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Preside Multiservice Data Manager

Configuration Management for Passport

User Guide

241-6001-023

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Configuration Management for Passport

User Guide

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future release.

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About this document

This document is a guide to defining, configuring and maintaining service data for a Passport node.

The following topics are discussed in this section:

Who should read this document and why

This document is intended for persons responsible for defining, configuring, and maintaining service data for a Passport node. Persons who install and engineer the Passport network can also use this guide.

What you need to know

Before you read this document, you need to be familiar with how to logon to the Preside Multiservice Data Manager (MDM) workstation and how to work with the user interface. An understanding of the Passport network and service data ia also helpful.

How this document is organized

This guide introduces the tools for Configuration for Passport Devices and how to start them. Subsequent sections provide information on using the various applications and Preside Multiservice Data Manager (MDM) tools.

241-6001-023 *Preside MDM Configuration Management for Passport User Guide* contains the following sections:

- "Introducing Configuration for Passport Devices" (page 21) briefly describes the tools in the Passport Devices Configuration toolset.

- "Starting Configuration for Passport tools" (page 27) describes the steps involved in logging on to an MDM workstation and accessing a particular application.

- "Software Download and Configuration" (page 35) describes how the Software Distribution and Configuration application is used to upgrade, configure, and download software to nodes in the network.

- "Network Activation" (page 81) describes how the Network Activation tool is used to automate the activation process.

- "Global Data Manager" (page 135) describes how the Global Data Manager command line tool is used to propagate global service data from a node to other selected nodes and to replace attribute values.

- "Using HP OpenView NNM desktop" (page 149) describes how you can access the Passport Devices configuration tools from the HP OpenView NNM desktop application.

For information on the nodal and service provisioning tools, see the following:

- for the Nodal Provisioning tool, see 241-6001-610 *Preside MDM Nodal Provisioning User Guide* and 241-6001-611 *Preside MDM Nodal and Service Provisioning Reference Guide*

- for Service Provisioning - ATM, see 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide*

- for Service Provisioning - Frame Relay, see 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide*

For information on the Passport/SNMP Service Data Backup/Restore tool, see 241-6001-807 *Preside MDM Network Backup and Restore*.

For information on the Inventory Reports tool, see 241-6001-808 *Preside MDM Device Inventory Tools User Guide*.

For information on the Network Reporting System, see 241-6001-022 *Preside MDM Network Reporting System User Guide*.

What's new in this document

Passport Component Provisioning content was removed from this document in MDM 15.1.

Text conventions

This document uses the following text conventions:

- `nonproportional spaced plain type`

  Nonproportional spaced plain type represents system generated text or text that appears on your screen.

- **`nonproportional spaced bold type`**

  Nonproportional spaced bold type represents words that you should type or that you should select on the screen.

- *italics*

  Statements that appear in italics in a procedure explain the results of a particular step and appear immediately following the step.

  Words that appear in italics in text are for naming.

- `[optional_parameter]`

  Words in square brackets represent optional parameters. The command can be entered with or without the words in the square brackets.

- `<general_term>`

  Words in angle brackets represent variables which are to be replaced with specific values.

- UPPERCASE, lowercase

  Uppercase and lowercase letters that appear in UNIX commands and parameters must be matched exactly. The system matches upper and lowercase characters differently.

- |

  This symbol separates items from which you may select one; for example, ON|OFF indicates that you may specify ON or OFF. If you do not make a choice, a default ON is assumed.

- ...

  Three dots in a command indicate that the parameter may be repeated more than once in succession.

The term absolute pathname refers to the full specification of a path starting from the root directory. Absolute pathnames always begin with the slash (/) symbol. A relative pathname takes the current directory as its starting point, and starts with any alphanumeric character (other than /).

Mouse function reference

When we want you to press and release the mouse button, we refer to it as *clicking*. Depending on the action to be taken, the text will read "click *select*" or "click *modify*".

When you access a menu, you need to press and hold the mouse menu button down. After you select the menu option, you can release the mouse button. The text will read "press *menu*".

The *Select* and *menu* mouse buttons also have window manipulation functions. See 241-6001-802 *Preside MDM User Interface Primer*.

Common dialogs

All Passport Devices configuration tools share dialogs that prompt you for action in the event of certain errors, questions, and warnings and in the processing of certain tasks.

Error dialog

There is an error. Click *OK* to close the dialog.

Question dialog

You need to respond before you can proceed. Click *Yes* to perform the action requested. Click *No* to proceed without performing the action requested.

Warning dialogs

You need to respond before you can proceed. Click *OK* to close the dialog.

Processing dialogs

Click *Stop* to confirm that you want to stop the task in progress.

Using the keyboard and online help

The following sections provide help on using the keyboard and the online help facilities in Configuration for Passport Devices.

Help on Keys

You can use the keyboard instead of the mouse to perform the default action in a dialog, to select a menu function, or to execute a command using a command shortcut.

Performing the default action

Some dialogs have a default (live) action button distinguished from the other buttons by the extra box around it. You can perform the default action by pressing the *Enter* key anywhere in the dialog.

Selecting a menu function

You can use mnemonics to perform any of the functions available from the menu bar. Mnemonics are single characters that uniquely identify a menu item. The mnemonic for each menu item is identified by an underscore.

You can use a mnemonic by pressing the F10 key and then entering the mnemonic string for the menu function you want to use. You can press the meta key and the mnemonic for the menu you want to access, followed by the mnemonic for the specific menu function.

For example, to invoke the *Authenticate* (mnemonic A) function on the *Options* (mnemonic O) menu, use either of the following key sequences:

•   F10 O a

•   Meta-O A

Using command shortcuts
The tool provides the following command shortcuts:

•   *CTRL-E* to exit from the tool

•   *Meta-H* to display help information for the dialog, menu item, or button that the cursor is currently on. When you press *Meta-H*, the cursor changes to a question mark symbol. Move the cursor to the item for which you want help. Press the *Select* button to display help information for the item.

Help on Help

One set of help information describes the anchor window. It gives a brief overview of the tool and has subsections that describe key parts of the main window. You can view it by pulling down the *Help* menu and selecting the *On Window* option.

Help for each menu is also available from the last entry on each menu, appropriately labelled *Help*.

One set of help information is available for each major dialog of the user interface. You can view the help information for a dialog by clicking the *Help* button for that dialog.

The *Context Help* button changes the mouse cursor into a question mark symbol. You then slide the cursor over the component for which you want to get help, and press the *Select* mouse button.

Related documents

See the following documents for related information:

- 241-6001-011 *Preside MDM Fault Management User Guide*

- 241-6001-012 *Preside MDM Configuration Management for DPN User Guide*

- 241-6001-022 *Preside MDM Network Reporting System User Guide*

- 241-6001-304 *Preside MDM Configuration Management for DPN Administration*

- 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide*

- 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide*

- 241-6001-610 *Preside MDM Nodal Provisioning User Guide*

- 241-6001-611 *Preside MDM Nodal and Service Provisioning Reference Guide*

- 241-6001-807 *Preside MDM Network Backup and Restore*

- 241-6001-808 *Preside MDM Device Inventory Tools User Guide*

- NN10600-270 *Nortel Networks Multiservice Switch 7400/15000/20000 Software Installation*

- NN10600-605 *Passport - MDM Network Security: Operations*

- 241-5701-050 *Passport 7400, 15000, 20000 Commands*

Chapter 1
Introducing Configuration for Passport Devices

This section gives a brief overview of Configuration for Passport Devices. In this chapter, you can find the following information:

*   "Passport Devices configuration tools" (page 21)

*   "Date Convention" (page 25)

Passport Devices configuration tools

Configuration for Passport Devices is a set of tools for managing Passport software and service data. It provides a representation of node service data. It also provides a simplified logical presentation of operating parameters.

See the following for information on the Passport Devices configuration toolset submenu for managing node software and services.

*   "Nodal Provisioning" (page 22)

*   "Service Provisioning" (page 22)

    — "ATM" (page 22)

    — "Frame Relay" (page 22)

*   "Administration" (page 23)

    — "Passport/SNMP Service Data Backup/Restore" (page 23)

*   "Software Download and Configuration" (page 23)

    — "Network Activation" (page 23)

See "Global Data Manager command line tool" (page 25) for information on a command line tool that is used with Configuration for Passsport Devices.

Nodal Provisioning

You can use Nodal Provisioning to provision Passport components and selected services. For additional information, see 241-6001-610 *Preside MDM Nodal Provisioning User Guide*.

Service Provisioning

Service Provisioning contains the following menu items:

- "ATM" (page 22)

- "Frame Relay" (page 22)

ATM

ATM opens the ATM service provisioning application that allows you to provision ATM permanent virtual connections, soft permanent virtual connections, and selected Frame Relay to ATM connections (FRF.8 standard for service interworking (SIWF)). The tool populates the Administration Database with circuit data. For additional information, see 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide*.

Frame Relay

Frame Relay opens the Frame Relay service provisioning application that allows you to provision Frame Relay permanent virtual circuits between two nodes. The Administration Database is populated with circuit data. For additional information, see 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide*.

Administration

Administration contains the following items:

- "Passport/SNMP Service Data Backup/Restore" (page 23)

- "Software Download and Configuration" (page 23)

- "Network Activation" (page 23)

Passport/SNMP Service Data Backup/Restore

The Passport/SNMP Service Data Backup/Restore tool is a stand-alone tool for backing up and restoring the service data on selected nodes. You can perform full, incremental, and selective backups and restores. See, 241-6001-807 *Preside MDM Network Backup and Restore* for additional information

Software Download and Configuration

You can use Software Download and Configuration to configure, download, and upgrade software in the Passport network. You can obtain the software from a Software Distribution Site (SDS).

See "Software Download and Configuration" (page 35) for more information.

Network Activation

You can use Network Activation (NAT) to simplify and automate the activation process for multiple nodes in a network. For Passport, you can activate and commit a View using NAT.

See "Network Activation" (page 81) for more information.

Inventory Reports

The Inventory Reports item opens the Device Inventory tool. This tool lets you report on the hardware and software of selected devices in your network.

See 241-6001-808 *Preside MDM Device Inventory Tools User Guide* for more information.

Network Reporting System

Network Reporting System contains the following items:

- "Service Integrity Audit" (page 24)

- "Configuration Reports" (page 24)

- "Configuration Differences" (page 24)

Service Integrity Audit
You can use Service Integrity Audit to populate the Network Reporting System (NRS) database for DPN and Passport modules, and, optionally, to execute the NRS-based Service Integrity checks (NSICs) for DPN and Passport modules. In addition it is used to populate the Network Configuration Database (NCD) for DPN. With Service Integrity Audit you retrieve the Passport View Files directly from the modules.

See 241-6001-022 *Preside MDM Network Reporting System User Guide* for more information about the Service Integrity Audit tool.

Configuration Reports
The Configuration Reports item opens the Configuration Report dialog that lets you produce simple configuration hierarchy reports.

See Configuration Report (xnrsdatah) in 241-6001-022 *Preside MDM Network Reporting System User Guide* for more details.

Configuration Differences
The Configuration Differences item opens the Configuration Differences dialog which lets you select two sets of configuration data and produce a report on the differences between the two configurations.

See Configuration Differences (xnrsdiff) in 241-6001-022 *Preside MDM Network Reporting System User Guide* for more details.

Connection Manager

You use the Connection Manager to manage your network connections. The Connection Manager Authentication dialog is displayed when you access any of the tools for Passport Devices configuration.

See "The Connection Manager and authentication" (page 29) for more information.

Global Data Manager command line tool

You can use the Global Data Manager (pgdm), a command line tool, to propagate global data components from a Passport node to other selected nodes, or to replace the attribute values for the components during propagation. In addition, you can use pgdm to replace the attribute values for selected nodes in the network.

By allowing data to be copied and propagated, pgdm enables you to provision global data more efficiently and to replace attribute values globally. Pgdm also reduces the risk of errors due to mistakes in keying in service data.

See "Global Data Manager" (page 135) for more information.

Date Convention

In this document you will often see dates in the format *yymmdd*. Such dates are used as parameters in certain line commands or appear in a dialog or as part of a file name.

To account for the year 2000 and beyond, Passport Devices configuration interprets 000101 as later than 991231. The base year has been chosen as 1980. This means 800101 precedes 900101 which precedes 000101 which precedes 790101. In other words:

if (yy < 80)
  year = 2000 + yy
else
  year = 1900 + yy

This means:

80 => 1980
90 => 1990
99 => 1999
00 => 2000
10 => 2010
79 => 2079.

Chapter 2
Starting Configuration for Passport tools

This section explains how you can access the Configuration Management tools for Passport nodes. In this chapter, you can find the following information:

- "Capability privileges" (page 27)

- "Starting a Configuration tool" (page 27)

- "Closing a Configuration tool" (page 28)

- "Starting the Configuration tools from a UNIX shell" (page 28)

- "The Connection Manager and authentication" (page 29)

- "Authentication warning dialog" (page 32)

- "Performing re-authentication" (page 32)

- "Enabling log files" (page 32)

Capability privileges

To access Passport Devices Configuration tools, you need to have the correct capability privileges.

For more information on capability privileges, refer to the chapter on security in NN10600-605 *Passport - MDM Network Security: Operations*.

Starting a Configuration tool

1   In the application main window, select Configuration -> Passport

    The Passport Configuration toolset submenu is displayed.

---

2   Select the tool you want to use.

The tool's main window is displayed. If the Authentication dialog opens, see "The Connection Manager and authentication" (page 29) for more details.

Closing a Configuration tool

1   From the File menu in the title bar of the tool window, choose Exit.

The tool's main window closes.

Starting the Configuration tools from a UNIX shell

You can access command line applications by using the command line syntax from a UNIX shell.

Accessing UNIX

1   In the application main window, select System -> Utilities -> UNIX access.

The UNIX window is displayed.

2   Enter the command for the tool you want displayed.

For Software Download and Configuration the command is /opt/MagellanNMS/bin/fsdui

For Passport/SNMP Devices Backup and Restore the command is /opt/MagellanNMD/bin/nsui

For Service Integrity Audit the command is /opt/MagellanNMS/bin/sisautui

For Network Activation the command is /opt/MagellanNMS/bin/natui [-NAF <NAF_filename>]

The tool's main window appears. If the Authentication dialog opens, see "The Connection Manager and authentication" (page 29) for more details.

See 241-6001-802 *Preside MDM User Interface Primer* for more information about Preside Multiservice Data Manager workstation interface.

The Connection Manager and authentication

The Connection Manager is a server process residing on the Preside Multiservice Data Manager workstation. It manages all the network connections that are created for your session. The Connection Manager displays the Authentication dialog when you access any of the Configuration tools.

> *Note:* For Connection Manager set-up and administrator functions, see 241-6001-011 *Preside MDM Fault Management User Guide*.

Authentication dialog

The Authentication dialog displays a list of network destinations and their connection states. Valid network destinations for Passport nodes are groups. You can select a group from the destination list and enter a valid user ID and password. Error messages are displayed in the message area. Upon successful network logon, the Authentication dialog automatically closes.

When you log off from Preside Multiservice Data Manager (MDM), all network connections associated with your user ID are shut down automatically by the Connection Manager. The Connection Manager allows only the tool that opened the network connection to close (disconnect) the connection. Accordingly, when you log off from your MDM session, the Connection Manager shuts down all the active network connections belonging to your user ID.

See the figure "Authentication dialog" (page 30).

Figure 1
Authentication dialog
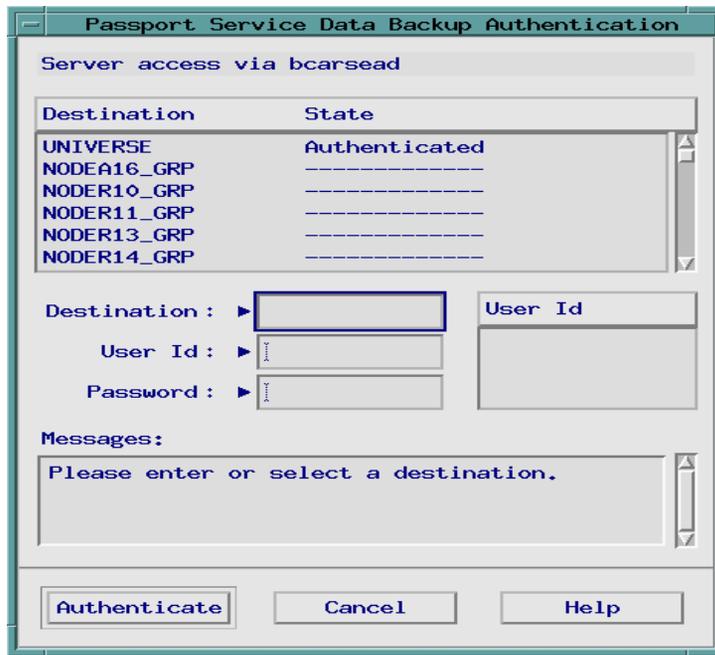
The Authentication dialog allows you to log on to a network destination, with a valid user ID and password. This dialog provides the following information:

- *Server Host* displays the server host name. All network communications are performed through this host.

- *Destination list* lists all the network destinations that are available from the current server host. The destination is either a destination mnemonic name for the DPN network or a group name for the Passport network. Select a destination to set the *Destination* field and populate the *User Id list*. Double-click on the *Destination list* to set the destination and perform the authentication (you need to supply a user ID and password first). The destination state is *Authenticated* if authentication data is available for the destination.

- *User Id list* lists all previously authenticated user IDs associated with the selected destination. It allows you to reuse authentication data. Select a user ID to set the *User Id* and *Password* fields. Double-click on the user ID to set the *User Id* and *Password* fields and perform the authentication action.

- *Destination* allows you to manually enter the destination in this field or select one from the *Destination* list.

- *User Id* allows you to manually enter the user ID in this field or select one from the *User Id list*.

- *Password* allows you to manually enter the password in this field or select one, along with a user ID, from the *User Id list*.

- *Message* displays messages related to the current authentication request.

- *Authenticate* performs the authentication. The dialog closes upon successful completion. Otherwise, an error message is displayed in the *Message* area. You can choose to alter parameters and try again or to cancel the request.

- *Cancel* closes the dialog without performing an authentication request.

See "Selecting a Passport group" (page 31) for information on completing the Authentication dialog.

Performing authentication

The following procedure shows how you perform authentication by logging on to the network through a Passport group.

Selecting a Passport group

1   In the Authentication dialog, enter the *Destination* manually or select one from the *Destination list*. The destination must be a Passport group.

   The selected destination is displayed in the Destination area.

2   Enter your user ID and password.

3   Click *Authenticate* or press the return key.

   If the authentication fails, an error message is displayed. Otherwise, the Authentication dialog closes and the main window of the tool is displayed.

   If you click *Cancel* for the Software Download and Configuration tool, see "Authentication warning dialog" (page 32).

Authentication warning dialog

The Authentication warning dialog displays when you cancel the authentication process for the Software Download and Configuration tool. It indicates that the tool cannot communicate with the network until authentication is successful.

See the figure "Authentication warning dialog" (page 32).

Figure 2
Authentication warning dialog
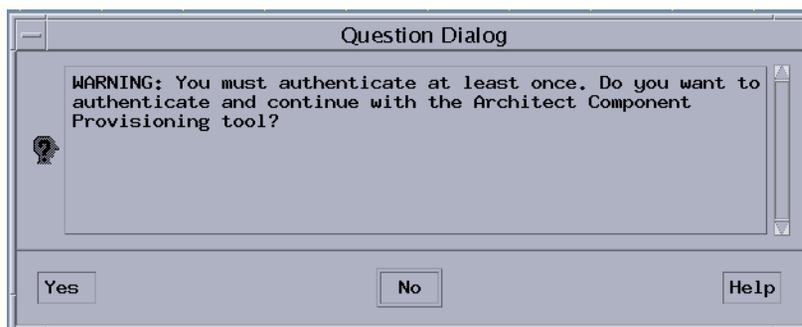
Click *Yes* to re-display the Authentication dialog.

If you click *No*, the Configuration application session is terminated.

Performing re-authentication

During a session it may become necessary to change the Passport group you are working with. You do this by performing the authentication process again. When re-authentication takes place, the current connection is closed.

Display the Authentication dialog again by clicking *Authenticate* from the Security menu of the Configuration tool you are working in. From there, follow the process described in "Selecting a Passport group" (page 31).

Enabling log files

A log file contains processing and error messages that are produced by the application. Logging can be enabled by means of the graphical user interface, command line, or command file.

If the *-log* option is specified in the command file or on the command line, the output is directed to the log file and to *stdout/stderr*. The same messages are displayed in both. If the log file already exists, the new data is appended to the file. If the log file does not exist, a new one is created.

If two or more applications are running concurrently, the log file may be locked by one of the applications. The other applications wait and retry the lock later. If the maximum number of lock retries is exceeded, the application is aborted.

For more information on command line syntax and the number of lock retries permitted, see the individual tool sections in this guide.

Chapter 3
Software Download and Configuration

This section describes the Software Download and Configuration tool and the procedures for using it. In this chapter, you can find the following information:

- "The Software Download and Configuration tool" (page 35)

- "About Passport software" (page 36)

- "Software Download and Configuration main window" (page 38)

- "Software Download and Configuration dialogs" (page 45)

- "Software Download and Configuration procedures" (page 54)

The Software Download and Configuration tool

Software Download and Configuration allows you to configure, download, and upgrade software in the Passport network. You can use NN10600-270 *Nortel Networks Multiservice Switch 7400/15000/20000 Software Installation*, as a reference when performing the procedures in this chapter. This document discusses the concepts and components associated with configuring a Passport network and provides information on transferring software onto the Software Distribution Site (SDS).

The Passport Software Download and Configuration tool resides on an Preside Multiservice Data Manager workstation. It uses the Connection Manager (CM) services to establish the connection to the Passport network; it uses services provided by other processes to modify the service data view and to send commands to network nodes.

See also...

- "About Passport software" (page 36)

- "Software Download and Configuration main window" (page 38)

- "Software Download and Configuration dialogs" (page 45)

- "Software Download and Configuration procedures" (page 54)

About Passport software

A Passport module can hold up to 16 processor cards. Each processor card is identified by its slot number. To load software for processor cards, define the feature (service) and version supported on each processor card in the service data view.

The application version list (AVL) is a provisionable attribute of the Passport software component. The AVL contains a list of application versions installed (or to be installed) on a module. Only one logical processor type (LPT) is associated with the control processor (CP) and the name *CP* is reserved for this LPT. A logical processor (LP) represents the entire body of software to be run on a processor card. Because an LP is a logical entity, it can be mapped to any processor card according to your configuration. An LP can be mapped to one processor card as the main (active) card for supporting a service, and to a standby card for backup should the main card fail. See NN10600-270 *Nortel Networks Multiservice Switch 7400/15000/20000 Software Installation* for more information.

The following is a summary of provisionable attributes related to the software configuration of an LPT, an LP, and a card. See 241-7501-210, Passport Components for more information on provisionable attributes.

LPT

The attributes are as follows:

- *Feature List:* A list of features (services) loaded (or to be loaded) on the processor.

- *System Configuration:* Configuration parameters on start-up.

- *Comment Text:* An arbitrary string that can be used to describe the LPT.

LP

The attributes are as follows:

- *Main Card:* The main processor card to which this LP is assigned.

- *Spare Card:* The backup processor card (if a spare processor card is available) to which this LP is assigned.

- *Logical Processor Type:* This is the LPT that specifies which software this LP will run.

- *Customer Identifier:* The Passport Customer Identifier of the LP.

Card

There is only one provisionable attribute:

- CardType: Indicates the type of card expected to match the hardware.

The figure "Relationships among cards, LPs, and LPTs" (page 38) shows the relationships among processor cards, LPs, and LPTs.

Figure 3
Relationships among cards, LPs, and LPTs
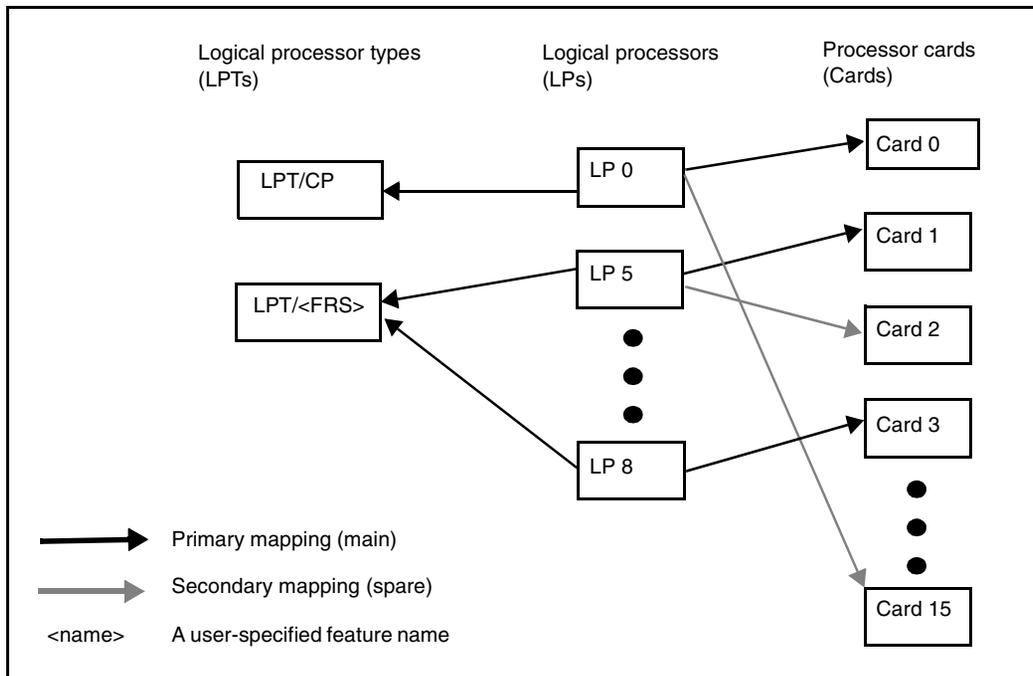
Software Download and Configuration main window

See the following sections for information on the parts of the Software Download and Configuration main window:

- "Menu bar" (page 39)

- "SDS data area" (page 41)

- "Target EM data area" (page 42)

- "Messages area" (page 45)

See the figure "Software Download and Configuration main window" (page 39).

Figure 4
Software Download and Configuration main window
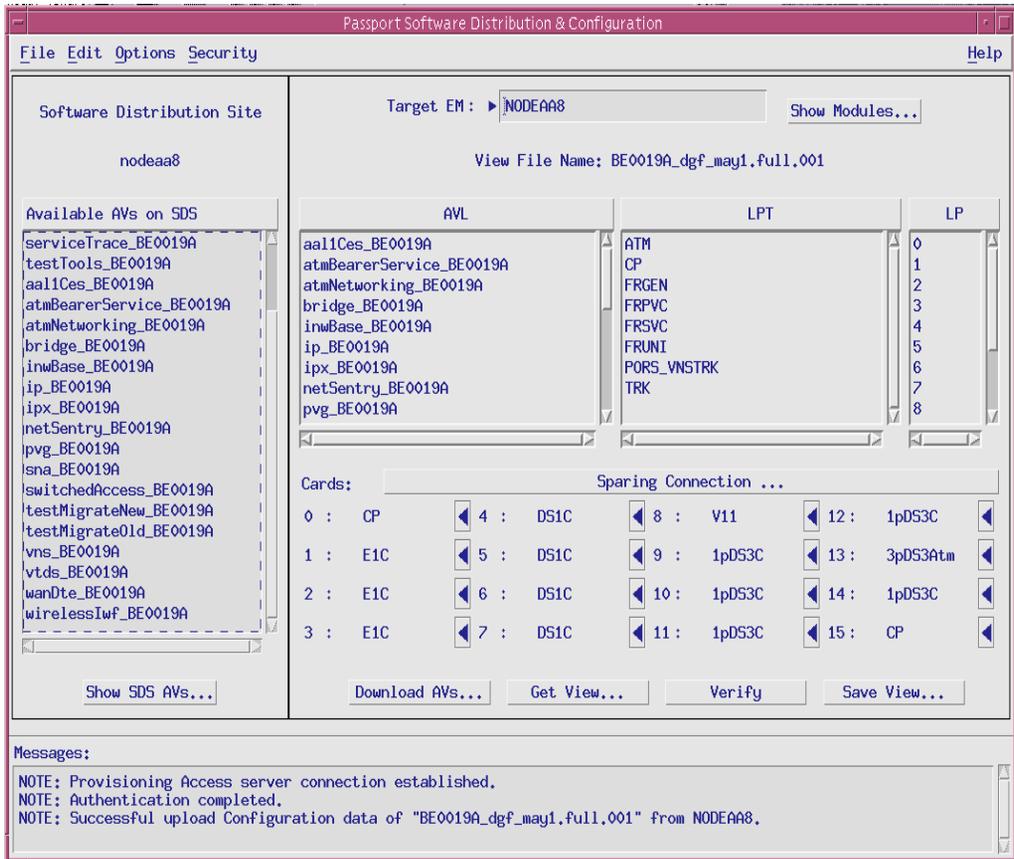
Menu bar

The menu bar is located at the top of the Software Download and Configuration main window. See the following sections for information on the menu bar entries:

- "File menu" (page 40)

- "Edit menu" (page 40)

- "Options menu" (page 40)

- "Security menu" (page 41)

File menu
The *Exit* command closes all windows. You receive a warning if the configuration data is altered but not saved.

Edit menu
The *Edit* menu gives you access to the following dialogs:

- *Add LPT* Opens the Add LPT dialog. This command is enabled when you have established an SDS connection and the view is uploaded.

- *Add LP* Opens the Add LP dialog. This command is enabled when a you have established an SDS connection and the view is uploaded.

Options menu
The *Options* menu gives you access to the following dialogs:

- *Run Command File* displays the *Command File* dialog. Use this dialog to run an existing command file. This function is enabled if the authentication is completed.

- *Enable Download Address Selection* lets you choose a different defined address. By default, the LAN address of the SDS is used to download software. When the *download AVs* or *save view* function is invoked, an SDS Address Selection dialog is displayed to retrieve the SDS address. The defined address can be kept in a configuration file that contains many entries with the following format:

```
<SDS LAN address> <Passport IP address> <IP/XVC
address>
```

The configuration file is named *fsdcfg.data* and stored under the */opt/ MagellanNMS/data* directory.

- *Disable Download Address Selection* uses the LAN address of the SDS to download the software.

    You can toggle between the *Enable* and *Disable* options by clicking the current option.

- *Enable Force Download AVs* forces a download of the software even if it already exists on the Passport disk.

- *Disable Force Download AVs* performs a check to determine if the software to be downloaded already exists on the Passport disk. If it does exist, the download is not performed.

  You can toggle between the *Enable* and *Disable* options by clicking the current option.

Security menu

Authenticate displays the Authentication dialog. You use this dialog to enter the authentication information that gives you access to the target Passport node.

SDS data area

The SDS data area contains the "Available AVs on SDS list" (page 41). The AV name is a concatenation of the application name and its version level (separated by an underscore character). For example, *trunks_AB04v*.

To retrieve this list, click the "Show SDS AVs button" (page 41).

Available AVs on SDS list

This is a list of available application versions (AVs) on the Software Distribution Site (SDS). It is a multi-select list, and each list item is the name of an AV. The AV name is a concatenation of the application name and its version level (separated by an underscore character).

List item functions:

- *Update AVL* lets you update the selected AVs.

- *Show Patch List* displays all of the available patches on the SDS for the selected AVs.

Show SDS AVs button

Click this button to retrieve a list of available AVs on the SDS disk.

A dialog is displayed, requesting the information necessary to log on to the SDS.

Target EM data area

This section contains details on the target EM (Enterprise module is a Passport module).

See also...

- "Target EM name field" (page 42)

- "Show Modules button" (page 42)

- "AVL (application version list)" (page 42)

- "LPT (logical processor type) list" (page 43)

- "LP (logical processor) list" (page 43)

- "Sparing Connection button" (page 44)

- "Cards" (page 44)

- "Download AVs button" (page 44)

- "Get View button" (page 44)

- "Verify button" (page 45)

- "Save View button" (page 45)

Target EM name field
Enter the node name in this field, or invoke the *Show Modules...* function to get a list of the available names.

Show Modules button
Click this button to get a list of available nodes that are accessible in the current group. This button is enabled if authentication is completed.

See also...

- "Module List dialog" (page 46).

AVL (application version list)
The AVL is a single-select list. It holds the versions of each application that can run on the node. Each list item contains the name of an application version (AV), which is a concatenation of the application name and its version level (separated by an underscore character).

List item functions:

- *Show Compatible AVs* displays a list of all AVs that are compatible with the selected AV in the AVL. The AVs in this dialog can be selected and added to the AVL.

- *Show Patch List* displays a dialog that lists the following patches: all of the available patches on the SDS for the selected AV, and all of the provisioned patches in the view file that you loaded. From this dialog you can display another dialog that lists any prerequisite patches for the patches you are going to provision. These dialogs let you provision the prerequisite and selected patches in the view file.

- *Delete* deletes the selected AV from the AVL.

LPT (logical processor type) list

The LPT list is a single-select list, where each list item holds the name of a logical processor type (LPT) that specifies the characteristic of the software that needs to be loaded on a processor card.

> *Note:* Only one LPT is associated with the CP, and the LPT name *CP* is reserved for this LPT.

List item functions:

- *Add LPT* adds a new LPT.

- *Delete* deletes the selected LPT.

- *Edit* modifies the selected LPT.

- *View* lets you view the selected LPT but not edit it.

LP (logical processor) list

The LP list is a single-select list where each list item holds a logical processor number.

List item functions:

- *Add LP* adds a new LP.

- *Delete* deletes the selected LP.

- *Edit* enables you to modify the selected LP.

- *View* lets you view the selected LP but not edit it.

Sparing Connection button
Click this button to display a dialog that allows you to set one-for-n sparing connections. This button is not available for Passport releases prior to 5.0.

See also...

- "Sparing Connections dialog" (page 49)

Cards
You can use this area to display and modify the cards of an uploaded node view. The CP slots in this area are set according to the type of node you are configuring, for instance, first slot and last slot for the Passport 7400 series and slots 0 and 1 for the Passport 15000.

This area is enabled when the configuration data is uploaded. Use the associated data selector to select the CardType.

Download AVs button
Click this button to download selected AVs from the SDS to the target node. This button is enabled when the *Available AVs on SDS* list and *Target EM* name field are both not empty. You need to select at least one AV from the *Available AVs on SDS* list. Optionally, you can specify an SDS IP address that can be used for software downloading by selecting the *Enable Download Address Selection* entry from the Options menu.

Get View button
Click this button to load a specific provisioning data file that contains the software configuration data into the editing view from the target node. The software configuration data consists of the software/application version list (AVL), the logical processor type (LPT), the logical processor (LP), and the cards.

A dialog is displayed to obtain parameters used for loading the view.

See also...

- "Get View Parameters dialog" (page 50)

Verify button
Click this button to perform semantic checks for the configuration data. This button is enabled if the configuration data is uploaded.

Save View button
Click this button to save the modified software configuration data back to the target node.

A dialog is displayed to obtain parameters used for saving the software configuration data.

See also...

• "Save View Parameters dialog" (page 51)

Messages area

Messages generated by Software Download and Configuration in the course of its operations are displayed in this area. You can scroll the text field to read previous messages.

Software Download and Configuration dialogs

See the following sections for information on Software Download and Configuration dialogs:

• "Module List dialog" (page 46)

• "Patch List dialog from the Available AVs on SDS" (page 46)

• "Patch List dialog from the AVL" (page 46)

• "Prerequisite Patch List dialog" (page 47)

• "Logical Processor Type dialog" (page 47)

• "Logical Processor dialog" (page 48)

• "Sparing Connections dialog" (page 49)

• "Get View Parameters dialog" (page 50)

• "Save View Parameters dialog" (page 51)

• "SDS Address Selection dialog" (page 52)

• "SDS Authentication dialog" (page 52)

- "Processor Targets dialog" (page 53)

- "Command File dialog" (page 53)

Module List dialog

The Passport Module List dialog is displayed when you click the *Show Modules* button. It is used to display a list of available nodes that are accessible from the current group. It consists of:

- *Filter* data entry field that allows you to condense the list of available nodes.

- List of accessible nodes.

- *Target EM* field that displays the node you select from the list.

The buttons are:

- *OK* places the name of the Target EM in the Target EM name field on the main window.

- *Cancel* closes the dialog.

Patch List dialog from the Available AVs on SDS

This dialog lists all the available patches on the SDS for all of the AVs you selected on the Available AVs on SDS list. This dialog is for display purposes only.

Patch List dialog from the AVL

From this dialog you can provision selected patches. The column *Patches from SDS* lists all the available patches on the SDS for the AV you selected on the AVL (application version list).

The column *Provision Patch List* lists by default all the patches that are provisioned in the view file you uploaded. The patches listed under *Provision Patch List* are the patches that you can provision. You can provision a patch more than once.

Press the mouse menu button under *Patches from SDS* to display the option *Add to Provision Patch List*. This option copies the selected patch to the *Provision Patch List* column, where you can provision it.

Press the mouse menu button under *Provision Patch List* to display the options *Show Prerequisite patches* and *Delete*. *Show Prerequisite patches* displays the Prerequisite Patch List dialog, which lists the patches you need to provision before you can provision the selected patch in the *Provision Patch List*. *Delete* deletes the selected patch from the *Provision Patch List*.

The buttons are:

- *Accept Provision List* provisions the patches in the *Provision Patch List.* The patches are activated when the view file is activated.

- *Cancel* closes the dialog without provisioning the patches.

Prerequisite Patch List dialog

This dialog lists all the patches you need to provision before provisioning the patches you selected in the Patch List dialog from the AVL.

The buttons are:

- *Provision All* provisions all the prerequisite patches. The patches are activated when the view file is activated.

- *Cancel* closes the dialog without provisioning the patches.

Logical Processor Type dialog

The Logical Processor Type dialog is used to create a new logical processor type (LPT) or modify an existing one, and consists of:

LPT Name:	The LPT name. Only one LPT is associated with the CP, and the LPT name *CP* is reserved for this LPT.
System Configuration:	The Passport network requires some configuration parameters on start-up. The combinations of possible settings are predefined and each possible setting has a name associated with it. Select the System Configuration combination by using the data selector.

Comment Text:	An arbitrary string that can be used to enter a comment on the LPT.
LPT Features list:	Consists of a list of features that you need to load on the processor.
Available Features list:	Consists of a list of available features you can be select and add to the LPT Features list.
Referenced LPs:	A read-only list that shows which logical processors (LP) are currently referencing this LPT.
OK button:	You can use this button to add the LPT in the LPT list and close the dialog if all of the mandatory fields are not empty.
Show Features button:	Displays the available features in the Available Features list.
Cancel button:	You can use this button to discard the changes and close the dialog.
Verify button:	Performs the LPT semantic checks. Errors, warnings, and informational messages are displayed in the *Messages* area.

Logical Processor dialog

The Logical Processor dialog is used to create a new logical processor (LP) or modify an existing one, and consists of:

LP Number:	Use the data selector to select the LP number.
The LP's node Customer Identifier, which is compatible with DPN, DPN-100 NetMan, and Basic CIDs.	*Customer Identifier:*

Main Card:	The preferred processor card onto which you need to assign this LP.
Spare Card:	The spare processor card onto which you need to assign this LP. LP/0 needs to reference only the first card or last card for Passport 7400 series, and only cards 0 or 1 for the Passport 15000. Both need to have CardType CP. Main and Spare card numbers need to be different. Main and Spare CardTypes must match.
Referenced LPT:	The LPT name that determines which software this LP runs. You can use the data selector to select the LPT name. LP/0 needs to reference LPT/CP.
Cancel button:	You can use this action button to discard the changes and close the dialog.
OK button:	You can use this action button to add the LP in the LP list and close the dialog.
Verify button:	Performs the LP semantic checks. Errors, warnings, and informational messages are displayed in the Messages area.

Sparing Connections dialog

The Sparing Connections dialog allows you to set sparing connections using one-for-n sparing. One-for-n sparing enables you to protect multiple main function processors (FPs) with a single spare FP. For more information on this feature, see NN10600-550 *Nortel Networks Multiservice Switch 7400/15000/ 20000 Common Configuration Procedures*.

The dialog allows you to assign one spare for up to four main cards. There is an entry for each of the 16 card slots you may have in a Passport node. You can set sparing connections on any slots except those reserved for control processors (CPs). You cannot perform one-for-n sparing on CPs.

Pressing the menu button, while the arrow is on the arrow symbol to the right of a slot, displays a list of options that allows you to designate the card as a spare or one of the four main cards. The option *notApplicable* means you cannot use one-for-n sparing for this card.

The buttons are:

- *OK* keeps your changes and closes the dialog.

- *Verify* runs semantic checks. Errors, warnings, and informational messages are displayed in the Messages area.

- *Cancel* discards your changes and closes the dialog.

Get View Parameters dialog

These parameters are used in loading the software configuration data into the editing view, which contains the software/application version list (AVL), the logical processor type (LPT), the logical processor (LP), and the cards.

The mode indicates the search mode that the tool uses to find the name of the provisioning data file. You can select one of the following modes:

User Specified: Enables you to specify if a particular provisioning data file is to be loaded. You need to specify the file name in the data entry field.

Keyed: Enables you to specify that a key is used to search for the provisioning data file to be uploaded. You need to specify a key in the data entry field; it can be made up of letters, digits, and underscores. The key cannot begin with an underscore and cannot exceed six characters.

Dated: Enables you to specify that a date key is used to search for the provisioning data file to be loaded. You need to specify a valid date in the format *yymmdd* in the data entry field. See "Date Convention" (page 25) for more information on the date format.

Committed:	Loads the committed provisioning data file on the Passport. No data entry field is associated with this mode.
Current:	Loads the current view on the node. No data entry field is associated with this mode.
Edit:	Loads the edit view on the node. No data entry field is associated with this mode.

The buttons are:

- *OK* loads the specified provisioning data file from the node.

- *Cancel* closes the dialog.

Save View Parameters dialog

Enter the save mode in this area. The parameters are used when saving the provisioning data file.

Save view mode indicates the mode that the tool uses to name the newly modified provisioning data file. You may select one of the following:

User Specified:	Enables you to specify the name that the provisioning data file is saved as. You need to specify the file name in the data entry field.
Keyed:	Enables you to specify the key to be used to name the new provisioning data file to be saved. You need to specify a key in the data entry field; it can be made up of letters, digits, and underscores. The key cannot begin with an underscore, and cannot exceed six characters.
Dated:	Enables you to specify that a date key is used to search for the provisioning data file to be saved. You need to specify a valid date in the format *yymmdd* in the data entry field. See "Date Convention" (page 25) for more information on the date format.

The options are:

- *Perform MDM-Semantic Checks* performs semantic checks before sending a request to save the provisioning data file.

- *Perform On-Switch Semantic Checks* requests the target node to perform the semantic checks before saving the provisioning data file.

The buttons are:

- *OK* saves the modified configuration data back to the target node.

- *Cancel* closes the dialog.

SDS Address Selection dialog

The Internet protocol (IP) address of the SDS can be configured with a different value than the LAN address of the SDS. The address defined in this dialog is used by the target node to get the software from the SDS. If the downloading of software is successfully completed, and if this defined address is different from the LAN address of the SDS, then it is saved in the configuration file.

SDS Authentication dialog

The SDS Authentication dialog requests the information required to log on to the Software Distribution Site (SDS). It also retrieves the application versions (AVs) that will be displayed on the Available AVs on SDS list. It consists of:

- Host data entry field

- User ID data entry field

- Password data entry field

- Application version data entry field that allows wild cards

The buttons are:

- Skip MDM Validation button lets you bypass the Preside Multiservice Data Manager (MDM) validation of the Passport software. Enabling this button limits the provisioning capabilities of the tool so that all provisioning options, except provisioning a change in the AV application version, are disabled.

  When you enable Skip MDM Validation, the Verify button, the Cards area in the main window and all LPT and LP functions, except View, are disabled

- *OK* logs on and retrieves a list of available AVs.

- *Cancel* closes the dialog.

- *Help accesses the on-line help*

Processor Targets dialog

The Processor Targets dialog is displayed when you click the Download AVs button on the Software Download and Configuration main window. Use this dialog to select the type of CPU or CPUs (central processing unit), i960 or ppc, for the software you download. The OK button starts the software download process. The Cancel button cancels the software download process.

Command File dialog

The Command File dialog is used to specify and run a command file and it consists of:

IP Address:	This Software Distribution Site (SDS) information is used by the node to logon to the SDS.
User ID:	This SDS information is used by the node to logon to the SDS.
Password:	This SDS information is used by the node to logon to the SDS.

Command File Name:	Enter the name of the command file in this field (Include the path if the file is not in your home directory).
Log to file button:	Check this item to turn logging off. Logging is on by default.
Log File Name:	This field appears if the log option is turned on. Enter the name of the file to which log messages are written. Include the path if the file is to be stored in a directory other than your home directory.
Run Command File button:	Click this button to run the specified command file.
Cancel button:	Click this button to close the dialog. The command file is not executed.

Software Download and Configuration procedures

See the following sections for information on the Software Download and Configuration procedures:

- "Editing a processor card" (page 68)

- "Saving the modified view" (page 69)

- "Downloading software" (page 71)

- "Upgrading software from a GUI" (page 72)

- "Using a command file" (page 73)

- "Using the command line interface" (page 75)

- "Using log files" (page 73)

Configuring the Software Distribution Site address

Note: The software for Passport 7400, Passport 15000, and Passport 20000 may be available from the same Software Distribution Site (one IP address) as long as different user IDs, with different SDS home directories are configured for each.

The LAN address of the Software Distribution Site (SDS) is used to retrieve the application control files. To download the software, Software Distribution requests the node download process to retrieve software from the SDS using the address provided by Software Distribution. Under normal configuration, the SDS LAN address is used by both Software Distribution and the node for the download process.

The SDS can also be configured to communicate with the node using an address that is different from its own LAN address, that is, the SDS has multiple virtual circuits (VCs). The node is unable to reach the SDS if the SDS LAN address, which is provided by Software Distribution by default, is used.

In this configuration, you need to provide the address of the SDS that is used to communicate with the node (referred hereafter as SDS-Passport address), not the SDS LAN address. This can be done by using the "Enable Download Address Selection" menu and an optional user-defined configuration file.

The SDS-node address can be predefined in an editable configuration file called */opt/MagellanNMS/data/fsdcfg.data*. Each line in the file specifies SDS addresses and associated node (Passport) address.The file has the following format:

```
<SDS LAN address> <Passport address>
<SDS-Passport address>
```

where:

`<SDS LAN address>` is the SDS address.

`<Passport address>` is the Passport node address.

`<SDS-Passport address>` is the address used by the SDS to communicate with the node.

You need to specify the address in IP format (for example, 123.1.1.1).

When the *Enable Download Address Selection* option is set on and the *Download AVs* or *Save View* options are selected, a dialog is displayed requesting the SDS-Passport address. By default, the SDS LAN address is shown as the SDS-Passport address if the SDS-Passport address is not defined in the configuration file. The SDS-Passport address display can be changed; the configuration file is updated with new address information after the operation is successfully performed.

When the *Enable Download Address Selection* option is not selected, and the *Download AVs* or *Save View* option is selected, the SDS LAN address is used.

See also...

- "SDS Address Selection dialog" (page 52)
- "SDS Authentication dialog" (page 52)

Configuring the node

The following steps must be performed to configure a Passport node:

1   Specify a Group.

    See "Performing authentication" (page 57).

2   Specify a target node.

See "Specifying a target node" (page 57).

3   Retrieve a list of available AVs on the SDS.

See "Listing Application Versions on SDS" (page 58).

4   Upload a view.

See "Getting a view" (page 59).

5   Add required application versions (AV) into the AVL area.

See "Updating an application version list" (page 60).

6   Provision any required software patches.

See "Provisioning a software patch" (page 61).

7   Configure the LPTs, LPs, and cards.

See "Editing a logical processor type (LPT)" (page 63),
"Editing a logical processor (LP)" (page 65),
and "Editing a processor card" (page 68).

8   Save the modified view.

See "Saving the modified view" (page 69).

Performing authentication

When the Software Download and Configuration application is started, the
Connection Manager (CM) is invoked. The Passport group containing the
target node needs to be identified and authenticated before the session can
continue.

Specifying a target node

You need to specify a target Passport node before you perform any
configuration or download functions. There are two methods of specifying a
target node.

1   Enter the node name in the Target EM area in the main window.

OR

Click *Show Modules* in the main window.

The Passport Module List dialog is displayed.

```
Filter:
|*

Modules in group UNIVERSE:
NODER14
NODER16
NODER25
NODERC
NODEY29E
NODEY2D1
LOSANGELES


Target EM:
|

   OK         Filter        Cancel
```
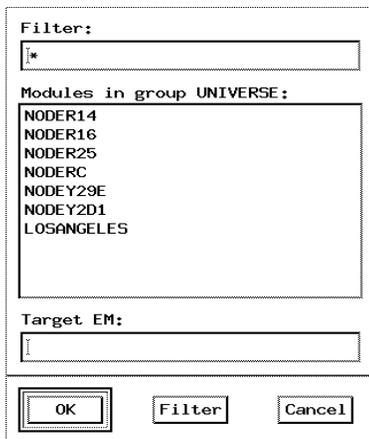
A list of modules associated with the group specified in the authentication window is displayed.

2 To limit the list of module names, enter a filter in the *Filter* data entry field.

3 Click *Filter*.

A list of modules containing the data specified in the filter is displayed.

4 Select the module.

The selected module name is displayed in the Target EM data entry field.

5 Click *OK.*

This dialog is closed and the selected module name is displayed in the Target EM area.

Listing Application Versions on SDS

To configure or download software, you need to retrieve a list of available AVs on the Software Distribution Site (SDS). After the main window is displayed and authentication is successfully completed, perform the following steps to retrieve a list of AVs available on the SDS.

1 Click Show SDS AVs on the main window.

The Authentication dialog is displayed, requesting the information
necessary to log in to the Software Distribution Site (SDS).

2 Enter the Host, User ID, and Password of the SDS.

3 You can use the *Application Version* data entry field to specify search
criteria for the AVs. This customizes the AVs listed in the *Available AVs on
SDS* area in the main window.

4 Click OK.

An FTP connection to the SDS is established and the application version
control files are retrieved. An FTP connection is established even if the
SDS is on the same workstation. The application names and their version
numbers are displayed in the Available AVs on SDS area in the main
window.

Note: You can bypass the Preside Multiservice Data Manager (MDM)
Validation of the Passport software by enabling the Skip MDM
Validation button. If you do this, your provisioning capability is limited
to provisioning a change in the AV application version.

Getting a view

The Get View Parameters dialog is used to specify the search mode that the
Software Distribution and Configuration application uses to find the name of
the service data view.

1 Specify the Target EM on the main window using one of the two methods
described in "Specifying a target node" (page 57).

2   Click Get View....

The Get View Parameters dialog is displayed.

```
 ┌──────────────────── Get View Parameters ──────────────────┐
 │                                                            │
 │    ◈ User Specified                                        │
 │    ◇ Keyed                                                 │
 │    ◇ Dated                                                 │
 │    ◇ Committed                                             │
 │    ◇ Current                                               │
 │    ◇ Edit                                                  │
 │                                                            │
 │   View File Name :  ►[                               ]     │
 │                                                            │
 │   ┌────────┐        ┌──────────┐        ┌─────────┐        │
 │   │  OK    │        │  Cancel  │        │  Help   │        │
 │   └────────┘        └──────────┘        └─────────┘        │
 └────────────────────────────────────────────────────────────┘
```
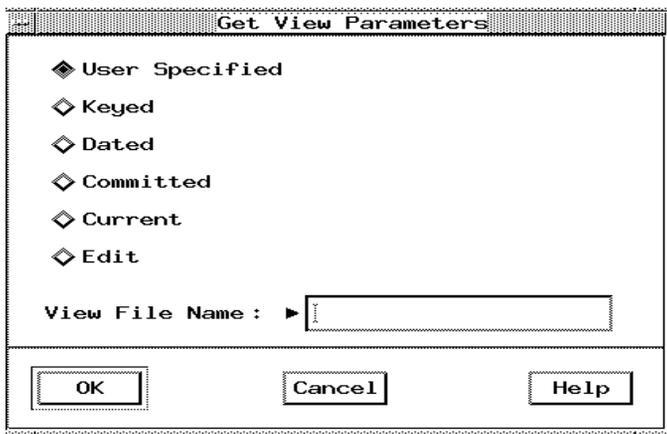
3   Specify upload view parameters by selecting the appropriate radio button and filling in the data entry field where applicable.

4   Click OK.

The tool establishes a provisioning session with the node and tries to retrieve the data for the AVLs, LPTs, LPs, and cards specified in the service data.

Note: You can configure AVLs, LPTs, LPs, and cards only when they are displayed in the *Available AVs on SDS* area.

The View File Name is displayed under the Passport Name.

Updating an application version list

After the *Available AVs on SDS* list is retrieved and a view is uploaded, perform the following steps to update an application version list (AVL).

1   Select the appropriate AVs from the Available AVs on SDS list.

2   Press the mouse menu button in the Available AVs on SDS area in the main window and choose Update AVL.

The selected AV name is displayed in the AVL area of the main window.

OR

3   Select an AV in the AVL area.

4   Press menu in the AVL area and choose Show Compatible AVs.

A dialog displays a list of all AVs compatible with the AV selected in the AVL.

```
            frameRelay_AA0050cf

 Compatible with:

 base_AA0050cf
 networking_AA0050cf
 frameRelay_AA0050cf




   ┌────────────┐  ┌──────────┐  ┌─────────┐
   │ Update AVL │  │  Cancel  │  │  Help   │
   └────────────┘  └──────────┘  └─────────┘
```
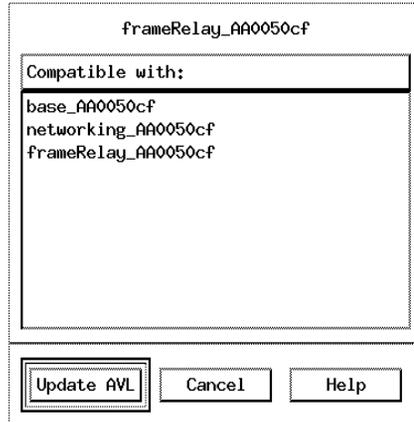
5   Select one or more AVs from the list.

6   Click *Update AVL*.

The selected AV names are displayed in the AVL area of the main window.

Provisioning a software patch

1   Specify a target node. See "Specifying a target node" (page 57).

2   Retrieve a list of available AVs on the SDS. See "Listing Application Versions on SDS" (page 58).

3   Retrieve the required view file. See "Getting a view" (page 59).

4   Make sure the appropriate AVs are listed in the AVL (application version list). See "Updating an application version list" (page 60) if you need to add any AVs to the AVL.

5   In the AVL, select the AV with the patch to be provisioned.

6   Press the mouse menu button in the AVL and select Show Patch List.

The Patch List dialog from the AVL opens.

```
┌──────────────────────────────────────────────────────────────┐
│ ─ │                    Patch List                             │
├──────────────────────────────────────────────────────────────┤
│                                                                │
│  Patches from SDS:          Provision Patch List:             │
│  ┌─────────────────────────┬──────────────────────────────┐   │
│  │ networking000A          │ base000JL                    │   │
│  │ frameRelay0000A         │ networking000A               │   │
│  │ base0000A               │                              │   │
│  │ base000JL               │                              │   │
│  │                         │                              │   │
│  │                         │                              │   │
│  │                         │                              │   │
│  │                         │                              │   │
│  │                         │                              │   │
│  │                         │                              │   │
│  └─────────────────────────┴──────────────────────────────┘   │
│                                                                │
│  ┌────────────────────┐  ┌───────────┐  ┌────────────┐        │
│  │ Accept Provision List│ │  Cancel   │  │    Help    │        │
│  └────────────────────┘  └───────────┘  └────────────┘        │
└──────────────────────────────────────────────────────────────┘
```

7 For any patch listed under Patches from SDS that you want to provision, select it, press the mouse menu button, and select Add to Provision Patch List.

8 For any patch listed under Provision Patch List that you do not want to provision, select it, press the mouse menu button and select Delete.

9 To check if an entry in the Provision Patch List has any prerequisite patches, select it, press the mouse menu button, and select Show Prerequisite patches. The Prerequisite Patch List dialog opens.

```
┌──────────────────────────────────────────────────┐
│ ─ │           Prerequisite Patch List             │
├──────────────────────────────────────────────────┤
│          Prerequisite for selected patches        │
│                                                    │
│  Prerequisite:                                     │
│  ┌───────────────────────────────────────────┐    │
│  │ testTools00JL1                            │    │
│  │ testTools00JL2                            │    │
│  │ testTools00JL3                            │    │
│  │                                           │    │
│  │                                           │    │
│  │                                           │    │
│  │                                           │    │
│  │                                           │    │
│  └───────────────────────────────────────────┘    │
│  ┌─────────────┐  ┌───────────┐  ┌────────┐        │
│  │ Provision All│  │  Cancel   │  │  Help  │        │
│  └─────────────┘  └───────────┘  └────────┘        │
└──────────────────────────────────────────────────┘
```
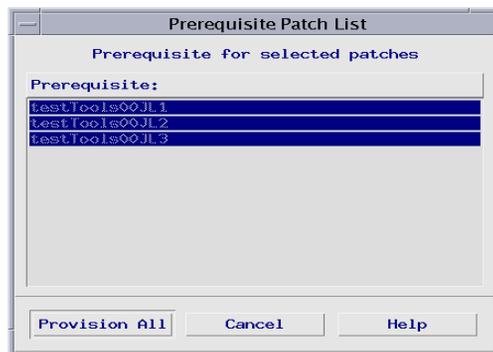
10   If there are any entries listed in the Prerequisite Patch List dialog, click Provision All to provision them in the view file and close the dialog. The entries are added to the Provision Patch List in the Patch List dialog from the AVL.

11   Click Accept Provision List to provision the patches in the view file and close the dialog.

12   Repeat steps 5 to 11 for every AV that requires a patch. The patches are activated when the view file is activated.

Editing a logical processor type (LPT)

You can perform the following steps (create, modify, or delete) to a logical processor type (LPT).

Before you edit a logical processor type, ensure that you have done the following:

- connected to the Software Distribution site

- obtained a view from the node that you are planning to upgrade

- selected the features (AV)s that you want to upgrade and updated them. See, "Updating an application version list" (page 60)

Creating a new LPT
1   Press *menu* in the *LPT* area header in the main window and choose Add LPT.

OR

From the *Edit* menu on the menu bar, choose *Add LPT...*

The Logical Processor Type dialog is displayed.

```
 ┌─────────────────────────────────────────────────────────────────────┐
 │ ┌─────────────────────────────┐   ┌───────────────────────────────┐ │
 │ │ Available Features          │       LPT Name : ▶ │TRUNKS       │ │ │
 │ ├─────────────────────────────┤                                     │
 │ │ dpnRouting                  │   Configuration : ▶ │default  │◀│   │
 │ │ ipiVc                       │                                     │
 │ │ tim                         │     Comment Text : │             │   │
 │ │ dpnLg                       │                                     │
 │ │ frameRelayUni               │   ┌───────────────────────────────┐ │
 │ │ dpnTrunks                   │   │ LPT Features                  │ │
 │ │ utpTrunks                   │   ├───────────────────────────────┤ │
 │ │ unackTrunks                 │   │ unackTrunks                   │ │
 │ │                             │   │ dpnTrunks                     │ │
 │ │                             │   │ utpTrunks                     │ │
 │ │                             │   │                               │ │
 │ │                             │   └───────────────────────────────┘ │
 │ │                             │              Referenced by:          │
 │ │                             │      LPT    Main Card   Spared Card  │
 │ │                             │      ───────────────────────────     │
 │ │                             │       2         2                    │
 │ │                             │      10                              │
 │ │         ┌──────────────┐    │      12        12                    │
 │ │         │Show Features │    │      13        13                    │
 │ └─────────┴──────────────┴────┘                                     │
 │ ┌─────────────────────────────────────────────────────────────────┐ │
 │ │ Messages:                                                      ▲│ │
 │ │ NOTE: LPT/TRUNKS - Semantic checks passed.                      │ │
 │ │                                                                ▼│ │
 │ └─────────────────────────────────────────────────────────────────┘ │
 │                                                                       │
 │  ┌────┐          ┌──────┐          ┌──────┐          ┌──────┐         │
 │  │ OK │          │Verify│          │Cancel│          │ Help │         │
 │  └────┘          └──────┘          └──────┘          └──────┘         │
 └─────────────────────────────────────────────────────────────────────┘
```

2   Specify the LPT Name, Configuration, and Comment Text.

To view the options available for System Configuration, press the data selector and choose one of the listed options.

3   To display the list of available features, click *Show Features.*

4   Select the features required, press *menu*, and choose *Add to LPT*.

The features are now listed in the LPT Features area.

5   Click Verify.

All errors, warnings, and informational messages are displayed in the Messages area in the LPT dialog.

6   Select OK to close the dialog.

The new LPT is displayed in the LPT area of the main window.

Note: You can still add an LPT if the semantic checks fail. When you add an LPT, an "X" box is displayed beside the LPT in the *LPT* area to indicate that an error has occurred.

All errors, warnings, and informational messages are displayed in the Messages area in the main window.

Modifying an existing LPT

1 Select the LPT that you want to modify.

2 Press menu in the *LPT* area and choose Edit.

The Logical Processor Type dialog is displayed.

Note: The Reference LP, Main Card, and Spare Card associated with the LPT are listed in the dialog in read-only format.

3 Modify the LPT Name, Configuration, Comment Text, or Features of the selected LPT.

To view the options available for Configuration, press the associated data selector and choose one of the listed options.

4 Click Verify.

All errors, warnings, and informational messages are displayed in the Messages area in the LPT dialog.

5 Click OK to save the changes and close the dialog.

Note: An "X" box is displayed beside the LPT in the *LPT* area to indicate that an error has occurred.

All errors, warnings, and informational messages are displayed in the Messages area in the main window.

Deleting an LPT

1 Select the LPT that you want to delete.

2 Press menu in the LPT area and choose Delete.

The selected LPT is removed from the LPT area.

Editing a logical processor (LP)

You can perform the following steps (create, modify, or delete) to a logical processor (LP). Before you edit a logical processor, ensure that you have done the following:

• connected to the Software Distribution site

• obtained a view from the node that you are planning to upgrade

• selected the features (AV)s that you want to upgrade and updated them. See, "Updating an application version list" (page 60)

Creating a new LP

1 Before you create an LP, ensure that you have defined the processor card. See "Editing a processor card" (page 68).

2 Press menu in the *LP* area header in the main window and choose New LP.

OR

From the *Edit* menu on the menu bar, choose *Add LP.*

The Logical Processor dialog is displayed.

```
                    LP Number :  ▶ 10      ◀

        Customer Identifier :  ▶ 0

                   Main Card :  ▶         ◀

                  Spare Card :  ▶         ◀

              Referenced LPT :  ▶ TRUNKS            ◀

    Messages:
    ┌─────────────────────────────────────┐ ▲
    │                                     │
    │                                     │
    │                                     │ ▼
    └─────────────────────────────────────┘

    ┌──────┐    ┌────────┐   ┌────────┐    ┌──────┐
    │  OK  │    │ Verify │   │ Cancel │    │ Help │
    └──────┘    └────────┘   └────────┘    └──────┘
```

3 Specify the LP Number, Customer Identifier, Main Card, Spare Card, and Referenced LPT.

For a list of available options, press the data selector associated with each field and choose one of the listed options.

4 Click Verify.

All errors, warnings, and informational messages are displayed in the Messages area on the LP dialog.

5   Select OK to save the changes and close the dialog.

The new LP is displayed in the LP area of the main window.

Note: An "X" box is displayed beside the LP in the *LP* area to indicate that an error has occurred.

All errors, warnings, and informational messages are displayed in the Messages area in the main window.

Modifying an existing LP

1   Select the LP that you want to modify.

2   Press menu in the LP area and choose Edit.

The Logical Processor dialog is displayed.

3   Modify the LP Number, Customer Identifier, Main Card, Spare Card, or Referenced LPT Name.

To view the available options, press the data selector associated with each field and choose one of the listed options.

4   Click Verify.

All errors, warnings, and informational messages are displayed in the Messages area in the LP dialog.

5   Click OK to save the changes and close the dialog.

Note: An "X" box is displayed beside the LP in the *LP* area to indicate that an error has occurred.

All errors, warnings, and informational messages are displayed in the Messages area in the main window.

Deleting an LP

1   Select the LP that you want to delete.

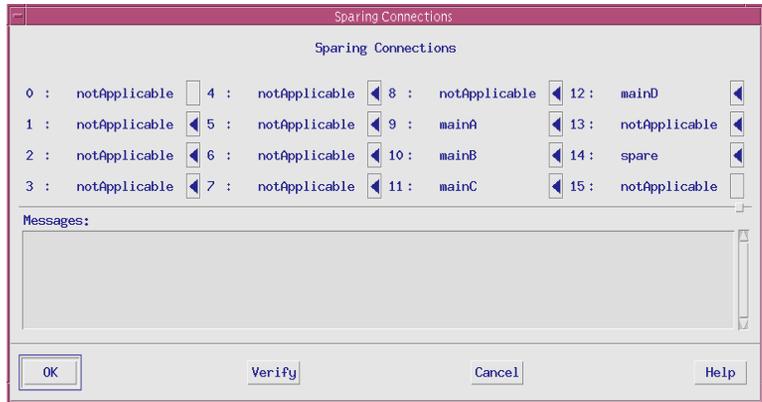**2**   Press menu in the LP area and choose Delete.

The LP is removed from the LP area.

Performing one-for-n sparing

You can perform one-for-n sparing on nodes running Passport releases beginning with 5.0. For more information, see *NN10600-550 Nortel Networks Multiservice Switch 7400/15000/20000 Common Configuration Procedures*.

1   Click *Sparing Connection.*

The *Sparing Connections* dialog opens.

Sparing Connections

Sparing Connections

0 : notApplicable	4 : notApplicable ◀	8 : notApplicable ◀	12 : mainD ◀
1 : notApplicable ◀	5 : notApplicable ◀	9 : mainA	13 : notApplicable ◀
2 : notApplicable ◀	6 : notApplicable ◀	10 : mainB	14 : spare ◀
3 : notApplicable ◀	7 : notApplicable ◀	11 : mainC ◀	15 : notApplicable

Messages:

| OK | Verify | Cancel | Help |

2 Designate the required card by pressing the menu button when the arrow is on the arrow symbol to the right of the card.

A list of options is displayed.

3 Set the card to be a spare or one of four main cards.

4 Click *Verify* to perform semantic checks.

All errors, warnings, and informational messages are displayed in the Messages area.

5 Click *OK* to save your changes and close the dialog.

Editing a processor card

You can perform the following steps to define a new processor card and to specify the type of service card, for example, V35.

Defining a new processor card

1 Set the CardType of the processor card by using the data selector associated with a card number.

2 Create a new LP to run the selected LPT software on the processor card.

3 Create a new LPT if a suitable LPT does not already exist.

4 Click Verify.

All errors, warnings, and informational messages are displayed in the Messages area in the main window.

Changing the software load of a processor card

You can use different methods to change the software load on a processor card as follows:

• Create a new LPT with the new software, and map the existing processor card and LP to this new LPT.

• Locate an LPT within the Passport node that contains the software you require, and map the existing processor card and LP to this LPT. See "About Passport software" (page 36) for the mapping between LPTs, LPs, and cards.

• Change the software associated with an LPT to include the new software, and map the existing processor card and LP to this LPT.

Saving the modified view

The Save View dialog allows you to specify the mode the tool uses to name the newly modified view. You can use two check boxes in this dialog to specify where the semantic checks are performed.

You can perform semantic checks from the graphical user interface for the AVL, LPT, LP, and cards. The semantic checks ensure that no inconsistencies exist with the components specified.

When you select *Perform MDM Semantic Checks,* only the components related to software (AVL, LPT, LP, and cards) are checked. When you select *Perform On-Switch Semantic Checks,* all components are checked to ensure the view can be activated. By default, the semantic checks are performed on both the Preside Multiservice Data Manager (MDM) workstation and the node when the view is saved.

1 Click Save View from the main window.

The Save View Parameters dialog is displayed.

2 Semantic checks are performed on the MDM and on-switch by default. If you do not require semantic checks, deselect the check boxes.

The *Full check* and *Stop on error* boxes are enabled if the node file supports the *Check changed* and *stopOnError* options.

To perform semantic checking on the changed components only, deselect the *Full Check* button.

To get all semantic errors, deselect the *Stop On Error* button.

3   Specify the save view parameters by selecting the *Option* mode you wish to save the view as. The save options are:

- *Ascii* to save the view in an ASCII format.

- *Portable* to save the complete view in a portable format.

Note: Saving the view in ASCII format may take a long time, and it also takes more time to load the ASCII file.

4   Fill in the *View File Name* field, if applicable.

If the *Enable Address Selection* option is selected from the *Options* menu, the SDS IP Address is displayed in this dialog.

5   Click OK.

When the save is complete, a message is displayed in the *Messages* area.

After you select OK, the tool performs the following tasks before the view is actually saved:

- Performs semantic checks for software configuration components (AVLs, LPTs, LPs, and cards) if the Perform MDM Semantic Checks option has been selected.

- Opens a new session to the target node.

- Retrieves a list of AVs available on the Passport disk.

- Triggers the target node download process to transfer the AVs specified in the AVL that do not exist on the node disk.

- Requests the target node to add data for new components or replace data for modified components.

- Requests the target node to perform semantic checks for the whole provisioning view if the Perform On-Switch Semantic Checks option is selected.

- Requests the target node to save the view.

Downloading software

Passport software is partitioned into applications. A particular version of an application is called an application version (AV). All Passport software is stored on the Software Distribution Site (SDS) in a hierarchical directory structure that has a directory for each AV. No automatic recovery mechanism is provided if the download fails; it needs to be restarted.

By default, the SDS LAN address is used to download software. To download to a different address, select the *Enable Download Address Selection* from the *Options* menu.

You can use the following procedure if you require the software on the node but don't want to configure it, or if a view has been previously saved but the software is not yet downloaded to the node.

1   Enter the *Target EM* name in the main window.

2   Click *Show SDS AVs.*

   The Authentication dialog is displayed requesting the information necessary to log in to the Software Distribution Site (SDS).

3   Enter the Host, User ID, and Password of the SDS.

4   Click OK.

   An FTP connection to the SDS is established and the application version files are identified. The application names and their version numbers are displayed in the Available AVs on SDS area.

5   Select the appropriate AVs from the Available AVs on SDS area.

6   Click *Download AVs.*

The Processor Targets dialog opens.

7 Select the type or types of CPU for the software you will download.

Note: To cancel the download, click Cancel.

8 Click OK.

A list of available AVs on the Passport disk is retrieved. The tool then triggers the target node download process to transfer the AVs that are specified but do not already exist on the Passport disk.

All errors, warnings, and informational messages are displayed in the Messages area in the main window and indicate when the download process is complete.

Upgrading software from a GUI

You can use the graphical user interface (GUI) to replace a version of the application and download the new software. If the new version of an application does not introduce any new features, you can upgrade the software version directly using the command line. If you need to upgrade several modules, use the command file input. See "Using a command file" (page 73) for the correct file syntax.

You can also use the command line to upgrade the software version and download the required software directly. See "Using the command line interface" (page 75) for the correct command syntax.

1 Retrieve a list of available AVs on the SDS.

See "Listing Application Versions on SDS" (page 58).

2   Get the current or committed view.

See "Getting a view" (page 59).

3   Add the required AVs into the AVL area.

See "Updating an application version list" (page 60).

4   If the new software introduces new features, configure the LPTs, LP, and cards as required.

See "Creating a new LPT" (page 63), "Creating a new LP" (page 66), and "Defining a new processor card" (page 68).

5   Save the modified view.

See "Saving the modified view" (page 69).

Using log files

A log file contains processing and error messages that are produced by the command line process. Logging can be enabled by means of the graphical user interface, command line, or command file.

If the *-log* option is specified in the command file or on the command line, the output is directed to the log file and to *stdout/stderr*. The same messages are displayed in both. If the log file already exists, the new data is appended to the file. If the file does not exist, a new one is created.

If two or more applications are running concurrently, the log file may be locked by one of the applications. The other applications wait and retry the lock after five seconds. If the maximum number of lock retries exceeds 180, the application is aborted.

Using a command file

You can use a command file to specify the required parameters for a command. This file may be located on any mounted file system on the workstation, which allows the application and the file to reside on different machines. The command file uses keywords that match those supported on the command line interface (for example, target, av, loadview, and saveview); but the authentication information, command file, and log file options cannot be specified in the command file. If parameters other than those mentioned are specified, they are ignored. Separators can be spaces or tabs; if the first

column of a new line is a *#*, the line is treated as a comment. The command file can also be invoked from the graphical user interface. See "Running a command file from the GUI" (page 74) for more information.

Example

The following is an example of a command file:

```
#Start of command file
-target moonbase1 NODER16 NODER17
-av trunk_AA000 base_AA000
```

The following is an example of a command line that uses the parameters specified in a command file. Note that the authentication information is provided on the command line and is not included in the command file.

```
fsdl -auth group1 user pass
-sds 47.236.0.24 ftpuser ftppasswd -f <cmdfile_name>
```

See also...

• "Command File dialog" (page 53)

Running a command file from the GUI

1 Create a command file using a UNIX editor such as *vi*.

   See the previous example for an example of a command file.

2 From the Options menu choose Run Command File.

   The Command File dialog is displayed.

```
┌──────────────────────────────────────────────────┐
│                                                    │
│      SDS IP Address :  ▶ │47.208.132.225        │  │
│            User ID :  ▶ │i960loads             │  │
│           Password :  ▶ │********              │  │
│                                                    │
├──────────────────────────────────────────────────┤
│   Command File Name :  ▶ │                      │  │
│                                                    │
│  ▣ Log to file                                     │
│                                                    │
│      Log File Name :    │fsdl.log              │   │
│                                                    │
├──────────────────────────────────────────────────┤
│  ┌──────────────────┐  ┌──────────┐  ┌──────────┐  │
│  │ Run Command File │  │  Cancel  │  │   Help   │  │
│  └──────────────────┘  └──────────┘  └──────────┘  │
└──────────────────────────────────────────────────┘
```

3 Enter the *SDS IP Address*, *User ID*, and *Password* of the SDS.

4   Enter the *Command File Name*.

5   Deselect *Log to File* if logging is not required.

6   Click Run Command File.

A command line process is invoked to execute the command file. All errors, warnings, and informational messages produced by this command are displayed in the Messages area of the main window.

Using the command line interface

The command line interface is useful for software upgrading if the new application version does not introduce new features. It also enables you to read the required parameters from a command file. If several modules are to be upgraded, use and execute the command file input in a batch mode.

The command line interface allows you to perform the following actions in batch mode:

- download AVs

- replace the AV name specified in the AVL

- access one or more modules to perform the above operations.

To display online help for this command, use the *-h* option on the command line.

Enter the following command syntax as one continuous command.

Command line with a command file

```
/opt/MagellanNMS/bin/fsdl -auth <passport_group_name>
  <capability_id> <passwd>
  -sds <sds_ipaddress>|<sds_name> <sds_userid>
  <sds_passwd> -f <command_file_name>
  [-loadview <loadmode> [<view_file_name>|<key>| <date>]]
  [-saveview <savemode> <view_file_name>|<key>]
  [-patchlist <patch1>...]
  [-opts [stopOnErr] [checkchanged] [portable | ascii]
  [-log [<log_file_name>]]
  [-dlforce]
```

Command line without a command file

```
/opt/MagellanNMS/bin/fsdl -auth <passport_group_name>
  <capability_id> <passwd>
  -sds <sds_ipaddress>|<sds_name> <sds_userid>
  <sds_passwd>
  -target <passport_name> ... -av <appl_version> ...
  [-loadview <loadmode> [<view_file_name>|<key>| <date>]]
  [-saveview <savemode> <view_file_name>|<key>]
  [-patchlist <patch1>...]
  [-prtarget <i960> <ppc>]
  [-opts [stopOnErr] [checkchanged] [portable | ascii]
  [-log [<log_file_name>]]
  [-dlforce]
```

Note: The following minimum character are required for their respective keywords:

COMMITTED COM
CURRENT CUR
USER_SPECIFIED U
KEYED K
DATED D
EDIT E

where:

`-auth <passport_group_name> <capability_id> <passwd>` are the parameters used to log on to a group to which the target node belongs. The parameter are:

<passport_group_name> Mnemonic of the group to log on to.
<capability_id> Capability ID to log on with.
<passwd> Password for the capability ID.

`-av <appl_version>...` is the application version(s) to be downloaded from the SDS to the target Passport disk. Valid name has the format *<application>_<version>*.

`-dlforce`   downloads the specified AVs without checking the existence of the AVs.

`-f <command_file_name>`   is the command file used to identify the target name(s), application version, and view name to load or save. The following command line parameters are ignored if the -f option is specified: *-target*, *-av*, *-loadview*, *-saveview*, and *-patchlist*.

`-h`   displays help on command syntax and use. This option is the first or only parameter you can specify on the command line.

`-loadview <loadmode> [<view_file_name>|<key>|<date>]`

<loadmode>   indicates the mode to be used for uploading a view. Valid values are: USER_SPECIFIED(U)/KEYED(K)/DATED(D)/ CURRENT(CUR)/
COMMITTED(COM)/EDIT(E) where:

USER_SPECIFIED (U)   treats the <view_file_name> as a completed view name.
KEYED (K)   means that the <key> can be composed of letters, digits, and underscores. The key cannot begin with an underscore and cannot exceed six characters in length.
DATED (D)   is a valid <date> in the format *yymmdd*. See "Date Convention" (page 25) for more information on the date format.
CURRENT(CUR), COMMITTED (COM)or EDIT(E) have no parameters.

`-log [<log_file_name>]`   when specified in the command file or on the command line, directs the output to the log file and to *stdout/stderr*. The same messages are displayed in both. If the log file already exists, the new data is appended to the file; if the file does not exist, a new one is created. If no file name is specified, then *fsdl.log* is used by default.

If two or more applications are running concurrently, the log file can be locked by one of the applications. The other applications wait and retry the lock after five seconds. If the maximum number of lock retries exceeds 180, the application is aborted.

`-opts [stopOnErr] [checkchanged] [portable | ascii]`   are options are associated with the saveview option:

stopOnEr   aborts the check immediately upon finding the first error.
checkchanged   performs the check only on modified components.
portable   saves the modified view in a portable format.
ascii   saves the modified view in an ASCII format.

`-patchlist <patch1>...` lets you specify the patch or patches to provision in the view file. The patches are activated when the view file is activated. Only use the patchlist parameter with the loadview and saveview parameters.

`[-prtarget <i960> <ppc>]` lets you download software for the two different CPUs (central processing units) that can be on the node. You can select one or both CPU types.

`-saveview <savemode> <view_file_name>|<key>` specifies the new view name to be downloaded. There are three modes that can be specified: USER_SPECIFIED (U), KEYED (K) or DATED (D). The CURRENT, EDIT and COMMITTED options are not valid for the savemode.

`-sds <sds_ipaddress>|<sds_name> <sds_userid> <sds_passwd>` are the parameters used to log on to the Software Distribution Site (SDS). The parameters are:

<sds_ipaddress>   SDS IP address.
<sds_name>   Site name.
<sds_userid>   User ID to log on with.
<sds_password>   Password for the user ID.

`-target <passport_name>...` is the Target EM name. You can specify more than one at a time.

Example

The following example is used to download trunk_AA0040 and
base_AA0040 from SDS (address = 47.209.133.219, userid = ftpuser,
password = ftppasswd) to the TOR1 node. It also updates the AVL specified
in the committed view and saves the modified view under myview view.
Processing or error messages are logged to a file called mylog.

```
/opt/MagellanNMS/bin/fsdl -auth group1 group1ID
group1passwd -sds 47.236.0.21 ftpuser ftppasswd
-target TOR1 -av trunk_AA0040 base_AA0040
-loadview COM -saveview U myview -log mylog
```

Chapter 4
Network Activation

This section describes the Network Activation tool and contains procedures for using it. Additional background information is included to help you understand how the tool is used.

You can find the following information on procedures:

- "Starting the Network Activation tool" (page 83)

- "Executing a Network Activation File from the GUI" (page 84)

- "Loading a Network Activation File" (page 87)

- "Modifying Passport Preferences" (page 88)

- "Adding new Network Activation records" (page 89)

- "Modifying a single Network Activation record" (page 90)

- "Modifying several records using the Passport Preference dialog" (page 91)

- "Creating or modifying the script lists" (page 92)

- "Clearing all records from the record list" (page 95)

- "Deleting individual records from the record list" (page 96)

- "Saving to a Network Activation File" (page 97)

- "Executing a Network Activation File using the command line" (page 98)

- "Using a Cron job" (page 100)

The information below describes the Network Activation tool:

Starting the Network Activation tool

Start the Network Activation Tool to load a Network Activation File (NAF) or create new Network Activation records, and then execute the NAF.

Procedure steps

1   In the application main window, select **Configuration -> Passport -> Administration -> Network Activation tool**.

The *Network Activation* window opens.

Executing a Network Activation File from the GUI

Executing a Network Activation File (NAF) from the GUI involves the following steps:

- loading a NAF, if you wish to execute records from an existing NAF

- making any required modifications to the NA records

- rearranging records so that they appear in the record list in the desired execution order

- selecting the records to execute in the record list

- authenticating with the Passport group that is the target for the View

- clicking on *Execute* to open the *Execute* dialog

- setting up parameters for the execution in the *Execute* dialog

- clicking OK in the execution dialog to execute the records

Blue, yellow, or red records are not executed. If both critical and non-critical records are selected, the critical records are always executed sequentially before non-critical records. If the activation of a critical View fails, the tool will not process the next record.

If records apply to nodes in more than one group, you need to authenticate with each group to execute all records. To minimize authentication, use the up and down arrows to group records according to the group before you execute them.

To execute a NAF using the graphical user interface of the NAT, do the following:

1 If you wish to execute an existing NAF, load the NAF into the records list as described in "Loading a Network Activation File" (page 87).

   Note: You do not need to load a NAF to execute NA records. You can create new records in the record list and execute them, and if desired, save them to a NAF later.

2 If desired:

   - Add any new records as described in "Adding new Network Activation records" (page 89).

- Modify existing records as described in "Modifying several records using the Passport Preference dialog" (page 91).

- Delete undesired records as described in "Clearing all records from the record list" (page 95).

3 Re-arrange the execution records into the desired execution order.

To move a record, click on the record to select it, then click the up arrow or the down arrow to move the record up or down in the list.

If records apply to nodes that belong to more than one group, we recommend you order the records according to the group.

Note 1: You can select and move more than one record at a time.

Note 2: All critical records are executed first, one at a time, followed by the non-critical records.

4 Create or modify pre- or post-activation scripts as described in "Creating or modifying the script lists" (page 92).

5 In the NAF window, select the records to be executed by clicking on them.

Only select records that belong to nodes in the same group.

The records become highlighted to indicate that they are selected.

6 Select **Passport Group Authenticate** from the **Security** menu.

The **Passport Group Authentication** Dialog opens. See "Authentication dialog" (page 29).

7 Enter or select the group name, and enter a valid user ID and password for the group.

8 Click **OK** to authenticate.

Authentication takes place. If authentication is successful, the dialog closes.

9 In the NAF window, click **Execute.**

The **Execution** dialog opens.

10 In the **Execution** dialog, specify:

- the working directory, if desired

- the number of processes to a number other than 1, if required

- the name of a log file to be used for execution information

For more information, see "Execution dialog" (page 129).

11 Click **Execute** to begin executing the selected records.

Execution begins and colors of fields and records change as execution progresses. Information about the execution is written into the log file you specified in the Execution dialog.

While execution is underway, the **Execute** button is replaced by a **Stop** button that can be used to halt execution. Halting execution turns the record in which execution is halted to yellow and launches the Processing dialog.

As each process is performed, the corresponding field in the record turns from blue to green.

If the action completes successfully, the field turns from green to blue and the next field turns green. When all actions on a record are completed successfully, the entire record turns blue. If an action fails, the entire record turns red or yellow according to the severity of the error.

12 If there are records to execute for nodes in another group, go back to step 5 to select these records, re-authenticate, and execute them.

13 If you wish to execute the records again, select the records to be executed, choose **Reset** from the record list pop-up menu, and start back at step 9 to re-execute the records.

Loading a Network Activation File

Load an existing Network Activation File (NAF) into the Network Activation (NA) record list to prepare the NAF for execution.

Procedure steps

1   Choose **Load** from the **File** menu in the **Network Activation** main window.

The **Load NAF dialog** opens. See also: "Load NAF dialog" (page 118).

If there are any records displayed in the record list, a confirmation dialog opens and prompts you for permission to clear entries in the record list before loading the NAF.

2   Specify the NAF to load in one of the two following ways:

• Enter the full path of the file in the **Network Activation File** field.

• In the **Filter** field, enter the full path of the directory to be used as the starting point for finding the NAF to load. In the **Directories** panel, click on the name of the appropriate subdirectory. In the **Files** panel, click on the name of the NAF to load. The name of the file you have selected appears in the **Network Activation File** field.

3   Click **Load**.

The **Load NAF dialog** closes and the records from the NAF are loaded into the record list.

Modifying Passport Preferences

Use this procedure to change or set Passport Preferences, which are the
default values that are used for a new Passport node record.

Procedure steps

1 Choose **Passport Preferences** from the **Options** menu in the **Network
Activation** main window.

The **Passport Preference** dialog opens. See "Passport Preference
dialog" (page 125).

2 Change the appropriate preferences for the target View and the actions to
be performed. One of the four actions must be selected for the record to
be valid.

- If **Run pre-activation scripts** is selected, you can add one or more
pre-activation scripts to this record. See "Creating or modifying the
script lists" (page 92).

- If **Run post-activation scripts** is selected, you can add one or more
post-activation scripts to this record. "Creating or modifying the script
lists" (page 92).

3 Click OK to close the **Passport Preferences** dialog.

4 If you want to save these preferences for future use, choose **Save
Preferences** from the **Options** menu.

Adding new Network Activation records

Add any new Network Activation (NA) records to the record list so they can be processed (activated and committed) for the desired modules in a network.

Procedure steps

1   If the record list is empty the **Network Activation** main window, go to step 4.

2   Click on a record.

The entire record becomes highlighted to indicate that it is selected. Any new record is added immediately below the record that is selected (highlighted). If you want to re-order the records, see "Up and down arrow buttons" (page 114).

3   Select **Add Passport Record...** from the **Edit** menu or from the record list pop-up menu.

The Passport Edit dialog opens. See also "Passport Edit dialog" (page 121).

4   Enter the module name and target View, and specify the actions to be performed.

- If **Run pre-activation scripts** is selected, you can add one or more pre-activation scripts to this record. See "Creating or modifying the script lists" (page 92)

- If **Run post-activation scripts** is selected, you can add one or more post-activation scripts to this record. See "Creating or modifying the script lists" (page 92).

5   Click **OK** to add the new record to the record list.

The new record appears after the currently selected record in the NAT window.

6   Repeat this procedure, once for each new record to be added to the record list.

You are now ready to save the records to a NAF or to execute the NA records in the record list.

Modifying a single Network Activation record

You can modify a single Network Activation (NA) record using the Edit Passport dialog if you want to specify different data or actions for the record.

Procedure steps

1 Double-click on the record to be modified in the **Network Activation** main window; or, select the record and choose **Edit** from record list pop-up menu.

The **Passport Edit dialog** opens if the record is a Passport node NA record.

2 Modify the data in the record.

For more information, see "Passport Edit dialog" (page 121).

3 Modify the target view and specify the actions. One of the four actions must be selected for the record to be valid.

• If **Run pre-activation scripts** is selected, you can add one or more pre-activation scripts to this record. See "Creating or modifying the script lists" (page 92)

• If **Run post-activation scripts** is selected, you can add one or more post-activation scripts to this record. "Creating or modifying the script lists" (page 92).

4 Click **OK** to apply the changes.

You are now ready to save the changes to a NAF or to execute the NA records in the record list.

Modifying several records using the Passport Preference dialog

You can modify several records at the same time using the Passport Preference dialog. If you choose to modify several records by means of the Passport Preference dialog, you can change all the information, except the module name. If you wish to change the module name, you need to edit each record individually.

Procedure steps

1   Modify the Passport Preferences (see "Modifying Passport Preferences" on page 88).

2   In the NA record list, click on each of the records to which the preferences are to be applied.

Each record becomes highlighted to indicate that it is selected.

3   From the record list pop-up menu, choose **Use Preferences**.

All the selected records now have the same data values as defined in the Passport Preference dialog.

You are now ready to save the changes to a NAF or to execute the NA records in the record list.

Creating or modifying the script lists

You can create or modify the script lists for a Passport node record or for the Passport Preferences using the NAT Edit Script dialog. See the following procedures:

- "Adding scripts to the script list" (page 92)

- "Deleting scripts from the script list" (page 93)

- "Replacing scripts in the script list" (page 93)

- "Changing the order of scripts in the script list" (page 94)

Adding scripts to the script list

Add pre- or post-activation scripts to a Passport node record or the Passport Preferences to run more activation scripts.

Procedure steps

1   From the **Passport Preferences** or **Passport Edit** dialog, select the **Edit** button beside the action **Run pre-activation scripts** or **Run post-activation scripts** to add or modify the script list.

The **NAT Edit Script** dialog opens. See "NAT Edit Script dialog" (page 126).

2   Select the **Browse** button and use the file dialog to select a script or enter the script in the Name data entry field.

3   Enter any command line options required for the script in the **Options** data entry field.

4   Select **Add** to add the script and options to the list of scripts in the top text area.

The new script appears at the end of the list.

5   Repeat the steps once for each new script to be added to the script list.

Note: If you want to replace the script lists contained in every record in the NA Record list with the current script list defined in the top text area, select **Apply to current Passport records**. This is available only from the **Passport Preferences** dialog.

6   Click **OK** to add the script list and close the **NAT Edit Script** dialog.

Deleting scripts from the script list

You can delete scripts from the pre-activation script list or post-activation script list if the scripts are no longer required.

Procedure steps

1   From the **Passport Preferences** or **Passport Edit** dialog, select the **Edit** button beside the action **Run pre-activation scripts** or **Run post-activation scripts** to modify the script list.

    The **NAT Edit Script** dialog opens.

2   Select the script to be deleted in the script list.

    The entry is highlighted when selected.

3   Select the **Delete** button.

    Note: If you want to replace the script lists contained in every record in the NA Record list with the current script list defined in the top text area, select **Apply to current Passport records**. This is available only from the **Passport Preferences** dialog.

4   Click **OK** to delete the script list and close the **NAT Edit Script** dialog.

Replacing scripts in the script list

You can replace scripts in the pre-activation script list or post-activation script list with new scripts.

Procedure steps

1   From the **Passport Preferences** or **Passport Edit** dialog, select the **Edit** button beside the action **Run pre-activation scripts** or **Run post-activation scripts** to modify the script list.

    The **NAT Edit Script** dialog opens.

2   Select the script to be replaced in the script list.

    The entry is highlighted when selected.

3   Modify the **Name** data field or **Options** data field as required.

4   Select the **Replace** button.

    Note: If you want to replace the script lists contained in every record in the NA Record list with the current script list defined in the top text area, select **Apply to current Passport records**. This is available only from the **Passport Preferences** dialog.

5   Click **OK** to replace the script list and close the **NAT Edit Script** dialog.

Changing the order of scripts in the script list

You can change the order of scripts in the pre- or post-activation script list if you wish to run them in a different order.

Procedure steps

1   From the **Passport Preferences** or **Passport Edit** dialog, select the **Edit** button beside the action **Run pre-activation scripts** or **Run post-activation scripts** to modify the script list.

   The **NAT Edit Script** dialog opens.

2   Select the script to be moved in the script list.

   The entry is highlighted when selected.

3   Select the Up arrow or Down arrow to move the script up or down in the list.

   Note: If you want to replace the script lists contained in every record in the NA Record list with the current script list defined in the top text area, select **Apply to current Passport records**. This is available only from the **Passport Preferences** dialog.

4   Click **OK** to change the order of the script list and close the **NAT Edit Script** dialog.

Clearing all records from the record list

Clear all records from the record list in the Network Activation main window if you are finished with them.

Procedure steps

1   From the **Edit** menu, select **Clear**.

A dialog opens prompting you to confirm that you wish to remove all of the records from the record list.

2   Click **OK**.

The confirmation dialog closes and all records are cleared from the record list.

Deleting individual records from the record list

Delete individual records from the record list in the Network Activation main window if there are no longer needed.

Procedure steps

1 In the record list, click on each record that you wish to delete.

Each record becomes highlighted to indicate that it is selected.

2 From the record list pop-up menu, select **Delete**.

A dialog opens prompting you to confirm that you wish to remove the selected records from the record list.

3 Click **OK**.

The confirmation dialog closes and the selected records are deleted from the record list.

You are now ready to save the changes to a NAF or to execute the NA records in the record list.

Saving to a Network Activation File

Use the following procedures to save records in the record list to a Network Activation File (NAF). Two commands are available for saving new or modified records from the record list to a NAF: **Save** and **Save As...** The command to use depends on whether you loaded a NAF and whether you want to save the record list to an existing NAF or to a new NAF.

Saving records to a NAF that is loaded into the record list

Procedure steps

1   Select **Save** from the **File** Menu.

   Note: The **Save** command is disabled if you haven't loaded a NAF or if no changes have been made to the record list.

   The changes are saved to the NAF you loaded.

Saving records to a NAF when you haven' t loaded one, or to a NAF other than the one you loaded

Procedure steps

1   Select **Save As** from the **File** menu.

   The **Save NAF dialog** opens. See also: "Save NAF dialog" (page 120).

2   Specify the NAF file name in one of the two following ways:

   • Enter the full path of the file in the **Network Activation File** field.

   • In the **Filter** field, enter the full path of the directory to be used as the starting point for saving the NAF. In the **Directories** panel, click on the name of the appropriate subdirectory. In the **Files** panel, click on the name of the NAF to save the file as. The name of the file you have selected appears in the **Network Activation File** field.

3   Click **OK**.

   The dialog closes and the contents of the record list are saved to the specified NAF.

Executing a Network Activation File using the command line

To execute a Network Activation File (NAF) from the command line, do the following:

1 Create the NAF. You can do this with the GUI of the NAT or with an editor such as *vi*. To reduce the possibility of error, we recommend that you use the GUI instead of an editor for performing this task.

For information about the structure of a NAF, see "Network Activation File" (page 103).

2 Execute the NAF from a Unix window, by running the *natcmd* command to process the NAF.

See "NAT command line interface" (page 98) for the syntax of the *natcmd* utility.

Note 1: The command line tool exits when a script returns an error (that is, returns 1). The command line tool continues when a script return success (that is, returns 0), or a warning (that is, returns > 1).

Note 2: Scripts cannot invoke a GUI when using the command line.

NAT command line interface

The NAT provides the user a command line to process the NAF. It can be invoked from a UNIX window. The syntax of the command is as follows:

```
/opt/MagellanNMS/bin/natcmd -f <NAF_filename> \
  [-auth <passport_group_name> <userid> <password>] \
  [-logfile [<log_filename>]] \
  [-np <number_of_processes>] \
  [-wd <working_dir>] \
  [-quiet]
  [-h]
```

where:

`-f`   is the keyword to specify a Network Activation File (NAF). This keyword needs to be followed by the *<NAF_filename>* parameter.

`<NAF_filename>`   is the full path name of the NAF file that contains the records to be executed.

-auth   is the keyword to specify group authentication. This keyword needs to be specified if the NAF contains Passport NA records. When specified, this keyword needs to be followed by the *<group_name>*, *<userid>*, and *<password>* parameters.

<group_name> <userid> <password>   is the name of the group, the user ID, and the password to log on to nodes in the group.

-logfile is the keyword to specify that log information is to be written to a log file. If this keyword is specified without the *<log_filename>* option, log information is written to the file
$HOME/nat<pid>.<yy><mm><dd>_<hh><mm><ss>.log
For example: */u/thawkes/nat106.970311_110201.log.*
See "Date Convention" (page 25) for more information on the date format.

<log_filename>   specifies the full pathname of the log file.

-np   is the keyword to indicate the number of processes to run. When specified, this keyword needs to be accompanied by the *<number_of_processes>* parameter.

<number_of_processes> specifies the number of records that can be executed simultaneously. The default is 1. The number to specify depends on the amount of memory available on the workstation. The higher the number, the more memory is used.

-wd   is the keyword to specify the working directory for storing the default log file and other intermediate working files. When specified, this keyword needs to be accompanied by the *<working_dir>* parameter.

working_dir   specifies the full path name of the working directory for storing the default log file and other intermediate working files.

-quiet   specifies that records in the NAF are to be executed without producing messages or storing execution log information in a log file.

[-h]   provides help information for the *natcmd.*

Using a Cron job

Because the NAT command line starts up all the session servers (*cmcfun* and *CM*), you can invoke the NAT command line by using the Unix *cron* facility.

To set up a cron:

- You need to set a value for the *EDITOR* environment variable. If none is set, we suggest setting it to *vi* by entering the command *setenv EDITOR vi*.

- If file */etc/cron.d/cron.allow* exists, the root user account needs to be listed in it.

- The root user account cannot be listed in file */etc/cron.d/cron.deny*.

To set up a cron, do the following:

1   Open the *crontab* file for editing, with the default editor set with environment variable *EDITOR*:

```
crontab -e
```

The current crontab file opens for editing.

2   Add an entry in the following form to the file:

```
<minute> <hour> <day> <month> \
/opt/MagellanNMS/bin/natcmd <parameters>
```

where:

```
<minute>   is a value from 0 to 59.

<hour>   is a value from 0 to 23.

<day>   is a value from 1 to 31.

<month>   is a value from 1 to 12.

<parameters>   are parameters of the natcmd as
described in "NAT command line interface" (page 98).
```

3   Save the crontab file and exit from it. If your editor is vi, press *Esc* and enter the following command to do this:

```
:wq!
```

The file is now saved and is ready to be executed automatically.

Example

The following entry in the crontab file executes a NAF called *mynaf* in the root (*/*) directory, at 0200 hours (2 AM), March 11, 1997. Because the NAF only contains Passport NA records applicable to a group called *west,* the command includes the group name, user ID, and password needed to log on to nodes in the group. The command also outputs the logs in file */tmp/ mylogfile*.

```
00 2 11 3 /opt/MagellanNMS/bin/natcmd -f /mynaf -auth
west
    myid xys2 -logfile /tmp/mylogfile
```

The Network Activation tool

The Network Activation Tool (NAT) simplifies and automates the activation process for multiple modules in a network. You can use the NAT to activate a View and commit a View. You can perform the activation and commit operations interactively or in batch mode. You can also use the NAT to automatically run pre- or post-activation scripts. See "Pre- and Post-activation scripts" (page 105).

There are two interfaces for the NAT:

- a graphical user interface

  See "Network Activation main window" (page 108).

- a command line interface

  See "NAT command line interface" (page 98).

The module type, module name or View name, and actions for network activation are stored in a Network Activation File (NAF). The graphical user interface lets you create or modify the NAF. To reduce the possibility of error, we strongly recommend that you use the graphical user interface for creating or modifying a NAF instead of using an editor like *vi*.

For a description of the fields in a NAF, see "Network Activation File" (page 103).

Network Activation File

The Network Activation file (NAF) is used as the input file for both the command line and the GUI. We recommend that you use the GUI to create or edit the NAF, in order to ensure its syntactic and logical correctness (although it can be edited using any text editor).

Each NA record in the NAF is defined in a single line. Each record specifies the module type, module name, the target View, a set of actions, and associated parameters. The syntax of a record in a NAF is as follows:

```
-[em] <module_name>
      -sdfile <mode> <name>
      [-critical]
      [-activate]
      [-commit]
      [-noPause|-pause]
      [-timeout <minutes>]
      [-verify_date]
      [-pre] [-pre_scr <script_list>]
      [-post] [-post_scr <script_list>]
      [# comments]
```

Note: Although we have presented the fields on different lines in this document, all of the fields in a NAF record are part of the same line.

where:

-em   indicates an NA record for a Passport node.

<module_name>   is the name of the node.

-sdfile   is the keyword for specifying the View name. When specified, this keyword needs to be followed by the *<mode> and <name>* parameters.

<mode>   is one of *keyed, dated*, or *user-specified*.

<name>   is the name of a valid key, a valid date in the format *yymmdd*, or a View name.

-critical   indicates that the View is critical.

`-activate` indicates that the View is to be activated.

`-commit` indicates that the View is to be committed.

`-pause` indicates that automatic pause is to be used. When this option is specified, a Pause option is passed to the activate command line and a pause is forced before the software migration.

`-noPause` indicates that automatic pause will be disabled. When this option is specified, a no Pause option is passed to the activate command line and the software migration activation does not pause before migration switchover.

`-timeout` indicates the activation timeout period. When specified, this keyword needs to be followed by the *<minutes>* parameter. When not specified, the timeout period defaults to 50 minutes.

`-verify_date` specifies that date verification is to be performed. When this option is specified, the date of the View is verified before activation to ensure that the date is later than that of the current View. The current View also needs to be assigned the *Dated* mode of activation.

`-pre` is the keyword for specifying to run the pre-activation script. When this option is specified, this keyword is usually followed by the *<-pre_scr>* parameter.

`-pre_scr <script_list>` is a list of "\;" terminated commands representing the pre-activation scripts to be invoked and their command line arguments.

`-post` is the keyword for specifying to run the post-activation script. When this option is specified, this keyword is usually followed by the *<-post_scr>* parameter.

`-post_scr <script_list>` is a list of "\;" terminated commands representing the post-activation scripts to be invoked and their command line arguments.

<#comments>   are comments applicable to the record. Anything after a pound (#) sign is treated as a comment.

Sample of a Network Activation File

The following is a sample NAF:

```
-em ROME -sdfile keyed West1 -critical -activate -
commit -timeout 50 -pause -pre -pre_scr /opt/
MagellanNMS/cfg/macros/user/scr1 opt1 opt2 opt3 \; /
opt/MagellanNMS/cfg/macros/user/scr2 opt1 opt2 \; -
post -post_scr /opt/MagellanNMS/cfg/macros/user/scr3
\; /opt/MagellanNMS/cfg/macros/user/scr4 opt1 \;
```

Pre- and Post-activation scripts

Pre-activation scripts verify and modify the Passport node configuration before activation is performed and prevent activation if an error code is returned. Post-activation scripts, executed after the activation, allow the activation to be verified, and return error conditions, if necessary.

Multiple scripts can be configured, and scripts are executed one at a time. Scripts are logged in a temporary file during the execution of scripts, but then are merged into the NAT log file once the execution is completed.

If a fatal error occurs in one of the pre-activation scripts, the process is stopped and the record turns red, indicating a major error. If a warning occurs, the process continues and the next (if any) scripts are run.

If a fatal error occurs in a post-activation script, any remaining post-activation scripts are not run, and the records turn yellow, indicating a minor error. If a warning occurs, the process continues and the next record (if any) is run. The record turns blue even if there are warnings, since the process did not fail. The log file indicates if a script has completed with warnings.

If a specified script cannot be run due to permissions or does not exist, the process stops and the record turns red, indicating a major error. See "Color indicators" (page 113).

Pre- and post-activation script rules

Pre- and post-activation scripts must follow certain rules:

• the exit code must be 0 to be considered successful by the NAT

- the exit code must be 1 to be considered fatal by the NAT

- an exit code of anything other than 0 or 1 is a warning

- logging must be performed on stdout for information or stderr for errors so the NAT can capture it

- node names and view names must be retrieved through an environment variable if not specified on the command line ($DNAME: module name (format: EM ROME) and $NAT_VIEWNAME: view-type viewname (where view-type can be KEYED, DATED, or USER_SPECIFIED)). The node name and view name are set from the data available in the NA record.

- NAT also provides access to the session "display" ($NAT_SESSION_DISPLAY) and the real display ($NAT_UI_DISPLAY).

- the scripts can invoke GUIs, but only when NAT is run in graphical mode.

The pre-activation scripts are run PRIOR to activation while post-activation scripts are run after the activation and commit, if a commit is specified. If a commit has not been specified, the commit should be invoked within one of the post-activation scripts.

For each activation record, scripts are run one at a time before or after activation. If a post-activation scripts fails, another script is not run for that record and a warning is issued. If a post-activation scripts ends with a warning, then the next remaining post-activation script is run for that record, and a warning is indicated in the log file for that record.

If you are using your own scripts, it is recommended that they be stored in: /opt/MagellanNMS/cfg/macros/user directory. This directory is added to the PATH prior to script execution.

For customized module access, the GROUP connection management can be overridden with a customized script. The customized authentication script must be /opt/MagellanNMS/cfg/macros/user/NAT_authenticate. If the script is found, it is executed and returns a 0 on success. The script establishes the GROUP connection so NAT does not attempt to connect again. If the

customized script fails, the user is prompted for authentication information as before. The Group authenticate selection is still available from the Security menu, if the script exists.

### NAT logs summary
The following logs are issued when scripts are run:

- *Executing <script name>*. Issued when a script is launched.

- *<script name> has completed successfully.* Successful execution.

- *<script name> has completed but errors were found.* Execution failed.

- *<script name> has completed successfully with warnings*. Successful execution with warning(s).

- *<script name> could not be found.* Execution failed.

Network Activation main window

The Network Activation window contains a menu bar, a working area, and a *Messages* area. See the figure "Network Activation main window" (page 108).

Figure 5
Network Activation main window
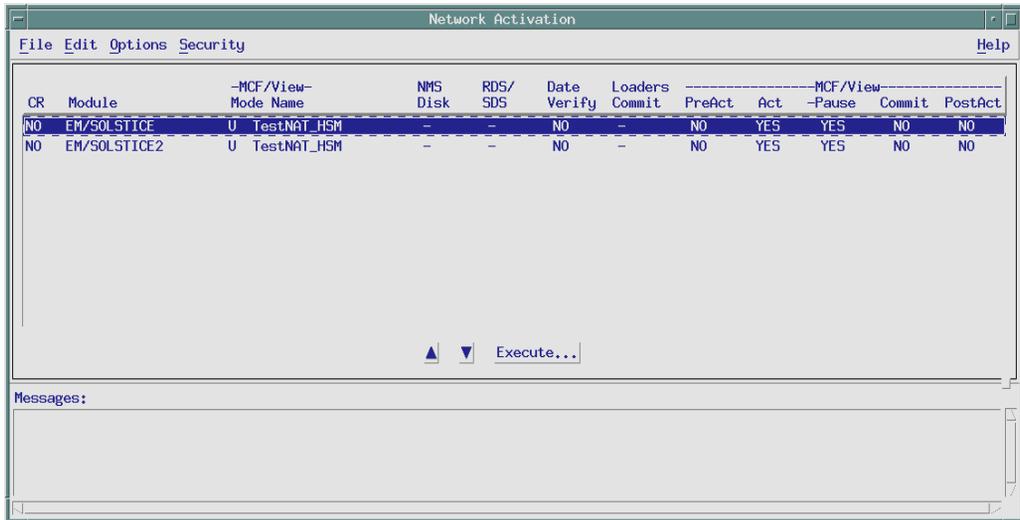
The working area displays a list of Network Activation (NA) records and contains three buttons for rearranging the order of records in the list and for executing them. The *Messages* area is used to display status or error information.

See the following sections for information on the parts of the Network Activation main window:

- "Menu bar" (page 109)

- "Working area" (page 111)

- "Messages area" (page 116)

Menu bar

The menu bar is located at the top of the Network Activation main window. See the following sections for information on the menu bar entries:

- "File menu" (page 109)

- "Edit menu" (page 109)

- "Options menu" (page 110)

- "Security menu" (page 110)

- "Help menu" (page 110)

File menu
The *File* menu commands are as follows:

- *Load* loads records from a network activation file (NAF) into the record list. This command opens the Load NAF dialog in which you specify the NAF to load. If the record list has any records displayed in it, a confirmation dialog opens and prompts for permission to clear the list before loading the NAF.

- *Save* saves new or modified records to a NAF. If there are no additions or changes in the record list to be saved, or if you have not loaded a NAF, this command is disabled (grayed out).

- *Save As* saves records to a specified NAF. This command opens the Save NAF dialog for specifying the full path name of the NAF. If there are no entries in the record list, this command is disabled.

- *Exit* closes all windows and closes the tool.

Edit menu
The *Edit* menu commands are as follows:

- *Add DPN Record* is not applicable to a Passport node.

- *Add Passport Record* adds a Passport node record to the record list. This command opens the Passport Edit dialog for entering the data. The new record is added after the record that is being pointed at (the record surrounded by the box with a dashed line).

- *Clear* removes all records from the record list. If the list has been modified but not saved, a confirmation dialog opens to obtain confirmation of the clear.

Options menu
The *Options* menu commands are as follows:

- *DPN Preferences* opens the DPN Preference dialog. This dialog is not applicable to a Passport node.

- *Passport Preferences* opens the Passport Preference dialog. This dialog is used for entering the preferred values for a new record.

- *Save Preferences* saves, for future sessions, any changes you made in the Passport Preference or DPN Preference dialogs.

Security menu
The *Security* menu commands are as follows:

- *Group Authenticate* opens the Passport Group Authentication dialog to perform authentication for accessing a group of Passport nodes. Although you can authenticate with more than one group, only the last group you authenticated with is active.

- *NCS Authenticate* opens the DPN Authentication dialog. This dialog is not applicable to a Passport node.

Help menu
The *Help* menu commands are as follows:

- *On Context* lets a user obtain help information for an item in the NAT main window. Choosing this command changes the cursor to a question mark. Moving the question mark to an item in the window and clicking the *select* button provides help information about the item selected.

- *On Help* displays help text about how to use the help facility.

- *On Window* displays help text about the application main window and its general contents.

- *On Keys* displays help text about the function keys, mnemonics, and keyboard accelerators. The accelerators are as follows:

  Ctrl + L = Load

  Ctrl + S = Save

  Ctrl + A= Save As

  Ctrl + E = Exit

  Ctrl + G = Group Authenticate

Working area

The working area of the NAT contains a Network Activation (NA) record list that uses color indicators to indicate the status of network activation. The record list also supports a pop-up menu and contains three action buttons. For descriptions of these items, see:

- "NA record list" (page 111)

- "Color indicators" (page 113)

- "Pop-up menu" (page 114)

- "Up and down arrow buttons" (page 114)

- "Execute button" (page 115)

NA record list

The NA record list displays Network Activation (NA) records. The content of the records and their order in the list can be modified using commands and action buttons. See also:

- "Pop-up menu" (page 114)

- "Up and down arrow buttons" (page 114)

- "Execute button" (page 115)

You can select a set of records in the NA record list for execution. While execution is in progress, fields in the records change color to indicate the execution status. See also: "Color indicators" (page 113).

The NA record list contains the following fields:

- *CR* indicates (*YES|NO*) whether the View is critical.

  Critical records are executed first, one at a time, in the order in which they appear in the list. Then the non-critical records are executed. If a critical record cannot be executed, the tool stops and does not execute the next record.

- *Module* displays the module name in the format *EM/<Passport name>*. Module names that begin with *PM* are not applicable to Passport.

- *MCF/View Mode* indicates the method used for accessing the View. The mode is one of:

  K access with a key

  D access by date

  U access according to a user-specified information

- *MCF/View Name* indicates the name of the key, the date, or the View used for activation or committing.

- *NMS Disk* is not applicable to a Passport node and is always set to "-".

- *RDS/SDS* is not applicable to a Passport node and is always set to "-".

- *Date Verify* indicates whether date verification is to be performed on a View that is to be activated by date. When *Date Verify* is set to *YES,* the date of the View is checked against the date of the current View. If the View has a dated key that predates the current View, activation fails and the record turns red.

- *Loaders Commit* is not applicable to a Passport node and is always set to '-'.

- *MCF/View PreAct* indicates whether pre-activation scripts are to be run.

- *MCF/View Act* indicates whether the View is to be activated.

- *MCF/View -Pause* indicates whether the automatic pause is to be used. When *-Pause* has the value "-", it means that no option is passed to the activate command line. When *-Pause* is set to *YES*, a *-Pause* option is passed to the activate command line. When *-Pause* is set to *NO*, a *-noPause* is passed to the activate command line.

- *MCF/View Commit* indicates whether the View is to be committed.

- *MCF/View PostAct* indicates whether post-activation scripts are to be run.

The NA record list is a multi-select list, which means you can select more than one record at a time.

The NA record list also supports double-clicking. Double-clicking on a record that has not been executed selects the record and opens a dialog for viewing or editing the record. Double-clicking on a record that has been executed selects the record and opens a dialog that displays log information about execution of the record.

Color indicators
Different colors are used to indicate the status of the NA records. The colors and their meanings are as follows:

- No color means the record is ready for execution.

- *Blue* means the record has been executed successfully.

- *Green* means execution is in progress. When a specific action is being performed, the corresponding field turns from blue to green. If the action completes successfully, the field turns from green to blue and the next field turns green. When all actions on a record are completed successfully, the entire record turns *blue*. If an action fails, the entire record turns *red* or *yellow,* according to the severity of the error.

- *Yellow* means that a minor error was found during execution or that execution was interrupted by the user.

- *Red* means a major error was found during execution. This record can only be re-executed if the user resets the state manually.

After execution is complete, a user can reset the color of the records back to no color in preparation for re-execution by means of the *Reset* command. This command is available in the record list pop-up menu.

Pop-up menu

The record list is equipped with a pop-up menu that contains the following commands:

- *Edit* opens the *Passport Edit* dialog for viewing or editing a record that is selected in the record list. The module *name* cannot be changed during the edit.

- *Use Preferences* applies values that were pre-defined in the *Passport Preference* dialog to records that are selected in the record list.

- *Add DPN Record* is not applicable to a Passport node.

- *Add Passport Record* opens the *Passport Edit* dialog for entering a new record. The new record is added below the highlighted record.

- *Delete* deletes records that are selected from the NA record list. A confirmation dialog opens and prompts for permission to perform the deletion.

- *Show Status* opens a dialog that shows execution information for a record that is selected in the NA record list. This command is only enabled if the record has been executed.

- *Reset* changes the state of selected records bask to their initial state then deselects the records. This allows the records to be re-selected and re-executed, regardless of their previous state.

- *Select All* selects all records in the NA record list.

- *Deselect All* deselects all selected records.

Up and down arrow buttons

The up arrow button moves records that are selected in the NA records list upwards towards the top of the list. The down arrow button moves them downwards. You can select more than one record at a time to move up or down.

The up and down arrows are especially useful for rearranging records to change their execution order, or for reducing the number of times you need to authenticate to execute all of the records in the record list.

Critical records in the record list are always executed first, one at a time, in the order in which they appear in the list, followed by the non-critical records. You can rearrange the critical records with the arrows to specify the order in which the critical records, followed by the non-critical records, are executed.

With the Network Activation Tool, you can only execute records for the nodes in one group at a time. On occasion, records may apply to modules that belong to different groups. To execute all of the records, you have to authenticate with the groups as needed. You can use the arrows to group all the records for one group together, minimizing the number of times you need to authenticate.

The up and down arrows are disabled unless at least one record is selected in the list.

Execute button
The *Execute* button executes the records that are selected in the NA record list.

When you click *Execute*, a confirmation dialog opens and displays the list of modules on which the actions are to be performed, prompting for confirmation. For more information, see "Confirmation dialog" (page 132).

Clicking *OK* in the confirmation dialog opens an *Execution* dialog for specifying the parameters for the execution. Once you have set up the execution parameters in the *Execution* dialog, clicking on the *Execute* button starts execution of the records. For more information, see "Execution dialog" (page 129).

When execution of a record begins, the entire record turns blue. Then, as each step in the execution takes place, the field associated with the step turns from blue to green. If the step is successful, the field turns from green to blue, and the next field turns green. If all steps in are executed successfully for a record, the entire record turns blue. If a step fails, the entire record turns red or yellow, according to the severity of the failure.

While execution is underway, the *Execute* button is replaced by a *Stop* button that can be used to halt execution. Halting execution turns the record in which execution was halted to yellow and launches the Processing dialog (see "Processing dialog" (page 131).

Records in the record list are executed as follows:

• Red, yellow, or blue color records are not executed.

• Critical records are executed first, one at a time, in the order in which they appear in the record list.

• Non-critical records are executed after critical records, also in the order in which they appear in the list.

• If execution of a critical View fails, the tool stops and does not execute the next record.

• Records are only executed for the group whose authentication is currently active. That is, the group that has most recently been authenticated by selecting *Group Authenticate... f*rom the *Security* menu.

Messages area

The *Messages* area displays execution status information and error messages.

Network Activation dialogs

See the following sections for information on Network Activation dialogs:

- "Load NAF dialog" (page 118)

- "Save NAF dialog" (page 120)

- "Passport Edit dialog" (page 121)

- "Passport Preference dialog" (page 125)

- "NAT Edit Script dialog" (page 126)

- "Authentication dialog" (page 29).

- "Execution dialog" (page 129)

- "Processing dialog" (page 131)

- "Confirmation dialog" (page 132)

- "Log information dialog" (page 133)

- "Error dialog" (page 133)

- "Warning dialog" (page 133)

- "Pause dialog" (page 134)

The following dialogs can be accessed from Network Activation, but are not applicable to Passport nodes:

- DPN Edit dialog

- DPN Preference dialog

- NCS Authentication dialog

Load NAF dialog

The *Load NAF* dialog lets you specify the name of a NAF file that contains records to be loaded into the NA record list. See the figure "Load NAF dialog" (page 118).

Figure 6
Load NAF dialog

```
┌─────────────────────────────────────────────────────────────┐
│ ─    Network Activation - Load NAF                            │
│  Filter                                                       │
│  ┌──────────────────────────────────────────────────────────┐│
│  │ /u/thawkes/admin/*                                        ││
│  └──────────────────────────────────────────────────────────┘│
│  Directories                          Files                   │
│  ┌────────────────────────────┐      ┌──────────────────────┐│
│  │ /u/thawkes/admin/.         ││      │ Preliminary_approval  ││
│  │ /u/thawkes/admin/..        ││      │ work-template         ││
│  │ /u/thawkes/admin/approvals ││      │ workR10.2             ││
│  │ /u/thawkes/admin/howto.book││      │ workR10.3             ││
│  │ /u/thawkes/admin/staffing  ││      │                       ││
│  │ /u/thawkes/admin/templates ││      │                       ││
│  └────────────────────────────┘      └──────────────────────┘│
│  Network Activation File:                                     │
│  ┌──────────────────────────────────────────────────────────┐│
│  │ /u/thawkes/admin/                                         ││
│  └──────────────────────────────────────────────────────────┘│
│  ┌───────┐    ┌────────┐     ┌────────┐      ┌──────┐         │
│  │ Load  │    │ Filter │     │ Cancel │      │ Help │         │
│  └───────┘    └────────┘     └────────┘      └──────┘         │
└─────────────────────────────────────────────────────────────┘
```
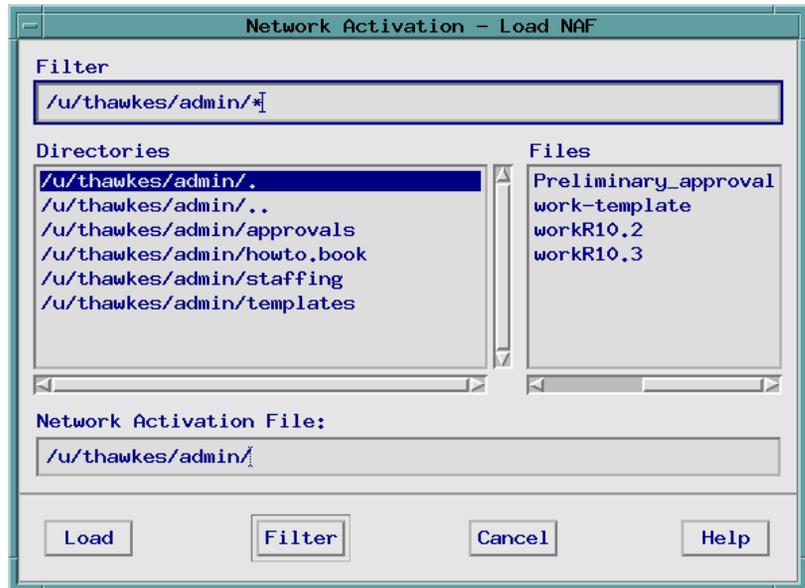
The dialog contains the following items:

- a *Filter* field for specifying the path to the directory that is to be used as a starting point for finding the NAF to load

  The subdirectories of the directory specified in this field are displayed in the *Directories* panel of the dialog when you enter a carriage return in this field, or when you click the *Filter* button.

- a *Directories* panel for displaying the available subdirectories of the directory specified in the *Filter* field

- a *Files* panel for displaying the available files of the directory selected in the *Directories* panel

- a *Network Activation File* field for specifying the full path name of the NAF to be loaded

   You can specify the name of a NAF to be loaded in one of two ways: by entering its full path name in this field; or, by entering information in the *Filter* field, selecting a directory in the *Directories* panel, and selecting a file in the *Files* panel.

- a *Load* button for loading the NAF specified in the *Network Activation File* field into the NA record list

- a *Filter* button for updating the *Directories* panel, the *Files* panel, and the *Network Activation File* field according to the pathname entered in the *Filter* field

- a *Cancel* button for aborting the load and closing the dialog

- *a Help* button for displaying help information about the dialog

Save NAF dialog

The *Save NAF* dialog lets you specify the full path name of a NAF in which to save new or modified records from the NA record list. See the figure "Save NAF dialog" (page 120).

Fields, panels, and buttons in the dialog are similar to those in the Load NAF dialog. See also: "Load NAF dialog" (page 118).

Figure 7
Save NAF dialog
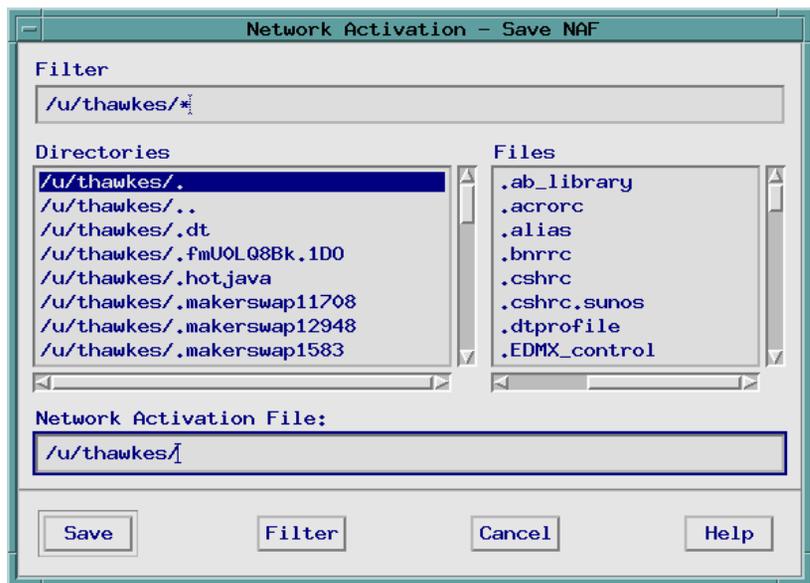
Passport Edit dialog

The *Passport Edit* dialog lets you specify the information and actions for a
new Passport node record that is to be added to the NA record list, or to
modify an existing record that is selected in the NA record list. Information
in the dialog applies to one View. See the figure "Passport Edit dialog"
(page 121).

Figure 8
The Passport Edit dialog
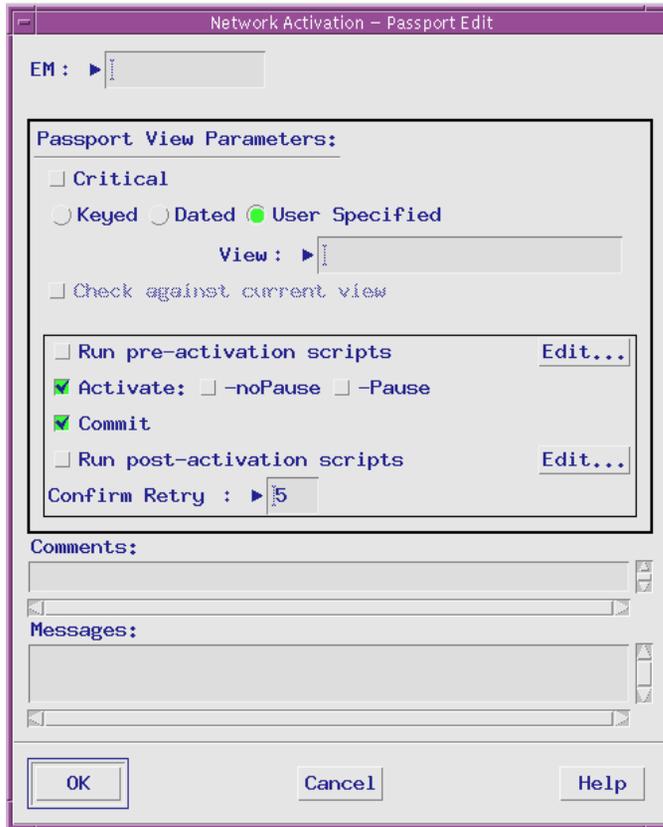
Double-clicking on an existing record opens the *Passport Edit* dialog that
contains the data from the record. From this dialog, you can change any
parameters and actions, except the module name displayed in the *EM* field.

If you select *Add Passport Record* from the *File* menu or from the NA record list pop-up menu, the *Passport Edit* dialog opens with the data defined in the *Passport Preference* dialog and the *EM* field empty. If no preferences have been set, the following defaults are used:

EM data entry field	Empty
Critical	NO
Keyed	NO
Dated	NO
User Specified	YES
Data entry field	Empty
Check against current view	NO
Run pre-activation scripts	NO
Activate	NO
-noPause	NO
-pause	NO
Commit	NO
Run post-activation scripts	NO
Confirm Retry	5
Comments	Empty

The Passport Edit dialog contains the following items:

- an *EM* data entry field for specifying the node name

  If you are editing an existing record, the *EM* field displays the node name associated with the record you are editing. You cannot modify this name while editing an existing record.

- a *Passport View Parameters* panel for specifying parameters associated with the target View, which consists of:

  — A *Critical* check button to indicate whether the action to be executed is critical or non-critical

  — a set of radio buttons labelled *Keyed*, *Dated*, and *User specified,* and a data entry field, which together specify the View access mode. If you select *Keyed,* the label of the data entry field changes to *Key* and you need to enter the name of a valid key for the View.If you select *Dated* the label changes to *Date* and you need to enter date for the View in the format *yymmdd*. If *Dated* is selected as a preference in the *Passport preference* dialog, the current date appears in the field. However, if *Date* is not selected as a preference and you click *Dated*, the *Date* field appears but is blank. To put the current date into the *Date* field, click the *Dated* radio button again. See "Date Convention" (page 25) for more information on the date format.
  If you select *User specified,* the label changes to *View* and you need to enter a valid View name.

  — a check button labelled *Check against current view* for specifying whether the date is to be verified against the date of the current View before activating or committing.
  If you select this button, the date of the View is verified against the date of the active View.
  If the date specified is earlier than that of the active View, execution of the record fails.
  This check button is only enabled when the *Dated* mode is selected.

- a check button labelled *Run pre-activation* scripts for specifying if pre-activation scripts will be run.

- an *Edit* button that opens the *Edit Pre-activation scripts* dialog for creating or editing the pre-activation scripts.

- a check button labelled *Activate* for specifying if the activate action is to be performed

- a check button next to the *Activate* button, labelled *-noPaus*e. Checking the *-noPause* option disables the automatic pause that typically occurs before a migration switchover during a hitless software migration.

- a check button next to the *noPause* button, labelled *-Pause*. Checking the *-Pause* option enables the automatic pause that typically occurs before a migration switchover during a hitless software migration.

- a set of check button labelled *Commit* for specifying if the commit action is to be performed

- a check button labelled *Run post-activation* scripts for specifying if post-activation scripts will be run.

- an *Edit* button that opens the *Edit Post-activation scripts* dialog for creating or editing the post-activation scripts.

- a data entry field labelled *Confirm Retry* for specifying the retry times for confirmation

- a text area labelled *Comments* for adding user comments

- a text area labelled *Messages* for displaying messages about attempts to add or modify information in the dialog

- an *OK* button that is used to add or replace the record in the list and close the dialog

  If you fail to enter information in a required field, an error icon (*X*) appears beside the corresponding field in the dialog and a message indicating the nature of the error appears in the *Messages* panel. You need to enter the correct information in the field before the dialog will close and the record can be added or saved.

- a *Cancel* button that closes the dialog without saving any additions or changes

- *a Help* button that displays help information about the dialog

Passport Preference dialog

The *Passport preference* dialog lets you specify:

- the default data to be used for adding a new Passport node NA record to the record list

- the values to apply to records that are selected in the record list when you choose the *Use Preferences* command from the record list pop-up menu

The *Passport preference* dialog is identical to the *Passport Edit* dialog, except that:

- The *EM* field and the *Comments* and *Messages* text fields are absent.

- The *OK* button sets the preferences values for the current session and closes the dialog.

See also: "Passport Edit dialog" (page 121).

NAT Edit Script dialog

The NAT Edit Script dialog lets you enter script names with command-line arguments in a specified order in which the scripts will be executed. This dialog is invoked from the Passport Record dialog or the Passport Preferences Dialog.

For a new record, the NAT Edit Script dialog opens with the data defined in the Passport Preference dialog. If preferences have not been set, defaults are used.

If the NAT Edit Script dialog is opened from the Passport Preferences dialog, then there is an additional button called Apply to current Passport node records. When this button is selected, the script list contained in every record in the NA record list is replaced with the current script list defined in the top text area.

The NAT Edit Script dialog contains the following items:

- a text area listing the command line for each script selected to be run

- a Name data entry field for specifying the complete path name of the script (the default is empty)

- an Options data entry field for specifying the command line option for the script (default is empty)

- a Browse button that opens a File dialog for searching and selecting a script. You can use the Browse button to select the script name instead of typing it in the Name Data Entry field

- An Add button that is enabled when the Name field is not empty. The Add button causes the script name and options in the Option field to be added to the list of scripts.

- A Delete button that is enabled when a script is selected in the list of scripts at the top text area. The Delete button causes the script to be deleted from the list of scripts.

- A Replace button that is enabled when a script is selected in the list of scripts at the top text area and the Name field is not empty. The Replace button causes the selected script to be replaced by the script and options in the Name and Options data fields.

- An Up arrow button that moves a script that is selected in the script list up towards the top of the list. The Up arrow button is disabled unless a script is selected that is not at the top of the list.

- An Down arrow button that moves a script that is selected in the script list downwards to the bottom of the list. The Down arrow button is disabled unless a script is selected that is not at the bottom of the list.

- An Apply to current Passport records button (only available when opened from the Passport Preferences dialog) that is used to replace the script list contained in every NA record with the current script list defined in the top text area of the dialog.

- An OK button that is used to update the script list in the record and close the dialog.

- A Cancel button that closes the dialog without making any additions or changes.

- A Help button that displays help information about the dialog.

Figure 9
NAT Edit Script dialog
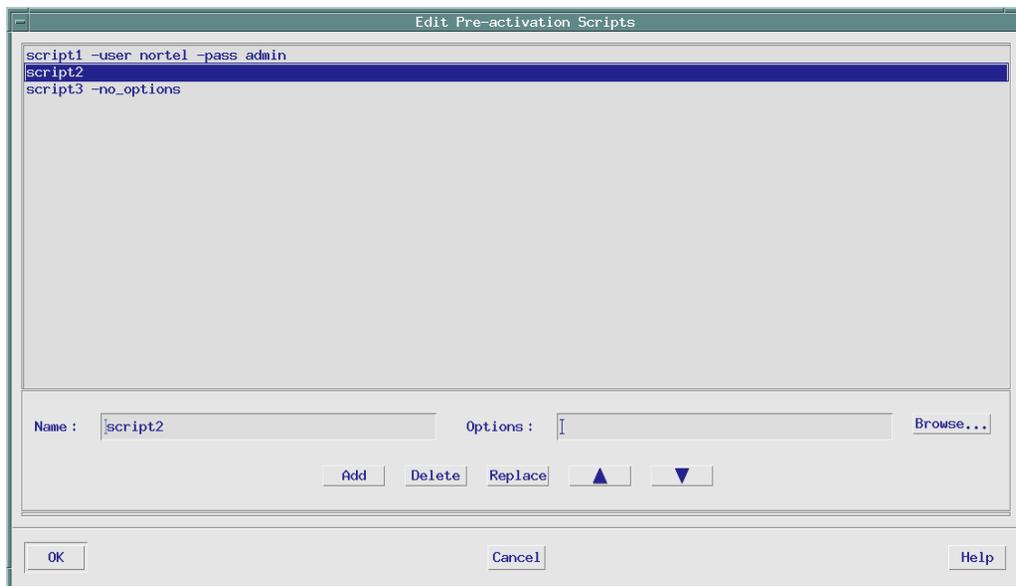
Execution dialog

The *Execution* dialog lets you specify parameters such as the working directory and the number of processes for executing NA records. See the figure "Execution dialog" (page 129).

Figure 10
Execution dialog
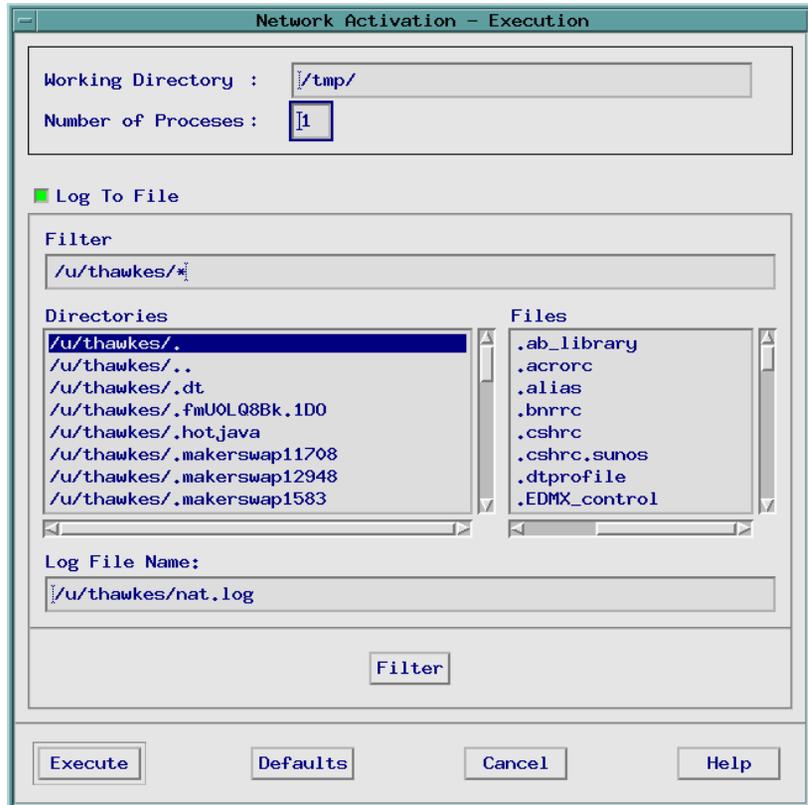
The *Execution* dialog contains the following items:

• a *Working Directory* field for specifying the directory for storing working files that are created while the tool is running.

- a *Number of Processes* field for specifying the number of non-critical records in the list on which execution can be performed simultaneously. The default is 1.

  The number to specify depends on the amount of memory available on the workstation. The higher the number, the more memory is used.

  This parameter only applies to non-critical records. For critical records, only one record is executed at a time, regardless of the number you specify for this parameter.

- a *Log to File* check button for specifying whether information about the execution is to be captured in a log file

  If this button is not selected the panels, fields, and buttons in the log file specification area are disabled (grayed out). The default is no log file.

- a *Log File* specification area that is used to specify the full path name of a log file for log messages that are produced during the execution.

  The log file specification area consists of the following items:

  — a *Filter* field for specifying the path to the directory that is the starting point for choosing the directory in which to store the log file
  The subdirectories of the directory specified in this field are displayed in the *Directories* panel when you enter a carriage return in this field or when you click the *Filter* button.

  — a *Directories* panel for displaying the available subdirectories of the directory specified in the *Filter* field

  — a *Files* panel for displaying the available files of the directory selected in the *Directories* panel

  — a *Log File Name* field for specifying the full path name of the log file to be stored
  You can specify the name of a log file in two ways: by entering its full path name in this field; or, by entering information in the *Filter* field, selecting a directory in the *Directories* panel, and selecting a file in the *Files* panel. The default is *nat.log* in the user's home directory.

— a *Filter* button for updating the *Directories* panel, the *Files* panel, and the *Log File* field according to the pathname entered in the *Filter* field

• an *Execute* button for executing the action based on the information

• a *Defaults* button that resets all items in the dialog back to their default values

• a *Cancel* button that closes the dialog without performing the execution or saving the execution parameters

• a *Help* button that displays help information about the dialog

Processing dialog

The Processing dialog opens if you click on the *Stop* button in the Network Activation Tool window while execution is underway. This dialog displays the message *Stopping all execution processes*, *please wait* to indicate that no further user action is permitted until all execution software processes are terminated, at which time the dialog closes.

Confirmation dialog

The confirmation dialog prompts you for confirmation before the software takes the next step:

• When you click *Execute* in the NAT window, the dialog displays information about the records to be processed and asks you for permission to continue.

• When you select *Delete* from the record list pop-up menu, the dialog prompts for confirmation to remove the selected record.

• When you select *Exit* without saving new records to a NAF, the dialog asks if you really want to exit without saving.

Buttons in the dialog are as follows:

• *OK* continues the execution.

• *Cancel* closes the dialog without performing the execution.

• *Help* displays information about the dialog.

See the figure "Sample confirmation dialog for confirming execution" (page 132).

Figure 11
Sample confirmation dialog for confirming execution
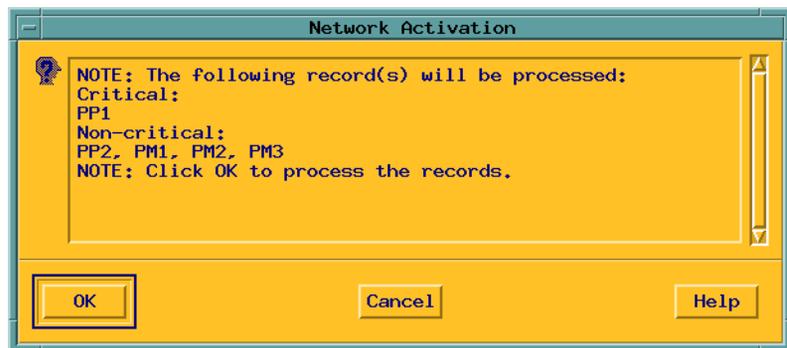
Log information dialog

The log information dialog displays status information for a record that has been executed. To display the information, double-click on an executed record in the record list; or, select the log in the record list and choose *Show Status* from the record list pop-up menu.

For an illustration of the Log information dialog, see the window "Sample log information dialog" (page 133).

Figure 12
Sample log information dialog
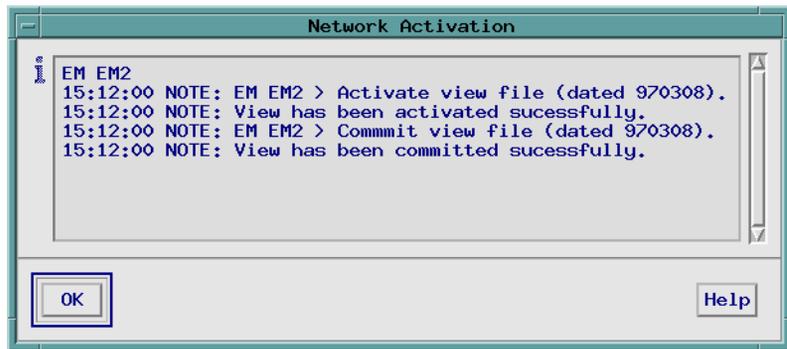
Error dialog

The Network Activation error dialog displays a message to indicate why an action cannot be performed. Once you have read the message, click *OK* to close the dialog. Then, correct the source of the error and try the action again.

Warning dialog

The Network Activation warning dialog displays a message to indicate the consequences of the action you are about to take. This dialog also prompts you for confirmation of the action.

Buttons in the dialog are as follows:

- *OK* closes the dialog continues the action.

- *Cancel* closes the dialog without performing the action.

- *Help* displays information about the dialog.

Pause dialog

The Pause dialog displays a message to indicate why the software migration has been paused. This dialog also prompts you to confirm one of the following actions:

- *Continue* continues the software migration.

- *Stop* stops the software migration.

Chapter 5
Global Data Manager

This section describes the Global Data Manager command line tool and the procedures for using it. In this section, you can find the following information:

The Passport Global Data Manager tool (pgdm)

You can use the Passport Global Data Manager tool to propagate global data components from a Passport node to other selected nodes. Pgdm also replaces the attribute values for those components during propagation. In addition, pgdm can be used to replace the attribute values for selected nodes in the network.

By allowing data to be copied and propagated, pgdm enables you to efficiently provision global data and to replace attribute values globally. Pgdm also reduces the risk of errors due to mistakes in keying in service data.

Starting the Global Data Manager tool

Pgdm is started from a UNIX window. You can also invoke the *pgdm* command line directly through a *cron* job.

See also...

• "The Global Data Manager command line" (page 141)

• "Cron job" (page 143)

Pgdm input files and operations

When you use pgdm, the first thing you should do is create the two main input files, the component file and the module name file. The module name file contains the source and target Passport nodes, and associated provisioning view to be loaded and saved. The component file specifies the data components to be propagated (such as Userid, Voice Networking Call Server [Vncs], and Voice Profiles [Vp]) and the attributes to be replaced. Based on information provided in both input files, pgdm determines the operation that needs to be performed.

See the table "Pgdm input files and operations" (page 136).

Table 1
Pgdm input files and operations

Module name file	Component file	Operation
Source and target(s)	Components only	Propagate the specified components from the source to the targets
Source and target(s)	Components and attributes	Propagate the specified components from the source to the targets. During propagation, the attribute values are replaced by the new values specified in the component file.
Target(s) only	Components and attributes	Replace the attribute values for specified components. Save the modified view on the same node. As result, the attribute values of specified component are the same for all selected targets.

Also, an optional pre-propagate input file contains the on-switch add/set/delete commands that are sent down to the target node before the propagation.

Module name file

The module name file specifies the source Passport node where the data components are retrieved and the target nodes for propagating. You can use any type of NMS-supported upload (User specified, Committed, Current, Keyed, Dated) or download (User specified, Keyed, Dated) to determine the provisioning filename. The module name file consists of at least one target record. You do not need to specify the source record; otherwise, specify only one source record at a time.

A record can span more than one line; a \ character is used as a line continuation indicator. You can also use comment lines (lines beginning with '#') in the module name file.

Source

The source Passport node record is specified using the following format:

```
-source <passport_name> -uploadmode [Current | Committed\
  | Keyed <key> | Dated <date_key> | User_specified\
  <view_filename>]
```

where:

`-source` uses <passport_name> to specify the name of the node where the global data is obtained.

`-uploadmode` specifies, by the keyword that follows, how to construct the name of the provisioning view to be loaded.

> *Note:* If the source node is not specified, pgdm uploads the provisioning view from the target, applies the changes specified in the component file, and downloads the modified view back to the same target.

Target

The target Passport node records are specified using the following format:

```
-target <passport_1>...<passport_n> -uploadmode [Current\
  | Committed | Keyed <key> | Dated <date_key> \
  | User_specified <view_filename>] -downloadmode \
  [Keyed <key>| Dated <date_key> | User_specified \
  <view_filename>]
```

where:

`-target`   uses the variables <passport_1>...<passport_n> to specify the names of nodes to which the global data are populated.

`-uploadmode`   specifies, by the keyword that follows, how to construct the name of the provisioning view to be loaded.

`-downloadmode`   specifies, by the keyword that follows, how to construct the name of the new provisioning view to be saved.

Example

The following is an example of a module name file that can be used to propagate the global components from a source node to other selected nodes.

```
# Upload the Committed view from noder10.
-source noder10 -uploadmode Committed
# Propagate the specified components to noder16,
# noder17, noder18, node19, node20, and node21 using
# the "myviewfile".
# The modified view is then saved using the NMS key.
-target noder16 noder17 noder18 node19 node20 node21 \
-uploadmode user_specified myviewfile -downloadmode
 Key NMS
# Also, propagate the specified components to noder10,
# noder11 using the NMS key.
-target noder10 noder11 -uploadmode Key NMS
-downloadmode Key NMS
```

Component file

The component file specifies the components and their new attribute values. In general, a component and the attributes to be replaced can be specified using the following format:

```
<comp_1>{/<key>}... <comp_n>{/<key>} @<attr_1>
  <value>,...,<attr_n> <value>
```

where:

<comp_n>   is the name of the component, for example, Vncs or Vp.

`<key>`   is the component instance value. A wildcard (*) can be use to specify all   instances.

`<attr_n>`   is the name of the attribute to be replaced.

`<value>`   is the new attribute value of a specified attribute.

The component file rules are as follows:

- If pgdm is used to replace attribute values globally (that is, no source is specified in the module name file), you need to specify the attribute name and its new value.

- If pgdm is used to propagate a global data component, you can omit the attribute part.

- If the ancestors of Comp_n do not exist on the target node, an error message is generated during loading of the partial file by the target node.

- You need to enter the component and associated attribute values on one line.

Example
The figure "Vncs hierarchy" (page 140) shows the hierarchy of the VoiceNetworkingCallServer (Vncs) and VoiceProfile (Vp) components.

Figure 13
Vncs hierarchy
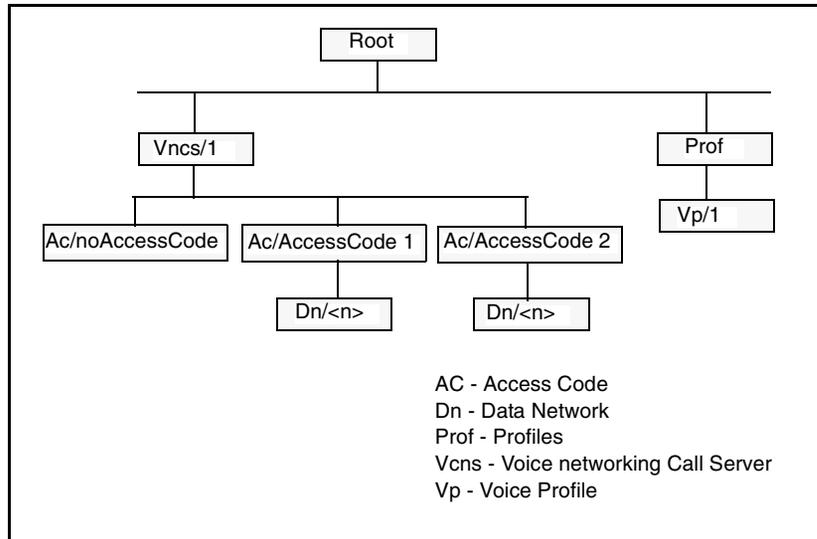
To propagate all Vncs components, type the following line in the component input file:

```
Vncs/*
```

To propagate Vp/1, type the following line in the component input file:

```
Prof Vp/1
```

To propagate all Vp components, you can specify the following line in the component input file:

```
Prof Vp/*
```

Example
The component file contains the following three lines:

```
FrNni/* Dna @outDefaultPathReliability
high,numberingPlanIndicator x121

FrNni/10 Dna @numberingPlanIndicator e164

Trk/* UnAcked @maximumErroredInterval 0
```

In this example the outDefaultPathReliability attribute value is set to high and the numberingPlanIndicator is set to x121 for all FrNni components. The exception is FrNni/10 where the numberingPlanIndicator is set to e164. Also, the maximumErroredInterval attribute of all Unacked Trk is set to 0.

Example

The component file contains the following line:

```
Ac Userid/newUser
```

In this example, the newUser data is retrieved from a source node. This data is then added to all target node provisioning views specified in the module name file.

Pre-propagate command file (optional)

The global data propagation can require some changes to the components before loading the new partial file on the Passport node. The changes can be adding components, deleting components, or setting components to a particular value. The on-switch provisioning add/set/delete commands can be specified in an input file. In the input file, one command is entered on one line. The pgdm tool then sends all the commands to the target node before loading the new partial file.

Example
```
delete Vncs/1
```

The Global Data Manager command line

Pgdm is invoked from a UNIX window. (See "Accessing UNIX" (page 28) for more information.) Pgdm uses the NMS provisioning view naming convention (that is, UserSpecified, Key, Dated, Current, Committed, and so on). This convention is used to determine the provisioning view to be uploaded and saved.

The format of the *pgdm* command and the description of its parameters and options are as follows:

```
pgdm -auth <group_name> <user_id> <password> \
  [-modf <module_fn>] \
  [-compf <component_fn>] \
  [-pcmdf <pre-propagate_fn>] \
  [-logfile [log_fn] \
```

```
[-wd <working_dir>] \
[-quiet] \
[-np <number of processes>]
```

where:

`-auth`   is the authentication flag. The following parameters are used to log in to the source and target nodes:

<passport_group_name> Mnemonic of the group to log on to.
<userId> Node user ID to logon with.
<password> Password for the user ID.

`-modf`   is the module name file flag. The following variable is the name of the module name file:

< module_filename> The name of the file that specifies the nodes and associated view filename for uploading and downloading. The filename is case sensitive.

`-compf`   is the component file flag. The following variable is the name of the component file:

<component_filename> The name of the file that specifies the components to be propagated. The filename is case-sensitive.

`-pcmdf`   is the pre-propagate command file flag. The following variable is the name of the pre-propagate command filename:

<pre_propagate_filename> The name of the file that contains the on-switch commands to be applied to the target node before loading the new partial file.

`-logfile`   indicates that a log file other than the default is to be used. The following parameter is optional:

<log_fn> The name of the log file to use if other than the default.

> *Note:* A log file is always generated. The default is '$HOME/
> pgdm<pid>.<yymmdd>_<hhmmss>.log', where:
> <pid> is the process ID.
> <yymmdd> is the date.
> <hhmmss> is the time.

-wd is a flag that shows that a specified directory is used to store the default log file and other intermediate files.

<working_dir> The working directory name.

-quiet indicates no log file messages are generated. Error messages are output to *stderr*.

-np is a flag used to indicate the number of target nodes to be processed in parallel. By default, the target nodes are processed sequentially. The following parameter is used for processing nodes in parallel:

<number of processes> Number of target nodes to be processed in parallel.

Cron job

Since pgdm starts up all the session servers (cmcfun and CM), you can invoke the *pgdm* command line directly by using the UNIX cron facility.

See 241-6001-304 *Preside MDM Configuration Management for DPN Administration*, for more information on running a *cron* job.

Global Data Manager procedures

See the following sections for information on procedures you can perform using pgdm:

Propagating components

Pgdm is used to propagate global data components or to replace the attribute values for those components during propagation. The procedure involves the following steps, which are illustrated by specific examples.

1   Create a module name file (see "Module name file" (page 137)). This file contains one source node record and a number of target records, and has the following format.

```
-source <passport_name> -uploadmode [Current |
  Committed\ | Keyed <key> | Dated <date_key> |
  User_specified <view_filename>]

-target <passport_1>...<passport_n>
  -uploadmode [Current | Committed | Keyed <key> |
  Dated <date_key> | User_specified <view_filename>]
  -downloadmode [Keyed <key> | Dated <date_key> |
  User_specified <view_filename>]
```

2   Create a component file (see "Component file" (page 138)). This file contains the components that you wish to propagate. You can specify the component's attribute values if they need to be changed. The file has the following format:

```
<comp_1>{/<key>}... <comp_n>{/<key>} @<attr_1>
  <value>,...,<attr_n> <value>
```

3   Invoke *pgdm* (see "The Global Data Manager command line" (page 141)) by using the following format:

```
pgdm -auth <group_name> <user_id> <password> \
  [-modf <module_fn>] \
  [-compf <component_fn>] \
  [-pcmdf <pre-propagate_fn>] \
  [-logfile [log_fn] \
  [-wd <working_dir>] \
  [-quiet] \
  [-np <number of processes>]
```

Example 1: Adding a new user for nodes in the network
Add a new user as follows:

1   Add a new user, GUEST, into a Passport node View using the Downloadprovisioning tool. This node is referred to as the source where the new user data is obtained.

2   Create a module file. In this file, specify the source (NODE1) and the targets. Use the uploadmode *DATED* for both uploading and downloading.

```
-source NODE1 -uploadmode DATED 960520
```

```
-target NODE2 NODE3 -uploadmode DATED 960520 -
   downloadmode DATED 960521
```

3   Create a component file that contains the following line:

```
Ac Userid/GUEST
```

Where GUEST is the <newUser> created in step 1.

4   Type the following command to capture the output messages into the logfile *mylog*:

```
pgdm -auth PPgroup myId myPasswd -modf modules -compf
   comps -logfile mylog
```

5   The log output is as follows:

```
08:53:48 NOTE:  The Passport GDM is starting for myId (Date: 1996-06-03).
08:53:48 NOTE:  Command line: pgdm -auth PP_GROUP myId XXXX -modf modules
-compf comps -logfile mylog
08:54:02 NOTE:  The PGDM Uploading is starting. Date: 1996-06-03.
08:54:21 NOTE:  Upload provisioning file 96052001.full.100 on EM NODE1.
08:54:25 NOTE:  The following component(s) will be propagated:
                Ac Userid/GUEST
08:54:25 NOTE:  The PGDM Uploading has completed successfully.

******** NODER2 - Processing/Error messages ********
08:54:28 NOTE:  The PGDM Propagation is starting for NODER2. Date: 1996-
06-03.
08:54:30 NOTE:  Preparing for provisioning.
08:54:52 NOTE:  Loading file 96052001.full.470 in the edit view on EM
NODE2.
08:55:06 NOTE:  Checking the configuration.
08:56:10 NOTE:  Saving the configuration.
08:56:33 NOTE:  Changes saved in file 96052100.full.473 on EM NODE2.
08:56:42 NOTE:  The PGDM Propagation has completed successfully.

******** NODE3 - Processing/Error messages ********
08:56:44 NOTE:  The PGDM Propagation is starting for NODE3. Date: 1996-
06-03.
08:56:46 ERROR: EM NODE3 is not accessible under group PP_GROUP
```

```
08:56:46 NOTE:  The PGDM Propagation has completed but errors were found.

******** LOG SUMMARY ********
   NODE2                         - Completed successfully.
   NODE3                         - Error found.
   08:57:45 NOTE:  Passport GDM has completed but errors
   were found.
========================================================================
```

Example 2: Propagating components

Propagate all Vncs components (see "Vncs hierarchy" (page 140) for the Vncs hierarchy) specified in the Committed view from Passport NODER10 to NODER20 and NODER21. Use the Keyed NMS provisioning view. The *pgdm* command is as follows:

```
pgdm -auth <Group name> <UserId> <password> \
   -modf modules -compf vncs -logfile vncs_log
```

where:

`modules` is the name of the module name file. The file contains the following lines:

```
-source NODER10 -uploadmode COM
-target NODER20 NODER21 -uploadmode K NMS \
-downloadmode K NMS
```

`vncs` is the name of the component file. The file contains the following line:

```
Vncs/*
```

Processing and error messages are captured in the *vncs_log* log file.

Removing components during propagation

The components on a target Passport node can be deleted during global data propagation. The on-switch provisioning delete commands are specified in the pre-propagate command file.

1   Follow steps 1 to 3 of "Propagating components" (page 144).

2   Create a pre-propagate command file (see "Pre-propagate command file (optional)" (page 141)).

3   Invoke pgdm with the *-pcmdf* option (see "The Global Data Manager command line" (page 141)).

For example, NODER20 and NODE21 both have Vncs/11 and Vncs/12, but the source (NODE10) does not have these components. You can remove the Vncs/11 and Vncs/12 from the target's provisioning view by using the command file and the *-pcmdf* option. This command file contains the following lines:

```
del Vncs/11

del Vncs/12
```

Globally replacing attribute values

You can use pgdm to replace the attribute values for selected Passport nodes in the network.

1   Create a module name file. This file contains only target node records (see "Module name file" (page 137)).

2   Create a component file. This file contains the components and attribute values that you need to replace (see "Component file" (page 138)).

3   Invoke pgdm (see "The Global Data Manager command line" (page 141)).

Chapter 6
Using HP OpenView NNM desktop

This section describes how to access Configuration tools from the HP OpenView NNM desktop application. In this section, you can find the following information:

- "About HP OpenView NNM desktop" (page 149)

- "Configuration tools available from HP OpenView NNM desktop" (page 150)

- "Accessing HP OpenView NNM desktop from MDM" (page 150)

- "Accessing Configuration tools from HP OpenView NNM desktop" (page 150)

- "How HP OpenView NNM desktop displays Passport device names" (page 153)

- "Exiting HP OpenView NNM desktop" (page 153)

About HP OpenView NNM desktop

HP OpenView NNM desktop is an optional feature of Preside Multiservice Data Manager that runs on an HP OpenView platform. With this feature you can launch, from the HP OpenView NNM desktop, tools from the Configuration for Passport Devices toolset. Or, you can use the surveillance and configuration tools in the HP OpenView NNM desktop toolset.

Configuration tools available from HP OpenView NNM desktop

See the following sections for information on the configuration tools that you can launch from HP OpenView NNM desktop:

• Nodal Provisioning. See 241-6001-610 *Preside MDM Nodal Provisioning User Guide*.

• Software Distribution and Configuration. See "Software Download and Configuration" (page 35).

• Service Integrity Simplification. See 241-6001-022 *Preside MDM Network Reporting System User Guide*.

• "Network Activation" (page 81).

• Passport/SNMP Devices Backup And Restore. See 241-6001-807 *Preside MDM Network Backup and Restore*.

Accessing HP OpenView NNM desktop from MDM

Access HP OpenView NNM desktop from the Preside Multiservice Data Manager (MDM) Fault menu.

Accessing Configuration tools from HP OpenView NNM desktop

See the following procedures for information on how to start HP OpenView NNM desktop and access the Configuration tools:

• "Starting HP OpenView NNM desktop" (page 150)

• "Starting tools from the Configuration menu" (page 152)

• "Starting tools from the pop-up menu" (page 152)

Starting HP OpenView NNM desktop

1   In a UNIX window start HP OpenView:

/opt/OV/bin/ovw &

The About HP OpenView window opens. Click Close to close the window or wait for it to close on its own.

The Root map opens, displaying the Nortel Networks symbol and the IP Internet symbol. These symbols indicate the state of their respective

networks through color. The standard HP OpenView color scheme is used, as shown in the HP OpenView Display Legend.

The Event Categories window opens. It may display a status message at the bottom, stating the percentage of the trapd.log file that has been loaded.

2   To view your network on the Root map, double-click the Nortel Networks symbol.

The Nortel Networks submap opens and displays the devices in your network. The color of the icon indicates the states of the network devices. For Passport nodes, the icons let you distinguish between network elements belonging to the 6000, 7400 and 15000 series.

- Icons depicting Passport legacy and 6000 nodes contains P6 or 6.

- Icons depicting Passport 7400 nodes contains P7 or 7.

- Icons depicting Passport 15000 nodes contains P15 or 15.

- Icons depicting unknown nodes contain P? or ?. Although the devices are in the database, it has not yet been configured to identify these devices. To change these icons to identify the device type, use the Make Configuration Data File (MCDF) utility. See 241-6001-015 *Preside MDM Network Model Administrator Guide* for additional information on the MCDF utility.

DPN devices are identified by a D or O.

3 Access the Configuration for Passport tools. There are two methods: see "Starting tools from the Configuration menu" (page 152) or "Starting tools from the pop-up menu" (page 152).

Starting tools from the Configuration menu

1 At the OVW submap, select a Passport node by clicking the left mouse button.

2 Select Passport from the Configuration menu.

3 Select the tool that you want to open.

Starting tools from the pop-up menu

1 At the OVW submap, select a Passport node by clicking the left mouse button.

2   Press the mouse menu button to display the node pop-up menu, and select Passport Configuration.

3   Select the tool that you want to open.

How HP OpenView NNM desktop displays Passport device names

Passport node names are displayed on the Nortel Networks submap as EM/<device_name>. For example, EM/EMDEV1

Note: The device name that appears on the *Nortel Networks submap* is the name with which the device is configured. Lowercase letters in a configured name appear as uppercase letters in the submap display.

Exiting HP OpenView NNM desktop

1   From the Root map or any submap, select Map -> Exit.

An OpenView Windows warning dialog opens.

2   To continue the exit process, click OK.

The dialog closes along with the Event Categories window and any open submaps.

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