default primary and
#                secondary file names for each task are:
#
#                  cmessagep.err and cmessages.err for the MESSAGEC task
#                  calertp.err and calerts.err for the ALERTC task

#     task_designator - is one of the following:
#       MESSAGEC - Specifies the confirmed message adapter task
#       ALERTC   - Specifies the confirmed alert adapter task

#       Note : CONTROL is not valid on the NOSTART statement.  ALL does not
#              include CONTROL for the NOSTART statement
#
#     on_or_off - is one of the following:
#       ON      - Specifies that data sent or received using TCP/IP
#                 will be traced.  Additional information for the
#                 z/OS UNIX C/C++ socket functions used may appear.
#       OFF     - Specifies that no tracing of data or socket
#                 functions will be done.  This is the default.
#
# Confirmed Message Adapter Configuration File
#CMSGCFG=IHSANCFG
#CMSGCFG=\/etc/netview/confirm_message_adpt.conf
#
# Confirmed Alert Adapter Configuration File
#CALRTCFG=IHSABCFG
#CALRTCFG=\/etc/netview/confirm_alert_adpt.conf
#
# Tasks not started at initialization (example)
NOSTART TASK=MESSAGEC
NOSTART TASK=ALERTC
#
# Confirmed Message Adapter Task
#TRACE TASK=MESSAGEC LEVEL=OFF
#
# Confirmed Alert Adapter Task
#TRACE TASK=ALERTC LEVEL=OFF
```

Additional Considerations

Consider changes to the following functions:

1-Byte Console IDs

With z/OS V1R8, support for 1-byte console IDs was removed. Because of this, the NetView program no longer supports the use of a 1-byte console ID when defining a console to the NetView program. Instead of using a console ID, use a 2- to 8- character console name. For example, use the console name when referencing a specific console in the GETCONID, SETCONID, and AUTOTASK commands and in the AUTOTASK.task.CONSOLE statement in the CNMSTYLE member.

BROWSE Facility

A new DEFAULTS setting called LBHOURLY controls whether the hourly statistics messages CNM154I, CNM155I, and CNM156I are posted to the network log. In previous releases, these hourly statistics messages were posted to the network log automatically, without an option to prevent them from being posted. The default setting for LBHOURLY is NO, as set by the DEFAULTS.LBHOURLY statement in the CNMSTYLE member. To continue receiving these hourly statistics messages in the network log, add a DEFAULTS.LBHOURLY statement to the CNMSTUSR or C*xx*STGEN member and set its value to YES.

Data REXX in Parameter Files

Data REXX allows for REXX-style logic to be coded in NetView data set members. For example, Data REXX allows conditional inclusion of files and the assignment of values to parameters based on settings in the CNMSTYLE member.

The NetView program uses Data REXX in the following parameter files:

- AAUPRMLP
- BNJMBDST
- CNMCMENT
- CNMNEWS
- CNMSCAT2
- CNMSTASK
- CNMSTTWR
- C*xx*STGEN
- CNMSTUSR
- DSIAMLTD
- DSICMDU (Data REXX support)
- DSIDMN
- DSIILGCF
- DSILUCTD
- DSIOPF
- DSIREXCF
- DSIRSHCF
- DSIRTTTD
- DSITBL01
- DSITCPCF
- DSIUINIT
- DSIWBMEM
- DUIFPMEM
- DUIIGHB
- EZLCFG01
- EZLDSIAO
- FKVCFG01
- FKVISTAO
- FKVTABLE
- FLBAUT
- HELPMAP (CNMS1048)

IP Management

Most of the IP management functions that are available under the AON TCP subtower have also been made available under either the base NetView program (for example, Ping and Tracerte) or the new IP Management (IPMGT) tower. This change no longer requires you to configure the AON component in order to access these IP management functions. However, because the AON TCP subtower and the IPMGT tower are mutually exclusive, you must decide whether to use the IPMGT tower or the AON TCP subtower in order to use these IP management functions. To help with this decision, review the following list of IP management functions that are not available under either the base NetView program or the IPMGT tower:

- IP server management (for UNIX Command Server and TSO Command Server)
- Issue TSO and UNIX commands (for UNIX Command Server and TSO Command Server)
- SNMPVIEW
- NetView 6000 support
- CISCOWorks Blue function

Additionally, the following functions have changed:

- ACTMON
- IP tracing
- IPMAN
- IPSTAT
- Ping
- Tracerte

Message Logging

Starting with NetView for z/OS V6R1, a new logging facility named Canzlog is required to be present for successful automation of system messages. This facility is enabled by using a data space which is, by default, defined with 2GB of virtual storage, and is allocated to the `Master Scheduler` address space. For more information about defining this data space, see the *Installation: Getting Started* manual.

Warning: Proper planning for real and auxiliary storage must be performed before enabling the Canzlog data space, as system slowdown and hangs can occur with insufficient storage.

NetView Resource Manager

As a result of being able to customize the NetView Resource Manager autotask, forwarding status from a host at the V5R2 or later level to a manager host on a previous release works only if the NetView Resource Manager autotask is AUTONRM. However, you can continue to forward status from a host at the V1R4 level to a manager at the V5R2 or later level. There is no restriction on the NetView Resource Manager autotask name in V5R2 or later for the upward migration to work.

Security Enhancements

The following security enhancements have been made:

- Support for mixed-case passwords and password phrases
- User-defined command authorization table:

  With NetView V6.2.1 APAR OA48179, a sample command authorization table named CNMSCATU is provided in the DSIPARM data set. This sample is included by DSIPARM member CNMSCAT2 and is intended for user command authorization table entries. When using CNMSCATU, review and make any necessary modifications to CNMSCAT2, while considering the following rules:

  – If you have more than one PROTECT statement that describes the same command, keyword and value, the first statement is used and all others are ignored.

  – More than one PERMIT statement can be specified for the same command identifier.

– As of NetView V6.3, a sample IBM Z System Automation command authorization table named INGCAT1 is included if the SA.SYSOPS tower and subtower are enabled.

For more information, see *IBM Z NetView Security Reference*.

Mixed Case Passwords

If you use an SAF product for password checking, you might be able to use the mixed case password function. For more information, see *IBM Z NetView Security Reference*.

Password Phrases

The NetView program provides support for password phrase authorization. A password phrase can be used as a substitute for a password for all NetView functions that use an SAF product, such as RACF, for security checking. Any panel that accepts passwords was updated to accept password phrases. The password phrase can include phrases from 9-100 characters in length.

The RACF product allows password phrases to contain any valid EBCDIC characters. When setting a password phrase for a user ID that will be accessed from a non-z/OS system, the password on that system is entered as ASCII text. Not all EBCDIC characters have an ASCII equivalent, so limit the EBCDIC password phrase to characters that have an ASCII equivalent.

Password phrases are not supported in the following environments:

- Password checking using the DSIOPF member
- Logon validation using the DSIEX12 installation exit
- Tivoli Enterprise Portal login. Because of this restriction, the password phrase cannot be passed to the Tivoli Enterprise Monitoring Server for RACF verification.
- Functions that use the NetView-NetView task (NNT)

System Symbols in Parameter Files

The NetView program uses the MVS system symbols listed in Table 24 on page 58. The system symbols are defined in the SYS1.PARMLIB data set for the following members of the DSIPARM data set:

- CNMSTYLE
- DUIGINIT
- FLBSYSD

Table 24. System Symbol Usage by Initialization Members

Member	Task	TCP/IP NAME	RODM NAME	NETID
		&CNMTCPN	**&CNMRODM**	**&CNMNETID**
CNMSTYLE	NetView initialization	X	X	X
DUIGINIT	GMFHS (Graphics)		X	
FLBSYSD	SNA Topology manager		X	

&DOMAIN is a NetView symbol that is used in the following parameter files and is defined only within the NetView address space:

- CNMSCBET
- CNMSMRT1
- CNMSTASK
- CNMSTGEN
- CNMSTPWD
- CNMSTUSR
- CNMSTYLE

- DSIAMIAT
- DSIAMII
- DSITBL01
- DSIVPARM
- FKXWHTML
- FLBSYSD

Attribute Data for Unsolicited MVS Messages

Starting with V6R1, the NetView program receives unsolicited MVS messages only through the subsystem interface. Some data that was available by using a value of SYSTEM for MSGIFAC is no longer available.

Some message facilities (see Table 25 on page 59) depend on vectors in the Message Data Block (MDB). The MDB is not available for unsolicited MVS messages in NetView V6R1 or later. For this reason, the data facilities that are shown in Table 25 on page 59 return no value when used for unsolicited messages.

Table 25. NetView data facilities dependent on the MDB

NetView facility	**Function/variable**
Automation table condition items	• CART • MSGCMISC • MSGCMSGT • MSGCPROD • MSGCSPLX • MSGDOMFL • MSGGBGPA • MSGGFGPA • MSGGMFLG • MSGSRCNM
Message processing information REXX functions	• MSGCMISC() • MSGCMSGT() • MSGCPROD() • MSGCSPLX() • MSGCSYID() • MSGDOMFL() • MSGGBGPA() • MSGGFGPA() • MSGGMFLG() • MSGSRCNM() • PRTY()

Table 25. NetView data facilities dependent on the MDB (continued)	
NetView facility	**Function/variable**
Message processing information NetView command list variables	• &MSGCMISC • &MSGCMSGT • &MSGCPROD • &MSGCSPLX • &MSGCSYID • &MSGDOMFL • &MSGGBGPA • &MSGGFGPA • &MSGGMFLG • &MSGSRCNM • &PRTY
REXX or NetView command list function	GETMPRES
CNMGETA (CNMGETATTR) - query message attributes PL/C and C callable service	• CART • MSGCMISC • MSGCMSGT • MSGCPROD • MSGCSPLX • MSGCSYID • MSGDOMFL • MSGGBGPA • MSGGFGPA • MSGGMFLG • MSGSRCNM • PRTY

UNIX System Services

The following section describes the directories, configuration files, and functions that have changed from NetView V1R4 to NetView V6R3. Also review the section in “Preparing UNIX System Services” on page 14.

The NetView MIB collection was moved from the `/usr/lpp/netview/mibs/` directory to the `/usr/lpp/netview/v6r3/mibs/` directory.

The following configuration files found in NetView V1R4 are no longer used in NetView V6R3:

- /etc/netview/fkxcm [1]
- /etc/netview/ipdiscovery.conf
- /etc/netview/nv390mibs.def
- /etc/netview/nv390srvc.conf
- /etc/netview/snmp.conf
- /var/netview/properties/JdnServerProperties.txt
- /var/netview/properties/startup/config.properties
- /var/netview/properties/startup/node.def

- /var/netview/properties/startup/pollobj.def
- /var/netview/properties/startup/resource.def
- /var/netview/properties/startup/template.def
- /var/netview/properties/startup/view.def

Usage note:

1. Copy any non-duplicate community names from fkxcm into DSIPARM member CNMSCM.

The web resources files that are used by the Web Services Gateway function are located in the following directory:

```
/usr/lpp/netview/v6r3/www/
```

See *IBM Z NetView Installation: Configuring Additional Components* to update the files for your environment. The WSDL files automatically generate a proxy-client connection.

Table 26. Web Services Gateway files

File name	Purpose	Modifications
znvsoatx.htm	Text-based Web Services client.	Update URLs for your environment. Locate the <SELECT> tag and modify the <OPTION>*your.web.services.server*</OPTION> tag.
znvsoa.htm	Graphic version of the Web Services client.	Update URLs for your environment. Locate the <SELECT> tag and modify the <OPTION>*your.web.services.server*</OPTION> tag.
znvwsdl.wsdl	Provides Web services definitions for different output formats.	Update the soap:address location for your environment. Locate the <soap:address location= > tag.
znvwsdl1.wsdl	Provides Web services definitions for different output formats.	Update the soap:address location for your environment. Locate the <soap:address location= > tag.
znvwsdl2.wsdl	Provides Web services definitions for different output formats.	Update the soap:address location for your environment. Locate the <soap:address location= > tag.

The following functions are no longer available on UNIX System Services for NetView V6R3:

- The TCP/IP discovery sample which previously ran on z/OS and OS/390 in UNIX System Services.

  You can download this sample from the IBM Z NetView web page (http://www.ibm.com/software/tivoli/products/netview-zos/). It is replaced in the product by the TCP/IP discovery function for Linux on Z.
- The -jsnmp option of the NVSNMP command
- Java™ Application Server (JAS)

  The Java Application Server provided for starting, stopping, and checking the status of the following services in an z/OS UNIX System Services environment:

  – SNMPSRVC
  – POLLSRVC
  – MIBSRVC
  – LOADMIB

Chapter 4. Migrating from Tivoli NetView for z/OS V6R1

When you are migrating from the Tivoli NetView for z/OS V6R1, you can either add the V6R3 content into your V6R1 NetView definitions, or add your V6R1 customization to the default V6R3 members supplied with the NetView program. Either way, place the customized member into an appropriate user-allocated data set such as NETVIEW.V6R3USER.CNM01.DSIPARM. Do not customize members in the SMP/E-managed data sets such as NETVIEW.V6R3M0.DSIPARM.

Usage note: The migration information is based on the NetView components that are supplied with the initial release of V6R3. Review your maintenance to see if you already made some of the changes.

Several factors can influence the method that you use when migrating your NetView definition members. Factors such as the size and complexity of your network, security policies that must be followed, and established practices within your business can all influence what is the best method for your migration. The checklist that follows details the documented method of migration as outlined in this book and supported by other books in the NetView library. Choose the method of migration that is best for you.

Do the following steps to migrate your V6R1 definitions:

1. Allocate a new set of V6R3 user data sets by running the CNMSJ002 sample job. You did this when you completed the steps in Table 12 on page 16.
2. Define a unique &NV2I value (*xx*) for each NetView domain.
3. Review your customized V6R1 copy of the CNMSTYLE member. If you did not already do so, move all of your domain-specific customization of V6R1 CNMSTYLE statements into the C*xx*STGEN member and all of your system-wide customization of V6R1 CNMSTYLE statements into the CNMSTUSR member. Do not copy your V6R1 CNMSTYLE member into the V6R3 user DSIPARM data set.
4. Review the CNMSTYLE information in this chapter and the V6R3 CNMSTNXT member that is included with the NetView program. Place any domain-specific customization of CNMSTYLE statements into the C*xx*STGEN member and any system-wide customization of CNMSTYLE statements into the CNMSTUSR member. Do not modify the V6R3 default CNMSTYLE member.
5. Review the remaining information in this chapter, and migrate your V6R1 NetView definition members and JCL procedures as appropriate, placing only those members that were modified into the V6R3 user data sets.

Figure 3 on page 63 shows the NetView V6R3 initialization flow. Keep this new initialization flow in mind as you make changes to your DSIPARM members.

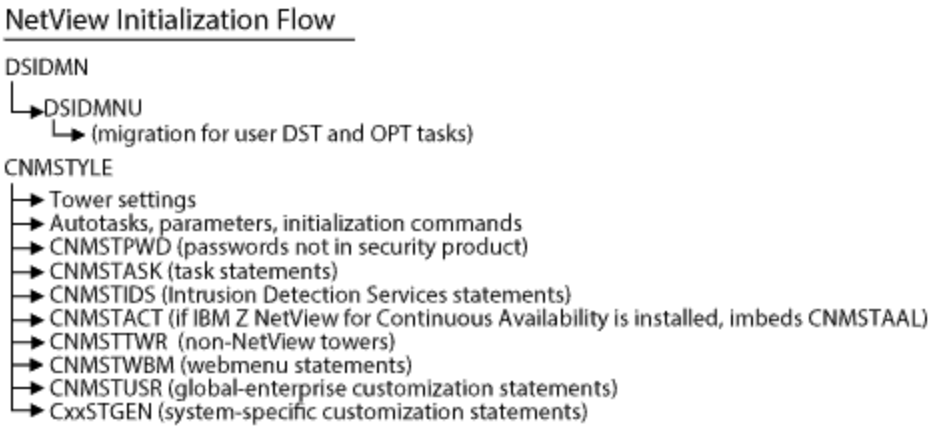


Figure 3. NetView V6R3 Initialization Flow

Note: Review CNMSTNXT to see statement changes made to CNMSTYLE members for NetView V6R3 program.

For changes by release, including changed panels, commands, messages, and samples, see the following appendixes:

- Appendix A, “Changes from Tivoli NetView for z/OS V6R1 to Tivoli NetView for z/OS V6R2,” on page 113
- Appendix B, “Changes from Tivoli NetView for z/OS V6R2 to Tivoli NetView for z/OS V6R2M1,” on page 129
- Appendix C, “Changes from Tivoli NetView for z/OS V6R2M1 to IBM Z NetView V6R3,” on page 147

New Samples

Table 27 on page 64 lists new samples to review during migration.

Table 27. List of New Samples

Distributed As	Name	Description	Data Set Name
application.yml	same	Sample setup for server configuration, provided in the NetView ZFS.	/usr/lpp/ netview/v6r3/ restsrvr/ samples
CNMS8050	ZAIGET	Connects to IBM System z Advanced Workload Analysis Reporter (IBM zAware) and queries the IBM zAware server for data	CNMSAMP
CNMS8051	ZAIPROC	Defines the IBM zAware query and calls the ZAIGET sample	CNMSAMP
CNMS8052	ZAITIMER	Issues the ZAIPROC sample periodically	CNMSAMP
CNMS8053	same	Saves long global variables	CNMSAMP
CNMS8054	same	Restores long global variables	CNMSAMP
CNMSCATU	same	User-defined command authorization table	DSIPARM
CNMSCSDP	same	Command Statistics sample that saves command statistics records in a Comma-Separated Values (CSV) file format.	CNMSAMP
CNMSCSFM	same	Command Statistics sample that formats in-storage command statistics records for the CMDMON DISPLAY command.	CNMSAMP
CNMSCSIE	same	Command Statistics sample that shows how to include and exclude subsets of NetView commands for data collection.	CNMSAMP
CNMSCSSU	same	Command Statistics sample that summarizes the data contained in in-storage command statistics records.	CNMSAMP
CNMSDSCP	same	Command Statistics Data Processor	CNMSAMP
CNMSJM15	same	Migrates the save/restore (DSISVRT) VSAM cluster	CNMSAMP
CNMSJSNF	same	A new PROCEDURE JCL needed to create Sniffer trace format data sets.	CNMSAMP

Table 27. List of New Samples (continued)

Distributed As	Name	Description	Data Set Name
CNMSTACT	same	This sample includes the CNMSTAAL member if the IBM Z NetView for Continuous Availability product is installed. The CNMSTACT member is used for the GDPS Continuous Availability solution.	SAQNPARM
CNMSZERT	same	Formats TCPCONN output. This sample calls the WINDOW command and displays Connection encryption information from the CONNSEC QUERY command.	CNMSAMP
DSIOPFAU	same	Operator definitions for existing AUTO1 and AUTO2 autotasks.	DSIPARM
DSIOPFEX	same	Example operator definitions and passwords that can be modified or deleted	DSIPARM
DSIOPFIX	same	Operator definitions that cannot be modified	DSIPARM
DSIOPFST	same	Operator definitions that can be modified	DSIPARM
EJNNVCMD	same	NetView REST Server command processor. This sample is derived from sample CNMS8029 (NETVCMD).	/usr/lpp/netview/v6r3/restsrvr/bin
EJNSSRST	same	Startup procedure for the NetView REST Server, provided so the server can be started as a data space within NetView.	EJNSSRST
NetViewRestServer.yml	same	Sample yml file for integration with Zowe™ Mediation Layer.	/usr/lpp/netview/v6r3/restsrvr/samples
NetViewSample	same	Sample application for Zowe™ that provides some guidance on how to use the new NetView APIs.	/usr/lpp/netview/v6r3/restsrvr/samples/zowe

VTAM Address Space

The following samples list changes for the VTAM address space.

CNMNET (CNMSJ008)

CNMNET (CNMSJ008) is the start procedure for the VTAM program.

Change CNMNET in your PROCLIB in the following way:

1. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.

NetView Address Space

The following samples list changes for the NetView address space.

CNMCMENT

The CNMCMENT member in the DSIPARM data set contains sample CMDDEF statements. Do not modify this sample. Use the V6R3 version. Add any customization for your system to the CNMCMDU member.

CNMPROC (CNMSJ009)

CNMPROC (CNMSJ009) is the start procedure for the NetView program.

Make the following changes to the CNMPROC member in your PROCLIB data set:

1. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.
2. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
3. If you had added the following statements to enable the use of z/OS System SSL with the Web Services Gateway function, they are no longer needed:

```
QGSK='SYS1', ** IBM GSK TOOLKIT RUNTIME LIB.
DD DSN=&QGSK..SIEALNKE,DISP=SHR
```

CNMPSSI (CNMSJ010)

The CNMPSSI (CNMSJ010) member starts the NetView subsystem address space.

Make the following changes to the CNMPSSI member in your PROCLIB data set:

1. Ensure that the high-level qualifier for system data sets points to NETVIEW.V6R3M0.

CNMSAF2

The CNMSAF2 member in the CNMSAMP data set contains sample RACF definitions for NetView operators and commands.

CNMSCAT2

DSIPARM member CNMSCAT2 contains the sample command authorization table.

As of NetView V6.3, a sample IBM Z System Automation command authorization table named INGCAT1 is included if the SA.SYSOPS tower and subtower are enabled.

CNMSCATU

With NetView for z/OS V6.2.1 APAR OA48179, a sample command authorization table named CNMSCATU is provided in the DSIPARM data set. This sample is included by DSIPARM member CNMSCAT2 and is intended for user command authorization table entries.

When using CNMSCATU, review and make any necessary modifications to CNMSCAT2, while considering the following rules:

- If you have more than one PROTECT statement that describes the same command, keyword and value, the first statement is used and all others are ignored.
- More than one PERMIT statement can be specified for the same command identifier.

CNMSTYLE

The CNMSTYLE member in the DSIPARM data set is used during NetView initialization. Make any changes to CNMSTYLE statements in the CNMSTUSR or C*xx*STGEN member. For information about changing CNMSTYLE statements, see *IBM Z NetView Installation: Getting Started*. The CNMSTYLE member is designed to simplify the NetView initialization process.

Table 28 on page 67 shows the CNMSTYLE statements that were removed.

Table 28. CNMSTYLE statements removed	
Functions removed	**Statements removed**
Use of z/OS System SSL with the Web Services Gateway function	(NVSOA)NVSP.srvrname.CLNTAUTH (NVSOA)NVSP.srvrname.PASSTHRU (NVSOA)NVSP.srvrname.SESTOUT (NVSOA)NVSP.srvrname.CIPHERSP (NVSOA)NVSP.srvrname.USERCACH (NVSOA)NVSP.srvrname.KEYRING (NVSOA)NVSP.srvrname.PASSWORD[1] (NVSOA)NVSP.srvrname.LABEL (NVSOA)NVSP.srvrname.STH
Note: 1. Defined in CNMSTPWD	

For information about new, changed, or deleted CNMSTYLE statements, see "CNMSTNXT" on page 67.

If you want information about...	Refer to...
CNMSTYLE statements	*IBM Z NetView Administration Reference*

CNMSTACT

The CNMSTACT member includes the CNMSTAAL member if the IBM Z NetView for Continuous Availability product is installed. The CNMSTACT member is used for the GDPS Continuous Availability solution.

CNMSTIDS

The CNMSTIDS include member contains Intrusion Detection Services statements. The z/OS Communications Server Version 1 Release 13 and Version 2 Release 1 Intrusion Detection Services probes are added.

CNMSTNXT

The CNMSTNXT member contains CNMSTYLE statements that are new, changed, or deleted. Statements are grouped according to version and release level of the NetView product. Review the statements in the CNMSTNXT member and update the CNMSTUSR or C*xx*STGEN member as necessary.

DSICTMOD

DSICTMOD is the NetView constants module that can be updated using sample job CNMS0055. Use the DSICTMOD module shipped with V6R3. If you updated CNMS0055 for your current release, merge those changes into the V6R3 CNMS0055 sample, submit it to assemble, and link edit your changes into the DSICTMOD module.

The number of task and common global variable constants are now obsolete. The NetView program dynamically increases storage as needed.

DSIOPF

Starting with V6R2, the DSIOPF member has a new structure.

Table 29. DSIOPF structure. Table lists include members and their description.	
Include member	**Description**
DSIOPFAU	Includes existing AUTO1 and AUTO2 autotasks

Table 29. DSIOPF structure. Table lists include members and their description. *(continued)*	
Include member	**Description**
DSIOPFEX	Includes sample operator definitions. All sample definitions in the DSIOPFEX member can be modified or deleted without affecting the operation of the NetView program.
DSIOPFIX	Includes operator definitions that cannot be changed. See the comments in the DSIOPFIX member to update necessary passwords.
DSIOPFST	Includes operator definitions for which the operator ID can be changed. The DSIOPFST member includes the following additional members associated with the specified towers: • EZLOPF (AON) • FKVOPF (AON.SNA) • FKXOPF (AON.TCP) • FKXOPFIP (IPMGT) • FLCSOPF (MSM)
DSIOPFU	Includes customer-defined operator definitions

If you modified the V6R1 DSIOPF member and you want to use the new structure, copy any changes that you made into the appropriate V6R3 member.

Usage note: You can add Data REXX logic to conditionally define operator definitions in DSIOPFU. Data REXX files must have either `/*%DATA*/` or `/*%LOGIC*/` as the first statement. Comments can follow on the same or subsequent lines. A blank in the first column indicates a continuation of the previous statement. For more information about Data REXX, refer to *IBM Z NetView Installation: Configuring Additional Components*.

DSIRXPRM

The DSIRXPRM load module contains the REXX initialization parameters that are required to establish a new REXX environment.

Note: If you previously added any REXX initialization parameters to the DSIRXPRM module, delete the previous version of the DSIRXPRM module. As of NetView V6R2, the NetView program is not compatible with previous versions of the DSIRXPRM module.

Define the previously added REXX initialization parameters as follows:

- If you previously added REXX command environments or REXX function package names to the DSIRXPRM module, migrate those changes to the CNMSTYLE (CNMSTUSR or C*xx*STGEN) member by using the following CNMSTYLE statements. For more information about these statements, see the *Administration Reference*.
  - REXX.CMDENV.*name*
  - REXX.FUNCPKGLIST.LCL.*name*
  - REXX.FUNCPKGLIST.SYS.*name*
  - REXX.FUNCPKGLIST.USR.*name*

- If you previously added other REXX initialization parameters to the DSIRXPRM module, merge those changes into the V6R3 version of CNMSJM11. Ensure that you deleted the earlier version of the DSIRXPRM module, and then run CNMSJM11 to assemble and link edit your changes into the DSIRXPRM module.

  Note: You must delete the earlier version of the DSIRXPRM module because it was link edited with the RENT attribute whereas the current version is link edited with the REUS attribute.
- If you previously added the system REXX function package for IBM Z System Automation to the DSIRXPRM module, drop the modified DSIRXPRM module from your environment. The System Automation INGRXFPG REXX function package is loaded automatically when the SA tower is enabled. If necessary, use the previous migration steps to include other System Automation REXX function packages.

DSITBL01

The DSITBL01 automation table is the default NetView automation table and is required by the NetView program. The DSITBL01 automation table provides basic automation statements to respond to messages and management services units (MSUs). If the DSITBL01 automation table is not activated during NetView initialization, the DWO093W warning message is issued by the NetView program.

Important: If you modify the DSITBL01 automation table, consider that many of the statements are used in the normal operation of the NetView program.

Several messages that are supplied by the NetView product have changed. These messages are listed in the appendixes. Review the list and make any necessary changes to your automation table.

You can add your own automation table by using the AUTOCMD statement in the CNMSTUSR or C*xx*STGEN member. Place your automation table before the DSITBL01 automation table and code CONTINUE(YES) on any local customization to make sure that messages flow to the DSITBL01 automation table. For more information on the AUTOCMD statement, refer to the *IBM Z NetView Administration Reference*.

DSIZVLSR

The DSIZVLSR module defines the buffer pools to be used with the VSAM LSR and DSR performance options. Update the DSIZVLSR module by using the CNMSJM01 sample job. Use the DSIZVLSR module shipped with V6R3. If you previously updated the CNMSJM01 job, merge those changes into the V6R3 version of the CNMSJM01 job and run it to assemble and link edit your changes into the DSIZVLSR module.

RODM Address Space

The samples in this section list changes for the RODM address space.

EKGLOADP

EKGLOADP is the sample RODM load procedure JCL.

Make the following changes to the EKGLOADP member:

1. For NetView data sets, ensure your high-level qualifier for system data sets points to NETVIEW.V6R3M0.

EKGXRODM

The EKGXRODM member is the RODM start procedure.

Make the following changes to the EKGXRODM member:

1. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.

2. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.

GMFHS Address Space

The samples in this section list changes for the GMFHS address space.

CNMGMFHS (CNMSJH10)

The CNMGMFHS (CNMSJH10) member is the GMFHS start procedure.

Make the following changes to the CNMGMFHS member:

1. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.

Event/Automation Service Address Space

The sample in this section lists changes for the Event/Automation Service address space.

IHSAECDS

The IHSAECDS member in the SCNMUXCL data set contains class definition statements that are used by the event receiver task (EVENTRCV) of the Event/Automation Service (E/AS) to map inbound Event Integration Facility (EIF) events to alerts or to resolve Network Management Vector Transports (NMVTs).

IHSAEVNT

The IHSAEVNT member starts the Event/Automation Service address space. Make the following changes to the IHSAEVNT member in your PROCLIB data set:

1. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.

Additional Considerations

Consider changes to the following functions:

- "Message Logging" on page 70
- "IBM Z NetView and IBM Z NetView Enterprise Management Agent Versions" on page 71
- "Sysplex and Enterprise Management" on page 71
- "UNIX System Services" on page 71
- "Web Services Gateway" on page 71

Message Logging

With NetView V6R2M1 APARs OA55071 and OA55074, changes have been made to the format of the Canzlog data space (CNMCANZ0). If a NetView V6R1 instance will be running on the same LPAR as a NetView V6R2M1 instance with the specified APARs applied, the NetView V6R1 instance must have compatibility APAR OA56127 applied.

As of NetView V6R3, changes have been made to the format of the Canzlog archive data spaces (CNMCANZ1, CNMCANZ2,...,CNMCANZA) to reduce the amount of virtual storage required to browse Canzlog archives. See the *IBM Z NetView Administration Reference* for more information.

Sysplex and Enterprise Management

The NetView program supports OSA-Express 7S adapters in both 3270 command output and the **OSA Channels and Ports** workspace in the Tivoli Enterprise Portal. Message BNH597I was changed starting with the active speed mode data value that was previously only in column 92.

If you want information about...	Refer to...
BNH597I	NetView online help or *IBM Z NetView Messages and Codes Volume 1 (AAU-DSI)*
Enterprise Management Agents changes	*Enterprise Management Agents changes*

UNIX System Services

Some directories, configuration files, and functions changed from NetView V6R1 to NetView V6R3. Also review the section in "Preparing UNIX System Services" on page 14.

Web Services Gateway

The Web Services Gateway function is updated to use Application-Transparent Transport Layer Security (AT-TLS) for secure communication instead of using z/OS System SSL directly. If you use the Web Services Gateway function with secure communications enabled, you must configure AT-TLS to secure inbound connections to the server. If AT-TLS is not configured for the NetView Web Services server and the CNMSTYLE `NVSP.srvrname.SECURE` statement is set to YES, all inbound connections are rejected. See information about controlling the access to the Web Services Gateway function in the *Security Reference*.

IBM Z NetView and IBM Z NetView Enterprise Management Agent Versions

The IBM Z NetView Enterprise Management Agent (NetView agent) requires Tivoli Management Services V6.3.0 Fixpack 7. If you are not currently running at this level, upgrade the following components to the V6.3.0 Fixpack 7 level before you install the NetView agent:

- Tivoli Enterprise Portal desktop client
- Tivoli Enterprise Portal Server
- Hub Tivoli Enterprise Monitoring Server

The NetView program is the data source for the NetView agent. Because of this, both the NetView program and the NetView agent must be at the V6R3 level.

Before upgrading the NetView agent, review the *IBM OMEGAMON and Tivoli Management Services on z/OS shared documentation Upgrade Guide*. The general order of upgrade procedures documented for the OMEGAMON XE V5.1 and later monitoring agents also applies to the NetView agent.

Prior to IBM Tivoli Monitoring V6.2.3, before an agent could connect to a Tivoli Enterprise Monitoring Server, you were required to manually update the monitoring server (and other Tivoli Management Services components such as the Tivoli Enterprise Portal Server and the Tivoli Data Warehouse) with information necessary for the monitoring server to recognize and process data sent by that agent. As of V6.2.3, this *seeding* step becomes unnecessary. The NetView agent has been enhanced with the optional self-description feature that automatically distributes the operating configuration directly to the local monitoring server, which then distributes those agent configuration files first to the hub monitoring server (if necessary) and then to the various IBM Tivoli Monitoring components that require it.

For a list of changes to the NetView agent, see the following information:

- For changes made in Version 6.2.1, see "Enterprise Management Agent Changes" on page 150.
- For changes made in Version 6.2, see "Enterprise Management Agent Changes" on page 122.

Chapter 5. Migrating from Tivoli NetView for z/OS V6R2

When you are migrating from the Tivoli NetView for z/OS V6R2, you can either add the NetView V6R3 content into your V6R2 NetView definitions, or add your V6R2 customization to the default V6R3 members supplied with the NetView program. Either way, place the customized member into an appropriate user-allocated data set such as NETVIEW.V6R3USER.CNM01.DSIPARM. Do not customize members in the SMP/E-managed data sets such as NETVIEW.V6R3M0.DSIPARM.

Usage note: The migration information is based on the NetView components that are supplied with the initial release of V6R3. Review your maintenance to see if you already made some of the changes.

Several factors can influence the method that you use when migrating your NetView definition members. Factors such as the size and complexity of your network, security policies that must be followed, and established practices within your business can all influence what is the best method for your migration. The checklist that follows details the documented method of migration as outlined in this book and supported by other books in the NetView library. Choose the method of migration that is best for you.

Do the following steps to migrate your V6R2 definitions:

1. Allocate a new set of V6R3 user data sets by running the CNMSJ002 sample job. You did this when you completed the steps in Table 12 on page 16.
2. Define a unique &NV2I value (*xx*) for each NetView domain.
3. Review your customized V6R2 copy of the CNMSTYLE member. If you did not already do so, move all of your domain-specific customization of V6R2 CNMSTYLE statements into the C*xx*STGEN member and all of your system-wide customization of V6R2 CNMSTYLE statements into the CNMSTUSR member. Do not copy your V6R2 CNMSTYLE member into the V6R3 user DSIPARM data set.
4. Review the CNMSTYLE information in this chapter and the V6R3 CNMSTNXT member that is included with the NetView program. Place any domain-specific customization of CNMSTYLE statements into the C*xx*STGEN member and any system-wide customization of CNMSTYLE statements into the CNMSTUSR member. Do not modify the V6R3 default CNMSTYLE member.
5. Review the remaining information in this chapter, and migrate your V6R2 NetView definition members and JCL procedures as appropriate, placing only those members that were modified into the V6R3 user data sets.

Figure 4 on page 73 shows the NetView V6R3 initialization flow. Keep this new initialization flow in mind as you make changes to your DSIPARM members.

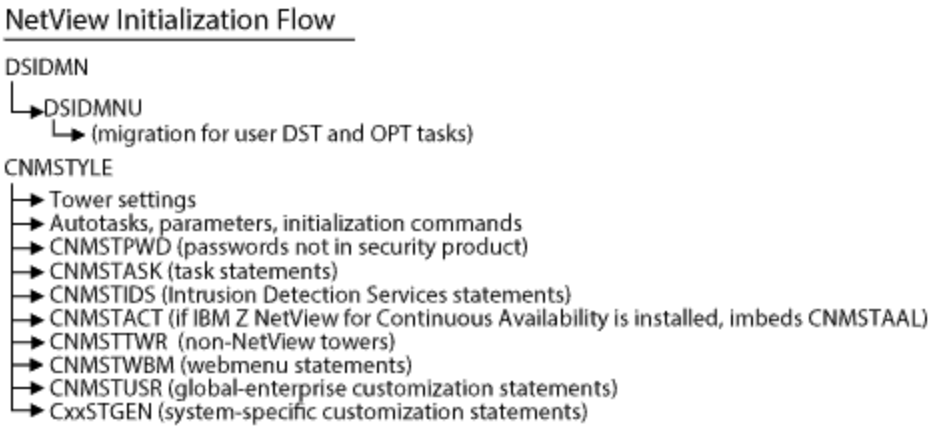


Figure 4. NetView V6R3 Initialization Flow

Note: Review CNMSTNXT to see statement changes made to CNMSTYLE members for NetView V6R3 program.

For changes by release, including changed panels, commands, messages, and samples, see the following appendixes:

- Appendix B, “Changes from Tivoli NetView for z/OS V6R2 to Tivoli NetView for z/OS V6R2M1,” on page 129
- Appendix C, “Changes from Tivoli NetView for z/OS V6R2M1 to IBM Z NetView V6R3,” on page 147

New Samples

Table 30 on page 74 lists new samples to review during migration.

Table 30. List of New Samples

Distributed As	Name	Description	Data Set Name
application.yml	same	Sample setup for server configuration, provided in the NetView ZFS.	/usr/lpp/netview/v6r3/restsrvr/samples
CNMS8053	same	Saves long global variables	CNMSAMP
CNMS8054	same	Restores long global variables	CNMSAMP
CNMSCATU	same	User-defined command authorization table definitions	DSIPARM
CNMSCSDP	same	Command Statistics sample that saves command statistics records in a Comma-Separated Values (CSV) file format.	CNMSAMP
CNMSCSFM	same	Command Statistics sample that formats in-storage command statistics records for the CMDMON DISPLAY command.	CNMSAMP
CNMSCSIE	same	Command Statistics sample that shows how to include and exclude subsets of NetView commands for data collection.	CNMSAMP
CNMSCSSU	same	Command Statistics sample that summarizes the data contained in in-storage command statistics records.	CNMSAMP
CNMSDSCP	same	Command Statistics Data Processor	CNMSAMP
CNMSJM15	same	Migrates the save/restore (DSISVRT) VSAM cluster	CNMSAMP
CNMSJSNF	same	A new PROCEDURE JCL needed to create Sniffer trace format data sets.	CNMSAMP
CNMSTACT	same	This sample includes the CNMSTAAL member if the IBM Z NetView for Continuous Availability product is installed. The CNMSTACT member is used for the GDPS Continuous Availability solution.	SAQNPARM
CNMSZERT	same	Formats TCPCONN output. This sample calls the WINDOW command and displays Connection encryption information from the CONNSEC QUERY command.	CNMSAMP

Table 30. List of New Samples (continued)

Distributed As	Name	Description	Data Set Name
EJNNVCMD	same	NetView REST Server command processor. This sample is derived from sample CNMS8029 (NETVCMD).	/usr/lpp/netview/v6r3/restsrvr/bin
EJNSSRST	same	Startup procedure for the NetView REST Server, provided so the server can be started as a data space within NetView.	EJNSSRST
NetViewRestServer.yml	same	Sample yml file for integration with Zowe™ Mediation Layer.	/usr/lpp/netview/v6r3/restsrvr/samples
NetViewSample	same	Sample application for Zowe™ that provides some guidance on how to use the new NetView APIs.	/usr/lpp/netview/v6r3/restsrvr/samples/zowe

VTAM Address Space

The following samples list changes for the VTAM address space.

CNMNET (CNMSJ008)

CNMNET (CNMSJ008) is the start procedure for the VTAM program.

Change CNMNET in your PROCLIB in the following way:

1. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.

NetView Address Space

The following samples list changes for the NetView address space.

CNMPROC (CNMSJ009)

CNMPROC (CNMSJ009) is the start procedure for the NetView program.

Make the following changes to the CNMPROC member in your PROCLIB data set:

1. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.
2. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.

CNMPSSI (CNMSJ010)

The CNMPSSI (CNMSJ010) member starts the NetView subsystem address space.

Make the following changes to the CNMPSSI member in your PROCLIB data set:

1. Ensure that the high-level qualifier for system data sets points to NETVIEW.V6R3M0.

CNMSCAT2

DSIPARM member CNMSCAT2 contains the sample command authorization table.

As of NetView V6.3, a sample IBM Z System Automation command authorization table named INGCAT1 is included if the SA.SYSOPS tower and subtower are enabled.

CNMSCATU

With NetView for z/OS V6.2.1 APAR OA48179, a sample command authorization table named CNMSCATU is provided in the DSIPARM data set. This sample is included by DSIPARM member CNMSCAT2 and is intended for user command authorization table entries.

When using CNMSCATU, review and make any necessary modifications to CNMSCAT2, while considering the following rules:

- If you have more than one PROTECT statement that describes the same command, keyword and value, the first statement is used and all others are ignored.
- More than one PERMIT statement can be specified for the same command identifier.

CNMSTYLE

The CNMSTYLE member in the DSIPARM data set is used during NetView initialization. Make any changes to CNMSTYLE statements in the CNMSTUSR or C*xx*STGEN member. For information about changing CNMSTYLE statements, see *IBM Z NetView Installation: Getting Started*. The CNMSTYLE member is designed to simplify the NetView initialization process.

For information about new, changed, or deleted CNMSTYLE statements, see “CNMSTNXT” on page 67.

If you want information about...	Refer to...
CNMSTYLE statements	*IBM Z NetView Administration Reference*

CNMSTACT

The CNMSTACT member includes the CNMSTAAL member if the IBM Z NetView for Continuous Availability product is installed. The CNMSTACT member is used for the GDPS Continuous Availability solution.

CNMSTIDS

The CNMSTIDS include member contains Intrusion Detection Services statements. The z/OS Communications Server Version 1 Release 13 and Version 2 Release 1 Intrusion Detection Services probes are added.

CNMSTNXT

The CNMSTNXT member contains CNMSTYLE statements that are new, changed, or deleted. Statements are grouped according to version and release level of the NetView product. Review the statements in the CNMSTNXT member and update the CNMSTUSR or C*xx*STGEN member as necessary.

DSICTMOD

DSICTMOD is the NetView constants module that can be updated using sample job CNMS0055. Use the DSICTMOD module shipped with V6R3. If you updated CNMS0055 for your current release, merge those changes into the V6R3 CNMS0055 sample, submit it to assemble, and link edit your changes into the DSICTMOD module.

The number of task and common global variable constants are now obsolete. The NetView program dynamically increases storage as needed.

DSIOPF

Starting with V6R2, the DSIOPF member has a new structure.

Table 31. DSIOPF structure. Table lists include members and their description.	
Include member	**Description**
DSIOPFAU	Includes existing AUTO1 and AUTO2 autotasks
DSIOPFEX	Includes sample operator definitions. All sample definitions in the DSIOPFEX member can be modified or deleted without affecting the operation of the NetView program.
DSIOPFIX	Includes operator definitions that cannot be changed. See the comments in the DSIOPFIX member to update necessary passwords.
DSIOPFST	Includes operator definitions for which the operator ID can be changed. The DSIOPFST member includes the following additional members associated with the specified towers: • EZLOPF (AON) • FKVOPF (AON.SNA) • FKXOPF (AON.TCP) • FKXOPFIP (IPMGT) • FLCSOPF (MSM)
DSIOPFU	Includes customer-defined operator definitions

If you modified the V6R2 DSIOPF member and you want to use the new structure, copy any changes that you made into the appropriate V6R3 member.

Usage note: You can add Data REXX logic to conditionally define operator definitions in DSIOPFU. Data REXX files must have either `/*%DATA*/` or `/*%LOGIC*/` as the first statement. Comments can follow on the same or subsequent lines. A blank in the first column indicates a continuation of the previous statement. For more information about Data REXX, refer to *IBM Z NetView Installation: Configuring Additional Components*.

DSIZVLSR

The DSIZVLSR module defines the buffer pools to be used with the VSAM LSR and DSR performance options. Update the DSIZVLSR module by using the CNMSJM01 sample job. Use the DSIZVLSR module shipped with V6R3. If you previously updated the CNMSJM01 job, merge those changes into the V6R3 version of the CNMSJM01 job and run it to assemble and link edit your changes into the DSIZVLSR module.

RODM Address Space

The samples in this section list changes for the RODM address space.

EKGLOADP

EKGLOADP is the sample RODM load procedure JCL.

Make the following changes to the EKGLOADP member:

1. For NetView data sets, ensure your high-level qualifier for system data sets points to NETVIEW.V6R3M0.

EKGXRODM

The EKGXRODM member is the RODM start procedure.

Make the following changes to the EKGXRODM member:

1. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.

GMFHS Address Space

The samples in this section list changes for the GMFHS address space.

CNMGMFHS (CNMSJH10)

The CNMGMFHS (CNMSJH10) member is the GMFHS start procedure.

Make the following changes to the CNMGMFHS member:

1. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.

Additional Considerations

Consider changes to the following functions:

- "Message Logging" on page 78
- "Sysplex and Enterprise Management" on page 78
- "IBM Z NetView and IBM Z NetView Enterprise Management Agent Versions" on page 79

Message Logging

With NetView V6R2M1 APARs OA55071 and OA55074, changes have been made to the format of the Canzlog data space (CNMCANZ0). If a NetView V6R2 instance will be running on the same LPAR as a NetView V6R2M1 instance with the specified APARs applied, the NetView V6R2 instance must have compatibility APAR OA56128 applied.

As of NetView V6R3, changes have been made to the format of the Canzlog archive data spaces (CNMCANZ1, CNMCANZ2,...,CNMCANZA) to reduce the amount of virtual storage required to browse Canzlog archives. See the *IBM Z NetView Administration Reference* for more information.

Sysplex and Enterprise Management

The NetView program supports OSA-Express 7S adapters in both 3270 command output and the **OSA Channels and Ports** workspace in the Tivoli Enterprise Portal. Message BNH597I was changed starting with the active speed mode data value that was previously only in column 92.

If you want information about...	Refer to...
BNH597I	NetView online help or *IBM Z NetView Messages and Codes Volume 1 (AAU-DSI)*

IBM Z NetView and IBM Z NetView Enterprise Management Agent Versions

The IBM Z NetView Enterprise Management Agent (NetView agent) requires Tivoli Management Services V6.3.0 Fixpack 7. If you are not currently running at this level, upgrade the following components to the V6.3.0 Fixpack 7 level before you install the NetView agent:

- Tivoli Enterprise Portal desktop client
- Tivoli Enterprise Portal Server
- Hub Tivoli Enterprise Monitoring Server

The NetView program is the data source for the NetView agent. Because of this, both the NetView program and the NetView agent must be at the V6R3 level.

Before upgrading the NetView agent, review the *IBM OMEGAMON and Tivoli Management Services on z/OS shared documentation Upgrade Guide*. The general order of upgrade procedures documented for the OMEGAMON XE V5.1 and later monitoring agents also applies to the NetView agent.

Prior to IBM Tivoli Monitoring V6.2.3, before an agent could connect to a Tivoli Enterprise Monitoring Server, you were required to manually update the monitoring server (and other Tivoli Management Services components such as the Tivoli Enterprise Portal Server and the Tivoli Data Warehouse) with information necessary for the monitoring server to recognize and process data sent by that agent. As of V6.2.3, this *seeding* step becomes unnecessary. The NetView agent has been enhanced with the optional self-description feature that automatically distributes the operating configuration directly to the local monitoring server, which then distributes those agent configuration files first to the hub monitoring server (if necessary) and then to the various IBM Tivoli Monitoring components that require it.

For a list of changes to the NetView agent that were made in Version 6.2.1, see “Enterprise Management Agent Changes” on page 150.

Chapter 6. Migrating from Tivoli NetView for z/OS V6R2M1

When you are migrating from the Tivoli NetView for z/OS V6R2M1, you can either add the NetView V6R3 content into your V6R2M1 NetView definitions, or add your V6R2M1 customization to the default V6R3 members supplied with the NetView program. Either way, place the customized member into an appropriate user-allocated data set such as NETVIEW.V6R3USER.CNM01.DSIPARM. Do not customize members in the SMP/E-managed data sets such as NETVIEW.V6R3M0.DSIPARM.

Usage note: The migration information is based on the NetView components that are supplied with the initial release of V6R3. Review your maintenance to see if you already made some of the changes.

Several factors can influence the method that you use when migrating your NetView definition members. Factors such as the size and complexity of your network, security policies that must be followed, and established practices within your business can all influence what is the best method for your migration. The checklist that follows details the documented method of migration as outlined in this book and supported by other books in the NetView library. Choose the method of migration that is best for you.

Do the following steps to migrate your V6R3 definitions:

1. Allocate a new set of V6R3 user data sets by running the CNMSJ002 sample job. You did this when you completed the steps in Table 12 on page 16.
2. Define a unique &NV2I value (*xx*) for each NetView domain.
3. Review your customized V6R3 copy of the CNMSTYLE member. If you did not already do so, move all of your domain-specific customization of V6R3 CNMSTYLE statements into the C*xx*STGEN member and all of your system-wide customization of V6R3 CNMSTYLE statements into the CNMSTUSR member. Do not copy your V6R3 CNMSTYLE member into the V6R3 user DSIPARM data set.
4. Review the CNMSTYLE information in this chapter and the V6R3 CNMSTNXT member that is included with the NetView program. Place any domain-specific customization of CNMSTYLE statements into the C*xx*STGEN member and any system-wide customization of CNMSTYLE statements into the CNMSTUSR member. Do not modify the V6R3 default CNMSTYLE member.
5. Review the remaining information in this chapter, and migrate your V6R3 NetView definition members and JCL procedures as appropriate, placing only those members that were modified into the V6R3 user data sets.

Figure 5 on page 81 shows the NetView V6R3 initialization flow. Keep this new initialization flow in mind as you make changes to your DSIPARM members.

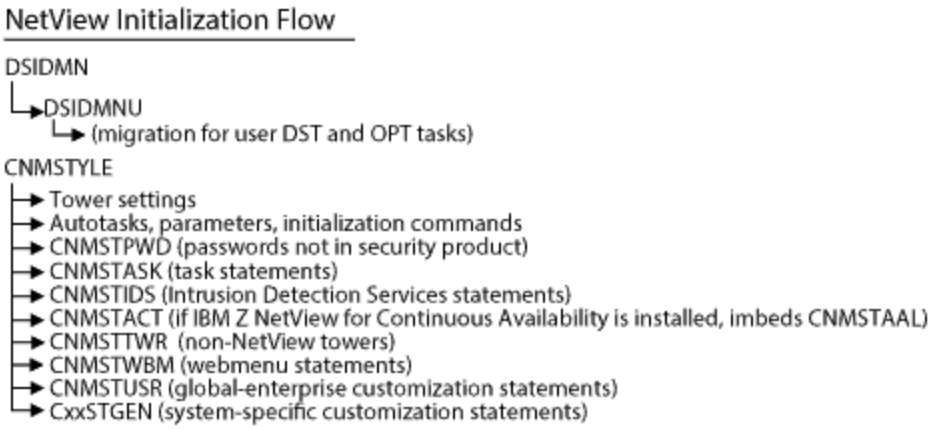


Figure 5. NetView V6R3 Initialization Flow

Note: Review CNMSTNXT to see statement changes made to CNMSTYLE members for NetView V6R3 program.

For changes by release, including changed panels, commands, messages, and samples, see the following appendixes:

- Appendix C, “Changes from Tivoli NetView for z/OS V6R2M1 to IBM Z NetView V6R3,” on page 147

New Samples

Table 32 on page 82 lists new samples to review during migration.

Table 32. List of New Samples

Distributed As	Name	Description	Data Set Name
application.yml	same	Sample setup for server configuration, provided in the NetView ZFS.	/usr/lpp/netview/v6r3/restsrvr/samples
CNMSJSNF	same	A new PROCEDURE JCL needed to create Sniffer trace format data sets.	CNMSAMP
CNMSZERT	same	Formats TCPCONN output. This sample calls the WINDOW command and displays Connection encryption information from the CONNSEC QUERY command.	CNMSAMP
EJNSSRST	same	Startup procedure for the NetView REST Server, provided so the server can be started as a data space within NetView.	EJNSSRST
NetViewRestServer.yml	same	Sample yml file for integration with Zowe™ Mediation Layer.	/usr/lpp/netview/v6r3/restsrvr/samples
NetViewSample	same	Sample application for Zowe™ that provides some guidance on how to use the new NetView APIs.	/usr/lpp/netview/v6r3/restsrvr/samples/zowe

VTAM Address Space

The following samples list changes for the VTAM address space.

NetView Address Space

The following samples list changes for the NetView address space.

CNMCMENT

The CNMCMENT member in the DSIPARM data set contains sample CMDDEF statements. Do not modify this sample. Use the V6R3 version. Add any customization for your system to the CNMCMDU member.

CNMPROC (CNMSJ009)

CNMPROC (CNMSJ009) is the start procedure for the NetView program.

Make the following changes to the CNMPROC member in your PROCLIB data set:

1. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.
2. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.

CNMPSSI (CNMSJ010)

The CNMPSSI (CNMSJ010) member starts the NetView subsystem address space.

Make the following changes to the CNMPSSI member in your PROCLIB data set:

1. Ensure that the high-level qualifier for system data sets points to NETVIEW.V6R3M0.

CNMSCAT2

DSIPARM member CNMSCAT2 contains the sample command authorization table.

A sample IBM Z System Automation command authorization table named INGCAT1 is included if the SA.SYSOPS tower and subtower are enabled.

CNMSCATU

With NetView for z/OS V6.2.1 APAR OA48179, a sample command authorization table named CNMSCATU is provided in the DSIPARM data set. This sample is included by DSIPARM member CNMSCAT2 and is intended for user command authorization table entries.

When using CNMSCATU, review and make any necessary modifications to CNMSCAT2, while considering the following rules:

- If you have more than one PROTECT statement that describes the same command, keyword and value, the first statement is used and all others are ignored.
- More than one PERMIT statement can be specified for the same command identifier.

CNMSTIDS

The CNMSTIDS include member contains Intrusion Detection Services statements. The z/OS Communications Server Version 1 Release 13 and Version 2 Release 1 Intrusion Detection Services probes are added.

CNMSTYLE

The CNMSTYLE member in the DSIPARM data set is used during NetView initialization. Make any changes to CNMSTYLE statements in the CNMSTUSR or C*xx*STGEN member. For information about changing CNMSTYLE statements, see *IBM Z NetView Installation: Getting Started*. The CNMSTYLE member is designed to simplify the NetView initialization process.

For information about new, changed, or deleted CNMSTYLE statements, see “CNMSTNXT” on page 67.

If you want information about...	Refer to...
CNMSTYLE statements	*IBM Z NetView Administration Reference*

DSICTMOD

DSICTMOD is the NetView constants module that can be updated using sample job CNMS0055. Use the DSICTMOD module shipped with V6R3. If you updated CNMS0055 for your current release, merge those changes into the V6R3 CNMS0055 sample, submit it to assemble, and link edit your changes into the DSICTMOD module.

The number of task and common global variable constants are now obsolete. The NetView program dynamically increases storage as needed.

DSIZVLSR

The DSIZVLSR module defines the buffer pools to be used with the VSAM LSR and DSR performance options. Update the DSIZVLSR module by using the CNMSJM01 sample job. Use the DSIZVLSR module shipped with V6R3. If you previously updated the CNMSJM01 job, merge those changes into the V6R3 version of the CNMSJM01 job and run it to assemble and link edit your changes into the DSIZVLSR module.

The following changes were made to the DSIZVLSR module:

- The buffer size in the DATA buffer pool for the DSITCONT VSAM clusters were changed from 22528 bytes to 26624 bytes.
- Removed TARA support (BNJDSE36).

RODM Address Space

The samples in this section list changes for the RODM address space.

EKGLOADP

EKGLOADP is the sample RODM load procedure JCL.

Make the following changes to the EKGLOADP member:

1. For NetView data sets, ensure your high-level qualifier for system data sets points to NETVIEW.V6R3M0.

EKGXRODM

The EKGXRODM member is the RODM start procedure.

Make the following changes to the EKGXRODM member:

1. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.

GMFHS Address Space

The samples in this section list changes for the GMFHS address space.

CNMGMFHS (CNMSJH10)

The CNMGMFHS (CNMSJH10) member is the GMFHS start procedure.

Make the following changes to the CNMGMFHS member:

1. For NetView data sets, ensure that your high-level qualifier for system data sets points to NETVIEW.V6R3M0.
2. For NetView data sets, ensure that your high-level qualifier for user-defined data sets points to NETVIEW.V6R3USER.

Additional Considerations

Consider changes to the following functions:

- “Message Logging” on page 85
- “Sysplex and Enterprise Management” on page 85

- "IBM Z NetView and IBM Z NetView Enterprise Management Agent Versions" on page 85

Message Logging

With NetView V6R2M1 APARs OA55071 and OA55074, changes have been made to the format of the Canzlog data space (CNMCANZ0). If a NetView V6R2M1 instance will be running on the same LPAR as a NetView V6R3 instance, the NetView V6R2M1 instance must have APARs OA55071 and OA55074 applied.

As of NetView V6R3, changes have been made to the format of the Canzlog archive data spaces (CNMCANZ1, CNMCANZ2,...,CNMCANZA) to reduce the amount of virtual storage required to browse Canzlog archives. See the *IBM Z NetView Administration Reference* for more information.

Sysplex and Enterprise Management

The NetView program supports OSA-Express 7S adapters in both 3270 command output and the **OSA Channels and Ports** workspace in the Tivoli Enterprise Portal. Message BNH597I was changed starting with the active speed mode data value that was previously only in column 92.

If you want information about...	Refer to...
BNH597I	NetView online help or *IBM Z NetView Messages and Codes Volume 1 (AAU-DSI)*
Enterprise Management Agents changes	*Enterprise Management Agents changes*

IBM Z NetView and IBM Z NetView Enterprise Management Agent Versions

The IBM Z NetView Enterprise Management Agent (NetView agent) requires Tivoli Management Services V6.3.0 Fixpack 7. If you are not currently running at this level, upgrade the following components to the V6.3.0 Fixpack 7 level before you install the NetView agent:

- Tivoli Enterprise Portal desktop client
- Tivoli Enterprise Portal Server
- Hub Tivoli Enterprise Monitoring Server

The NetView program is the data source for the NetView agent. Because of this, both the NetView program and the NetView agent must be at the V6R3 level.

Before upgrading the NetView agent, review the *IBM OMEGAMON and Tivoli Management Services on z/OS shared documentation Upgrade Guide*. The general order of upgrade procedures documented for the OMEGAMON XE V5.1 and later monitoring agents also applies to the NetView agent.

Prior to IBM Tivoli Monitoring V6.2.3, before an agent could connect to a Tivoli Enterprise Monitoring Server, you were required to manually update the monitoring server (and other Tivoli Management Services components such as the Tivoli Enterprise Portal Server and the Tivoli Data Warehouse) with information necessary for the monitoring server to recognize and process data sent by that agent. As of V6.2.3, this *seeding* step becomes unnecessary. The NetView agent has been enhanced with the optional self-description feature that automatically distributes the operating configuration directly to the local monitoring server, which then distributes those agent configuration files first to the hub monitoring server (if necessary) and then to the various IBM Tivoli Monitoring components that require it.

For a list of changes to the NetView agent that were made in version 6.3, see *Enterprise Management Agent Changes*.

Chapter 7. Getting Ready to Start NetView

When you start the NetView program, you use two START procedures, one for the NetView application (CNMPROC (CNMSJ009)) and one for the NetView subsystem (CNMPSSI (CNMSJ010)). It does not matter which you start first. If you start a second copy of the NetView program, create an additional pair of start procedures whose names are based on a second subsystem name.

Modifying the NetView and Subsystem Application Procedure

About this task

Review the copies of CNMPROC (CNMSJ009) and CNMPSSI (CNMSJ010) supplied with the V6R3 samples for the following considerations:

- The NetView program derives the 4-character subsystem name from the first 4 characters of the job name of the started task. The job name by default is the same as the procedure name, unless specified by the JOBNAME keyword. The sample procedures do not specify JOBNAME. Because of this, the name of the PROCLIB member and the PROC statement must begin with the 4-character subsystem name that you defined for running the NetView program. The associated CNMPSSI (CNMSJ010) start procedure must also begin with the same subsystem name. CNMP is used in the sample network.

  Note: If the PROCLIB member name matches an entry in IEFSSN*xx*, use the SUB= parameter with the START command to specify a subsystem other than the MASTER subsystem. Specify a subsystem where SYSIN and SYSOUT are not supported.
- If you start a second copy of the NetView program in the same host, you must use a procedure name that begins with a 4-character subsystem name that is different from the one you have already started.

  Tip: Remember to add any 4-character subsystem name to the IEFSSN*xx* member in SYS1.PARMLIB.
- You can adjust the symbolic parameters in the sample CNMPSSI (CNMSJ010) procedure to meet your installation requirements. You can also adjust these parameters using the SSI statement in the CNMSTYLE member.

Modifying the NetView Startup Procedure

About this task

CNMPROC (CNMSJ009) was copied to the PROCLIB when you loaded partitioned data sets during installation. Make the following changes to the NetView startup procedure (CNMPROC):

- Set the value for &NV2I if you are running more than one NetView program on a system or sysplex.
- Change the name of the program that starts NetView if you do not want to use the SVC76 interface for local device alerts.
- Ensure that the NetView dispatch priority is adequate.
- Adjust the region size, buffer size, and slot size if necessary.
- Ensure that your user-defined data sets are included.
- Ensure that the SYSTCPD statement specifies your TCP/IP control data set.

Defining TCP/IP to the NetView Program

The NetView program provides services that rely on TCP/IP to communicate with remote applications. To communicate with TCP/IP, each of these services use a program function library, referred to as the TCP/IP socket library. This makes the NetView application a TCP/IP socket application.

Any TCP/IP socket application must reference TCP/IP configuration data. The method of accessing this data is defined by z/OS Communications Server.

An example SYSTCPD DD statement is provided in the NetView startup procedure to identify the location of TCP/IP configuration data. A SYSTCPD statement is not required for the NetView program, but any TCP/IP socket application must be able to locate TCP/IP configuration data.

You also need access to z/OS TCP/IP data sets from the NetView start procedure. If the z/OS TCP/IP data sets are not contained in the LNKLST concatenation, add the following z/OS TCP/IP data set (which must be APF-authorized) to the STEPLIB DD concatenation:

SEZALOAD
Executable load modules for concatenation to LINKLIB

To optimize performance, make these data sets available from the LNKLST concatenation.

Ensure that the user ID that is associated with the NetView started task or job is defined to your SAF product with an OMVS segment. This is required so that the NetView program can use z/OS UNIX System Services (USS) functions, which include TCP/IP functions.

Usage notes:

1. For each of the TCP/IP services that is provided by the NetView program, the stack affinity is specified in the CNMSTYLE member using the TCPname statement. Using this name, NetView sets the stack affinity by specifying it on an INITAPI socket call.
2. Some NetView applications that are not a part of the NetView address space rely on TCP/IP to communicate with remote applications. Some of these applications use the z/OS UNIX socket library. These applications are therefore z/OS UNIX socket applications. Information on how these applications reference TCP/IP configuration data is discussed in the books describing those applications. Examples of z/OS UNIX socket applications are the Event/Automation Service and the UNIX command server.

If you want information about...	Refer to...
TCP/IP socket applications, SYSTCPD DD statement	*z/OS Communications Server IP Configuration Guide*

Updating the CNMSTYLE Member

CNMSTYLE is a member of DSIPARM that is used during NetView initialization. Changes to the NetView initialization process are made in CNMSTUSR or C*xx*STGEN.

The member name for CNMSTYLE is controlled by the value of &NV2I in the NetView start procedure. The NetView default value for &NV2I is NM. If you specify a value for &NV2I (*xx*), the NetView program reads C*xx*STYLE in DSIPARM for initialization parameters. If this member is not found, NetView reads the CNMSTYLE member instead. The included member C*xx*STGEN is also resolved using the value of &NV2I for *xx*.

The sample CNMSTYLE member in DSIPARM contains descriptive comments about the types of statements that are included in the member. Read the comments and review the defaults. The sections that follow provide additional details for some of the NetView functions.

If you want information about...	Refer to...
CNMSTYLE Processing	*IBM Z NetView Installation: Getting Started*
CNMSTYLE statements	Comments in the CNMSTYLE member and *IBM Z NetView Administration Reference*

Customizing the CNMSTYLE Member

Customize the CNMSTYLE member by making global (enterprise) changes to the CNMSTUSR member, and then copying the modified CNMSTUSR member to each NetView system.

You can make system-specific changes to the C*xx*STGEN member that is included in the CNMSTYLE member using the %INCLUDE statement (where *xx* is the value of &NV2I, which is initially set to NM). Code all override statements for the CNMSTYLE and CNMSTUSR members in this member. Duplicate statements found in the C*xx*STGEN member override earlier statements in the CNMSTYLE and CNMSTUSR members. You can specify the value of NV2I in the NetView start procedure.

You can use Data REXX in the members that are included in the CNMSTYLE member using the %INCLUDE statement. Data REXX is not supported in the CNMSTYLE member. Instead, you can define tower and subtower conditions in the CNMSTUSR or C*xx*STGEN members to control the statements in the CNMSTYLE member.

Note: If you make changes to the included members while the NetView program is running, the changes become effective when you recycle the NetView program. For certain types of changes, you can use the RESTYLE command to activate these changes without recycling the NetView program. For more information on the types of changes that can be activated using the RESTYLE command, see the NetView online help or *IBM Z NetView Command Reference Volume 2 (O-Z)*.

If you want information about...	Refer to...
RESTYLE command	NetView online help or *IBM Z NetView Command Reference Volume 2 (O-Z)*

Using %INCLUDE Members

The following members are included when the CNMSTYLE member initializes:

Member
Usage

CNMSTACT
Includes the CNMSTAAL member if the IBM Z NetView for Continuous Availability product is installed. The CNMSTACT member is used for the GDPS Continuous Availability solution.

CNMSTPWD
If needed, you can use this member to include VPD, VSAM, and ACB passwords. You can use the READSEC command to protect the CNMSTPWD member from being displayed by the BROWSE command.

CNMSTNXT
Includes modifiable CNMSTYLE statements by release. The CNMSTNXT member is commented out in the CNMSTYLE member. It is provided for documentation purposes only.

CNMSTASK
Task statements that are provided with the NetView program. Do not modify this member. Instead, include any task statements that you want to include directly in the CNMSTUSR or C*xx*STGEN member. The task statements in the CNMSTUSR and C*xx*STGEN member override those that are provided in the CNMSTASK member.

CNMSTIDS
Includes Intrusion Detection Services (IDS) statements. Review this member if you are enabling IDS support.

CNMSTTWR
Includes statements from non-NetView towers. Do not edit this member unless instructed by documentation for a tower you are installing.

CNMSTWBM
Includes webmenu statements.

CNMSTUSR
You can include global (enterprise) definition statements that override statements in the CNMSTYLE member. Use this member to customize the CNMSTYLE member. You can use Data REXX logic.

Note: You can also use the %INCLUDE statement in this member to include other members of your choosing.

C&NV2I.STGEN
You can include system-specific definition statements in this member, including Data REXX logic.

Note: You can also use the %INCLUDE statement in this member to include other members of your choosing.

Using System Symbols

Many NetView processes require the RODM name, NetView domain, TCP name, and network ID. CNMSTYLE processing sets NetView symbols for these names. You can also set MVS system symbols for the RODM name, TCP name, and network ID in member IEASYM*xx* in SYS1.PARMLIB. If you choose to set a system symbol for the network ID, it must be the same as the value returned by VTAM when NetView opens its ACB.

Table 33. NetView symbols defined in the CNMSTYLE member

NetView symbol	Description	CNMSTYLE Statement
&CNMNETID	Network ID	**NetID**=&CNMNETID.
&CNMRODM	RODM Name	**RODMname** = &CNMRODM. **Note:** This statement is ignored if you are not using RODM.
&CNMTCPN	TCP name	**TCPname**=&CNMTCPN.
&DOMAIN	NetView domain	**DOMAIN**=C&NV2I.01 (default value is CNM01) **Note:** This identifier is the access method control block (ACB) name that is listed on the VTAM APPL statement.

Note:

1. If you specified the NetView domain ID or password in the CNMPROC (CNMSJ009) procedure, the DOMAIN or the ACBpassword statements in the CNMSTYLE member are not used. They are ignored unless the parameters passed by the CNMPROC procedure are null. If the domain password is not specified in the CNMPROC procedure or in the CNMSTYLE member, the domain name becomes the password.
2. The system symbols that are set in IEASYM*xx* are enabled for all address spaces. NetView symbols that are set using global variables that you set through the CNMSTYLE member only apply to this NetView address space.

Using STYLEVAR

Use STYLEVAR to define variables that can be used anywhere within the CNMSTYLE member (except for the command phase). You can use these variables to simplify the process of entering repetitious data.

Note:

1. System symbolic names are not valid names for STYLEVAR variable names.
2. STYLEVAR variable values cannot contain another STYLEVAR variable.

If you want information about...	Refer to...
STYLEVAR statement	Comments in the CNMSTYLE member and *IBM Z NetView Administration Reference*

Activating NetView Components

NetView components can be activated with TOWER statements. Tower statements are examined earlier in the initialization process than most other variables (for example, common global variables). This is useful, for example, to conditionally control the initialization process.

This is an example of the default TOWER statement:

```
TOWER = *SA  *AON  *MSM  *Graphics  NPDA NLDM TCPIPCOLLECT
  *AMI *DVIPA *TEMA *IPMGT *NVSOA DISCOVERY
```

Usage notes:

1. A tower is enabled if it is not preceded by an asterisk. To enable a tower, remove the asterisk (*) before the tower name.
2. To disable a tower, add a MODIFY.TOWER statement with a minus sign. For example:

   ```
   MODIFY.TOWER.sortkey = -NLDM
   ```

3. If multiple TOWER statements exist, the last TOWER statement encountered is processed. It is important to remember that modified TOWER statements are not recognized until the NetView program is restarted.

You can use modify statements (MODIFY.TOWER) to enable specific components within a tower. The following are some examples of statements enabling or disabling subtowers:

```
MODIFY.TOWER.sortkey = +AON.SNA +AON.TCP
MODIFY.TOWER.sortkey = -DISCOVERY.INTERFACES -DISCOVERY.TELNET
MODIFY.TOWER.sortkey = -DISCOVERY.INTERFACES.OSA
MODIFY.TOWER.sortkey = +DISCOVERY.INTERFACES.HIPERSOCKETS
MODIFY.TOWER.sortkey = +DVIPA.DVTAD +DVIPA.DVCONN
MODIFY.TOWER.sortkey = +Graphics.SNATM
MODIFY.TOWER.sortkey = +IPMGT.ACTMON +IPMGT.IDS
MODIFY.TOWER.sortkey = +TCPIPCOLLECT.TCPCONN
MODIFY.TOWER.sortkey = +TCPIPCOLLECT.PKTS
MODIFY.TOWER.sortkey = +TEMA.HEALTH +TEMA.OSA
```

Note that the "sortkey" values indicate the order of processing and must all be different. A plus sign indicates an item is being enabled and a minus sign indicates an item is being disabled. For any attempt to enable or disable a subtower to be effective, the tower must have previously been enabled.

Review the subtower statements that are associated with the towers that are supplied with the NetView product that you enable. To enable a subtower, create a MODIFY.TOWER statement in the CNMSTUSR or CxxSTGEN member. To enable or disable any tower or subtower, you must recycle the NetView program, so review these statements carefully. If you plan on implementing any of the tower and subtower components, consider enabling the functions during this step in the installation process.

Table 34 on page 91 lists the towers and subtowers that are provided with the NetView program:

Table 34. CNMSTYLE towers and subtowers

Tower	Enables	Subtower	Enables
AMI	Application Management Instrumentation	None	

Table 34. CNMSTYLE towers and subtowers (continued)

Tower	Enables	Subtower	Enables
AON	Network automation (AON component)	SNA	SNA automation. Subtower: **X25** AON/SNA X.25 support
		TCP	TCP/IP automation. Subtower: **IDS** Intrusion Detection Services (IDS) support
DISCOVERY	Discovery of sysplexes, z/OS systems, coupling facilities, TCP/IP stacks, TCP/IP subplexes, and NetView applications	INTERFACES	Discovery of IP interface information. Subtowers: **OSA** Discovery of OSA channels and ports. **HIPERSOCKETS** Discovery of HiperSockets configuration and status information.
		TELNET	Discovery of Telnet servers and ports.
DVIPA	Discovery of dynamic virtual IP address (DVIPA) definition and status data	DVCONN	Discovery of DVIPA connections data.
		DVROUT	Discovery of VIPA routes and distributed DVIPA connection routing data.
		DVTAD	Discovery of DVIPA sysplex distributors, distributed DVIPA targets, distributed DVIPA server health statistics, and distributed DVIPA statistics (if enabled).
GRAPHICS	NetView Management console	SNATM	SNA Topology Manager.
IPMGT	IP management	ACTMON	Active monitoring for IP resources without enabling the AON tower.
		IDS	Intrusion Detection automation without enabling the AON tower.
MSM	MultiSystem Manager	OPN	Open function.
NLDM	Session monitor	None	
NPDA	Hardware monitor	None	
NVSOA	Web Services Gateway	None	
SA	IBM Z System Automation	None	

Table 34. CNMSTYLE towers and subtowers (continued)

Tower	Enables	Subtower	Enables
TCPIPCOLLECT	Collection of TCP/IP connection and packet trace data	CONNSEC	Collection of encryption-related data for IP connections.
		TCPCONN	Monitoring of IP connections.
		PKTS	Collection of packets.
TEMA	Communication with the Z NetView Enterprise Management Agent. **Usage Note:** Do not enable the TEMA tower unless you are installing the Z NetView Enterprise Management Agent. Only enable the TEMA tower on one NetView program for each LPAR.	CONINACT	Collection and display of inactive TCP/IP connections.
		CONNACT	Collection and display of active TCP/IP connections.
		CONNSEC	Collection and display of encryption-related data for active TCP/IP connections.
		DVCONN	Display of DVIPA connections.
		DVDEF	Display of DVIPA definition and status data
		DVROUT	Display of VIPA route and distributed DVIPA connection routing data.
		DVTAD	Display of distributed DVIPA data.
		HEALTH	Collection and display of NetView task data.
		HIPERSOCKETS	Display of HiperSockets configuration and status information. (Requires RODM.)
		OSA	Display of OSA channels and ports information. (Requires RODM.)
		SESSACT	Collection and display of active sessions. The SESSACT subtower is only supported in one NetView program per system.
		SYSPLEX	Display of stack configuration and status data.
		TELNET	Display of Telnet servers and Telnet server port information.

If you want information about...	Refer to...
AON, hardware monitor, session monitor	*IBM Z NetView Installation: Configuring Additional Components*
MultiSystem Manager subtowers	*IBM Z NetView Installation: Configuring Graphical Components*
Z NetView Enterprise Management Agent tower and subtowers	*IBM Z NetView Installation: Configuring the NetView Enterprise Management Agent*

Setting up Security

You can use the SECOPTS statement to specify levels of security:

- Operator security
- Command authority
- Span of control authority

If you want information about...	Refer to...
Security options	*IBM Z NetView Security Reference*
SECOPTS keywords	*IBM Z NetView Administration Reference*

Specifying Commands to Run Automatically When the NetView Program Is Started

To define a command or a command list to run automatically when the NetView program is started, use the auxInitCmd statement in CNMSTUSR or C*xx*STGEN. You can specify any number of commands or command lists to be run. The EBCDIC value following the auxInitCmd keyword determines the order the commands are run.

An example follows:

```
auxInitCmd.A  = MSG SYSOP,Auxiliary commands beginning.
auxInitCmd.AC = LISTVAR
```

In this case, the MSG SYSOP command (A) runs before the LISTVAR command (AC).

Note: These AuxInitCmd commands run before any commands at any autotask. All commands for autotasks, including both task initial command lists and commands sent by EXCMD, are queued and held up. They run only after all AuxInitCmds have completed. Messages are also queued; they are not submitted to automation nor logged until all AuxInitCmds have completed.

If you want information about...	Refer to...
Creating a command list to run at NetView initialization	*IBM Z NetView Programming: REXX and the NetView Command List Language*

Starting the NetView Subsystem Interface

You can start the NetView Subsystem Interface (SSI) by using the SSI.ProcString statement in CNMSTUSR or C*xx*STGEN:

```
SSI.ProcString = CNMPSSI.SS,SUB=MSTR,ARM='*ARM'
```

Specify the procedure name (for example, CNMPSSI). The NetView program provides a value for the PPIOPT parameter. You can also specify additional start parameters (such as SUB=MSTR) that are required for your installation.

Note: Do not specify the PPIOPT parameter on the SSI.ProcString statement because the NetView program adds this parameter during processing. To update this value, use the SSI.PPI statement.

If you specify *NONE* for SSI.ProcString statement, the CNMCSSIR task does not start the SSI procedure. This is the default.

If you want information about...	Refer to...
Starting the SSI using CNMPSSI	Information about modifying the NetView subsystem interface procedure in *IBM Z NetView Installation: Getting Started*
SSI CNMSTYLE statements	Comments in the CNMSTYLE member and *IBM Z NetView Administration Reference*

Specifying Initialization Values for NetView Components

The initialization values for some NetView components are specified in the CNMSTYLE initialization member. Table 35 on page 95 lists the NetView components that have primary tasks that use an initialization member in the DSIPARM data set. The initialization member requires information from the CNMSTYLE member. If you are not using the initialization member that is available with the NetView V6R3 program, migrate your customization to the CNMSTUSR or C*xx*STGEN member and remove your customized initialization member from the DSIPARM concatenation.

Table 35. NetView Component Initialization

NetView Component	Primary Task Name	Initialization Member	CNMSTYLE Statement Prefix
CNM data transfer	*domid*LUC	DSILUCTD	LUC.*
Get-host-by task	DUIDGHB	DUIIGHB	GHB.*
Hardware monitor	BNJDSERV	BNJMBDST	NPDA.*
IP log	DSIIPLOG	DSIILGCF	IPLOG.*
LU 6.2 communication	DSIUDST	DSIUINIT	RMTINIT.*
Resource status monitor	CNMTAMEL	DUIISFP DUIFPMEM	TAMEL.*
REXEC server	DSIRXEXC	DSIREXCF	REXEC.*
RSH server	DSIRSH	DSIRSHCF	RSH.*
Session monitor	DSIAMLUT AAUTSKLP	DSIAMLTD AAUPRMLP	NLDM.*
TCP/IP alert receiver	DSIRTTR	DSIRTTTD	RTT.*
Web server interface task	DSIWBTSK	DSIWBMEM	WEB.*

If you want information about...	Refer to...
CNMSTYLE statements	*IBM Z NetView Administration Reference*

Listing the Active CNMSTYLE Member Name

About this task

The common global variable CNMSTYLE.STYLE is set to the name of the CNMSTYLE member read. To list the active CNMSTYLE member, enter:

```
QRYGLOBL COMMON VARS=CNMSTYLE.STYLE
```

Using the Report Generator

You can use the CNMSTYLE report generator to analyze the CNMSTYLE member. You can use the report that is created to take the following actions:

- List the %INCLUDE structure.
- Analyze multiple occurrences of statements within the CNMSTYLE member. Use this to determine which value is used during NetView initialization. For statements that are listed multiple times in the report, the last statement that is listed is the one used for initialization.
- List the CNMSTYLE towers that are enabled.
- Analyze initialization statements for a particular function.

Running the report

To run the CNMSTYLE report generator, use the CNMSJCRG sample in the NETVIEW.V6R3USER.INSTALL data set. This INSTALL data set was created during installation by the CNMSJBUP sample job. The CNMSJCRG sample is a job that runs outside of the NetView address space and runs the REXX program CNMECRG under the TSO terminal monitor program.

The CNMSJCRG sample requires the following data sets:

STEPLIB
The NetView CNMLINK data set from the current release, NETVIEW.V6R3M0.CNMLINK.

SYSEXEC
The concatenated data set list of the NetView CNMCLST data sets from the current release.

DSIPARM
The concatenated data set list containing current release versions of the CNMSTYLE member. Ensure that the data set concatenation order is the same as that specified in the NetView start procedure CNMPROC.

CNMPNL1
The NetView CNMPNL1 data set from the current release, NETVIEW.V6R3M0.CNMPNL1.

DSIWRIT
The output partition data set to which the generated report member is written. The output of the report generator is written as a member of a partition data set. If you use the NetView default naming convention, the data set name is NETVIEW.V6R3USER.CNM01.DSILIST.

The CNMSTYLE report is written to member CNMCRG in the DSIWRIT data set. If member CNMCRG already exists, a backup copy of the existing CNMCRG member is created and named CNMCRGBK. If member CNMCRGBK exists, it is overwritten with the existing CNMCRG member.

You can specify keyword parameters in CNMSJCRG. Each keyword parameter and value must be specified on a separate line, just below the CNMECRG command. Do not continue the value onto a second line. All characters typed on a line are interpreted as input to CNMECRG. If a keyword parameter is specified more than once, the first value is used and all subsequent values specified are ignored. Input ends when either a blank line or a /* occurs.

You can specify the following keywords:

TASKS=YES | NO
Specifies whether to include CNMSTASK statements in the report.

YES
Includes statements from the CNMSTASK member. This is the default value.

NO
Does not include CNMSTASK statements.

&NV2I=*xx*
The default value for *xx* is NM. If a value that is not valid is specified, an error message is issued and the default value NM is used in the report. If you use alphabetic characters, the characters are converted to uppercase.

&*symbolic_name*= *value*
Provides the *value* of a system or NetView symbolic variable (&*symbolic_name*) that you are using in the CNMSTYLE member. A symbolic parameter must be passed to CNMECRG to be resolved in the report.

The CNMSTYLE Report Generator, when reading a NetView definition member, cannot resolve symbolic references that refer to a substring of a symbolic variable such as

```
%INCLUDE C&DOMAIN(2:2).STGEN
```

Usage notes:

1. Precede the *symbolic_name* with an ampersand (&).

2. The *symbolic_name* can optionally include a trailing period (.).
3. Use single quotation marks (‘ ’) if *value* has leading or trailing blanks.
4. Do not specify a value that contains a symbolic variable, such as

   ```
   &AAAAA='C&NV2I.01'
   ```

   or that contains a substring of a symbolic variable, such as

   ```
   &AAAAA='C&DOMAIN(2:2).01'
   ```

The following example shows keyword parameters for CNMECRG within CNMSJCRG:

```
CNMECRG
  TASKS=NO
  &DOMAIN=CNM01
  &NV2I=NM
  &CNMTCPN=TCPIP
  &CNMRODM=RODMNAME
  &CNMNETID=NETA
  &MYSYMBL=' A B C '
/*
```

Analyzing the Report

The CNMSTYLE report includes the following sections:

1. General information and CNMSTYLE statements that pertain to all of NetView
2. CNMSTYLE statements that pertain to specific functions of NetView
3. auxInitCmd statements and user-defined statements
4. User-defined and unrecognized statements
5. Data REXX and %INCLUDE statements

Because the TASKS parameter is set to NO, the report in this example does not include CNMSTASK statements.

The first section of the CNMSTYLE report is shown in Figure 6 on page 98. This part of the report contains general information related to the CNMSTYLE member, such as:

- The date and time the report was created
- The &NV2I symbolic variable value being used
- A nested listing of the members included by the CNMSTYLE member
- A list of the CNMSTYLE towers that are enabled when NetView initializes
- A list of CNMSTYLE statements that apply to base NetView

```
                            CNMSTYLE REPORT

DATE: 21 Jul 2019
TIME: 14:03:25

&NV21 value: NM

%INCLUDE structure of: CNMSTYLE

    CNMSTYLE
         CNMSTPWD
         CNMSTASK
         CNMSTIDS
         CNMSTTWR
         CNMSTWBM
         CNMSTUSR
              MYINCLUD
         CNMSTGEN

Enabled Towers:  NPDA  NLDM  TCPIPCOLLECT  DISCOVERY

Statements for function: NetView General

Member   Line# Indicators   Statement
-------- ----- ------------ --------------------------------------------------
CNMSTYLE   217 Y            DOMAIN = CNM01
CNMSTYLE   304 Y            NetID = NETA
CNMSTYLE   747              TOWER = *SA *AON *MSM *Graphics NPDA NLDM
                             | TCPIPCOLLECT *AMI *DVIPA *TEMA *IPMGT
                             | *NVSOA DISCOVERY
CNMSTYLE  1589              CNMI = Yes
CNMSTYLE   582              SECOPTS.OPERSEC = NETVPW
CNMSTYLE   596              SECOPTS.SURROGAT = NO
CNMSTYLE   615              SECOPTS.CMDAUTH = TABLE.CNMSCAT2
CNMSTYLE   626              SECOPTS.AUTHCHK = SOURCEID
CNMSTYLE   634              SECOPTS.OPSPAN = NETV
CNMSTYLE   653              SECOPTS.SPANAUTH = *NONE*
     .      .                  .
     .      .                  .
     .      .                  .
```

Figure 6. First section of CNMSTYLE report

The format of the CNMSTYLE statements presented in the generated report includes the following fields:

Member
Member name containing the statement

Line#
Line number within the member where the CNMSTYLE statement is located. If a statement is a continuation statement, only the line number where the statement begins is listed.

Indicators
Lists information about the statement. This information is formatted in the following way:

```
R CCCCCC
```

where **R** represents the Resolve indicator and **CCCCCC** represents the Condition indicator:

Resolve
Indicates whether the given CNMSTYLE statement was modified by the report generator. A specification of **Y** indicates that the statement was modified. For example, a symbolic variable was substituted or an autotask statement that uses the question mark (?) feature was resolved.

If the resolve field has no value listed, no modifications were made to the statement.

Condition
Indicates that a condition is required for the listed CNMSTYLE statement to be active, such as a tower that must be enabled. If only one tower is required to be enabled the condition field is set to the required tower name. The first 10 characters of the tower name are listed. If more than one tower must be enabled or if some other condition must be met, the condition field is set to four asterisks (****).

If the condition field has no value listed, no conditions are required for the statement to be active.

Statement

Lists the CNMSTYLE statement and its value. Extra spacing in the statement might be removed, along with any tower conditionals that are found at the beginning of the statement. Statements can be further modified by having values substituted into either the CNMSTYLE keyword or its value.

Values of CNMSTYLE keywords that contain passwords and other values critical to security are identified as a security risk and are listed in the report as four asterisks (****) to prevent unauthorized viewing.

The second section of the report lists CNMSTYLE statements for specific NetView functions. For example, Figure 7 on page 99 lists statements for the hardware monitor (NPDA) component.

If a CNMSTYLE statement applies to multiple NetView functions, that statement is listed for each NetView function to which it applies. For example, the TOWER statement applies to both the hardware monitor and the session monitor, and various other NetView functions.

Within a function, the most critical statements are listed first, followed by less critical statements. NetView functions are presented in the report alphabetically.

```
Statements for function: Hardware Monitor (NPDA)

Member   Line# Indicators   Statement
-------- ----- ------------ --------------------------------------------------
CNMSTYLE   747              TOWER = *SA *AON *MSM *Graphics NPDA NLDM
                              | TCPIPCOLLECT *AMI *DVIPA *TEMA *IPMGT
                              | *NVSOA DISCOVERY
CNMSTYLE  1701              TASK.BNJMNPDA.INIT = N
CNMSTYLE  1690              TASK.BNJDSERV.INIT = N

CNMSTYLE  2733              NPDA.ALCACHE = WRAPCNT
MYINCLUD    18   NPDA       NPDA.ALCACHE = 500

CNMSTYLE  2749              NPDA.ALERTFWD = SNA-MDS-LOGONLY
CNMSTYLE  2807              NPDA.ALERTLOG = RANDRANG
CNMSTYLE  2783              NPDA.ALRTINFP.RECORD = Yes
CNMSTYLE  2793              NPDA.ALT_ALERT = DOMAIN
CNMSTYLE  2864              NPDA.AUTORATE = 1
CNMSTYLE  2701              NPDA.DSRBO = 5
CNMSTYLE  2693              NPDA.DSRBU = 5
CNMSTYLE  2901              NPDA.ERR_RATE = 10 50
CNMSTYLE  2708              NPDA.MACRF = LSR
CNMSTYLE  2758              NPDA.MDSIND = Yes
CNMSTYLE  2686              NPDA.PDDNM = BNJLGPR
CNMSTYLE  2714              NPDA.PNA = No
CNMSTYLE  2873              NPDA.PRELOAD_BER = No

CNMSTYLE  2720              NPDA.REPORTS = OFF
CNMSTUSR    14              NPDA.REPORTS = ON

CNMSTYLE  2687              NPDA.SDDNM = BNJLGSE
CNMSTYLE  2728              NPDA.TECROUTE = IHSATEC
MYINCLUD    17   NPDA       NPDA.W.1 = AL 500
CNMSTYLE  1846              function.autotask.HMONdbMaint = DBAUTO2
```

Figure 7. NetView Function Information

The third section of the report lists the auxInitCmd statements as shown in Figure 8 on page 99. The auxInitCmd statements are listed in the order they are encountered in the CNMSTYLE member.

```
auxInitCmd Statements

Member   Line# Indicators   Statement
-------- ----- ------------ --------------------------------------------------
CNMSTYLE  4633              auxInitCmd.A = MSG SYSOP,Auxiliary commands beginning.
CNMSTYLE  4636   NLDM       auxInitCmd.SNLDM = STARTCNM NLDM
CNMSTYLE  4637   NPDA       auxInitCmd.SNPDA = STARTCNM NPDA
CNMSTYLE  4638              auxInitCmd.POLICY = EXCMD ?Policy,EZLEANTL
CNMSTYLE  4639   DISCOVERY  auxInitCmd.ZDISC = EXCMD ?Policy,CNMEERSC
MYINCLUD    16   NPDA       auxInitCmd.BB = MSG SYSOP,NPDA will be activated
```

Figure 8. auxInitCmd Statements

The fourth section of the report lists CNMSTYLE statements that are not recognized by the CNMSTYLE report generator as belonging to a specific NetView function or to the general NetView information in the first section of the report. A statement might be listed under *User-Defined/Unrecognized CNMSTYLE Statements* for the following reasons:

- A statement might be owned by another product such as IBM Z System Automation.
- A statement might require an additional CNMSTYLE statement to become active.

  For example, the `AUTOTASK.?APSERV.Console` CNMSTYLE statement requires the `function.autotask.APSERV` statement before it can become active.
- A statement was moved from IBM Z NetView to another product.

  For example, the `ACTACT.MASTER.DELAY` statement was part of the IBM Z NetView product but was moved to the IBM Z NetView for Continuous Availability product. If the `ACTACT.MASTER.DELAY` statement was modified and placed in the CNMSTUSR member and the IBM Z NetView product but was moved to the IBM Z NetView for Continuous Availability product is not installed, the `ACTACT.MASTER.DELAY` statement is not recognized by the Report Generator until the IBM Z NetView product but was moved to the IBM Z NetView for Continuous Availability product is installed.
- A statement is created by a user.

  For example, you define the OPAAA01 autotask as follows:

```
%> IF TOWER('NPDA') THEN DO;
function.autotask.MyAutoOp = OPAAA01
%> END;
```

  The `function.autotask.MyAutoOp` statement is listed as a user-defined/unrecognized statement in Figure 9 on page 100.

```
User-Defined/Unrecognized CNMSTYLE Statements

This section identifies statements in your CNMSTYLE member that were either
created by the user, require additional CNMSTYLE statements to become active,
were moved from Z NetView to another product, or are owned by another
product.

Member   Line# Indicators   Statement
-------- ----- ------------ --------------------------------------------------
CNMSTYLE   361              AUTOTASK.?Helper.Console = D761CON
CNMSTYLE  1079              AUTOTASK.?APSERV.Console = *NONE*
CNMSTYLE  1080              AUTOTASK.?APSERV.InitCmd = APSERV xyz
CNMSTYLE  1090              AUTOTASK.?SMF30.Console = *NONE*
CNMSTYLE  1091              AUTOTASK.?SMF30.InitCmd = CNMSMF3R
MYINCLUD    15   NPDA       function.autotask.MyAutoOp = OPAAA01
```

Figure 9. User-Defined/Unrecognized CNMSTYLE Statements

The fifth section of the report lists Data REXX and %INCLUDE statements, as shown in Figure 10 on page 101. During report processing, Data REXX statements are ignored. Data REXX statements are listed in the report in the order that they are encountered in the CNMSTYLE member. Only the first 63 characters of each Data REXX statement are placed in the report. CNMSTYLE statements within a %DATA portion of a Data REXX block that are affected by an IF-THEN statement are also listed to help you understand which CNMSTYLE statements are impacted by your Data REXX statements.

%INCLUDE statements are also listed in section 5 and are listed within the Data REXX statements in the order that they are encountered in the CNMSTYLE member. All %INCLUDE members that are found are included by the CNMSTYLE report generator in the report. Because some %INCLUDE members might be conditionally included, review the conditions surrounding a %INCLUDE statement to ensure that the report reflects your environment.

Member names on %INCLUDE statements that are not found in the DSIPARM concatenation result in a return code of 4 from the report generator. If you feel that a member is missing but should have been included, review your DSIPARM concatenation in CNMSJCRG for any missing data sets. However, be aware that some members might ship with a feature that you have not installed currently.

```
Data Rexx and %INCLUDE Statements

Member   Line# Statement
-------- ----- ----------------------------------------------------------------
CNMSTYLE   242 %INCLUDE CNMSTPWD

CNMSTYLE  1737 %INCLUDE CNMSTASK

CNMSTASK     1 /*%DATA REXX ------------------------------------------------

CNMSTASK    17 /*%LOGIC ---------------------------------------------------
CNMSTASK    18 IF  TYPE() = 'ENT' THEN                      /* Enterprise NetV
CNMSTASK    19  DO;
CNMSTASK    20   polAuto = cglobal('CNMSTYLE.AUTO.POLICY')
CNMSTASK    21   aonAuto = cglobal('CNMSTYLE.AUTO.AON')
CNMSTASK    22   IF aonAuto = '' THEN aonAuto = 'AUTOAON'   /* Default name
CNMSTASK    23   IF polAuto = '' THEN polAuto = 'AUTOAON'   /* Same default
CNMSTASK    24   IF  polAuto ^= aonAuto THEN

  .          .        .
  .          .        .
  .          .        .

CNMSTUSR    11 %INCLUDE  MYINCLUD

MYINCLUD     1 /*%DATA REXX ------------------------------------------------

MYINCLUD    13 %> IF TOWER('NPDA') THEN DO;

MYINCLUD    15 function.autotask.MyAutoOp = OPAAA01
MYINCLUD    16 auxInitCmd.BB = MSG SYSOP,NPDA will be activated
MYINCLUD    17 NPDA.W.1 = AL 500
MYINCLUD    18 NPDA.ALCACHE = 500

MYINCLUD    20 %> END;

CNMSTYLE  5230 %INCLUDE CNMSTGEN

CNMSTGEN     1 /*%DATA REXX ------------------------------------------------

CNMSTGEN    13 %> IF domain() = 'CNM01' THEN  /* Never true! Data Rexx runs...
CNMSTGEN    14 %>                     /* earlier than resolution of system-sym
CNMSTGEN    15 %>  'STYLEMSG = Illustration only. You will never see this.'
```

Figure 10. Data REXX and %INCLUDE Statements

Note: Only the first 63 characters of each Data REXX statement are displayed.

Return codes

The following return codes are set by CNMECRG:

0
Successful completion; a file was created in DSIWRIT

4
Minor errors encountered; a file was created in DSIWRIT

8
Major error encountered; a file was not created in DSIWRIT

For non-zero return codes, error messages can be found in the CNMSJCRG job log.

Migrating without Restarting the MVS System

The normal process for installing and starting the NetView program requires restarting the MVS system, in order to load required LPA modules and activate required subsystems. If you are migrating from NetView V5R3 program or later, you can avoid restarting the MVS system by completing the same steps manually.The steps to follow vary depending upon the earlier version of the NetView program from which you are migrating.

Migrating from NetView V6R1 Program without Restarting The MVS System

Follow these steps if you want to complete the migration from NetView V6R1 program without restarting the MVS system.

Before you begin

This procedure assumes that you completed all installation procedures that are previously documented in this information, but without restarting the MVS system.

You must obtain and apply PTF UA70457 to the NetView V6R1 product and complete the set of instructions in the ++HOLD data in order to continue without restarting the MVS system. This same fix is necessary to resume operation of your NetView V6R1 product (without restarting the MVS system) after you migrated to the NetView V6R3 product.

Procedure

1. Verify that PTF UA70457 was applied to the NetView V6R1 product.
2. Add the required CNMCSRVP module to the link pack area (LPA).

   You can issue the following command to dynamically add this module:

   ```
   SETPROG LPA,ADD,MODNAME=CNMCSRVP,DSNAME=NETVIEW.V6R3M0.SCNMLPA1
   ```

3. If the NetView V6R3 program uses the same subsystem name as V6R1, stop all NetView V6R1 address spaces.
4. Add the required NetView modules to the list of APF-authorized libraries.

   Issue the following MVS command to dynamically add NetView libraries to the list of APF-authorized libraries without requiring a system restart:

   ```
   SETPROG APF,FORMAT=DYNAMIC
   ```

   Issue the following MVS commands to add APF authorizations for the required NetView libraries:

   ```
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.CNMLINK,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SAQNLINK,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLNKN,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLNK1,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLPA1,VOLUME=vol-ser
   ```

   where *vol-ser* is the name of the volume where the NetView V6R3 libraries were allocated.
5. If you want to define a new NetView subsystem for your NetView V6R3 installation or your NetView V6R1 installation, define this subsystem now. To dynamically add the NetView subsystem, issue the **SETSSI ADD** command:

   ```
   SETSSI ADD,SUBNAME=ssiname,INITRTN=DSI4LSIT
   ```

   where *ssiname* is a new subsystem name.

   Note: When APARs OA55071 and OA55074 are applied, you must specify an *INITPARM* parameter with the Canzlog data space parameters that you want to use on the **SETSSI ADD,SUBNAME=ssiname,INITRTN=DSI4LSIT** command. This step must be done, because the Canzlog data space structure has changed as a result of the specified APARs. For more information, see the *Installation: Getting Started*.

   Tip: The subsystem name for an instance of the NetView program consists of the first 4 characters of the job name that is associated with its main address space and the matching SSI procedure. The subsystem name that you use for a NetView instance must not be the same as any other subsystem name in use; multiple NetView address spaces cannot use the same subsystem name.

   The CNM617I message is displayed when the **SETSSI ADD** command completes.
6. Make sure that the NetView V6R3 libraries are included on the STEPLIB DD statements in the specified NetView V6R3 start procedure:

Table 36. NetView start procedures

Start procedure	Address space	Required NetView libraries
CNMPSSI (CNMSJ010)	NetView subsystem (SSI) program	NETVIEW.V6R3M0.CNMLINK
CNMPROC (CNMSJ009)	NetView program	NETVIEW.V6R3M0.SCNMMJPN[1] NETVIEW.V6R3M0.SAQNLINK NETVIEW.V6R3M0.CNMLINK
EKGXRODM	RODM program	NETVIEW.V6R3M0.CNMLINK
EKGLOADP	RODM loader program	NETVIEW.V6R3M0.CNMLINK
CNMGMFHS (CNMSJH10)	GMFHS program	NETVIEW.V6R3M0.CNMLINK
IHSEAVNT	EA/S program	NETVIEW.V6R3M0.CNMLINK

1. Japanese only

While it is possible to dynamically add the NetView V6R3 libraries to the MVS LNKLST concatenation, doing so can affect other processes and applications that are running in your z/OS environment. You can avoid this situation by placing the appropriate NetView V6R3 libraries on STEPLIB DD statements in the respective start procedures. Refer to the NetView V6R3 sample start procedures in the NETVIEW.V6R3M0.CNMSAMP data set to review examples of STEPLIB DD statements for each of the NetView start procedures that are listed in Table 36 on page 103.

7. Start the NetView subsystem procedure (CNMPSSI) for your NetView V6R3 subsystem.

   The CNM541I message is displayed after the NetView subsystem starts successfully.
8. Start the NetView procedure (CNMPROC) for the NetView V6R3 program.
9. Start any additional NetView V6R3 address spaces when they are migrated to the NetView V6R3 level.

Returning to NetView V6R1 Program without Restarting the MVS System

To resume operation of your previous NetView V6R1 installation without restarting the MVS system, complete these steps.

Before you begin

To resume operation of NetView V6R1 program, you must have PTF UA70457 applied to your NetView V6R1 product. Verify that this PTF was applied on your system before proceeding.

Procedure

1. If your NetView V6R3 program uses the same subsystem name as your V6R1 program, stop all NetView V6R3 address spaces.
2. For the NetView program to use the V6R1 version of the CNMCSRVP module, issue the following command:

```
SETPROG LPA,DELETE,MODNAME=CNMCSRVP,FORCE=YES
```

3. Start all NetView V6R1 address spaces.

Migrating from NetView V6R2 Program without Restarting the MVS System

Follow these steps if you want to complete the migration from NetView V6R2 program without restarting the MVS system.

Before you begin

This procedure assumes that you completed all installation procedures that are previously documented in this information, but without restarting the MVS system.

Procedure

1. If the NetView V6R3 program uses the same subsystem name as V6R2, stop all NetView V6R2 address spaces.
2. Dynamically add the NetView V6R3 modules to the link pack area (LPA):
   - BNJLINTB
   - BNJMTERM
   - BNJSVC76
   - CNMCNETV
   - CNMCSRVP
   - CNMCSSEI
   - CNMCSSPI
   - CNMNETV
   - DSIELSVC
   - DSIRVCEX
   - DSISPNOT
   - DSI4LCUI
   - DSI4LSIT

   Use the **SETPROG LPA ADD** command to add each module:

   ```
   SETPROG LPA,ADD,MODNAME=module,DSNAME=NETVIEW.V6R3M0.SCNMLPA1
   ```

   where *module* is the module name and NETVIEW.V6R3M0.SCNMLPA1 is the NetView library where the module was installed.

   Note: To ensure that all updates are applied, consider loading the most recent version of each module in the LPA. You can load all of the modules in NETVIEW.V6R3M0.SCNMLPA1 with one command by issuing the following command:

   ```
   SETPROG LPA,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLPA1,MASK=*
   ```
3. Add the required NetView modules to the list of APF-authorized libraries.

   Issue the following MVS command to dynamically add NetView libraries to the list of APF-authorized libraries without requiring a system restart:

   ```
   SETPROG APF,FORMAT=DYNAMIC
   ```

   Issue the following MVS commands to add APF authorizations for the required NetView libraries:

   ```
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.CNMLINK,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SAQNLINK,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLNKN,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLNK1,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLPA1,VOLUME=vol-ser
   ```

   where *vol-ser* is the name of the volume where the NetView V6R3 libraries were allocated.
4. If you want to define a new NetView subsystem for your NetView V6R3 installation or your NetView V6R2 installation, define this subsystem now. To dynamically add the NetView subsystem, issue the **SETSSI ADD** command:

   ```
   SETSSI ADD,SUBNAME=ssiname,INITRTN=DSI4LSIT
   ```

   where *ssiname* is a new subsystem name.

   Note: When APARs OA55071 and OA55074 are applied, you must specify an *INITPARM* parameter with the Canzlog data space parameters that you want to use on the **SETSSI ADD,SUBNAME=ssiname,INITRTN=DSI4LSIT** command. This step must be done, because the

Canzlog data space structure has changed as a result of the specified APARs. For more information, see the *Installation: Getting Started*.

Tip: The subsystem name for an instance of the NetView program consists of the first 4 characters of the job name that is associated with its main address space and the matching SSI procedure. The subsystem name that you use for a NetView instance must not be the same as any other subsystem name in use; multiple NetView address spaces cannot use the same subsystem name.

The CNM617I message is displayed when the **SETSSI ADD** command completes.

5. Make sure that the NetView V6R3 libraries are included on the STEPLIB DD statements in the specified NetView V6R3 start procedure:

Table 37. NetView start procedures

Start procedure	Address space	Required NetView libraries
CNMPSSI (CNMSJ010)	NetView subsystem (SSI) program	NETVIEW.V6R3M0.CNMLINK
CNMPROC (CNMSJ009)	NetView program	NETVIEW.V6R3M0.SCNMMJPN[1] NETVIEW.V6R3M0.SAQNLINK NETVIEW.V6R3M0.CNMLINK
EKGXRODM	RODM program	NETVIEW.V6R3M0.CNMLINK
EKGLOADP	RODM loader program	NETVIEW.V6R3M0.CNMLINK
CNMGMFHS (CNMSJH10)	GMFHS program	NETVIEW.V6R3M0.CNMLINK
IHSEAVNT	EA/S program	NETVIEW.V6R3M0.CNMLINK

1. Japanese only

While it is possible to dynamically add the NetView V6R3 libraries to the MVS LNKLST concatenation, doing so can affect other processes and applications that are running in your z/OS environment. You can avoid this situation by placing the appropriate NetView V6R3 libraries on STEPLIB DD statements in the respective start procedures. Refer to the NetView V6R3 sample start procedures in the NETVIEW.V6R3M0.CNMSAMP data set to review examples of STEPLIB DD statements for each of the NetView start procedures that are listed in Table 37 on page 105.

6. Start the NetView subsystem procedure (CNMPSSI) for your NetView V6R3 subsystem.

   The CNM541I message is displayed after the NetView subsystem starts successfully.

7. Start the NetView procedure (CNMPROC) for the NetView V6R3 program.
8. Start any additional NetView V6R3 address spaces when they are migrated to the NetView V6R3 level.

Returning to NetView V6R2 Program without Restarting the MVS System

To resume operation of your previous NetView V6R2 installation without restarting the MVS system, complete these steps.

Procedure

1. If your NetView V6R3 program uses the same subsystem name as your V6R2 program, stop all NetView V6R3 address spaces.
2. Start all NetView V6R2 address spaces.

Migrating from NetView V6R2M1 Program without Restarting the MVS System

Follow these steps if you want to complete the migration from NetView V6R2M1 program without restarting the MVS system.

Before you begin

This procedure assumes that you completed all installation procedures that are previously documented in this information, but without restarting the MVS system.

Procedure

1. If the NetView V6R3 program uses the same subsystem name as V6R2M1, stop all NetView V6R2M1 address spaces.
2. Dynamically add the NetView V6R3 modules to the link pack area (LPA):
   - BNJLINTB
   - BNJMTERM
   - BNJSVC76
   - CNMCNETV
   - CNMCSRVP
   - CNMCSSEI
   - CNMCSSPI
   - CNMNETV
   - DSIELSVC
   - DSIRVCEX
   - DSISPNOT
   - DSI4LCUI
   - DSI4LSIT

   Use the **SETPROG LPA ADD** command to add each module:

   ```
   SETPROG LPA,ADD,MODNAME=module,DSNAME=NETVIEW.V6R3M0.SCNMLPA1
   ```

   where *module* is the module name and NETVIEW.V6R3M0.SCNMLPA1 is the NetView library where the module was installed.

   Note: To ensure that all updates are applied, consider loading the most recent version of each module in the LPA. You can load all of the modules in NETVIEW.V6R3M0.SCNMLPA1 with one command by issuing the following command:

   ```
   SETPROG LPA,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLPA1,MASK=*
   ```

3. Add the required NetView modules to the list of APF-authorized libraries.

   Issue the following MVS command to dynamically add NetView libraries to the list of APF-authorized libraries without requiring a system restart:

   ```
   SETPROG APF,FORMAT=DYNAMIC
   ```

   Issue the following MVS commands to add APF authorizations for the required NetView libraries:

   ```
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.CNMLINK,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SAQNLINK,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLNKN,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLNK1,VOLUME=vol-ser
   SETPROG APF,ADD,DSNAME=NETVIEW.V6R3M0.SCNMLPA1,VOLUME=vol-ser
   ```

   where *vol-ser* is the name of the volume where the NetView V6R3 libraries were allocated.

4. If you want to define a new NetView subsystem for your NetView V6R3 installation or your NetView V6R2M1 installation, define this subsystem now. To dynamically add the NetView subsystem, issue the **SETSSI ADD** command:

   ```
   SETSSI ADD,SUBNAME=ssiname,INITRTN=DSI4LSIT
   ```

   where *ssiname* is a new subsystem name.

   Note: When APARs OA55071 and OA55074 are applied, you must specify an *INITPARM* parameter with the Canzlog data space parameters that you want to use on the **SETSSI ADD,SUBNAME=ssiname,INITRTN=DSI4LSIT** command. This step must be done, because the Canzlog data space structure has changed as a result of the specified APARs. For more information, see the *Installation: Getting Started*.

   Tip: The subsystem name for an instance of the NetView program consists of the first 4 characters of the job name that is associated with its main address space and the matching SSI procedure. The subsystem name that you use for a NetView instance must not be the same as any other subsystem name in use; multiple NetView address spaces cannot use the same subsystem name.

   The CNM617I message is displayed when the **SETSSI ADD** command completes.
5. Make sure that the NetView V6R3 libraries are included on the STEPLIB DD statements in the specified NetView V6R3 start procedure:

   Table 38. NetView start procedures

Start procedure	Address space	Required NetView libraries
CNMPSSI (CNMSJ010)	NetView subsystem (SSI) program	NETVIEW.V6R3M0.CNMLINK
CNMPROC (CNMSJ009)	NetView program	NETVIEW.V6R3M0.SCNMMJPN[1] NETVIEW.V6R3M0.SAQNLINK NETVIEW.V6R3M0.CNMLINK
EKGXRODM	RODM program	NETVIEW.V6R3M0.CNMLINK
EKGLOADP	RODM loader program	NETVIEW.V6R3M0.CNMLINK
CNMGMFHS (CNMSJH10)	GMFHS program	NETVIEW.V6R3M0.CNMLINK
IHSEAVNT	EA/S program	NETVIEW.V6R3M0.CNMLINK

   1. Japanese only

   While it is possible to dynamically add the NetView V6R3 libraries to the MVS LNKLST concatenation, doing so can affect other processes and applications that are running in your z/OS environment. You can avoid this situation by placing the appropriate NetView V6R3 libraries on STEPLIB DD statements in the respective start procedures. Refer to the NetView V6R3 sample start procedures in the NETVIEW.V6R3M0.CNMSAMP data set to review examples of STEPLIB DD statements for each of the NetView start procedures that are listed in Table 37 on page 105.
6. Start the NetView subsystem procedure (CNMPSSI) for your NetView V6R3 subsystem.

   The CNM541I message is displayed after the NetView subsystem starts successfully.
7. Start the NetView procedure (CNMPROC) for the NetView V6R3 program.
8. Start any additional NetView V6R3 address spaces when they are migrated to the NetView V6R3 level.

Returning to NetView V6R2M1 Program without Restarting the MVS System

To resume operation of your previous NetView V6R2M1 installation without restarting the MVS system, complete these steps.

Procedure

1. If your NetView V6R3 program uses the same subsystem name as your V6R2M1 program, stop all NetView V6R3 address spaces.
2. Start all NetView V6R2M1 address spaces.

Chapter 8. Verifying the Migration

About this task

To test the NetView program that you installed, run the steps in the following order:

1. Ensure that VTAM and TCP/IP have been started.
2. Start the NetView subsystem address space using job CNMPSSI.
3. Start the NetView program using job CNMPROC.

   If you are running an additional copy of the NetView program on this LPAR and are using the hardware monitor, enter the following command at the system console:

   ```
   S CNMPROC,PROG=DSIMNT
   ```

4. Log on to the command facility.
5. From the NetView main menu, enter **HELP** to display the NetView help facility main menu.
6. Press **PF3** twice to go to the command facility, then issue the **help** command to display the command facility help menu.
7. Enter **4** to display a list of command and command lists for which help exists.
8. Press **PF3** twice to return to the command facility, then enter **WHO** to display session information.
9. Press the **Enter** key until all data has been displayed, then enter **BROWSE CANZLOG** to browse the Canzlog log. This command displays all messages and DOMs.
10. Press **PF3** to return to the command facility, then issue the **NPDA** command to display the hardware monitor main menu.
11. Issue the **ALERTSH** command to display the history of alerts recorded on the hardware monitor data base.
12. Press **PF3** twice to return to the command facility, then issue the **NLDM** command to display the session monitor main menu.
13. Issue the **LIST HISTORY LU** command to display a historical listing of logical units.
14. Press **PF3** twice to return to the command facility, then issue the **LOGOFF** command to end your operator session.

This completes installation and migration of the NetView program with minimum function. To run the NetView program in production, consider the following actions:

- Ensure that the V6R3 modules are active in your production environment. This might require an IPL with CLPA before running the NetView program in production.
- Allocate the VSAM for the production LPAR.
- If you have been running multiple NetView programs in the same LPAR, then make sure that one NetView program is set up as the primary program operator (PPO) and the second NetView is set up as the secondary program operator (SPO). For more details, see the information about running multiple NetView programs in the same LPAR in *IBM Z NetView Installation: Configuring Additional Components*.
- Complete any tuning and customization tasks your system requires. See Table 39 on page 110 for more information.
- If you are using the NetView program for system automation, review your system automation planning and verify that any new operating procedures are ready for implementation.

For each administration task that you have prepared, test to ensure that it has been done correctly. When you are satisfied, the NetView program is ready for full production.

Note: If you resume production under a previous release of the NetView program, cancel the NetView subsystem job and close the V6R3 application.

Table 39. Additional Installation, Configuration, Customization, and Tuning Information

If you want information about...	**Refer to...**
Updating NetView program for your environment	*IBM Z NetView Installation: Configuring Additional Components*
Updating NetView program for graphics	*IBM Z NetView Installation: Configuring Graphical Components*
Writing installation exits	*IBM Z NetView Programming: Assembler* or *IBM Z NetView Programming: PL/I and C*
Writing command processors	*IBM Z NetView Programming: Assembler* or *IBM Z NetView Programming: PL/I and C*
IBM Z NetView Enterprise Management Agent	*IBM Z NetView Installation: Configuring the NetView Enterprise Management Agent*
IBM Z NetView for Continuous Availability	*IBM Z NetView for Continuous Availability Configuring and Using the GDPS Continuous Availability Solution*

Chapter 9. Migrating Graphics

"Migrating from NGMF to the NetView Management Console" on page 111 describes the steps to follow to migrate from NGMF to the NetView management console. The last version of NetView that included NGMF support was NetView V1R4. NetView V6R3 does not allow a NETCONV connection to an NGMF server. Current NGMF users must be upgraded to the NetView management console.

"Migrating the NetView Management Console Topology Server and Console" on page 111 describes how to migrate to the NetView V6R3 NetView management console from previous levels of the NetView management console.

Migrating from NGMF to the NetView Management Console

Migration consists of replacing your NGMF graphic data servers and graphic monitor workstations with NetView management console workstations (both console and server). GMFHS requires no modification when a user migrates from NGMF to the NetView management console.

Other migration considerations include:

- Context menu command definitions.

  These include user-defined commands in the Command Profile Editor, and user-defined Command Tree definitions from NGMF to the NetView management console. The NetView program provides a utility to migrate these Command Tree definitions. Refer to the *IBM Z NetView User's Guide: NetView Management Console* for additional information on this utility. This section also has some tips on migrating the user-defined commands in the Command Profile Editor.
- View customization.

  Any view customization is not migrated. It must be redone.
- NGMF server-based command exits.

  These command exits must be recoded, recompiled, and reinstalled into the NetView management console server.
- NGMF client-based command exits.

  These command exits must be rewritten in Java.

Migrating the NetView Management Console Topology Server and Console

Complete the migration of the NetView V6R3 host program before migrating the NetView management console topology server and console. New resources for V6R3 are displayed with a red X in place of the icon.

A console at the V6R3 topology console communicates only with a server at the V6R3 level, and a server at the V6R3 level communicates only with consoles at the V6R3 level. Also, the Java environment for the NetView management console has been upgraded. Therefore, for each server, you must install the V6R3 level of the NetView management console topology server at the same time you install the V6R3 level of the NetView management console topology console on all consoles that communicate with that server.

If you want information about...	Refer to...
Migrating the NetView management console topology console	egvread1.me
Migrating the NetView management console topology server	egvread2.me

Appendix A. Changes from Tivoli NetView for z/OS V6R1 to Tivoli NetView for z/OS V6R2

For a summary of changes for the NetView V6R2 release, see "Summary of Changes for NetView V6R2 Program" on page 113.

See the following sections for new, changed, and deleted command lists, messages, samples, and commands from the NetView V6R1 product:

- "Command Lists" on page 115
- "Messages" on page 116
- "Samples" on page 120
- "Command Changes" on page 121

Note: The lists are listed alphabetically from left to right.

For changes to the NetView for z/OS Enterprise Management Agent; see "Enterprise Management Agent Changes" on page 122.

Summary of Changes for NetView V6R2 Program

Whether you have a small installation or you are managing a large, distributed enterprise, the NetView program provides efficient systems and network management capability on any platform. The new and changed functions in this release are described in the following topics:

- "Automation" on page 113
- "IP Management" on page 113
- "Sysplex and System Management" on page 114
- "GDPS Continuous Availability Solution" on page 114
- "Additional Enhancements" on page 115
- "Library Changes" on page 115

For comparison information about prior NetView release functions, refer to the IBM Z NetView website.

Automation

Table 40. Automation Enhancements

Function	Description	Additional information
Duplicate automation prevention	Message automation is not duplicated when EMCS consoles receive messages because of route codes.	*Restrict Operator Access to the MVS VARY Command* in the IBM Tivoli NetView for z/OS V6R2 *Automation Guide*

IP Management

Table 41. IP Management Enhancements

Function	Description	Additional information
NETVIP command	You can access IP management functions from the main NetView menu panel or by using the NETVIP command.	*"Using 3270 Commands"* in the *IBM Tivoli NetView for z/OS IP Management*

Table 41. IP Management Enhancements (continued)		
Function	**Description**	**Additional information**
Multiple packet trace instances	You can run and control multiple packet trace instances using the Packet Trace Control panel.	*"IP Packet Tracing"* in the *IBM Tivoli NetView for z/OS IP Management*
Packet trace analysis panel navigation	In the packet trace analysis panels, you can use enhanced scrolling options or filter the session list.	*"Analyzing and Saving Packet Traces"* in the *IBM Tivoli NetView for z/OS IP Management*
Packet trace data in CTRACE format	Packet trace data that is captured by the IPTRACE function can be written in the CTRACE format so that it can be used as input to Interactive Problem Control System (IPCS).	*"Viewing IP Packet Trace Data"* and *"Issuing Commands for Sessions"* in the *IBM Tivoli NetView for z/OS IP Management*

Sysplex and System Management

Table 42. Sysplex and System Management Enhancements		
Function	**Description**	**Additional information**
IBM System z Advanced Workload Analysis Reporter (IBM zAware) integration	New samples enable NetView integration with IBM zAware to detect unusual or unexpected events or activity.	"IBM System z Advanced Workload Analysis Reporter" in the *IBM Tivoli NetView for z/OS Installation: Configuring Additional Components*
Preinitialization messages in the Canzlog log	Messages that are written to the system log before the NetView subsystem is initialized are now available in the Canzlog log.	"PROG*xx*" in the *IBM Tivoli NetView for z/OS Installation: Getting Started*
Remote Canzlog browsing	The BROWSE command is enhanced to support browsing Canzlog data from a remote NetView instance.	"Displaying Canzlog Data" in the *IBM Tivoli NetView for z/OS User's Guide: NetView* and "BROWSE (NCCF)" in the *IBM Tivoli NetView for z/OS Command Reference Volume 1 (A-N)*

GDPS Continuous Availability Solution

Table 43. GDPS Continuous Availability solution		
Function	**Description**	**Additional information**
Additional support for GDPS Continuous Availability solution	• Active/Query workload support • Multiple consistency group support for Q replication • VSAM replication support	The Overview in the *IBM Tivoli NetView for z/OS Installation: Configuring the GDPS Continuous Availability Solution*
Additional support in the IBM Tivoli Z NetView Enterprise Management Agent for GDPS Continuous Availability solution	• Active/Query workload support • Expanded enterprise master support • Multiple consistency group support for Q replication • QREP workloads with multiple consistency groups support • VSAM replication support	"Enterprise Management Agent Changes" in the *IBM Tivoli NetView for z/OS User's Guide: NetView Enterprise Management Agent*

Additional Enhancements

Table 44. Additional Enhancements

Function	Description	Additional information
DSIOPF	The DSIOPF member has a new structure that facilitates changing operator definitions.	*DSIOPF* in the *IBM Tivoli NetView for z/OS Installation: Migration Guide*
NetView management console sign on	The NetView management console sign on window provides a list of previously used topology servers from which the user can select.	*Using the Topology Console Sign On Window* in the *IBM Tivoli NetView for z/OS User's Guide: NetView Management Console*
REXX	REXX command environments and REXX function package names can be defined by using the following CNMSTYLE statements: • REXX.CMDENV.*name* • REXX.FUNCPKGLIST.LCL.*name* • REXX.FUNCPKGLIST.SYS.*name* • REXX.FUNCPKGLIST.USR.*name*	*REXX.CMDENV.name*, *REXX.FUNCPKGLIST.LCL.name*, *REXX.FUNCPKGLIST.SYS.name*, and *REXX.FUNCPKGLIST.USR.name* in the *IBM Tivoli NetView for z/OS Administration Reference*
Serviceability	The NVINFO command can be used to collect data for the active NetView session. You can also use this command to request a dump of the NetView address spaces.	*NVINFO (NCCF)* in the *Command Reference Volume 1 (A-N)*
Web Services Gateway	The Web Services Gateway function is updated to use Application-Transparent Transport Layer Security (AT-TLS) for secure communication, instead of using z/OS System SSL directly.	*Controlling Access to Web Service Gateway* in the *Security Reference*

Library Changes

Table 45. Library Changes

Publication	Description	Additional information
IBM Z NetView Installation: Configuring Additional Components	A new section provides a set of quick start procedures for enabling basic IP management capabilities.	*"Getting Started with IP Management"* in the *IBM Tivoli NetView for z/OS IP Management*
IBM Z NetView Installation: Configuring the GDPS Continuous Availability Solution	Configuration scenarios were added that show the use of the PARMGEN tool.	*Scenario 2 (using PARMGEN): Remote monitoring servers running in z/OS monoplexes"*
IBM Z NetView Installation: Configuring the NetView Enterprise Management Agent	Configuration scenarios were added that show the use of the PARMGEN tool.	*Configuring the NetView agent using the PARMGEN method*
BookManager books	BookManager books are not available for this Z NetView release.	

Command Lists

This section lists new and deleted command lists for the NetView V6R2 program:

- “New Command Lists” on page 116
- “Deleted Command Lists” on page 116

Do not issue these command lists from a NetView command line. Most of the NetView command lists that are included with the NetView program are used internally by the NetView program and might have unpredictable results when issued from a NetView command line.

New Command Lists

AQNEEVNT	CNMECZQG	CNMECZRP	CNMECZTR
CNMECZWY	CNMENVIP	CNME8270	CNME8271
CNME8272	CNME9003	CNME9004	FKXETRM2
FKXE2C01			

Deleted Command Lists

CNMENVHB	FKXE100A	FKXE1000	FKXE110A
FKXE1100	FKXE120A	FKXE1200	FKXE130A
FKXE1300	FKXE140A	FKXE1400	FKXE1410
FKXE1420	FKXE150A	FKXE1500	

Messages

This section lists new and changed messages for the NetView V6R2 program:

- “New Messages” on page 116
- “Changed Messages” on page 118

New Messages

AQN043I
NO *subtower_name server_type* SOCKET PATH INFORMATION FORWARDED TO CONTROLLER, REASON '*reason*'

AQN044I
ATTRIBUTE *attribute_name* IS MISSING FOR *data_source* REPLICATION EVENT *class_name*

AQN045I
INVALID VALUE RECEIVED FOR *data_source* REPLICATION EVENT *class_name*, ATTRIBUTE *attribute_name*

AQN046I
REPLICATION EVENT *class_name* IS NOT RECOGNIZED

AQN047I
data_source REPLICATION EVENT *class_name*, FORWARDED. RETURN CODE: *return_code*

AQN048I
data_source REPLICATION EVENT VERSION *replication_version* DOES NOT MATCH NETVIEW EVENT VERSION *netview_version*

AQN049I
DISPLAY OF REPLICATION WORKLOADS

AQN050I
DISPLAY OF Q REPLICATION CAPTURE SERVERS DATA

AQN051I
DISPLAY OF Q REPLICATION APPLY SERVERS DATA

AQN052I
ENT.SYN.*prisec.site.domain* FOR DOMAIN *domain_id* SPECIFIES SNA

AQN053I
command FAILED. Reason: *reason*. Reason Code: *reason_code*

AQN054I
REQUIRED ENT.ALT.CONTROLLERS STATEMENT MISSING

BNH825I
THE AT-TLS SECURITY TYPE IS X'*security_type*'.

BNH869W
THE CONNECTION TO THE NETVIEW WEB SERVICES SERVER '*srvrname*' WAS REJECTED BECAUSE AT-TLS IS NOT CONFIGURED OR ACTIVE FOR THIS SERVER.

CNM618A
NetView subsystem *ssi_name* has not been initialized.

CNM743I
Some messages that were issued before the NetView subsystem was initialized were not logged.

CNM744E
The ALESERV token was not deleted: Return Code = *return_code* Reason Code = *reason_code*

CNM745E
The DSPSERV token was not deleted: Return Code = *return_code* Reason Code = *reason_code*

CNM746I
The *user_module* module was not deleted from the SYSLOG exit

CNM747I
The required number of plots in the CANZLOG data space are not available. Some messages might be missing.

CNM748I
The *user_module* module was deleted from the SYSLOG exit

CNM749A
Incompatible NetView program or subsystem is defined for subsystem *ssi_name*

CNM749A
Incompatible NetView program or subsystem is defined for subsystem *ssi_name*

CNM949I
obj IS TOO LONG

DWO038I
function IS NOT ALLOWED IN THE *product* ENVIRONMENT

DWO096E
part is not installed with *attr_name* attribute

FKX408I
TRACE INSTANCE STARTED FOR STACK *stack* BY OPERATOR *operid* ON TASK *task* AT SP *sp*

FKX409I
TRACE INSTANCE ENDED FOR STACK *stack* BY OPERATOR *operid* ON TASK *task* AT SP *sp*

FKX415I
TRACE INSTANCE SUSPENDED FOR STACK *stack* BY OPERATOR *operid* ON TASK *task* AT SP *sp*

FKX416I
TRACE INSTANCE SUSPENDED FOR STACK *stack* BY OPERATOR *operid* ON TASK *task* AT SP *sp*

FKX417I
TRACE INSTANCE action FAILED FOR STACK *stack* ON SP *sp*

FKX418I
TRACE INSTANCE STOPPED ON TASK *task* FOR STACK *stack*

FKX419I
TRACE INSTANCE ENDED ON TASK *task* FOR STACK *stack*

FKX463I
OPID REQUIRED FOR STOP OR STOPALL OF TRACE INSTANCE

FKX464I
OPID *task* DOES NOT HAVE AN ACTIVE TRACE INSTANCE

FKX465I
NO OPIDS DEFINED FOR TRACE INSTANCES

FKX466I
NO AVAILABLE OPIDS FOR TRACE INSTANCES

FKX467I
OPID *task* ALREADY HAS AN ACTIVE TRACE INSTANCE

Changed Messages

The following messages changed in one or more of the following ways:

- The message text changed.
- The value of a message variable insert changed.
- The information provided in a multiline write-to-operator (MLWTO) message changed.

For specific details of how a message is being presented by the NetView program, refer to the online message help.

AQN001I
NO SOCKET PATH NAMES FOUND FOR DATA SOURCE *subtower_name* DOMAIN *domain*

AQN002I
DATA COLLECTION FAILED FOR DATA SOURCE *subtower_name*, SOCKET PATH NAME *path*

AQN006I
DUPLICATE *subtower_name*, SOCKET PATH NAME *path* IGNORED

AQN007I
DISPLAY ACTIVE/ACTIVE DATA COLLECTION INFORMATION

AQN008I
REPLICATION SERVER SITUATION OR POLICY NAME IS *name*

AQN009I
DATA COLLECTION FOR *subtower_name* RESTARTED

AQN0010I
DATA COLLECTION FOR *subtower_name* ALREADY STARTED

AQN0011I
DATA COLLECTION FOR *subtower_name* ALREADY STOPPED

AQN012I
cmd COMMAND NOT PROCESSED. CURRENT VALUE *interval* FOR *subtower_name* MATCHES CHANGE VALUE.

AQN013I
DATA COLLECTION INTERVAL FOR *subtower_name* SET TO *interval*

AQN016A
Reply Yes if Tivoli Enterprise Monitoring Server is inactive on system system. Otherwise, reply No.

AQN019E
CONNECTION FAILURE TO *server* ON SOCKET PATH *path*. REPORTING MODULE=module_name. RC: *return_code* REASON: *reason*

AQN023I
DISPLAY OF LOAD BALANCERS

AQN027I
DISPLAY OF *role* WORKLOADS FOR WORKLOAD NAME *workload_name*

AQN028I
SOCKET PATH NAME *path* NOT CONFIGURED FOR *subtower_name*

AQN029I
UNEXPECTED VALUE *value* RECEIVED FOR *fieldname* FOR DATA SOURCE *subtower_name*

AQN030I
DISPLAY OF REPLICATION SERVER WORKLOADS *workload_name* FOR DATA SOURCE *type*

AQN031I
DISPLAY OF *type* CAPTURE WORKLOAD DETAILS FOR WORKLOAD *workload_name*

AQN032I
DISPLAY OF *type* APPLY WORKLOAD DETAILS FOR WORKLOAD *workload_name*

AQN033I
DISPLAY OF Q REPLICATION DATA FOR SEND QUEUE *send_queue* WORKLOAD *workload_name*

AQN034I
DISPLAY OF Q REPLICATION DATA FOR RECEIVE QUEUE *receive_queue* WORKLOAD *workload_name*

AQN035I
DISPLAY OF Q REPLICATION CAPTURE SERVER *server_job_name* DATA ON SITE *server_site*

AQN036I
DISPLAY OF Q REPLICATION APPLY SERVER *server_job_name* DATA ON SITE *server_site*

AQN039I
TOWER ACTIVEACTIVE.REPLICATION.*subtwr* NOT ENABLED FOR DOMAIN *domain*

AQN040I
COMMON GLOBAL VARIABLE *variable* IS NOT DEFINED FOR DOMAIN *domain*

AQN041I
SOCKET PATH DEFINITION *statement* IS NOT SEQUENTIAL

AQN042I
NO *subtower_name server_type* SOCKET PATH INFORMATION FORWARDED TO CONTROLLER, REASON '*reason*'

AQN042I
MAXIMUM NUMBER OF *subtower_name server_type* SOCKET PATH DEFINITIONS EXCEEDED

BNH229I
option value mm/dd/yy hh:mm:ss updateid

BNH498I
NUMBER OF INTERFACES: *numintf*

BNH598I
NUMBER OF HIPERSOCKETS INTERFACES: *numhiper*

BNH608I
'requestname' REQUEST COMPLETED SUCCESSFULLY

BNH812
command ISSUED FOR *task_name* COMPLETED WITH STATUS *code*

BNH863I
DISPLAY OF NETVIEW WEB SERVICES INFORMATION

BNH881I
DATA COLLECTION FAILED FOR SUBTOWER *subtower_name*, REASON '*reason*'

BNH898E
NETVIEW WEB SERVICES *srvr_name* INITIALIZATION FAILED DUE TO *reason_text rc*

BNH911I
request : NO DATA FOUND FOR '*subject*'

CNM543I
UNABLE TO FIND NETVIEW SUBSYSTEM COMMUNICATIONS TABLE FOR *ssi_name*

CNM598W
SUBSYSTEM IS NOT ACTIVE FOR *ssi_name*

CNM742I
NO CANZLOG ARCHIVE BROWSE DATA SPACES CREATED

DSI002I (changed for IACz, no visible changes)
INVALID COMMAND: '*command*'

DSI031I
SPECIFIED NAME '*name*' INVALID

DSI823I
member HAS A MISSING OR INCORRECT SIGNATURE

DWO090A
action error for *component*. Maintenance required.

DWO155I
NETVIEW DOES NOT HAVE A JES JOBID

DWO384I
TIME-OUT OCCURRED. '*command*' FOR '*target*' IS TERMINATED.

EZL563E
ERROR ACCESSING *domain1* OUTBOUND GATEWAY TO DOMAIN *domain2* - RC= *rc*

EZL917E
ERROR OCCURRED. BROWSE LOG FOR MORE INFORMATION

FKX400I
tracetype SCHEDULED FOR SP *sp* BY OPERATOR *operid*

FKX401I
tracetype - DELAY TRACE SCHEDULED FOR SP *sp* BY *operid*

FKX402I
tracetype action START FOR SP *sp* FAILED - MESSAGE *msgid* RECEIVED.

FKX403I
tracetype STOPPED FOR SP *sp* BY OPERATOR *operid*

FKX405I
TARGET DOMAIN/PROC FOR SP *sp* IS NOT VALID

FKX406I
tracetype - DELAYED TRACE FAILED FOR SP *sp* BY *operid*

FKX407I
DELAYED *tracetype* BLOCKED BY SECURITY FOR SP *sp* BY *operid*

FKX410I
UNABLE TO START *tracetype* ON SP *sp* - TRACE ALREADY ACTIVE

FKX411I
UNABLE TO STOP *tracetype* ON SP *sp* - TRACE NOT ACTIVE

FKX412I
START *tracetype* ON SP *sp* FAILED - TRACE ALREADY SCHEDULED

FKX413I
THE PROCNAME *proc* IS NOT DEFINED ON SP *sp*

Samples

"New Samples" on page 120 lists new samples for the NetView V6R2 program:

New Samples

CNMSCMSG	CNMSFMSG	CNMSSCFG	CNMSSNIT

CNMSSVNT	CNMSS010	CNMSTMSG	CNMS8050
CNMS8051	CNMS8052	DSICCDNV	DSIOPFAU
DSIOPFEX	DSIOPFIX	DSIOPFST	

Command Changes

This section lists new and changed commands for the NetView V6R2 program:

- "New Commands" on page 121
- "Changed Commands" on page 121

New Commands

Table 46 on page 121 lists new commands to review during migration.

Table 46. List of New Commands

Command	Description
NETVIP	Displays menu of NetView IP management functions
NVINFO	Enables you to collect data for the active NetView session

Changed Commands

The following commands have been changed:

- ACTVCTL
- ACTVLIFE
- ACTVREPL
- ALL (CANZLOG)
- BROWSE (NCCF)
- CANZLOG
- CNMECZFS
- DEFAULTS (NCCF)
- DISPMSG
- DSITSTAT (REXX)
- DVIPCONN
- FIND (CANZLOG)
- FMTPACKT
- LIST (NCCF)
- MVS
- OVERRIDE
- PKTS
- PKTTRACE
- SECMIGR
- SOACTL

Enterprise Management Agent Changes

The following changes are available with the NetView Monitoring for GDPS for Version 6 Release 2:

- All queries and workspaces that are new or changed for Version 6 Release 2 include the qualifier (V620) in the query and workspace descriptions. The identification of the version, release, and modification level for queries and workspaces began with Version 5 Release 4. Queries and workspaces that were part of the product before V5R4 do not include a qualifier.
- Table 47 on page 123 shows the changes to existing workspaces that are used for monitoring the status of workloads and other managed elements in the GDPS Continuous Availability solution.

Table 47. Workspace Changes

Workspaces	Changes
DB2 Replication Details	– The Queue Percent Full view is changed from a circular gauge to a bar chart. – The following attributes are added to the DB2 Replication Apply Workload attribute group: - Apply System ID (filtered out of the table view by default) - Available Transactions - Consistency Group Name - Consistency Group Synchronization State - Maximum Available Commit - Minimum Available Commit - Next Apply Up To Time - Oldest Commit LSN - Oldest Commit Sequence - Queue Manager Name – The following attributes are added to the DB2 Replication Capture Server attribute group: - Current Log Sequence - Restart Log Sequence – The following attributes are added to the DB2 Replication Capture Workload attribute group: - Capture System ID (filtered out of the table view by default) - Consistency Group Name - Current Log Sequence - Queue Manager Name - Restart Log Sequence – The caption for the existing Oldest Commit LSN attribute in the DB2 Replication Apply Workload attribute group is changed to Oldest Commit LSN 10 Byte Maximum and is filtered out of the table view by default. This attribute displays a log sequence number with a maximum length of 10 bytes, for example, 0000:0000:0000:89B3:6919. – The caption for the existing Oldest Commit Sequence attribute in the DB2 Replication Apply Workload attribute group is changed to Oldest Commit Sequence 10 Byte Maximum and is filtered out of the table view by default. This attribute displays a log sequence number with a maximum length of 10 bytes, for example, 0000:0000:0000:89B3:6919. – The captions for the existing Current Log Sequence attributes in the DB2 Replication Capture Server attribute group and the DB2 Replication Capture Workload attribute group are changed to Current Log Sequence 10 Byte Maximum and are filtered out of the table views by default. These attributes display a log sequence number with a maximum length of 10 bytes, for example, 0000:0000:0000:89B3:6919.

Table 47. Workspace Changes (continued)	
Workspaces	**Changes**
DB2 Replication Details (continued)	(continued) – The captions for the existing Restart Log Sequence attributes in the DB2 Replication Capture Server attribute group and the DB2 Replication Capture Workload attribute group are changed to Restart Log Sequence 10 Byte Maximum and are filtered out of the table views by default. These attributes display a log sequence number with a maximum length of 10 bytes, for example, 0000:0000:0000:89B3:6919.
Load Balancers	– The following value for the existing Role attribute is added: - INTERMEDIARY (4) - The value for the existing Type attribute is changed from SYSPLEX DISTRIBUTOR (1) to INTERNAL (1).
– Filtered Replication Servers – Replication Servers	– The Replication Servers workspace is no longer the default workspace for the Replication Servers item in the Navigator view. To display this workspace, select and right-click **Replication Servers**, click **Workspace**, and then click **Replication Servers**. – The following attributes are added to the Replication Servers attribute group: - Consistency Group Name - Defined Consistency Groups – The following value for the existing Workload Type attribute is added: - VSAM – The caption for the existing IMS Source System Identifier attribute is changed to Source System Identifier. – The caption for the existing IMS Target URL attribute is changed to Target URL. – The Average Latency bar chart is changed to graph the average latency for each consistency group rather than for each workload. – The VSAM Replication Details link is added. It is enabled for rows where the value of the Workload Type attribute is equal to VSAM. This link targets the new VSAM Replication Details workspace. – The DB2 Replication Details for Workload link is added. It is enabled for rows where the value of the Workload Type attribute is equal to DB2. This link targets the new DB2 Replication Details for Workload workspace. – The existing DB2 Replication Details link is changed to filter the Queue Percent Full bar chart, the Q Capture: Send Queue Details table, and the Q Apply: Receive Queue Details views using the Consistency Group Name attribute rather than the Workload Name attribute. It is enabled for rows where the value of the Workload Type attribute is equal to DB2 and the value of the Consistency Group Name is not equal to N/A. This link targets the existing DB2 Replication Details workspace.

Table 47. Workspace Changes (continued)	
Workspaces	**Changes**
– Filtered Workloads – Workloads	– The following attributes are added to the Workloads attribute group: - Active/Query Workloads - Active/Standby Workload Correlator (filtered out of the table view by default) - Active/Standby Workload Name - Routing Failure State - Workload Latency State - Workload Routing Type – The following value for the existing Role attribute is added: - ACTIVE/QUERY (2) – The name of the existing Replication Servers link is changed to Replication Servers for Active/Standby Workload. This link is enabled for rows where the value of the Role attribute is equal to ACTIVE/STANDBY. This link targets the existing Filtered Replication Servers workspace. – The Replication Servers for Active/Query Workload link is added. It is enabled for rows where the value of the Role attribute is equal to ACTIVE/QUERY. This link targets the existing Filtered Replication Servers workspace. – The Active/Query Workloads link is added. It is enabled for rows where the value of the Role attribute is equal to ACTIVE/STANDBY and the value of the Active/Query Workloads attribute is greater than 0. This link targets the new Active/Query Workloads workspace.
– Workload Site Details – Workload Sites	– The following attributes are added to the Workload Sites attribute group: - Preferred Site - Role – The Workload Routing Weight view is changed from a bar chart to a plot chart. – The following value for the existing Workload Routing State attribute is added: - DEACTIVATED (3)

- Four new workspaces and three new attribute groups are added for monitoring the status of workloads and other managed elements in the GDPS Continuous Availability solution. Table 48 on page 125 shows the workspaces that are new and the associated attribute group or groups.

Table 48. New Workspaces	
Workspace	**Attribute Group**
Active/Query Workloads	Workloads (existing attribute group with new attributes)

Table 48. New Workspaces (continued)	
Workspace	**Attribute Group**
DB2 Replication Details for Workload	– DB2 Replication Apply Server (existing attribute group) – DB2 Replication Apply Workload (existing attribute group with new attributes) – DB2 Replication Capture Server (existing attribute group) – DB2 Replication Capture Workload (existing attribute group with a new attribute)
Replication Workloads	Replication Workloads
VSAM Replication Details	– VSAM Replication Apply Details – VSAM Replication Capture Details

- The following situations for the GDPS Continuous Availability solution are new:
  - NAS_AA_RS_VSAMWorkloadState
  - NAS_AA_RW_AggregationStatus
  - NAS_AA_RW_ConsistencyGroups
  - NAS_AA_RW_WorkloadLatency
  - NAS_AA_VSAM_AppQPctFull_Crit
  - NAS_AA_VSAM_AppQPctFull_Warn
  - NAS_AA_VSAM_CapQPctFull_Crit
  - NAS_AA_VSAM_CapQPctFull_Warn
- The following situation is new and is associated with the NetView Health node in the Navigator:
  - NAS_NVApp_Enterprise_Master
- Table 49 on page 126 shows the changes to existing take action commands for the GDPS Continuous Availability solution.

Table 49. Take Action Command Changes	
Take Action Command	**Changes**
View DB2 Replication Details	This take action command issues the ACTVREPL command. The following arguments that are specified on the command are changed: – WORKLOAD=ALL is changed to WORKLOAD=* – APPSITE, APPSYS, CAPSITE, CAPSYS are removed and are no longer valid arguments The updated take action command is NA: ACTVREPL WORKLOAD=* TYPE=DB2 VIEW=DETAILS.
View IMS Replication Details	This take action command issues the ACTVREPL command. The following arguments that are specified on the command are changed: – WORKLOAD=ALL is changed to WORKLOAD=* – APPSITE, APPSYS, CAPSITE, and CAPSYS are removed and are no longer valid arguments The updated take action command is NA: ACTVREPL WORKLOAD=* TYPE=IMS VIEW=DETAILS.

Table 49. Take Action Command Changes (continued)	
Take Action Command	**Changes**
View Replication Servers	This take action command issues the ACTVREPL command. The following arguments that are specified on the command are changed: – WORKLOAD=ALL is changed to WORKLOAD=* – TYPE=ALL is changed to TYPE=* – APPSITE, APPSYS, CAPSITE, and CAPSYS are removed and are no longer valid arguments The updated take action command is NA: ACTVREPL WORKLOAD=* TYPE=* VIEW=COMMON.

- The following take action commands for the GDPS Continuous Availability solution are new:

Table 50. New Take Action Commands	
Take Action Name	**Take Action Command**
View Replication Workloads	NA: ACTVREPL WORKLOAD=* VIEW=SUMMARY
View VSAM Replication Details	NA: ACTVREPL WORKLOAD=* TYPE=VSAM VIEW=DETAILS

Appendix B. Changes from Tivoli NetView for z/OS V6R2 to Tivoli NetView for z/OS V6R2M1

See the following sections for new, changed, and deleted command lists, messages, samples, and commands from the NetView V6R2 product:

- “Command Lists” on page 134
- “Messages” on page 134
- “Samples” on page 138
- “Command Changes” on page 138

Note: The lists are listed alphabetically from left to right.

For changes to the NetView for z/OS Enterprise Management Agent; see “Enterprise Management Agent Changes” on page 150.

Summary of Changes for the NetView V6R2M1 Program

The following topics list the new and changed functions in the NetView V6R2M1 program:

- “Automation Enhancements” on page 1
- “Configuration Enhancements” on page 1
- “Security Enhancements” on page 2
- “Additional Enhancements” on page 2
- “IP Management” on page 3
- “Removed Functions (GA-Level)” on page 132
- “Removed Functions (Post-GA Service-Level)” on page 133
- “Library Changes” on page 133

Automation Enhancements

Table 51. Automation Enhancements

Function	Description	Additional information
CNM493I Enhancements (OA48181)	The CNM493I message is enhanced to include the Label or Group identifier if it is specified on the automation table statement. If there is no label or group identifier, one of the following will be displayed: • **(AUTOMATED MSU)** if an MSU was automated • The message ID of the automated message following MSGID= • **(NO MSGID)** if the other values are not applicable	*IBM Tivoli NetView for z/OS Automation Guide*

Table 51. Automation Enhancements (continued)		
Function	**Description**	**Additional information**
Message Revision Table, Command Revision Table, and PIPE EDIT (OA52000 and OA52211)	The following enhancements are available: • Allow blanks and commas to be removed from commands before comparing for a match in the Command Revision Table. • Allow characters to be removed from strings in EDIT specifications. • Support hexadecimal strings being specified in UPON statements in Message and Command Revision Tables. • Support PREFIX values that have lengths other than 3.	*IBM Tivoli NetView for z/OS Automation Guide*
Message Revision Table (MRT) Message Flood support (OA52835 and OA52837)	An `MRT UPON FLOOD` condition is added to check for messages that have been acted upon by z/OS Message Flood Automation. The following PIPE EDIT orders are added: • **FLOODACT**: input order that indicates whether z/OS Message Flood Automation has acted upon the message • **NOT**: conversion order to negate an indicator	*IBM Tivoli NetView for z/OS Automation Guide*

Configuration Enhancements

Table 52. Configuration Enhancements		
Function	**Description**	**Additional information**
Conditional %INCLUDE	The %INCLUDE statement is enhanced to allow a member or file to be included when the specified tower or subtower is enabled. The conditional %INCLUDE statement can be specified in any file that supports the %INCLUDE statement.	*IBM Tivoli NetView for z/OS Administration Reference*
MODIFY.TOWER	The MODIFY.TOWER statement in CNMSTYLE provides a method to change initial NetView TOWER statements during early NetView initialization.	*IBM Tivoli NetView for z/OS Administration Reference*
CNMSTYLE Report Generator	The CNMSTYLE Report Generator has been restructured to support CNMSTYLE configuration statements for the NetView Monitoring for GDPS product.	*IBM Tivoli NetView for z/OS Installation: Getting Started*
NetView for z/OS Enterprise Management Agent subnode name (OA46829 and OA47013)	The subnode name in the Tivoli Enterprise Portal (portal) Navigator defaults to the NetView domain name when running the NetView for z/OS Enterprise Management Agent (NetView Agent). A CNMSTYLE statement, NACMD.SUBNODE, provides user-defined subnode name capability.	*IBM Tivoli NetView for z/OS Administration Reference*

Table 52. Configuration Enhancements (continued)		
Function	**Description**	**Additional information**
Canzlog Dynamic Data Space (OA55071 and OA55074)	Canzlog can now be configured to start with a small data space size (128M) for the data space that is associated with the Master Scheduler address space. The data space will stay this size as long as automation keeps up. If automation cannot keep up, the data space size will dynamically increase by 8 M at a time until it reaches the maximum value of 512M or 2G.	*IBM Tivoli NetView for z/OS Installation: Getting Started*

Security Enhancements

Table 53. Security Enhancements		
Function	**Description**	**Additional information**
CNMSCATU (OA48179)	The CNMSCAT2 command authorization table sample includes the new CNMSCATU member, which is intended for user modification.	*IBM Tivoli NetView for z/OS Security Reference*

Additional Enhancements

Table 54. Additional Enhancements		
Function	**Description**	**Additional information**
Global variables (OA47872 and OA47874)	The following enhancements are available to the common and task global variable support: • The maximum length of the global variable name has been increased to 250 characters. • The maximum length of the global variable value has been increased to 31000 characters.	*IBM Tivoli NetView for z/OS Programming: REXX and the NetView Command List Language*
DBAUTO (OA48180)	Serviceability enhancements are added to display the failing sub-command when the DBAUTO command fails.	*IBM Tivoli NetView for z/OS Command Reference Volume 1 (A-N)*
Canzlog Archive (OA48626)	A new DEFAULTS parameter, **CzTopAge**, is introduced, which allows the setting of a time period in days of how far back NetView will access Canzlog historical data in archives for BROWSE operations. When **CzTopAge** is set, only the Canzlog archive data sets containing data whose age is no older than the specified number of days are accessed by default.	*IBM Tivoli NetView for z/OS Command Reference Volume 1 (A-N)*
NetView Initialization (OA51973 and OA51974)	The number of messages written to the z/OS console and to syslog during NetView initialization are reduced. Message BNH191E Policy autotask is different from AON autoTask. This configuration is not supported.	*IBM Tivoli NetView for z/OS Messages and Codes Volume 1 (AAU-DSI)*
Canzlog Archive Global Variables (OA52165)	Documentation describes the global variables that result from CNMSTYLE ARCHIVE. statements.	*IBM Tivoli NetView for z/OS Administration Reference*

Table 54. Additional Enhancements (continued)		
Function	**Description**	**Additional information**
APSERV (OA52212 and OA52213)	The APSERV command interface is enhanced to remove the MVS prefix restriction and to support NetView commands.	*IBM Tivoli NetView for z/OS Application Programmer's Guide*
Command Statistics (OA55075 and OA55076)	Utilization statistics, such as CPU time, storage, and I/O operations, are provided at the command level.	*IBM Tivoli NetView for z/OS Administration Reference* *IBM Tivoli NetView for z/OS Configuring Additional Components*
Canzlog Print (OA55078 and OA55077)	The PRINT command provides the ability to print Canzlog messages while the NetView program is active. The PRINT command can be issued in the following methods: • NETVIEW operator's console • BROWSE window • CANZLOG panel • NVINFO	*IBM Tivoli NetView for z/OS Administration Reference* *IBM Tivoli NetView for z/OS Command Reference Volume 2 (O-Z)*
ARCHIVE.BROWSE.MAXDSPSIZE	The ARCHIVE.BROWSE.MAXDSPSIZE statement in CNMSTYLE member provides a way to define the maximum number of megabytes that the NetView program can allocate for browsing the archived Canzlog data.	*IBM Tivoli NetView for z/OS Administration Reference*

IP Management

Table 55. IP Management Enhancements		
Function	**Description**	**Additional information**
SNMP command	Encryption using Advanced Encryption Standard (AES) can be used for SNMPv3 requests sent and received using the SNMP command.[1]	SNMP (NCCF; CNMESNMP) command in the NetView online help or *IBM Tivoli NetView for z/OS Command Reference Volume 2 (O-Z)*
Inbound SNMP trap processing	An SNMP trap automation task can decrypt SNMP version 3 (SNMPv3) traps that were encrypted using AES.[1]	SNMP Trap Automation in the *IBM Tivoli NetView for z/OS Automation Guide*
Discovery Manager	Support has been added for OSA-Express®5S	*IBM Tivoli NetView for z/OS Installation: Configuring Additional Components*

[1] To use AES encryption, z/OS Cryptographic Services Integrated Cryptographic Service Facility (ICSF) must be configured and running on the z/OS host on which NetView is also running.

Removed Functions (GA-Level)

Several functions were removed from the NetView product for V6.2.1.

Table 56. Removed Functions		
Function	**Description**	**Additional information**
GDPS Continuous Availability solution	Functionality in support of the GDPS Continuous Availability solution has been removed from the NetView for z/OS product and is available in the NetView Monitoring for GDPS product.	IBM NetView Monitoring for GDPS *Configuring and Using the GDPS Continuous Availability Solution*
MVS Command Management	This function is superseded by the Command Revision Table function.	"Command Revision Table" section in the *IBM Tivoli NetView for z/OS Automation Guide*
Visual BLDVIEWS (VBV)	This function is superseded by the RODM Collection Manager function in the NetView Management Console.	"RODM Collection Manager" section in *IBM Tivoli NetView for z/OS Installation: Configuring Graphical Components*
Common Event Infrastructure Service	There are several alternatives to this function, including the use of Event Integration Facility (EIF) events, SNMP traps, and system messages.	"Event/Automation Service" section in the *IBM Tivoli NetView for z/OS Automation Guide*
4700 support facility (TARA)	This function has no replacement. The hardware it supported is no longer manufactured and is out of support.	

Removed Functions (Post-GA Service-Level)

Several functions were removed from the NetView product for post-GA service-level:

- Multi-System Manager Network Manager IP Agent
- Tivoli Common Reporting (BIRT formatted reports)
- NetView Web Application Server

Library Changes

Table 57. Library Changes		
Publication	**Description**	**Additional information**
IBM Tivoli NetView for z/OS *Installation: Configuring the GDPS Continuous Availability Solution*	This publication has been removed from the NetView library. Additionally, information about NetView support for the GDPS Continuous Availability solution has been removed from the library.	See *Configuring and Using the GDPS Continuous Availability Solution* for information about the IBM Tivoli NetView Monitoring for GDPS offering and migration information.
IBM Tivoli NetView for z/OS Installation: Configuring the NetView Enterprise Management Agent	"Appendix E. Configuring the NetView agent using the configuration tool" has been removed.	

Table 57. Library Changes (continued)		
Publication	**Description**	**Additional information**
IBM Tivoli NetView for z/OS Installation: Migration Guide	Information on migrating from NetView V5R1 and NetView V5R2 has been removed from the library.	For information about migrating from the NetView V5R1 or NetView V5R2 release, see the *Installation: Migration Guide*, GC27-2854-02, available in the NetView for z/OS V6R2 library.
General library changes	Information for the following outdated functions has been removed: • 4700 support facility (TARA) • Common Event Infrastructure Service • MVS Command Management • Visual BLDVIEWS (VBV)	For information on replacement functions and which commands, command lists, messages, and samples were deleted because the function were removed, see the following sections: • “Removed Functions (GA-Level)” on page 132 • “Removed Functions (Post-GA Service-Level)” on page 133 • Appendix B, “Changes from Tivoli NetView for z/OS V6R2 to Tivoli NetView for z/OS V6R2M1,” on page 129

Command Lists

This section lists deleted command lists for the NetView V6R2M1 program:

- “Deleted Command Lists” on page 134

Do not issue these command lists from a NetView command line. Most of the NetView command lists that are included with the NetView program are used internally by the NetView program and might have unpredictable results when issued from a NetView command line.

Deleted Command Lists

AQNEEVNT	AQNE1000	AQNE1001	AQNE1002
AQNE1003	AQNE1004	AQNE1005	

Messages

This section lists new and changed messages for the NetView V6R2M1 program:

- “New Messages” on page 135
- “Changed Messages” on page 136
- “Deleted Messages” on page 138

New Messages

AQN030I
DISPLAY OF REPLICATION SERVER WORKLOADS *workload_name* FOR DATA SOURCE *type*

AQN033I
DISPLAY OF Q REPLICATION DATA FOR SEND QUEUE *send_queue* WORKLOAD *workload_name*

AQN035I
DISPLAY OF Q REPLICATION CAPTURE SERVER *server_job_name* DATA ON SITE *server_site*

AQN055D
tower_name tower not enabled. Required software not installed.

AQN056I
DISPLAY OF Linux on z Systems® WORKLOAD SERVERS

AQN057I
DISPLAY OF SNA WORKLOAD SERVERS

AQN058I
SOURCE SYSPLEX STATEMENT MISSING FOR PROXY DATABASE OR FILE SYSTEM FOR SYSPLEX sysplex. DEFAULT VALUE OF AQNPLEX WILL BE USED.

AQN059I
DISPLAY OF MQ WORKLOAD CLUSTERS FOR WORKLOAD NAME *workload_name*

BNH191E
Policy autotask is different from AON autoTask. This configuration is not supported.

BNH917I
The following *gtype* global variables are too long for the requested function:

BNH918I
Data has been truncated: *qual1 qual2*

BNH919I
command : STATUS INFORMATION

BNH920I
count COMMAND STATISTICS RECORDS DISPLAYED

CNM102I
CANZLOG PRINT FROM DOMAIN *domain* AT *date&time* FILTER: *filterspec* PREFIXES: *prefixes* DETAIL FOR MVS MESSAGE: *detail_id_list* DETAIL FOR NETVIEW MESSAGE: *detail_id_list*

CNM162E
mprocess BUFFERING IS CRITICAL. MESSAGES LOST IN APPROXIMATELY *dtime* SECONDS.

CNM163I
DATA BUFFERING STORAGE HAS INCREASED TO *newsize* MEGABYTES.

CNM164A
mprocess FELL BEHIND. *Ltype* MESSAGE LOSS. FROM *timestampOne* TO *timestampTwo*.

CNM165I
DATA BUFFERING USAGE IS AT MAXIMUM.

CNM166I
number MESSAGES PRINTED SUCCESSFULLY TO *datasetname* WITH FILTER *filterspec*.

DWO097E
Configuration not supported *reason_text*

DWO098W
UNAUTHORIZED CLIENT *username* SENT DATA TO *service*, ID = '*symbol*'

DWO294I
NO CLIENTS IN CONFIGURATION. *service* IS DISABLED.

Changed Messages

The following messages changed in one or more of the following ways:

- The message text or case changed.
- The value of a message variable insert changed.
- The information provided in a multiline write-to-operator (MLWTO) message changed.

For specific details of how a message is being presented by the NetView program, refer to the online message help.

AQN020I
DISPLAY OF LIFELINE ADVISORS

AQN021I
DISPLAY OF LIFELINE AGENTS

AQN022I
DISPLAY OF LOAD BALANCER GROUPS FOR LOAD BALANCER AT IP ADDRESS *ipaddress*

AQN023I
DISPLAY OF LOAD BALANCERS

AQN025I
DISPLAY OF z/OS WORKLOAD SERVERS

AQN026I
DISPLAY OF WORKLOAD SITES FOR WORKLOAD *workload_name*

BNH039I
globalvarname globalvarvalue

BNH066I
taskid o_netview o_opid VxRyMz N/A *transport*

BNH069I
netid.domainid version transport

BNH495I
NUMBER OF NETVIEW APPLICATIONS: *numnvapp*

BNH538I
systemid jobname jobnumber addspace_id wtoseq msg_type nvdel_id msg_text

BNH594I
PLEXNAME GROUP MEMBER SYSTEM STATUS ROLE RANK DUR FLGS VER TIMESTMP TOKEN

BNH597I
NUMBER OF OSA PORTS: *numosa*

BNH879I
NETVIEW ENTERPRISE MANAGEMENT AGENT *subnode* SUBNODE IS ACTIVE

BNH880I
NETVIEW ENTERPRISE MANAGEMENT AGENT *subnode* SUBNODE IS INACTIVE

BNJ906I
CMD FACILITY ROUTE CMD DETECTED BY HARDWARE MONITOR - COMMAND WAS REJECTED

BNJ950I
DATA SERVICES FAILURE IN PROCESSING LAST COMMAND

BNJ965I
END COMMAND HAS BEEN ISSUED, SESSION WILL BE TERMINATED

BNJ974I
SCREEN HAS BEEN PRINTED

BNJ975I
SCREEN LOGGED BUT NOT PRINTED

BNJ976I
STORAGE NOT AVAILABLE TO COPY USER INPUT BUFFER. RC=04

BNJ977I
AN INVALID EXTERNAL LOG TYPE WAS SPECIFIED. RC=24

BNJ978I
DSIMQS FAILED WHEN ATTEMPTING TO SEND RECORD TO EXTERNAL TASK. RC=28

BNJ979I
DSIWLS FAILED. RC=*retcode*

BNJ1335I
COULD NOT SEND FULL SCREEN DUE TO DSIPSS ERROR RC=*retcode*

BNJ1576I
COULD NOT SEND MESSAGE TO SCREEN DUE TO DSIPSS ERROR RC=*retcode*

CNM236I
commandname : *functionname* FAILED WITH RETURN CODE *returncode*

CNM493I
member : seqnum : labgrp : commandtext

CNM558I
The NetView subsystem router for *ssi_name* is not active.

CNM600I
object status: *object_status*

CNM630I
The NetView subsystem interface is partially initialized by *ssi_name*.

DSI229I
INVALID VALUE ON DEFINITION STATEMENT IN *object* - STATEMENT IGNORED

DUI4030E
parameter MISSING FROM GMFHS INITIALIZATION PARAMETERS

DWO653I
DISPLAY DEFAULTS OVERRIDES

DWO654I
DISPLAY DEFAULTS

DWO990I
type global variable *variable_name* set by *command* via *invoked_LRC*--->*calling_LRC* to value --->*new_value*<---

DWO991I
type global variable *variable_name* set by *command* via *invoked_LRC* to value --->*new_value*<---

DWO992I
type global variable *variable_name* set by *command* to value --->*new_value*<---

DWO994I
type global variable *variable_name* set to value --->*new_value*

EKGV8053E
A blank User password is not valid with the User ID specified

EKGV9015E
A blank user password is not valid with user ID specified

IHS0200I
service: Number of ServerPorts (*number*) exceeds the maximum of *maxnum*; ignoring extras.

IHS0201I
service: At least one ServerLocation must be specified.

Deleted Messages

BNJ622I	BNJ624I	BNJ625I	BNJ635I
BNJ636I	BNJ637I	BNJ664I	BNJ665I
BNJ690I	BNJ808I	BNJ809I	BNJ810I
BNJ820I			

Samples

"New Samples" on page 138 lists new samples for the NetView V6R2M1 program:

"Deleted Samples" on page 138 lists deleted samples for the NetView V6R2M1 program:

New Samples

AQNDMMY1	CNMCRGC1	CNMCRGR1	CNMS8053
CNMS8054	CNMSCATU	CNMSCSDP	CNMSCSFM
CNMSCSIE	CNMSCSSU	CNMSJM15	

Deleted Samples

AQNCAT	AQNCMD	AQNOPF	AQNSACTA
AQNSAF	BNJ36DST	CNMCRGI1	CNMCRGI2
CNMS4VSM	CNMSCBEA	CNMSCBET	CNMSTLIF
CNMSTREP			

Command Changes

This section lists new and changed commands for the NetView V6R2M1 program:

- "Changed Commands" on page 138
- "Deleted Commands" on page 139

New Commands

- CMDMON (NCCF)
- PRINT (BROWSE)
- PRINT (CANZLOG)
- PRINT (NCCF)

Changed Commands

The following commands have been changed:

- CGED (NCCF)
- DEFAULTS (NCCF)
- GLOBALV AUTO (REXX)
- GLOBALV DEF (REXX)
- GLOBALV GET (REXX)
- GLOBALV PURGE (REXX)

- GLOBALV PUT (REXX)
- GLOBALV RESTORE (REXX)
- GLOBALV REXX
- GLOBALV SAVE (REXX)
- GLOBALV TRACE (REXX)
- LISTVAR (NCCF; CNME1006)
- MEMSTORE
- NVINFO
- PIPE VET
- QRYGLOBL (NCCF)
- REFRESH (NCCF)
- RESTYLE (NCCF)
- SETCGLOB
- SOACTL (NCCF)
- TASKUTIL
- UPDCGLOB

Deleted Commands

The following commands were deleted:

- ACTVCTL (NCCF)
- ACTVLIFE (NCCF)
- ACTVREPL (NCCF)
- ALLC (TARA)
- CTRL (LPDA)
- CTRL (TARA)
- DISPCBET
- DISPLAY (TARA)
- LINKDATA
- LINKPD
- LINKTEST
- LOOP (TARA)
- SYSMON (TARA)
- TCTRL (TARA)
- TERR (TARA)
- TSTAT (TARA)
- TTERR (TARA)
- TTRESP (TARA)
- TWERR (TARA)
- TWRESP (TARA)
- TWSTAT (TARA)
- VBVSERV
- WKSTA (TARA)

Enterprise Management Agent Changes

This section lists changes introduced with the following APARs in the NetView for z/OS for version 6.2.1:

Changes introduced with APAR OA52115

The following changes are available with the NetView for z/OS Enterprise Management Agent for Version 6.2.1 when APAR OA52115 is applied:

- All queries and workspaces that are new or changed by the APAR include the qualifier（V6212）in the query and workspace descriptions.
- Table 58 on page 140 shows the changes to existing workspaces that are used for monitoring the status of workloads and other managed elements in the GDPS Continuous Availability solution.

Table 58. Workspace Changes for the GDPS Continuous Availability solution

Workspaces	Changes
– Filtered Workload Servers – Workload Servers – zOS Workload Server Details – MQ Workload Cluster Details – SNA Workload Server Details	– The following attributes are added to the Workload Servers attribute group: - zOS Site Name (displayed for SNA, MQ Workload Cluster and zOS servers) – The following link is changed: - The MQ Workload Cluster Details link now filters on the Cluster Name in addition to IP Address:Port and Image Name.
Workload Lifeline Agents	The following attributes are added to the Workload Lifeline Agents attribute group: – zOS Site Name

Changes introduced with APAR OA51631

The following changes are available with the NetView for z/OS Enterprise Management Agent for Version 6.2.1 when APAR OA51631 is applied:

- All queries and workspaces that are new or changed by the APAR include the qualifier（V6211）in the query and workspace descriptions.
- Table 59 on page 141 shows the changes to existing workspaces that are used for monitoring the status of workloads and other managed elements in the GDPS Continuous Availability solution.

Table 59. Workspace Changes for the GDPS Continuous Availability solution	
Workspaces	**Changes**
– Filtered Workload Servers – Workload Servers	– The Filtered Workload Servers and Workload Servers workspaces are updated to include MQ workload clusters and change Linux on System z to Linux on z Systems. – The following attributes are added to the Workload Servers attribute group: - Cluster Name (displayed for MQ Workload Clusters) - Queue Manager Name (displayed for MQ Workload Clusters) - Queue Manager Availability (displayed for MQ workload clusters) – The following views are added, changed or deleted: - The Workload Servers by Type bar chart view added MQ workload clusters as a server type. A bar is not displayed for server types with zero servers or zero clusters. - The MQ Workload Clusters Summary table view is added. This table displays summary information for each MQ Workload Cluster. - The title of the Linux on System z Workload Servers Summary table view is changed to Linux on z Systems Workload Servers summary. – The following links are changed or added: - The Linux on System z Workload Server Details link name is changed to Linux on z Systems Workload Server Details. This link targets the renamed Linux on z Systems Workload Server Details workspace. - The MQ Workload Cluster Details link is added to the MQ Workload Cluster Summary table. This new link targets the new MQ Workload Cluster Details workspace.
– Filtered Workloads – Workloads	The existing Workload Servers link in the Workloads Summary table targets the Filtered Workload Servers workspace. This link is updated to filter the new queries in the target workspace.
Workload Lifeline Agents	For Agent Type, the value of Linux on System z is changed to Linux on z Systems.
VSAM Replication Details	The following attribute is added to the VSAM Replication Apply Details attribute group: – Apply Exit Name
DB2® Replication Details	– The following attributes are added to the DB2 Replication Capture Server attribute group: - Large Transaction Warnings - Log API Warnings - Log Read No Progress Error Count - Log Read Error Count - Total MQ Commit Time – The following attribute is added to the DB2 Replication Capture Workload attribute group: - MQ Put Time

Table 59. Workspace Changes for the GDPS Continuous Availability solution (continued)	
Workspaces	**Changes**
Filtered Replication Servers	The following attributes are added to the Replication Servers attribute group: – Source Site Name – Average Transaction Response Time – Average Transaction Dependency Delay
Replication Servers	The following attributes are added to the Replication Workloads attribute group: – Source Site Name – Average Transaction Response Time

- The following situations for the GDPS Continuous Availability solution are new:
  - NAS_AA_DB2_LargeTransWarning
  - NAS_AA_DB2_LogAPIWarning
  - NAS_AA_DB2_NoProgress
- Table 60 on page 142 shows the new workspaces that are used for monitoring the status of workloads and other managed elements in the GDPS Continuous Availability solution.

Table 60. New Workspaces for the GDPS Continuous Availability solution	
Workspace	**Attribute Group**
MQ Workload Cluster Details	Workload Servers

Changes introduced with APAR OA46519

The following changes are available with the NetView for z/OS Enterprise Management Agent for Version 6.2.1 when APAR OA46519 is applied:

- All queries and workspaces that are new or changed for Version 6.2.1 include the qualifier（V621）in the query and workspace descriptions. The identification of the version, release, and modification level for queries and workspaces began with Version 5 Release 4. Queries and workspaces that were part of the product before V5R4 do not include a qualifier.
- Table 61 on page 142 shows the changes to existing workspaces.

Table 61. Workspace Changes	
Workspace	**Changes**
NetView Applications	The format of the value for the existing NetView Version attribute is changed from V*v*R*r* to V*vrm*, where *v* is the version number, *r* is the release number and *m* is the modification number.

Table 61. Workspace Changes (continued)	
Workspace	**Changes**
OSA Channels and Ports	– The following values for the existing Channel Hardware Level attribute are added for monitoring the channel and port configuration of OSA-Express4S and OSA-Express5S features: - osaExp500 (6) - osaExp600 (7) – The following values for the existing Port Type attribute are added: - 195: osaexp5SgigabitEthernet - 196: osaexp5SoneThousandBaseTEthernet - 197: osaexp5StenGigabitEthernet – The following values for the existing Subtype attribute are added: - 195: osaexp5gigabitEthernet - 196: osaexp5oneThousandBaseTEthernet - 197: osaexp5tenGigabitEthernet

- Table 62 on page 143 shows the changes to existing workspaces that are used for monitoring the status of workloads and other managed elements in the GDPS Continuous Availability solution.

Table 62. Workspace Changes for the GDPS Continuous Availability solution	
Workspaces	**Changes**
Active/Query Workloads	The existing Workload Servers link in the Active/Query Workloads Summary table targets the Filtered Workload Servers workspace. This link is updated to filter the new queries in the target workspace.

Table 62. Workspace Changes for the GDPS Continuous Availability solution (continued)

Workspaces	Changes
– Filtered Workload Servers – Workload Servers	– The Filtered Workload Servers and Workload Servers workspaces are updated to display Linux on z Systems and SNA workload servers, in addition to z/OS workload servers. – The following attributes are added to the Workload Servers attribute group: - Agent Guest Name (displayed for Linux on z Systems workload servers) - Application Name (displayed for SNA workload servers) - Network ID (displayed for SNA workload servers) - Server Count (for NetView product internal use and filtered out of the table view by default) - Server Guest Name (displayed for Linux on z Systems workload servers) - Server Type (filtered out of the table view by default) – The caption for the existing z/OS Image Name attribute is changed to Image Name. – The following views are added, changed or deleted: - The Workload Servers by Type bar chart view is added. This new view provides a snapshot of the number of workload servers by type: Linux on z Systems, SNA and z/OS. A bar is not displayed for server types with zero servers. - The title of the Workload Servers Summary table view is changed to z/OS Workload Servers Summary and displays summary information for each z/OS workload server. - The Linux on z Systems Workload Servers Summary table view is added. This new table displays summary information for each Linux on z Systems workload server. - The SNA Workload Servers Summary table view is added. This table displays summary information for each SNA workload server. - The Net Weight bar chart and Abnormal Terminations bar chart views are deleted. – The following links are changed or added: - The name of the existing Workload Server Details link in the z/OS Workload Servers Summary table is changed to z/OS Workload Server Details. - The Linux on z Systems Workload Server Details link is added to the Linux on z Systems Workload Servers Summary table. This new link targets the new Linux on z Systems Workload Server Details workspace. - The SNA Workload Server Details link is added to the SNA Workload Servers Summary table. This new link targets the new SNA Workload Server Details workspace.
– Filtered Workloads – Workloads	The existing Workload Servers link in the Workloads Summary table targets the Filtered Workload Servers workspace. This link is updated to filter the new queries in the target workspace.

Table 62. Workspace Changes for the GDPS Continuous Availability solution (continued)	
Workspaces	**Changes**
Load Balancers	– The expression for the linkIsEnabled parameter that determines enablement of the existing Load Balancer Groups link that is defined in the Load Balancer Summary table is changed. For details, see **Load Balancers Workspace**. – The expression for the linkIsEnabled parameter that determines enablement of the existing Load Balancer Workloads link that is defined in the Load Balancer Summary table is changed. For details, see **Load Balancers Workspace**.
Workload Lifeline Advisors	The existing Workload Servers link in the Workload Lifeline Advisors Summary table targets the Workload Servers workspace. This link is updated to filter the new queries in the target workspace.
Workload Lifeline Agents	– The following attribute is added to the Workload Lifeline Agents attribute group: - Agent Type – The caption for the existing z/OS Image Name attribute is changed to Image Name. – The name of the existing Workload Servers link in the Workload Lifeline Agents Summary table is changed to Workload Servers for z/OS. It is enabled for rows where the value of Monitored Servers is not equal to zero and the value of Agent Type is equal to z/OS (1). This link is updated to filter the new queries in the target Filtered Workload Servers workspace. – The Workload Servers for Linux on z Systems link is added to the Workload Lifeline Agents Summary table. It is enabled for rows where the value of Monitored Servers is not equal to zero and the value of Agent Type is equal to Linux on z Systems Management Guest (2). This link targets the Filtered Workload Servers workspace.
Workload Server Details	– The name of the existing Workload Server Details workspace is changed to z/OS Workload Server Details. – The name of the existing Workload Server Details Summary table view is changed to z/OS Workload Server Details Summary.

- Table 63 on page 145 shows the new workspaces that are used for monitoring the status of workloads and other managed elements in the GDPS Continuous Availability solution.

Table 63. New Workspaces for the GDPS Continuous Availability solution	
Workspace	**Attribute Group**
Linux on z Systems Workload Server Details	Workload Servers
SNA Workload Server Details	Workload Servers

Appendix C. Changes from Tivoli NetView for z/OS V6R2M1 to IBM Z NetView V6R3

See the following sections for new, changed, and deleted command lists, messages, samples, and commands from the NetView V6R2M1 product:

For changes to the Z NetView Enterprise Management Agent, see "Enterprise Management Agent Changes" on page 150.

Command Lists

This section lists new command lists for the NetView V6R3 program:

Do not issue these command lists from a NetView command line. Most of the NetView command lists that are included with the NetView program are used internally by the NetView program and might have unpredictable results when issued from a NetView command line.

New Command Lists

CNME4000	EJNNVCMD	EJNSRVIN	CNMEATST
CNMEATT	CNMEATV	CNMESAVE	

Messages

This section lists new and changed messages for the NetView V6R2M1 program:

New Messages

BNH410I
SEQUENT NAMES FOUND: *num*

BNH411I
SEQUENT NAME STATE TASK DATE TIME DURATION

BNH412I
sequent_name state taskname date time duration

BNH413I
COMMAND *cmd* UNDER TASK *taskname* OBTAINED SEQUENT *sequent_name* AS *type*

BNH414I
COMMAND *cmd* UNDER TASK *taskname* RELEASE SEQUENT *sequent_name*

BNH415I
COMMAND *cmd* UNDER TASK *taskname* WAITING TO OBTAIN SEQUENT *sequent_name* AS *type*

BNH416I
num SEQUENT FILTERS BEING MONITORED BY *opid*

BNH417W
SEQUENT *sequent_name* FORCIBLY RELEASED UNDER TASK *taskname* - CODE *code*

BNH418W
MORE THAN *num* SEQUENT NAMES DEFINED - PERFORMANCE ISSUES MIGHT ARISE

BNH919I
command : STATUS INFORMATION

BNH920I
count COMMAND STATISTICS RECORDS DISPLAYED

BNH921I
INVALID DELIMITER FOUND FOR REGULAR EXPRESSION *'pattern'*

BNH922I
NO ENDING DELIMITER FOUND FOR REGULAR EXPRESSION *'pattern'*

BNH923I
UNMATCHED *'symbol'* CHARACTER IN REGULAR EXPRESSION *'pattern'*

BNH924I
MISPLACED QUANTIFIER IN REGULAR EXPRESSION *'pattern'*

BNH925I
INVALID QUANTIFIER IN REGULAR EXPRESSION *'pattern'*

BNH926I
MISPLACED BEGINNING OF STRING ANCHOR IN REGULAR EXPRESSION *'pattern'*

BNH927I
MISPLACED END OF STRING ANCHOR IN REGULAR EXPRESSION *'pattern'*

BNH928I
INVALID OPTION *'option'* FOLLOWS REGULAR EXPRESSION *'pattern'*

BNH929I
UNSUPPORTED CHARACTER IN REGULAR EXPRESSION *'pattern'*

BNH930I
INVALID HEXADECIMAL CHARACTER IN REGULAR EXPRESSION *'pattern'*

BNH931W
COMMAND STATISTICS SMF DATA SPACE RECORDING IS SUSPENDED

BNH932I
SECURITY DETAILS FOR *count* CONNECTIONS. MISSED BUFFERS: *missedcount*

BNH933I
TESTING COMPLETED. TOTAL MATCHES: *matchCount*, TOTAL COMPARISONS: *compareCount*

BNH934I
COMMAND STATISTICS SMF DATA SPACE RECORDING IS RESUMED. *number* RECORDS LOST

BNH935I
COMMAND STATISTICS SMF LOGGING ENDED DUE TO *task* TASK TERMINATION. REASON: *reason*

CNM167I
INVALID VALUE *value* IS SPECIFIED FOR *object*. VALUE *newvalue* IS USED INSTEAD.

CNM634I
YOUR REQUEST WAS IGNORED: SMF LOGGING IS ALREADY STARTED

CNM635I
YOUR REQUEST WAS IGNORED: SMF LOGGING IS ALREADY STOPPED

EJN001I
AUTOMATION TABLE STATEMENT SAVED SUCCESSFULLY

EJN002I
AUTOMATION TABLE STATEMENT SAVE FAILED

Changed Messages

The following messages changed in one or more of the following ways:

- The message text or case changed.
- The value of a message variable insert changed.
- The information provided in a multiline write-to-operator (MLWTO) message changed.

For specific details of how a message is being presented by the NetView program, see the online message help.

CNM163I
DATA BUFFERING STORAGE HAS INCREASED TO *newsize* MEGABYTES FOR THE *czstate* CANZLOG DATA SPACE(S).

CNM165I
DATA BUFFERING USAGE IS AT MAXIMUM FOR THE *czstate* CANZLOG DATA SPACE(S).

CNM299I
ddname dataset member disp

Deleted Messages

BNJ017I	BNJ018I	BNJ123I	BNJ1580I	BNJ1581I	BNJ1587I
BNJ1588I	BNJ1589I	BNJ1592I	BNJ1595I	BNJ1601I	BNJ1602I
BNJ1603I	BNJ1604I	BNJ1605I	BNJ1606I	BNJ1607I	BNJ1608I
BNJ1609I	BNJ1610I	BNJ1614I	BNJ1619I	BNJ1621I	BNJ228I
BNJ229I	BNJ246I	BNJ268I	DSI276I	DSI281I	DSI282I
DSI283I	DSI284I	DSI285I	DSI286I	DSI287I	DSI288I
DSI298I	DSI299I	DSI311I	DSI312I	DSI313I	DSI314I
DSI315I	DSI316I	DSI317I	DSI318I	DSI319I	DSI320I
DSI321I	DSI322I	DSI323I	DSI324I	DSI325I	DSI326I
DSI327I	DSI328I	DSI329I	DSI330I	DSI332I	DSI333I
DSI334I	DSI338I	DSI339I	DSI340I	DSI346I	DSI347I
DSI348I	DSI349I	DSI350I	DSI351I	DSI352I	DSI353I
DSI354I	DSI355I	DSI389I	DSI420I	DSI425I	DSI426I
DSI427I	DSI429I	DSI438I	DSI440I	DSI441I	DSI442I
DSI513I	DSI514I	DSI564I	DSI595I	DSI635I	DSI656I
DSI659I	DWO606I	DWO613I	FKV822I	FKV823I	FKV824I
FKV825I	FKV826I	FKV827I	FKV828I	FKV829I	FKV830I
FKV832I	FKV833I	FKV837I	FKV840I	FKV842I	FKV852I
FKV853I	FKV854I	FKV855I			

Samples

"New Samples" on page 82 lists new samples for the NetView V6R3 program:

New Samples

application.yml	CNMSJSNF	CNMSZERT
EJNSSRST	NetViewRestServer.yml	NetViewSample

Command Changes

This section lists new and changed commands for the NetView V6R3 program:

- "New Commands" on page 150
- "Changed Commands" on page 150

New Commands

CONNSEC	SEQUENT

Changed Commands

AUTOTEST	CMDMON	LISTA
NPDA DFILTER	NPDA SRFILTER	PIPE LOCATE
PIPE NLOCATE	START (NCCF)	STOP (NCCF)

Enterprise Management Agent Changes

The following changes are available with the IBM Z NetView Enterprise Management Agent for Version 6 Release 3:

- All queries and workspaces that are new or changed for Version 6 Release 3 include the qualifier (V630) in the query and workspace descriptions. The identification of the version, release, and modification level for queries and workspaces began with Version 5 Release 4. Queries and workspaces that were part of the product before V5R4 do not include a qualifier.
- Tables Table 64 on page 150 and Table 65 on page 151 show the changes to existing workspaces and new workspaces that are used to monitor active TCP/IP connections.

Table 64. Workspace Changes for Version 6 Release 3

Workspace	Changes
Filtered TCPP Connection Data	The Filtered TCPIP Connection Data Summary table has a new link defined to go to a new workspace containing information from KNAENC about encryption protocols in use on the connection and other security-related information.

Table 64. Workspace Changes for Version 6 Release 3 (continued)	
Workspace	**Changes**
OSA Channels and Ports	The following values for the existing **Port Type** attribute are added: • 198: osaexp71000BaseTE • 199: osaexp71GbE • 200: osaexp710GbE The following values for the existing **Subtype** attribute are added: • 198: osaexp71000BaseTE • 199: osaexp71GbE • 200: osaexp710GbE
TCPIP Connection Data	A new table view has been added that shows the information for the KNACNT attribute group. Each row in the table shows a count of the number of active connections for a given encryption protocol (TLS/SSL, SSH, IPSec or None). Each row has a link to a new workspace containing a table view with selected information for the KNAENC attribute group pertinent to that encryption protocol. The TCPIP Connection Data Summary table has a new link defined to go to a new workspace containing information from KNAENC about encryption protocols in use on the connection and other security-related information.

Table 65. New Workspaces for Version 6 Release 3	
Workspace	**Description**
Certificate Details	This workspace contains three views containing information for KNACER about the digital certificates being used on the connection.
Connections Using IPSec	This workspace contains a table view populated with information from KNAENC about IPSec encryption such as encryption algorithms. The table contains links to new workspaces containing certificate data.
Connections Using SSH	This workspace contains a table view populated with information from KNAENC about SSH encryption such as encryption algorithms. The table contains links to new workspaces containing certificate data.
Connections Using TLS	This workspace contains a table view populated with information from KNAENC about TLS/SSL encryption such as cipher suites and encryption algorithms. The table contains links to new workspaces containing certificate data and cipher suite information.

Table 65. New Workspaces for Version 6 Release 3 (continued)	
Workspace	**Description**
Security Details for Connection	This workspace displays data from the KNAENC attribute group about security protocols for a connection. There are four views defined in the workspace: • An overview summarizing the endpoints and ports for the connection, the protocols in use, and the status of IP filtering for the connect • A view containing details for TLS/SSH encryption, if in use • A view containing details for SSH encryption, if in use • A view containing details for IPSec encryption, if in use Each detailed view contains links that go to workspaces displaying data for digital certificates being used by the encryption protocol. The TSL view also contains a link to the IANA registry for cipher suites.
TSL Cipher Suites	This workspace contains a browser view that links to the IANA registry for TLS cipher suites.
Unsecured Connections	This workspace contains a table view populated with information from KNAENC about connections that are not using any encryption protocols.

Appendix D. New and Changed Functions Delivered in the NetView V6R2M1 program using the Continuous Delivery Model

You can find the new and changed functions that were done using the continuous delivery model after the NetView V6R2M1 program GA in the following table.

Function	Description	Additional information
NetView for z/OS Enterprise Management Agent subnode name (OA46829 and OA47013)	The subnode name in the Tivoli Enterprise Portal (portal) Navigator defaults to the NetView domain name when running the NetView for z/OS Enterprise Management Agent (NetView Agent). A CNMSTYLE statement, NACMD.SUBNODE, provides user-defined subnode name capability.	*IBM Tivoli NetView for z/OS Administration Reference*
Global variables (OA47872 and OA47874)	The following enhancements are available to the common and task global variable support: • The maximum length of the global variable name has been increased to 250 characters. • The maximum length of the global variable value has been increased to 31000 characters.	*IBM Tivoli NetView for z/OS Programming: REXX and the NetView Command List Language*
CNMSCATU (OA48179)	The CNMSCAT2 command authorization table sample includes the new CNMSCATU member, which is intended for user modification.	*IBM Tivoli NetView for z/OS Security Reference*
DBAUTO (OA48180)	Serviceability enhancements are added to display the failing sub-command when the DBAUTO command fails.	*IBM Tivoli NetView for z/OS Command Reference Volume 1 (A-N)*

Function	Description	Additional information
CNM493I Enhancements (OA48181)	The CNM493I message is enhanced to include the Label or Group identifier if it is specified on the automation table statement. If there is no label or group identifier, one of the following will be displayed: • **(AUTOMATED MSU)** if an MSU was automated • The message ID of the automated message following MSGID= • **(NO MSGID)** if the other values are not applicable	*IBM Tivoli NetView for z/OS Automation Guide*
Canzlog Archive (OA48626)	A new DEFAULTS parameter, **CzTopAge**, is introduced, which allows the setting of a time period in days of how far back NetView will access Canzlog historical data in archives for BROWSE operations. When **CzTopAge** is set, only the Canzlog archive data sets containing data whose age is no older than the specified number of days are accessed by default.	*IBM Tivoli NetView for z/OS Command Reference Volume 1 (A-N)*
NetView Initialization (OA51973 and OA51974)	The number of messages written to the z/OS console and to syslog during NetView initialization are reduced. Message BNH191E Policy autotask is different from AON autoTask. This configuration is not supported.	*IBM Tivoli NetView for z/OS Messages and Codes Volume 1 (AAU-DSI)*
Message Revision Table, Command Revision Table, and PIPE EDIT (OA52000 and OA52211)	The following enhancements are available: • Allow blanks and commas to be removed from commands before comparing for a match in the Command Revision Table. • Allow characters to be removed from strings in EDIT specifications. • Support hexadecimal strings being specified in UPON statements in Message and Command Revision Tables. • Support PREFIX values that have lengths other than 3.	*IBM Tivoli NetView for z/OS Automation Guide*

Function	Description	Additional information
Canzlog Archive Global Variables (OA52165)	Documentation describes the global variables that result from CNMSTYLE ARCHIVE. statements.	*IBM Tivoli NetView for z/OS Administration Reference*
APSERV (OA52212 and OA52213)	The APSERV command interface is enhanced to remove the MVS prefix restriction and to support NetView commands.	*IBM Tivoli NetView for z/OS Application Programmer's Guide*
Message Revision Table (MRT) Message Flood support (OA52835 and OA52837)	An MRT UPON FLOOD condition is added to check for messages that have been acted upon by z/OS Message Flood Automation. The following PIPE EDIT orders are added: • **FLOODACT**: input order that indicates whether z/OS Message Flood Automation has acted upon the message • **NOT**: conversion order to negate an indicator	*IBM Tivoli NetView for z/OS Automation Guide*
Canzlog Dynamic Data Space (OA55071 and OA55074)	Canzlog can now be configured to start with a small data space size (128M) for the data space that is associated with the Master Scheduler address space. The data space will stay this size as long as automation keeps up. If automation cannot keep up, the data space size will dynamically increase by 8 M at a time until it reaches the maximum value of 512M or 2G.	*IBM Tivoli NetView for z/OS Installation: Getting Started*
Command Statistics (OA55075 and OA55076)	Utilization statistics, such as CPU time, storage, and I/O operations, are provided at the command level.	*IBM Tivoli NetView for z/OS Administration Reference* *IBM Tivoli NetView for z/OS Configuring Additional Components*
Canzlog Print (OA55078 and OA55077)	The PRINT command provides the ability to print Canzlog messages while the NetView program is active. The PRINT command can be issued in the following methods: • NETVIEW operator's console • BROWSE window • CANZLOG panel • NVINFO	*IBM Tivoli NetView for z/OS Administration Reference* *IBM Tivoli NetView for z/OS Command Reference Volume 2 (O-Z)*

Several functions were removed from the NetView product for post-GA service-level:

- Multi-System Manager Network Manager IP Agent
- Tivoli Common Reporting (BIRT formatted reports)
- NetView Web Application Server

Appendix E. AON CMDDEF Statements Not Requiring SEC=BY

The SEC=BY keyword can be removed from the AON CMDDEF statements for the commands that follow. Review your AON command security definitions to determine if removing this keyword is appropriate for your environment. The %INCLUDE members that are listed contain the CMDDEF statements for the NetView V6R2M1 program.

CNMCMENT

This section lists command definitions that have had the SEC=BY keyword removed. The CMDDEF statements are in %INCLUDE member CNMCMENT.

EZLEASLN	EZLENFRM	EZLERGWY	EZLE1900

EZLCMENT

This section lists command definitions that have had the SEC=BY keyword removed. The CMDDEF statements are in %INCLUDE member EZLCMENT.

EZLALOG	EZLASTS	EZLAUST	EZLE1CDL
EZLE1CNT	EZLE1DAL	EZLE1DOM	EZLE1FUL
EZLE1FWD	EZLE1GXC	EZLE1GXD	EZLE1GXE
EZLE1I01	EZLE1I02	EZLE1I03	EZLE1I04
EZLE1I05	EZLE1I06	EZLE1I07	EZLE1I08
EZLE1ICK	EZLE1IGT	EZLE1IMN	EZLE1INT
EZLE1ITF	EZLE1IXD	EZLE1IXL	EZLE1NTF
EZLE1RGT	EZLE1RNT	EZLE1RSP	EZLE1RTN
EZLE1RUD	EZLE1RUR	EZLE1RUT	EZLE1RUU
EZLE1RUX	EZLE1TMX	EZLE1UFW	EZLE1XMN
EZLE1XTF	EZLE4110	EZLE4120	EZLE7110
EZLE7210	EZLE8110	EZLE8120	EZLE8410
EZLE8611	EZLE8612	EZLEAAGD	EZLEAAIC
EZLEAANV	EZLEAAT1	EZLEAAT2	EZLEAAT3
EZLEAAT4	EZLEAAT5	EZLEAAT6	EZLEAAT8
EZLEAAT9	EZLEAATR	EZLEAATS	EZLEAC10
EZLEAC11	EZLEACG0	EZLEACG1	EZLEACG2
EZLEACG3	EZLEACG4	EZLEACG5	EZLEACG6
EZLEACG7	EZLEACG8	EZLEACG9	EZLEACGA
EZLEACGL	EZLEACGT	EZLEACKT	EZLEACNT
EZLEACST	EZLEACSX	EZLEACT1	EZLEACT2

EZLEADLY	EZLEAEXI	EZLEAFST	EZLEAGEN
EZLEAGN1	EZLEAGRN	EZLEAHED	EZLEAINL
EZLEAINT	EZLEAIOP	EZLEAIPL	EZLEAIRP
EZLEAISM	EZLEAJUL	EZLEALCL	EZLEALD1
EZLEALDR	EZLEALFL	EZLEALIC	EZLEALRS
EZLEALSW	EZLEANTL	EZLEARCY	EZLEARFR
EZLEARST	EZLEASAO	EZLEASCD	EZLEASCN
EZLEASTK	EZLEASTM	EZLEATDS	EZLEATRC
EZLEATST	EZLEAU01	EZLEAU02	EZLEAU03
EZLEAUCG	EZLEAUCL	EZLEAUS1	EZLEAUSF
EZLEAUST	EZLEAX00	EZLEAX01	EZLEBELG
EZLECAUT	EZLECHAU	EZLECHGF	EZLECTHR
EZLEDAN1	EZLEDTSK	EZLEDUTL	EZLEF001
EZLEF003	EZLEF004	EZLEF009	EZLEF00B
EZLEF00D	EZLEFAIL	EZLEGTID	EZLEHBLD
EZLEHRCY	EZLEICGS	EZLEICGV	EZLEIDNT
EZLEITWR	EZLELSTH	EZLEMCOL	EZLEMSU
EZLENDET	EZLENPS2	EZLEOIVT	EZLEOPER
EZLEPAR	EZLEPDEL	EZLEPDIS	EZLEPRCY
EZLERAIP	EZLERCMD	EZLERECV	EZLERMSU
EZLERNGE	EZLEROUT	EZLESLCT	EZLESNTX
EZLESRMD	EZLESTOP	EZLESTRT	EZLEVACT
EZLEVIEW	EZLEVINA	EZLEVMOV	EZLEW001
EZLEW002	EZLEXIT7	EZLIPLDT	EZLSACAF
EZLSATHR	EZLSAU07	EZLSCMOD	EZLSHNDE
EZLSMSU	EZLSNHLP	EZLSPIPS	EZLSTMEM
EZLSUSER	EZLSX001		

FKVCMENT

This section lists command definitions that have had the SEC=BY keyword removed. The CMDDEF statements are in %INCLUDE member FKVCMENT.

EZLENCH1	EZLENCH2	EZLENCH3	EZLENCH4
FKVASNB	FKVE095A	FKVE1100	FKVE1101
FKVE1102	FKVE1103	FKVE1104	FKVE1110
FKVE1200	FKVE1300	FKVE1310	FKVE1320
FKVE1330	FKVE2100	FKVE270I	FKVE284A
FKVE285I	FKVE380I	FKVE464I	FKVE530I
FKVE881I	FKVE897I	FKVEA0IC	FKVEA200

FKVEA210	FKVEA410	FKVEADMP	FKVEAID1
FKVEAID2	FKVEAID3	FKVEAID4	FKVEAID5
FKVEAID6	FKVEAID7	FKVEAID8	FKVEAID9
FKVEAIDA	FKVEAIDB	FKVEAIDC	FKVEAIDD
FKVEAIDE	FKVEAIDF	FKVEAIDG	FKVEAIDH
FKVEAIDI	FKVEAIDJ	FKVEAIDK	FKVEAMS1
FKVEARLD	FKVECAPL	FKVECGBG	FKVECGCA
FKVECGCC	FKVECGCD	FKVECGDA	FKVECGDB
FKVECGDC	FKVECGDD	FKVECGDE	FKVECGDF
FKVECGDG	FKVECGEA	FKVECGEB	FKVECGEC
FKVECGED	FKVECGFD	FKVECGFF	FKVECGFG
FKVECGFH	FKVECGHA	FKVECGHB	FKVECGHD
FKVECHCM	FKVECHIN	FKVECHRP	FKVECHSG
FKVECHSR	FKVECNCP	FKVEDETL	FKVEF005
FKVEINIT	FKVEOG01	FKVEOG02	FKVEOG03
FKVEOG04	FKVEOG05	FKVEOG06	FKVEOG07
FKVEOG08	FKVEOG09	FKVEOI00	FKVEOPFI
FKVEOSEC	FKVERDIS	FKVETGSW	FKVEX74E
FKVEX74X	FKVEXACT	FKVEXCDB	FKVEXCON
FKVEXDIS	FKVEXINA	FKVEXMCH	FKVEXRES
FKVEXTRK	FKVSSNBU		

FKXCMENT

This section lists command definitions that have had the SEC=BY keyword removed. The CMDDEF statements are in %INCLUDE member FKXCMENT.

FKXEACT2	FKXEAID1	FKXEAID2	FKXEAIDA
FKXEALRT	FKXEAMS1	FKXECATV	FKXEDDFP
FKXEGTID	FKXEHNDE	FKXEINIT	FKXENSTH
FKXEOTHR	FKXEPING	FKXESVPT	FKXWIND1
FKXWIND2			

Appendix F. Migrating to the CNMSTYLE and CNMCMD Members

The CNMSTYLE member in the DSIPARM data set is used during NetView initialization. The CNMSTYLE members and its dependent members replace initialization that was performed in the CNME1034 command list and in some DSIPARM definition statements in prior releases of the NetView program.

The CNMCMD member in the DSIPARM data set contains command definitions. The CNMCMD member replaces the DSICMD member.

The CNMSJMIG sample in the NETVIEW.V6R3USER.INSTALL data set uses the CNMEMIG command list to assist in converting your CNME1034 command list and DSIPARM statements to the new CNMSTYLE format. This sample provides JCL that runs under the TSO terminal monitor program. The CNMSJMIG sample creates CNMSTYLE statements. In most cases, the CNMSJMIG sample converts existing initialization statements into statements that provide equivalent settings. Review the generated statements to validate that they provide the setting you want before enabling them in your installation. You can also use the CNMSJMIG sample to migrate DSICMD files to the new CNMCMD format.

The CNMEMIG command list performs system symbolic substitution, such as the &DOMAIN symbolic variable, when this information is supplied by the customer in the CNMSJMIG sample. However, the CNMEMIG command list cannot properly interpret Data REXX. Because of this, before running the CNMEMIG command list to migrate your DSIPARM definitions to the new CNMSTYLE and CNMCMD formats, ensure that your DSIPARM definitions (or any member that they include) do not contain Data REXX. You can convert your DSIPARM members to not contain Data REXX by running the following PIPE command under the NetView program from which you are migrating:

```
PIPE < member INCL | > 'altparmds(member)'
```

where *altparmds* is an alternate DSIPARM data set that will contain the converted DSIPARM member and *member* is the DSIPARM member that is being converted. Then specify this alternate data set in the CNMSJMIG sample as the first data set in your OLDPARM data set concatenation. It is important that you run the above PIPE command under the NetView program from which you are migrating in order to preserve your current settings.

Note:

1. While not necessary unless the SA tower is activated or the shipped CNMCMDx members are not used, this same procedure can be done for CNMCMD because it also contains Data REXX.
2. When the CNMEMIG command list processes the OLDPARM members, a BNH164I message is issued for any member still containing Data REXX. These messages can be ignored if the OLDPARM member is not being migrated. The CNMEMIG command list skips over the Data REXX file and continues to attempt processing the remaining files.

The CNMSJMIG sample requires the following data sets:

DSIPARM
The concatenated data set list containing current release versions of the CNMSTYLE and CNMCMD members.

OLDPARM
The concatenated data set list containing NetView definitions for the release from which you are migrating.

OLDCLD
The concatenated data set list containing command lists (CNME1034 and CNME1054) for the release from which you are migrating. If you have renamed these members for the release from which you are migrating, place a copy of your members in the OLDCLD concatenation with the names CNME1034 and CNME1054 to enable the tool to find your customization.

DSIWRIT
The concatenated output data set list containing converted CNMSTYLE statements and intermediate output files.

The CNMSJMIG sample creates the following members in the output data sets specified by DSIWRIT:

CNMSTMIG
When the COMPARE option is specified, this member is created and contains converted CNMSTYLE statements that are different from existing V6.2.1 CNMSTYLE statements. It is placed in the first data set specified by the DSIWRIT DD statement.

Statements start in column 3. The first two columns are blank. Column 1 is reserved to specify which statements are to be copied into the CNMSTUSR member when the UPDATE option is specified. The member also contains section headings. The heading contains the name of the parameter member from which the CNMSTYLE statement was derived. All CNMSTYLE statements in a section are created from the same parameter member.

CNMCMMIG
When the COMPARE option is specified, this member is created and contains converted CNMCMD statements that are different from existing V6.3.0 CNMCMD statements. It is placed in the first data set specified by the DSIWRIT DD statement.

Statements start in column 3. The first two columns are blank. Column 1 is reserved to specify which statements are to be copied into CNMCMDU when the UPDATE option is specified.

CNMSTUSR
When the UPDATE option is specified, this member is appended with converted CNMSTYLE statements. Only statements in the CNMSTMIG member that are marked with a non-blank character in column 1 are appended. A comment line is also included that contains a timestamp when the update was made.

The first DSIWRIT data set is used that contains the CNMSTUSR member. If the CNMSTUSR member is not found in any data set in the concatenation, a new member is created in the first data set specified by the DSIWRIT DD statement.

Note: For evaluation of initialization statements, you can use the CNMSJCRG sample to produce a report of the CNMSTYLE member. For more information, see Chapter 7, “Getting Ready to Start NetView,” on page 87.

CNMCMDU
When the UPDATE option is specified, this member is appended with converted CNMCMD statements. Only statements in the CNMCMMIG member that are marked with a non-blank character in column 1 are appended. A comment line is also included that contains a time stamp when the update was made.

The first DSIWRIT data set that contains the CNMCMDU member is used. If the CNMCMDU member is not found in any data set in the concatenation, a new member is created in the first data set specified by the DSIWRIT DD statement.

Specify the following keyword parameters on the CNMEMIG command in the CNMSJMIG sample:

NETVREL=V*x*R*y*
Specifies the release from which you are migrating:

- V1R4

FUNCTION=COMPARE | UPDATE
Specifies the processing step to perform:

COMPARE
Compares the parameter or command members from the release from which you are migrating with the current CNMSTYLE or DSICMD values. Migrated statements are placed in the CNMSTMIG or CNMCMMIG samples. If omitted, FUNCTION=COMPARE is the default.

UPDATE
Moves any statements with a character in column 1 from the CNMSTMIG member to the CNMSTUSR member, and any statements with a character in column 1 from the CNMCMMIG member to the CNMCMDU member.

FILES=CNMSTYLE | CNMCMD | BOTH
Specifies the definitions to be migrated:

CNMSTYLE
Indicates to migrate parameter definitions and initialization statements to the CNMSTUSR member.

CNMCMD
Indicates to migrate command definitions to the CNMCMDU member.

BOTH
Indicates both the CNMSTYLE and CNMCMD members.

&symbolic_name=value
Indicates a system or NetView symbolic variable used in the data sets specified by OLDPARM and OLDCLD, for example &DOMAIN=CNM01.

The symbolic variable &NV2I defaults to the value NM if not specified.

Note: Do not use spaces in any of the parameter fields for CNMEMIG command list.

The following return codes are set by CNMEMIG:

0
Successful completion; a file was created in DSIWRIT

4
Minor errors encountered; a file was created in DSIWRIT

8
Major error encountered; a file was not created in DSIWRIT

For non-zero return codes, error messages can be found in the CNMSJMIG job log.

Table 66 on page 164 shows DSIPARM statements in prior NetView releases that were converted to CNMSTYLE or CNMCMD statements.

Table 66 on page 164 also shows which commands within CNME1034 were converted to CNMSTYLE statements. You might have added commands to CNME1034 that were not converted to CNMSTYLE statements. Consider how to incorporate these commands into the NetView initialization flow. One approach is to create a command list member with these unconverted commands and then call this command list using the CNMSTYLE auxInitCmd statement. For information about the auxInitCmd statement, refer to the *IBM Z NetView Administration Reference*.

Table 66. DSIPARM Member Statements

DSIPARM Member	DSIPARM Control Statement	CNMSTYLE or CNMCMD Statement
AAUPRLMP	DSTINIT DSRBO DSTINIT MACRF DSTINIT PDDNM DSTINIT SDDNM INITMOD AAUICPEX AUTHROM INITMOD AAUINLDM AMLUTDLY INITMOD AAUINLDM AUTHORIZ INITMOD AAUINLDM BUFTYPE INITMOD AAUINLDM CDTIME INITMOD AAUINLDM DRDELAY INITMOD AAUINLDM ERCOUNT INITMOD AAUINLDM FCTIME INITMOD AAUINLDM KEEPDISC INITMOD AAUINLDM KEEPMEM INITMOD AAUINLDM KEEPPIU INITMOD AAUINLDM KEEPRTM INITMOD AAUINLDM KEEPSESS INITMOD AAUINLDM LOG INITMOD AAUINLDM LUCOUNT INITMOD AAUINLDM MAXEND INITMOD AAUINLDM NETID INITMOD AAUINLDM PERFMEM INITMOD AAUINLDM PURGE INITMOD AAUINLDM RTDASD INITMOD AAUINLDM RTM INITMOD AAUINLDM RTMDISP INITMOD AAUINLDM SAW INITMOD AAUINLDM TRACEGW INITMOD AAUINLDM TRACELU INITMOD AAUINLDM TRACESC	NLDM.DSRBO NLDM.MACRF NLDM.PDDNM NLDM.SDDNM NLDM.AUTHDOM.X NLDM.AMLUTDLY NLDM.AUTHORIZ.X NLDM.OTHER NLDM.CDTIME NLDM.DRDELAY NLDM.ERCOUNT NLDM.FCTIME NLDM.KEEPDISC NLDM.KEEPMEM NLDM.KEEPPIU NLDM.KEEPRTM NLDM.KEEPSESS NLDM.LOG NLDM.LUCOUNT NLDM.MAXEND NLDM.NETID NLDM.PERFMEM NLDM.PURGE NLDM.RTDASD NLDM.RTM NLDM.RTMDISP NLDM.SAW NLDM.TRACEGW NLDM.TRACELU NLDM.TRACESC

Table 66. DSIPARM Member Statements (continued)

DSIPARM Member	DSIPARM Control Statement	CNMSTYLE or CNMCMD Statement
BNJMBDST	ALCACHE ALERTLOG ALRTINFP ALT_ALERT AUTORATE DSTINIT DSRBO DSTINIT DSRBU DSTINIT FUNCT DSTINIT MACRF DSTINIT PDDNM DSTINIT PPASS DSTINIT SDDNM DSTINIT SPASS ERR_RATE IHTHRESH LQTHRESH PRELOAD R RATE REPORTS TECROUTE W	NPDA.ALCACHE NPDA.ALERTLOG NPDA.ALRTINFP.RECORD NPDA.ALT_ALERT NPDA.AUTORATE NPDA.DSRBO NPDA.DSRBU CNMI NPDA.MACRF NPDA.PDDNM NPDA.PPASS NPDA.SDDNM NPDA.SPASS NPDA.ERR_RATE NPDA.IHTHRESH NPDA.LQTHRESH NPDA.PRELOAD_BER NPDA.R.X NPDA.RATE NPDA.REPORTS NPDA.TECROUTE NPDA.W.X
CNME1034[1]	ASSIGN CCDEF MEMBER CNMOPDSPREFIX DUIFHNAM DUIFHPRC EKGHNAM EKGHPRC EVERY HLLENV CHANGE HLLENV CHANGE HLLENV CHANGE HLLENV CHANGE HLLENV CHANGE IDLEOFF INIT IDLEOFF INIT IDLEOFF INIT IDLEOFF INIT IDLEOFF INIT IDLEOFF INIT IDLEOFF INIT MEMSTORE MEMSTORE NETV DEFAULTS ROUTE = SMFVPD TRANSMSG MEMBER	ASSIGN.OPGROUP.GROUP CCDEF OpDsPrefix COMMON.DUIFHNAM COMMON.DUIFHPRC COMMON.EKGHNAM COMMON.EKGHRPC memStore.frequency HLLENV.TYPE.CRITENVS HLLENV.TYPE.DEFAULT HLLENV.TYPE.PHEAP HLLENV.TYPE.PSTACK HLLENV.TYPE.REGENVS function.autotask.idleoff idleparms.exceptAuto idleparms.exceptLU idleparms.exceptNNT idleparms.exceptOP idleparms.exceptRmtCmd idleparms.frequency idleparms.idlemin memStore.minhits memStore.stgLimit DEFAULTS.CMD function.autotask.memStore COMMON.SMFVPD transMember

Table 66. DSIPARM Member Statements (continued)

DSIPARM Member	DSIPARM Control Statement	CNMSTYLE or CNMCMD Statement
CNME1034[2]	&DUIFHNAM &DUIFHPRC &EKGHNAM &EKGHPRC &SMFVPD ASSIGN CCDEF MEMBER DEFAULTS CMD TRANSMSG MEMBER	COMMON.DUIFHNAM COMMON.DUIFHPRC COMMON,.EKGHNAM COMMON.EKGHPRC COMMON.SMFVPD ASSIGN.OPGROUP.GROUP CCDEF DEFAULTS.CMD transMember
CNME1054	exlist.0	memStore.never
DSIAMLTD	CDRMDEF DSTINIT FUNCT	NLDM.CDRMDEF.X NPDA.RETRY
DSICMD	CMDMDL CMDSYN COMNTESC ECHO END IGNRLSUP MOD PARTSYN PARSE RES SEC TYPE	CMDDEF.MDLNAME.MOD CMDDEF.MDLNAME.CMDSYN *not migrated* CMDDEF.MDLNAME.ECHO *not migrated* CMDDEF.MDLNAME.IGNRLSUP CMDDEF.MDLNAME.MODNAME CMDDEF.MDLNAME.PARMSYN.PARMNAME CMDDEF.MDLNAME.PARSE CMDDEF.MDLNAME.RES CMDDEF.MDLNAME.SEC CMDDEF.MDLNAME.TYPE
DSIDMNK	ALERTFWD DB2RRS HARDCOPY LOADEXIT MAXABEND MAXLOGON MVSPARM DEFAULT= MVSPARM MIGRATE= NCCFID DOMAINID= NCCFID SUPPCHAR= OPTIONS AUTHCHK= OPTIONS CMDAUTH= OPTIONS OPERSEC= OPTIONS OPSPAN OPTIONS SPANAUTH OPTIONS WEBAUTH RRD TRANSTBL MOD VTAMCP USE=	NPDA.ALERTFWD DB2SEC HARDCOPY LOADEXIT. DEFAULTS.MAXABEND DEFAULTS.MAXLOGON MVSPARM.DEFAUTH MVSPARM.MIGRATE DOMAIN SUPPCHAR SECOPT.AUTHCHK SECOPT.CMDAUTH SECOPT.OPERSEC SECOPT.OPSPAN SECOPT.SPANAUTH SECOPT.WEBAUTH RRD. TRANSTBL VTAMCP.USE
DSIILGCF	PORT SOCKETS TCPANAME	PORT SOCKETS TCPANAME

Table 66. DSIPARM Member Statements (continued)

DSIPARM Member	DSIPARM Control Statement	CNMSTYLE or CNMCMD Statement
DSILUCTD	CNMAUTH CTL= CNMTARG LU "DSTINIT FUNCT=OTHER,PERSIST=" MAXSESS	LUC.CTL LUC.CNMTARG.X LUC.PERSIST LUC.MAXSESS
DSIREXCF	PORT SOCKETS TCPANAME	PORT SOCKETS TCPANAME
DSIRSHCF	PORT SOCKETS TCPANAME	PORT SOCKETS TCPANAME
DSIRTTTD	PORT SOCKETS TCPANAME	PORT SOCKETS TCPANAME
DSITBL01	CMD('DBFULL NLDM 'MESSAGE) CMD('DBFULL NLDM 'MESSAGE) CMD('SAVECMD')	function.atutask.SMONdbMaint function.autotask.HMONdbMaint funtion.autotask.SAVECMD
DSITCPCF	PORT SOCKETS TCPANAME	PORT SOCKETS TCPANAME
DSIUINIT	RMTSECUR SAFREFSH	RMTINIT.SECOPT RMTINIT.SAFrefresh
DSIWBMEM	PORT SOCKETS TCPANAME	PORT SOCKETS TCPANAME
DUIFPMEM	PORT SOCKETS TCPANAME	PORT SOCKETS TCPANAME
DUIIGHB	TCPANAME	GHB.TCPANAME
EZLCFG01	WAIT XDOM	COMMON.WAITTIME COMMON.XDOMTIME
FKXEICMD	Default_Server_Name Default_Stack_Name	TCPserver TCPname

Table 66. DSIPARM Member Statements (continued)

DSIPARM Member	DSIPARM Control Statement	CNMSTYLE or CNMCMD Statement
FLCSAINP	DEF_NETW_VIEW EXCEPTION_VIEW_FILE RODMCMDRETRY RODMINT RODMNAME RODMRETRY TCPNAME TN3270_FILE	(MSM)COMMON.FLC_DEF_NETW_VIEW (MSM)COMMON.FLC_EXCEPTION_VIEW (MSM)COMMON.FLC_RODMCMDRETRY (MSM)COMMON.FLC_RODMINT (MSM)COMMON.FLC_RODMNAME (MSM)COMMON.FLC_RODMRETRY (MSM)COMMON.FLC_TCPNAME (MSM)COMMON.FLC_TN3270_FILE

Note:

1. REXX version
2. Pre-REXX version (NetView V1R2 and before)

Appendix G. Differences Between IPv4 and IPv6 Addresses

When you are specifying IP addresses, you can use the following formats:

- An IPv4 address in dotted-decimal format, *d.d.d.d* , where each *d* is a decimal number from 0 to 255. An IPv4 address is a 32-bit address separated into four 8-bit parts. Each part is converted to its decimal equivalent, and the parts are separated by periods. The following examples show IPv4 addresses:

  ```
  13.1.68.3
  129.144.52.38
  ```

- An IPv6 address in colon-hexadecimal format, *h:h:h:h:h:h:h:h* , where each *h* is a hexadecimal value (0-FFFF). An IPv6 address is a 128-bit address separated into eight 16-bit parts. Each part is converted to a hexadecimal number, and the parts are separated by colons. Leading zeros are not required, but, unless an address is compressed, each part must have at least one numeral. The following examples show colon-hexadecimal format IPv6 addresses:

  ```
  FEDC:BA98:7654:3210:FEDC:BA98:7654:3210
  1080:0:0:0:8:800:200C:417A
  ```

- An IPv4-compatible IPv6 address or IPv4-mapped IPv6 address in mixed format, *h:h:h:h:h:h:d.d.d.d* , where *h* is a hexadecimal value, one for each of the 6 high-order 16-bit parts of the address, and *d* is a decimal value, one for each of the 4 low-order 8-bit parts of the address (standard IPv4 representation). This format is useful in an environment that uses both IPv4 and IPv6 addresses. The following examples show these addresses:

  `0:0:0:0:0:0:13.1.68.3` (IPv4-compatible IPv6 address)
  `0:0:0:0:0:FFFF:129.144.52.38` (IPv4-mapped IPv6 address)

  Note:

  1. The first five *h* values must be zero (0), and the sixth *h* value must be X'FFFF' in an IPv4-mapped IPv6 address.
  2. All six *h* values must be zero in an IPv4-compatible IPv6 address.

IPv6 addresses, IPv4-compatible IPv6 addresses, and IPv4-mapped IPv6 addresses that contain zero bits can be compressed. The value `::` can be substituted for multiple consecutive groups of zeros. The `::` can be used only once in an address and can be used to compress leading or trailing zeros in an address. The following examples are of IPv6 addresses, their compressed representations, and brief descriptions:

`1080:0:0:0:8:800:200C:417A`	`1080::8:800:200C:417A`	unicast
`FF01:0:0:0:0:0:0:101`	`FF01::101`	multicast
`0:0:0:0:0:0:0:1`	`::1`	loopback
`0:0:0:0:0:0:0:0`	`::`	unspecified
`0:0:0:0:0:0:13.1.68.3`	`::13.1.68.3`	IPv4-compatible
`0:0:0:0:0:FFFF:129.144.52.38`	`::FFFF:129.144.52.38`	IPv4-mapped

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