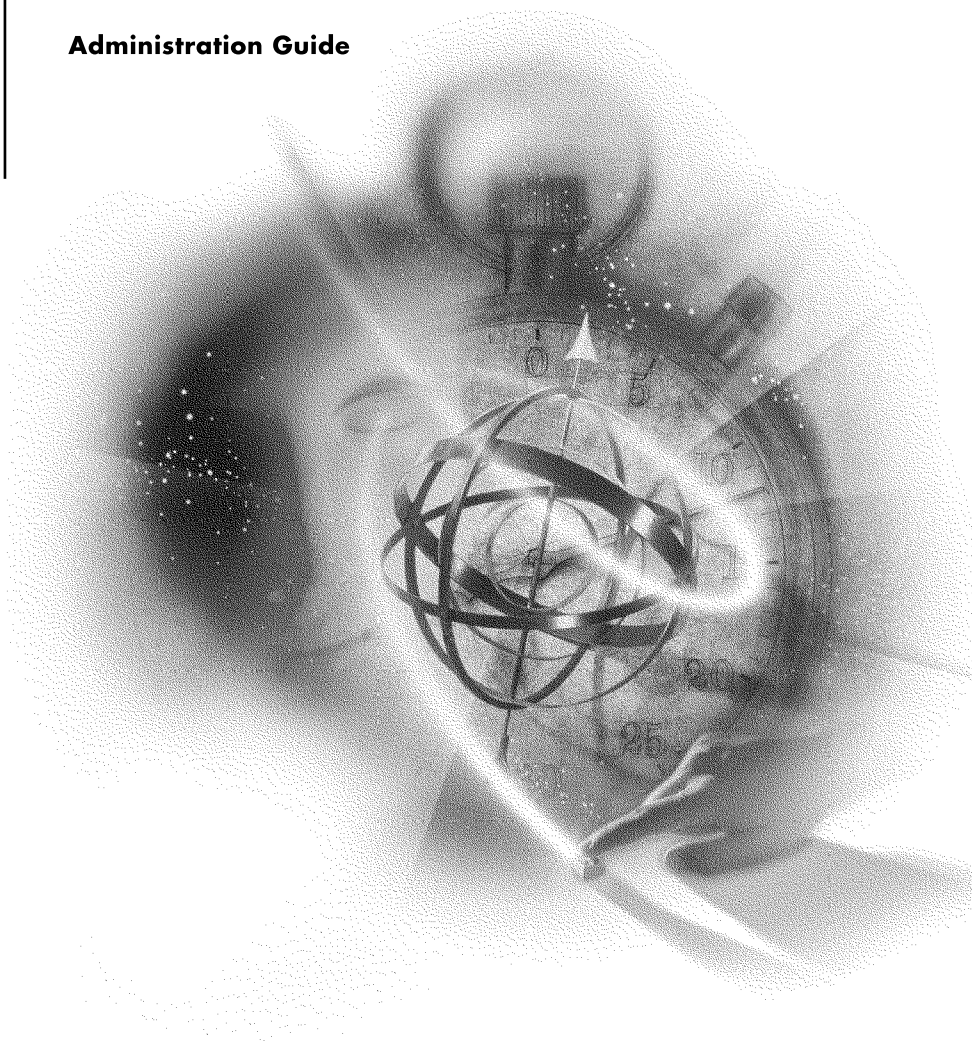

NMA for NetView

Administration Guide



NetWare® 3.12
NETWORKING SOFTWARE

Novell®

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About This Guide

This guide describes

- ◆ NetWare® Management Agent™ (NMA) for NetView* v1.3
- ◆ How to install NMA for NetView v1.3
- ◆ How to use NMA for NetView v1.3

Who Should Read This Guide?

Read this guide if you want to

- ◆ Learn about NMA for NetView and its features
- ◆ Learn about the new features in NMA for NetView v1.3
- ◆ Install NMA for NetView v1.3
- ◆ Configure or reconfigure NMA for NetView
- ◆ Load or unload NMA for NetView
- ◆ Remove NMA for NetView from a NetWare v3.1x server

Content Overview

Chapter 1, “About NMA for NetView,” on page 13: Describes NMA for NetView, introduces the new features in NMA for NetView v1.3, and describes the complete set of features provided by NMA for NetView v1.3.

Chapter 2, “Installing NMA for NetView,” on page 23: Provides a procedure for setting up a NetWare v3.1x server to run NMA for NetView. This chapter includes instructions for preparing the host for communications with NMA for NetView.

[Chapter 3, “Configuring, Loading, and Unloading NMA for NetView,” on page 43](#): Provides separate procedures for tasks you may want to perform after you complete the installation procedure in Chapter 2. This chapter includes instructions for configuring, loading, and unloading NMA for NetView.

[Appendix A, “Installing Code Points for NetWare,” on page 55](#): Provides the procedure for installing NetView code points for NetWare. This procedure may not be required for your installation. Be sure to read the section entitled “Do You Need to Install?” on page A-1.

[Appendix B, “Using NetView Command Filtering,” on page 67](#): Provides the procedure for disabling or filtering out selected NetView RUNCMDs sent from the NetView operator to the server running NMA for NetView or LAN workstation.

Conventions

This guide uses a variety of typographical conventions and special terminology.

Typographic Conventions

<Words in Brackets>	Bracketed words indicate names of keys that you press For example: Press <Enter> to display the Configuration Options menu.
Bold Monospace	When in bold, monospace font indicates commands that you enter at a prompt or select from a menu. For example: SERVER Letters and symbols that appear in bold monospace typeface must be entered exactly as shown.
greater than (>)	When the greater than symbol precedes a command, the symbol indicates that you must enter the command from the DOS prompt. For example: > server
colon (:)	When a colon precedes a command, the colon indicates that you must enter the command from the system console prompt, which is a colon. For example: : load nvinstal

Monospace	When not in bold, monospace type indicates messages that the system displays. For example: Enter filename
<i>Italics</i>	Words appearing in italics represent variables that you must replace with the appropriate values. For example: <i>OP=userid</i> In the example above, you would type <i>OP=</i> and replace the variable <i>userid</i> with a valid NetWare user ID.
UPPERCASE	Words appearing in UPPERCASE are filenames, pathnames, or NetWare utility names. For example: DISK1.ZIP

Terminology

This guide uses the following terms to summarize actions that are performed frequently or product groups referred to frequently.

Select	Use the cursor keys to highlight the item and press <Enter>.
Enter	Type the indicated text and press <Enter>. For example: Enter <code>load nvinstal</code> .
NetWare v3.1x	Versions of Netware later than v3.1 and earlier than v4.0 (for example, NetWare v3.11 and NetWare v3.12).

Additional Reading

The publications described in this section provide additional information on products used with NMA for NetView.

- ◆ *NetWare Reference Guide for NetView Operators* (100-001242-003)

The *NetWare Reference Guide for NetView Operators* describes the alert messages and NetWare command set provided by NMA for NetView v1.3 and NetWare for SAA* v1.3.

- ◆ *NetWare for SAA v1.3 Administration Guide* (100-001166-002)

The *NetWare for SAA v1.3 Administration Guide* describes the NetView support features in NetWare for SAA v1.3

- ◆ *Btrieve Installation and Operation* (100-001662-001)
- ◆ *NetView Operations Primer* (SC30-3363) from IBM

1

About NMA for NetView

This chapter describes

- ◆ NetWare® Management Agent™ (NMA) for NetView*
- ◆ The new features in NMA for NetView v1.3
- ◆ The complete NMA for NetView feature set

IMPORTANT: The NMA for NetView and NetWare for SAA* products provide similar support for NetView software. Do not install NMA for NetView and NetWare for SAA in the same NetWare server.

IMPORTANT: NMA for NetView and NetWare for SAA servers are designed to support the NetView network management program from IBM*. These NetWare products support any other network management program that is 100 percent compatible with NetView. The NET/MASTER network management program from Systems Center is an example of a program that is designed to be compatible with NetView.

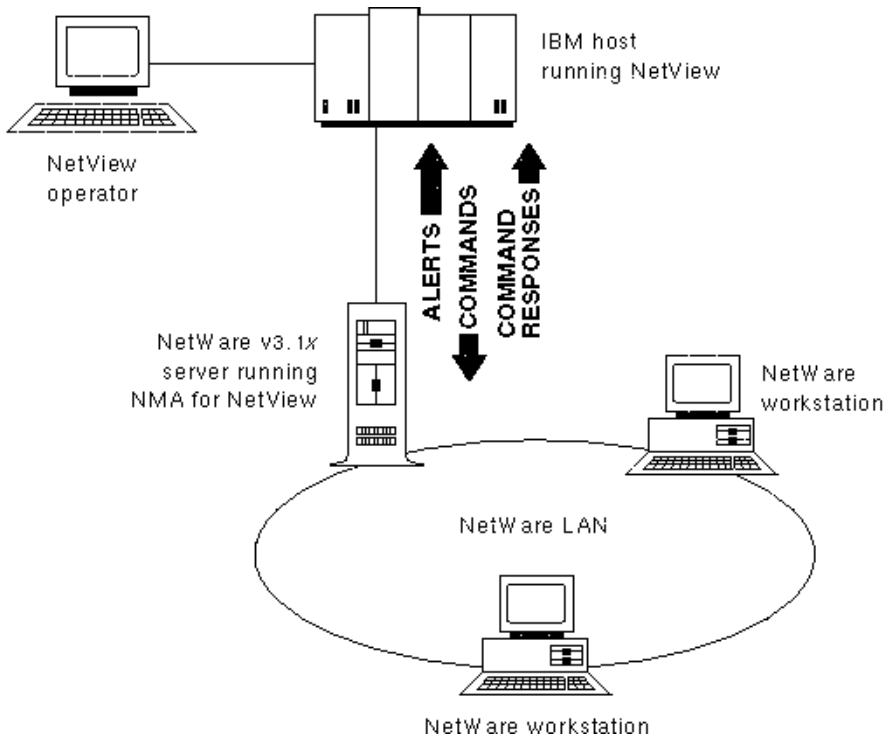
What Is NMA for NetView?

NMA for NetView is a NetWare Loadable Module™ (NLM™) product that enables NetWare v3.1x servers (versions of NetWare later than v3.1 and earlier than or equal to v4.0) to participate in NetView network management. The NetWare v3.1x product package includes NMA for NetView.

NetView is an IBM network management program that runs in the Virtual Machine* (VM*) and Multiple Virtual Storage (MVS) host environments. NetView is designed to be an enterprise-wide network management tool. IBM publishes specifications that describe how network product vendors can design products to communicate with NetView.

Figure 1 on page 14 is a simplified illustration of how NMA for NetView communicates with NetView.

Figure 1 Simplified Illustration of NMA for NetView Communications



NMA for NetView runs in a NetWare v3.1x server and communicates with the NetView program, which runs in the IBM host computer. The connection between the NetWare server and the host is described later in this chapter.

NMA for NetView exchanges three types of messages with NetView:

- ◆ Alerts
- ◆ Commands
- ◆ Command responses

Alerts are messages that are sent from NMA for NetView to NetView. NMA for NetView translates selected NetWare server error and status messages into alerts.

Commands, or RUNCMDs, are messages that are sent from NetView to the NMA for NetView server. NMA for NetView enables NetView to send

commands that request NetWare server information or control some NetWare server features.

Command responses are messages that are sent to NetView after a command message has been processed. Command response messages contain information about the server or about the result of a server command.

IMPORTANT: The messages that travel between NMA for NetView and the NetView host relate to the operation of the NetWare v3.1x server. NMA for NetView does not monitor, report, or control the status of the NetWare local area network (LAN) or NetWare LAN workstations. NMA for NetView does not respond to maintenance statistic requests from an IBM host.

NetView operators use a terminal to connect to the NetView program on the host. From the terminal, the NetView operator can view alert messages, send command messages, and view command response messages. For more information on NetView operation, see the *NetView Operation Primer* (SC30-3363) from IBM.

Novell sells software that enables NetWare users to connect to NetView and other host programs from a NetWare LAN workstation. The NetWare 3270 LAN Workstation™ products allow NetWare LAN workstations to emulate IBM terminals. NetWare for SAA enables communications between NetWare 3270 LAN Workstations and the host.

What Is New in Version 1.3?

NMA for NetView v1.3 provides the following new features:

- ◆ Additional alerts for the NetWare operating system and its component services. Also, some alert messages are changed.
- ◆ New commands for requesting server status and controlling some server features.
- ◆ A command filtering feature for disabling NetView access to one or more server commands.
- ◆ Alert and command forwarding for applications that use the NetWare Open NetView interface.

These features are described with the complete set of NMA for NetView features in the next section.

NMA for NetView Features

The principal features of NMA for NetView are

- ◆ Alert generation
- ◆ Command processing
- ◆ Host communication options
- ◆ Collection point communication options
- ◆ Support for the Open NetView interface

Alert Generation

NMA for NetView generates alerts for the following server processes:

- ◆ Token ring adapters and drivers
- ◆ Logical link control (LLC) protocol components of token ring drivers
- ◆ The NetWare operating system and component services

The alerts for token ring adapters, drivers, and protocol components apply to the token ring components in the NMA for NetView server. NMA for NetView does not generate alerts for similar conditions in NetWare LAN workstations.

These NetView alert messages are listed in the *NetWare Reference Guide for NetView Operators*. Each message description in the *NetWare Reference Guide for NetView Operators* includes the NetView alert, a description of the alert cause, a suggested action, and the NetWare message (if one exists) that would appear on the server console.

If the NetView operator contacts you for help with an alert message, ask the operator to look it up in the *NetWare Reference Guide for NetView Operators*. If the operator still needs help, ask the operator to tell you the NetWare message (from the reference guide) that corresponds to the alert message. (NetView messages use a format that is different from NetWare messages.) NetWare messages are described in *NetWare v3.1x System Messages*.

Command Processing

NMA for NetView processes two types of commands:

- ◆ Server query commands

- ◆ Server control commands

NMA for NetView allows you to control command processing with the following features:

- ◆ Command security
- ◆ Command filtering

This section describes the actions these commands produce and the control features you can use. For detailed information on each command and its syntax, see the *NetWare Reference Guide for NetView Operators*.

Server Query Commands

Server query commands request information about server resources. These commands allow the NetView operator to query for

- ◆ Server information such as the number of volumes on a server, the server's login status, and the server's internetwork address
- ◆ Volume information such as the space allowed for a user, and the space used by a user
- ◆ Directory information such as the space allowed for a directory, and a user's rights to the directory
- ◆ File information
- ◆ A user's usage of a volume and the remaining space allowed to the user
- ◆ The version numbers of the Sequenced Packet Exchange™ (SPX™) and Internetwork Packet Exchange™ (IPX™) protocols
- ◆ The configuration of the SPX protocol
- ◆ The status of the Transaction Tracking Service (TTS)

Server Control Commands

Server control commands allow a NetView operator to

- ◆ Enable or disable server login, shut down a server, and broadcast a message to server users
- ◆ Set the server date and time
- ◆ Set the volume space allowed to a user and remove a user from a volume

- ◆ Set the space allowed to a directory; add or remove a directory trustee; and set the owner, creation date, and creation time for a directory
- ◆ Add and remove file trustees and set the file owner, the creation date and time, the update date and time, the access date, and the archive date and time
- ◆ Enable or disable the Transaction Tracking Service (TTS)
- ◆ Load and unload an NLM

If a NetView operator sends a LOAD command with an incomplete set of parameters for an NLM or a communication service, a prompt for the missing parameters appears on the server console. The NLM or communication service does not begin operating until the missing information is entered at the server console. The NetView operator is not notified about the missing parameters and may not be aware that the NLM or communication service is not operating.

Also, if the NetView operator sends an UNLOAD command for an NLM or a communication service, the command will fail if the NLM or communication service is exporting functions and symbols to another NLM or communication service. If the UNLOAD command fails, a message appears on the system console. The NetView operator is not notified about the failure and may not be aware that the NLM or communication service is still operating.

Command Security

NMA for NetView provides a command security feature for controlling NetView command processing. NMA for NetView checks each NetView command for a valid NetWare user ID with the appropriate status (see [Table 1](#)).

Table 1 NetView Command Processing

Server Command Type	NetWare User ID Status Required for Processing
Query	File server console operator or Supervisor
Control	Supervisor

When a command message does not include an acceptable NetWare user ID, NetWare rejects the command and sends the following message to NetWare:

Invalid Operator name

When this message appears on the NetView console, the *name* variable displays the user ID that was rejected.

A NetView command must include a user ID other than SUPERVISOR with either supervisor-equivalent privileges or a file server console operator status. Although the SUPERVISOR user ID has supervisor-equivalent privileges, the server rejects RUNCMDs that include the SUPERVISOR user ID.

Command Filtering

The command filtering feature allows you to disable NetWare processing of select commands that may be sent by NetView operators. You can disable any number of commands by listing them in a file that NMA for NetView reads when loading.

When a NetView operator sends a command that has been disabled by command filtering, NMA for NetView returns the following message to NetView:

```
Cannot access this NetView Runcmd
```

Host Communications Options

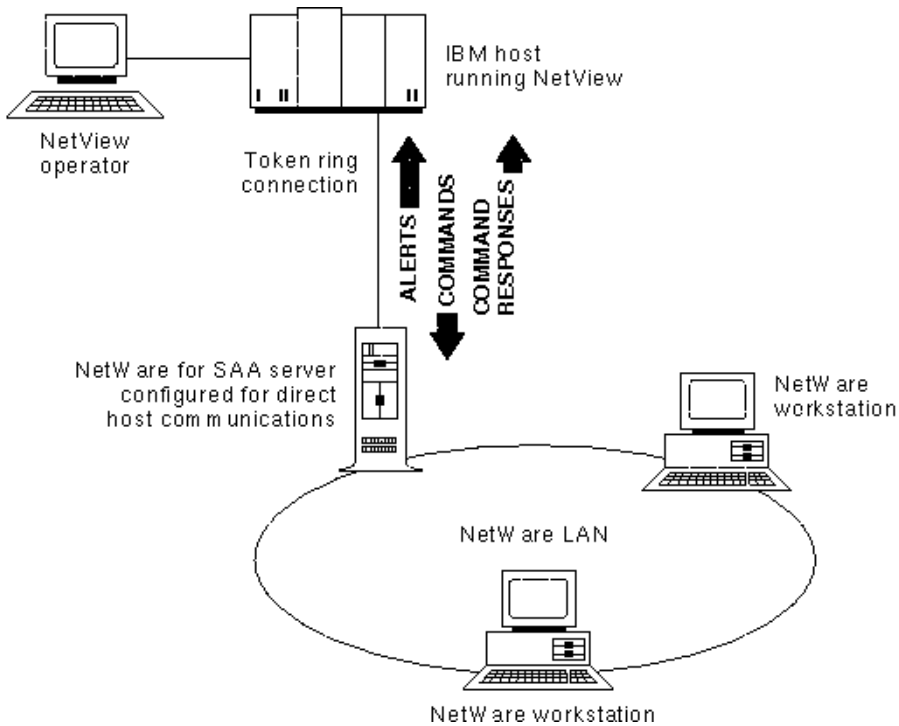
NMA for NetView provides two options for communicating with the host computer:

- ◆ Direct host communications over a token ring LAN
- ◆ Collection point communications via a NetWare for SAA server

Direct Host Communications

[Figure 2 on page 20](#) illustrates an example of a network topology that supports the direct host communications option.

Figure 2 Direct Host Communications

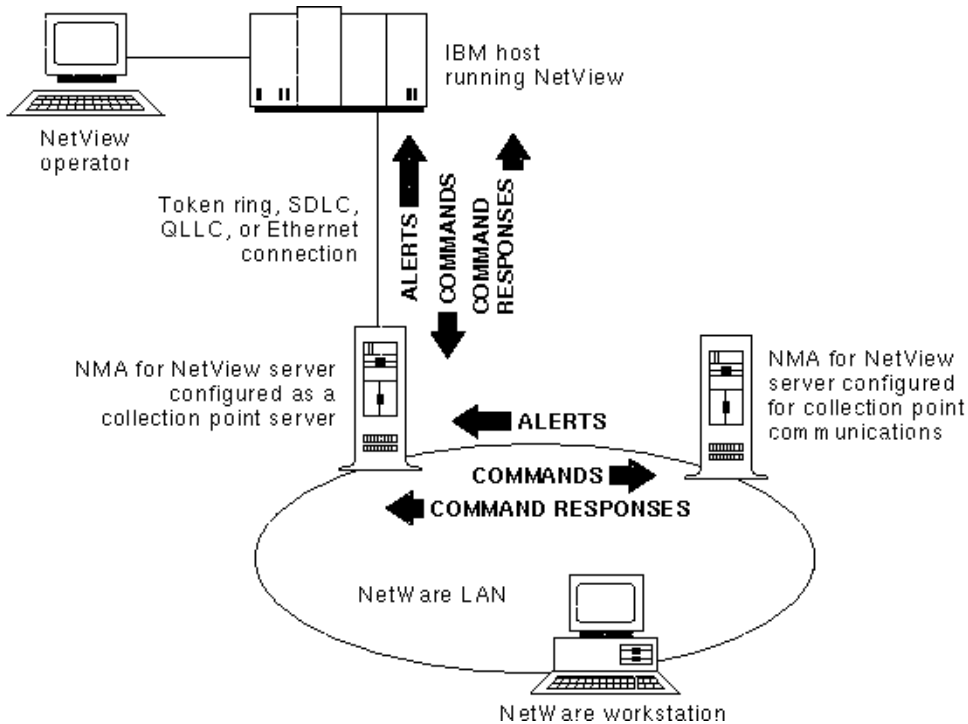


When using the direct host communications option, you must connect to the host through a token ring LAN.

Collection Point Communications

Figure 3 on page 21 illustrates an example of a network topology that supports the collection point communications option.

Figure 3 Collection Point Communications



When using the collection point communications option, NMA for NetView indirectly connects to the host computer through a NetWare for SAA server. In this system configuration, the NetWare for SAA server is called a collection point server.

When NMA for NetView is ready to send an alert, it sends the alert over the NetWare LAN to the collection point server. The collection point server forwards the alert to NetView.

When NetView is ready to send a command to an NMA for NetView server, it sends the command to the collection point server. The collection point server forwards the command over the NetWare LAN to the NMA for NetView server. Command response messages from NMA for NetView follow the same communications path as alert messages.

Advantages of Collection Point Communications

The collection point server option can reduce the cost of NetView management in NetWare LANs with multiple servers. If your NetWare LAN does not use token ring cabling, for example, the collection point server option can eliminate the cost of a token ring adapter for each NMA for NetView server.

The collection point server option also reduces the number of host connections required by NetWare servers. The host must allocate a physical unit (PU) for each NMA for NetView or NetWare for SAA server that is configured for direct host communications. NetView messages flow over a session between the PU and the system services control point (SSCP) host component. Servers that are configured for collection point communications use the SSCP-PU session allocated to the collection point server; they do not require an additional PU assignment.

Support for the Open NetView Interface

NMA for NetView can provide a connection between NetView and other application that conform to the NetWare Open NetView interface. When an application uses the Open NetView interface, a server running NMA for NetView can

- ◆ Receive alerts from the application and forward them to NetView
- ◆ Receive commands from NetView and forward them to the application

For more information on the NetView support provided by an application, refer to the documentation supplied with the application.

2

Installing NMA for NetView

This chapter describes how to

- ◆ Install NMA for NetView* on a NetWare® v3.1x (versions of NetWare later than 3.1 and earlier than 4.0) server
 - ◆ Prepare the host for communications with an NMA for NetView server
- IMPORTANT:** The NMA for NetView and NetWare for SAA* products provide similar support for NetView software. Do not install both NMA for NetView and NetWare for SAA in the same server.

Installation of NMA for NetView consists of the following tasks:

- ◆ Choose a connection topology (see [“Choosing a Connection Topology” on page 24](#))
- ◆ Set up the required server hardware and software (see [“Setting Up the Required Server Hardware and Software” on page 28](#))
- ◆ Prepare the NetWare v3.1x server (see [“Preparing the NetWare v3.1x Server” on page 29](#))
- ◆ Install the NMA for NetView software (see [“Installing the NMA for NetView Software” on page 35](#))
- ◆ Prepare the host for NMA for NetView (see [“Preparing the Host” on page 37](#))
- ◆ Configure NMA for NetView (see [“Configuring NMA for NetView” on page 44](#))

HINT: Give the *NetWare Reference Guide for NetView Operators* to your NetView operator. The information in the reference guide is designed to help the NetView operator manage NetWare servers.

Choosing a Connection Topology

Before you set up the NMA for NetView server, you must choose the host communications options you will use. The host communications options are

- ◆ Direct host communications
- ◆ Collections point server communications

The host communications options are described in “[Host Communications Options](#)” on page 19.

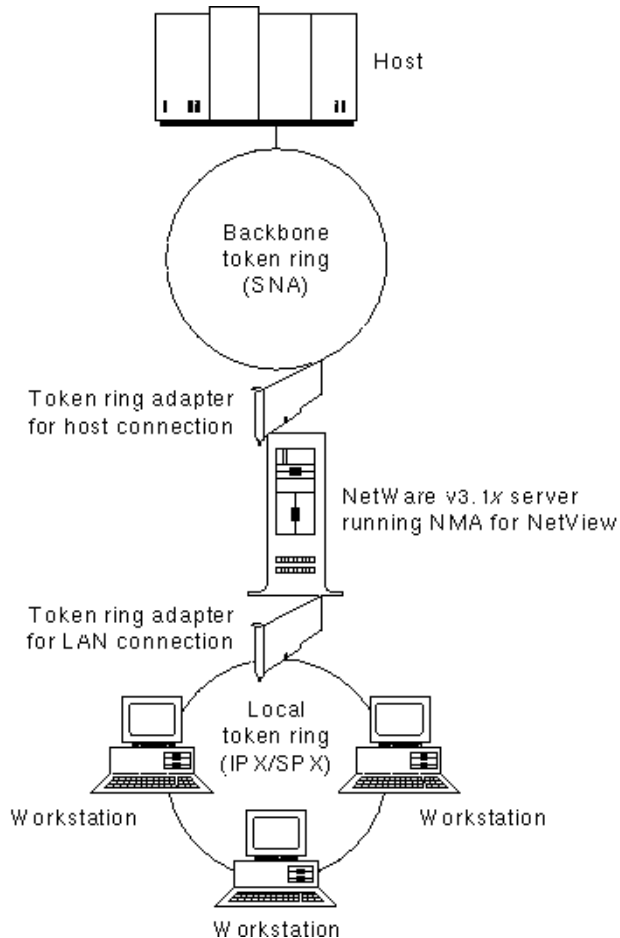
After you choose the host communications option, you need to choose the topology for your connection. The topology you choose determines the hardware and software you need to install.

There are many ways to assemble a NetWare network for NetView management. This section describes some sample topologies that support the NMA for NetView host communications options.

Topologies That Support Direct Host Communications

[Figure 4 on page 25](#) illustrates an example of a connection topology that supports an NMA for NetView server configured for direct host communications.

Figure 4 Topology Example 1, Direct Host Communications



In this topology, the NMA for NetView server communicates directly with the host's communications equipment over a token ring LAN. The workstation LAN shown in [Figure 4](#) is a token ring LAN, but it does not have to be. For example, the workstation LAN could be an Ethernet LAN.

When using the topology in [Figure 4](#), the NMA for NetView server requires

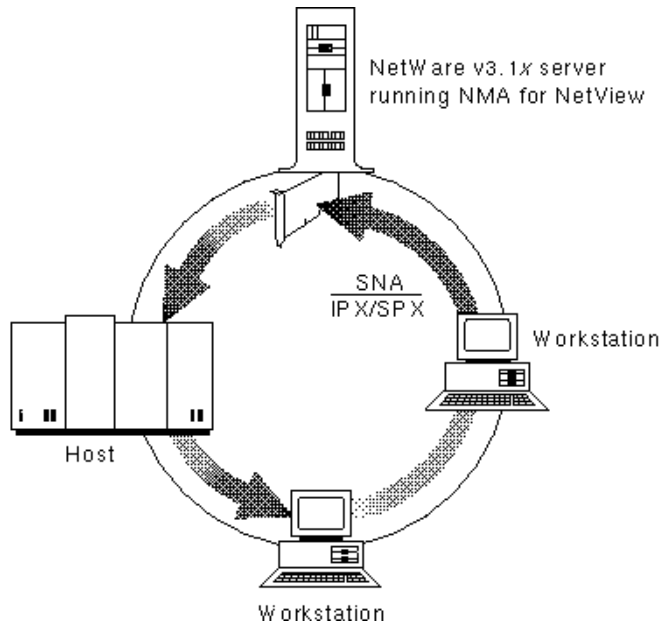
- ◆ An IBM* 16/4 or 16/4/A Token Ring adapter for communications with the host LAN
- ◆ Cabling from the token ring adapter to the host LAN
- ◆ A network adapter for the workstation LAN

- ◆ Cabling from the NMA for NetView server to the workstation LAN

Each cabling connection should provide a path (via cables, bridges, routers, and gateways) to the respective communications target, either the host LAN or the NetWare LAN.

Figure 5 illustrates another example of a topology that supports direct host communications.

Figure 5 Topology Example 2, Direct Host Communications



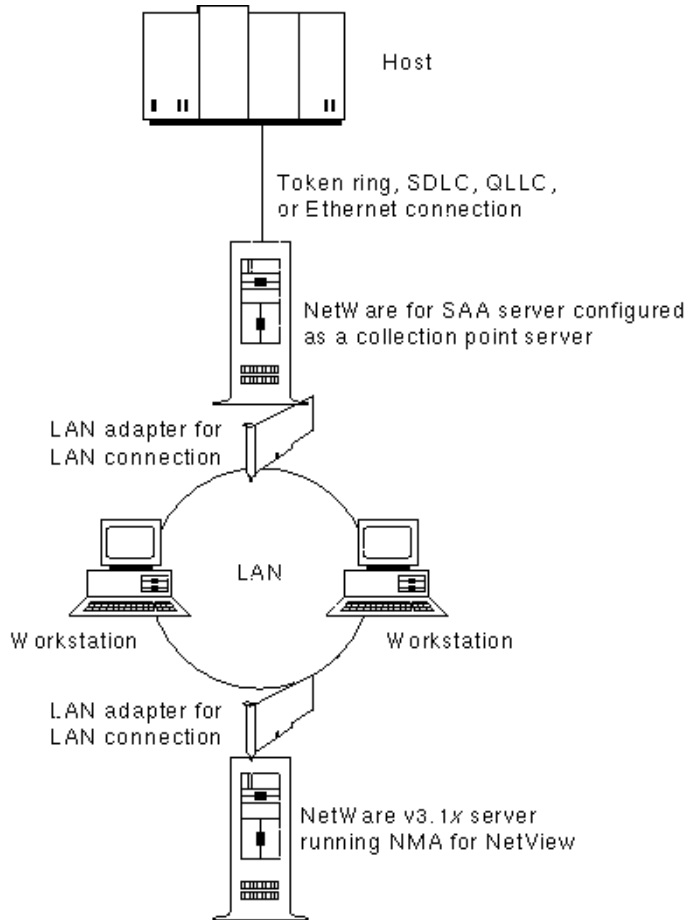
In this example, the NMA for NetView server connects to a single token ring network through one adapter. The NMA for NetView server uses the same network to communicate with the host and the NetWare workstations.

When using this topology, NMA for NetView requires an IBM 16/4 or 16/4/A Token Ring adapter and cabling from the NMA for NetView server to the host LAN. The cabling connection should provide a path (via cables, bridges, routers, and gateways) to the host LAN and all NetWare workstations.

Topology That Supports Collection Point Communications

Figure 6 illustrates a topology that supports an NMA for NetView server configured for collection point server communications.

Figure 6 Sample Collection Point Server Topology



The collection point server is a NetWare v3.1x server running NetWare for SAA. NetWare for SAA must be configured to support NetView collection point communications. (The collection point server requirements are described in the *NetWare for SAA v1.3 Administration Guide*.)

In this example, the NMA for NetView server connects to a single network through one network adapter. The NMA for NetView server uses the same adapter and network to communicate with the collection point server and the NetWare workstations.

This topology requires one network adapter and one network connection. The network connection should provide paths (via cables, bridges, routers, and gateways) to the collection point server and the NetWare workstations.

HINT: If you are adding NMA for NetView to an operating NetWare v3.1x server and you plan to use a collection point server topology, you can use the server's existing network adapter—you do not need to install an additional adapter. As is required for a new server in this topology, the network connection must provide a path to the collection point server.

Setting Up the Required Server Hardware and Software

NMA for NetView requires certain hardware and software.

Required Hardware

NMA for NetView requires the following hardware:

- ◆ A personal computer that uses an 80386 or 80486 microprocessor.
- ◆ One or more network adapters. (See [“Choosing a Connection Topology” on page 24.](#))
- ◆ Cabling between all network adapters and the appropriate network. (See [“Choosing a Connection Topology” on page 24.](#))
- ◆ A minimum of 6 MB of RAM: 2 MB for NMA for NetView and a minimum of 4 MB for NetWare v3.1x. To calculate the total memory required, determine how much memory is required by NetWare v3.1x (as described in *NetWare Version 3.1x Installation*), and then add 2 MB.

Refer to the manuals for each hardware product for installation instructions.

IMPORTANT: Record the option settings of all jumpers and switches on each network adapter. If the board has a network address or serial number, record these items also. When using two or more adapters for the same type of cabling system, be sure to note which adapter is connected to which network.

HINT: If you are adding a network adapter to an operating server, you must bring down the server and turn off the power. To minimize the interruption to file server users, consider waiting until the file server is idle or is scheduled for routine maintenance.

Required Software

NMA for NetView requires the following software:

- ◆ NMA for NetView v1.3 (or later) software.
- ◆ NetWare v3.1x, (a version of NetWare later than v3.1 and earlier than v4.0) which includes:
- ◆ CLIB (CLIB.NLM) to support the library of C functions.
- ◆ The Btrieve* product (BTRIEVE.NLM), which manages the database that holds your NMA for NetView configuration parameters.
- ◆ Network drivers to support each installed network adapter. (Some drivers are provided with NetWare v3.1x.)

Refer to the manuals for each software product for installation instructions.

HINT: Because all other software components must be loaded before you run NMA for NetView, Novell recommends that you automate their loading by inserting the appropriate statements in your server's AUTOEXEC.NCF file. For additional information on AUTOEXEC.NCF, see [“Automating Server Startup” on page 34](#).

Preparing the NetWare v3.1x Server

You must prepare the NetWare v3.1x server for the installation and operation of NMA for NetView as follows:

- ◆ Install NetWare v3.1x.
- ◆ Start NetWare v3.1x.
- ◆ Load all required NLMs.

When loading the required NLMs, use LOAD command line parameters to carry out the following:

- ◆ Configure Btrieve to support NMA for NetView.
- ◆ Configure the LAN adapter driver to support NMA for NetView.

For instructions on installing and starting NetWare v3.1x, refer to *NetWare v3.1x Installation*.

For instructions on downing or restarting NetWare v3.1x, see the DOWN and SERVER command descriptions in *NetWare v3.1x System Administration*.

The rest of this section provides additional information on the NLMs and drivers that must be loaded and configured.

If You Are Installing on a NetWare v3.11 Server

A NetWare v3.11 server requires additional patch files available through NetWare ExpressSM to support NMA for NetView v1.3. NetWare Express is an online information and software delivery service from Novell.

NetWare Express subscribers can locate software updates in the NSE OnlineSM Files area. The NMA for NetView v1.3 patch and software documentation package appears in the *NMA for NetView Update* area. To support NetWare v3.11, download this package and follow the directions in NMA4NV.DOC file and the documentation files. For more information on subscribing to NetWare Express, contact Novell[®].

Loading the Required NLMs

To prepare the server for NMA for NetView, you must load the following NLMs (which are provided with NetWare v3.1x):

- ◆ Btrieve
- ◆ CLIB
- ◆ Communication protocol NLMs

You must load Btrieve before you can install or operate NMA for NetView. NetWare Btrieve is a database management system that manages your NMA for NetView configuration parameters. Btrieve requires the CLIB NLM.

Example for Direct Host Communications

The following command list is an example of the commands required to prepare a NetWare v3.1x server for direct communications between NMA for NetView and the host:

```
:load clib
:load btrieve -p=4096 -f=20 -h=60 -l=20 -c
:load token name=logical_adapter_name
```

When configured for direct host communications, NMA for NetView uses its own Systems Network Architecture (SNA) protocol stack to communicate with the host. No additional communication protocol NLMs are required for host communications.

The LOAD TOKEN command loads the token ring driver for the LAN adapter. The NAME=*logical_adapter_name* parameter specifies the name for

the token ring LAN adapter. This procedure is described on [“Loading for Direct Host Communications” on page 33](#).

The NetWare v3.1x server requires additional communication protocol NLMs for workstation communications. This section describes only the requirements for NMA for NetView.

Example for Collection Point Communications

The following command list is an example of the commands required to prepare a NetWare v3.1x server for IPX/SPX communications with a collection point server:

```
:load clib
:load spxs
:load btrieve -p=4096 -f=20 -h=60 -l=20 -c
:load lan_driver
:bind protocol to lan_driver
```

When configured for collection point communications, NMA for NetView must use an SPX connection to communicate with the collection point server. The communications path may be direct, or it may require intermediate communications devices such as bridges and gateways.

The LOAD *lan_driver* and BIND commands load the driver for the LAN adapter and bind it to the communication protocol. This procedure, which enables communications with the collection point server, is described in [“Loading and Binding for Collection Point Server Communications” on page 34](#).

Locating NLMs

The NLMs in the previous examples are included in the NetWare v3.1x product package and are described in *NetWare v3.1x System Administration* and in *Btrieve Installation and Operation (100-001662-001)*.

HINT: If you are adding NMA for NetView to a previously installed NetWare v3.1x server, enter the **MODULES** command to list the NLMs that have already been loaded. The **MODULES** command is described in *NetWare v3.1x System Administration*.

Configuring Btrieve

If you have changed the default settings in Btrieve, you may need to reconfigure Btrieve to support NMA for NetView.

To configure Btrieve for operation with NMA for NetView, enter the configuration parameters with the LOAD command at startup.

Table 2 lists the Btrieve configuration parameters and the settings that NMA for NetView requires.

Table 2 Btrieve Configuration Settings for NMA for NetView

Btrieve Parameter	LOAD Command Line Option	Suggested Value
Number of open files	-f	20
Number of handles	-h	60
Number of locks	-l	20
Number of transactions	-t	
Number of files per transaction	-n	
Largest compressed record size	-u	
Largest record size	-d	
Largest page size	-p	
Number of sessions	-s	
Create files as transactional	-i	
Logging of selected files	-a	

To load and configure Btrieve simultaneously, enter the following command:

```
:load btrieve -p=4096 -f=20 -h=60 -l=20 -c
```

IMPORTANT: If Btrieve is already loaded, you must unload Btrieve and then load it with the configuration parameters. To unload Btrieve, enter the command **UNLOAD BTRIEVE** at the system prompt (:).

Loading and Binding the LAN Adapter

You must load an adapter driver for the adapter through which you communicate with the host. If you plan to configure NMA for NetView for collection point communications, you must bind the adapter driver to a communication protocol.

Loading for Direct Host Communications

When NMA for NetView is configured for direct host communications, you must use a token ring adapter and adapter driver for host communications. Because NMA for NetView uses its own SNA protocol stack to communicate with the host, you do not have to bind the adapter driver to a protocol.

IMPORTANT: If you plan to use the same adapter for host and workstation communications, you must bind the adapter driver to a communication protocol.

The TOKEN.LAN adapter driver is supplied with NetWare v3.1x. To load the TOKEN.LAN adapter driver, enter the following command:

```
:load token
```

After you enter the LOAD TOKEN command, the server prompts you for the configuration of the token ring adapter.

If you prefer to enter the configuration parameters with the LOAD TOKEN command, enter a command that is similar to the following:

```
:load token port=a20 int=2 node=12345678 saps=4 ls=32 name  
=logical_adapter_name
```

Set the adapter configuration parameters as follows:

- ◆ **PORT.** Set the port parameter to A20 if it is the primary adapter; use A24 for the alternate adapter. (Refer to the manual that came with the token ring adapter for information on adapter switch settings.)
- ◆ **INT.** Enter the interrupt number used by the token ring adapter. If you do not know what interrupt the adapter uses, refer to the manual for the adapter.
- ◆ **NODE.** Node refers to the address of the server's token ring adapter that communicates with the host. Enter the last eight digits of the adapter's locally administered address, which is defined by the LAN or system administrator.
- ◆ **SAPS.** This parameter specifies the number of service access points (SAPs) that can be opened by an application using the token ring adapter.

The number of SAPs must be 04 or a multiple of 04, and depends on the number of services running on the node (generally one SAP per service). Consult the token ring adapter manual for information on calculating the maximum number of SAPs.

- ◆ LS. This parameter specifies the number of link stations. This value should be eight times the SAPS setting.
- ◆ NAME. This parameter specifies the name for the token ring LAN adapter. The logical name can be up to 16 alphanumeric and/or special characters. You will use this name later to configure the Logical Adapter Name field in the NVCONFIG program.

Loading and Binding for Collection Point Server Communications

When NMA for NetView is configured for collection point server communications, you must load an adapter driver and bind it to a communication protocol. The type of adapter and communication protocol you use depends on the network through which you will connect to the collection point server.

The following command list is an example of the commands required to load an NE2000TM adapter driver and bind it to IPX™:

```
:load ne2000
:bind ipx to ne2000
```

NetWare v3.1x provides some adapter drivers and the IPX communication protocol. For information on using this software, see *NetWare v3.1x Installation*. For additional information on the driver required by your adapter, see the manual for your adapter.

Automating Server Startup

As the previous sections illustrate, you must enter a number of commands to prepare a NetWare v3.1x server for NMA for NetView. To make starting a server easier, the NetWare v3.1x INSTALL utility allows you to create a startup file, which operates in a manner similar to the DOS AUTOEXEC.BAT file.

The startup file for NetWare v3.1x servers is named AUTOEXEC.NCF, and it must be created with the INSTALL utility. The INSTALL utility includes a special option that automatically enters the names of all loaded NLMs and drivers into the AUTOEXEC.NCF file.

Novell recommends that you use the AUTOEXEC.NCF file to automate server startup. Creating the AUTOEXEC.NCF file is generally easier than writing down the commands you need to execute.

When you create the AUTOEXEC.NCF file, enter all the commands to prepare the server for NMA for NetView; then add the command to start NMA for NetView:

```
:load nmanv
```

For instructions on creating the AUTOEXEC.NCF file, see the server installation section of *NetWare v3.1x Installation* or the section on the INSTALL utility in *NetWare v3.1x Administration*.

Installing the NMA for NetView Software

This section describes how to install the NMA for NetView software.

IMPORTANT: If the NetWare for SAA software is installed in the NetWare v3.1x server, do not install the NMA for NetView software. NetWare for SAA provides NetView management support, which is similar to NMA for NetView.

To install the NMA for NetView software:

- 1 If the server is not running, start the server and all prerequisite NLMs and drivers.

“[Preparing the NetWare v3.1x Server](#)” on page 29 describes which NLMs and drivers must be running.

- 2 If NMA for NetView v1.0 or v1.2 is installed on the server, remove that version of the software.

IMPORTANT: Do not use the NetWare INSTALL utility to remove previous versions of NMA for NetView. You must remove NMA for NetView with the version of NVINSTALL that was used to install that version of NMA for NetView.

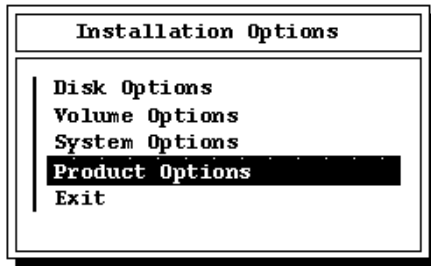
For instructions on removing previous versions of NMA for NetView, see the documentation for that version of the software.

- 3 Insert *NMA for NetView v1.3, Disk 1*, into one of the server's disk drives.
- 4 Start the NetWare INSTALL utility by entering

```
:load install
```

The INSTALL utility's option menu appears. (See [Figure 7 on page 36](#).)

Figure 7 INSTALL Options Menu



5 Select Product Options.

The Currently Installed Products window appears.

6 Press <Insert>.

You are prompted to specify the location of your NMA for NetView installation files. (See [Figure 8](#).)

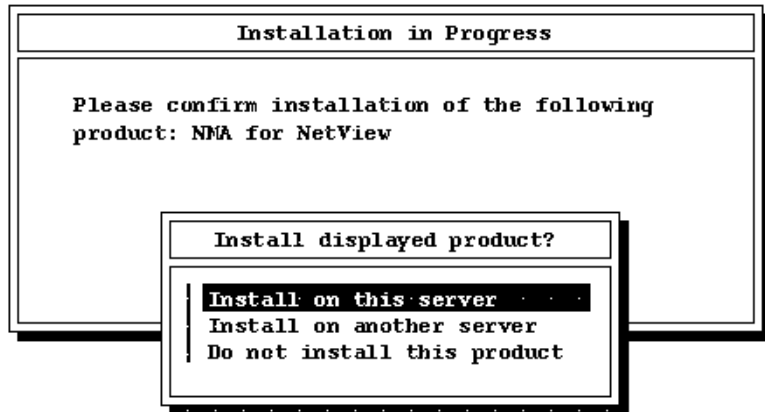
Figure 8 Installation Prompt



7 If you inserted *NMA for NetView v1.3, Disk 1* in the server drive A:, press <Enter>; otherwise, type the letter of the drive where you inserted the diskette and press <Enter>.

The prompts shown in [Figure 9](#) on page 37 appear.

Figure 9 NMA for NetView Confirmation



- 8** Select the option Install on this server.
- 9** Follow the prompts until all the required files are installed on the server.
After installation is complete, the NMA for NetView Communications Options menu appears.
- 10** Configure NMA for NetView for connection to an SNA host or to a NetView collection point. See [Chapter 3, “Configuring, Loading, and Unloading NMA for NetView,” on page 43](#) for details.
 - ◆ Before operating NMA for NetView, you must configure the software as described in [“Configuring NMA for NetView” on page 44](#).
 - ◆ If you are not ready to configure the software, you can exit the NetWare INSTALL program and restart the program when you are ready to configure. To exit the program, press <Esc>.

Preparing the Host

NMA for NetView requires certain hardware and software at the host computer (see [Table 3 on page 38](#)). These host requirements vary according to the NMA for NetView communications option in use.

Table 3 Connection Requirements

Components Supporting Direct Host Connection	Components Supporting Collection Point Server Connection
1. NetView software on the host	1. NetView software on the host
2. PU Type 2.0 definition in the Virtual Telecommunications Access Method (VTAM) system on the host	2. NetWare for SAA on the collection point server
3. Token ring LAN connection between the host and the NMA for NetView server	3. Collection point server connection to the host
4. NetView code points for NetWare if host version of NetView is 2.1 or earlier	4. NetView code points for NetWare if the host version of NetView is 2.1 or earlier

The following sections describe each of the host components that may be required.

NetView Software

NetView software is required to receive the NetWare alert messages and send commands to NetWare servers. The host systems programmer is responsible for installing NetView.

PU Type 2.0 Definition in VTAM

If you are configuring NMA for NetView for direct host communications, the host must allocate a physical unit (PU) for the NMA for NetView server. NetView messages flow over a session between the PU and the system services control point (SSCP) host component.

Servers that are configured for collection point communications use the SSCP-PU session allocated to the collection point server. When using the collection point communications option, the NMA for NetView server does not require a PU definition.

You are responsible for telling the host systems programmer what type of PU definition you need. Because some NMA for NetView configuration parameters must be set to match certain host parameters, you must ask the host systems programmer for the host configuration parameter settings.

To request a PU and get the host configuration parameters, you need to do the following:

1 Photocopy [Table 6 on page 45](#).

The host communications parameters in [Table 6](#) are the NMA for NetView parameters that must be set to match parameters at the host.

2 Contact the host systems programmer and request a PU definition for your NMA for NetView server.

[Table 4](#) lists three types of host communication equipment and the PU definition required for each type. The host systems programmer should be able to tell you what type of communication equipment is processing your connection.

Table 4 PU Type Definitions for Host Communication Equipment

Communication Equipment	PU Definition
937x attachment	Switched token ring PU Type 2.0
37xx attachment	Switched token ring PU Type 2.0
3174 controller	Nonswitched PU Type 2.0

NMA for NetView requires no logical unit (LU) definitions.

The following example is a sample PU definition for a 937x attachment. This sample is provided to assist the host systems programmer in allocating a PU definition for NMA for NetView.

Sample PU Definition for 937x Attachment

```
NMA4NV VBUILD TYPE=SWNET
*****
TOKEN RING PU 2.0 FOR NMA FOR NETVIEW
*****
T12345 PU ADDR=04, X
      IDBLK=017, X
      IDNUM=12345, X
      LANSW=YES, X
      MAXDATA=1033, X
      PUTYPE=2, X
      ISTATUS=ACTIVE X
```

- 1 Ask the host systems programmer for the host communications parameters for your NMA for NetView server.

Table 5 lists the NMA for NetView configuration parameters that must match settings on the host communications equipment. The first column lists the parameter names as they appear in the NVCONFIG program. Columns 2 through 4 list the corresponding host parameters for three types of host communications equipment.

Table 5 NVCONFIG Parameters That Must Match Host Parameters

NVCONFIG Parameter Name	937x Attachment Parameter Location	37xx Attachment Parameter Location	3174 Controller Parameter Location
Peripheral Node Control Point (PNCP) Name	CPNAME statement (if any) in the switched PU definition	Not applicable	Not applicable
Token Ring Destination Node Address	MACADDR definition in the PORT statement	Token interface card (TIC) address (LOCADD= <i>value</i>) in the Network Control Program (NCP) definition	Statements 900 and 940 in the Customization Panels
Token Ring Destination Service Access Point (SAP)	Not applicable	Enter 4 for this parameter	Configuration question 900 in the Customization Panels
Token Ring Service Access Point (SAP)	SAPADDR definition in the PORT statement	Enter 4 for this parameter	Statement 940 in the Customization Panels
Block ID	IDBLK statement in the switched PU definition	IDBLK statement in the switched PU definition	Not applicable; no entry required
PUID for Token Ring Connection	IDNUM statement in the switched PU definition	IDNUM statement in the switched PU definition	Not applicable; no entry required

Record the host systems parameters as follows:

- 1a Locate the column in Table 5 for the host communications equipment your host connection will use.
- 1b Ask the host systems programmer for the value of the parameters in that column.

- 1c** Write down the host communications parameters on the photocopy of [Table 6 on page 45](#).
- 2** Save the photocopy of [Table 6](#) so that you have the host configuration information when you configure NMA for NetView. (See [“Configuring NMA for NetView” on page 44](#).)

Connection to the Token Ring LAN

When NMA for NetView is configured for direct host communications, the host must be connected to the token ring LAN. The host systems programmer should be responsible for this task.

NetWare for SAA

When NMA for NetView is configured for collection point communications, you must install NetWare for SAA in the collection point server. To configure NetWare for SAA for host communications, see the *NetWare for SAA v1.3 Administration Guide*.

Collection Point Server Connection to Host

When NMA for NetView is configured for collection point communications, the collection point server (NetWare for SAA) requires either a token ring, SDLC, Ethernet, or QLLC connection to the host's communications equipment. For more information on establishing a host communications link to the collection point server, see the *NetWare for SAA v1.3 Administration Guide*.

Installation of NetView Code Points for NetWare

The code points allow NetView to display additional information about alerts that are received from NMA for NetView. These code points are provided with NMA for NetView and with NetView v2.1.

You may not need to install the code points for NetWare. If you are using NetView v2.1 or later, the code points are included with NetView and do not have to be installed.

If you are using an earlier version of NetView, the code points for NetWare must be installed once. You and the host systems programmer must install the code points if the NetWare code points have never been installed. Installation

is not required if the code points for NetWare have been installed for any other NMA for NetView v1.3 server or NetWare for SAA v1.3 server. For additional information on code points and their installation, see [Appendix A, “Installing Code Points for NetWare,”](#) on page 55.

3

Configuring, Loading, and Unloading NMA for NetView

This chapter describes procedures for managing the NMA for NetView* software. You must install NMA for NetView before you can begin these procedures.

- ◆ Start the NVCONFIG configuration utility (“[Starting NVCONFIG](#)” on [page 43](#))
- ◆ Use NVCONFIG to configure or reconfigure the NMA for NetView software (page 3-3)
- ◆ Load NMA for NetView (“[Loading NMA for NetView](#)” on [page 53](#))
- ◆ Unload NMA for NetView (“[Unloading NMA for NetView](#)” on [page 53](#))
- ◆ Administer NMA for NetView remotely (“[Administering NMA for NetView Remotely](#)” on [page 53](#))
- ◆ Remove the NMA for NetView software (“[Removing the NMA for NetView Software](#)” on [page 54](#))

These are independent procedures—not subdivisions of a long procedure. To complete any of these procedures, refer to the page where the procedure begins.

Starting NVCONFIG

To start NVCONFIG:

- 1 If the server is running, start the server and all prerequisite NLMs and drivers.

“Preparing the NetWare v3.1x Server” on page 29 identifies the NLMs and drivers that must be running.

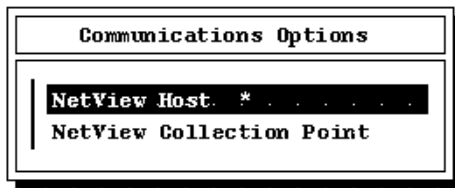
2 If NMA for NetView is running on your server, unload the program as described on “Unloading NMA for NetView” on page 53.

3 Enter the following command:

```
:load nvconfig
```

The server loads NVCONFIG from the SYS:SYSTEM directory; then NVCONFIG displays the Communications Options menu (see Figure 10).

Figure 10 Communications Options Menu



The currently active option, either NetView Host or NetView Collection Point, is marked by an asterisk.

Configuring NMA for NetView

You must configure the NMA for NetView software before loading NMA for NetView. Later, if you want to change the configuration, you can reconfigure NMA for NetView. This section describes how to configure or reconfigure the NMA for NetView software.

IMPORTANT: Before you can configure NMA for NetView, you must have installed the software as described in Chapter 2.

You can configure the software for

- ◆ Direct host communications
- ◆ Collection point server communications

IMPORTANT: Although NMA for NetView allows you to configure the software for either communications option, your installation may not support both options. Each communications option requires specific hardware components and proper NetWare® v3.1x preparation. Configure NMA for NetView to use the option you planned to use when you followed the instructions in Chapter 2.

NOTE: If you want to configure NMA for NetView to use the other communications option, review the instructions in Chapter 2 to see what changes may be required to support the other communications option.

Configuring for Direct Host Communications

When using the direct host communications option, the NMA for NetView server connects to the host through a token ring LAN.

To configure NMA for NetView for direct host communications, use the following procedure:

- 1 Photocopy [Table 6](#), then write down the configuration parameters you want to use on the photocopy.

IMPORTANT: If you photocopied [Table 6](#) as part of the procedure for requesting a PU definition (see [“PU Type 2.0 Definition in VTAM” on page 38](#)), continue to use the photocopy you created.

[Table 6](#) divides the configuration parameters into host communication parameters and server and LAN configuration parameters.

- 1a Ask your host systems programmer for the values for the host communication parameters.

You should get this information when you request a PU definition for the server. [Table 5 on page 40](#) provides additional information that can help the host systems programmer locate the host communication parameters for you.

- 1b Define the server and LAN configuration parameters.

Some of the server and LAN configuration parameters control server operation; other parameters are labels that identify the server and LAN in messages exchanged with NetView.

Descriptions of the configuration parameters begin on [“Parameter Descriptions for the Token Ring Connection to Host Screen” on page 48](#).

Table 6 Configuration Parameters for Direct Host Communications

Host Communication Parameters	Status	Value
Token Ring Destination Node Address	Required	_____
Token Ring Destination Service Access Point (SAP)	Required	_____

Block ID	Required for 937x and 37xx attachments	_____
PUID for Token Ring Connection	Required for 937x and 37xx attachments	_____
Server and LAN Configuration Parameters	Status	Value
Peripheral Node Control Point (PCNP) Name	Optional	_____
Token Ring Adapter Type	Required	_____
Logical Adapter Name	Required	_____
Token Ring Service Access Point (SAP)	Required	_____
Maximum Frame Size to Transmit Inbound	Required	_____

- 2 If NVCONFIG is not running, start NVCONFIG as described in “Starting NVCONFIG” on page 43.

IMPORTANT: Novell® recommends that you unload NMA for NetView before starting NVCONFIG. Configuration changes do not take effect until the next time NMA for NetView is loaded.

- 3 When NVCONFIG displays the Communications Options menu, use the arrow keys to select NetView Host; then press <Enter>.

The Token Ring Connection to Host configuration screen (Figure 11 on page 47) appears.

Figure 11 Token Ring Connection to Host Screen

Token Ring Connection to Host	
Peripheral Node Control Point Name:	CPNAME
Token Ring Destination Node Address:	4000 70930000 hex
Token Ring Destination Service Access Point:	04 hex
Token Ring Service Access Point:	04 hex
Token Ring Adapter Type:	Alternate
Block ID:	017 hex
PUID for Token Ring Connection:	04015 hex
Maximum Frame Size to Transmit Inbound:	521
Logical Adapter Name:	IBMHOST

4 Edit the host communication parameters.

Use the arrow keys to select a parameter, then press <Enter> to edit the parameter.

For some parameters, NVCONFIG displays a cursor; for others it displays a menu. When NVCONFIG displays a cursor, use the keyboard keys to edit the current value. When NVCONFIG displays a menu, use the arrow keys to select the new value; then press <Enter>.

See “[Parameter Descriptions for the Token Ring Connection to Host Screen](#)” on page 48 for more information on each parameter.

5 When all host communication parameters are set, press <Esc> to exit the Token Ring Connection to Host screen.

If you changed any of the configuration options, the program displays a configuration box that prompts you to save your changes.

6 In the Save Changes confirmation box, use the arrow keys to select Yes; then press <Enter>.

NVCONFIG configures NMA for NetView for direct host communications, saves the configuration parameters, and displays a message to confirm that your changes are saved.

7 Press <Esc> to clear the confirmation message.

8 Press <Esc> again to exit the Communications Options menu and NVCONFIG.

IMPORTANT: You must exit NVCONFIG before loading NMA for NetView.

The configuration process is now complete. For instructions on loading NMA for NetView, see [“Loading NMA for NetView” on page 53](#).

Parameter Descriptions for the Token Ring Connection to Host Screen

The Token Ring Connection to Host screen lists nine configuration parameters that you can adjust. Some of these parameters must be set before NMA for NetView can operate; other parameters are optional. The rest of this section describes how to set the configuration parameters for the direct host communications.

Block ID

Set the block ID to match the corresponding value at the host. This hexadecimal number identifies the device type of the remote communication equipment.

The number entered in this field must be three digits long. To specify a value less than three digits, supply leading zeros.

When the NMA for NetView server communicates with the host through a 937x or 37xx attachment, the Block ID parameter must match the value that follows the IDBLK= statement in the switched PU definition. When the server communicates through a 3174 controller, the Block ID parameter is ignored; therefore, no entry is required.

Logical Adapter Name

Set this parameter to match the adapter that is entered into the AUTOEXEC.NCF file. This name must match the AUTOEXEC.NCF file's adapter name. The logical adapter name can be up to 16 alphanumeric and/or special characters.

Maximum Frame Size to Transmit Inbound

This parameter sets the frame size for transmissions from NMA for NetView to the host. The default frame size is 265 bytes. Press <Enter> to display a list of frame sizes (see [Figure 12 on page 49](#)).

Figure 12 Frame Size Choices for Transmitting Inbound Data



When configuring NMA for NetView, be sure to set the Maximum Frame Size to Transmit Inbound parameter to 521 or larger. If this parameter is set to a smaller size, the NetView host operator may not receive replies to commands.

IMPORTANT: When NMA for NetView is configured for collection point communications and the NetView operator reports lost command replies, check the setting of the Maximum Frame Size to Transmit Inbound parameter on the collection point server. The collection point server's Maximum Frame Size to Transmit Inbound parameter controls NetView communications of the NMA for NetView server.

IMPORTANT: If you change the maximum frame size to transmit inbound to 2042 bytes, you must configure your system to accommodate this setting. Do so by modifying the event control block (ECB) size in your system's STARTUP.NCF file as follows:

```
Set maximum physical receive packet size = 2298
```

Peripheral Node Control Point Name

The peripheral node control point (PNCP) name is an optional entry. In Systems Network Architecture (SNA) terms, the NetWare server is connected to the host as a peripheral node. A peripheral node contains a software entity called a control point, which controls the resources of the SNA peripheral node.

If you enter a PNCP name, NMA for NetView sends the PNCP name to NetView in each alert. If you do not enter a PNCP name, NMA for NetView sends the default value, CPNAME.

PUID for Token Ring Connection

Set the PUID to match the corresponding PUID at the host.

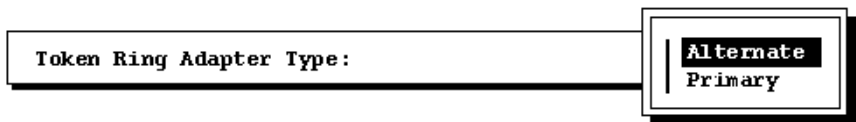
The hexadecimal number entered in this field must be five digits long. To specify a value less than five digits, supply leading zeros.

When the NMA for NetView server communicates with the host through a 937x or 37xx attachment, the PUID parameter must match the value that follows the IDNUM= statement in the switched PU definition. When the server communicates through a 3174 controller, the PUID parameter is ignored; therefore, no entry is required.

Token Ring Adapter Type

In this field, specify the type of adapter your server is using for the host connection. Press <Enter> to display your two choices, Primary and Alternate (see [Figure 13](#)).

Figure 13 Designation Choices of Adapter



Select Primary if the token ring adapter type switch (on the adapter) has been set to Primary; select Alternate if the adapter type switch has been set to Alternate. (Refer to the token ring adapter manual for information on switch settings.)

Token Ring Destination Node Address

Set this parameter to match the address of the host's token ring connection. [Table 6 on page 45](#) lists the host communication parameters that your host systems programmer should provide. [Table 5 on page 40](#) contains additional information that the host systems programmer can use to locate the correct value for this address.

Token Ring Destination Service Access Point

This is the two-digit SAP number for the host.

Set this parameter to match the SAP ID of the host's token ring connection. [Table 6](#) lists the communication parameters that your host systems programmer should provide. [Table 5](#) provides additional information that the host systems programmer can use to locate the correct value.

Token Ring Service Access Point

This is the two-digit SAP number for the server.

Set this parameter to match the SAP ID of the server's token ring connection. [Table 6 on page 45](#) lists the communication parameters that your host systems programmer should provide. [Table 5 on page 40](#) provides additional information that the host systems programmer can use to locate the correct value.

Configuring for NetView Collection Point Communications

When configured for collection point communications, NMA for NetView indirectly connects to the host computer through a NetWare for SAA server. In this system configuration, the NetWare for SAA server is called a collection point server.

IMPORTANT: When NMA for NetView is configured for collection point communications and the NetView operator reports lost command replies, check the setting of the Maximum Frame Size to Transmit Inbound parameter on the collection point server. The collection point server's Maximum Frame Size to Transmit Inbound parameter controls NetView communications for the NMA for NetView server.

When NMA for NetView is configured for collection point communications, the collection point server provides the following information in all forwarded messages:

- ◆ The PNCP name assigned to the collection point server
- ◆ The model number of the collection point server
- ◆ The serial number of the collection point server

For information on setting these parameters within NetWare for SAA see the *NetWare for SAA v1.3 Administration Guide*.

To configure NMA for NetView for NetView collection point communications, use the following procedure:

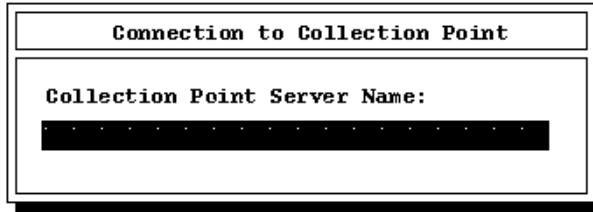
- 1** If NVCONFIG is not running, start NVCONFIG as described in [“Starting NVCONFIG” on page 43](#).

IMPORTANT: Novell recommends that you unload NMA for NetView before starting NVCONFIG. Configuration changes do not take affect until the next time NMA for NetView is loaded.

- 2** When NVCONFIG displays the Communications Options menu, use the arrow keys to select NetView Collection Point; then press <Enter>.

NVCONFIG displays the Connection to Collection Point dialog box (see [Figure 14 on page 52](#)).

Figure 14 Connection to Collection Point Dialog Box



- 3** Enter the collection point server name.

The value you enter must match the server name that was entered when the collection point server was started. The collection point server you name must be running NetWare for SAA* v1.3 or later and must be configured to support NetView collection point communications.

IMPORTANT: When changing the configuration from direct host communications to collection point server communications, you must edit the collection point server name. If you do not edit the name, NVCONFIG does not prompt you to save the configuration and NMA remains configured for direct host communications.

- 4** Press <Esc> to exit the Connection to Collection Point dialog box.

If you changed any of the configuration options, the program displays a confirmation box that prompts you to save your changes. If you do not want to save changes to the configuration, select No, and press <Enter>.

- 5** In the Save Changes confirmation box, use the arrow keys to select Yes; then press <Enter>.

NVCONFIG configures NMA for NetView for collection point server communications, saves the collection point server name, and displays a message to confirm that your changes are saved.

- 6** Press <Esc> to clear the confirmation message.

- 7** Press <Esc> again to exit the Communications Options menu and NVCONFIG.

The configuration process is now complete; NMA for NetView is ready for loading.

IMPORTANT: You must exit NVCONFIG before loading NMA for NetView.

For instructions on loading NMA for NetView, see [“Loading NMA for NetView” on page 53](#). Instructions for automating the startup procedure appear on [“Automating Server Startup” on page 34](#).

Loading NMA for NetView

The process of starting the NMA for NetView software is called loading. Before loading NMA for NetView, you must install and configure NMA for NetView. [Chapter 2, “Installing NMA for NetView,” on page 23](#) describes how to install NMA for NetView; see [“Configuring NMA for NetView” on page 44](#) for configuration instructions.

IMPORTANT: Every time you load NMA for NetView, you must first execute a series of commands. These commands are identified in [“Preparing the NetWare v3.1x Server” on page 29](#).

To load NMA for NetView, enter the following command:

```
:load nmanv
```

IMPORTANT: Novell recommends that you automate the loading process for NMA for NetView by loading the software from the AUTOEXEC.NCF file. For more information on the AUTOEXEC.NCF file, see [“Automating Server Startup” on page 34](#).

Unloading NMA for NetView

Unload NMA for NetView when you want to

- ◆ Change the configuration of NMA for NetView
- ◆ Remove the NMA for NetView software (see [“Removing the NMA for NetView Software” on page 54](#))

To unload NMA for NetView from the NetWare server, enter the following command:

```
:nvdown
```

NetWare displays a message informing you that NMANV.NLM has been unloaded.

Administering NMA for NetView Remotely

You can set up the server with NMA for NetView installed to support the NetWare RCONSOLE utility. With RCONSOLE you can load, unload, and configure NMA for NetView remotely from a workstation as follows:

- 1** Make sure that the REMOTE and RSPX NLMs are loaded on the server installed with NMA for NetView.

- 2** From your network workstation, log in as SUPERVISOR to the directory on the local network server containing the remote network files (usually SYS:SYSTEM).
- 3** Start the RCONSOLE utility, and select the server installed with NMA for NetView.
- 4** When the system console prompt appears on your workstation screen, load or unload NMA for NetView or start NVCONFIG as if you were sitting at the server console.

See the information on RCONSOLE in the *NetWare v3.1x System Administration Guide* for more information on running RCONSOLE.

Removing the NMA for NetView Software

Remove the NMA for NetView software when

- ◆ Upgrading from a previous version of NMA for NetView
- ◆ Preparing to install NetWare for SAA

To remove NMA for NetView v1.3, use the NetWare INSTALL utility. When removing the software, the NetWare INSTALL utility deletes the NMA for NetView files from the server's SYS:SYSTEM directory and deletes entries from the internal NetWare bindery.

NOTE: To remove a previous version of NMA for NetView, follow the removal directions that came with that version. Do not use the NetWare INSTALL to remove versions of NMA for NetView previous to v1.3.

- 1** Start the NetWare INSTALL Utility. Type
`:load install`
- 2** Select Product Options from the Installation Options menu.
- 3** Use the arrow keys to select NMANV v1.3.0 NMA for NetView from the Currently Installed Products listing.
- 4** Press <Delete>.
- 5** When the Uninstall NMANV prompt appears, select Yes to confirm the removal of NMA for NetView v1.3.

A

Installing Code Points for NetWare

The code points allow NetView* to display additional information about alerts that are received from NMA for NetView. This appendix describes

- ◆ How to determine whether you need to install NetView code points
- ◆ An overview of the installation procedure
- ◆ How to install NetView code points on a Virtual Machine* (VM*) system
- ◆ How to install NetView code points on a Multiple Virtual Storage (MVS) system

Do You Need to Install?

Beginning with NetView v2.1, all versions of NetView contain all the code points required to display NetWare® alerts. Contact a NetView operator or your systems programmer and ask for the version number of NetView. If the host is running NetView v2.1 or higher, you do not need to install code points.

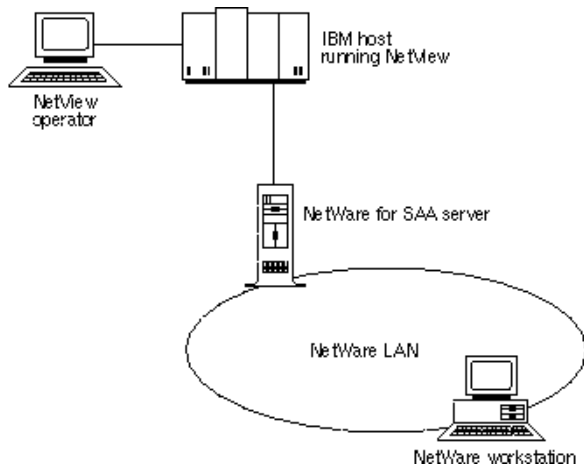
If the host is running an older version of NetView (before v2.1), you might need to install additional code points as described later in this appendix. You do not need to install the code points if the code points for NMA for NetView v1.2 or NetWare for SAA v1.2 are already installed on the NetView host. Once the code points are installed for one NetWare for SAA v1.2-and-later server, the installed code points support all NetWare for SAA v1.2-and-later servers.

Installation Overview

This section provides a general overview of the installation process. Detailed procedures for the VM and MVS host systems appear later in this appendix.

Figure 15 shows the equipment you might need to use for installing the code points in NetView.

Figure 15 Installation Overview



To install the code point messages, you must perform the following tasks:

- 1** Prepare to transfer files to the host:
 - 1a** Install NetWare for SAA* (or a product with similar features) on a network server so that you can access the host from a workstation on the NetWare LAN.
 - 1b** Using NetWare 3270 LAN Workstation™ software with file transfer capabilities (or a product with similar features) on a LAN workstation, establish a host session and access the NetView RUN disk.
- 2** Install the code point messages:
 - 2a** Using the NetWare 3270 LAN Workstation, transfer the code point files from *NMA for NetView v1.3, Disk 2* to the NetView RUN disk.
 - 2b** Using the NetWare 3270 LAN Workstation, compile the code point files.
 - 2c** Using a NetView console or NetView on the NetWare 3270 LAN Workstation, edit the NetView startup command file.

- 2d** Using a NetView console or NetView on the NetWare 3270 LAN Workstation, restart NetView and set the NetView recording and viewing filters.

Detailed instructions for these tasks appear in the following sections.

Preparing for File Transfer (VM and MVS Installations)

To prepare for transferring code point files to the host, follow the procedures below:

- 1** Install NetWare for SAA (or a product with similar features) on a network server so that you can access the host from a workstation on the NetWare LAN.

- 2** Locate the code point files on *NMA for NetView v1.3, Disk 2*.

The files that you need are located in the CP directory on this diskette.

- 3** On a LAN workstation, start up the NetWare 3270 LAN Workstation software (or a product with similar features) that has file transfer software installed.

- 4** Establish a host session on the workstation.

You must use a workstation with a 3.5-inch floppy diskette drive. To establish the host session, you can use NetWare for SAA and one of the following software packages:

- ◆ NetWare 3270 LAN Workstation for Windows™ software
- ◆ NetWare 3270 LAN Workstation for DOS™ software
- ◆ A third-party product with similar features

File transfer software is integrated into NetWare 3270 LAN Workstation for Windows. When using NetWare 3270 LAN Workstation for DOS, use the SEND program to transfer files to the host.

For additional information on using the NetWare 3270 LAN Workstation software and on transferring files, consult the documentation for the product you are using.

Installing NetView Code Points on VM Systems

Before starting the procedures in this section, complete the procedures in the preceding section, “[Preparing for File Transfer \(VM and MVS Installations\)](#)” on page 57.

IMPORTANT: The following procedure is based on recommendations in the *NetView Customization Guide* (IBM publication SC31-6016). Novell recommends that you review the information on creating user-defined generic code points before attempting to install the code points.

To continue installing the NetView code points, complete the following steps:

- 1** Running a host session from the NetWare 3270 LAN Workstation, log on to MAINT.

If you do not know how to log on to MAINT, contact your host systems programmer.

- 2** Access the NetView RUN disk by entering the following command:

```
ACCESS 334 A
```

- 3** Using the file transfer software on the NetWare 3270 LAN Workstation (or a product with similar features), transfer the code point files to the *NetView RUN* disk.

When transferring the files, use the ASCII, CRLF, and fixed record format options. If you are using the SEND.EXE program, for example, enter the following at the DOS prompt (>):

```
SEND BNJ81UTB.NCC BNJ81UTB NCCFLST A (ASCII CRLF RECFM
F
SEND BNJ82UTB.NCC BNJ82UTB NCCFLST A (ASCII CRLF RECFM
F
SEND BNJ92UTB.NCC BNJ92UTB NCCFLST A (ASCII CRLF RECFM
F
SEND BNJ93UTB.NCC BNJ93UTB NCCFLST A (ASCII CRLF RECFM
F
SEND BNJ94UTB.NCC BNJ94UTB NCCFLST A (ASCII RLF RECFM F
SEND BNJ95UTB.NCC BNJ95UTB NCCFLST A (ASCII CRLF RECFM
F
SEND BNJ96UTB.NCC BNJ96UTB NCCFLST A (ASCII CRLF RECFM
F
```

- 4** Running a host session from the NetWare 3270 LAN Workstation, compile the transferred files on the host by entering

```
CNMSVM07 NUMBER=81 NETLNK=NOVELL
CNMSVM07 NUMBER=82 NETLNK=NOVELL
CNMSVM07 NUMBER=92 NETLNK=NOVELL
CNMSVM07 NUMBER=93 NETLNK=NOVELL
CNMSVM07 NUMBER=94 NETLNK=NOVELL
CNMSVM07 NUMBER=95 NETLNK=NOVELL
CNMSVM07 NUMBER=96 NETLNK=NOVELL
```

- 5 Running a host session from the Netware 3270 LAN Workstation, open the NetView startup command file for editing by entering the following command:

```
XEDIT NETSTRT GCS
```

- 6 Within the NetView startup file, locate the GLOBAL command and insert the word **NOVELL** immediately after the word LOADLIB.

This step includes the Novell library in the list of NetView libraries that are loaded at startup. The modified GLOBAL command will look like the following:

```
'GLOBAL LOADLIB NOVELL PROPMX USER NCCF STATMON NLDM
  NPDA'
```

- 7 Log on to a NetView console and shut down NetView by entering the following NetView command:

```
CLOSE IMMED
```

WARNING: This command brings down NetView. To avoid untimely interruption of NetView services, consider performing this step during a scheduled maintenance period.

- 8 When NetView has completed shutdown, log on to the NetView virtual machine. Then start up NetView by entering the following VM command:

```
CP IPL GCS
```

- 9 While NetView is starting up, check the startup messages to make sure that they include:

```
BNJ090I NETVIEW USER CODE POINT TABLE BNJ92UTB IS
  AVAILABLE
```

```
BNJ090I NETVIEW USER CODE POINT TABLE BNJ93UTB IS
  AVAILABLE
```

```
BNJ090I NETVIEW USER CODE POINT TABLE BNJ94UTB IS
  AVAILABLE
```

```
BNJ090I NETVIEW USER CODE POINT TABLE BNJ95UTB IS  
AVAILABLE
```

```
BNJ090I NETVIEW USER CODE POINT TABLE BNJ096UTB IS  
AVAILABLE
```

```
BNJ090I NETVIEW USER CODE POINT TABLE BNJ81UTB IS  
AVAILABLE
```

```
BNJ090I NETVIEW USER CODE POINT TABLE BNJ82UTB IS  
AVAILABLE
```

The preceding messages indicate that the code point files for NetWare are available. If these messages are directed to another console, they will not appear.

- 10** Disconnect from the NetView virtual machine by entering the following command:

```
#CP DISC
```

- 11** Log on to NetView. When the main menu appears, select NPDA (Network Problem Determination Application) by entering.

```
NPDA
```

- 12** From the NetView NPDA prompt, set the NetView recording and viewing filters by entering the following NetView commands:

```
srf arec pass e paff
```

```
srf arec pass e temp
```

```
srf arec pass e impd
```

```
svf pass e paff
```

```
svf pass e temp
```

```
svf pass e impd
```

To display NetWare messages, you must set the recording and viewing filters each time NetView is started. To simplify NetView startup, enter these commands in a CLIST file.

Installing NetView Code Points on MVS Systems

Before starting the procedures in this section, complete the procedures in [“Preparing for File Transfer \(VM and MVS Installations\)” on page 57](#).

IMPORTANT: The following procedure is based on recommendations in the *NetView Customization Guide* (IBM* publication SC31-6016). Novell® recommends that you review the information on creating user-defined generic code points before attempting to install the code points.

To continue installing the NetView code points, follow these steps:

- 1** While running a host session from the NetWare 3270 LAN Workstation (or a product with similar features), log on with a Time Sharing Option (TSO) user ID that has sufficient access rights to be able to create or update a system data set such as SYS1.xxxx.
- 2** Using this NetWare 3270 LAN Workstation host session and the Interactive System Productivity Facility (ISPF), allocate a partitioned data set (PDS) to contain the code point files.

Give the data set a name like SYS2.NTVW.CODE.POINTS. Make sure to set the allocation parameters to the following values:

- ◆ LRECL = 80
- ◆ RECFM = FB
- ◆ Directory blocks should be 5
- ◆ Primary allocation should be at least one cylinder or the equivalent in fixed-block architecture (FBA) blocks
- ◆ Secondary allocation should be at least one cylinder or the equivalent in FBA blocks

- 3** Exit ISPF by entering

=x

- 4** Using the file transfer software on the NetWare 3270 LAN Workstation, transfer the INSTALL.JCL file and the code point files to the host.

When transferring files, use the ASCII and CRLF options. If you are using the SEND.EXE program, for example, enter the following at the DOS prompt (>):

```
SEND BNJ92UTB.NCC'SYS2.NTVW.CODE.POINTS
(BNJ92UTB)'ASCII CRLF
SEND BNJ93UTB.NCC'SYS2.NTVW.CODE.POINTS
(BNJ93UTB)'ASCII CRLF
SEND BNJ94UTB.NCC'SYS2.NTVW.CODE.POINTS
(BNJ94UTB)'ASCII CRLF
SEND BNJ95UTB.NCC'SYS2.NTVW.CODE.POINTS
(BNJ95UTB)'ASCII CRLF
SEND BNJ96UTB.NCC'SYS2.NTVW.CODE.POINTS
(BNJ96UTB)'ASCII CRLF
```

```
SEND BNJ81UTB.NCC 'SYS2.NTVW.CODE.POINTS
(BNJ81UTB) 'ASCII CRLF
SEND BNJ82UTB.NCC 'SYS2.NTVW.CODE.POINTS (BNJ82UTB) '
ASCII CRLF
SEND INSTALL.JCL 'SYS2.NTVW.CODE.POINTS (INSTALL) 'ASCII
CRLF
```

- 5 From a host terminal or a NetWare 3270 LAN Workstation host session and the ISPF editor, open the member

```
'SYS2.NTVW.CODE.POINTS (INSTALL) '
```

- 6 Follow the directions inside the job control language (JCL) listing. These instructions appear under the label

```
TO EXECUTE THIS JCL:
```

Refer to the sample JCL listing below for a code point installation.

For additional information on using listings similar to this sample, refer to the *Network Program Products Samples* book (SC30-3352) from IBM.

- 7 Submit the job.

After successful completion of this job, the code points load library member should be installed correctly.

- 8 Log on to a NetView console and shut down NetView by entering the following command:

```
CLOSE IMMED
```

WARNING: This command brings down NetView. To avoid untimely interruption of NetView services, consider performing this step during a scheduled system maintenance period.

- 9 At the primary MVS operator console, start NetView by entering the following command:

```
S CNMPROC
```

- 10 While NetView is starting up, check the startup messages to make sure that they include:

```
BNJ090I NETVIEW USER CODE POINT TABLE BNJ92UTB IS
AVAILABLE
```

```
BNJ090I NETVIEW USER CODE POINT TABLE BNJ93UTB IS
AVAILABLE
```

```
BNJ090I NETVIEW USER CODE POINT TABLE BNJ94UTB IS
AVAILABLE
```

```

BNJ090I NETVIEW USER CODE POINT TABLE BNJ95UTB IS
AVAILABLE

BNJ090I NETVIEW USER CODE POINT TABLE BNJ096UTB IS
AVAILABLE

BNJ090I NETVIEW USER CODE POINT TABLE BNJ81UTB IS
AVAILABLE

BNJ090I NETVIEW USER CODE POINT TABLE BNJ82UTB IS
AVAILABLE

```

- 11** Log on to NetView. When the NetView main menu appears, select NPDA by entering.

NPDA

- 12** From the NPDA prompt, set the NetView recording and viewing filters by entering the following NetView commands:

```

srf arec pass e paff
srf arec pass e temp
srf arec pass e impd
svf pass e paff
svf pass e temp
svf pass e impd

```

NOTE: To display NetWare messages, you must set the recording and viewing filters each time NetView is started. To simplify NetView startup, enter these commands in a CSLIST file.

Example Code Point Installation JCL

```

//          JOB
//*****
//*
//* DESCRIPTION: PARSE, ASSEMBLE, AND LINKEDIT USER DEFINED CODE *
//* POINT TABLES. *
//* *
//* NOTE ===> THIS JCL ASSUMES: *
//* 1.) THE CODE POINT SOURCE IS CONTAINED IN A *
//* SINGLE LIBRARY *
//* 2.) THE MEMBER NAMES ARE FORMATTED AS AAABBCCC *
//* WHERE AAA = BNJ *
//* BB = CODE POINT TABLE NUMBER *
//* CCC = UTB (MODIFIABLE BY SYMBOLIC *
//* VARIABLE "NAME") *
//* *
//* TO EXECUTE THIS JCL: *
//* 1.) PUT YOUR OWN JOB CARD ON THE JOB *

```

```

/**      2.)  MODIFY SYMBOLIC VARIABLE "NETLNK" TO POINT TO THE      *
/**      NETVIEW LOAD LIBRARY YOU WANT THE CODE POINTS LINKED    *
/**      INTO                                                    *
/**      3.)  MODIFY SYMBOLIC VARIABLE "USERLIB" TO POINT TO THE  *
/**      SOURCE LIBRARY NAME CONTAINING THE CODE POINTS.         *
/**      *****
//CNMUSER PROC      NUMBER=,
//      NAME=UTB,
//      NETLNK='CNM.USERLNK',          ** USER CODE POINT LIBRARY
//      REG=1,                        ** REGION SIZE IN MEG
//      SOUTA='*',                    ** DEFAULT PRINTED OUTPUT CLASS
//      UNIT=SYSDA,                   ** DEVICE TYPE FOR DASD
//      USERLIB='SYS2.NTVW.CODE.POINTS', ** CODE POINTS SOURCE
//      PS=3,                          ** PRIMARY CYLINDER ALLOCATION
//      SS=1                            ** SECONDARY CYLINDER ALLOCATION
//
/**      *****
/** VERIFY USER TABLE INPUT
/**      *****
//PARSE      EXEC      PGM=BNJUSTBL,REGION=&REG.M,
//      PARM='&NUMBER'
//STEPLIB DD DSN=SYS1.NPDALIB,DISP=SHR
//INTABLE DD DSN=&USERLIB(BNJ&NUMBER&NAME),DISP=SHR
//OUTTABLE DD DSN=&&OUTDCB,DISP=(NEW,PASS),UNIT=&UNIT,
//      SPACE=(CYL,(&PS,&SS)),
//      DCB=(DSORG=PS,LRECL=80,BLKSIZE=3120,RECFM=FB)
//SYSPRINT DD SYSOUT=&SOUTA
//SYSUDUMP DD DUMMY
//SYSUT1 DD UNIT=&UNIT,SPACE=(CYL,(&PS,&SS))
/**      *****
/** ASSEMBLE STEP
/**      *****
//ASM      EXEC PGM=IFOX00,PARM='LOAD,NODECK,OBJECT',
//      REGION=&REG.M,COND=(4,LT)
//SYSPRINT DD SYSOUT=&SOUTA
//SYSLIB DD DSN=SYS1.MACLIB,DISP=SHR
//SYSUT1 DD UNIT=&UNIT,SPACE=(CYL,(1,1))
//SYSUT2 DD UNIT=&UNIT,SPACE=(CYL,(1,1))
//SYSUT3 DD UNIT=&UNIT,SPACE=(CYL,(1,1))
//SYSGO DD DSN=&&SYSGO,DISP=(NEW,PASS),UNIT=&UNIT,
//      SPACE=(CYL,(&PS,&SS)),
//      DCB=(DSORG=PS,LRECL=80,BLKSIZE=3120,RECFM=FB)
//SYSIN DD DSN=*.PARSE.OUTTABLE,
//      DISP=(OLD,DELETE)
/**      *****
/** LINKEDIT STEP
/**      *****
//LINK EXEC PGM=IEWL,

```



```
//          PARM='XREF,LET,LIST,SIZE=(512K,128K),NCAL,REUS',
//          REGION=&REG.M,COND=(4,LT)
//SYSPRINT DD SYSOUT=&SOUTA
//SYSUT1   DD SPACE=(CYL,(1,1)),DISP=(NEW,PASS),UNIT=&UNIT
//SYSLMOD DD DSN=&NETLNK(BNJ&NUMBER&NAME),
//          DISP=SHR
//SYSLIN   DD DSNAME=&&SYSGO,DISP=(OLD,DELETE)
//          PEND
//STEP1    EXEC PROC=CNMUSER,NUMBER=92
//STEP2    EXEC PROC=CNMUSER,NUMBER=93
//STEP3    EXEC PROC=CNMUSER,NUMBER=94
//STEP4    EXEC PROC=CNMUSER,NUMBER=95
//STEP5    EXEC PROC=CNMUSER,NUMBER=96
//STEP6    EXEC PROC=CNMUSER,NUMBER=81
//STEP7    EXEC PROC=CNMUSER,NUMBER=82
```


B

Using NetView Command Filtering

The NetView* command filtering feature allows you to disable NetWare® processing of select commands that may be sent by NetView operators. NetView command filtering is an extension of the NetView support features described in [Chapter 1, “About NMA for NetView,” on page 13](#).

To prepare for command filtering, you need to edit the sample command filter file or create a new command filter file. To enable the command filtering feature, you need to install the command filter file and restart NMA for NetView.

IMPORTANT: If a command filter file is not installed on an NMA for NetView server, or if NMA for NetView is not restarted after the command filter file is installed, NMA for NetView processes all NetView commands that conform to the command security requirements.

This appendix describes how command filtering works and how to

- ◆ Edit the sample command filter file
- ◆ Create a new command filter file
- ◆ Enable command filtering

This chapter also lists and describes the commands that NetView operators can send to NetWare servers.

How Command Filtering Works

After command filtering is enabled, NMA for NetView may apply the following two levels of security to each NetView command it receives.

- ◆ NMA for NetView first examines the user ID in the NetView command. If the user ID has the proper status, NMA for NetView continues to process the command.
- ◆ NMA for NetView checks its internal table to see if the command is disabled by command filtering. If the command is not disabled, NMA for NetView processes the command.

When a NetView operator sends a command that has been disabled by command filtering, NMA for NetView responds as follows:

- ◆ If the command does not include an attribute parameter, or if it includes a single attribute parameter that has been disabled, NMA for NetView rejects the command and sends the following message to the NetView operator:

```
Cannot execute this NetView Runcmd
```

- ◆ If the command includes multiple attribute parameters of which some are enabled and some are disabled, NMA for NetView processes all enabled parameters and ignores all disabled parameters.

Editing the Sample Command Filter File

The sample command filter file is an ASCII text file that lists all the commands NetView operators can send to NetWare servers. Initially, this file does not disable NetWare processing for any commands. You can edit this file to disable processing for any or all commands.

To edit the filter file, use the following procedure:

- 1 Use a text editor or a word processor to open the file named NVCMD5.DB.

This file is on *NMA for NetView v1.3, Disk 2* in the DATABASE directory. This file is not automatically copied to the server during the installation process.

IMPORTANT: The text editor or word processor must be capable of editing an ASCII text file. Do not use programs that embed control characters into saved files for special effects such as bold and underline.

The following sample lists some of the statements from the sample command filter file.

Sample Command Filter File Entries

```
rem          The NetView Run Command Filtering File
.....
, QUERY     SPX          VERSION
, QUERY     SPX          CONFIG
. QUERY     SPX          VERSION
```

The statements in the command filter file conform to the following rules:

- ◆ Each line in the file is a separate statement.
- ◆ Command statements disable a command and must contain two or three parameters in the form:

action resource attribute_parameter

In the third line, *action* is QUERY, *resource* is SPX, and *attribute_parameter* is VERSION. The action parameter defines the function to be performed, and the resource parameter defines the resource affected by the action. The attribute parameter defines the resource attribute the command affects.

The action and resource parameters are required. When a command has one or more attribute parameters, you must enter one attribute parameter.

The parameters for all commands are listed in [“Command Tables” on page 71](#). Descriptions of these commands are in [“Command Descriptions for NetWare Servers” on page 76](#).

- ◆ Each command statement can disable one attribute parameter for a command. If a command has multiple attribute parameters, you must enter a separate command statement for each attribute parameter you want to disable.
- ◆ The letters in each statement may be entered in uppercase or lowercase. For example, REM is equivalent to *rem*, *Rem*, and *ReM*.
- ◆ When a statement begins with REM or a semicolon (;), the statement is a comment. NMA for NetView ignores comments. Comments affect the command statements as follows:

When a command statement is preceded by REM or a semicolon, the statement is ignored and the command remains enabled.

When a command statement is *not* preceded by REM or a semicolon, the command is disabled.

- ◆ Command parameters may be separated by space or tab characters.

- 2** Disable each command you want to disable by removing any comment characters (REM or a semicolon) at the beginning of the command statement.
- 3** If you want to enable a disabled command, make the command statement a comment (using REM or a semicolon) or delete the command statement.
- 4** Save the ASCII file.

IMPORTANT: The ASCII file must be named NVCMD5.DB.

Creating a Command Filter File

A command filter file is an ASCII text file that lists all the commands you want to disable.

To create a command filter file, use the following procedure:

- 1** Use a text editor or a word processor to create a new file named NVCMD5.DB.

IMPORTANT: The text editor or word processor must be capable of editing an ASCII text file. Do not use programs that embed control characters into saved files for special effects such as bold and underline.

- 2** In the ASCII file, add command and comment statements.

The command and comment statements operate as described in [Step 1 on page 68](#).

- 3** Save the ASCII file.

The ASCII file must be named NVCMD5.DB.

Enabling Command Filtering

To enable command filtering, edit or create a command filter file, and then use the following procedure:

- 1** Place a copy of the NVCMD5.DB command filter file in the server's SYS:\SYSTEM\COMMEEXEC directory.
- 2** Restart NMA for NetView.

During initialization, NMA for NetView examines each line of the command filter file. Comment lines are ignored. Valid entries are registered in an internal table within NMA for NetView.

If a command line contains an error, NMA for NetView displays the following message on the NetWare system console: **Invalid NetView RunCmd entry: xxxxxxxx xxxxxxxx<CR><LF>**

Command line errors also appear in the log file if event logging is enabled.

Invalid entries are ignored. Invalid entries do not disable the command you intended to disable.

Command Tables

The tables in this section list commands that the NetView operator can send to NetWare. [Table 7](#) lists these commands according to the action they perform. [Table 8 on page 74](#) lists commands according to the resource upon which an action is performed.

The commands in the following tables include all parameters that the NetView operator can send to NetWare. When you enter a command statement in a command filter file, enter only the action, resource, and attribute parameter. When you enter an attribute parameter, do not include the equal symbol (=) or any italicized characters that appear in these tables.

Table 7 NetWare Commands Sorted by Action

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Add	Directory	Trustee	Path= <i>path</i>	UserName= <i>uname</i> Rights= [ACEFMRSW]
Add	File	Trustee	Path= <i>path</i>	UserName= <i>uname</i> Rights= [ACEFMRSW]
Add	Volume	Trustee	VolName= <i>vname</i>	UserName= <i>uname</i> Rights= [ACEFMRSW]

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Broadcast	Server			Msg= "message" [UserName= uname]
Disable	Server	Login		
Disable	TTS			
Down	Server			[Opts= [01]]
Enable	Server	Login		
Enable	TTS			
Load	NLM	NLMName= <i>name</i>		[Args= "argument"]
Query	Directory		Path= <i>path</i>	
Query	Directory	Rights	Path= <i>path</i>	UserName= <i>uname</i>
Query	Directory	SpaceAllowed	Path= <i>path</i>	
Query	File		Path= <i>path</i>	[UserName= uname]
Query	File	Rights	Path= <i>path</i>	UserName= <i>uname</i>
Query	IPX	Version		
Query	Server			
Query	Server	Date Time		
Query	Server	InternetAddr		
Query	Server	LoginStatus		
Query	Server	NumOfVols		
Query	Server	Volumes		
Query	SPX	Config		
Query	SPX	Version		
Query	TTS	Status		

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Query	User	DiskSpaceLeft	UserName= <i>uname</i>	VolName= <i>vname</i>
Query	User	DiskUsage	UserName= <i>uname</i>	VolName= <i>vname</i>
Query	Volume		VolName= <i>vname</i>	
Query	Volume	DiskUsage	VolName= <i>vname</i>	UserName= <i>uname</i>
Query	Volume	USpaceAllowed	VolName= <i>vname</i>	UserName= <i>uname</i>
Remove	Directory	Trustee	Path= <i>path</i>	UserName= <i>uname</i>
Remove	File	Trustee	Path= <i>path</i>	UserName= <i>uname</i>
Remove	Volume	Trustee	VolName= <i>vname</i>	UserName= <i>uname</i>
Set	Directory	ADate= <i>date</i> ArDate= <i>date</i> ArTime= <i>time</i> CDate= <i>date</i> CTime= <i>time</i> Owner= <i>name</i> UDate= <i>date</i> UTime= <i>time</i>	Path= <i>path</i>	
Set	Directory	SpaceAllowed = <i>space</i>	Path= <i>path</i>	
Set	File	ADate= <i>date</i> ArDate= <i>date</i> ArTime= <i>time</i> CDate= <i>date</i> CTime= <i>time</i> Owner= <i>name</i> UDate= <i>date</i> UTime= <i>time</i>	Path= <i>path</i>	
Set	Server	Date= <i>date</i> Time= <i>time</i>		
Set	Volume	USpaceAllowed = <i>space</i>	VolName= <i>vname</i>	UserName= <i>uname</i>
Set	Volume	NoRestriction	VolName= <i>vname</i>	UserName= <i>uname</i>
UnLoad	NLM	NLMName= <i>name</i>		

Table 8 NetWare Commands Sorted by Resource

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Add	Directory	Trustee	Path= <i>path</i>	UserName= <i>uname</i> Rights= [ACEFMRSW]
Query	Directory		Path= <i>path</i>	
Query	Directory	Rights	Path= <i>path</i>	UserName= <i>uname</i>
Query	Directory	SpaceAllowed	Path= <i>path</i>	
Remove	Directory	Trustee	Path= <i>path</i>	UserName= <i>uname</i>
Set	Directory	ADate= <i>date</i> ArDate= <i>date</i> ArTime= <i>time</i> CDate= <i>date</i> CTime= <i>time</i> Owner= <i>name</i> UDate= <i>date</i> UTime= <i>time</i>	Path= <i>path</i>	
Set	Directory	SpaceAllowed = <i>space</i>	Path= <i>path</i>	
Add	File	Trustee	Path= <i>path</i>	UserName= <i>uname</i> Rights= [ACEFMRSW]
Query	File		Path= <i>path</i>	[UserName= <i>uname</i>]
Query	File	Rights	Path= <i>path</i>	UserName= <i>uname</i>
Remove	File	Trustee	Path= <i>path</i>	UserName= <i>uname</i>

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Set	File	ADate= <i>date</i> ArDate= <i>date</i> ArTime= <i>time</i> CDate= <i>date</i> CTime= <i>time</i> Owner= <i>name</i> UDate= <i>date</i> UTime= <i>time</i>	Path= <i>path</i>	
Query	IPX	Version		
Load	NLM	NLMName= <i>name</i>		[Args= "argument"]
UnLoad	NLM	NLMName= <i>name</i>		
Broadcast	Server			Msg= "message" [UserName= <i>uname</i>]
Disable	Server	Login		
Down	Server			[Opts= [01]]
Enable	Server	Login		
Query	Server			
Query	Server	Date Time		
Query	Server	InternetAddr		
Query	Server	LoginStatus		
Query	Server	NumOfVols		
Query	Server	Volumes		
Set	Server	Date= <i>date</i> Time= <i>time</i>		
Query	SPX	Config		
Query	SPX	Version		
Disable	TTS			

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Enable	TTS			
Query	TTS	Status		
Query	User	DiskSpaceLeft	UserName= <i>uname</i>	VolName= <i>vname</i>
Query	User	DiskUsage	UserName= <i>uname</i>	VolName= <i>vname</i>
Add	Volume	Trustee	VolName= <i>vname</i>	UserName= <i>uname</i> Rights= [ACEFMRSW]
Query	Volume		VolName= <i>vname</i>	
Query	Volume	DiskUsage	VolName= <i>vname</i>	UserName= <i>uname</i>
Query	Volume	USpaceAllowed	VolName= <i>vname</i>	UserName= <i>uname</i>
Remove	Volume	Trustee	VolName= <i>vname</i>	UserName= <i>uname</i>
Set	Volume	USpaceAllowed = <i>space</i>	VolName= <i>vname</i>	UserName= <i>uname</i>
Set	Volume	NoRestriction	VolName= <i>vname</i>	UserName= <i>uname</i>

Command Descriptions for NetWare Servers

This section describes the commands NetView operators can send to NetWare.

IMPORTANT: The following command descriptions include tables and examples that list all parameters that the NetView operator sends to NetWare. When you enter a command statement in a command filter file, enter only the action, resource, and attribute parameter. When you enter an attribute parameter, do not include the equal symbol (=) or any italicized characters that appear in these tables.

ADD DIRECTORY, FILE, or VOLUME TRUSTEE

The ADD command allows the NetView operator to add a trustee to a directory, file, or volume on a NetWare server. [Table 9 on page 77](#) shows the format of the commands that add trustees to a directory, file, or volume.

Table 9 NetWare ADD Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Add	Directory	Trustee	Path= <i>path</i>	UserName= <i>uname</i> Rights=[ACEFMRSW]
Add	File	Trustee	Path= <i>path</i>	UserName= <i>uname</i> Rights=[ACEFMRSW]
Add	Volume	Trustee	VolName= <i>vname</i>	UserName= <i>uname</i> Rights=[ACEFMRSW]

BROADCAST

The BROADCAST command sends a message to a NetWare workstation user. The format of the command is

```
Broadcast Server Msg="message" UserName=uname
```

NOTE: This command does not have an attribute parameter. To disable this command in a command filter file, enter `Broadcast Server`.

DISABLE SERVER LOGIN or TTS

The DISABLE command can be used to disable server login by workstations or to disable the Transaction Tracking System (TTS). [Table 10](#) shows the format for the DISABLE SERVER LOGIN and DISABLE TTS commands.

Table 10 NetWare DISABLE Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Disable	Server	Login		
Disable	TTS			

DOWN SERVER

The DOWN SERVER command brings down the NetWare server. The format for this command is

`Down Server [Opts=[01]]`

This command does not have an attribute parameter; to disable this command, enter **DOWN SERVER** in the command filter file. Also, the server may shut down before it responds to the DOWN SERVER command. If the server shuts down, the NetView operator may receive a command timeout message.

ENABLE SERVER LOGIN or TTS

The ENABLE command can be used to enable server login by workstations or to enable the Transaction Tracking System (TTS). [Table 11](#) shows the format for the ENABLE SERVER LOGIN and ENABLE TTS commands.

Table 11 NetWare ENABLE Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Enable	Server	Login		
Enable	TTS			

LOAD NLM

The LOAD command loads an NLM. [Table 12](#) lists the format for the LOAD NLM command.

Table 12 NetWare LOAD Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Load	NLM	NLMName= <i>name</i>		[Args= "argument"]

WARNING: If the NetView operator sends a LOAD command with an incomplete set of parameters for an NLM, a prompt for the missing parameters appears on the system console. The NLM does not continue execution until the missing information is entered at the system console. The NetView operator is not notified about the missing parameters, and the NLM may appear to be operating when it is not.

QUERY DIRECTORY

As shown in [Table 13](#), the QUERY DIRECTORY command has three forms.

Table 13 NetWare QUERY DIRECTORY Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Query	Directory		Path= <i>path</i>	
Query	Directory	Rights	Path= <i>path</i>	UserName= <i>uname</i>
Query	Directory	SpaceAllowed	Path= <i>path</i>	

When the QUERY DIRECTORY command is used without an attribute parameter, the command returns the following information:

- ◆ Volume where the directory resides
- ◆ Directory owner
- ◆ Inherited rights mask
- ◆ Access date and time
- ◆ Modification date and time
- ◆ Creation date and time
- ◆ Archive date and time
- ◆ Owner rights

The QUERY DIRECTORY RIGHTS command returns the rights assigned to the specified NetWare user for the specified directory.

The QUERY DIRECTORY SPACEALLOWED command returns the amount of available space in the specified directory and the amount of space reserved for the directory.

QUERY FILE

As shown in [Table 14](#), the QUERY FILE command has two forms.

Table 14 NetWare QUERY FILE Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Query	File		Path= <i>path</i>	[UserName= <i>uname</i>]

Action	Resource	Attribute	Parameter	Resource Qualifier	Command Qualifier
Query	File	Rights	Path= <i>path</i>		UserName= <i>uname</i>

When the QUERY FILE command does not include an attribute parameter, the command returns the following information:

- ◆ Volume where the file resides
- ◆ Mode
- ◆ Attributes
- ◆ Size
- ◆ Owner
- ◆ Inherited rights mask
- ◆ Access date and time
- ◆ Modification date and time
- ◆ Archive date and time
- ◆ Creation date and time
- ◆ Name space values
- ◆ User rights when a user name is included (optional)

When the QUERY FILE command includes the Rights attribute parameter, the command returns only the rights assigned to the specified user.

QUERY IPX VERSION

The QUERY IPX command returns the IPX version information. The format for this command is

```
Query IPX Version
```

QUERY SERVER

Table 15 on page 81 lists the QUERY SERVER commands.

Table 15 NetWare QUERY SERVER Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Query	Server			
Query	Server	Date Time		
Query	Server	InternetAddr		
Query	Server	LoginStatus		
Query	Server	NumOfVols		
Query	Server	Volumes		

When the QUERY SERVER command is used without an attribute parameter, the command returns the following information:

- ◆ NetWare version number
- ◆ Maximum number of connections supported
- ◆ Number of connections in use
- ◆ System Fault Tolerance (SFT) level
- ◆ TTS level
- ◆ Maximum number of volumes supported
- ◆ Security restriction level

When the QUERY SERVER command includes one or more attribute parameters, NetWare returns the information requested by each parameter (see [Table 16](#)).

Table 16 QUERY SERVER Attribute Parameters

Attribute Parameter	Information Sent to NetView
Date	The server date.
InternetAddr	The network and node addresses of the server.
LoginStatus	The server login status. The status is either enabled or disabled.
NumOfVols	The number of server volumes.

Attribute Parameter	Information Sent to NetView
Time	The server time.
Volumes	A list of the volumes mounted on the server.

QUERY SPX

As shown in [Table 17](#), the QUERY SPX command has two forms.

Table 17 NetWare QUERY SPX Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Query	SPX	Config		
Query	SPX	Version		

The QUERY SPX CONFIG command returns the maximum number of SPX connections supported and the number of available connections. The QUERY SPX VERSION command returns the SPX version number.

QUERY TTS

The QUERY TTS command returns the status of the Transaction Tracking System (TTS), which is either enabled or disabled. The format for this command is

```
Query TTS Status
```

QUERY USER

The QUERY USER command has two forms (see [Table 18](#)).

Table 18 NetWare QUERY USER Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Query	User	DiskSpaceLeft	UserName= <i>uname</i>	VolName= <i>vname</i>
Query	User	DiskUsage	UserName= <i>uname</i>	VolName= <i>vname</i>

The QUERY USER DISKSPACELEFT command returns the amount of remaining volume disk space allocated to the user. The QUERY USER DISKUSAGE command returns the number of directories, files, and blocks being used by a user.

QUERY VOLUME

Table 19 lists the three forms of the QUERY VOLUME command.

Table 19 NetWare QUERY VOLUME Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Query	Volume		VolName= <i>vname</i>	
Query	Volume	DiskUsage	VolName= <i>vname</i>	UserName= <i>uname</i>
Query	Volume	USpaceAllowed	VolName= <i>vname</i>	UserName= <i>uname</i>

When used without an attribute parameter, the QUERY VOLUME command returns

- ◆ Volume number
- ◆ Number of sectors per block
- ◆ Total number of blocks
- ◆ Starting block number
- ◆ Total available blocks
- ◆ Total directory slots
- ◆ Available directory slots
- ◆ Maximum directory slots used
- ◆ Volume status (for example, mounted, hashing, or removable)

When the QUERY VOLUME command includes one or both attribute parameters, the command returns the information requested by the parameters. The DiskUsage parameter returns the number of directories, files, and blocks being used by a user. The USpaceAllowed parameter returns the amount of space allowed to the specified user.

REMOVE DIRECTORY, FILE, or VOLUME TRUSTEE

The REMOVE command allows the NetView operator to remove a trustee from a directory, file, or volume on a NetWare server. [Table 20](#) shows the format of the commands that remove trustees.

Table 20 NetWare REMOVE Commands

Action	Resource	Attribute Parameter	Resource Qualifier	Command Qualifier
Remove	Directory	Trustee	Path= <i>path</i>	UserName= <i>uname</i>
Remove	File	Trustee	Path= <i>path</i>	UserName= <i>uname</i>
Remove	Volume	Trustee	VolName= <i>vname</i>	UserName= <i>uname</i>

SET DIRECTORY

The SET DIRECTORY commands allow the NetView operator to set one or more properties of a directory with a single command. [Table 21](#) shows the format of the SET DIRECTORY commands.

Table 21 NetWare SET DIRECTORY Commands

Action	Resource	Attribute Parameters	Resource Qualifier	Command Qualifier
Set	Directory	ADate= <i>date</i> ArDate= <i>date</i> ArTime= <i>time</i> CDate= <i>date</i> CTime= <i>time</i> Owner= <i>name</i> UDate= <i>date</i> UTime= <i>time</i>	Path= <i>path</i>	
Set	Directory	SpaceAllowed = <i>space</i>	Path= <i>path</i>	

The attribute parameters in [Table 21](#) define the directory properties to be set. [Table 22 on page 85](#) shows the properties that each attribute parameter controls.

Table 22 SET DIRECTORY Attribute Parameters

Attribute Parameter	Property Defined
ADate= <i>date</i>	File access date. Replace the <i>date</i> variable with the new access date for the file.
ArDate= <i>date</i>	File archive date. Replace the <i>date</i> variable with the new archive date for the file.
ArTime= <i>time</i>	File archive time. Replace the <i>time</i> variable with the new archive time for the file.
CDate= <i>date</i>	Directory creation date. Replace the <i>date</i> variable with the new creation date for the directory.
CTime= <i>time</i>	Directory creation time. Replace the <i>time</i> variable with the new creation time for the directory.
Owner= <i>name</i>	Directory owner. Replace the <i>name</i> variable with the user ID for the new owner of the directory.
UDate= <i>date</i>	File update date. Replace the <i>date</i> variable with the new update date for the file.
UTime= <i>time</i>	File update time. Replace the <i>time</i> variable with the new update time for the file.
SpaceAllowed= <i>space</i>	The maximum space allowed for all files and subdirectories within the directory. Replace the <i>space</i> variable with a number that represents the maximum size of the directory. You cannot specify unlimited space; you must specify a value.

SET FILE

The SET FILE command allows the NetView operator to set one or more properties of a file with a single command. [Table 23 on page 86](#) shows the format of the SET FILE command.

Table 23 NetWare SET FILE Commands

Action	Resource	Attribute Parameters	Resource Qualifier	Command Qualifier
Set	File	ADate= <i>date</i> ArDate= <i>date</i> ArTime= <i>time</i> CDate= <i>date</i> CTime= <i>time</i> Owner= <i>name</i> UDate= <i>date</i> UTime= <i>time</i>	Path= <i>path</i>	

The attribute parameters in [Table 23](#) define the directory properties to be set. [Table 24](#) shows the properties that each attribute parameter controls.

Table 24 SET FILE Attribute Parameters

Attribute Parameter	Property Defined
ADate= <i>date</i>	File access date. Replace the <i>date</i> variable with the new access date for the file.
ArDate= <i>date</i>	File archive date. Replace the <i>date</i> variable with the new archive date for the file.
ArTime= <i>time</i>	File archive time. Replace the <i>time</i> variable with the new archive time for the file.
CDate= <i>date</i>	File creation date. Replace the <i>date</i> variable with the new creation date for the file.
CTime= <i>time</i>	File creation time. Replace the <i>time</i> variable with the new creation time for the file.
Owner= <i>name</i>	File owner. Replace the <i>name</i> variable with the user ID for the new owner of the file.
UDate= <i>date</i>	File update date. Replace the <i>date</i> variable with the new update date for the file.
UTime= <i>time</i>	File update time. Replace the <i>time</i> variable with the new update time for the file.

SET SERVER

The SET SERVER commands allow you to set one or more properties of a server with a single command. [Table 25](#) shows the Set Server commands.

Table 25 NetWare SET SERVER Commands

Action	Resource	Attribute Parameters	Resource Qualifier	Command Qualifier
Set	Server	Date= <i>date</i> Time= <i>time</i>		

The date and time attribute parameters allow the NetView operator to set the date and time at the server.

SET VOLUME

As shown in [Table 26](#), the SET VOLUME command has two forms.

Table 26 SET VOLUME Attribute Parameters

Action	Resource	Attribute Parameters	Resource Qualifier	Command Qualifier
Set	Volume	USpaceAllowed =space	VolName= <i>vname</i>	UserName= <i>uname</i>
Set	Volume	NoRestriction	VolName= <i>vname</i>	UserName= <i>uname</i>

The SET VOLUME USPACEALLOWED command defines the total amount of space that can be allocated to the specified user on the specified volume. The SET VOLUME NOSPACERESTRICTION command removes all restrictions on the amount of space the specified user can use on the specified volume.

UNLOAD NLM

This command unloads an NLM. [Table 27 on page 88](#) lists the format for the UNLOAD NLM command.

Table 27 NetWare Unload Commands

Action	Resource	Attribute	Parameter	Resource Qualifier	Command Qualifier
UnLoad	NLM	NLMName=	<i>name</i>		

WARNING: If the NetView operator sends an UNLOAD command for an NLM, the command will fail if the NLM is exporting functions and symbols to another NLM. If the UNLOAD command fails, a message appears on the system console. The NetView operator is not notified about the failure, and the NLM may appear to be unloaded when it is not.