

Using Native Service Point

The CiscoWorks Blue Native Service Point application enables NetView or NetMaster operators to access and configure Cisco routers from within NetView or NetMaster. Cisco router commands that are entered in the router configuration can be issued from within the NetView or NetMaster console.

You access Cisco routers via Virtual Telecommunications Access Method (VTAM) and view or edit and save router configurations. Native Service Point enables you to issue RUNCMDs and receive responses in the form of NetView network management vector transports (NMVTs).

Any NMVT alerts issued by the Cisco routers are also sent to NetView or Netmaster.

This chapter provides the following information:

- Viewing router status
- Accessing a router
- Setting up accessibility to routers in other domains

Viewing Router Status

After you upload Native Service Point files to NetView or NetMaster and the programmer has updated the RTRSINIT.CLIST or RTRSINIT NCL procedure file, you can:

- View routers in the Cisco Router Status Display (RTRMGR) panel
- Log in to a router in the Cisco Router Command List (RTRCMD) panel

Viewing Router Status

Viewing Router Status Within NetView

To access the Cisco Router Status Display panel and view the routers in your domain or other domains, enter the following command at any command input prompt within NetView:

rtrmgr

The Cisco Router Status Display panel is displayed (see Figure 2-1). It shows the router's service point names, domain where the routers are located, and the routers' host names.

If an operator is logged in to a router in an enable mode, the status field for Operator is updated when Native Service Point receives that information. The status field is updated after about one minute with the latest status of the routers.

In the Cisco Router Status Display (RTRCMD) panel:

- SPName field shows the service point name of the router as defined in the VTAM configuration.
- Status field indicates the status of the router.
 - ACTIV indicates the router is connected to the network and is accessible.
 - INOP indicates the router is not connected to the network and is inaccessible.
 - A blank field indicates there is no information available about the router.
- Operator field shows the name of the NetView operator that is logged in to a router in enable mode.
- Domain shows the NetView domain that owns the SSCP-PU session and shows where the router is physically located. For a domain to appear in the RTRMGR panel, it must be specified for the router in the RTRSINIT.CLIST.
- Router host name indicates the host name of the router as specified in the router's configuration and in the VTAM configuration.

Note The router's service point name need not be identical to the router's host name and must be eight characters or less.

Figure 2-1 Cisco Router Status Display (RTRMGR) Panel for NetView

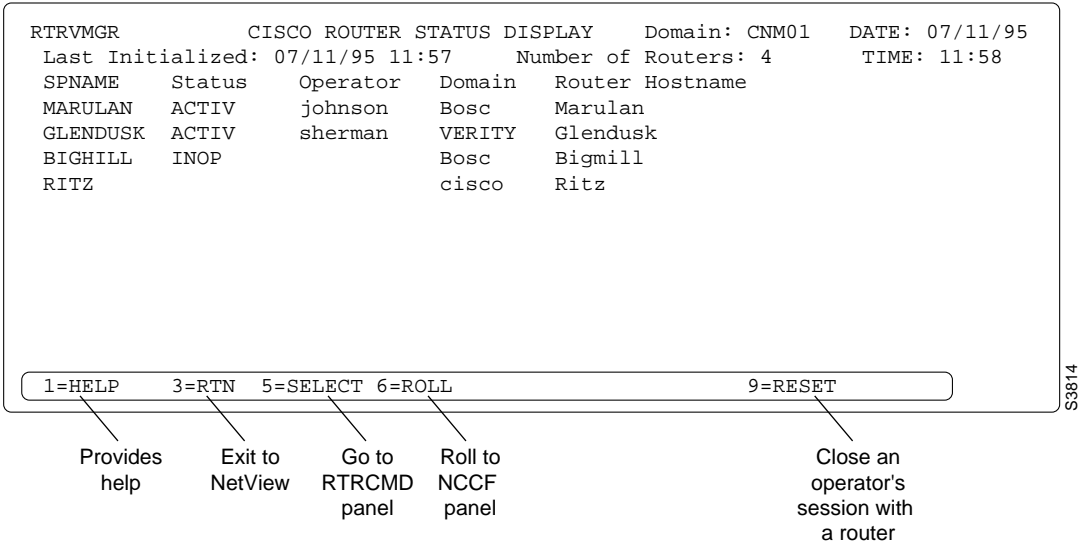


Table 2-1 shows the functions keys you use to perform other tasks in the RTRMGR panel.

Viewing Router Status

Table 2-1 PF Function Keys in the NetView RTRMGR

Keys and Commands	Result
PF1 key	Displays help panel for RTRMGR panel.
PF1 key + M	Displays error messages associated with the RTRMGR panel and commands.
PF1 key + P	Displays PF key functions for the RTRMGR panel.
PF3 key	Exits from the RTRMGR panel NetView panel. Pressing the PF3 key does not exit you from any router session into which you are logged . You must first logout from the router and then press PF3.
PF5 key	Takes you to the RTRCMD panel.
PF6 key	Rolls you to the NCCF panel. To return to the RTRMGMR panel, enter the rtrmgmr command at the command input prompt or press PF6.
PF9 key	Resets the NetView operator's connection to a router and closes the connection to free the router for access by other operators.

Resetting Router Status Display In NetView

If the router status information in the RTRMGR panel is outdated or needs to be refreshed, enter the following command at any command input prompt:

rtrmgr *reset*

The data in the RTRMGR panel is reset and the new data is displayed.

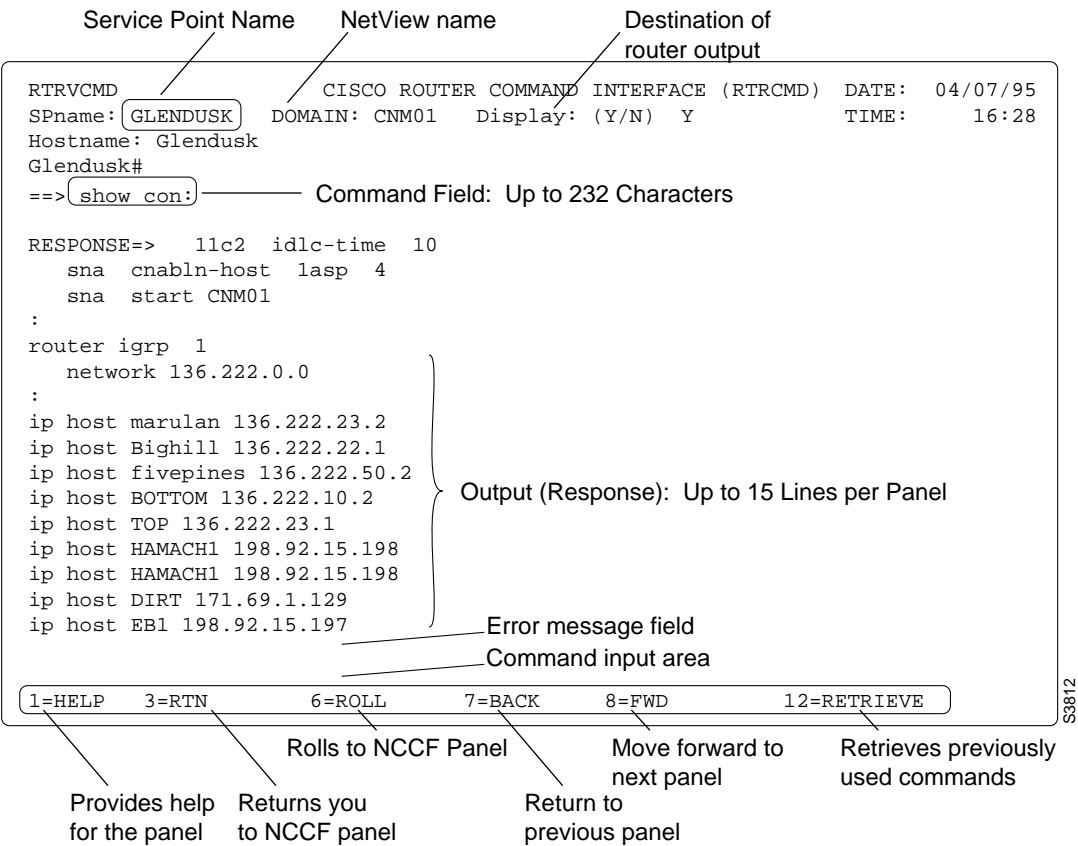
Logging in to Routers From the RTRCMD Panel in NetView

To display the Cisco Router Command List (RTRCMD) panel and log in to a specific router, enter the following command at the command input prompt by substituting the service point name of the router for the *SPname* argument:

rtrcmd *SPname*

The Cisco Router Command List (RTRCMD) panel is displayed. Figure 2-2 shows the fields and their functions in the RTRCMD panel.

Figure 2-2 Cisco Router Command List (RTRCMD) Panel for NetView



Viewing Router Status

Table 2-2 Cisco Router Command Interface (RTRMCD) Panel for NetView

Fields	Function
SPname	Displays the service point name of the router you can access. To access a different router, enter that router's service point name in this field.
Domain	Displays the NetView to which an operator is logged.. This information is available if you have routers located in other domains and you are accessing them from the NetView in those domains. You can access routers in other domains if you have NetView operator ID for the NetView hosts in those domains and if the RTRRCMD CLIST provided with Native Service Point is uploaded to NetView in those domains.
Display (Y/N)	Determines the destination of the output for commands entered in the RTRCMD panel. <ul style="list-style-type: none">• The default option Y directs the output to the RTRCMD panel.• The option N directs the output to the NCCF panel. The output is presented as it is made available by the router and is not analyzed.
Host name	Host name of the router as specified in its router configuration and in the VTAM configuration.
Command field	Enables you to enter commands to the router. You can enter up to three lines of text.
Router#	Displays the router name followed by a % or # sign.
Output display area	Displays the output from the router. For example, you can view the router's configuration in this area. Press PF8 to view the remainder of the output. Repeat as necessary.
Error message field	Displays any error messages in response to the command you enter or the PF key you press.
Command input area	Enables you to enter NetView or Native Service Point commands.

Table 2-3 PF Key Functions in the NetView RTRCMD Panel

PF Keys	Result
PF1 key (For context-sensitive help place cursor in a specific field and press PF1).	Displays help panel for the RTRCMD panel or for a specific field.
PF3	Exits you from the RTRCMD panel and returns you to the NCCF panel. If you are logged in to a router in enable mode, exit from the enable mode and log out from the router before exiting the RTRCMD panel.
PF6	Rolls you to the NCCF panel. To return to the RTRCMD panel, press PF6 again.
PF7	Press the PF7 key to return to a previous panel if the 7=BACK message appears at the bottom of the currently displayed panel.
PF8	Press the PF8 key to view more data if the 8=FWD message appears at the bottom of the currently displayed panel.
PF9 key	Clears the command input area.
PF12 key	Retrieves a previous command. Replaces the SPname, host name, domain, and command field with the retrieved information. The message area above the PF keys displays the number of commands available for retrieval and the number of the last command that was retrieved.

Viewing Router Status

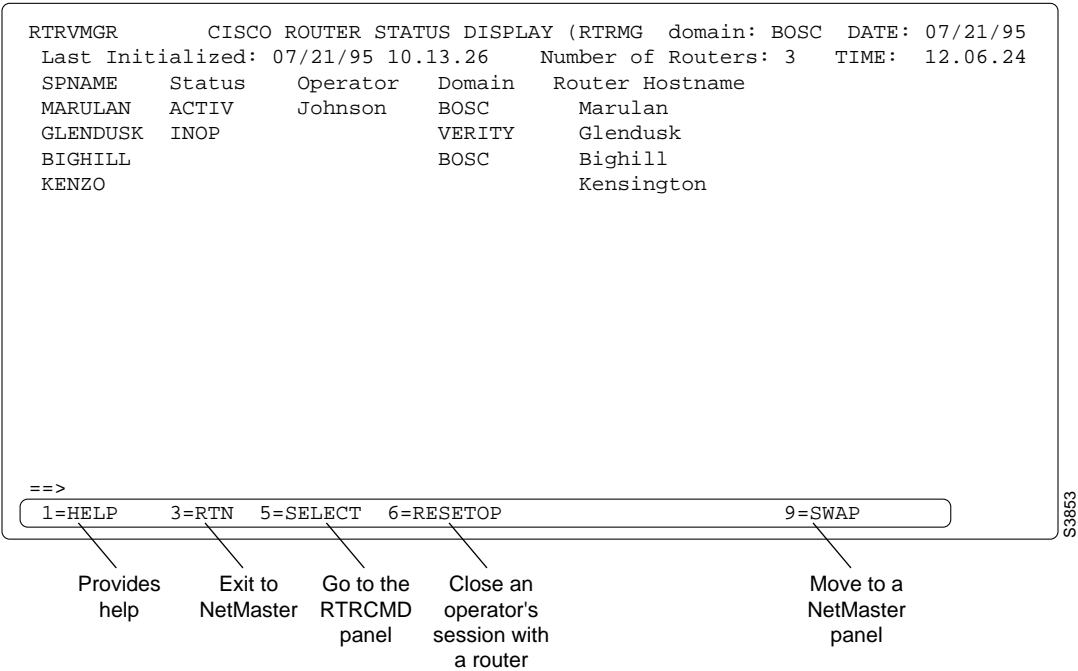
Viewing Router Status Within NetMaster

To access the Cisco Router Status Display panel and view the routers in your domain or other domains, enter the following command at any command input prompt within NetMaster:

rtrmgr

The Cisco Router Status Display panel is displayed. It shows the router's service point names, the domain where the routers are located, and the routers' host names.

Figure 2-3 Cisco Router Status Display (RTRMGR) Panel for NetMaster



If an operator is logged in to a router in an enable mode, the status field for Operator is updated when Native Service Point receives that information. The status field is updated after about a minute with the latest status of the routers.

In the Cisco Router Status Display panel for NetMaster:

- SPName field shows the service point name of the router as defined in the VTAM configuration.
- Status field indicates the status of the router.
 - ACTIV indicates the router is connected to the network and is accessible.
 - INOP indicates the router is not connected to the network and is inaccessible.
 - A blank field indicates there is no information available about the router.
- Operator field shows the name of the NetMaster operator that is logged in to a router in enable mode.
- Domain shows the NetMaster domain that owns the SSCP-PU session and where the router is physically located. In order for a domain to appear in the RTRMGR panel, it must be specified for the router in the RTRSINIT NCL procedure.
- Router host name indicates the host name of the router as specified in the router's configuration and in the VTAM configuration.

Note The router's service point name need not be identical to the router's host name and must be eight characters or less.

Table 2-4 shows tasks you can perform in the RTRMGR panel by pressing the appropriate PF keys.

Viewing Router Status

Table 2-4 Function Keys for RTRMGR Panel in NetMaster

Keys and Commands	Result
PF1 key	Displays help panel for RTRMGR panel.
PF1 key + M	Displays error messages associated with the RTRMGR panel and commands.
PF1 key + P	Displays PF key functions for the RTRMGR panel.
PF3 key	Exits from the RTRMGR panel.
PF5 key	Placing the cursor on a service point name in the SPNAME field and pressing PF5 executes the rtrcmd command for the selected service point name (router).
PF6 key	Placing the cursor on an operator listed in the OPERATOR field and pressing PF6 causes the selected operator to lose all permissions to the router he or she is logged in to.
PF9 key	Swaps you from the RTRMGR panel to a NetMaster panel. Press PF9 again to return to the RTRCMD panel.

Resetting Router Status Display

If the router status information in the RTRMGR panel is outdated or needs to be refreshed, enter the following command at any command input prompt:

rtrmgr *reset*

The data in the RTRMGR panel is reset, new data is displayed, and the following message appears:

```
All values have been reset for RTRMGR by #OPID. This message will be
created when RTRMGR was called with the RESET option. The rtrmgr reset
clears all variables associated with managing the routers. The rtrsinit
should be issue issued after this command in order to rebuild the
variables.
```

To rebuild the RTRMGR variables, enter the following command at a command input prompt:

rtrsinit

Logging in to Routers from the RTRCMD Panel in NetMaster

To display the Cisco Router Command List (RTRCMD) panel and log in to a specific router, enter the following command at the command input prompt by substituting the service point name of the router for the *SPname* argument:

rtrcmd *SPname*

The Cisco Router Command List (RTRCMD) panel is displayed. Figure 2-2 shows the fields and their function in the Cisco Router Command List (RTRCMD) panel.

Viewing Router Status

Figure 2-4 Cisco Router Command List (RTRCMD) Panel for NetMaster

Service Point Name (points to SPname: MALIBU)
NetMaster name (points to DOMAIN:CPAC)
Destination of router output (points to Display: (Y/N/B) Y)

RTRVCMD CISCOROUTER COMMAND INTERFACE DATE: 07/21/95
SPname: MALIBU DOMAIN:CPAC Display: (Y/N/B) Y TIME: 12.01.53
Hostname: Malibu Password=

==> **Command Field: Up to 232 Characters**

Output (Response): Up to 15 Lines per Panel (points to the router configuration output)

Using 1242 out of 129016 bytes
!
version 11.0
!
hostname Malibu
!
boot system flash bchan/c4500-j-m.Z
boot system rom
enable password stufty
!
ip domain-list cisco.com.
!
sna host CNM01 xid-snd 05dbb000 rmac 4001.3745.1088 rsap 4 lsap 4 focalpoint
!
interface Ethernet0

Error message field (points to the empty space above the command input area)
Command input area (points to the command input field)

1=HELP 3=RTN 6=CLEAR 7=BACK 8=FWD 9=SWAP 12=RETRIEVE

Provides help for the panel (points to 1=HELP)
Exit to NetMaster (points to 3=RTN)
Return to previous panel (points to 7=BACK)
View more data (points to 8=FWD)
Swap to NetMaster (points to 9=SWAP)
Retrieve previously used commands (points to 12=RETRIEVE)

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Table 2-5 Cisco Router Command Interface (RTRMCD) Panel for NetView

Fields	Function
SPname	Displays the service point name of the router you are accessing. To access a different router, enter that router's service point name in this field..
Domain	Displays the name of the NetMaster that owns the session with the router. The default is the NetMaster to which an operator is logged .
Display (Y/N/ B)	Determines the destination of the output for commands entered in the RTRCMD panel. <ul style="list-style-type: none">• The default option is Y and directs the output to the RESPONSE field..• N causes the output to be directed to the NetMaster log. Press PF9 to view the log.• B presents the response and logs the response.
Host name	The host name of the router as specified in its router configuration and in the VTAM configuration.
Password	The password as specified in the router configuration and in the VTAM configuration.
Command field	Enables you to enter commands to the router.
Router#	Displays the router name followed by a % or # sign.
Output display area	Displays the output from the router. For example, you can view the router's configuration in this area. Press PF8 to view the remainder of the output and repeat as necessary.
Error message field	Displays any error messages in response to the command you enter or PF key you press.
Command input area	Enables you to enter NetMaster or Native Service Point commands.

Viewing Router Status

Table 2-6 **PF Key Functions in the NetMaster RTRCMD Panel**

PF Keys	Result
PF1 key (For context-sensitive help place cursor in a specific field and press PF1).	Displays help panel for the RTRCMD panel or for a specific field.
PF3	Exits you from the RTRCMD panel and returns you to the NCCF panel. If you are logged in to a router in enable mode, exit from the enable mode and logout from the router before exiting the RTRCMD panel.
PF7	Press the PF7 key to return to a previous panel if the 7=BACK message appears at the bottom of the currently displayed panel.
PF8	Press PF8 to view more data if the 8=FWD message appears at the bottom of the currently displayed panel.
PF9 key	Press PF9 to swap from the RTRCMD panel to NetMaster. Press PF9 to return to the RTRCMD panel.
PF12 key	Retrieves a previous command and places the retrieved command(s) in the command input area. Replaces the SPname, host name, domain, and command field with the retrieved information. The message area above the PF keys displays the number of commands available for retrieval and the number of the last command that was retrieved.

Setting Up Accessibility to Routers in Other Domains

You can use Native Service Point to access and configure Cisco routers that are located:

- Within your local domain
- In other domains

Note NetMaster users can automatically view routers in other domains. NetView users require a setup procedure to be completed before they can view, access, or log in to routers in other domains.

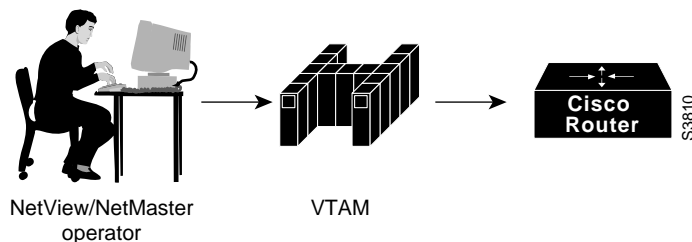
Accessibility to Routers Within Your Domain

Within your local domain, use Native Service Point within NetView or Netmaster to access the routers through VTAM. Native Service Point supports only SSCP/PU sessions, and the session is owned by the VTAM within which NetView resides.

Using the **rtrsinit** command enables you to build a list of routers in your domain and view them in the Native Service Point's RTRMGR panel within NetView or NetMaster.

Figure 2-5 shows an example of a NetView or Netmaster operator accessing a router in the NetView domain via VTAM.

Figure 2-5 Operator Accesses Router Within Local Domain

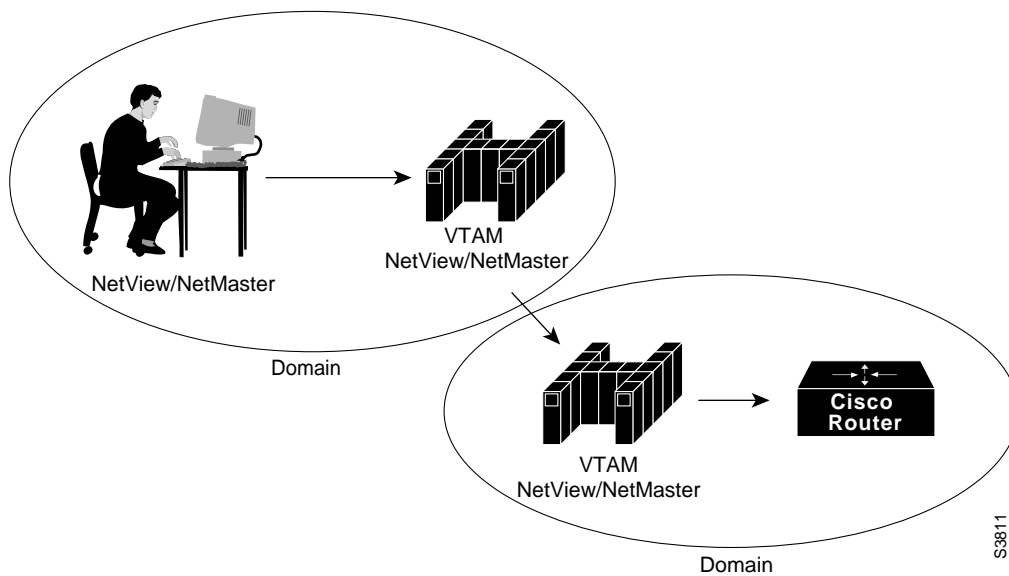


Accessibility to Routers in Other Domains

If your network is centralized and the routers are physically located in other domains, you need cross-domain access from your NetView or NetMaster to the other NetView or NetMaster that is connected to the VTAM owning the routers in the other domains.

Figure 2-6 shows an example of a NetView or Netmaster operator accessing a router through VTAM in another domain by using the NetView or NetMaster in that domain.

Figure 2-6 Operator Accesses Routers in Other Domains



To access routers in other domains, the following requirements must be met for NetView:

- The NetView operator must have a NetView operator ID on the NetView in the other domain.
- The MVS, VM, or VSE programmer must upload the RTRRCMD.CLIST to the NetView in the other domain. The RTRRCMD.CLIST can be uploaded to multiple NetView hosts in your network. There is no restriction on the number of hosts that can be uploaded with the file.

NetMaster operators do not require any special setup to access routers in other domains.

If you are using NetView, RTRRCMD.CLIST must be placed in the users' CLIST (DSICLD) library.

Getting Help

You can access a help panel that lists available online help panels by entering the following command at the command input prompt within NetView or NetMaster:

rtrhlp

To obtain help on a specific command such as **rtrcmd**, press the number associated with that command. For example, to view the help panel for the **rtrcmd** command, you enter **1** at the command input prompt.

