Preside Multiservice Data Manager

Nodal Provisioning

User Guide

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Preside Multiservice Data Manager
Nodal Provisioning
User Guide

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About this document

This document describes how to use the Preside Multiservice Data Manager Nodal Provisioning and Embedded Nodal Provisioning applications.

Nodal Provisioning provides a graphical user interface for provisioning Passport components and selected services. Nodal Provisioning is intended for making large provisioning changes.

Embedded Nodal provisioning is launched from Passport Shelf View and lets you access a subset of the Nodal Provisioning functionality to make simple or limited provisioning changes to a node. This access is useful in troubleshooting situations where you want to change a few components or attributes.

In this document, references to Passport refer to Passport 7400, Passport 15000, and Passport 20000 devices.

The following topics are discussed in this section:

- "Who should read this document and why" (page 20)

- "What you need to know" (page 20)

- "How this document is organized" (page 20)

- "What's new in this document" (page 20)

- "Text conventions" (page 22)

- "Related documents" (page 24)

Who should read this document and why

You should read this document if you are responsible for managing and provisioning Passport devices with the Preside Multiservice Data Manager Nodal Provisioning application.

What you need to know

This document assumes that you have knowledge of the Preside Multiservice Data Manager and an understanding of the device being provisioned.

How this document is organized

This document contains the following sections:

What's new in this document

This document has been updated to include the following features:

• "NP Template for MPE" (page 22)

Nodal Provisioning Enhancements

This feature includes the following provisioning enhancements:

• the ability to preload an Edit view, see "Opening a view or configuration" (page 52) and "Setting User Preferences" (page 207).

• a more efficient method for preloading a view file. Where a backup server has been configured, Nodal Provisioning loads a view from the backup site rather than from the node. This method avoids a large amount of network traffic, particularly when there are a large number of journal files and reduces the impact on the device.

• a more efficient copy and paste method when these actions occur within a device. Nodal Provisioning now uses the Passport on-switch copy function. This method avoids cross interference of copied components and sets appropriate attribute values.

• a warning message when you attempt to save a view with a dated key older than the existing file, see "Opening a view or configuration" (page 52), "Saving the view for Passport devices" (page 220), and "Setting User Preferences" (page 207).

• the ability in Embedded Nodal Provisioning to edit subcomponents of an added component, see "Adding a subcomponent using the Shelf View tools" (page 416), "Adding a subcomponent using Embedded Nodal Provisioning" (page 419) and "Embedded Nodal Provisioning dialog boxes" (page 409).

Nodal Provisioning Template from Existing Component

This feature includes the following enhancements:

• In the Nodal Provisioning interface, the ability to generate a template based on an existing provisioned component. All the values of the attributes of the component and its subcomponents are preserved in the new template.

• In the Nodal Provisioning interface, the ability to edit and save an existing template from the main window.

• The ability to use Service Selection to run the Nodal Provisioning Template Editor from any workstation.

- In the Nodal Provisioning Template Editor, the ability to add the first component without specifying a dropsite. If a non-root level component is placed, its parent designation will always be prompted. In addition, a component designation can be changed at any time. If this results in an error, the Nodal Provisioning Template Editor will prompt the user through the correction process.

Operator Client

Operator Client is a Java-based application that provides a common desktop environment to run a subset of Preside Multiservice Data Manager applications on both Windows and Solaris platforms. Operator client supports the Nodal Provisioning, Embedded Nodal Provisioning, and Nodal Provisioning Template Editor tools. Concepts and procedures were modified throughout the document, as required.

MPE Configuration Management

The Multiservice Provider Edge (MPE) Configuration Management feature adds MPE support to MDM configuration, network reporting, and backup and restore tools. This feature includes modifications to Nodal Provisioning and Embedded Nodal Provisioning to support the creation and modification of MPE configuration tasks. Concepts and procedures were modified throughout the document, as required.

NP Template for MPE

This feature extends the Nodal Provisioning template functionality to support Nortel Networks Multiservice Provider Edge 9500. Procedures were modified in "Nodal Provisioning Template Editor" (page 227), as required.

Text conventions

This document uses the following text conventions:

- **`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 /).

Related documents

See the following documents for related information:

- 241-6001-100 *Preside MDM Installation*

- 241-6001-303 *Preside MDM Administrator Guide*

- 241-6001-310 *Preside MDM Server Reference Guide*

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

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

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

- 241-6001-616 *Preside MDM IP VPN Service Configuration User Guide*

- 241-6001-801 *Preside MDM Overview*

- NN10600-060 *Nortel Networks Multiservice Switch 7400/15000/20000 Component Reference*

Chapter 1
Nodal provisioning overview

Nodal Provisioning is part of the Preside Multiservice Data Manager (MDM) set of configuration management tools. Use this tool to provision components and selected services and to create service templates. You can create new configurations or modify existing configurations.

Nodal Provisioning supports Passport and Nortel Networks Multiservice Provider Edge (MPE) network elements. The Nodal Provisioning tool is available through both the MDM Toolset and Operator Client environments. For details about these MDM environments, see 241-6001-801 *Preside MDM Overview*.

Navigation

Tool fundamentals

The Nodal Provisioning tool lets you view and provision a node's components and services as well as create service templates. You can provision one device for each Nodal Provisioning session. To provision more than one device, you need to start another instance of Nodal Provisioning. With the Nodal Provisioning tool, you can create new configurations or modify existing configurations.

Nodal Provisioning provides details about a node's component hierarchy using the component tree view. For Passport devices, you also have the option of viewing the node's physical and logical representation using the shelf view. You can make provisioning changes from either view. Nodal Provisioning also provides a palette of service templates for provisioning a service on a selected device. The templates streamline the creation of a service by dealing with only the critical subset of component data.

To aid with provisioning changes, you can use cut, copy, and paste operations on components and subcomponents within and between supported devices. You can also set your own preferences for a selection of Nodal Provisioning settings. These user preference are specific to your user ID and remain in effect until you reset them.

The Nodal Provisioning Report Generator lets you create, compare, and save custom reports on component data. The Log Viewer lets you log and view real-time error and states.

Provisioning changes do not affect the operation of the device until you activate the configuration.

Capabilities

The Nodal Provisioning provides the following capabilities:

- "Component provisioning" (page 26)
- "Service provisioning" (page 27)
- "Service template creation" (page 27)
- "Component template generation" (page 28)

Component provisioning

You can create and edit components using Nodal Provisioning. Component creation forms let you add a single component or multiple instances of a component to the component hierarchy. Component edit forms let you edit a single component instance. For a description of the these forms, see "Component forms" (page 109).

Service provisioning

You can create and edit services using Nodal Provisioning's palette of service templates for the following services:

- ATM access

- VPN FR DTE access

- Frame Relay access

- Succession services (UA-ALL1 and PT-AL)

- MPLS Infrastructure and Services

To add a service, you use drag and drop operations to apply a template to a valid dropsite in the component hierarchy. When you do so, a service creation form opens with the provisionable attributes for the components in the service. Only those attributes that you need to provision are visible. All other component attributes are handled by the provisioning software. You also use the service creation form to add multiple instances of a service. For a description of the service creation form, see "Service template form for Passport devices" (page 112). For information on how to provision specific services, and a description of the service templates for each service, see 241-6001-611 *Preside MDM Nodal and Service Provisioning Reference Guide*

To edit a provisioned service (such as ATMIf) you use the service edit form. This form contains all the components in the service, and displays the attributes that you can provision. You can edit only those services that correspond to a single sub-tree in the component hierarchy (for example, FRUNI and ATMIF). For a description of the service form, see the section "Service edit form for Passport devices" (page 115).

Service template creation

To create and modify your own service templates, use the Nodal Provisioning Template Editor. These templates, as well as the templates created by Nortel Networks, appear in the service template palette of the Nodal Provisioning window. For information on the template editor, see "Nodal Provisioning Template Editor" (page 227).

Component template generation

You can generate a template from an existing provisioned component on a node. The template can be used to quickly configure other similar components on the same or other nodes. For information on the template editor, see "Template Generator" (page 321).

Service selection

You can set a service selection from both the Toolset and Operator Client environments. System-wide settings are determined by the network administrator, but you can set a user service selection for the duration of your session. For details about service selection, see the section about using the Service Selection tool in 241-6001-303 *Preside MDM Administrator Guide*.

If a service selection change occurs during a Nodal Provisioning, Embedded Nodal Provisioning, or Nodal Provisioning Template Editor session, these tools retain their communication with the original CONFIGMAN server for the duration of the session. The next time you start any of these tools, the new service selection host is used.

Nodal Provisioning architecture

For an illustration of the generic Nodal Provisioning architecture, see the figure "Nodal Provisioning architecture" (page 29). For details about device-specific architecture, see the following sections:

- "Passport Nodal Provisioning architecture" (page 30)

- "MPE Nodal Provisioning architecture" (page 33)

Figure 1
Nodal Provisioning architecture
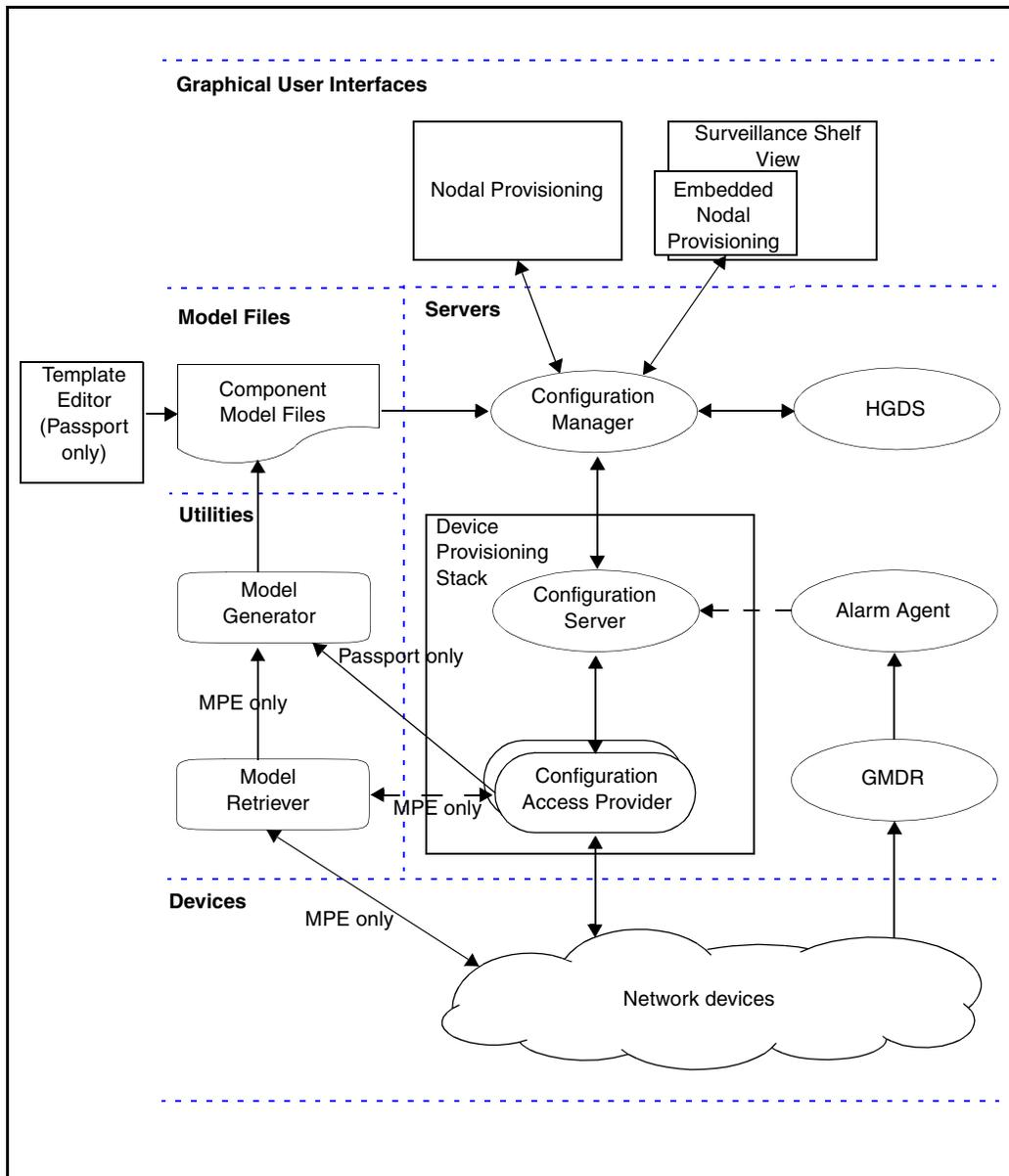
Passport Nodal Provisioning architecture

For an overview of the Nodal Provisioning architecture, see the following sections:

- "Nodal Provisioning graphical user interface" (page 30)

- "Configuration manager" (page 30)

- "Passport configuration server" (page 31)

- "Passport configuration access provider" (page 31)

- "Passport component model generator" (page 31)

- "Passport model files" (page 32)

- "Nodal Provisioning Template Editor" (page 32)

- "Nodal Provisioning Template Generator" (page 33)

Nodal Provisioning graphical user interface

For a description of the Nodal Provisioning user interface, see the following sections:

- "Component tree view" (page 63)

- "Shelf view for Passport nodes" (page 85)

- "Nodal Provisioning forms" (page 107)

- "Nodal Provisioning Template Editor" (page 227)

- "Template Generator" (page 321)

Configuration manager

The configuration manager server for Nodal Provisioning supported devices nodes is the Nodal Provisioning Configuration Manager (CONFIGMAN) server. It provides configuration services and associated templates for the user interface. It also communicates with the Host Group Directory Server (HGDS) to get the host/node groups and members for managed devices.

The CONFIGMAN server is selected using the Service Selection tool. For details about selecting a configuration manager server host, see the Service Selection tool section in 241-6001-303 *Preside MDM Administrator Guide*.

For details about the CONFIGMAN server, see the Nodal Provisioning Configuration Manager (CONFIGMAN) section in 241-6001-310 *Preside MDM Server Reference Guide*.

Passport configuration server

The configuration server for Passport nodes is the Passport Nodal Provisioning Configuration Server (PCSERVER). This server connects to devices and translates configuration requests from the configuration manager server to device specific messages and vice versa. The PCSERVER also creates and manages the Passport configuration providers. This server also receives view activation alarms from Passport nodes.

For additional information on the configuration server, see the Passport Nodal Provisioning Configuration Server (PCSERVER) section in 241-6001-310 *Preside MDM Server Reference Guide*.

Passport configuration access provider

The configuration access provider for Passport nodes is Passport Configuration Providers. Multiservice Provider Edge. The provider is created and managed by the Passport Nodal Provisioning Configuration Server (PCSERVER). Each configuration provider accesses a single node. It communicates with the node and provides all the functions related to configuration including loading, modifying, or saving the view. It also generates the model data files that are used by the Configuration Manager, the user interface, and other Preside Multiservice Data Manager configuration management applications.

Passport component model generator

The Passport component model generator receives and converts device-specific component descriptions to component models that are used by the configuration manager and user interface. The standard format is based on eXtensible Markup Language (XML).

The attribute information for each type of component that can be configured on the device is used by the user interface to create a component form for that component, or to display a subset of the attributes for the component in a service template form.

Passport model files

Passport model files are an XML representation of the attributes that make up a component or service. There are four types of models:

- Component model contains data description and the attribute information for each type of component that can be configured on the device. These files are used to create the component forms or to display a subset of a component's attributes in a service template form.

- Hierarchy model contains the hierarchical relationship between components in a device.

- Service model describes a service that can be configured generically for a device. It contains information about components that make up the service.

- Service template model defines the specific attribute values that are used in creating an instance of a service. The service template model also defines the acceptable drop points for the service and whether the dropsite is the parent of the service, or a component to which the service is linked.

The component and hierarchy models are generated by the Passport model generator. The service and service template models are generated manually.

Nodal Provisioning Template Editor

The Nodal Provisioning Template Editor is designed for advanced users who want to create new templates or modify existing templates. The template editor uses templates that are based on existing model files. If a service has a service model, you can create and modify the templates for that service.

The template editor is data driven and uses the XML formatted service template (.st) files as input. Service template files are installed with the Preside Multiservice Data Manager (MDM).

You can install and run the Nodal Provisioning Template Editor on any MDM workstation, or you can install in on the server workstation and run it on a client workstation.

Nodal Provisioning Template Generator

The Nodal Provisioning Template Generator is a feature of the Nodal Provisioning tool. It provides a graphical user interface for generating templates based on the existing provisioned components on a node. All values of the attributes of the existing component and its subcomponents are preserved in the new template. The template can then be used to quickly configure other like components on the same node or other nodes.

The Nodal Provisioning Template Generator is designed for expert users who want to copy the configuration of an existing component and use it in a template for later use.

MPE Nodal Provisioning architecture

For an overview of the Nodal Provisioning architecture, see the following sections:

- "Nodal Provisioning graphical user interface" (page 30)

- "Configuration manager" (page 30)

- "MPE configuration server" (page 33)

- "MPE configuration access provider" (page 34)

- "MPE component model retriever" (page 34)

- "MPE component model generator" (page 34)

- "MPE model files" (page 34)

MPE configuration server

The configuration server for Nortel Networks Multiservice Provider Edge (MPE) network elements is the MPE Nodal Provisioning Configuration Server (NCSERVER). The NCSERVER creates and manages the MPE configuration access providers. This server also receives commit alarms from MPE network elements.

For additional information on the configuration server, see the MPE Nodal Provisioning Configuration Server (NCSERVER) section in 241-6001-310 *Preside MDM Server Reference Guide*.

MPE configuration access provider

The configuration access provider for Nortel Networks Multiservice Provider Edge (MPE) network elements is handled by the MPE Configuration Access Provider (NCAP). The provider is created and managed by the MPE Nodal Provisioning Configuration Server (NCSERVER).NCAP is a client/server process that communications with a specific MPE and provides all the functions related to configuration including loading, modifying, or saving the configuration.

MPE component model retriever

The MPE component model retriever obtains the specified model version from MPE network elements. The retriever then starts the model generation process.

MPE component model generator

The MPE model generator creates the model files required by servers, graphical user interfaces, and a selection of other MDM tools.

MPE model files

Nortel Networks Multiservice Provider Edge (MPE) model files are retrieved and created by the mpegetmod and mpegenmod utilities. These utilities run automatically to create and deliver model files to the Nodal Provisioning Configuration Manager (CONFIGMAN) server.

Date Convention

To account for the year 2000 and beyond, when years are shown as two-digit numbers, for example in the format *yymmdd*, the following conventions apply:

- Years 80 to 99 represent the twentieth century. For example, 800101 represents January 1, 1980.

- Years 00 to 79 represent the twenty-first century. For example 010101 represents January 1, 2001.

Help options

Help is available in most Preside Multiservice Data Manager tools from either a Help button or a Help menu item. General descriptive help is available for the main windows and many of the dialogs. General descriptive help provides information about the window or dialog box. It describes the user interface, menus and tool-bars.

Nodal Provisioning also provides the following types of help:

•   attribute level help is accessed from a pop-up menu. The attribute help is displayed in a separate dialog and is based on the selected field. See the section "Displaying help on attributes" (page 146).

   Note: Not all attributes have attribute help.

•   tool tip help provides valid data ranges for some fields. Where the range is large, or not easily quantified, you are provided a text field in which to enter the information. When you save, the data that you entered is validated against the range specified in the model. See the section "Displaying tool tips for attribute ranges" (page 148).

Nodal Provisioning and Nodal Provisioning Template Editor provide various types of help. For information on using the help options, see "Displaying online help" (page 144).

Chapter 2
Starting Nodal Provisioning

This section provides procedures for starting Nodal Provisioning. For more information, see:

- "Task list" (page 37)

- "Procedures" (page 38)

Task list

The task to start the Preside Multiservice Data Manager (MDM) Nodal Provisioning tool consists of the following procedures:

- "Choosing a starting point" (page 39)

- "Selecting a device" (page 48)

- "Authenticating to a device" (page 50)

- "Opening a view or configuration" (page 52)

- "Selecting a CDL version" (page 61), if required

Procedures

Choosing a starting point

There are various ways you can start Nodal Provisioning. You can start Nodal Provisioning from the MDM Toolset, Operator Client, and UNIX environments. You can also start Nodal Provisioning from the MDM service provisioning tools and a selection of fault management tools.

To start Nodal Provisioning from...	Use the procedure...
MDM Toolset	"Starting Nodal Provisioning from the MDM Toolset" (page 40)
Operator Client	"Starting Nodal Provisioning from the Operator Client" (page 41)
UNIX command line	"Starting Nodal Provisioning from a UNIX command line" (page 42)
MDM service provisioning tools	"Starting Nodal Provisioning from the service provisioning tools in MDM Toolset" (page 45)
MDM fault management tools	"Starting Nodal Provisioning from the fault management tools" (page 46)

Starting Nodal Provisioning from the MDM Toolset

You can start Nodal Provisioning from the Preside Multiservice Data Manager (MDM) Toolset window. Nodal Provisioning opens without component context, so you need to identify the node you want to provision.

If you require a Configuration Management server other than the default, see "Service selection" (page 28).

Procedure steps

1   Select one of the following actions, depending on the device you want to provision.

For...	On the MDM Toolset window...
Passport	Click **Configuration**, **Passport,** and then **Nodal Provisioning**.
MPE	Click **Configuration**, **MPE,** and then **Nodal Provisioning**.

The **Nodal Provisioning - Device Selection** dialog box opens.

2   Go to "Selecting a device" (page 48).

Starting Nodal Provisioning from the Operator Client

You can start Nodal Provisioning from the MDM Operator Client environment. Nodal Provisioning opens without component context, so you need to identify the node you want to provision.

If you require a Configuration Management server other than the default, see "Service selection" (page 28).

Procedure steps

1   Select one of the following actions, depending on the device you want to provision.

For...	On the Operator Client Configuration menu...
Passport	Click **Passport Nodal Provisioning**.
MPE	Click **MPE Nodal Provisioning**.

The **Nodal Provisioning - Device Selection** dialog box opens.

2   Go to "Selecting a device" (page 48).

Starting Nodal Provisioning from a UNIX command line

You can start the nodal provisioning script without variables or with any combination of variables that are appropriate to the node type.

If you do not specify any variables and you have predefined user preferences, Nodal Provisioning uses those preferences to open a provisioning session. Otherwise, Nodal Provisioning uses the default preferences

If you do specify variables, their values override any predefined user preferences. For details about user preferences and how to set them, see "Setting User Preferences" (page 207). If you specify all the required variables when starting the nodal provisioning script and those values are correct, the Nodal Provisioning window opens. If you specify some variables, dialog boxes may open and prompt for required information. If the specified variables include the component name, Nodal Provisioning opens with component context. In this case, the Nodal Provisioning window opens with the relevant component information.

Procedure steps

1   Use one of the following UNIX command lines from either the client workstation or the workstation where the Preside Multiservice Data Manager server is located.

For...	Use the command....
Passport	/opt/MagellanNMS/bin/anpui [-emcomp <node name> [component full name>]] [-auth <group> <user ID> <password>] [-loadview <view mode> <view name>] [-access <ro | rw>] [-action <select | edit> [-help]
MPE	/opt/MagellanNMS/bin/anpui -devicetype SRS [-emcomp <node name> [component full name>]] [-auth <group> <user ID> <password>] [-opencurrent | -rollback <relative rollback number> | -loadview [key | date | user <name>]] [-access <ro | rw>] [-action <select | edit> [-help]

For details about the command line variables, see the table "Variable definitions" (page 43).

Variable definitions

Variable	Value	Applies to	
		Passport	**MPE**
-access <ro | rw>	specifies a configuration access mode of read-only (ro) or read-write (rw).	x	x
-action <edit | select>	specifies how Nodal Provisioning opens. The edit option opens Nodal Provisioning with a component form displayed. The select option opens Nodal Provisioning with the specified component selected in the component tree view.	x	x
(Sheet 1 of 2)			

Variable	Value	Applies to	
		Passport	**MPE**
-auth <group> <userid> <password>	specifies the appropriate HGDS group, user ID, and password for authenticating to a specified node.	x	x
-devicetype SRS	specifies an MPE node. You need to specify -devicetype SRS for MPE, otherwise a device type of Passport is assumed.		x
-emcomp <node name> [<component name>]	specifies the node name or the node name and the full component identifier of the device to which you want to connect, for example: -emcomp EM/LONDON -emcomp EM/LONDON AtmIf/11 -emcomp SRS/ WEST -emcomp SRS/WEST interfaces at-0/1:2	x	x
-loadview <view mode> <view name>	specifies the service data view mode. Possible values for the view mode are commit, edit, current, key, date, or user. If you specify key, date, or user, then you also need to specify the view name.	x	
-loadview [<key	date	user <name>]	specifies a named configuration file: Keyed, Dated, and User Specified. In all cases, the specified configuration file is stored in the user directory is loaded into MPE's candidate configuration.		x
-opencurrent	opens a configuration session based on a copy of the current running configuration.		x
-rollback <relative rollback number>	rolls back the configuration to the specified rollback number. The user ID needs sufficient privileges to load previous running configurations.		x
(Sheet 2 of 2)			

Starting Nodal Provisioning from the service provisioning tools in MDM Toolset

From the MDM Toolset environment, you can start Nodal Provisioning within any of the following service provisioning tools:

- ATM

- Frame Relay

- IP VPN Service Provisioning

- IP VPN Provider Edge

Nodal Provisioning opens without component context, so you need to identify the node you want to provision.

If you require a Configuration Management server other than the default, see "Service selection" (page 28).

Procedure steps

1   Start the desired service provisioning tool:

- To start the ATM service provisioning tool, see 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide*.

- To start the Frame Relay service provisioning tool, see 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide*.

- To start the IP VPN service provisioning tool, see 241-6001-616 *Preside MDM IP VPN Service Configuration User Guide*.

2   On the **Tools** menu, click **Nodal Provisioning**.

The **Nodal Provisioning - Device Selection** dialog box opens.

3   Go to "Selecting a device" (page 48).

Starting Nodal Provisioning from the fault management tools

You can start the Nodal Provisioning tool from a selection of fault management tools. Nodal Provisioning opens with component context, displaying the specified node's component information in the window.

In MDM Toolset, you can start Nodal Provisioning from...	In Operator Client, you can start Nodal Provisioning from...
Network VIewer	Network Browser
Alarm Display	Alarm Display
Component Information Viewer	Component Information Viewer
Passport Shelf View	Passport Shelf View
MPE Shelf View	MPE Shelf View
Network Status Bar	
Component Status Bar	

If you require a Configuration Management server other than the default, see "Service selection" (page 28).

Procedure steps

1   From a fault application listed in the preceding table, select a component, and then right-click.

A pop-up menu opens.

2   Select one of the following actions, depending on the device you want to provision.

For...	On the pop-up menu...
Passport	Point to **Start Tool**, **Configuration**, and then click **Nodal Provisioning**
MPE	Point to **Start Tool**, **Configuration**, and then click **MPE Nodal Provisioning**.

The **Group Authentication** dialog box opens.

3   Go to "Authenticating to a device" (page 50).

Selecting a device

Select a device to identify which device you want to provision. You can select a device name from the list provided. However, if the network contains a large number of devices and you want to avoid scrolling through a long list, you can search the network based on certain criteria. By using search criteria, you can limit the list of device names.

Prerequisites

This procedure requires the following conditions:

• you have started Nodal Provisioning for the first time, or you have selected **File** -> **New Device**.

Procedure steps

1   To use search criteria, omit this step and go to step 2. Otherwise, specify the device name directly. In the **Device Name** box, type or select a device name and then click **OK**.

```
┌─────────────────────────────────────────────────────┐
│ ✕ Nodal Provisioning – Device Selection    _ □ ✕    │
├─────────────────────────────────────────────────────┤
│                                                       │
│   Device Name:    [              ▼]    Search >>     │
│                                                       │
│                                                       │
│                              OK   Cancel   Help      │
│                                                       │
└─────────────────────────────────────────────────────┘
```
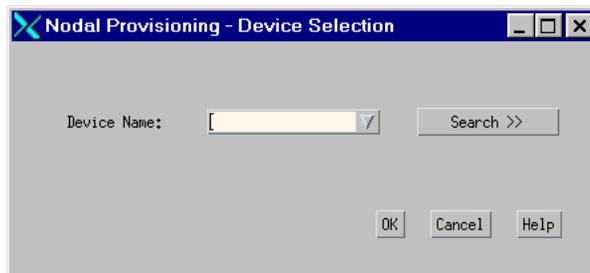
An authentication dialog box opens. Go to "Authenticating to a device" (page 50).

2   Click **Search** to expand the **Nodal Provisioning - Device Selection** dialog box.

3   In the **Additional search capability** panel, specify the search criteria:

- In the **Device Name** box, specify the device name search pattern. You can use wild-cards (*) in this search criteria.

- In the **Max Num to Retrieve** box, specify the maximum number of devices to retrieve. The default number is 100.

4   To start the retrieval, click **Search**.

The **Search Results** panel lists the device names that meet the search criteria.

5   In **Search Results** panel, click a device name.

6   Click **OK**.

An authentication dialog box opens. Go to "Authenticating to a device" (page 50).

Authenticating to a device

Authenticating lets you access a group of nodes by using a valid user ID and password.

Once you have successfully authenticated to a node within a group, then you do not have to authenticate to it again during your session. If you start Nodal Provisioning and specify a device that is already authenticated, then you will not be prompted with the Group Authentication dialog. In this case, omit this procedure and go to "Opening a view or configuration" (page 52).

Prerequisites

This procedure requires the following conditions:

• Nodal Provisioning is started

• you have selected a device, either for the first time, or by clicking **File -> New Device** in the **Nodal Provisioning** window

• the Group Authentication dialog box is open

Procedure steps

1   In the **Group Name** field, select a group name from the drop-down list.
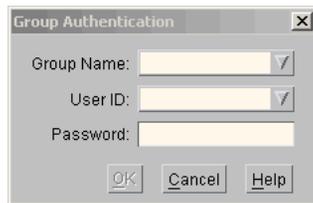
Depending on your previous activities and any defined preferences, the User ID and Password fields may be populated. If the entries are correct, go to step 4, otherwise continue with step 2 to edit the values.

2   In the **User ID** field, type a valid user ID or select a user ID from the drop-down list.

3   In the **Password** field, type a valid password.

4   Click **OK**.

If the authentication is successful, the **Open View** dialog box opens, go to "Opening a view or configuration" (page 52).

If the authentication fails, a message displays in the Group Authentication dialog. Click **Details** for information about the cause of failure. Correct the entries in the dialog box and click **OK**.

Opening a view or configuration

The dialog box that opens and the procedure that you need to use depend on the device type that you selected. Select one of the following procedures:

For...	The dialog box that opens is...	And the procedure to use is...
Passport	Open View	"Opening a view for Passport devices" (page 53)
MPE 9500	Open Configuration	"Opening a configuration for MPE 9500 devices" (page 57)

Opening a view for Passport devices

The Open View dialog box for Passport devices lets you specify the access and view modes, as well as preloading and log file options. Changes made in the Open View dialog box are valid for the duration of the provisioning session.

The Open View dialog box opens under the following circumstances:

*   automatically, at start-up, after you successfully authenticate to a device

*   automatically when you select the Open View command from the File menu

*   when the preferences are set to always prompt when opening a view. For details, see "Setting User Preferences" (page 207).

If you have set and saved user preferences for the Open View, the Open View dialog box opens with these preferences. If you haven't set user preferences, the dialog box opens with the default MDM settings. For information on setting user preferences, see the section "Setting User Preferences" (page 207).

Figure 2
Open View dialog box

The access mode panel lets you specify whether or not you can modify the service data.

The View Mode panel lets you specify which service data view to upload. If you select Other you need to select a keyed, dated or user specified view.

The Other Options panel lets you turn automatic preloading on or off, select the option to propagate log files, and specify a location to store the log files.

Open View – ALBERTVILLE

Access Mode
○ ReadOnly   ● Read and Write

View Mode
● Committed
○ Current
○ Edit
○ Other

Keyed [ ] ▽ [   ] Browse

Other Options
☐ Preload View
☐ Propagation Logging To
/opt/MagellanNMS/data/ANP/ [   ]

Ok   Cancel   Help

Procedure steps

1 In the **Access Mode** panel, select one of the following modes:

- **Read and Write** to modify the service data.

- **ReadOnly** to view the provisioning data corresponding to the current operation of the node. You cannot perform any service data modifications while in this mode.

2 In the **View Mode** panel, upload one of the following service data views:

- **Committed** to upload the committed service data view.

- **Current** to upload the current service data view.

- **Edit to** upload the edit service data view.

  When a committed view is modified, but not saved, these
  modifications are displayed as a read only file the next time the
  committed view is opened in Edit mode.

- **Other** to upload the service data view according to a key, a date, or
  a user specified view name.

If you select...	then, in the adjacent field, type...
Keyed	A valid key in the format <key>nnn, where <key> starts with a number or letter, can contain numbers, letters, or underscores for subsequent characters. The key cannot exceed 6 characters. If <key> contains only numbers, then its length must be at least three characters. The service data view that matches the pattern and has the highest index is found, and the next view in the sequence is created. Invalid date keys will cause a warning dialog box to open.
Dated	"**Today"** or a date in the format <yymmdd> where yy is the year, mm is the month and dd is the day. When a provisioning view is saved with a dated key, Nodal Provisioning adds a two-digit index to the date to keep track of the number of saved views on the same date. So, when you enter a date, the service data view with the highest index is found. When an exact match does not exist, the most recent service data view, relative to the date is used.
User Specified	A view name, or click **Browse** and select a user specified view from the list of views provided in the file browser dialog. Nodal Provisioning uploads the service data view according to a user-specified view name.

3   In the **Other Options** panel, select or clear the check boxes depending
on whether or not you want the following options:

- **Preload View** to automatically preload the node service data view
  when you start a provisioning session. Preloading works best if you
  need to load or access a large number of components. If Preside
  Multiservice Data Manager has been configured with backup and

restore functionality, then the view file is downloaded from the backup directory. For details on backup and restore, see 241-6001-807 *Preside MDM Network Backup and Restore*. Otherwise, the view file is downloaded from the device. You do not need the preload option to load or access a small number of components.

- • **Propagation Logging To** to create a log file of changes made to the service data during a provisioning session. Propagation log files are stored in the /opt/MagellanNMS/data/ANP directory. If you select **Propagation Logging To** and type a file name in the /opt/MagellanNMS/data/ANP/ field, this log file name displays in the status bar of the **Nodal Provisioning** window.

4   Click **OK.**

The **Nodal Provisioning** window opens.

Troubleshooting

- • If the node indicates that the previous current view needs to be restored, an **Open View Warning** dialog box opens. Click **Close View**. To restore the previous current view, see "Resolving a restorePossible error condition" (page 201).

- • If the node indicates that the journal log file could not be saved, an warning dialog box opens. Click **Close View**. See "Resolving a journalDisabledReason error condition" (page 203).

Opening a configuration for MPE 9500 devices

The Open Configuration dialog box for MPE 9500 devices lets you specify the access mode and the configuration data to use. Changes made in the Open Configuration dialog box are valid for the duration of the provisioning session.

The Open Configuration dialog box opens under the following circumstances:

- automatically, at start-up, after you successfully authenticate to a device

- automatically when you select the Open Configuration command from the File menu

- when the preferences are set to always prompt when opening a configuration.

If you have set and saved user preferences for the Open Configuration, the Open Configuration dialog box opens with these preferences. If you haven't set user preferences, the dialog box opens with the default MDM settings. For information on setting user preferences, see the section "Setting User Preferences" (page 207).

Figure 3
Open Configuration dialog box
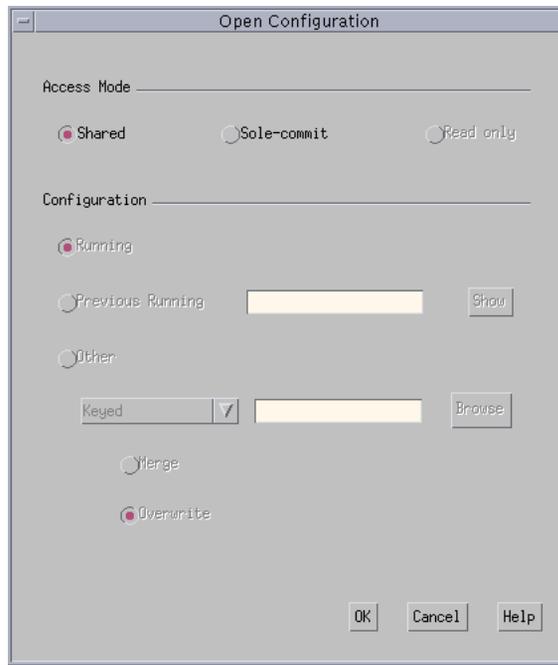
Procedure steps

1 In the **Access Mode** panel, select one of the following modes:

- **Shared** to let multiple users edit the configuration at the same time and commit or rollback changes without interfering with each another's changes. Conflicts can arise. If so, they must be resolved before the configuration can be committed. Shared is the default mode.

- **Sole-commit** to lock the MPE configuration until you commit it or until you end the configuration session. Other users can still share the configuration session and make changes to it, but they will not be able to commit their changes until you relinquish the sole-commit session.

- Read only to view the provisioning data corresponding to the current operation of the node. You cannot perform any service data modifications while in this mode.

2   In the **Configuration** panel, upload one of the following service data views:

- **Running** to upload the current configuration. The candidate configuration is a copy of the running configuration.

- **Previous Running** to select a previous, or rollback, configuration. The user ID needs sufficient privileges to load previous running configurations. You can retrieve information about previous configurations by clicking the Show button.

- **Other** to upload the service data view according to a key, a date, or a user-specified view name. The specified file is loaded from the user directory into the MPE candidate configuration.

If you select...	then, in the adjacent field, type...
Keyed	A valid key in the format <key><index>. The value for <key> must start with a number or letter, can contain numbers, letters, or underscores for subsequent characters. The key cannot exceed 6 characters. If <key> contains only numbers, then its length must be at least three characters. The value for <index> is a two-digit number. The service data view that matches the pattern and has the highest index is found, and the next view in the sequence is created. Invalid date keys will cause a warning dialog box to open. Keyed configurations are useful for a particular user or group.
(Sheet 1 of 2)	

If you select...	then, in the adjacent field, type...
Dated	"**Today"** or a date in the format <yymmdd> where yy is the year, mm is the month and dd is the day. When a provisioning view is saved with a dated key, Nodal Provisioning adds a two-digit index to the date to keep track of the number of saved views on the same date. So, when you enter a date, the service data view with the highest index is found. When an exact match does not exist, the most recent service data view, relative to the date is used. Dated configurations are useful for configurations that will be committed on a future date.
User Specified	A view name, or click Browse and select a user-specified view from the list of views provided in the file browser dialog. Nodal Provisioning uploads the service data view according to a user-specified view name. Named configurations are useful to pre-provision configurations that will be used by others.
(Sheet 2 of 2)	

3   Select an option to load the configuration file

- **Merge** to combine the specified configuration file with the candidate configuration. If conflicts arise, the specified configuration takes precedence over the candidate configuration.

- **Overwrite** to replace the candidate configuration with the specified configuration.

4   Click **OK.**

The **Nodal Provisioning** window opens.

Troubleshooting

- If the node indicates that the previous current view needs to be restored, an **Open View Warning** dialog box opens. Click **Close View**. To restore the previous current view, see "Resolving a restorePossible error condition" (page 201).

- If the node indicates that the journal log file could not be saved, an warning dialog box opens. Click **Close View**. See "Resolving a journalDisabledReason error condition" (page 203).

Selecting a CDL version

Use this procedure to select a Command Data Language (CDL) software version. When you select a device, the device version is automatically discovered and the model files are retrieved. However if the model files are unavailable, a Version Selection dialog box opens.

Version Selection dialog box

For an illustration of the Version Selection dialog, see the figure "Version Selection dialog" (page 61).

Figure 4
Version Selection dialog
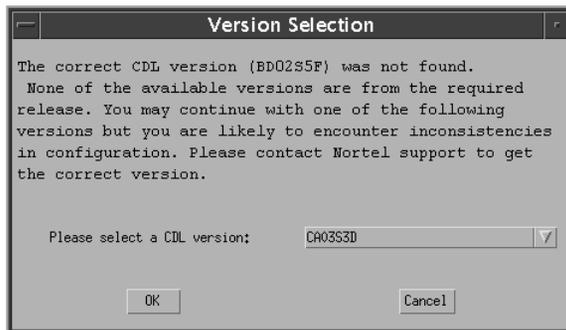
The Version Selection dialog box warns you that the correct CDL version was not found, provides the option to accept the default CDL version, or to select another version, and advises of the potential error conditions that may result from choosing the wrong version.

This procedure applies to both the Toolset and Operator Client environments.

Procedure steps

1   Accept the suggested CDL version, or select a desired CDL version from the drop down list of available CDL versions.

2   To select the CDL version, click **OK**.

 To cancel the operation, click **Cancel**.

Chapter 3
Component tree view

The following sections describes the Nodal Provisioning window in component tree view:

Nodal Provisioning window in component tree view

When you start Nodal Provisioning, the Nodal Provisioning window opens with the component tree view. Passport nodes also support a shelf view. When provisioning Passport, you can change from one view to another. For details about shelf view, see "Shelf view for Passport nodes" (page 85). You can also

change the user preferences so that Nodal Provisioning opens with the Passport's shelf view. For details about setting user preferences for the main window display, see "Setting User Preferences" (page 207).

The component tree view provides a hierarchical representation of the components of a device. The Nodal Provisioning window contains a component tree and a service template palette. Based on the hierarchy model for the device and the software version, the component tree is populated to the first level of subcomponents and the service palette is populated with service creation templates.

Changes you make in component tree view propagate to the shelf view, if the device supports shelf view. Accordingly, changes you make in shelf view propagate to the component tree view. For example, if you add a port to the a Passport node in the component tree view, the new port is visible on the corresponding logical processor (LP) in shelf view.

For additional information see the following sections:

- For a description of the parts of the Nodal Provisioning window in component hierarchy view, see the following sections:

  — "Menu bar" (page 67)

  — "Tool bar" (page 78)

  — "View area" (page 79)

  — "Service template palette" (page 80)

  — "Status bar" (page 82)

- For information on navigating in component hierarchy view, see "Navigating component hierarchy and shelf view" (page 117).

- For information on the forms to create and edit components, see "Component forms" (page 109).

- For information on the forms to edit services, see "Service edit form for Passport devices" (page 115).

- For information on the forms to create services, see "Service template form for Passport devices" (page 112).

- For provisioning procedures, see "Nodal Provisioning procedures" (page 141)

- For post-provisioning procedures, see "Post-provisioning procedures" (page 219).

- For procedures to set user preferences for the Nodal Provisioning window, and for opening and saving the view, see "Setting User Preferences" (page 207).

- For information on the Nodal Provisioning Template Editor, and procedures to create service templates, see "Nodal Provisioning Template Editor" (page 227).

- For information on the template generator and procedures to create new component templates, see "Template Generator" (page 321)

- For information on creating custom reports, see "Report Generator" (page 329).

For an illustration of the main window with component hierarchy view, see the figure "Main window in component hierarchy view" (page 66).

Figure 5
Main window in component hierarchy view
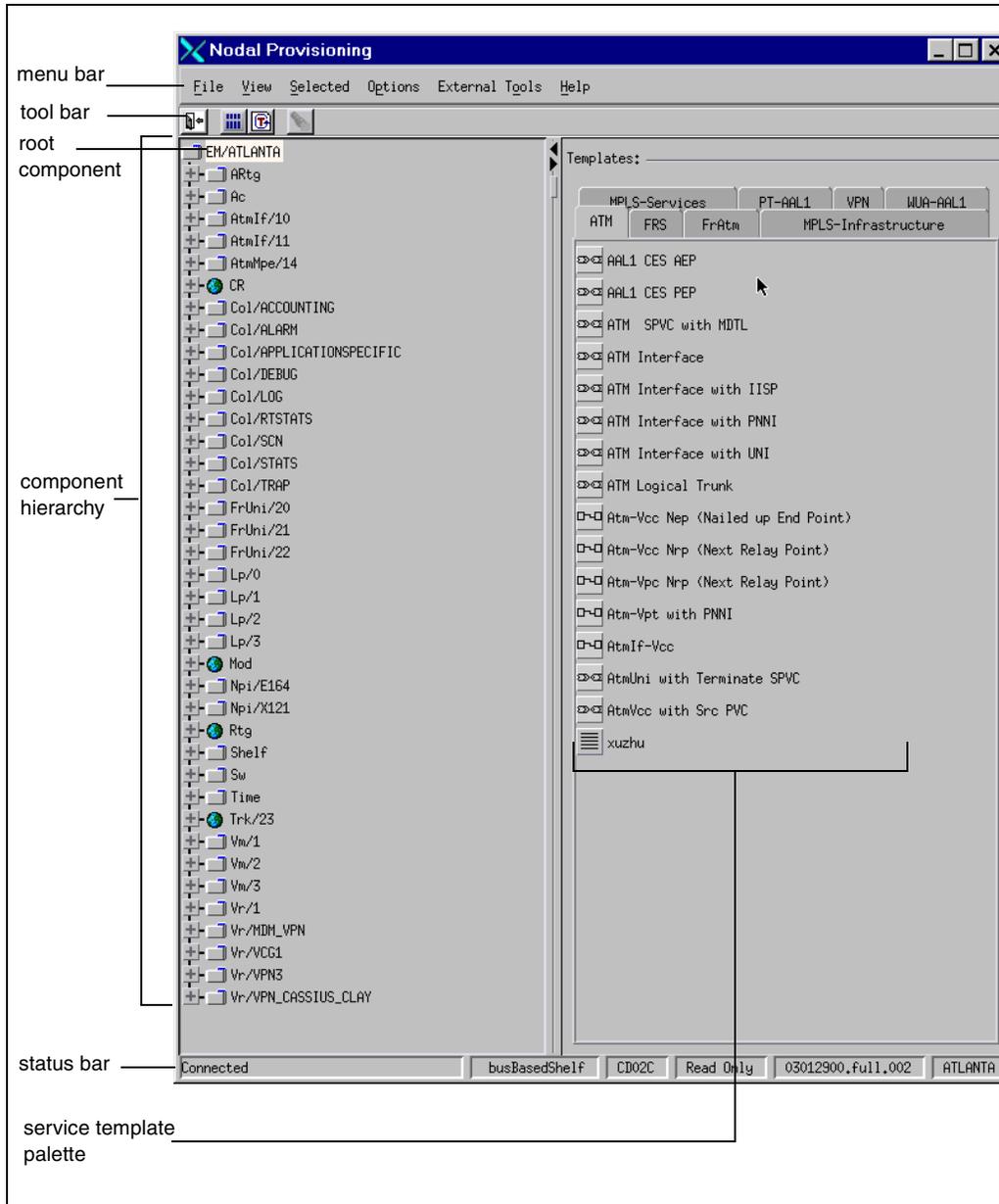
Menu bar

The menu bar has the following menus:

- "File menu" (page 67)

- "View menu" (page 70)

- "Selected menu" (page 71)

- "Options menu" (page 77)

- "External Tools menu" (page 77)

- "Help menu" (page 78)

File menu

The contents of the File menu differs depending on the device type. For details, see "File menu commands" (page 68).

Table 1
File menu commands

Command	Description	Applies to		Related information
		Passport	**MPE**	
New Device	Opens a confirmation dialog box. Clicking the Yes button exits the current device and opens the Nodal Provisioning Device Selection dialog box which lets you select a new device.	x	x	"Selecting a device" (page 48) "Migrating Passport software" (page 162)
Open View	Opens a dialog box that lets you select a new view file. The dialog box displays either the default values or user preference values, if set. If you make changes to a view file but do not save it, the changes display in read only access mode the next time you open the view file in Edit mode. If you do not want to view or use these changes, you must use the Open View command.	x		"Opening a view for Passport devices" (page 53)
Open Configuration	Opens a dialog box that lets you select the access mode and candidate configuration. This dialog box does not display if your user preferences are set to turn off prompts before opening a configuration. In this case, the configuration specified in the preference file opens.		x	"Opening a configuration for MPE 9500 devices" (page 57)
(Sheet 1 of 3)				

Table 1 (Continued)
File menu commands

Command	Description	Applies to		Related information
		Passport	**MPE**	
Check View	Opens a confirmation dialog box that lets you confirm the operation. Clicking Yes begins the semantic check of the currently open view. A Check View dialog box opens specifying whether or not problems were found.	x		"Checking the Passport view during a provisioning session" (page 191)
Check Configuration	Opens a confirmation dialog box that lets you confirm the operation. Clicking Yes begins the semantic check of the candidate configuration. A Check Configuration dialog box opens specifying whether or not problems were found.		x	"Showing MPE 9500 configuration conflicts" (page 205)
Show Conflicts	Opens a Configuration Conflicts dialog box that lists the conflicts between the candidate and running configurations.		x	"Showing MPE 9500 configuration conflicts" (page 205)
Refresh Component Tree	Refreshes the component tree with the valid changes from the running configuration.		x	
Commit Configuration	Opens a dialog box that lets you specify commit options and then commit the configuration.		x	"Committing an MPE 9500 configuration" (page 206)
Confirm Commit	Confirms a commit that has been initiated by another user.		x	
(Sheet 2 of 3)				

Table 1 (Continued)
File menu commands

Command	Description	Applies to		Related information
		Passport	**MPE**	
Save/Activate View	Opens the Save/Activate View dialog box so that you can save the active configuration.	x		"Saving the view for Passport devices" (page 220)
Save Configuration	Opens a dialog box that lets you save a configuration. Īf your user preferences are set to turn off prompts before saving a configuration, then this dialog does not display and the configuration is saved according to the preferences.		x	
Close View	Closes the current view. The component hierarchy in the main window becomes unpopulated.	x		"Closing the current view" (page 118)
Exit Configuration	Exits the configuration session. If you modify the candidate configuration, a confirmation dialog opens and prompts for confirmation before you can exit.		x	
Exit	Exits the configuration session and closes all windows.	x	x	
(Sheet 3 of 3)				

View menu

The table "View menu commands" (page 71) describes the menu commands.

Table 2
View menu commands

Command	Description	Applies to		Related information
		Passport	**MPE**	
History	Opens the History of Changes dialog box. This dialog box displays a record of user actions and changes that have occurred to the view while the Nodal Provisioning is active.	x	x	"Viewing and saving a record of changes made during a provisioning session" (page 150)
Shelf	Selects or deselects the shelf view.	x		"Switching between Passport component hierarchy and shelf view" (page 119)
Toolbar	Shows or hides the tool bar.	x	x	"Showing and hiding the toolbar" (page 120)
Statusbar	Shows or hides the status bar.	x	x	"Status bar" (page 82) "Showing and hiding the status bar" (page 121)
Reload Templates	Populates Nodal Provisioning with all the templates. If you have created and saved a template, clicking Reload Templates adds the new template to the service template palette.	x		"Updating the service template palette in Nodal Provisioning" (page 314)

Selected menu

The Selected menu provides the commands for component level provisioning as shown in the table "Selected menu commands" (page 72). The Selected menu commands are common to most components that you select in the component hierarchy. However, they are enabled only when they are valid for the component that you have selected in the component hierarchy. For example, at the node level, only Add and Paste menu commands are available.

The same commands are available from a component's pop-up menu, with the exception of the Start Tool command. The Start Tool command is available only from the pop-up menu. For additional information on the pop-up menu, see "Component hierarchy view pop-up menu" (page 80)

When you select a folder in the component hierarchy, that is, a components that exceeds the maximum instances that can be displayed (shown visually as (x of y)), only the Search and Hide Children commands are available.

The table "Selected menu commands" (page 72) describes the menu commands.

Table 3
Selected menu commands

Command	Description	Applies to		Related information
		Passport	**MPE**	
Search	Opens the Search dialog box which lets you search for component instances or a subset of component instances. This command is available only for components with too many instances to display as show by the (x of y) next to the component.	x	x	"Searching for a component in a large instance set" (page 126).
Hide Children	Hides all the component instances in the selected folder. This command is available only for components with too many instances to display as shown by the (x of y) next to the component.	x	x	"Hiding all component instances" (page 129).
(Sheet 1 of 6)				

Table 3 (Continued)
Selected menu commands

Command	Description	Applies to		Related information
		Passport	**MPE**	
Add	Opens the Add Component dialog box which displays a list of subcomponents that you can add to the selected component. When you select a component and click OK, a component form opens with the attributes that you can provision. The component form is dynamically generated.	x	x	"Adding a single component instance" (page 152).
Edit	Opens the component edit form for the selected component. This form contains all the editable attributes for the selected component.	x	x	"Editing a component instance" (page 159).
Delete	Deletes the selected component and all its subcomponents.	x	x	"Deleting a component" (page 165)
Rename	Opens a dialog box which lets you specify a new name for the component.		x	
Partial Semantic Check	Performs a limited check for semantic errors under the selected component. A Check View dialog box opens to indicate whether or not problems were found. If problems are found, they are listed in the dialog box.	x		"Performing a full semantic check for Passport devices" (page 192)
(Sheet 2 of 6)				

Table 3 (Continued)
Selected menu commands

Command	Description	Applies to		Related information
		Passport	**MPE**	
Apply Service Template	Provides a submenu of services that you can apply to the selected component. The submenus vary with the component that you select. Selecting a service from the submenu provides a list of valid templates When you select a template from the list, a service template form opens.	x		"Service template form for Passport devices" (page 112) "Creating a service for Passport devices" (page 178)
Hide	Hides the selected subcomponent in its parent folder. The Hide command is only available for children of a component with too many instances to display. These components are shown with a value of x of y in the component hierarchy.	x		"Hiding a single Passport component instance" (page 128)
(Sheet 3 of 6)				

Table 3 (Continued)
Selected menu commands

Command	Description	Applies to		Related information
		Passport	**MPE**	
Cut	Removes the component from the component hierarchy. If the component has subcomponents, a dialog box opens and lets you specify which subcomponents to retain for a subsequent paste operation. The Cut command is enabled only if the target component of the cut action is a valid target. For example, the cut command is not enabled when you select the root component.	x	x	"Cutting, copying and pasting components" (page 166)
Copy	Copies a selected component. If the component has subcomponents, a dialog box opens and lets you specify which subcomponents to copy. The Copy command is enabled only if the target component of the copy action is a valid target. For example, the copy command is not enabled when you select the root component.	x	x	"Cutting, copying and pasting components" (page 166)
(Sheet 4 of 6)				

Table 3 (Continued)
Selected menu commands

Command	Description	Applies to		Related information
		Passport	**MPE**	
Paste	Opens a dialog box which lets you paste copied components and their subcomponents into the target component. You can paste between Passports or between MPE devices. The Paste command is enabled only if the target component of the paste action is a valid target.	x	x	"Cutting, copying and pasting components" (page 166)
Move	Moves a component to a different location under its parent.		x	
Place Before	Places the moved component up one position in the component hierarchy		x	
Place After	Places the moved component down one position in the component hierarchy		x	
Generate Template	Opens the Generate Template tool which allows you to create a new template based on an existing provisioned component.	x		"Generating a template from an existing component" (page 326)
(Sheet 5 of 6)				

Table 3 (Continued)
Selected menu commands

Command	Description	Applies to		Related information
		Passport	**MPE**	
Generate Report	Opens the Report Generator tool which allows you to create custom reports on component data.	x	x	"Report Generator" (page 329)
Find and select a component	Opens the Find a Component dialog box which lets you search for device names or component instances.	x	x	"Finding a component" (page 154)
(Sheet 6 of 6)				

Options menu

The Options menu contains the commands for opening the User Preferences dialog box to set and save preferences for subsequent provisioning sessions.

The table "Options menu commands" (page 77) describes the User Preferences command.

Table 4
Options menu commands

Command	Description	Related information
User Preferences	Opens the User Preferences dialog box. This dialog box lets you specify preferences for an access mode, a view mode, and the Nodal Provisioning window.	See "Setting User Preferences" (page 207)

External Tools menu

The External Tools menu provides launch points for the Nodal Provisioning Template Editor and the service provisioning tools. The table "External Tools menu commands" (page 78) describes the menu commands.

Table 5
External Tools menu commands

Command	Description	Related information
Nodal Provisioning Template Editor	Provides a launch point for the Nodal Provisioning Template Editor.	"Nodal Provisioning Template Editor" (page 227)
Service Provisioning (MDM Toolset only)	Opens a sub-menu of commands to start the following service provisioning tools: • ATM • Frame Relay • IP VPN Service Provisioning • IP VPN Provider Edge	For details, see 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide* 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide* 241-6001-616 *Preside MDM IP VPN Service Configuration User Guide*

Help menu

The Help menu provides access to online documentation for the Nodal Provisioning tool. The table "Help menu commands" (page 78) describes the menu commands.

Table 6
Help menu commands

Command	Description	Related information
Help on Window	Accesses the online documentation for the Nodal Provisioning window.	"Displaying help on the Nodal Provisioning window" (page 145)

Tool bar

The tool bar contains the following icons:

• The exit icon closes the Nodal Provisioning window.

- The shelf view icon lets you toggle between component hierarchy and shelf view.

- The reload all service templates icon populates the Nodal Provisioning window with all the templates. If you have created and saved a new template, clicking the reload all service templates icon adds the new template to the service template palette.

- The search icon opens the Find a component dialog box when in component view only. For information on finding a component, see "Finding a component" (page 154).

View area

In component hierarchy view, the Nodal Provisioning window displays the component hierarchy for the connected device. The component hierarchy displays all the device components that can be provisioned. A scroll bar lets you navigate the component hierarchy.

At the start-up of a device provisioning session, the component hierarchy is populated to display the first level components and services under the root. The root is a device specific identifier. For example, the Passport root identifier is EM/<node name>, where <node name> is the name of the device to which you are connected.

The component hierarchy is constructed from information represented in the hierarchy model, and instance information retrieved from the server. The hierarchy model determines which type of instances can go under the parent. For components with many instances, the components appear as folders in the component hierarchy and only the folder is shown at start-up. A folder refers to any component in the component hierarchy that has children under it. Components that have children are identified by a plus (+) sign to the left of the folder. Instances are retrieved by expanding the folder. When you expand the folder, the plus sign changes to a minus (-) sign. For the procedure to expand a folder, see "Expanding a component" (page 124).

For large devices, the number of instances may exceed a predefined configurable threshold. Expanding the parent folder does not fetch all the instances and add them to the component hierarchy. In these situations, a visual indicator appears to the right of the folder to show you that the number of instances are too many to display. The format of the information is *(x* of y*)*,

where *x* is the maximum instances set through the configuration file and *y* is the total number of instances. For example, if the maximum number of instances is 20, and there is a total of 35 instances, you see (20 of 35) to the right of the folder.

The component hierarchy view may also display a network-wide icon to the left of the component name. This icon indicates global data. Components that have a scope attribute of "network" are considered global data by Nodal Provisioning. Use caution when deleting components marked as having global data since these components have network wide implications.

For components with many instances, Nodal Provisioning provides a search capability to search for component instances or a subset of component instances. For information on the search capability, see "Searching for a component in a large instance set" (page 126).

Component hierarchy view pop-up menu

Components in the component hierarchy view have a pop-up menu. You open the pop-up menu by positioning the mouse pointer over the component in the hierarchy and then right-clicking.

The content of the pop-up menu corresponds to the content of the Selected menu in the menu bar, with the exception of the Start Tool command. The Start Tool command is available only from the pop-up menu. The Start Tool command displays a list of other Preside Multiservice Data Manager tools that you can start from Nodal Provisioning. The content of the list varies depending on component context and access control. For a description of the pop-up menu commands, see the section "Selected menu" (page 71).

Service template palette

The service template palette appears on the right side of the Nodal Provisioning window. The service template palette contains the service creation templates that apply to the selected device. These templates let you specify pre-determined configurations with default values and custom creation forms.

Only the templates that apply to the software version of the connected device appear in the palette.

A service template palette simplifies the creation of a service by requesting only a limited amount of critical component data for the service.

The service template palette is organized into tabbed panes. Each pane contains service templates for a related group of services. The Nodal Provisioning window contains the following tabbed panes:

- ATM

- FRS

- FrAtm

- MPLS-Infrastructure

- MPLS-Services

- PT-AA1

- UA-IP

- VPN

- WUA-AA1

For a description of the templates found under each of the tabbed panes, see 241-6001-611 *Preside MDM Nodal and Service Provisioning Reference Guide*.

When you click on a tabbed pane, icons representing the service templates for the selected service are displayed in the service template palette. If you right click on a template, a pop-up menu appears with three options:

- **Launch** opens a service template form. This command is enabled only when you select a valid dropsite in the component hierarchy.

- **Description** opens a window with a description of the service template. This description corresponds to the description of the template that is entered into the Nodal Provisioning Template Editor Description section. The description also identifies the prerequisites and dropsites for the template.

- **Edit** opens the Nodal Provisioning Template Editor so you can modify the template.

You can provision the selected service by applying a service template in one of the following ways:

- dragging a template icon and dropping it on a valid dropsite.

- selecting a valid dropsite in the component hierarchy, right clicking on a template icon in the service palette, then selecting Launch from the pop-up menu.

- using the **Apply Service Template** command in the Selected menu, or component pop-up menu.

Applying a template from the palette to a valid drop point initiates the provisioning of a service using a service template form. The form lets you enter the necessary provisioning information.

The dropsite component is specified as either a link or parent. A link component is one in which the component is taken to be the value of the specified component attribute in the template. Link drop components may also specify components higher in the hierarchy from the main drop component as valid dropsites. A template can be dropped on a component that contains a valid dropsite. In this case, you are provided a menu of available subcomponents beneath the chosen component. A parent component is taken to be the parent of a specified component in the template.

When an attempt to create a service fails, a dialog box opens with an error message and a list of components that were created before the error occurred. You need to resolve the error condition and return to the service creation procedure. See "Creating a service for Passport devices" (page 178) and "Repairing Passport service creation errors overview" (page 194).

You can delete a component using the service creation error dialog box. However, you cannot reverse any modifications that you have made to component attributes.

Status bar

The status bar appears at the bottom of the Nodal Provisioning window, and shows the following information:

- connection status

- shelf type of the node you are connected to. For example, "fabricBasedShelf" indicates the Passport 15000 family and "busBasedShelf indicates the Passport 7400 family.

- model version of the device you are connected to

- Edit or ReadOnly depending on the selection that you made when opening the view.

- view name. When you modify the working view, an "*" appears next to the View name in the status bar. If you have enabled the propagation logging option in the User Preferences dialog box, and specified a log file name, you can display the log file name by right clicking on the view name and selecting Log File Name.

- name of the device to which you are connected

Component hierarchy view pop-up menus

Components in the component hierarchy view have a pop-up menu that corresponds to the menu options in the Selected menu. You can access pop-up menus by right-clicking on a selected component. Only valid options are available from the pop-up menu. For a description of the pop-up menu commands, see "Selected menu" (page 71).

Chapter 4
Shelf view for Passport nodes

The following sections describe the Nodal Provisioning window in shelf view:

Nodal Provisioning window in shelf view

When you start Nodal Provisioning, the Nodal Provisioning window always opens with the component hierarchy view. For Passport nodes only, you have the option of changing to a shelf view at any time or setting the user preferences so that Nodal Provisioning opens with shelf view. To set user preferences, see "Setting User Preferences" (page 207).

The shelf view displays the following elements:

- a physical representation of the shelf and its cards

- a logical representation of the device

- card sparing through the logical processors (LPs)

The lower section of the shelf view window, contains the Shelf Details panel. This panel contains two areas:

- Components drill down panel
  The Components drill down panel displays the component hierarchy for the component that you have selected in the shelf view panel.

- Services drill down panel
  The Services drill down panel displays the component hierarchy, including subcomponents, for the services that are configured for the component that you have selected in the shelf view panel.

To maximize the shelf view real estate, both the Components and Services drill down panels can be detached from the shelf view panel. For the procedure to detach the drill down panels, see "Detaching and reattaching the component and service hierarchies" (page 131).

Shelf view provides the same capabilities as component hierarchy view. The capabilities offered through the Selected menu, and the popup menus in the component hierarchy view are available for all graphical and hierarchical representations of components in the shelf view. You can also access the subcomponents of all graphical and hierarchical representations of components.

When you make changes to the shelf view, the changes are propagated to the component hierarchy view. Alternately, changes to the component hierarchy view are propagated to the shelf view. For example, if you add a port in shelf view, and then switch to component hierarchy view, you will see the new port on the corresponding logical processor (LP).

You can only provision one device at a time with a nodal provisioning session. If you want to provision more than one device you must start another instance of Nodal Provisioning.

To enable you to view and provision ports, channels, and the service interfaces associated with them, shelf view provides the following additional functionality, which is not available in component hierarchy view:

- display, graphically, all ports on a logical processor (LP), whether or not they are provisioned

- identify the service interfaces for a selected unchannelized port or channel to let you view and provision the service components and their subcomponents

- provide access to all provisionable subcomponents of the components graphically displayed to let you view and provision the subcomponents

As in component hierarchy view, shelf view contains a service template palette on the right side of the Nodal Provisioning window. The service template palette contains the service creation templates. Shelf view lets you apply service templates to components in the following areas:

- the graphical representation of the shelf

- the component trees in the Shelf Details panel

You can also resize the window and the shelf view is unaffected. However, in shelf view, the graphical representations of the logical processors and their ports, and the EM root component are the only available dropsites for templates from the service template palette. Therefore, the template must contain a dropsite which specifies a logical processor or one of its port types. When you apply a template from the palette that has port dropsites, a service template form opens with the correct port.

You can also apply templates to the hierarchical representations of components in the Shelf Details drill down panels.

In shelf view, you can access the root component (EM) by left-clicking in the area to the left of the logical shelf panel. The Components and Services areas of the Shelf Details panel are populated.

For additional information, see the following sections:

- For a description of the parts of the Nodal Provisioning window in shelf view, see the following sections:

  — "Menu bar" (page 91)

  — "Tool bar" (page 98)

  — "Shelf panel" (page 98)

  — "Sparing panel" (page 98)

  — "Logical shelf panel" (page 99)

  — "Shelf Details panel" (page 100)

  — "Shelf view pop-up menus" (page 105)

- For navigation in shelf view, see "Navigating component hierarchy and shelf view" (page 117).

- For information on the forms that you use to create and edit components, see "Component forms" (page 109).

- For information on the forms that you use to edit services, see "Service edit form for Passport devices" (page 115).

- For information on the forms that you use to create services, see "Service template form for Passport devices" (page 112).

- For provisioning procedures, see "Nodal Provisioning procedures" (page 141).

- For post-provisioning procedures, see "Post-provisioning procedures" (page 219).

- For procedures to set user preferences for the Nodal Provisioning window, and for opening and saving the view, see "Setting User Preferences" (page 207).

- For information on the Nodal Provisioning Template Editor, and procedures to create service templates, see "Nodal Provisioning Template Editor" (page 227).

- For information on the template generator and procedures to create new component templates, see "Template Generator" (page 321)

- For information on creating custom reports, see "Report Generator" (page 329).

For an illustration of the main window in shelf view, see "Main window in shelf view" (page 90).

Figure 6
Main window in shelf view
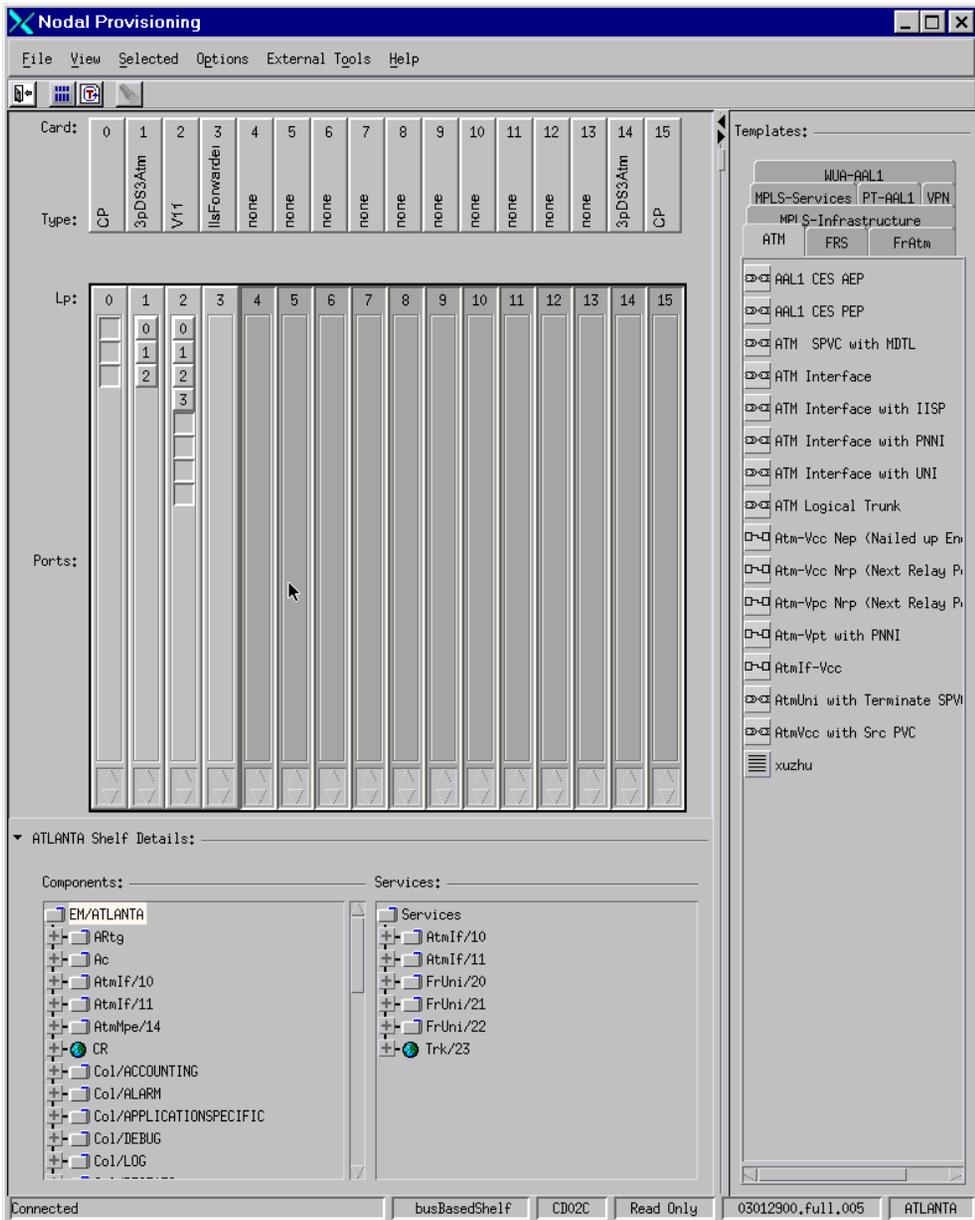
Menu bar

The menu bar has the following menus:

- "File menu" (page 91)

- "View menu" (page 92)

- "Selected menu" (page 93)

- "Options menu" (page 96)

- "External Tools menu" (page 97)

- "Help menu" (page 98)

File menu

The table "File menu commands" (page 91) describes the menu commands.

Note: The Check View, Open View, and Save View File menu commands are only available for Passport devices.

Table 7
File menu commands

Menu command	Description of menu command	Related information
New Device	Opens a confirmation dialog box. Clicking Yes exits the current device and opens the Device Selection dialog box which lets you select a new device.	"Selecting a device" (page 48)
Open View	Opens the Open View dialog box so that you can select a new view file. The dialog box displays either the default values which are set in through the user preferences, or if none are set, the default user preferences. If you made changes to a view file but did not save these, the changes you made will be displayed in read only access mode the next time you open the view file in Edit mode. If you do not want to view or use these changes, you must use the Open View command.	"Opening a view or configuration" (page 52)
(Sheet 1 of 2)		

Table 7 (Continued)
File menu commands

Menu command	Description of menu command	Related information
Check View	Opens a confirmation dialog box to confirm the check view operation, and advising you that the check may take a few minutes. Clicking Yes proceeds with a check of the currently open view. If the view does not pass the check, an error dialog box opens stating that the view did not pass the check.	"Showing MPE 9500 configuration conflicts" (page 205)
Close View	Closes the current view. The component hierarchy in the Nodal Provisioning window becomes unpopulated.	"Closing the current view" (page 118)
Save/Activate View	Opens the Save/Activate View dialog box so that you can save the active configuration.	"Saving the view for Passport devices" (page 220)
Exit	Closes all windows and the provisioning session. When a view is edited, and the changes are not saved before you exit, the modifications are kept and can be displayed in read only access mode the next time you open the view in Edit mode.	
(Sheet 2 of 2)		

View menu

The table "View menu commands" (page 93) describes the menu commands.

Table 8
View menu commands

Menu command	Description	Related information
History	Opens the History of Changes dialog box. This dialog box displays, and lets you save a record of user actions and changes that have occurred to the view while Nodal Provisioning is active.	"Viewing and saving a record of changes made during a provisioning session" (page 150)
Shelf	Selects or deselects the shelf view.	"Switching between Passport component hierarchy and shelf view" (page 119)
Toolbar	Shows or hides the tool bar.	"Tool bar" (page 98) "Showing and hiding the toolbar" (page 120)
Statusbar	Shows or hides the status bar.	"Status bar" (page 104) "Showing and hiding the status bar" (page 121)
Reload Templates	Populates Nodal Provisioning with all the templates. If you have created and saved a template, clicking Reload Templates adds the new template to the service template palette.	"Updating the service template palette in Nodal Provisioning" (page 314)

Selected menu

With some exceptions, the Selected menu provides the commands displayed in "Selected menu commands" (page 94). The menu commands are enabled only when they are valid for the component that you have selected in the shelf view or drill down panels.

The same commands are available from a component's pop-up menu, with the exception of the Start Tool command. The Start Tool command is available only from the pop-up menu. For additional information on the pop-up menu, see "Shelf view pop-up menus" (page 105).

When you select a folder in the component hierarchy, that has too many instances to display, as shown visually as (x of y), the Search and Hide Children menu commands are enabled. They are otherwise disabled.

Selected menu for unconfigured Logical Processors

The Selected menu commands for unconfigured Logical Processors are:

- **Add** opens a component creation form on the new LP component. When you select OK, you create the new LP.

- **Paste** pastes a copied LP to provision this LP.

Selected menu for unconfigured ports

The Selected menu commands for unconfigured ports are:

- **Add** opens a component creation form if the port only supports a single port type. If the port supports more than a single port type, an Add Component dialog opens from which you can select a port type. Only the port types supported by this port are displayed in the Add Component dialog. Selecting a port type from the Add Component dialog, and clicking OK opens a component creation form. You can modify the attributes in the component creation form and then click OK to create the new port.

- **Paste** pastes a copied port to provision this port.

Table 9
Selected menu commands

Menu command	Description of menu command	Related procedure or information
Search	Opens the a search dialog box which lets you search for component instances or a subset of component instances. The Search command is available only for components with too many instances to display as show by the (x of y) next to the component.	"Searching for a component in a large instance set" (page 126)
Hide Children	Hides all the component instances in the selected folder. The Hide Children command is available only for components with too many instances to display as shown by the (x of y) next to the component.	"Hiding all component instances" (page 129)
(Sheet 1 of 3)		

Table 9 (Continued)
Selected menu commands

Menu command	Description of menu command	Related procedure or information
Add	Opens the Add Component dialog box which displays a list of subcomponents that you can select and add to the selected component. Once you have selected a component and clicked OK, a component form opens with the attributes that you can provision.	"Adding a single component instance" (page 152)
Edit	Opens the component edit form for the selected component so that you can edit component attributes. The form contains all the editable attributes for the selected component.	"Editing a component instance" (page 159)
Delete	Deletes the selected component and all its subcomponents.	"Deleting a component" (page 165)
Partial Semantic Check	Performs a limited check for semantic errors under the selected component. A Check View dialog box opens to indicate whether or not problems were found. If problems are found, they are listed in the dialog box.	"Performing a full semantic check for Passport devices" (page 192)
Apply Service Template	Provides a submenu of services that can be applied to the selected component. The submenus vary with the component that you select. Selecting a service from the submenu provides a list of valid templates When you select a template from the list, a service template form opens.	"Creating a service for Passport devices" (page 178) "Service template form for Passport devices" (page 112)
Hide	Hides the selected subcomponent in its parent folder. The Hide command is only available for children of a component with too many instances to display. These components are shown with a value of x of y in the component hierarchy.	"Hiding a single Passport component instance" (page 128)
(Sheet 2 of 3)		

Table 9 (Continued)
Selected menu commands

Menu command	Description of menu command	Related procedure or information
Copy	Opens a copy component dialog box. This dialog box displays the selected component and all of its subcomponents. The copy dialog lets you select the subcomponents that you want to copy. The copy command is enabled only if the target component of the copy action is a valid target. For example, the copy command is not enabled when you select the root component.	"Cutting, copying and pasting components" (page 166)
Paste	Opens a paste dialog box. The Paste command lets you paste copied components and their subcomponents into the target component. The paste command is enabled only if the target component of the paste action is a valid target.	"Cutting, copying and pasting components" (page 166)
Generate Template	Opens the Generate Template tool which allows you to create a new template based on an existing provisioned component.	"Template Generator" (page 321)
Generate Report	Opens the Report Generator tool which allows you to create custom reports on component data.	"Report Generator" (page 329)
Find and select a component	Opens the Find a Component dialog box lets you search for device names or component instances	"Finding a component" (page 154)
(Sheet 3 of 3)		

Options menu

The Options menu contains the command for opening the User Preferences dialog box.

The table "Options menu command" (page 97) describes the Options menu command.

Table 10
Options menu command

Menu command	Description of menu command	Related procedure or information
User Preferences	Opens the User Preferences dialog box. This dialog box lets you specify preferences for an access mode, a view mode, and other service data options.	"Setting User Preferences" (page 207)

External Tools menu

The External Tools menu provides launch points for the Nodal Provisioning Template Editor and the service provisioning tools. The table "External Tools menu commands" (page 97) describes the menu commands.

Table 11
External Tools menu commands

Menu command	Description of menu command	Related procedure or information
Nodal Provisioning Template Editor	Provides a launch point for the Nodal Provisioning Template Editor.	"Nodal Provisioning Template Editor menu bar" (page 231)
Service Provisioning	Opens a sub-menu of commands to start the following service provisioning tools: • ATM • Frame Relay • IP VPN Service Provisioning • IP VPN Provider Edge	For details, see 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide* 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide* 241-6001-616 *Preside MDM IP VPN Service Configuration User Guide*

Help menu

The Help menu provides access to online documentation for Nodal Provisioning. The table "Help menu commands" (page 98) describes the menu commands.

Table 12
Help menu commands

Menu command	Description of menu command	Related procedure or information
Help on Window	Opens the on-line documentation for the Nodal Provisioning window.	"Displaying help on the Nodal Provisioning window" (page 145)

Tool bar

The tool bar contains the following icons:

- The exit icon closes the Nodal Provisioning main window.

- The shelf view icon lets you switch between component hierarchy and shelf view.

- the reload all service templates icon populates the shelf view main window with all the templates. If you have created and saved a new template, clicking the reload all service template icon adds the new template to the service template palette.

- The search icon is disabled in shelf view.

Shelf panel

The topmost panel is called the shelf panel. It provides the physical representation of the shelf and its cards. The card type is shown on each card.

Sparing panel

The sparing panel is found between the shelf panel and logical shelf panel. It shows the card sparing through the logical processors (LPs). When a logical processor is configured with a main card and a spare card, and you select a logical processor, the shelf view sparing panel shows lines drawn to those main and spare cards.

You can select cards and LPs. When you select an LP, a link is drawn to the master card and spare card. You can distinguish between the main card and spare card for LPs as follows:

• the main card is identified by a black line

• the spare card is identified by a gray line

Logical shelf panel

The logical shelf panel appears below the sparing panel. It provides a logical representation of the device. It displays the logical processors and their ports. Ports can be provisioned. For additional information, see the following sections:

• "Graphical port display" (page 99)

• "Graphical port provisioning" (page 100)

Graphical port display

When a logical processor has been configured with a main or spare card, all of its ports are shown on the logical processor in the shelf view, whether or not they are configured.

Note: Ports that cannot be provisioned are not displayed on the logical processors.

The following are the key features of the graphical port display:

• tool tips to identify the port type
The port type for each configured and unconfigured port is shown in a tool tip. The tool tip appears when you rest the mouse pointer on the port.

• configured and unconfigured ports are visually distinguished
Configured ports are visually distinguished from unconfigured ports by a raised border and their port identifier is displayed. Unconfigured ports are shown with a sunken border and their port identifier is not displayed.

• scroll bars to enable you to pan up and down the screen
If there are more ports on the logical processor than can be displayed on the screen at once, scroll bars are enabled at the bottom of the logical processor through which you can pan the ports up and down.

Graphical port provisioning

You can provision ports from their graphical display in the logical shelf panel.

For provisioned ports, the Selected and component popup menu are the same as are available in the component hierarchy view and in the Selected menu.

*   **Add** adds a subcomponent (for example, channel) to the port

*   **Edit** edits the provisioned port data.

*   **Apply Service Template** applies a service template to the port.

*   **Copy** makes a copy of the port and its subcomponents.

*   **Paste** pastes the last copied component as a child of the port, if it is a valid type.

*   **Generate Report** generates a report of the provisioned port data.

For unprovisioned ports, the Selected, and component popup menus contain the following options, which are used to create the port:

*   **Add** opens the Add Component dialog box if the port supports more than a single port type. The Component Names list in the Add Component dialog box only displays the port types that are supported by the selected port. When you select the new port from the list of available port components, a port creation form opens for that supported port type. This is the same form shown when the port is added to the LP from the component hierarchy view.

*   **Paste** pastes the last copied component as a child of the port, if it is a valid type.

Shelf Details panel

The Shelf Details panel contains two sections:

*   "Components drill down panel" (page 101)

*   "Service drill down panel" (page 102)

Components drill down panel

The components drill down panel appears below the logical shelf panel and to the left half of the Shelf Details panel. When you select a component in the shelf view, the selected component is mirrored as a component hierarchy in the component drill down panel for the following components

- shelf

- card

- logical processor

- ports

You can also select the root component (EM) by left-clicking to the left of the logical shelf panel. The components drill down panel is populated with the full component hierarchy, corresponding to the component hierarchy in component hierarchy view. For a description of the component hierarchy, see "View area" (page 79).

When the mouse pointer rests on a port or channel in the component drill down panel, to which a service component is linked, the name and identifier of the service component is displayed in a tool tip.

You can detach the component drill down panel from the main window, and display it as a separate window. This lets you maximize the shelf view real estate. When you collapse the detached portion, it reattaches to the main window. For the procedure to detach the drill down panels, see "Detaching and reattaching the component and service hierarchies" (page 131).

Component provisioning in the component drill down panel

The following provisioning functionality is available in the component drill down panel:

- the Selected and pop-up menus for components are the same as for the component hierarchy view

- you can apply service templates to all components shown in the component drill down panel

Service drill down panel

The service drill down panel is found below the logical shelf panel, and to the right half of the Shelf Details panel. When you select a component in the component drill down panel, the service drill down panel displays any service that is configured for the selected component, or any of its subcomponents. The service drill down panel displays a component hierarchy, that includes subcomponents, for each configured service.

When you rest the mouse pointer on the top-level service component, the name and identifier of the port or channel to which it is linked is displayed as a tool tip.

The service drill down panel can be detached, along with the component drill down panel, from the main window and displayed as a separate window to maximize the shelf view real estate. When you collapse the detached window, it reattaches to the main window. For the procedure to detach the drill down panels, see "Detaching and reattaching the component and service hierarchies" (page 131).

Component provisioning in the service drill down panel

The following provisioning functionality is available in the service drill down panel:

- the Selected and popup menus for components are the same as for the component hierarchy view

- you can apply service templates to all components shown in the service drill down panel

Service template palette

The service template palette appears on the right side of the main window. The service template palette contains the service creation templates that apply to the selected device. The templates let you specify pre-determined configurations with default values and custom creation dialog boxes.

Only the templates that apply to the software version of the connected device appear in the service palette.

A service template palette simplifies the creation of a service by requesting only a limited amount of critical component data for the service.

The service palette is organized into tabbed panes. Each pane contains service templates for a related group of services. The Nodal Provisioning window contains the following tabbed panes:

- ATM

- FRS

- FrAtm

- MPLS-Infrastructure

- MPLS-Services

- PT-AA1

- UA-IP

- VPN

- WUA-AA1

When you click on a tab, icons representing the service templates for the selected service are displayed in the service template palette. If you right-click on a template, a pop-up menu appears with two command options:

- **Launch** opens a service template form. This command is enabled only when you select a valid dropsite in the component hierarchy.

- **Description** opens a window with a description of the service template. This description corresponds to the description of the template that is entered into the Description section found in the Nodal Provisioning Template Editor.

- **Edit** opens the Nodal Provisioning Template Editor so you can modify the template.

You can provision the selected service by applying a service template in one of the following ways:

- dragging a template icon and dropping it on a valid dropsite.

- selecting a valid dropsite in the component hierarchy, right clicking on a template icon in the service palette, then selecting Launch from the pop-up menu. This is the preferred method for remote log in.

- Using the **Apply Service Template** command in the Selected menu, or component pop-up menu.

Applying a template from the palette onto a valid drop point initiates the provisioning of a service using a service template form. The form lets you enter the necessary provisioning information.

The dropsite component is specified as either a link or parent. A link component is one in which the component is taken to be the value of the specified component attribute in the template. Link drop components may also specify components higher in the hierarchy from the main drop component as valid dropsites. A template can be dropped on a component that contains a valid dropsite. In this case, you are provided a menu of available subcomponents beneath the chosen component. A parent component is taken to be the parent of a specified component in the template.

When an attempt to create a service fails, a dialog opens with an error message and a list of components that were created before the error occurred. You need to resolve the error condition and return to the service creation procedure. See "Creating a service for Passport devices" (page 178) and "Repairing Passport service creation errors overview" (page 194).

You can delete a component using the service creation error dialog. However, you cannot reverse any modifications that you have made to component attributes.

Status bar

The status bar appears at the bottom of the shelf view main window, and shows the following information:

- connection status

- shelf type of the node you are connected to. For example, "fabricBasedShelf" indicates the Passport 15000 family and "busBasedShelf indicates the Passport 7400 family.

- The CDL software version of the device you are connected to

- Edit or ReadOnly appears, depending on the selection that you made when opening the view.

- view name. When you modify the working view, an "*" appears next to the View name in the status bar. If you have enabled the propagation logging option in the User Preferences dialog, and specified a log file name, you can display the log file name by right clicking on the view name and selecting Log File Name.

- name of the device to which you are connected.

Shelf view pop-up menus

Components in the shelf view and the component and service drill down panels have a pop-up menu. You open pop-up menus by right-clicking on a selected component in the component hierarchy in the component or shelf drill down panel, in the Shelf panel, or in the Logical shelf panel.

The content of the pop-up menu corresponds to the content of the Selected menu in the menu bar, with the exception of the Start Tool command. The Start Tool command is available only from the pop-up menu. The Start Tool command displays a list of other Preside Multiservice Data Manager tools that you can start from Nodal Provisioning. The content of the list varies depending on component context and access control. For a description of the pop-up menu commands, for components other than unconfigured LPs and ports, see the section "Selected menu" (page 93).

Chapter 5
Nodal Provisioning forms

For a description of the Nodal Provisioning forms, see the following sections

- "Overview of Nodal Provisioning forms" (page 107)

- "Component forms" (page 109)

- "Service forms for Passport devices" (page 112)

Overview of Nodal Provisioning forms

Nodal Provisioning provides forms to add and edit components and services. The forms that are available to you are dependent on the device you are provisioning.

Nodal Provisioning form	Applies to		Purpose
	Passport	**MPE**	
"Component creation form" (page 109)	x	x	Creates a single component instance, or multiple instances of the same component.
"Component edit form" (page 111)	x	x	Edits a single component instance.
(Sheet 1 of 2)			

Nodal Provisioning form	Applies to		Purpose
	Passport	**MPE**	
"Service edit form for Passport devices" (page 115)	x		Edits a service.
"Service template form for Passport devices" (page 112)	x		Adds a single service, or multiple instances of the same service.
(Sheet 2 of 2)			

Attribute fields for Nodal Provisioning forms

The fields available on the Nodal Provisioning forms are specific to the component that you select and the specific model version. In component forms, each field represents an attribute for the selected component. In service forms, each tab corresponds to a component. When you select a tab, the form displays the attributes for the selected component.

You may find one or more of the following aids to help you select ranges and values:

- drop-down menus identifying valid ranges and default values

- tool tips

- attribute help

For other attributes, you can enter values in a text field.

Navigating Nodal Provisioning forms

Instead of using the mouse, you can use the tab key to navigate within a table and between tables and other fields in the nodal provisioning forms. The Tab key functions in the following way:

- Tab
  Tab moves the focus to the next cell in the table.

- Shift + Tab
  Shift + Tab moves the focus to the previous cell in the table.

- Ctrl + Tab
  Ctrl + Tab moves the focus to the next widget outside of the table.

- Ctrl + Shift + Tab
  Ctrl + Shift + Tab moves the focus to the previous widget outside of the table.

Component forms

See the following sections for further information about component forms and how to use them:

- "Component creation form" (page 109)

- "Component edit form" (page 111)

- "Adding a single component instance" (page 152)

- "Editing a component instance" (page 159)

- "Creating multiple instances of a Passport component" (page 185)

Component creation form

The component creation form lets you add a single component instance, or multiple component instances. The component creation form is dynamically generated and displays the provisionable attributes that you can modify for the selected component.

A component creation form opens when you select the Add command from the Select menu or from the component pop-up menu.

The component creation form has the following command buttons:

- **OK** creates one component instance.

- **Cancel** closes the form without saving the changes. Data that you have entered is discarded.

- **Help** accesses the on-line documentation for the component form.

- **Multiple Creations** opens the Multiple Creations dialog box. This dialog box lets you specify how you want to create multiple instances of the component. For information on creating multiple component instances, see "Creating multiple instances of a Passport component or service" (page 183).

For sample component creation forms, see the figure "Sample component creation forms" (page 110).

Figure 7
Sample component creation forms

Passport component creation form

MPE 9500 component creation form

Component edit form

The component edit form lets you edit the provisionable attributes of a single component. This form is dynamically generated, displaying the attributes of the selected component.

The edit form opens when you select a component in the component hierarchy and then select the Edit command from the component's Selected menu or pop-up menu.

The component edit form has the following command buttons:

- **OK** modifies the component, validates the form and saves the current data onto the device. For Passport devices, the data is saved in the editing view. The component form closes after the component is saved successfully.

- **Apply** validates the form and saves the current service data. The form remains open after the component has been successfully saved. If an error occurs during validation or saving, a warning dialog opens and the form remains open.

- **Cancel** closes the form without saving the changes. Data that you have entered is discarded.

- **Help** accesses the on-line help for the component form.

For an example of a component edit form, see the figure "Example of a component edit form" (page 112). This edit form opens when you edit the DS1/1 component that you created with the component creation form described in "Component forms" (page 109).

Figure 8
Example of a component edit form

Service forms for Passport devices

See the following sections for further information about service forms and how to use them:

Service template form for Passport devices

You use the service template form to create a service. The service template form allows you to enter provisioning information for the components that make up the service.

A service template form lets you apply a single service instance, or multiple instances of the same service from one form.

You can apply a service template by using one of the following methods:

• Drag and drop a service template icon from the service palette to a valid drop site on the component hierarchy.

• Select a valid drop site in the component hierarchy, right click on a template icon in the service palette, and then select **Launch** from the pop-up menu.

• Select a drop site in the component hierarchy, right-click and from the pop-up menu, select **Apply Service Template.**

A service template form does not open if the service template is dropped on an invalid drop site.

The figure "Example of a service template form" (page 114), shows the service template form to create a virtual connection (Vcc) under the selected ATM Interface. This service template also lets you provision the traffic management parameters.

Figure 9
Example of a service template form

The service template form has the following command buttons:

- **OK** validates and saves the current data onto the device, creating one instance of the service.

- **Multiple Creations** opens the Multiple Creations form which lets you create multiple instances of the service. For the procedure to create multiple services, see "Creating multiple instances of a Passport component or service" (page 183).

- **Cancel** closes the service template form without saving the changes.

- **Help** accesses the on-line help for the form.

See the following sections for additional information:

- For information on creating services, see "Creating a service for Passport devices" (page 178)

- For information on the service template forms for specific services, see 241-6001-611 *Preside MDM Nodal and Service Provisioning Reference Guide*.

Service edit form for Passport devices

The service edit form lets you edit a service that corresponds to a component in the component hierarchy.

A service edit form opens when you select Edit from the Selected or pop-up menu for a selected service component.

> *Note:* Selecting Add from the pop-up menu does not invoke the service form. It lets you add a subcomponent to the service component (for example, DLCI to a FRUNI).

Service edit forms display the attributes of the one or more components that make up the service. Each component is represented by a separate tab. When you select a tab, the attributes for the selected component are displayed.

The figure "Example of a Service edit form" (page 116) shows the service edit form for an AtmIf/10 on EM/Atlanta.

Figure 10
Example of a Service edit form

The service form has the following command buttons:

- **OK** validates and saves the current data onto the device. The form closes after the service is saved successfully.

- **Apply** validates and saves the current data. The form remains open after the service is saved successfully.

- **Cancel** closes the service editor form without saving.

- **Help** displays the on-line help for the form.

For information on using the service form, see "Editing a service for Passport devices" (page 180).

Chapter 6
Navigating component hierarchy and shelf view

This section provides procedures for navigating the Nodal Provisioning window and the component hierarchy and shelf view. It contains the following sections:

- "Nodal Provisioning window navigation" (page 117)

- "Navigating the component hierarchy" (page 123)

- "Navigating the Passport shelf view" (page 130)

Nodal Provisioning window navigation

See the following sections for general procedures for navigating the main window:

- "Closing the current view" (page 118)

- "Switching between Passport component hierarchy and shelf view" (page 119)

- "Showing and hiding the toolbar" (page 120)

- "Showing and hiding the status bar" (page 121)

- "Detaching and reattaching the template palette" (page 122)

Closing the current view

Use this procedure to close the current service data view at any time after you have opened a view in Nodal Provisioning.

Procedure

1   In the **Nodal Provisioning** window menu bar, select **File** -> **Close View**.

If you have made changes, you are prompted to save your changes

2   Save your changes and click **OK**.

The component hierarchy in the main window is unpopulated. You can select a new view.

Switching between Passport component hierarchy and shelf view

When you start Nodal Provisioning for Passport nodes, it opens with the component hierarchy view. You can, at any time, change between the component hierarch view and the Passport shelf view.

Procedure

1   To switch to shelf view from component hierarchy view, in the menu bar of the **Nodal Provisioning** window, select **View** -> **Shelf**.

To switch to component hierarchy view from shelf view, in the menu bar of the **Nodal Provisioning** window, select **View** and then deselect **Shelf**.

Showing and hiding the toolbar

Use this procedure to display or hide the toolbar in the Nodal Provisioning window.

Procedure

1   To switch from displaying the toolbar to hiding the toolbar, in the menu bar of the **Nodal Provisioning** window, deselect **View** -> **Toolbar**.

To switch from hiding the toolbar to displaying the toolbar, in the menu bar of the **Nodal Provisioning** window, select **View** -> **Toolbar**.

Showing and hiding the status bar

Use this procedure to display or hide the status bar in the Nodal Provisioning window.

Procedure

1   To switch from displaying the status bar to hiding the status bar, in the menu bar of the **Nodal Provisioning** window, deselect **View** -> **Statusbar**.

To switch from hiding the toolbar to displaying the toolbar, in the menu bar of the **Nodal Provisioning** window, select **View** -> **Statusbar**.

Detaching and reattaching the template palette

Use this procedure to detach the template palette from the Nodal Provisioning window in shelf view and component hierarchy view, and reattach it.

Procedure

1   Place your mouse cursor next to the title of the template palette - **Templates**. When the transparent hand appears, left-click. While holding down the left mouse button, drag the template palette away from the **Nodal Provisioning** window.

The template palette now appears as a separate window in the shelf view window.

2   Close the detached palette window to reattach the template palette.

Navigating the component hierarchy

The following procedures apply to the component hierarchy in the component tree view or the component tree in the components drill down panel in the Passport shelf view.

- "Expanding a component" (page 124)

- "Compressing a component" (page 125)

- "Searching for a component in a large instance set" (page 126)

- "Hiding a single Passport component instance" (page 128)

- "Hiding all component instances" (page 129)

- "Detaching and reattaching the component and service hierarchies" (page 131)

Expanding a component

When compressed, a components displays with a plus sign (+) in the component hierarchy. A compressed component does not display its subcomponents. Use this procedure to expand a component so that its next level of subcomponents displays in the component hierarchy.

Procedure

1   In the component hierarchy, find the component or subcomponent that you want to expand.

A plus sign (+) appears to the left of the compressed component icon to indicate that the component is compressed.

2   Click the plus sign or double-click on the folder.

The selected component expands to the next level of subcomponent.

Compressing a component

When expanded, a component displays a minus sign (-) in the component hierarchy. An expanded component displays the next level of subcomponents in the component hierarchy. Use this procedure to compress, or hide, the display of subcomponents in the component hierarchy.

Procedure

1   In the component hierarchy, find the component that you want to compress.

A minus sign (-) appears to the left of the component to indicate that the component is expanded.

2   Click the minus sign or double-click the folder.

The selected component in the component hierarchy compresses to the next level of sub-component.

Searching for a component in a large instance set

The component hierarchy indicates when the number of component instances exceeds a pre-defined threshold size. A value of x of y indicates the proportion of instances displayed in the component hierarchy. For example, a value of "50 of 75" indicates that only 50 of 75 instances appear in the component hierarchy. Card and LP components are exceptions–they always display all instances. When you expand the parent folder, Nodal Provisioning does not automatically fetch all the instances and add them to the component hierarchy. Use this procedure to search for a specific component instance, or a subset of instances, for large components.

You use a search dialog box to search for a component in a large instance set. The search dialog box also provides the ability to add or replace one or more component instances from the search list in the search dialog box to the component hierarchy.

Related information

To control the number of instances that display in the component hierarchy, see "Setting User Preferences" (page 207).

Procedure

1   Select a folder whose component instances exceed the defined threshold size, as shown by the visual indicator (x of y) to the right of the folder.

2   Complete one of the following steps:

- Select **Search** from the **Selected** menu.

- Right-click and select **Search** from the pop-up menu.

The **Search** dialog box opens.

Search criteria field	EM/ALBERTVILLE
	Please enter the search criteria
	Col *
	Search
	8 found
Search results list	Col/ACCOUNTING
	Col/ALARM
	Col/LOG
	Col/DEBUG
	Col/SCN
	Col/TRAP
	Col/STATS
	Col/RTSTATS
	Add to Tree
	Replace in Tree
	Help
Command buttons	Close
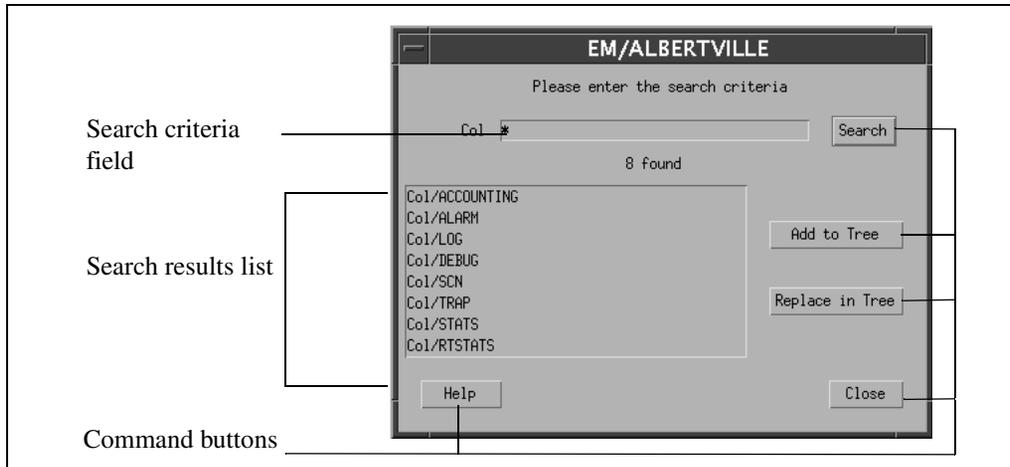
3   Enter the criteria for the search in the search criteria field.

  The search pattern may contain the wild card (*).

4   Click **Search** to initiate the search for the components that match the specified search criteria.

  Components that meet the specified criteria appear in the search results list.

5   From the list, select one or more components.

6   To add the selected components to the component hierarchy, click **Add to Tree**.

  To replace component(s) in the tree, click **Replace in Tree**

  To remove a component, right-click and select **Remove** from the pop-up menu.

  To close the **Search** dialog box, click **Close**.

   The results of the search are displayed to the right of the folder.

Hiding a single Passport component instance

Use this procedure to hide a component instance in the Passport component hierarchy. The Hide command is only available for children of a component with too many instances to display. These components are shown with a value of x of y in the component hierarchy. The command is not available for other items in the component hierarchy.

Procedure

1   In the component hierarchy in the **Nodal Provisioning** window, select the folder containing the child component that you want to hide, and expand it.

2   Select the component instance that you want to hide.

3   From the **Selected** menu or the component's pop-up menu, select **Hide**.

The selected component is hidden in the parent folder.

Hiding all component instances

Use this procedure to hide all component instances in a folder in the component hierarchy. The Hide Children command is only available for a folder, not for other items in the component hierarchy.

Procedure

1   In the component hierarchy in the **Nodal Provisioning** window, select the folder whose component instances you want to hide.

2   From the **Selected** menu or the component's pop-up menu, select **Hide Children**.

All components are hidden in the parent folder.

Navigating the Passport shelf view

The following procedures apply only to Passport shelf view. For shelf view navigation procedures, see the following sections:

Detaching and reattaching the component and service hierarchies

Use this procedure to detach the component and service hierarchies from the Passport shelf view.

Prerequisite

This procedure requires that you have selected the shelf view for a Passport node.

Procedure

1   Place your mouse cursor next to the **Shelf Details** title. When the transparent hand appears, left-click. While holding down the left mouse button, drag the panel away from the **Nodal Provisioning** window.

The selected panel now appears as a separate window.

2   Close the detached window to reattach the component and service drill down panels.

Viewing the root component

Use this procedure to view the EM component. In Passport shelf view the EM root component (the device) is graphically displayed to the left of the logical processors.

Prerequisite

This procedure requires that you have selected the shelf view for a Passport node.

Procedure

1   Left click in the area to the left of the graphical representation of the logical processor component.

This action populates the component drill down panel showing the component hierarchy rooted at the selected EM root.

Viewing shelves

Use this procedure to view the Passport shelf component. The shelf
component is graphically displayed to the left of the cards in shelf view.

Prerequisite

This procedure requires that you have selected the shelf view for a Passport
node.

Procedure

1   Left click in the area to the left of the graphical representation of the card
components.

This action populates the component drill down panel with the component
hierarchy rooted at the selected shelf.

Viewing cards

Use this procedure to view the Passport card components. All cards are graphically displayed in the shelf panel.

Prerequisite

This procedure requires that you have selected the shelf view for a Passport node.

Procedure

1 Select a graphical representation of the card.

This action populates the component drill down panel with the component hierarchy rooted at the selected card.

Viewing configured logical processors

Use this procedure to view the Passportlogical processors. Configured logical processors (LPs) are shown graphically in the logical shelf view panel.

Prerequisite

This procedure requires that you have selected the shelf view for a Passport node.

Procedure

1   In the logical shelf view panel, select a configured logical processor that has been assigned a main card, and/or spare card, or select an LP from the component hierarchy.

This action has the following results:

- The connectivity between the selected logical processor and the main and/or spare card is shown graphically.

- The component drill down panel is populated with the component hierarchy whose top level elements are the service components that are linked to the selected rooted logical processor and any of its subcomponents.

- All ports, configured and unconfigured, are visible on the LP.

Viewing unconfigured logical processors

Use this procedure to view unconfigured logical processors in Passport shelf view.

Unconfigured logical processors are visually distinguished from configured logical processors. Unconfigured logical processors are dark grey and contain no configured or unconfigured ports.

Prerequisite

This procedure requires that you have selected the shelf view for a Passport node.

Procedure

1   In the logical shelf view panel, select an unconfigured logical processor.

The contents of the component and service drill down panels are cleared.

Viewing configured ports

Use this procedure to view configured ports in Passport shelf view.

Configured ports are shown graphically on logical processors, whether or not the logical processors have been configured with a main or spare card. Configured ports are visually distinguished from unconfigured ports by a raised border. Unconfigured ports are shown with a lowered border. If there are more ports on the logical processor than can be shown on the screen at once, scroll bars are enabled at the bottom of the logical processor through which you can pan up and down.

Prerequisite

This procedure requires that you have selected the shelf view for a Passport node.

Procedure

1   Select a configured port.

This action has the following results:

- The component drill down panel is populated with a component hierarchy rooted in the selected port.

- If the selected port is not channelized, the service drill down panel is populated with a component hierarchy rooted at any service that is configured on the port.

- If the selected port is channelized, the service drill down panel is populated with a component hierarchy for each service that is configured on any of its channels.

Viewing unconfigured ports

Use this procedure to view unconfigured ports in Passport shelf view.

All ports are shown graphically on logical processors that have been configured with a main or spare card. If a logical processor has not been configured with a main or spare card, only the configured ports display graphically.

Unconfigured ports are visually distinguished from configured ports by a lowered border. Configured ports have raised borders and display their port identifier.

If there are more ports on the logical processor than can be displayed on the screen at once, scroll bars are enabled at the bottom of the logical processor through which you can pan up and down.

Prerequisite

This procedure requires that you have selected the shelf view for a Passport node.

Procedure

1 Select an unconfigured port.

The contents of the component and service drill down panels are cleared.

Viewing configured channels

Use this procedure to view configured channels in Passport shelf view.

Prerequisites

This procedure requires the following conditions:

- you have selected the shelf view for a Passport node

- the channel you want to view is on a configured port

Procedure

1 Select a graphical representation of a configured channelized port.

This action has the following results:

- The component drill down panel is populated with a component hierarchy rooted at the selected port.

- The service drill down panel is populated with component hierarchies for each service configured on any channel of the selected port.

2 In the component drill down panel, expand the port component.

The channels that have been configured on this port are shown as children of the port.

3 In the component drill down panel, select a channel.

If the selected channel has a configured service, the service drill down panel is populated with a component hierarchy rooted at the service that is configured on that channel.

Viewing provisioned services

Use this procedure to view provisioned services in Passport shelf view.

Prerequisite

This procedure requires that you have selected the shelf view for a Passport node.

Procedure

1   Select a graphical representation of a logical processor or a configured port.

If a logical processor is selected, the service drill down panel is populated with one or more component hierarchies rooted at the service provisioned on ports configured on the selected logical processor.

If the port is channelized, the service drill down panel is populated with one or more components hierarchies rooted at the services provisioned on that port or on channels of that port.

2   If the port is channelized, in the component drill down panel, expand the port component and select a channel.

The service drill down panel is populated with a component hierarchy rooted at the service provisioned on that channel, if it exists.

Chapter 7
Nodal Provisioning procedures

This section provides component and service provisioning procedures using Nodal Provisioning, as well as some generic error resolution procedures. This section contains the following topics:

- **Committing an MPE 9500 configuration**

- **Customizing Nodal Provisioning**

Displaying online help

See the following sections for displaying online help:

Displaying help on the Nodal Provisioning window

Use this procedure to access the Help on Window from the Help menu from the Nodal Provisioning, Nodal Provisioning Template Editor, Log Viewer and Report Generator windows. Help on Window displays the Online documentation for the main window, menus and tool bars, and the general functions.

Procedure steps

1   On the **Help** menu, click **Help on Window**.

A window opens with general descriptive help for the **Nodal Provisioning** tool.

Displaying help on attributes

You can display descriptive information on selected attributes through pop-up dialog boxes.

Procedure steps

1 Right-click on an attribute field.

2 On the pop-up menu, click **Help**.

A dialog box opens displaying information about the attribute.

For an example of attribute descriptive help, see the illustration "Example of attribute descriptive help" (page 146).

Figure 11
Example of attribute descriptive help
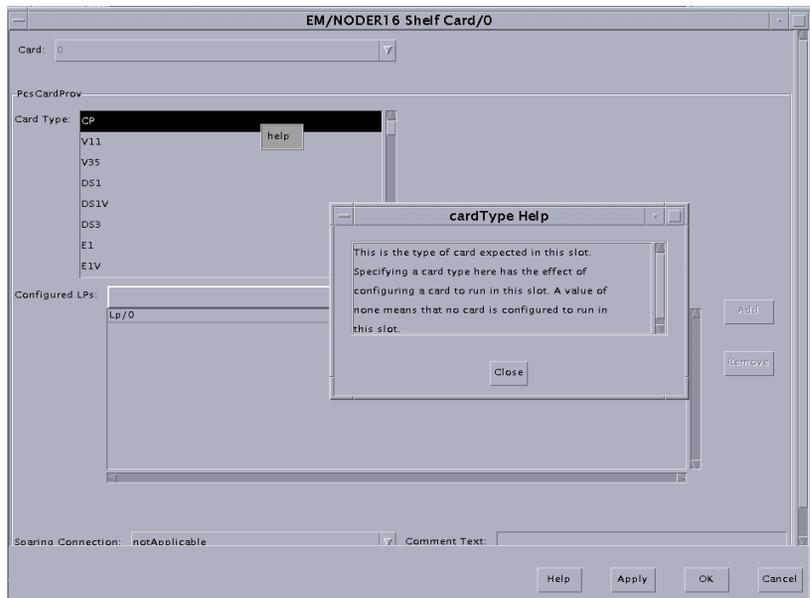
Displaying help on dialogs and forms

Use this procedure to access help information for the Nodal Provisioning, Nodal Provisioning Template Editor, Log Viewer and Report Generator dialogs, and for component, service and service template forms.

Procedure steps

1   Open a form.

2   Click **Help**.

A window opens with descriptive help for the form.

Displaying tool tips for attribute ranges

Use this procedure to access a pop-up dialog box that displays tool tips that give the valid ranges for some attributes.

Procedure steps

1   Place the mouse pointer on an attribute field for two seconds.

A pop-up tool tip dialog box opens displaying the valid ranges for the attribute.

Component provisioning procedures overview

See the following sections for component provisioning procedures:

- "Adding a single component instance" (page 152)

- "Finding a component" (page 154)

- "Adding a new LogicalProcessorType component" (page 155)

- "Editing a component instance" (page 159)

- "Editing a ScsSoftware component" (page 160)

- "Editing a LogicalProcessorType component" (page 163)

- "Deleting a component" (page 165)

- "Cutting, copying and pasting components" (page 166)

- "Cutting, copying, and pasting Passport components between views" (page 172)

- "Creating multiple instances of a Passport component" (page 185)

Viewing and saving a record of changes made during a provisioning session

Use this procedure to view and save to a file a record of the actions that you have taken and the changes that you have made during the provisioning session.

Procedure steps

1 From the **View** menu in the **Nodal Provisioning** window, select **History**.

The **History of Changes** dialog box opens showing a record of the actions and changes that have occurred.

2 Select **Save to File**.

The **History File** dialog box opens.
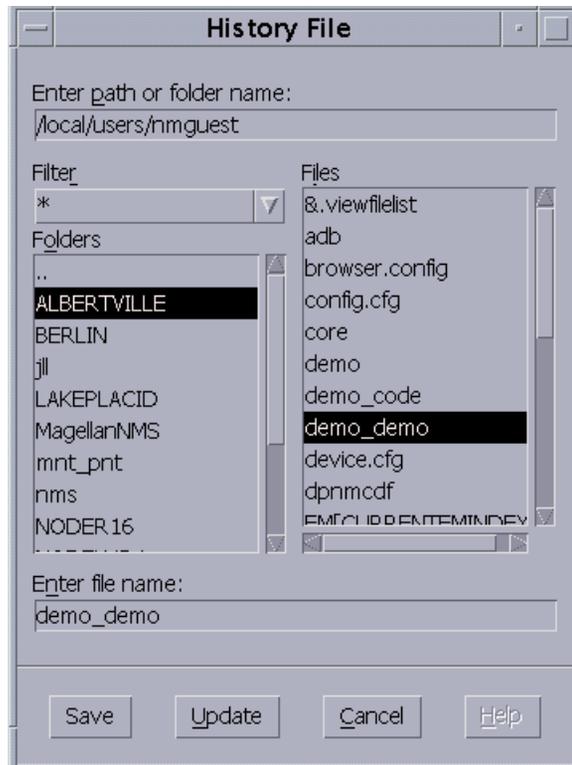
3   Select a location and specify a file name.

4   Select **Save** to save a new file to the specified location.

Select **Update** to update the contents of a directory.

Select **Cancel** to cancel the save operation.

Adding a single component instance

Use this procedure to add a single component instance to a selected component in the component hierarchy. You use the Add Component dialog box to add a single component instance.

You can also add more than one instance of the same component. For the procedure to add multiple component instances, see "Creating multiple instances of a Passport component or service" (page 183).

Prerequisites

This procedure requires the following condition:

• you are in not in read only mode

Procedure steps

1 Select one of the following actions, depending on the device you want to provision.

For...	Locate the parent component by...
Passport or MPE	Expanding the component hierarchy to the parent of the component you want to add.
Passport	Selecting a graphical representation of the parent component in shelf view.

2 Select the component that you want to provision.

3 Complete one of the following actions.

• Right-click on the parent component and select **Add** from the pop-up menu.

• On the **Selected** menu, click **Add**.

The **Add Component** dialog box opens. The **Component Name** list
contains the components that you can add to the selected component.

selected component for the
add component operation
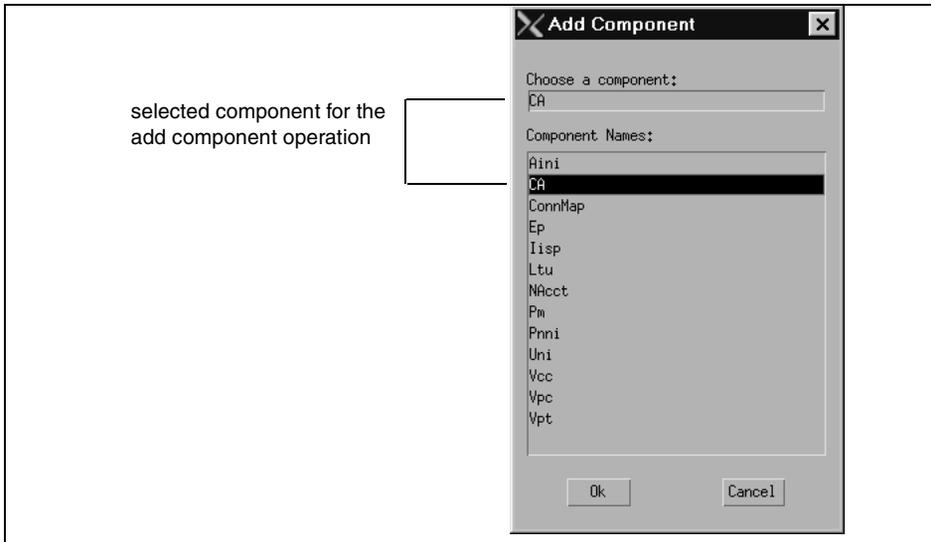
4   In the **Component Name** list, click the component that you want to add.

The selected component appears in the **Choose a component** field.

5   To add the component, click **Ok.**

A component creation form opens and displays the provisionable
attributes for the component.

6   In the component creation form, enter or edit the attribute values.

7   To validate the form and save the current data, click **OK**

The component is added to the component hierarchy. If the component
you add is a network-wide component, then a global icon displays to the
left of the component name.

If an error occurs during validation or saving, an error dialog box opens
and the component form remains open. You can obtain additional details
about the error condition by clicking **Details**.

8   Save your view. See "Post-provisioning procedures" (page 219).

Finding a component

You can find a specific component without having to scroll through a lengthy component list. Use the Find a Component dialog box to help locate a specific component. Using this dialog box, you can specify a specific component or search the list of components based on search criteria.

Prerequisites

This procedure requires the following conditions:

• you are not in read only mode

Procedure steps

1 Complete one of the following actions:

   • Right-click a component in the component tree view and from the resulting pop-up menu, click **Find and select a component**.

   • Click the **Find and select a component** icon from the task bar.

   The **Find a component** dialog box opens.

2 In the **Find a component** dialog box, type the component name and then go to step 5. Otherwise go to step 3 to search for a component.

3 Specify the appropriate search criteria and click **Search**.

   The **Component Search Results** list displays the results of the search.

4 Click the appropriate component name in the **Component Search Results** list.

5 Click **OK.**

   The **Find a component** dialog box closes and the selected component is highlighted in the component tree view.

Adding a new LogicalProcessorType component

Use this procedure to add a new ScsLogical Processor Type (Lpt) component and provision the featurelist attribute.

When you add a new Lpt, Nodal Provisioning displays candidate values, derived from the device, for the attribute "featureList". You can select the values that you want to use from the list.

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

1 In the component hierarchy in the **Nodal Provisioning** window, select the Sw component.

2 Complete one of the following steps:

• Right-click and select **Add** from the pop-up menu.

• In the menu bar, select the **Selected** menu option and then select **Add**.

•

The **Add Component** dialog box opens.

The Choose a component field displays the selected component

The Component Name field displays the components that you can add to the component that is selected in the component hierarchy.

```
┌──┬─────────────────────────────────┐
│ ─│        Add Component            │
├──┴─────────────────────────────────┤
│                                     │
│  Choose a component:                │
│  │Lpt                            │  │
│                                     │
│  Component Names:                   │
│  ┌───────────────────────────────┐ │
│  │Av                             │ │
│  │Dld                            │ │
│  │Lpt                            │ │
│  │                               │ │
│  │                               │ │
│  │                               │ │
│  │                               │ │
│  └───────────────────────────────┘ │
│                                     │
│    ┌──────┐        ┌────────┐       │
│    │  Ok  │        │ Cancel │       │
│    └──────┘        └────────┘       │
└─────────────────────────────────────┘
```
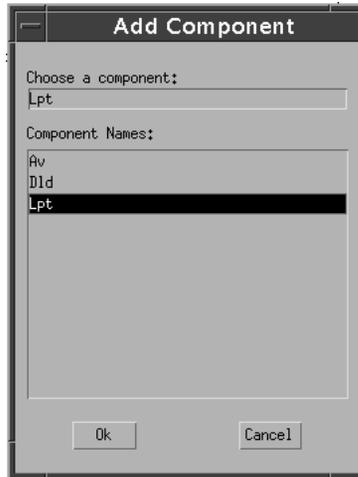
3   Select the Lpt component, and click **Ok**.

The Sw (Create Lpt) component form opens.

The component form displays two lists for the "featureList" attribute:

- **Available Features** lists all the features (services) supported by the software loaded into the current view on the device.

- **Selected Features** is empty when the create Lpt form opens.
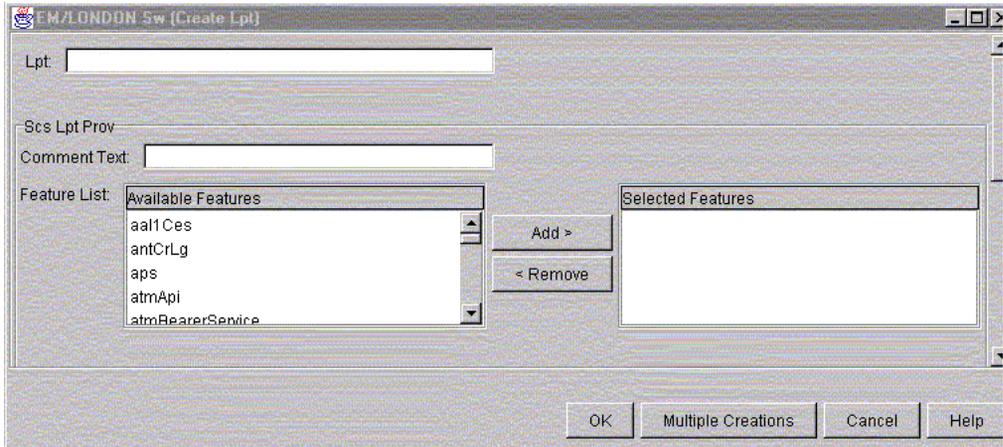
4   To add a new feature to the **Selected Features** list, from the **Available Features** list, select a required feature value and click **Add** or alternatively, double click on the feature value in the **Available Features** list.

The item selected in the **Available Features** list moves to the **Selected Features** list.

5   Repeat step 4 to add additional feature values until you have build the value set for featureList.

If you want to remove a feature, from the **Selected Features** list, select the feature that you want to remove and click **Remove**. The feature moves to the **Available Features** list.

6   In the **Lpt** field, enter a key value for the new Lpt component.

7   Click **OK**.

The values from the **Selected Features** list are used to set the value for the "featureList" attribute. The new Lpt appears under the Sw component in the **Nodal Provisioning** window.

If any of the selected features are not supported by the software loaded into the current view, a warning dialog box opens. The warning dialog box lists the features that are not supported. You are given the option to keep them in the feature list or to remove them from the feature list. If you remove them, they are lost permanently since they are not put back into

the **Available Features** list once they are removed from the **Selected Features** list.

Editing a component instance

Use this general procedure to change attributes for a component. For components that have a graphical representation in shelf view, you can select the component to be provisioned by its graphical representation in the shelf view or by its hierarchical representation in the drill down panels.

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

1   Select one of the following actions, depending on the device you want to provision.

For...	Locate the component by...
Passport or MPE	Expanding the component hierarchy to display the component you want to edit.
Passport	Selecting the graphical representation of the component in shelf view.

2   Select the component that you want to provision.

3   Complete one of the following actions.

   • Right-click on the component and select **Edit** from the pop-up menu.

   • On the **Selected** menu, click **Edit**.

   A component edit form opens, containing the component attributes that you can provision.

4   Make the required changes to the attribute values in the form.

5   To validate the changes and close the form, click **OK**.

   To keep the form open, click **Apply**. The current service data is validated and saved.

6   Save the view. See "Saving the view for Passport devices" (page 220).

Editing a ScsSoftware component

Use this procedure to set new values for an existing avList attribute for the ScsSoftware (Sw) component.

When you edit the Sw component, Nodal Provisioning component edit form displays the available and selected candidate values, derived from the device, for the avList attribute. You can modify an existing avList attribute by adding or removing candidate values.

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

1   In the **Nodal Provisioning** window, select the Sw component.

2   Complete one of the following steps:

• Right-click and select **Edit** from the pop-up menu.

• On the **Selected** menu, click **Edit**.

The Edit Sw form opens and displays two lists for the avList attribute: the **Available Versions** list which shows the available avList values and the **Selected Versions** list which shows the currently selected avList values.
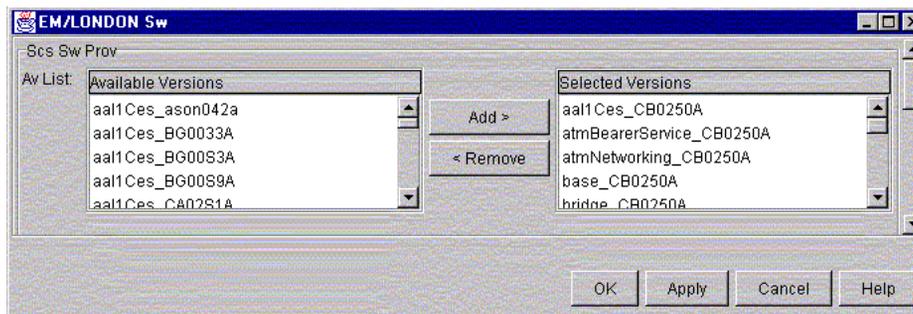
3   To add a value, select a value from the **Available Versions** list and click the **Add** button, or double-click on a value. This step adds this value to the **Selected Versions** list.

To remove a value, select a value in the **Selected Versions** list and click the **Remove** button, or double-click on a value. This step moves the value from the **Selected Versions** list to the **Available Versions** list.

4   Repeat step 3 for each value that you wish to add or remove from the avList attribute.

5   If you want to modify the ScsSoftware component and close the form after the data is successfully saved, click **OK**.

If you want the form to remain open, click **Apply**. The current service data is validated and saved.

Migrating Passport software

Use this procedure when a Passport software migration occurs during a Nodal Provisioning session. If you are connected to a Passport device in your Nodal Provisioning session and a software migration is subsequently activated during that session, use this procedure to ensure you access the latest software.

Procedure steps

1   To migrate Passport software, modify the avList of the Sw component as required. See "Editing a ScsSoftware component" (page 160).

2   Save the view. See "Saving the view for Passport devices" (page 220).

3   Active the view. See "Activating and Committing the View for Passport devices" (page 223).

4   On the Nodal Provisioning **File** menu, click **New Device**.

   The **Nodal Provisioning-Device Selection** dialog box opens.

5   In the **Nodal Provisioning-Device Selection** dialog box, select the same Passport to provision and then click **OK**.

   The **Nodal Provisioning-Device Selection** dialog box closes.

6   Open the current view. See "Opening a view for Passport devices" (page 53).

   A new connection to the Passport is established, Nodal Provisioning retrieves the new model, generates the model files if required, and refreshes the template panel.

Editing a LogicalProcessorType component

Use this procedure to set new values for an existing featureList attribute for a provisioned Logical Processor Type (Lpt) component.

When you edit the Lpt component, the Nodal Provisioning tool component edit form displays the selected and available candidate values, derived from the device, for the featureList attribute. You can modify an existing featureList attribute by adding or removing candidate values.

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

1   In the **Nodal Provisioning** window, expand the Sw component so that you can view its subcomponents.

2   From the component hierarchy, select the Lpt component.

3   Complete one of the following steps.

• Right-click and select **Edit** from the pop-up menu.

• In the menu bar, select the **Selected** menu option and then select **Edit**.

The edit Lpt form opens and displays two lists for the featureList attribute: the **Selected Features** list which shows the currently selected featureList

values, and the **Available Features** list which shows the available featureList values.

4   To add a value, double-click on a value from the **Available Features** list or select a value and click the **Add** button. This step adds this value to the **Selected Features** list.

To remove a value, double-click on a value or select a value in the **Selected Features** list and click the **Remove** button. This step moves the value from the **Selected Features** list to the **Available Features** list.

5   Repeat step 4 for each value that you wish to add or remove from the featureList attribute.

6   I f you want to modify the The LogicalProcessorType component and close the form after the data is successfully saved, click **OK**.

If you want the form to remain open, click **Apply**. The current data is validated and saved.

Deleting a component

Use this procedure to delete a component and all its subcomponents.

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

1   Select one of the following actions, depending on the device you want to provision.

For...	Locate the component by...
Passport or MPE	Expanding the component hierarchy to display the component you want to delete.
Passport	Selecting the graphical representation of the component in shelf view.

2   Select the component that you want to provision.

3   Complete one of the following actions.

• Right-click on the component and select **Delete** from the pop-up menu.

• On the **Selected** menu, click **Delete**.

A confirmation dialog box opens asking you to confirm the delete.

4   Click **Yes** to confirm the delete.

The component and its subcomponents are removed from the component hierarchy.

If there are errors, an error dialog box opens and describes the error. Correct the errors.

5   Save the view. See "Saving the view for Passport devices" (page 220).

Cutting, copying and pasting components

You can cut, copy, and paste a component and its subcomponents, within and between supported devices. To perform these operations between devices, you need to open two Nodal Provisioning sessions. Then you can cut or copy a component from one Passport device and paste it to another, or cut or copy a component from one Nortel Networks Multiservice Provider Edge device and paste it to another. The paste operation always checks the paste target to make sure that it is a valid action for the copied component. When cutting, copying, and pasting between devices, the client for the cut and copy operations and the client for the paste operation must be connected to the same Configuration Manager.

When you cut or copy and paste a component, the component and all of its selected subcomponents are cut or copied from the source component and pasted into the target component. Therefore, if you cut or copy a component with a large number of subcomponents, it may take several minutes.

When copying and pasting within a Passport device, Nodal Provisioning uses the on-switch copy function. When the actions occur between Passport devices, Nodal Provisioning uses the off-switch copy function. In some cases, minor differences in output can occur. For example, when you copy components within a node that have attributes based on instance values, the on-switch copy function regenerates any attributes based on new instance values. If you copy these components between nodes, the off-switch copy function does not regenerate the attributes. Since such differences in output can occur, it is recommended that you verify the output of copy actions.

For Passport devices, you can also cut, copy, and paste between the shelf and component tree views.

For procedure, see

- "Cutting and copying components" (page 167)

- "Pasting Components" (page 170)

- "Cutting, copying, and pasting Passport components between views" (page 172)

Cutting and copying components

Use this procedure to cut or copy a component and its subcomponents for use within or between devices.

You use the cut or copy dialog boxes to copy components and their subcomponents. The cut and copy dialog boxes open only when the component that you select for the cut or copy operation has subcomponents.

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

Note: The cut and copy commands are enabled in the **Selected** and pop-up menus only if the cut or copy is a valid action.

1   Select the component that you want to cut or copy.

2   Complete one of the following steps:

• Right-click and select **Cut** or **Copy** from the pop-up menu or

• In the menu bar, select the **Selected** menu option and then select **Cut** or **Copy**.

A cut or copy components dialog box opens. The dialog box displays the selected component and its children.

3   In the dialog box, select the component or the subcomponents that you wish to cut or copy.

Example of a copy component dialog box

Components selected for the copy operation are shown with a check next to them
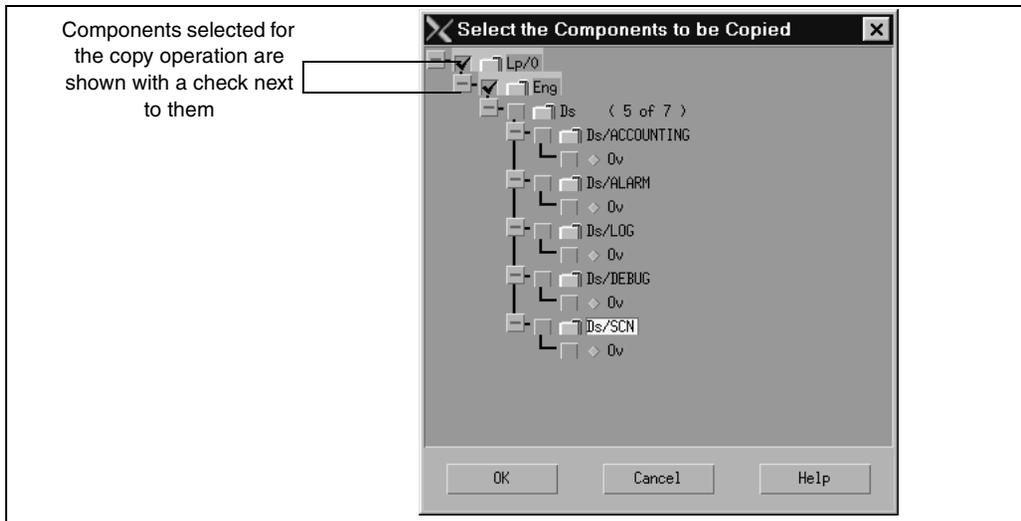
Selected components are shown by a check mark to the left of the component.

Selecting or deselecting the parent component automatically selects or deselects all its children. You can also select the individual subcomponents that you want to copy.

You are provided a visual indicator when not all the children are included in the cut or copy operation. The background color of the parent components up the component hierarchy change color to a light grey. This color change occurs in the following situations:

- when you deselect one of the children in the cut or copy components dialog boxes.

- when the number of children for a component exceeds a predefined threshold, as indicated visually to the right of the folder in the nodal provisioning main window, as (x of y) where x is maximum number of children shown and y is the total number of instances. You have to search for component instances and add them to the component hierarchy if you want them to be part of the cut or copy operation. See "Searching for a component in a large instance set" (page 126).

4 To proceed with the cut or copy operation, click **OK**.

The device information for the selected components is retrieved and, if the paste is done between devices, the information is stored so that it can be retrieved for later use when you execute the paste command.

The **status bar** updates to indicate that the component was copied successfully. If you have selected a component with a large number of subcomponents, the cut or copy action may take several minutes.

To cancel the operation, click **Cancel**.

5   Paste the cut or copied component into the target. See "Pasting Components" (page 170).

Pasting Components

The paste dialog box opens when you select the target component in which to paste a copied component, and then select Paste from the Selected menu, or click the mouse menu button and select paste from the available options. The target can be within the same device hierarchy or on a different device hierarchy. However, the source and target must be connected to the same Configuration Manager.

Prerequisites

This procedure requires the following conditions:

- you are not in read only mode

- you have previously copied a component. See "Cutting and copying components" (page 167).

Procedure steps

Note: The paste command is enabled in the **Selected** and pop-up menus only if the paste is a valid action and the cut or copy action is complete.

1   Select the target component for the paste action.

The target component can be within and between supported devices and between shelf and component hierarchy view.

2   Complete one of the following steps:

- Right-click and select **Paste** from the pop-up menu, or

- In the menu bar, select the **Selected** menu option and then select **Paste**.

A dialog box opens that lets you enter an identifier for the new component.
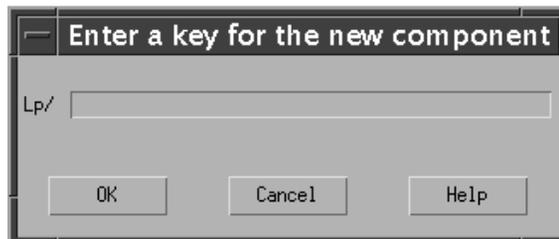
3   Enter an identifier, and click **OK** to initiate the paste operation.

The **status bar** in the **Nodal Provisioning** window updates to indicate that the component was pasted successfully. If you are pasting a component with a large number of subcomponents, the paste action may take several minutes.

The component and all of its subcomponents are created under the target component. The status bar updates, stating that the component was pasted successfully. This may take several minutes.

Note: If an error occurs during the cut/copy and paste action, such as when you cut/copy a component instance from one device to another with incompatible model files, an error dialog box opens. The dialog box identifies the error, and the components that were created. For additional information, see "Repairing Passport service creation errors overview" (page 194).

4   Modify the attributes for the pasted components as desired. To modify the attributes for the pasted component, you need to use the procedure described in "Editing a component instance" (page 159).

5   Save the view. See "Post-provisioning procedures" (page 219).

Cutting, copying, and pasting Passport components between views

Use this procedure for Passport devices to cut or copy components and their subcomponents in shelf view and paste them in component hierarchy view.

When you cut or copy and paste a component, the component and all of its selected subcomponents are cut or copied and pasted into the target component. Therefore, if you cut or copy a component with a large number of subcomponents, it may take several minutes.

Prerequisites

This procedure requires the following conditions:

* you are not in read only mode

* the source and target are connected to the same Configuration Manager

Procedure steps

1   In the shelf view, select the component that you want to cut or copy.

2   Complete one of the following actions:

* right-click and select **Cut** or **Copy** from the pop-up menu

* on the **Selected** menu, click **Cut** or **Copy**

If the selected component does not have subcomponents, then the cut or copy operation is completed. Otherwise, if the selected component has subcomponents a dialog box opens and displays the selected component and its children.

3   In the dialog box

* select the component and subcomponents that you want to cut or copy

* click **OK**

The **status bar** indicates that the component was successfully copied or deleted. If you have selected a component with a large number of subcomponents, the cut or copy action may take several minutes.

4   Switch to the component tree view using one of the following actions:

* in the **tool bar**, click the **shelf icon**

* on the **View** menu, clear the **Shelf** check box

5   In the component tree view, select the target component for the paste action.

6   Complete one of the following actions:

- right-click and select **Paste** from the pop-up menu

- On the **Selected** menu, click **Paste**.

Note: The **Paste** command is enabled only if the paste is a valid action and the cut or copy action is complete.

A paste dialog box opens that lets you enter an identifier for the new component.

7   Enter an identifier, and click **OK** to initiate the paste operation.

The status bar updates to indicate that the component was pasted successfully. If you are pasting a component with a large number of subcomponents, the paste action may take several minutes. The status of the paste operation is shown in the status bar.

Note: If an error occurs during the cut or copy and paste action, such as when you cut or copy a component instance from one device to another with incompatible model files, an error dialog box opens. The dialog box identifies the error, and the components that were created. For additional information, see "Repairing Passport service creation errors overview" (page 194).

8   Modify the attributes for the pasted components, as desired. See "Editing a component instance" (page 159).

9   Save the view. See "Post-provisioning procedures" (page 219).

Shelf view provisioning procedures

The following component level provisioning procedures can only be performed in shelf view:

Provisioning an unprovisioned Logical Processor

Use this procedure to provision an unprovisioned Logical Processor (LP) in shelf view. The following options are available from the Selected menu or pop-up menu to provision an unprovisioned logical processor:

- Add a new LP

- Paste a copied LP to provision this LP

Prerequisites

This procedure requires the following condition:

- you are not in read only mode

Procedure steps

1   In the **Logical Shelf** panel, select the graphical representation of an unconfigured logical processor.

2   Complete one of the following steps:

- Right-click and select the desired command (**Add** or **Paste**) from the pop-up menu, or

- In the menu bar, select the **Selected** menu option and then select the desired command (**Add** or **Paste**).

If you select **Add**, a component edit dialog box opens on the new logical processor component. Selecting **OK** creates the new logical processor.

If you select **Paste**, a copied logical processor is pasted to this logical processor.

3   Save the view. See "Post-provisioning procedures" (page 219).

Provisioning an unconfigured port

Use this procedure to provision an unconfigured port in shelf view. The following options are available from the Selected menu or pop-up menu to configure an unconfigured port:

- Add a port

- Paste a copied port to this port

Prerequisites

This procedure requires the following condition:

- you are not in read only mode

Procedure steps

1   In the **Logical Shelf** panel, select an unconfigured port.

2   Complete one of the following steps:

- Right-click and select the desired command (**Add** or **Paste**) from the pop-up menu, or

- In the menu bar, select the **Selected** menu option and then select the desired command (**Add** or **Paste**).

Depending on which action you selected, the following happens:

- If you select **Add**, the **Add Component** dialog box opens with a list of port types that are supported by the port that is being created. Proceed to step 3. If only one port type is supported, the **Add Component** dialog box does not open, and the port is automatically selected. The component editor form opens.

- If you select **Paste**, the last copied component is pasted as a child of the port, if it is a valid type.

3   Select a port type.

A component edit dialog box opens on the new port component.

4   Edit the attributes in the dialog box, as desired.

5   Click **OK.**

The new port is created.

6   Save the view. See "Post-provisioning procedures" (page 219).

Service provisioning procedures for Passport devices

For the provisioning tasks that you can perform at the service level, see the following sections:

- "Creating a service for Passport devices" (page 178)

- "Editing a service for Passport devices" (page 180)

- "Deleting a service for Passport devices" (page 182)

Creating a service for Passport devices

Use this procedure to create a single instance of a service.

If you wish to create multiple instances of a service, see the section "Creating multiple instances of a Passport component or service" (page 183).

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

1   If selecting a component from the component hierarchy in component hierarchy view, or its hierarchical representation in shelf view, expand the component hierarchy to display the target component for the new service. For the procedure to expand a component, see "Expanding a component" (page 124).

  Note: This is either the parent component for the root component of the service or a component to which the root component or one of its subcomponents is to be linked.

2   Select the component.

3   Apply the template using one of the following methods:

  • Click the tabbed pane in the service template palette to go to the service group. Select an template icon for the required service and drag and drop the template onto a valid target component, or

  • Select **Apply Service Template** from the pop-up menu or **Selected** menu. Select the service and then select the template from the list of available templates, or

  • Select the appropriate drop site, click on the template icon and select **Launch** from the pop-up menu.

  A service template for the service opens containing the attributes that you must enter to create a service. For some attributes, you can access the range and default information by resting the mouse pointer on the attribute.

4   Enter the data to provision the service.

5   In the service template, click **OK**.

If there are no errors, the updated component and service information is added to the tree and displayed when their parents are expanded. Proceed to Step 6.

If there is an error in the data entered into the attribute fields, an error dialog box opens and the service template dialog box remains open. Correct the error. Proceed to step 6.

If an error occurs while the service is being created, but before components are created, an error dialog box opens. Correct the error and return to step 1.

If an error occurs after some of the components in the service are created, a service creation error dialog box opens. Correct the error. See "Repairing Passport service creation errors overview" (page 194).

6   Save the view. See "Post-provisioning procedures" (page 219).

Editing a service for Passport devices

Use this procedure to edit a service if the service corresponds to a single component and its subcomponents in the component hierarchy. For components that have a graphical representation in shelf view, you can select the component to be provisioned by its graphical representation in the shelf view or its hierarchical representation in the drill down panels.

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

1 If selecting a component from the component hierarchy in component hierarchy view, or its graphical or hierarchical representation in shelf view, expand the component hierarchy to display the root component of the service. For the procedure to expand a component, see "Expanding a component" (page 124).

If selecting a component from the its graphical representation in shelf view, proceed directly to step 2.

2 Select the service component that you want to edit.

3 Complete one of the following steps:

• Right-click and select **Edit Service** from the pop-up menu, or

• In the menu bar, select the **Selected** menu option and then select **Edit Service**.

A service form opens, containing a tabbed form for each of the components for the service. Each form lists the attributes of one of the components that was created when the service was added.

4 Select the tab for the component that you want to modify.

5 Modify the component attributes.

Note: Do not click **OK** until you have completed editing all the attribute values that you want to change.

6 If you want to edit the attribute values on the service and close the form, click **OK**.

If an error occurs, an error dialog box opens with an error message. The form remains open. Correct the error and click **OK**.

If you want the form to remain open, click **Apply**. The data is validated and saved.

7   Save the view. "Post-provisioning procedures" (page 219).

Deleting a service for Passport devices

Use this procedure to delete a service if it has a single root component and there is a corresponding service model.

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

1 In the **Nodal Provisioning** window, expand the component hierarchy to display the root component of the service.

2 Select the component that you want to delete

3 Complete one of the following steps:

• Right-click and select **Delete** from the pop-up menu, or

• In the menu bar, select the **Selected** menu option and then select **Delete**.

The component and its subcomponents are removed from the component hierarchy.

Creating multiple instances of a Passport component or service

Nodal provisioning provides the ability to create multiple instances of a Passport component or service. This functionality is accessed by clicking the Multiple Creations button on the component or service creation form to open the Multiple Creations dialog box. This dialog box allows you to specify how you want the multiple instances of the service, or component, to be created.

The Multiple Creations form provides a text field for each root level component so that you can enter a key value pattern for the component or service. The table "Valid key value patterns" (page 183) describes valid key value patterns.

Alternately, you can enter the key value directly in the key field in the service creation or component creation form. The value that you enter in the key field of the service or component creation form is copied to the Multiple Creation form as a default pattern.

Table 13
Valid key value patterns

Description	Key Value Pattern	Key Values
All key values separated by a comma	1, 2, 3, 7, 9, a, b	1, 2, 3, 7, 9, a, b
A range value	1-3, 7-9, a, b	1, 2, 3, 7, 8, 9, a b
A range value	a-c, g-i,	a, b, c, g, h, i
A prefix and a suffix separated by a colon	any:1-3, 7-9	any1, any2, any3, any7, any8, any9
More than one pattern separated by a semicolon	0.:1-3; 1.:7-9	0.1, 0.2, 0.3, 1.7, 1.8, 1.9

The Multiple Creations dialog box also gives you the option to display the dialog box for each instance. If, however, there are any attributes in the service or component whose value can not be pre-defined, the Display form

for each instance check box is automatically selected and disabled. Consequently, for these cases, each individual component or service creation form is displayed, and you need to enter values for such attributes.

If there are no attributes whose value can not be predefined, you have the option of selecting or deselecting the Display form for each instance check box. If the check box remains unselected, the Nodal Provisioning tool creates all services or components automatically when you click OK. If you select the check box, a component or service creation form opens for each instance.

You can also cancel service or component creations from the component or service creation form. The form provides a Cancel button which opens the Cancel Creation dialog box. This dialog box gives you two options:

- **Cancel the current instance only** which cancels the creation of the current service or component instance and then displays the next service or component

- **Cancel the current and the remaining instances** which cancels the creation of the current service or component instance, and all remaining instances. You return to the Nodal Provisioning window.

For relevant procedures, see the following sections:

- "Creating multiple instances of a Passport component" (page 185)

- "Creating multiple instances of a Passport service" (page 187)

- "Canceling the current or remaining instances during a multiple creation of Passport components or services" (page 189)

Creating multiple instances of a Passport component

Use this procedure to create multiple instances of the same component.

Prerequisites

This procedure requires following condition:

- you are not in read only mode

Procedure steps

1   In the **Nodal Provisioning** window, select a component.

2   Complete one of the following steps.

- Right-click and select **Add** from the pop-up menu, or

- In the menu bar, select the **Selected** menu option and then select **Add**.

The **Add Componen**t dialog box opens.

3   In the **Add Component** dialog box, select the component that you want to add and click **OK**.

A component creation form opens.

4   Enter the required values for each attribute.

5   Click **Multiple Creations**.

The **Multiple Creations** dialog box opens.

6   In the **Component Key Assignment** field in the **Multiple Creations** dialog box, enter a key pattern. See "Valid key value patterns" (page 183).

7   If you want to see the **Multiple Creations** dialog box for each component instance, select the **Display form for each instance** check box.

If you want to create multiple components without showing each form, leave the **Display form for each instance** check box unchecked.

8   Click **OK**.

Nodal Provisioning analyzes the key value patterns that you have entered. One of the following happens:

- If you have made a key assignment error, a key assignment error dialog box opens. Click **OK** in the error dialog box, correct the key range in the **Multiple Creations** dialog box, and click **OK**.

- if there are no errors in the key pattern, and you have selected the **Display form for each instance** check box, the **Multiple Creations** dialog box closes and the first component instance creation form opens. The component creation form displays the first key value in the key field. The **Multiple Creation**s button is disabled. Proceed to step 9.

- If there are no errors in the key pattern, and you have not checked the **Display form for each instance** check box, all service instances are automatically created and display in the **Nodal Provisioning** window.

- If you click **Cancel** in the **Multiple Creations** dialog box, the dialog box closes and you return to the dynamic component creation form.

9 Make any necessary modifications to the attribute values in the component creation form, if desired, and click **OK**.

If there are no errors in the values that you have entered, the first instance is created. This instance displays in the **Nodal Provisioning** window. The next component creation form opens with the next available key value displayed in the key field. Otherwise, if errors occur, correct the attribute values.

10 Repeat step 9 to create all remaining component instances.

The component instances appear in the **Nodal Provisioning** window and are automatically assigned key values according to the key pattern that you have specified in the **Multiple Creations** dialog box.

Creating multiple instances of a Passport service

Use this procedure to create multiple instances of the same service.

Prerequisites

This procedure requires the following condition:

- you are not in read only mode

Procedure steps

1   In the **Nodal Provisioning** window, select a component to which you wish to apply the service.

2   Complete one of the following steps:

- Right-click and select **Apply Service Template** from the pop-up menu and from the list of valid templates, select the service template that you want to apply

- In the menu bar, select the **Selected** menu option, select **Apply Service Template**. From the list of valid templates, select the service template that you want to apply.

A service creation form opens.

3   In the service creation form, enter the required values for each attribute.

4   Click **Multiple Creations**.

The **Multiple Creations** dialog box opens. The **Multiple Creations** dialog box contains text fields for each first level component defined in the service template.

5   In the **Component Key Assignment** fields, enter a key pattern to each key pattern field. See "Valid key value patterns" (page 183).

6   If you want to see the **Multiple Creations** dialog box for each service instance, select the **Display form for each instance** check box.

If you want to create multiple service instances without showing each form, leave the **Display form for each instance** check box unchecked.

7   Click **OK**.

Nodal Provisioning analyzes the key value patterns that you have entered. One of the following happens:

- If you have made a key assignment error, a key assignment error dialog box opens. Click **OK** in the error dialog box, correct the key range in the **Multiple Creations** dialog box and click **OK**.

- if there are no errors in the key pattern, and you have selected the **Display form for each instance** check box, the **Multiple Creations** dialog box closes and the first service creation form opens. The service creation form displays the first key value to each first level component in the service. The **Multiple Creations** button is disabled. Proceed to step 8.

- If there are no errors in the key pattern, and you have not checked the **Display form for each instance** check box, the **Multiple Creations** dialog box, and the service creation dialog box close. All service instances are automatically created and display in the N**odal Provisioning** window.

- If you click **Cancel** in the **Multiple Creations** dialog box, the dialog box closes and you return to the dynamic service creation form.

8 Make any necessary modifications to the attribute values in the service creation form and then click **OK**.

If there are no errors, the first instance is created and the next service creation form opens with the next available key value for each first level component.

If an error occurs, a service creation error dialog box opens. Correct the error. See "Repairing Passport service creation errors overview" (page 194).

9 Repeat step 8 for all remaining service instances.

Key values for all remaining instances are automatically assigned according to the key values that you have specified.

Canceling the current or remaining instances during a multiple creation of Passport components or services

Use this procedure to cancel the creation of a single instance or all remaining component instances during the process of creating multiple instances of a Passport component or service.

You use the Cancel Creation dialog box to cancel the current or remaining instances.

Prerequisites

This procedure requires the following conditions:

- you are not in read only mode

- you are creating multiple instances of a component or service as described in "Creating multiple instances of a Passport component or service" (page 183) and have completed the following steps:

   — entered a key pattern in the **Component Key Assignment** field

   — selected **Display form for each instance**

   — clicked **OK** in the **Multiple Creations** dialog box

Procedure steps

1   In the component or service creation form, click **Cancel**.

The **Cancel Creation** dialog box opens.
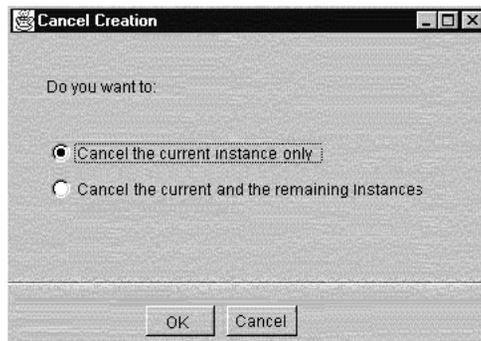
2   In the **Cancel Creation** dialog box, select one of the following options:

- If you wish to only cancel the current component or service creation instance, select **Cancel the current instance only**.

- If you wish to cancel the current and all remaining instances, select **Cancel the current and the remaining instances**.

3   Click **OK**.

If you have selected **Cancel the current instance only** option, the current component or service is not created and the next creation form opens.

If you have selected **Cancel the current and all remaining instances** option, no further instances of the component or service are created and the creation form closes.

If you click **Cancel**, the **Cancel Creation** dialog closes and you return to the current creation form.

Checking the Passport view during a provisioning session

Use this procedure at any time during a provisioning session to perform a check for errors on the currently open view. Any errors or warnings encountered during the check view operation display in the Check View dialog box.

Prerequisites

This procedure requires the following conditions:

- you have started Nodal Provisioning

- you are connected to a Passport device

- you are in read-write mode

Procedure steps

1   On the **File** menu, click **Check View**.

A **Check View** dialog box opens indicating that the checking process may take a few minutes. You are prompted as to whether or not to proceed with checking the view.

2   Click **Yes** to proceed with checking the view.

Performing a full semantic check for Passport devices

Perform a full semantic check anytime during a provisioning session to verify that the provisioning details are valid for the current view or configuration. Any semantic errors or warnings encountered during the check operation display in a dialog box.

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

1 Select one of the following actions, depending on the device you want to provision.

For...	On the File menu...
Passport	Click **Check View**.
MPE	Click **Check Configuration**.

A confirmation box opens.

2 On the confirmation box, click **Yes**.

A dialog box opens and displays any errors encountered during the check operation.

Performing a partial semantic check

Perform a partial semantic check when you want to check for errors under a selected component. Any semantic errors or warnings encountered during the partial semantic check operation are displayed in a dialog box.

Prerequisites

This procedure requires the following condition:

• you are not in read only mode

Procedure steps

1   Select the component that you want to check for errors.

2   From the **Selected** menu of the **Nodal Provisioning** window, select **Partial Semantic Check**, or select **Partial Semantic Check** from the selected component's popup menu.

A **Check View** message dialog box opens and displays any errors encountered while checking the selected component, or informs you that no errors were found.

Repairing Passport service creation errors overview

A Service Creation Errors dialog box opens if an attempt to create a service, using Nodal Provisioning or Embedded Nodal Provisioning, is only partially successful. Attribute errors may have occurred so that some, but not all, of the components in the service are created.

If the error occurs during the service creation but before any components are created, or attributes modified, an error message opens, and clicking OK in the error dialog causes one of the following scenarios to occur.

- If you are creating multiple instances of the service and you have opted to show the creation form for each instance, when you click OK the next creation form opens.

- If you are creating multiple instances of the service and you have opted to not show the creation form for each instance, when you click OK the creation form opens with a Continue button, and all remaining key values appear in a corresponding key field for each first level component.

You are given the following options in the Service Creation Errors dialog box after an error has occurred in the service creation:

- **Accept** allows the service to be created regardless of the error. Default values are used for those attributes.

  In the case of Embedded Nodal Provisioning, the task activation proceeds and the next provisioning action in the task is applied to the device.

  If you are creating multiple instances of the service, and have opted to display the service creation form for each instance, the next remaining instance creation forms opens.

  If you are creating multiple instances of the service, and have opted not to display the service creation form for each instance, the Nodal Provisioning tool creates the current instance as is, and creates all remaining instances automatically without showing each creation form.

- **Repair** brings up another dialog box which allows you to modify the input values to repair the error. When you click OK, the service is created using the modified values.

  If you are creating multiple instances of the service, and have opted to display the service creation form for each instance, the next remaining instance creation forms opens and the tool continues to process the next instance creation.

  If you are creating multiple instances of the service, and have opted to not display the service creation form for each instance, the tool creates all remaining instances automatically after you finish repairing the instance that generated the error.

- **Delete All** deletes the current instance and all the components created by the service.

  If you are creating multiple instances of the service, and have opted to display the service creation form for each instance, the current instance is not created and the next remaining instance creation form opens.

  If you are creating multiple instances of the service, and have opted to not display the service creation form for each instance, the tool creates all remaining instances automatically.

- In Nodal Provisioning, **Cancel** cancels the current instance and brings up the service creation form with all remaining key values appearing on each first level component's key field. You can modify the attribute or key values before you continue to create the remaining instances. The OK button in the service creation form is replaced with a **Continue** button.

  In Embedded Nodal Provisioning **Cancel** cancels the entire task activation. You are given the chance to cancel one or more of the pending activations using the Cancel Activations dialog and the procedure

"Canceling the application of multiple provisioning tasks" (page 466). You can edit the task as required and activate it once the problems are fixed.

If you are creating multiple instances of the service and have opted to display the service creation form for each instance, when you click **Continue** the next creation form with new values is displayed.

If you are creating multiple instances of the service and have opted to not display the service creation form for each instance, when you click **Continue** the remaining instances are automatically created with new values.

For an illustration of the service creation error dialog box, see "Service Creation Errors dialog box" (page 197).

Figure 12
Service Creation Errors dialog box
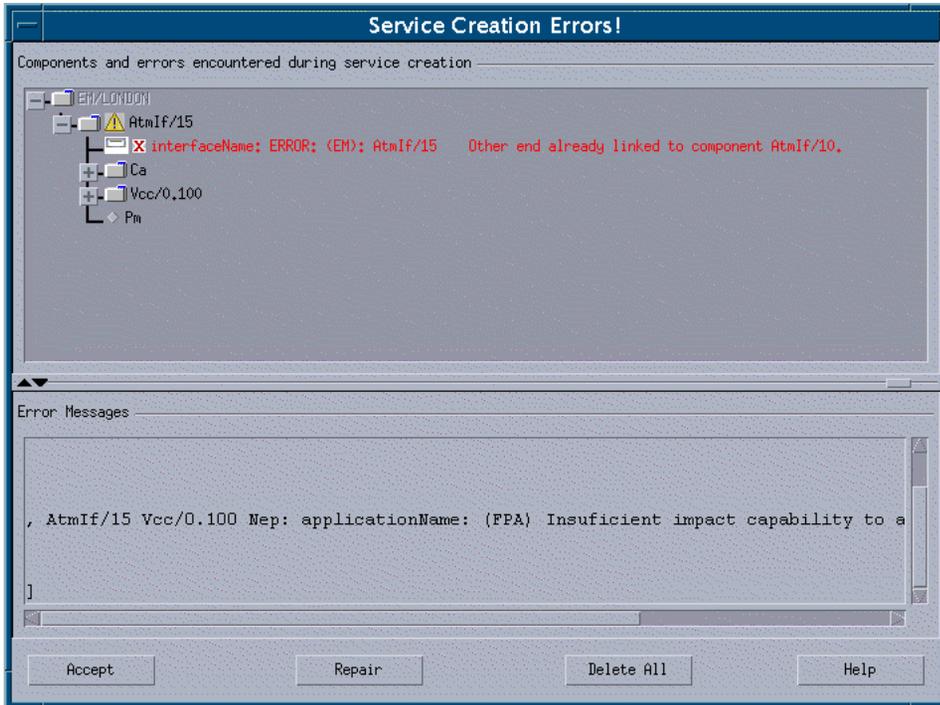
The **Components and errors encountered during the service creation**
panel displays the errors in component hierarchy format. It shows visually the
following:

• where in the component hierarchy tree the error occurred

• the components that have been successfully created

• the components that have been impacted by the error.

The icons that appear in the dialog box, and what they represent are described
in the table "Icons and what they mean" (page 198).

Table 14
Icons and what they mean

Icon	What it represents
A greyed out component	A greyed out component represents a component that is not part of the service creation operation.
Yellow triangle	A yellow triangle represents a component that encountered an error while setting its attributes.
Red x next to an attribute or component	A red x next to an attribute represents an error in setting the attributes. The adjacent red text provides additional details about the attribute value that it tried to set.
	A red x next to a component icon represents an error creating the component.

The Error Messages panel shows in text format the error messages that caused the service creation to fail. The error messages in this panel correspond to the error messages shown next to the affected component or attribute in the components and errors encountered during service creation panel.

You can tear the error messages panel or component panel away from the service creation error dialog box by right-clicking on the panel and pulling the panel away. Closing the Error Messages panel reattaches it.

Tool tip messages are available that describe component states, and provide additional information on components and attribute errors. For example, in the case of greyed out components, the tool tip indicates that the component is not part of the service. For attribute errors, the tool tip tells you the attribute value that the service creation tried to set.

For the procedure to resolve service creation error conditions, see

- "Repairing Passport service creation errors" (page 199)

Repairing Passport service creation errors

Use this procedure to correct Passport service creation errors in either Nodal Provisioning or Embedded Nodal Provisioning.

Prerequisites

This procedure requires the following conditions:

- An error condition exits in the service creation operation.

- A Service Creation Errors dialog box has opened to display the error condition(s).

Procedure steps

1 In the **Service Creation Errors** dialog box, select one of the following options;

- If you wish to delete all the components that were created, select **Delete All**.

— If you are creating multiple instances of the service, and have opted to display the service creation form for each instance, the current instance is deleted and the next remaining instance creation form opens.

— If you are creating multiple instances of the service, and have opted to not display the service creation form for each instance, the tool deletes all remaining instances automatically.

- If you wish to accept the components that were created, select **Accept.**

— If you are creating multiple instances of the service, and have opted to display the service creation form for each instance, the next remaining instance creation forms opens. If another error is encountered, another error message opens. Return to step 1

— If you are creating multiple instances of the service, and have opted not to display the service creation form for each instance, the tool creates all remaining instances automatically. If another error is encountered, another error message opens. Return to step 1.

- If you wish to modify the attributes of the components that were created, click **Repair**. A dynamic dialog box opens containing the

components and attributes that it could not create or modify. Only those that can be repaired are shown. Proceed to step 2.

- If you wish to cancel the operation, click **Cancel**.

— If you are creating multiple instances of the service and have opted to display the service creation form for each instance, **Cancel** cancels the current instance and brings up the service creation form with all remaining key values appearing on each first level component's key field. The OK button in the service creation form is replaced with a **Continue** button. when you click **Continue** the next creation form with new values is displayed.

— If you are creating multiple instances of the service and have opted to not display the service creation form for each instance, when you click **Continue** the remaining instances are automatically created with new values.

2 In the repair dialog box, repair the component attributes.

3 Click **OK** to complete the creation using the modified values.

If errors remain, another **Service Creation Error** dialog box opens showing only those components or attributes that have not been repaired. Return to step 2 to resolve the remaining errors.

If there are no further errors, you are creating multiple instances of the service, and you have opted to display the service creation form for each instance, the next remaining instance creation forms opens and the tool continues to process the next instance creation.

If you are creating multiple instances of the service, and have opted to not display the service creation form for each instance, the tool creates all remaining instances automatically.

Resolving a restorePossible error condition

Use this procedure when an warning message dialog box opens that indicates that a previous current view needs to be restored. This error condition can occur in Nodal Provisioning or Embedded Nodal Provisioning.

This warning dialog box is generated when the current view has been journalized by the provisioning system and is different from the committed view. The restore prov command can be issued if display prov restorePossible attribute of the is set to yes on the node. This attribute indicates if a restore provisioningSystem command is possible.

When opening the view, you are warned that the restorePossible attribute is set. However, you can still continue to open the view.

Upon activating, at check prov, a warning is generated that subsequent activation will remove the previous journal log files, and you need to use the -force option.

Procedure steps

1   In the warning dialog box, click **Close View** to close the current view. Proceed to step 2.

Click Continue to proceed with this view. However, any subsequent activation will destroy the previous "current view".
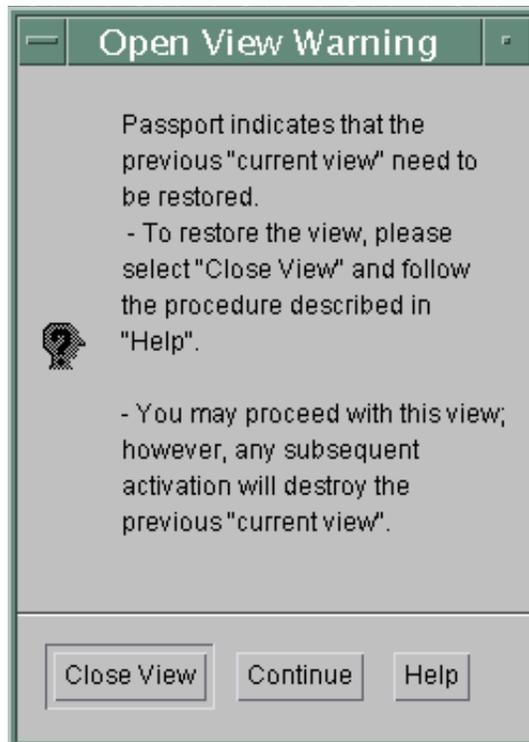
2   Confirm that the display prov restorePossible command is set to yes.

3   If set to yes, do

   • start prov

   • PROV>restore prov

   This command loads and reactivates the journal files.

Resolving a journalDisabledReason error condition

Use this procedure to resolve a journal disabled condition. This error condition can occur in Nodal Provisioning or Embedded Nodal Provisioning.

When this condition exists, an alarm is generated (7000037) and a warning dialog box opens. The warning dialog box provides you one of the following reasons for the error condition:

- not configured

- initial commit required. Journaling has been enabled via provisioning and an initial commit is required.

- file system error. The journal log save failed due to File System error or because the File System is locked.

- threshold exceeded. A number of journal logs has exceeded the maximum.

- reload activation. A reload activation has occurred and a commit has not yet been done

When opening the view, or after activating, you are warned that the journalDisabledReason attribute is set. However, you can still continue to open the view.

Procedure steps

1   To close the current view, in the **Open View Warning** dialog box, click **Close View**. Go to step 2.

Click **Continue** to proceed with this view. However, any subsequent activation will destroy the previous "current view".

```
┌─────────────────────────────────────────┐
│ ─ │   Open View Warning        │  □  │
├─────────────────────────────────────────┤
│                                          │
│        Passport indicates that, as result│
│        of the previous activation,       │
│        journaling is not functioning     │
│        properly for the following reason:│
│   ☻    "reload activation".              │
│                                          │
│        - You may proceed with this view. │
│         However, you may not be able to  │
│        activate your view.               │
│                                          │
│ ┌───────────┐ ┌──────────┐ ┌──────┐      │
│ │ Close View│ │ Continue │ │ Help │      │
│ └───────────┘ └──────────┘ └──────┘      │
└─────────────────────────────────────────┘
```

2   Query the attribute journalDisabledReason.

To determine if the File System is locked, do **display fs adminState**. If the value is locked, then the Filesystem is locked.

3   Take the following on-switch remedial action:

If the reason is for the journalDisabledReason error is "file system error" then ensure that the file system is not locked. If it is locked, unlock the file system. Otherwise, look for the file system or disk alarms to determine the root cause of the failure. Once the root cause is determined and fixed, re-commit to clear this alarm.

For any other value of journalDisabledReason, re-commit the current provisioning view to clear the alarm.

If neither the disaster recovery nor CP equipment protection feature are wanted, then the operator can also clear this alarm by disabling journal log saving by setting the attribute Prov journaling to disabled.

Showing MPE 9500 configuration conflicts

In shared configuration mode, multiple users can simultaneously modify an MPE 9500 configuration. Sometimes configuration conflicts can occur between the candidate configuration and the running configuration. For example, conflicts arise when more than one user changes the same component attributes or when more than one user adds the same component instance. Conflicts between the candidate and running configurations are automatically detected when you commit a configuration. This procedure lets you manually detect and resolve conflicts before you commit.

Procedure steps

1   On the **File** menu, click **Show Conflicts**.

The **Configuration Conflict** dialog box opens and displays conflicts between the candidate and running configurations.

2   In the dialog box, complete one of the following actions:

- Click **Resolve From Running** to resolve conflicts by using values from the running configuration.

- Click **Resolve From Candidate** to resolve conflicts by using values from the candidate configuration.

- Click **Resolve Later** to close the dialog box and manually correct the conflicts.

Committing an MPE 9500 configuration

Commit the MPE 9500 configuration when you have completed all the modifications and are ready to make the configuration the running configuration. The commit process performs a semantic check as well as a check for conflicts. If the configuration is free of errors, it is committed,

The commit operation may temporarily change the state of the node to out-of-service due to software migrations or firmware updates. In these circumstances, a confirmation dialog prompts for confirmation to continue. The commit operation may fail for the following reasons:

* there are semantic errors in the configuration

* in shared mode there is a conflict between the candidate and running configuration

* another user is currently in sole-commit mode

Procedure steps

1 On the **File** menu, click **Commit Configuration**.

The dialog box opens.

2 In the dialog box, specify the appropriate commit options.

3 Commit the configuration.

The configuration is committed unless you have set your user preferences to prompt for confirmation before committing. In this case, the **Commit Confirmation** dialog box opens and you need to continue with step 4.

4 In the **Commit Confirmation** dialog box, complete one of the following actions:

* Click **OK** within the specified time frame.

* Click **Cancel** to cancel the commit operation. A dialog box opens and lets you save the configuration before exiting.

If you don't commit or cancel and the wait period for confirmation expires, the previous running configuration is restored.

Setting User Preferences

You can set user preferences to customize a selection of Nodal Provisioning settings as well as the look and feel of the Nodal Provisioning window. For example, you can override the default MDM default setting and specify a particular type of view mode to use whenever Nodal Provisioning starts. The preferences that you set are specific to your user ID only. User preferences take effect immediately after saving them and remain in effect until you reset them.

Each Nodal Provisioning instance maintains its own preferences. For example, if you open multiple instances of Nodal Provisioning within a session and make changes to the user-preferences in only one of these instances, then the user preferences in the remaining instances are not affected.

User preferences are stored in your home directory. To modify any existing preferences that you have set, you must do so by using the Nodal Provisioning tool, not by using a text editor.

Procedure steps

1   On the **Options** menu, click **User Preferences**, and then the appropriate tab.

2   Modify the user preference settings as required.

   • For details about Passport user preferences, see the table "Passport user preferences for Nodal Provisioning" (page 208).

   • For details about MPE, see the table "MPE user preferences for Nodal Provisioning" (page 211).

3   Click **OK**.

Table 15
Passport user preferences for Nodal Provisioning

Preference type	Preference	Use when you want to...
Open View:		
Access Mode	Read Only	Start Nodal Provisioning with read access only.
	Read and Write	Start Nodal Provisioning with read and write access to the service data. This setting is the default access mode.
View Mode	Committed	Start Nodal Provisioning with the committed service data view. The committed view is used when the node restarts.
	Current	Start Nodal Provisioning with the current service data view. The current view is the configuration that is currently running on your node. This setting is the default view mode.
	Edit	Start Nodal Provisioning with the edit service data view. The edit view is the view that you are currently modifying. It can potentially become the next current view.
	Other	Start Nodal Provisioning with a specific view. You can select the Keyed, Dated, or User Specified options. The default is Keyed.
Other Options	Preload View	Automatically load the service data view when Nodal Provisioning starts. This option is useful when you need to access a large number of components. To lessen network traffic and the impact on the device, preload the view from the backup directory rather than the node. The Preload View option is the default setting.
(Sheet 1 of 4)		

Table 15 (Continued)
Passport user preferences for Nodal Provisioning

Preference type	Preference	Use when you want to...
	Propagation Logging To	Create a log file of the changes made during a provisioning session. The log file starts recording when you successfully open a view and continues until the view is closed. The name of the propagation log file is the user name concatenated with the string "_ApiLog", for example, smith_ApiLog. The log file is saved in the /opt/MagellanNMS/data/ANP directory. Each time a log file is created, a time stamp is appended to the file name so that each file has a unique name. You can view the log file name from the Nodal Provisioning window by right clicking the view name in the status bar and selecting the Log File Name command.
	Always Prompt to Open View	Open a dialog box containing user preference values whenever you select a new device. This setting is the default option.
Save/Activate View:		
Check View	Check View	Check the provisioning view. You can check only the changes made to the view or the complete view, depending on the option you select in the Type list. Checking the complete view is the default setting.
(Sheet 2 of 4)		

Table 15 (Continued)
Passport user preferences for Nodal Provisioning

Preference type	Preference	Use when you want to...
Save View	Save	Save the view. You can save the view in ascii, delta, portable, or both portable and ascii formats. Name the new service by selecting the Keyed, Dated, or User specified options. Saving the view in portable format with a keyed name is the default setting.
		• Keyed - A key must start with a number or letter but can contain numbers, letters, or underscores for subsequent characters. The key cannot exceed 6 characters. If the keys contains only numbers, then its length must be at least three characters. The service data view that matches the pattern and has the highest index is used, and the next view in the sequence is created
		• Dated - Type "**today**" or a date in the format yymmdd (where yy is the year, mm is the month, and dd is the day). When a provisioning view is saved with a dated key, Nodal Provisioning adds a two-digit index to the date to keep track of the number of saved views on the same date, for example <yymmdd><nn>. When you enter a date, the service data view with the highest index is used and the next view in the sequence is created. Invalid date keys will cause a warning dialog box to open
		• User specified - Type a view name.
Activate View	Activate	Apply the provisioning tasks to the view being modified.
(Sheet 3 of 4)		

Table 15 (Continued)
Passport user preferences for Nodal Provisioning

Preference type	Preference	Use when you want to...
Commit View	Commit	Make the view the one that opens after the node restarts.
Other Option	Always Prompt to Save View	Open a confirmation box before a view is saved.
General:		
Max Instances		Modify the maximum number of component instances to display in the component tree. The default value is 50. This preference does not apply to Card and LP components which display all instances.
View Presentation	Tree	Start Nodal Provisioning with the node's components in a hierarchical list. The component tree is the default view presentation.
	Shelf	Start Nodal Provisioning with the node's logical shelf view displayed.
Communications Timeout		Modify the maximum time to wait for a response. The default response time is 45 seconds.
(Sheet 4 of 4)		

Table 16
MPE user preferences for Nodal Provisioning

Preference type	Preference	Use when you want to...
Open:		
Access Mode	Shared	Start a multiple user Nodal Provisioning session.
	Sole-commit	Start Nodal Provisioning and lock the configuration until you commit or exit the provisioning session.
(Sheet 1 of 3)		

Table 16 (Continued)
MPE user preferences for Nodal Provisioning

Preference type	Preference	Use when you want to...
Configuration	Read only	Start Nodal Provisioning with read access only.
	Running	Start Nodal Provisioning with the running configuration. The running configuration reflects the system view of configuration data currently in effect on the MPE.
	Previous Running	Start Nodal Provisioning with the rollback configuration.
	Other	Start Nodal Provisioning with a specific configuration file. You can select the Keyed, Dated, or User Specified options. The default is Keyed.
	Always Prompt Before Open Configuration	Specify whether or not to open a dialog box that lets you select the candidate configuration and access mode whenever you select a new device. This setting is the default option.
Save:		
Save Configuration	User Specified	Save the configuration to a specific file. You can specify the filename using the Keyed, Dated, or User Specified options.
	Always Prompt Before Save Configuration	Specify whether or not to open a confirmation box whenever you save a configuration.
Commit:		
Commit Configuration	Commit confirmation required	Specify whether or not you want to display a dialog box that prompts before making the configuration permanent by committing it. The dialog box also lets you specify the maximum time to wait for confirmation before rolling back to the previous configuration.
(Sheet 2 of 3)		

Table 16 (Continued)
MPE user preferences for Nodal Provisioning

Preference type	Preference	Use when you want to...
	Wait period for confirmation (min.)	Modify the time to wait for a confirmation. The default time is five minutes.
	Always Prompt before Commit Configuration	Specify whether or not to open the Commit Confirmation dialog box whenever you commit a configuration.
General:		
Notify me of commits by other users		Receive notification of commits made by other users.
Maximum number of subcomponents		Modify the number of subcomponents that display in the Nodal Provisioning window.
Communications Timeout		Modify the maximum time to wait for a reply from the server before notification of no response. The default response time is 45 seconds.
(Sheet 3 of 3)		

Customizing the Nodal Provisioning start up

Preside Multiservice Data Manager (MDM) provides a set of default files that determine how its tools start. If required, you can customize the way Nodal Provisioning starts, for example, you may want to start Nodal Provisioning with a specific network element or a specific access mode. To customize the start up, you need to copy the original configuration file provided by MDM and then make any required changes to the copy.

Navigation

Procedure steps

1 Copy the default application launch configuration files to the appropriate directory.

If running...	Copy the file from...	Save the file to...
Toolset	/opt/MagellanNMS/lib/cfg/mft/ MTlaunchscripts/ C10NodalProvisioningLM.cfg	/opt/nortel/config/applications/ desktop/MDM/launchscripts/cfg/ MTlaunchscripts/ C10NodalProvisioningLM.cfg
Operator Client	/opt/MagellanNMS/lib/cfg/mft/ OClaunchscripts/ C10NodalProvisioningLM.cfg	/opt/nortel/config/applications/ desktop/MDM/launchscripts/cfg/ OClaunchscripts/ C10NodalProvisioningLM.cfg

2 Using a UNIX editor, open the copy of the MDMALaunch.cfg file.

3   Within the file, locate the Nodal Provisioning command block. See the
     following sample Nodal Provisioning command block.

Nodal
Provisioning
command
block

{

Menutype = MenuBar

Menu/Submenu = Configuration

CommandLabel = Nodal Provisioning

CommandType = Plugin

Command = Class="com.nortel.cpt.gui.CoreProvisioningTool",
Client="yes", Single="no"

SandboxName = NodalProvisioningSandbox_<sandbox_id>

SandboxJars = MDM/pluginJars/ANPClient.jar
MDM/pluginJars/ANPMpeClient.jar
MDM/pluginJars/ANPShared.jar
MDM/pluginJars/ANPTemplateIcons.jar
MDM/pluginJars/MdmLib-MftApp.jar
MDM/pluginJars/parser.jar
MDM/pluginJars/jaxp.jar
MDM/pluginJars/sharedJVMApp.jar

}

4   Modify the file by adding an "Args=" statement to the line that begins with
     "Command =". See the following sample of a customized Nodal

Provisioning command block. The modifications are shown in bold font. For a list of arguments, see the variable definitions table.

Add the required arguments to the "Command=" line	{
	
	 Menutype = MenuBar
	
	 Menu/Submenu = Configuration
	
	 CommandLabel = Nodal Provisioning
	
	 CommandType = Plugin
	
	 Command = Class="com.nortel.cpt.gui.CoreProvisioningTool", Client="yes", Single="no", **Args="-loadview edit -access rw"**
	
	 SandboxName = NodalProvisioningSandbox_<sandbox_id>
	
	 SandboxJars = MDM/pluginJars/ANPClient.jar
	 MDM/pluginJars/ANPMpeClient.jar
	 MDM/pluginJars/ANPShared.jar
	 MDM/pluginJars/ANPTemplateIcons.jar
	 MDM/pluginJars/MdmLib-MftApp.jar
	 MDM/pluginJars/parser.jar
	 MDM/pluginJars/jaxp.jar
	 MDM/pluginJars/sharedJVMApp.jar
	
	 }

5 Save the file.

Variable definitions

Variable	Value
-emcomp<node name> | <component name>	specifies the node name or the full component identifier of the device to which you want to connect.
-loadview <view mode> <view name>	specifies the service data view mode. Possible values for the view mode are commit, edit, current, key, date, or user. If you specify key, date, or user, then you also need to specify the view name.
(Sheet 1 of 2)	

Variable	Value
-access <ro|rw>	specifies the access mode for the service data view. Select an access mode of read-only (ro) or read-write (rw).
-action <edit | select>	specifies how Nodal Provisioning opens. The edit option opens Nodal Provisioning with a component form displayed. The select option opens Nodal Provisioning with the specified component selected in a tree view.
(Sheet 2 of 2)	

Chapter 8
Post-provisioning procedures

This section describes post-provisioning procedures. It contains the following sections:

- "Saving the view for Passport devices" (page 220)

- "Activating and Committing the View for Passport devices" (page 223)

- "Saving an MPE configuration" (page 226)

Saving the view for Passport devices

Use this procedure to save the service data view after completing a provisioning session on a Passport device. The Save/Activate View dialog box lets you specify how you want to save the service data view after you complete the provisioning session, and to activate and commit the view. For the procedure to activate and commit the view, see "Activating and Committing the View for Passport devices" (page 223).

You can set default user preferences for the Save/Activate View. For details, see "Setting User Preferences" (page 207).

Procedure steps

1 On the Nodal Provisioning **File** menu, click **Save/Activate View**.

The **Save/Activate View** dialog box opens with the default settings, unless you have changed them by setting the user preferences for the **Save/Activate View** dialog box.
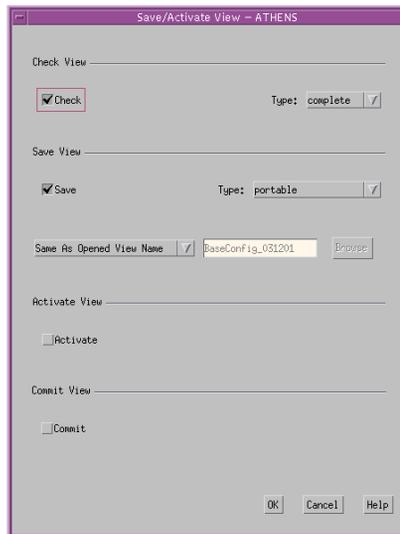
2 To check the view, select the **Check View** check box.

The adjacent **Type** box becomes available.

Note: When journaling is enabled, you can activate the device without saving the view. However, a complete check is required for activating the provisioning view.

To bypass the check operation, clear the **Check View** check box. The adjacent **Type** box becomes unavailable.

3   Select one of the following options from the **Type** drop down list:

- **changed** performs a check of only the added or changed components before saving. When you select changed, the following command is sent to the device:
  String = check -changed -stoponerror prov

- **complete** checks the provisioning data in the edit view to ensure it is semantically correct. The complete check is the default setting. The following command is sent to the device:
  String = check -stoponerror prov

Since the stopOnError is specified implicitly, the device will abort the check immediately upon finding the first error.

4   In the **Save View** panel, select **Save** and then select one of the following format options for saving the view from the **Type** drop down list:

- **ascii** saves the view in ASCII format.

- **delta** saves the view in delta format

- **portable** saves the view in portable format.

- **portable and ascii** saves the view in both portable and ASCII formats

5   From the view mode drop down list, select one of the following view mode options to name the new provisioning view:

- If you select **Keyed**, type a valid key in the Key field. The key is used to search for service data views. The service data view that matches the pattern and that has the highest index is found, and the next view in the sequence is created. You can name a file by using one to six alphanumeric characters or by using a 1 digit fully numeric download key. A fully numeric download key cannot be less than three digits.

- If you select **Dated**, type "**today**" or a date in the format yymmdd where yy is the year, mm is the month and dd is the day. When a provisioning view is saved with a dated key, Nodal Provisioning adds a two-digit index to the date to keep track of the number of saved views on the same date, for example <yymmdd><nn>. When you enter a date, the service data view with the highest index is found and

the next view in the sequence is created. Invalid date keys will cause a warning dialog box to open.

- If you select **User Specified** view mode, in the **File** field, enter a file name or click **Browse** to open a **Select View** file browser dialog box containing a list of user specified views. Select a view name and click **OK**.

- If you select **Same as Opened View Name**, the view is saved with the same name as the opened view but with the numeric extension increased by one. For example, you use the key NMS when opening a nodal provisioning session and the view NMS01.full.001 displays in the Nodal Provisioning window. When you save and activate this view using the **Same as Opened View Name** option, the view is saved as NMS01.full.002.

Note: **Commit**, **Current**, and **Edit** not available in the **Save/Activate View** dialog box.

6   Click **OK** to save the modified view, or if you wish to activate a view and commit a view, proceed to "Activating and Committing the View for Passport devices" (page 223).

Activating and Committing the View for Passport devices

Use the Activate View and Commit View panels of the Save/Activate View dialog box to activate and commit the view.

Note: In a hitless software upgrade, the noPause option is automatically added during the activation process. The message that is sent to the Passport prevents the automatic pause that typically occurs before a migration switchover during a software migration.

Nodal Provisioning lets you to activate the device without saving the view when journaling is enabled on the device. However, a complete check is required to activate the provisioning view.

Procedure steps

1 In the **Save/Activate View** dialog box, select **Activate** to activate the view.

Select Activate to activate the configuration.

Select Commit to commit the configuration.
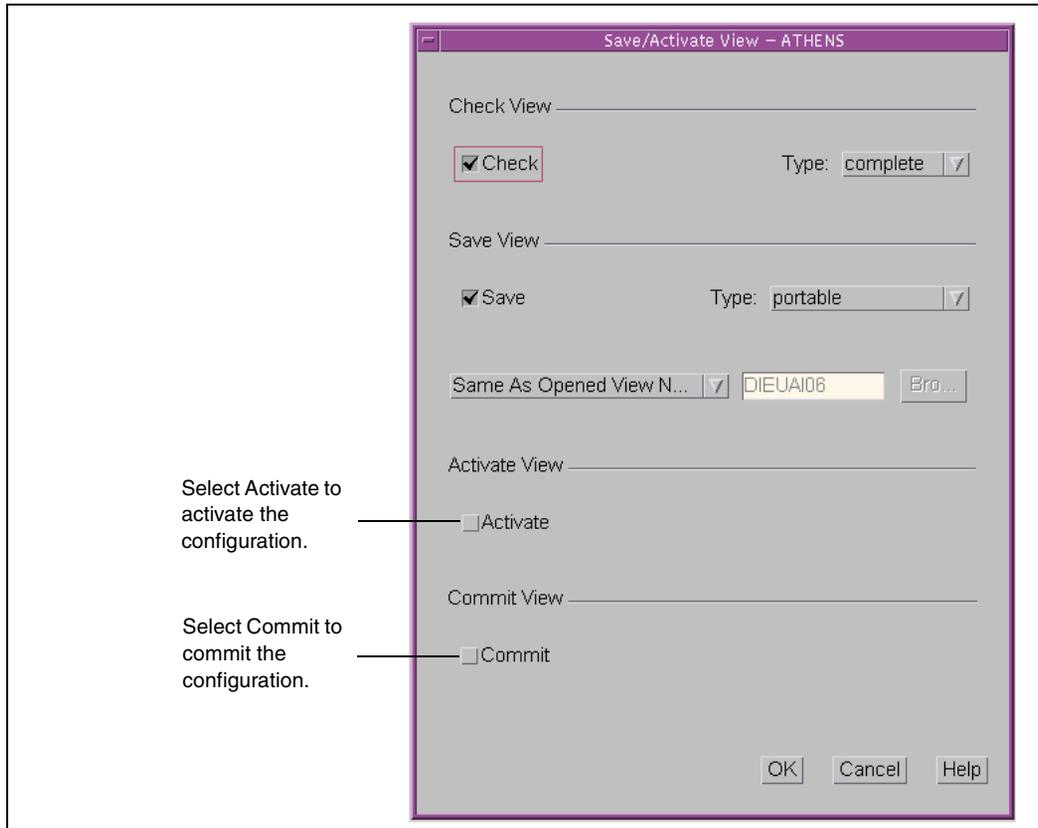
2 If you want to commit the view, select **Commit**. The default is unchecked.

To prevent accidental selection, a confirmation dialog box opens asking you to confirm the commit selection.

3 Click **OK**.

The confirmation dialog closes and you return to the **Save/Activate View** dialog box.

4 To save the modified view, click **OK**. The **Save/Activate View** dialog box closes.

The **OK** button remains disabled if your selections in this dialog box are invalid or incomplete.

To cancel the operation, click **Cancel**. The **Save/Activate View** dialog box closes without applying your provisioning changes.

If you have selected commit, a dialog box opens, asking you to confirm the commit. Click **Yes**.

You may encounter the following error conditions, and corresponding error dialogs, upon activation:

- A journalDisabledReason error. For the procedure to resolve a journal error conditions, see "Resolving a journalDisabledReason error condition" (page 203).

- restorePossible. For the procedure to resolve a restorePossible condition, see "Resolving a restorePossible error condition" (page 201).

Saving an MPE configuration

Save a modified MPE configuration when you want to store the configuration in a file. MPE saves all changes that are visible in the candidate configuration including changes committed by others.

Procedure steps

1 On the **File** menu, click **Save Configuration**.

The dialog box opens.

2 In the dialog box, specify the appropriate options.

3 Specify a file name using one of the following actions:

- select **Keyed** and specify a value

- select **Dated** and specify a value

- select User Specified and type the full file name or click Browse to navigate to a specific file.

4 Click OK.

The configuration is saved unless you have set your user preferences to prompt before saving. In this case, the Save dialog box opens and you need to continue with step 5.

5 the Save dialog box

Chapter 9
Nodal Provisioning Template Editor

You use the Nodal Provisioning Template Editor to create and modify Nodal Provisioning service templates.

Nodal Provisioning Template Editor supports Passport and Nortel Networks Multiservice Provider Edge (MPE) network elements. Nodal Provisioning Template Editor is available through both the MDM Toolset and Operator Client environments. For details about these MDM environments, see 241-6001-801 *Preside MDM Overview*.

Navigation

Tool fundamentals

The template editor lets you do the following tasks:

- create service templates that have multiple top level or root components, such as two AtmIfs under the EM device type

- create multiple same type components, such as multiple Channels on a single port

- specify a valid node software version range or ranges in the template so that only the templates applicable to the software version of the connected device display in the Nodal Provisioning window.

- display a dynamically created view-only service creation form that can always be visible while creating the template, and which shows how the template will appear in the Nodal Provisioning. When the preview is displayed, any changes that you make to the template are immediately shown in the preview form.

- ensure template security by setting file permissions through the UNIX file system. If a file is set as read-only, the Template Editor will not overwrite it.

- provide support for data sharing, allowing the value of one field to be used as the value for a dependent field.

- update the template listing directly from Nodal Provisioning

When you save a service template, the files are stored in the following location:

```
/opt/MagellanNMS/cfg/ANP/<deviceType>/Service/
<category folder>/<templatefile name>.st
```

Nodal Provisioning Template Editor supports the following device types:

- EM - Passport

- SRS - MPE

Where information is specific to a device type in this document, the device type is specified. The Nodal Provisioning Template Editor operates the same for the device types. The differences are the model and the directory where the device type is stored.

Nortel Networks provides service templates with Preside Multiservice Data Manager. These templates are read-only so they cannot be modified. The directory has read/write privileges so users can save these templates with a new name.

Nodal Provisioning also provides a version checking tool. This is an off-line tool that identifies inconsistencies between the following items, when the node software version is upgraded:

- service templates and component models

- service models and the hierarchy model

For information on using the version checking tool, see the following sections:

- "Starting the version checking tool" (page 316)

- "Sample outputs" (page 316)

Service selection

The Nodal Provisioning Template Editor tool uses service selection to determine which configuration management (CONFIGMAN) server it communicates with. For details, see "Service selection" (page 28).

Nodal Provisioning Template Editor window

You can create new service templates, or modify existing service templates, using the Nodal Provisioning Template Editor window. When you start the template editor for the first time, the fields in the window are empty, and by default the status bar shows the latest model version and the Valid Model versions as All.

When you load a service template file, the template editor populates the fields in the Nodal Provisioning Template Editor window with the information contained in the selected service template (.st) file.

The status bar shows the selected model version and the valid model version range or ranges.

For an illustration of the template editor window after you have loaded a service template file, see "Nodal Provisioning Template Editor after loading a service template file" (page 230).

Figure 13
Nodal Provisioning Template Editor after loading a service template file
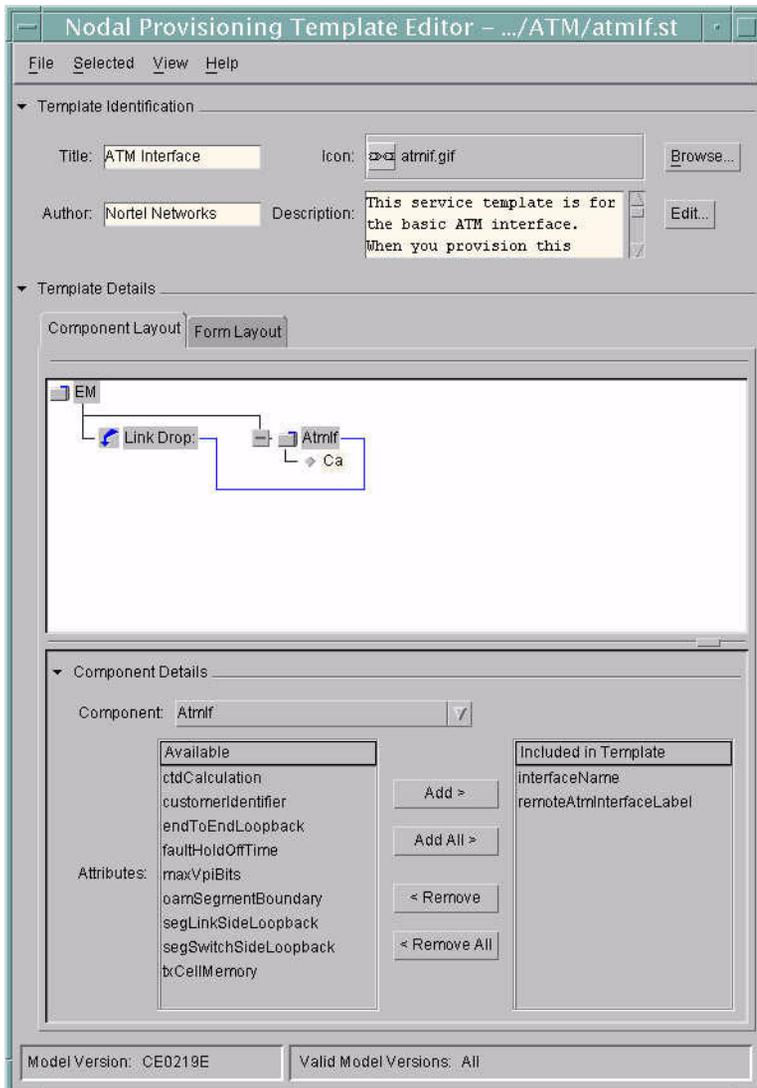
The Nodal Provisioning Template Editor window contains the following items:

- "Nodal Provisioning Template Editor menu bar" (page 231)

- "Template Identification panel" (page 236)

- "Template Details panel" (page 237)

- "Status bar" (page 246)

Nodal Provisioning Template Editor menu bar

The template editor menu bar gives you access to the high-level functions for the template editor. The following menus are found in the menu bar:

- "File menu" (page 231)

- "Selected menu" (page 233)

- "View menu" (page 235)

- "Help Menu" (page 236)

File menu

See the table "File menu commands" (page 232) for a description of the menu commands.

Table 17
File menu commands

Command	Description	Additional Information
New	Clears the template editor window so you can create a new service template.	"Selecting a model version overview" (page 258)
Open	Opens a Open file browser to select a service template (.st) file. By default, the dialog box opens to the Service directory.When you select a file, the template editor window is populated with the information contained in the selected service template file. If this is the first template that you have opened after launching the template editor, and it does not have a model version specified within it, you must select a model version before the main window populates.	"Opening a saved service template file" (page 256) "Selecting a model version overview" (page 258)
Save	Generates the eXtensible Markup Language (XML) file for a service template file. If you have not previously saved the file, a Save dialog box opens so you can select a location and specify a file name to save to.	"Saving a service template file after you have modified it" (page 312)
Save As	Opens a Save dialog box so you can select a location and specify a file name to save to, and then generates the XML file for the service template file.	"Saving a service template file for the first time" (page 309)
Change Model Version	Opens the Choose Model Version dialog box so you can select a model version on which to base the service template.	"Selecting a model version overview" (page 258)
(Sheet 1 of 2)		

Table 17 (Continued)
File menu commands

Command	Description	Additional Information
Set Valid Model Versions	Opens the Set Valid Model Versions dialog box so you can specify the model versions applicable to the connected device.	"Specifying a model software version range" (page 262)
Exit	Closes the template editor. If you have not yet saved your file, you are prompted to save.	"Exiting Nodal Provisioning Template Editor" (page 313)
(Sheet 2 of 2)		

Selected menu

The content of the Selected menu depends on whether you have selected the Component layout tab or the Form Layout tab. In addition, the menu enables options that are valid for the current selected node. The Selected menu options are also available from the pop-up menu for the selected item.

See the following tables:

- "Selected menu commands for the Component Layout tab" (page 233). These commands let you build the structure of the service template.

- "Selected menu commands for the Form Layout tab" (page 235). These commands determine the layout of the service template.

Table 18
Selected menu commands for the Component Layout tab

Command	Description	Additional Information
Add Component	Opens a dialog box containing a list of components that you can add to the device.	"Adding a component" (page 274)
Add Dropsite	Opens a dialog box that allows you to add a parent or link dropsite for a component.	"Adding or removing a dropsite" (page 282)
(Sheet 1 of 2)		

Table 18 (Continued)
Selected menu commands for the Component Layout tab

Command	Description	Additional Information
Add Sub-component	Opens a list that displays the possible components that you can add to a selected subcomponent that can have sub-components. This command is disabled if you have not yet created components.	"Adding sub-components to a dropsite or component node" (page 277)
Add Link	Opens the Add Linked Component dialog box which lets you add a linked component. This command is enabled only if the currently selected component can have links.	"Adding a link" (page 278)
Remove	Removes a selected component, and its links and subcomponents. In the form layout, if the group and tab have been generated automatically, and they are empty, they are removed. If there are multiple groups, only the empty groups are removed.	"Removing components from the Component Layout" (page 281)
Remove Link	Removes a link from the currently selected component. This command does not remove the component that it is linked to.	"Removing links" (page 294)
Change Component Designation	Opens a dialog box that allows you to change the way the parent of the component is created or located.	"Changing the component designation" (page 292)
Move Component	Opens a dialog box that allows you to select a new parent for a component from a list of compatible parents.	"Moving a sub-component to another parent" (page 280)
(Sheet 2 of 2)		

Table 19
Selected menu commands for the Form Layout tab

Command	Description	Additional information
Add Tab	Adds a tab to the layout tree in the Template Details panel.	"Renaming tabs or groups" (page 298) "Adding tabs to the form layout tree" (page 299)
Add Group	Adds a group to a selected tab on the display layout tree in the template details panel. The Add Group command is enabled only when a tab is selected.	"Adding Groups to the form layout tree" (page 301)
Add to Template	Adds a selected component attribute to the template.	"Adding a component attribute" (page 275)
Remove	Deletes the selected item from the display layout tree.	"Deleting tabs from the form layout tree" (page 300) "Deleting Groups from the form layout tree" (page 302)
Show	Turns on the display of a selected hidden item in the form preview. The item also displays when the template is used in Nodal Provisioning.	"Showing components in the form layout tree" (page 304)
Hide	Turns off the display of a selected item in the form preview. The item remains hidden when the template is used in Nodal Provisioning. The hidden component is greyed out in the Form Layout tree. The Hide command is enabled only for components whose key does not need to be filled in at run-time.	"Hiding a component in the form layout tree" (page 303)

View menu

See the table "View menu command" (page 236) for a description of the Preview command.

Table 20
View menu command

Command	Description	Additional Information
Link Display	A check box that allows you to turn on and off the display of the links between components in the Component Layout.	
Preview	Opens a preview of the service template form so that you can see how the service template looks in real time, that is, as you are creating it in the Nodal Provisioning Template Editor window. The preview form cannot be edited.	

Help Menu

The table "Help menu commands" (page 236) describes the Help menu commands.

Table 21
Help menu commands

Command	Description	Additional Information
Help on Window	Opens the online documentation describing the Nodal Provisioning Template Editor window.	"Help options" (page 35)

Template Identification panel

The Template Identification panel provides text fields to enter general identifying information for the service template.

The Template Identification panel contains the following fields:

- The **Title** field identifies the service template. The name that you type in this field appears in the service template palette in the Nodal Provisioning window.You can select the content of this field and edit it. You cannot save a template with no title.

Note: It is recommended that you create a unique title for each template within the same category. The title and the template icon are the only items that distinguishes between templates in the Nodal Provisioning tool.

- The **Author** field lets you enter the author of the template. You can select the content of this field and edit it.

    You cannot save a template with "Nortel Networks" as the author, nor can you save a template with no author. If the template is created by Nortel Networks, the Author field displays "Nortel Networks". If you edit the template, you need to save it under a new name since you cannot overwrite a Nortel Networks template.

- You can enter a textual explanation or details about the service template in the **Description** field. Completing this field is optional. You can edit the contents of this field.

- The **Icon** field lets you choose an icon image that represents the service template. This icon appears in the service template palette in the Nodal Provisioning window. You can also click Browse... to select an icon from the icon browser dialog box.

For related procedures, see the following sections:

- "Specifying template identification attributes for a new template" (page 271)

- "Modifying template identification attributes of an existing service template (.st) file" (page 272)

Template Details panel

The Template Details panel contains the following tabs with their corresponding details:

- "Component Layout tab" (page 238)

- "Form Layout tab" (page 240)

Component Layout tab

The Component Layout tab displays the component layout tree and the Component Details panel.

- **Component layout tree** shows the following

  — the components that are created on the device by the template when it is applied

  — the dropsite where this template can be dropped

  — the relationship between the components in the component layout tree.

- **Component Details** panel contains the details about the component that you have selected in the component layout tree. You use this panel to change the instance value for each component and select the component attributes that you want to include in the service template

  When you open the Nodal Provisioning Template Editor window, the Component Details panel is blank.

The content of the Details panel varies with the type of dropsite that you select in the component layout tree:

- parent

- link

- component

The Parent Dropsite, Link Dropsite, and Component Dropsite Details panel have the following command buttons:

- **Add** moves a selected component from the Available list to the Included in Template or Chosen list.

- **Add All** moves all the selected components from the Available list to the Included in Template or Chosen list.

- **Remove** moves the selected component or components from the Included in Template or Chosen list to the Available list.

- **Remove All** moves all the components from the Included in Template or Chosen list to the Available list

See the following tables for additional information the details panel for each of the dropsite types:

Table 22
Details panel for a parent dropsite

Title of Details panel	Details panel content	Description
Dropsite Details	Child component(s) field	The name of the component created under the dropsite component
	Available Dropsites list	A list of available components that can be parents
	Chosen Dropsites list	A list of components that have been added from the Available Dropsites combo box. These are the components that the template can be dropped on when using the Nodal Provisioning tool.

Table 23
Details panel for a link dropsite

Title of Details panel	Details panel content	Description
Dropsite Details	Linked Component(s) field	The name of the component(s) that are linked to the dropsite component
	Available Dropsites list	A list of available components that can be linked to the selected link component.
	Chosen Dropsites list	A list of components that have been added from the Available Dropsites combo box. These are the components that the template can be dropped on when using the Nodal Provisioning tool.

Table 24
Details panel for a component dropsite

Title of the Details panel	Details panel content	Description
Component Details	Component	A drop down list of components in the component layout tree. The selected component appears by default. The details are for the component selected from the list.
	Available Attributes list	A list of available attributes for the selected component
	Included in Template list	A list of attributes that are in this template

Form Layout tab

The Form Layout tab lets you select the layout of the service creation form. The contents of the Form Layout tab correspond directly to the appearance of the service creation form.

The Form Layout tab displays the following items:

- the tab and group layout of the service template. Each top level component has its own tab and group. Each subcomponent has its own group under the parent tab.

  — A tab is a collection of groups that you define. The collection is shown on the service template as a tab. You can specify the name of the tab.

  — A group is a collection of components that you define. The collection is shown on the service template as a bordered panel. You can specify a name for the panel.

- the details about an item that you have selected in the form layout tree. The form Details panel lets you change the instance value for each component and select the component attributes that you want to include in the service template

  When you open the Template Editor main window the Template Details panel is blank.

See the following tables for additional information the details panel when you select the following item in the Form Layout tree:

- "Details panel for a tab" (page 241)

- "Details panel for a Group" (page 242)

- "Details panel for a Component" (page 243)

- "Details panel for an Attribute" (page 245)

Table 25
Details panel for a tab

Title of Details panel	Details panel content	Description
Tab Details	Tab Name	An editable field in which you can enter a name for the Tab.
	Location • Position	A combo box containing a list of valid positions for the tab. The current position of the tab in the form layout tree is shown. You can change the position of the tab by selecting another position from the combo box.

Table 26
Details panel for a Group

Title of Details panel	Details panel content	Description
Group Details	Group Name	An editable field in which you can enter a name for the Group.
	Location • Tab • Position	The Tab combo box provides a list of valid tabs to which you can move the Group. The current Tab position for the Group in the form layout tree is shown. The Position combo box lets you move a Group's position in the Tab by selecting a position number from the combo box.

Table 27
Details panel for a Component

Title of details panel	Details panel content	Description
Component Details	Name	You can select from a drop down list of components in the component layout tree. The selected component appears by default. The details are for the component selected from the list.
	Instance Value	A drop down list of available naming schemes for the selected component. • none - is displayed for components that do not need an instance value. You cannot edit this instance value. By default, the Show check box is deselected. You can select it to display the value to the user. • predefined - is displayed as the instance value for components that have a predefined instance value. The value is displayed in the accompanying value field. You cannot edit this instance value. By default, the Show check box is deselected. You can select it to display the value to the user. • auto named - the Nodal Provisioning tool suggests an instance value data for the component. The user of this template can change the suggestion when using this template. Autonaming is only supported for numerical instance value data. • user entered - you must provide the instance value data. If only one instance of the component can exist, then this is the instance used. • user selected - you must select from a list of existing instances of this component. • gets value from - you must select from a list of items with the same data type component or attribute
(Sheet 1 of 2)		

Table 27 (Continued)
Details panel for a Component

Title of details panel	Details panel content	Description
	Show check box	A check box that allows you to show or hide the key value from the user of this template
	Attributes Included in template list	A list of available attributes included in the template
	Displayed in Form list	A list of attributes displayed in the service creation form
	Command buttons: • Add • Add All • Remove • Remove All	Add moves a selected attribute from the Included in Template lists and adds it to the Displayed in Form list. Add All moves all the attributes from Included in Template list to Displayed in Form list. Remove moves the selected attribute from the Displayed in Form list to the Included in Template list. Remove All moves all the attributes from the Displayed in Form list to the Included in Template list.
	Location: • Tab • Group • Position	The Tab combo box lets you select a new tab location for the component from a drop down list. The current position shows by default. The Group combo box lets you select a new group location for the component from the drop down list. The current position shows by default. The Position combo box lets you change the position of the component in the group.
(Sheet 2 of 2)		

Table 28
Details panel for an Attribute

Title of details panel	Details panel content	Description
Details for	Attribute combo box	A list of available attributes.The name of the attribute selected in the form layout tree appears by default.
	Label	An editable field that shows the label that appears on the service creation form for this attribute.
	Value:	The value is set to default unless otherwise specified. The options are: • override - overrides the default value • default - the value that is provided by the Nodal Provisioning tool • gets value from - gets any item with the same data type • user selected - lets the user of this template select a value from a list of instances
	Initial Value	A field where you can set the original value of two attributes that share the same value. This is only enabled when the value type is "gets value from".
	Display in Form check box	If Display in Form is checked, the new label is displayed in the service creation form. Deselecting Display in Form prevents an attribute from appearing in the service creation form.
(Sheet 1 of 2)		

Table 28 (Continued)
Details panel for an Attribute

Title of details panel	Details panel content	Description
	Mandatory check box	The Mandatory check box is enabled when Display in Form is checked. If selected, this attribute is mandatory and must be filled in by the user before a service creation will be valid.
	Editable check box	The Editable check box is enabled when Display in Form is checked. If selected, this attribute's values can be edited.
(Sheet 2 of 2)		

Status bar

The status bar at the bottom of the Nodal Provisioning Template Editor window shows the following items:

- **Model Version** shows the selected model version.

- **Valid Model versions** shows the valid model version range or ranges. When you open the Nodal Provisioning Template Editor for the first time, the Valid Model Versions is All.

Procedures

> *Note:* The procedures in this section apply to the MDM Toolset and Operator Client environments, unless otherwise specified.

This section contains the following Nodal Provisioning Template Editor procedures:

Maximizing and minimizing panels in the Nodal Provisioning Template Editor window

Use this procedure to maximize or minimize the Template Identification, Template Details, and Details For panels in the Nodal Provisioning Template Editor window:

Procedure steps

1   Click on the arrow found to the left of the panel title (**Template Identification**, **Template Details**, or **Details for**).

The panel expands, or minimizes.

Creating or modifying service templates task flow

Use the following sequence of procedures to create or modify a service template:

- "Starting the Nodal Provisioning Template Editor" (page 251)

- If you are modifying a service template, see "Opening a saved service template file" (page 256)

- If you are creating a new service template, see "Clearing the template editor window to create a new service template file" (page 257)

- "Selecting a model version overview" (page 258)

- Specify a valid software model version range or ranges for a service template "Specifying a model software version range" (page 262)

- Identify the template. See, "Specifying template identification attributes" (page 270)

- Add components, see"Adding a component" (page 274)

- Adding or modifying links. See, "Adding a link" (page 278)

- To Specify a parent or link dropsite for the first component that you add. See, "Adding or removing a dropsite" (page 282)

- For all attributes in the component, modify attribute details. See, "Modifying attribute details" (page 306)

- Arrange the tabs and groups of the Form Layout tab. See, "Form Layout procedures overview" (page 296)

- "Saving service template files" (page 308)

  Note: When editing a text field in Nodal Provisioning Template Editor, the changes may not take effect until you hit enter.

Starting the Nodal Provisioning Template Editor

Use one of the following procedures to open the Nodal Provisioning Template Editor:

- "Starting Nodal Provisioning Template Editor from the Toolset environment" (page 252)

- "Starting Nodal Provisioning Template Editor from the Operator Client environment" (page 253)

- "Starting Nodal Provisioning Template Editor from Nodal Provisioning" (page 254)

- "Starting Nodal Provisioning Template Editor from the command line" (page 255)

Starting Nodal Provisioning Template Editor from the Toolset environment

Use this procedure to start the Nodal Provisioning Template Editor from the Toolset environment.

Procedure steps

1   Select one of the following actions, depending on the device you want to select.

For...	On the MDM Toolset...
Passport	Click **Configuration, Passport** and then **Nodal Provisioning Template Editor**.
MPE	Click **Configuration, MPE** and then **Nodal Provisioning Template Editor**.

The **Nodal Provisioning Template Editor** window opens. The fields in the window are empty.

Starting Nodal Provisioning Template Editor from the Operator Client environment

Use this procedure to start the Nodal Provisioning Template Editor from the Operator Client environment.

Prerequisite
• The Operator Client environment is open.

Procedure steps
1   Select one of the following actions, depending on the device you want to select.

For...	In the Operator Client window...
Passport	Click **Configuration** and then **Passport Nodal Provisioning Template Editor**.
MPE	Click **Configuration** and then **MPE Nodal Provisioning Template Editor**.

The **Nodal Provisioning Template Editor** window opens. The fields in the window are empty.

Starting Nodal Provisioning Template Editor from Nodal Provisioning

Use this procedure to start the Nodal Provisioning Template Editor from the Nodal Provisioning window.

Procedure steps

1   Complete one of the following actions:

- On the Templates panel, right-click on a template and select **Edit** from the popup menu.

- On the **External Tools** menu, click **Nodal Provisioning Template Editor**.

The **Nodal Provisioning Template Editor** window opens.

Starting Nodal Provisioning Template Editor from the command line

Use this procedure to start the Nodal Provisioning Template Editor from a command line.

Procedure steps

1   Open an xterm on the configuration server workstation and type the following command:

`/opt/MagellanNMS/bin/anpte [-devicetype SRS|EM]`

If a device type is not specified, the default is Passport (EM).

The **Nodal Provisioning Template Editor** window opens. The fields in the window are empty.

To modify a service template, proceed to "Opening a saved service template file" (page 256).

Opening a saved service template file

Use this procedure to open a saved template file. When you open a saved template file, you do not need to select a model version, since templates created by the template editor are saved with a version.

Service template files are stored in /opt/MagellanNMS/ cfg/ANP/<device type>/Service/<category folder>. The device type is EM (Passport) or SRS (MPE 9500). A service template file has the extension .st.

ATTENTION	The directory used to store the service template files will be on the server workstation if Service Selection has been used.

Procedure steps

1   In the template editor main window, select **File** -> **Open**.

A file browser **Open** dialog box opens to the service directory.

Note: If you have permissions, you can add folders, remove folders, rename folders, and remove files from the **Open** dialog box. Permissions are based on the userid of the account from where the template editor was launched.

2   Select the folder that contains the service template file that you want to edit and click **Open**.

The file browser displays the service templates (.st) files in the selected category folder.

3   From the list of service template files, select the file that you want to open and click **Open**

If you have selected a service template file with a model version specified in it, the template editor window is populated with the information contained in the selected service template file. You can proceed to modify the template. See the section "Creating or modifying service templates task flow" (page 250).

If you select a template that does not have a model version specified in it, the **Choose Model Version** dialog box opens. To choose a model version, see the procedure, "Selecting a model version overview" (page 258).

Clearing the template editor window to create a new service template file

Use this procedure to clear the Nodal Provisioning Template Editor window so that you can create a new service template.

Procedure steps

1   If you are not starting with a cleared **Nodal Provisioning Template Editor** window, select **File** -> **New**.

    If there are unsaved changes in the current template, a dialog box opens to indicate that the current template has been modified. You are prompted to save your changes. After you save the file, or choose not to save the changes, the information in the main window is cleared.

2   If the template already has a model version associated with it, you can proceed to create the template with the existing model version.

    If you wish to base the template on a new model version, proceed to "Changing the model version of a service template" (page 260).

    If you wish to specify valid Passport software version ranges, proceed to "Specifying a model software version range" (page 262).

Selecting a model version overview

When the Nodal Provisioning Template Editor starts, it loads the latest model version found on the workstation. The model version determines the hierarchy model, the component attributes, and any defaults. If required, you can select a different model version for your service template by using the Change Model Version command. As well, the model version changes when you open a template based on a different model.

The Choose Model Version dialog box also opens in the following circumstances:

- you select **File -> Open** and select an service template file that has no version specified.

- you select **File -> Change Model Version** to select a model version on which to base a new service provisioning template, or to change the model version of the template that you are currently working on.

By default, the most current model version available is selected and appears in the model version field.

The procedure to select the device model version of a template depends on whether you are starting with a cleared template, or if you want to change the model version of an existing template. For the relevant procedures, see the following sections:

- "Selecting the model version for a new service template" (page 259)

- "Changing the model version of a service template" (page 260)

Selecting the model version for a new service template

Use this procedure to select a model version for a new service template.

Procedure steps

If you have already loaded a service template file, and you want to select a model version on which to base a new template, you first need to clear the template editor. If the Nodal Provisioning Template Editor window has not been cleared, go to "Clearing the template editor window to create a new service template file" (page 257) dialog box.

1   On the **File** menu, click **Change Model version**.

The **Choose Model Version** dialog box opens.

2   In the dialog box, accept the default model version, or from the drop down list of available versions, select the model version that you want to change to.

By default, the most current and available model version is selected and appears in the **Model version** field.

3   Click **OK**.

The left side of the status bar of the Nodal Provisioning Template Editor window contains the model version that you selected. This version remains until you load a different template that specifies a version or you select a new model version.

Changing the model version of a service template

Use this procedure to change the model version of your template. You can change the model version immediately upon opening the service template file, or you can change the model version at any time while you are modifying a service template. You can open a saved template file without first changing the model version since templates created by the template editor are saved with a version.

Procedure steps

You use the Choose Model Version dialog box to select a new model version.

1   On the **File** menu, click **Change Model version**.

    The **Choose Model Version** dialog box opens.

2   In the dialog box, select the model version that you want to change to from the drop down list of available versions.

    By default, the most current and available model version is selected and appears in the **Model version** field.

3   Click **OK**.

    The template editor checks the template's attributes and components against the new version.

    If all the components and attributes are available, and have the same ranges of values, the template editor changes the version of the template and the new model version appears in the status bar at the bottom of the **Nodal Provisioning Template Editor** window. The template is reloaded with the new model version so any attributes and components that do not exist in the new model version are no longer available to change or to add to the template.

    If one or more of the components or attributes do not exist in the new model version, or has a different range of values, an error dialog box opens. Go to step 4

4   Select **Show Details**.

    The error dialog box displays which items are not consistent with the newly chosen model version and the template remains unchanged.

5   If you want to make the template consistent with the new model version, leave the error dialog box open, and go to step 6.

    If you do not want to make the template consistent with the new model version, close the error dialog box and continue to edit the template.

6   Make the changes to the template to make it consistent with the new model version.

7   On the he **File** menu, click **Change Model Version**.

If the template is now consistent with the model version, the error dialog box closes. The template's model version is updated and the template is re-loaded with the new version.

If the template is still not consistent with the newly chosen model, the error dialog box updates with the new reasons why this template is not consistent with the model version. Return to step 6, or close the error dialog box and continue to edit the template without changing the model version.

Specifying a model software version range

You use the Set Valid Model Versions dialog box to specify the valid device model version range or ranges for a service template.

When you specify a software version range or ranges, the template can only be used to provision devices whose software version is included within the specified range or ranges. Nodal Provisioning filters out all templates that do not apply to the software version of the connected device. The Nodal Provisioning window displays only those templates that apply to the software version or versions of the connected device.

You can specify the software version at any time after you launch the Nodal Provisioning Template Editor, either to create a new service template, or to modify an existing service template.

The Set Valid Model Versions dialog box opens with the default setting of **All Model Versions** and displays a single empty row in the range selection table.

You are provided two options for selecting a model version range or ranges:

*   **All Model Versions** lets you create a template that applies to all device model software versions.

*   **Specify model range(s)** lets you create a template which applies to specific Passport model software versions.

When you open an existing service template file, and then select **Set Valid Model Versions**, the template editor will read from the service template file to find the list of previously selected software ranges that apply to the template. One of the following occurs:

*   If any software version applies to the template, then the software range selection table is list is empty. The **All Model Versions** option is selected, and the range area, **Add Range** button and **Remove Range** button are disabled. The template file is not tagged with a device version tag.

*   If specific software versions apply to the template, then the software range selection table is populated with the list of valid software versions. The range table displays the **From** and **To** columns of combo boxes that display the lower and upper limit pairs of a model version range. When

a combo box is expanded, it shows the list of all available software versions. For example, the following information is an example for Passport:

— The From column may appear as follows: <" ", All later versions", CA*, CB*, CC*..., BA*, BB*, ..., FMR*, UWM*, ...>

— The To column may appear as follows: <" ", All previous versions", CA*, CB*, CC*..., BA*, BB*, ..., FMR*, UWM*, ...>

where:

"All later versions" means all Passport software versions which succeed the version specified in the From columns.

"All previous versions" means all Passport software versions which precede the version specified in the To column.

<matchingString>* means all Passport software versions which start with the <matchingString>

The **Specify Model range(s)** option is selected and the **Add Range** and **Remove Range** buttons are enabled.

See the table "Examples of Passport Model ranges" (page 265) for examples of valid model ranges.

- If no software version was specified in the template, as is the case with the older templates, the Set Valid Model Versions dialog box defaults to **All Model Versions**. The template file is not tagged with a device version tag.

When you click **OK** in the Set Valid Model Versions dialog box the following occurs:

- Template editor initiates a comparison of the ranges selected in the To (upper range) and From (lower range) columns to confirm that the upper range is always greater than or equal to the lower range.

- Another check is performed if you have already set the model version and this base version has the same software version as either the upper or lower range. The template editor checks to ensure that the base model version is equal to or greater than the lower limit and equal to or less than the upper limit.

- The template is tagged with a device version tag.

- The range or ranges are saved in the service template XML file in the following format:

  deviceVersion="<lower1>-<upper1>, <lower2>-<upper2>,...,<lowerN>-<upperN>"

  where:

  lowerN, upperN can be "All later versions", "All previous versions" (*) or any software version (for example, CA*, BA*). The upperN limit must be greater or equal to the lowerN limit.

- If a range is unacceptable, an Error dialog box opens and the Set Valid Model Versions dialog box remains open. See "Error messages" (page 266) for additional information on the conditions that create error messages and the error messages that are generated.

For additional information, see the following sections:

- "Examples of model software version ranges" (page 264)

- "Error messages" (page 265)

- "Specifying the software version range or ranges for a new service template" (page 267)

- "Specifying template identification attributes for a new template" (page 271)

Examples of model software version ranges

The table "Examples of Passport Model ranges" (page 265) provides examples of valid model software version ranges.

Table 29
Examples of Passport Model ranges

In Set Model Range Dialog box From	In Set Model Range Dialog box To	In XML file <lower>-<upper>	Explanation
All previous versions	CD*	*-CD*	applies to all model versions which are released earlier and include release CD<version><developmentNumber> <cycleNumber><debugNumber>
CD*	All later versions	CD*-*	applies to all model versions which are released from model version CD<version><developmentNumber>< cycleNumber><debugNumber> and later
CD*	CE*	CD*-CE*	applies to all model versions which are released from model version CD<version><developmentNumber> <cycleNumber><debugNumber> to CE<version><developmentNumber>< cycleNumber><debugNumber>
CD*	CD*	CD*-CD*	applies to the exact model version which starts with CD

Error messages

The table "Error messages" (page 266) describes possible error messages when specifying version ranges in the Set Valid Model Versions dialog box.

Table 30
Error messages

Error condition	Error message	Solution
The version in the To column is not greater than or equal to the version in the from column.	The version in the To column must be greater than or equal to the version in the From column.	Enter a valid version range in the selected row.
The model software version specified in the From column and the To column do not belong to the same software solution.	Range must specify the same software solution.	Enter a valid version range in the selected row.
The base version of the template is outside of the selected valid model versions.	The base version <version> is outside the valid model versions range at the selected row.	Select Yes to save the selected valid versions. Select No to not save the selected valid versions. Select Cancel to cancel all selected valid versions.
One of the selected valid model versions is already included in other valid model versions.	There exists an other version range which includes this selected range.	Enter a valid version range in the selected row.

Procedures for setting the software version range or ranges

Use the following procedures to specify the Passport software version range for a new service template. You can specify the software version at any time after you launch the Nodal Provisioning Template Editor. For relevant procedures, see the following sections:

- "Specifying the software version range or ranges for a new service template" (page 267)

- "Changing the software version range or ranges of a service template" (page 268)

Specifying the software version range or ranges for a new service template

Use this procedure to select the valid software version range or ranges for a device.

Procedure steps

1   On the **File** menu, click **Set Valid Model Versions**.

The **Set Valid Model Versions** dialog box opens and displays a single empty row. By default, the **All Model Versions** option is selected, and the **Add Range** and **Remove Range** buttons are disabled.

2   If you wish the template to apply to all device model software versions, click **OK** to save the valid model versions. The template file is not tagged with a device version tag.

If you wish to create a template which applies to specific device model software versions, select the **Specify Model range(s)** option and go to step 3. The rows in the software range selection table, and the **Add Range** and **Remove Range** buttons are enabled

3   Click in the **From** column, and select the lower limit or starting point for your range from the dropdown list of available versions in wildcard format. See "Examples of Passport Model ranges" (page 265).

You can also type a new valid software version range in the **From** cells of the new row.

4   Click in the **To** column to select the upper limit, or endpoint for your range from the dropdown list of available ranges. you can also type a new valid software version range in the **To** cells of the new row.

If no additional ranges are required, proceed to step 7.

5   If additional ranges are required, click **Add Range**. A new row is added to the software range selection table, with the initial selected value as an empty string. You can set another range by specifying the lower and upper limits.

To remove a selected row from the software range selection table, click **Remove Range**. The software range selection table has one less element.

6   Repeat steps 3 to 5 until you have specified all the required ranges.

7   Click **OK**.

The template file is tagged with a device version tag.

Changing the software version range or ranges of a service template

Use this procedure to change the device software version range or ranges of a service template.

Procedure steps

1   From the **File** menu, select **Set Valid Model Versions**.

The **Set Valid Model Versions** dialog box opens. The template editor reads the service template file to find the list of software ranges that apply to the template. One of the following scenarios occurs:

- If any device software version applies to the template, the dialog box opens with an empty range selection table, the **All Model Versions** option selected, and the **Add Range** and **Remove Range** buttons are disabled.

- if a specific device software version or versions apply to the template, the software range selection table is populated with the list of valid software versions. The **Specify Model range(s)** option is selected and the **Add Range** and **Remove Range** buttons are enabled.

- if no device software version was specified in the template, as in older service templates, the **Set Valid Model Versions** dialog box defaults to **All Model Versions**.

2   To create a service template that applies to specific device software versions, select the **Specify Model range(s**) option.

The rows in the software version range selection table are enabled. **Add Range** and **Remove Range** are enabled.

3   Click in the **From** column, and select the lower limit or starting point for your range from the dropdown list of available versions in wildcard format. See "Examples of Passport Model ranges" (page 265).

You can also type a new valid software version range in the **From** cells of the new row.

4   Click in the **To** column to select the upper limit, or endpoint for your range from the dropdown list of available ranges. you can also type a new valid software version range in the **To** cells of the new row.

If no additional ranges are required, proceed to step 7.

5   If additional ranges are required, click **Add Range**. A new row is added to the software range selection table, with the initial selected value as an

empty string. You can set another range by specifying the lower and upper limits.

To remove a selected row from the software range selection table, click **Remove Range**. The software range selection table has one less element.

6   Repeat steps 3 to 5 until you have specified all the required ranges.

7   Click **OK**.

The template editor initiates a comparison of the ranges selected in the **To** (upper range) and **From** (lower range) columns to ensure that the base model version is equal to or greater than the lower limit and equal to or less than the upper limit. If these conditions are met, the range or ranges are saved and the **Set Model Range** dialog box closes.

Specifying template identification attributes

The Template Identification panel provides fields to enter general information to identify the template. The template identification attributes can be edited. See the following sections for additional information:

- "Specifying template identification attributes for a new template" (page 271)

- "Modifying template identification attributes of an existing service template (.st) file" (page 272)

Specifying template identification attributes for a new template

Use this procedure to provide identifying information about the service template.

Prerequisites

This procedure requires that you have opened the Nodal Provisioning Template Editor to create a new template.

Procedure steps

1 In the **Title** field, type a name to identify the service template. This field is mandatory.

   You should create a unique title for each template within the same service category. The title that you enter in the **Title** field is the title that appears for the template in the service template palette of the **Nodal Provisioning** window.

2 In the **Author** field, type the name of the author of the service template. This field is mandatory.

   If the template is created by Nortel Networks, this field displays "Nortel Networks".

3 Optionally, provide a description of the service template by completing one of the following steps"

   • directly in the **Description** field, type an explanation or details about the service template

   • click **Edit...** to open a larger editing window. This window is empty. Type an explanation or details about the service template in this window and click **Close**.

4 Click **Browse...**.

   An icon chooser window opens containing icon images.

5 Select an icon image that represents the service template and click **OK**.

   This icon images appears to the left of the service template title in the **Nodal Provisioning** window.

Modifying template identification attributes of an existing service template (.st) file

Use this procedure to make changes to the following attribute fields in the template identification panel of the Nodal Provisioning Template Editor window after you open a service template (.st) file:

- title

- author

- icon

- description

Procedure steps

1 In the **Nodal Provisioning Template Editor** window, make one or more of the following modifications:

- If you are modifying the **Title** or **Author** fields, highlight the contents of the field that you want to modify and make the changes directly in the fields. If the template was created by Nortel Networks, the Author field contains "Nortel Networks".

- If you are modifying the contents of the **Description** field, select **Edit** to the right of the **Description** field to open a larger **Edit Description** window. When you open a service template file, this window opens with a the same information as contained in the Description field in Make your changes and click **Close** to close the window.

- If you are modifying the icon, select **Browse** to open an icon browser window and select the icon that you want to use.

2 From the **File** menu, select **Save** to save the changes. See "Saving service template files" (page 308).

You cannot overwrite a template created by Nortel Networks. You need to save your changes under a new name.

Component layout procedures

See the following for procedures relating to the component layout tree.

Adding a component

Use this procedure to add a new component.

Prerequisites

- If this is the first component you add under EM, the Model Version must be selected. See "Selecting the model version for a new service template" (page 259).

Procedure steps

1 From the **Selected** menu, click **Add Component**.

The **Add Component** dialog box opens.

2 Select the component that you want to add or begin typing the component name in the **Choose a component** field.

As you type the name, the corresponding component is highlighted in the **Component Name** list.

3 Click **Ok**.

If the component is a root level component, it displays in the Component Layout panel. If the component is a non-root level component, the **Component Parent Designation dialog** opens and you continue to step 4.

4 From the radio buttons, select the option for how the component should be derived.

5 From the pick list associated with the selected radio button, specify the parent component.

6 Click **OK**.

If you selected **Create Parent Now**, the component and its parent components will be created when the template is applied.

If you selected **Find Parent at Runtime**, **Find Component at Runtime**, or **Parent is a Dropsite**, a list of all existing parent components will be displayed when the template is applied.

Adding a component attribute

When you add a component to a template, component attributes are not automatically added. Use this procedure to add an attribute to the template.

Prerequisites

This procedure requires that you have selected the attribute to add to the template.

Procedure steps

1 Complete one of the following steps:

- right-click the attribute and select **Add to Template** from the pop-up menu.

- on the **Selected** menu, click **Add to Template**.

2 To preview the template with the attribute, on the **View** menu, click **Preview**.

Changing the component parent designation

Use this procedure to change how a component should be derived.

Procedure steps

1 Open the template that you want to edit.

2 Select the **Component Layout** tab.

3 From the **Component Layout** panel, select the component whose derivation you want to change.

4 Right-click to open the popup menu and select **Change Component Designation**.

The **Component Parent Designation** dialog opens.

5 From the available radio buttons, select the option for how the component should be derived.

6 From the pick list associated with the selected radio button, specify the parent component.

7 Click **OK**.

If you selected **Create Parent Now**, the component and its parent components will be created when the template is applied.

If you selected **Find Parent at Runtime**, **Find Component at Runtime**, or **Parent is a Dropsite**, a list of all existing parent components will be displayed when the template is applied.

Note: This procedure changes only the selected component. If you select the parent options, new parent components are created. The existing parent components remain in the template and you can remove them. If you want to change the parent component, then you must select the parent component in step 3.

Adding sub-components to a dropsite or component node

Use this procedure to add a sub-component to a component or to a dropsite.

The Add Sub-component command is enabled only when you select a component that can have sub-components.

You use the Add Component dialog box to add a sub-component to a dropsite. You can only add a sub-component to a dropsite that is a parent-type dropsite.

Procedure steps

1   In the **Nodal Provisioning Template Editor** window, select the **Component Layout** tab.

2   In the component layout tree, select the component or dropsite to which you want to add a sub-component.

3   Right-click to open the popup menu and select **Add Sub-Component**.

The **Add Component** dialog box opens and displays a list of sub-components that can be added to the selected component.

4   Select the component that you want to add or begin typing the component name in the **Choose a component** field.

As you type the name, the corresponding component is highlighted in the **Component Name** list.

5   Click **OK**.

The component and all of its required sub-components are added to the component layout tree.

Adding a link

Use this procedure to add a link to a dropsite component, or to another component in the component layout tree.

The Add Link Component command is only enabled if it is a valid action for the selected component.

> *Note:* The value of the link attribute between two components can be added in either the Component Layout or Form Layout tab, but not in both.

Procedure steps

1   In the template editor main window, select the **Component Layout** tab.

2   In the component layout tree, select the component to which you want to add a linked component.

3   On the **Selected** menu, click **Add Link**:

   The **Add Link** dialog box opens.

   In the **From** panel, the **Component** field is populated with the component that is selected in the component layout tree.

   The **Attribute** list lets you select the link attribute of the source component.

4   In the **To** panel, select one of the following options:

   •   **New Component** if you want to link the currently selected component and attribute (or dropsite) to a new component.

   •   **Existing Component** if you want to link the currently selected component and attribute to a component that already exists in the template.

5   In the **Choose Component** panel, select the linked component that you want to link to by typing the linked component's name in the **Choose a component** field or choose a component under **Component Name** list.

   As you type the name, the corresponding linked component's name is highlighted in the **Component Name** list. The **Component Names** list contains the names of all the components that can link to the selected component or attribute.

6   Click **OK**.

If you have selected the **New Component** option, and the component is found directly under EM, the component is added to the component layout tree.

If the linked component is not a root-level component, that is, it needs a parent, the **Component Parent Designation** dialog box opens. You will need to resolve the parent path for it. See "Selecting the component parent designation" (page 290).

If you have selected the **Existing Component** option, the selected component is linked to a component that already exists in the template.

If you wish to cancel the operation, click **Cancel** to close the **Add Link** dialog box and return to the **Nodal Provisioning Template Editor** window.

Moving a sub-component to another parent

Use this procedure to move sub-components from one compatible parent to another.

Procedure steps

1   From the Component Layout, select the sub-component that you want to move.

2   From the Selected menu, select **Move Component**.

The Move Component dialog opens with all the compatible parent components available in the **Select parent to move component** picklist.

3   From the **Select parent to move component** picklist, select the parent component.

4   Click OK.

The Component Layout changes to show the new parent component.

Removing components from the Component Layout

Use this procedure to remove top level components, linked components, or sub-components from the component layout tree.

Procedure steps

1   In the **Nodal Provisioning Template Editor** window, click on the **Component Layout** tab.

2   Navigate the **Component Layout** tree to the item you want to remove and select it.

3   Complete one of the following steps:

   •   right-click and select **Remove** from the pop-up menu.

   •   on the **Selected** menu, click **Remove**.

The selected item and all its sub-components and link attributes are removed from the Component Layout. In the case of a linked dropsite, the dropsite and its links are removed.

Adding or removing a dropsite

A dropsite is the component location where the service template can be dropped in the component hierarchy in the Nodal Provisioning window.

Only one dropsite node is allowed for the template because the template can only be dropped on a single component at a time in the NP window. However, a dropsite node can contain several drop targets because it is possible to drop the template on several different components.

There are two types of dropsites:

— link dropsite
A link dropsite uses the dropsite to set the link attribute for a component in the template. When the template is dropped in Nodal Provisioning, the location of the drop is used to set the linkAttribute of the associated component(s). A link-type dropsite is used to link an existing component with one or more components in the template. The link is bi-directional which means that both components know which component their link attribute is connected to.
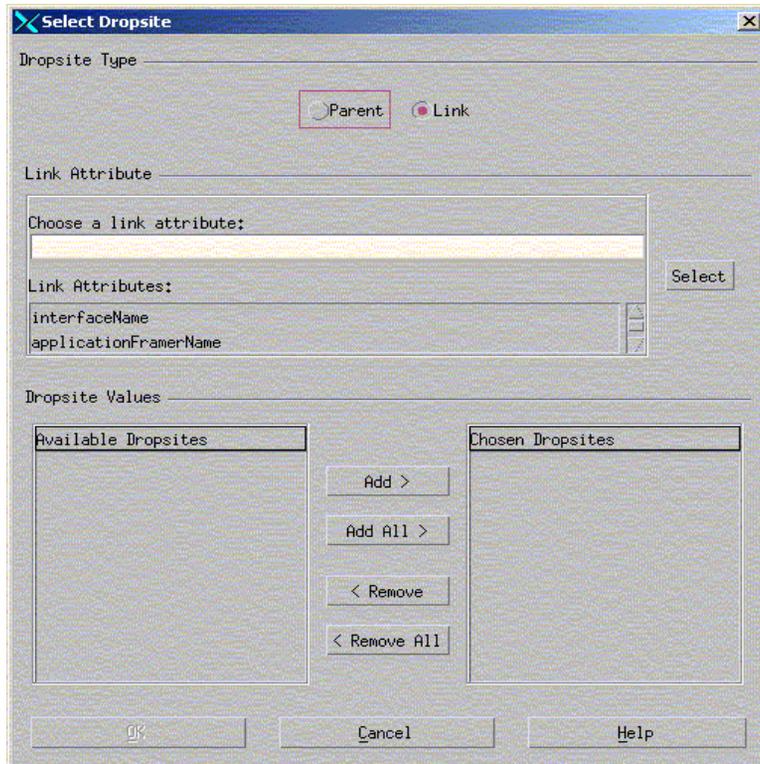
— parent dropsite
A parent dropsite is a component that will become the parent of one or more components in the template. A parent-type dropsite is used to add a component that is to be created as a sub-component of a component that already exists on the device.

When a template is dropped on an existing parent component, the components in the template are created as subcomponents to the parent component.

You can add a dropsite by selecting Add Dropsite from the Selected menu. This opens the Select Dropsite dialog. See "Select Dropsite dialog box with Link dropsite type selected" (page 283).

ATTENTION If you don't add a dropsite, the dropsite default is the root component.

Figure 14
Select Dropsite dialog box with Link dropsite type selected

Adding a parent dropsite

Use this procedure to add a parent-type dropsite. A parent drop-site is used to add a component that is to be created as a sub-component of a component that already exists on the device. The template is applied to the existing component when using Nodal Provisioning.

Prerequisites

This procedure requires that the following conditions exist.

- You want to add a component that must be created as a child component of a parent component that is not currently in the template.

- You want the template drop action in Nodal Provisioning to locate the parent component.

Procedure steps

1   Select the component from the Component Layout and right-click to open the popup menu.

2   Select **Add Component**.

3   Enter a component which is to be created under the dropsite.

    The Component Parent Designation Dialog opens.

4   Select **Parent is a Dropsite**.

5   Select a parent path.

6   Click **OK**.

7   If further drop targets are needed, see "Adding or removing a dropsite drop target" (page 289).

8   If more sub-components are to be added under the parent dropsite, see "Adding sub-components to a dropsite or component node" (page 277)

Resolving a previous parent dropsite

Use this procedure when you want to modify a template, which contains a previous parent (non-root) dropsite, to specify a new dropsite.

Prerequisites

This procedure requires that the following conditions exist.

- You have opened the template with the component whose parent dropsite you want to resolve.

- You have attempted to add a new dropsite using the Add Parent Dropsite or Add Link Dropsite procedures and the warning dialog is opened to indicate the template already contains a previous dropsite.

Procedure steps

1   Select the appropriate action from the warning dialog:

   If you select **Remove**, the previous dropsite and all its sub-components and links are removed. Go to step 3.

   If you select Resolve, the **Change Parent Designation** dialog opens.

2   From the **Change Parent Designation** dialog, select one of the following:

   - **Create Component Now** so the component and its parent components will be created when the template is applied

   - **Find Component at Runtime** so a list of all existing parent components will be displayed when the template is applied.

3   Click **OK**.

Adding a link dropsite

Use this procedure to resolve a previous parent dropsite. This occurs when a new dropsite is added to a template which already contains a parent dropsite.

Prerequisites

This procedure requires that the following conditions exist.

- You have opened the template with a non-root parent dropsite and you want to change the dropsite.

- You have added a component and that component needs to link to a component outside of the template, and you want the template drop action in Nodal Provisioning to locate that component.

Procedure steps

1 Select the **Component Layout** tab.

2 From the Component Layout, select the component which contains a link attribute and right-click to open the popup menu.

3 Select **Add Link**.

The Add Link dialog opens. In the From panel, the Component field is populated with the component that you selected in the Component Layout.

4 From the Attribute list, select the link attribute of the source component.

5 In the To panel, select **New Component**.

6 In the Choose Component panel, select **New Link Dropsite**.

7 Click **OK**.

8 In the Available Dropsites list, select one or more of the components in the list. The list contains all the components that can be linked to the component you have selected.

> **ATTENTION** You can select more than one link dropsite only if they all can have the same type of sub-component.

9 Click the **Add** or **Add All** button to move the selected component(s) from the Available list to the Chosen Dropsites list. If you want to remove one or more components, go to step 10. Otherwise go to step 11.

10 Click the Remove or Remove All button to remove one or more components from the **Chosen Dropsites** list to the **Available Dropsites** list.

11 Click **OK**

The link dropsite node is added to the **Component Layout** tab as a child of the root node. It is labeled with a drop icon to distinguish it as a dropsite node.

Resolving a previous link dropsite

Use this procedure to resolve a previous link dropsite. This occurs when a new dropsite is added to a template which already contains a link dropsite.

Prerequisites

- You have opened the template with a link dropsite and you want to change the dropsite.

- You have attempted to add a new dropsite using the Add Parent Dropsite or Add Link Dropsite procedures and the warning dialog is opened to indicate the template already contains a previous link dropsite.

Procedure steps

1   Click **OK** to remove the previous link dropsite.

The **Select Dropsite** dialog opens.

2   Select the new dropsite type and specify the dropsite component.

3   Click **OK**.

The new link dropsite component is created and the dialog closes.

The previous link dropsite components are removed.

Adding or removing a dropsite drop target

Use this procedure to add or remove a dropsite from the template.

Procedure steps

1 In the **Nodal Provisioning Template Editor** window, in the component layout tree, click on the dropsite node.

The heading at the lower part of the **Component Layout** tab is labelled **Dropsite Details**.

If the dropsite is a parent-type dropsite, the list of parents for the component will appear in either the **Available Dropsites** or **Chosen Dropsites** list.

If the dropsite is a link-type dropsite, the list of components that have a link attribute that can link to the component is in the **Available Dropsites** list

2 From the **Available Dropsites or Chosen Dropsites** list, select the dropsite or dropsites that you want to add or remove.

3 Click **Add** to move a dropsite from the Available to the Chosen dropsites list or click **Remove** to move a dropsite from the Chosen to the Available dropsites list.

4 Save the template.

When you reopen the template, the selected dropsite is removed from the component layout tree.

Selecting the component parent designation

Use this procedure to indicate how a non-root component is to be created or located. This occurs when a non-root component is added through the Add Component or Add Link procedures.

Component Parent Designation dialog box

The Component Parent Designation dialog box opens when you add a component that is not a sub-component of the root EM or if you add a linked component. The dialog box gives you the options to either create the component, find it at runtime, or make it a child of a parent dropsite.

Procedure steps

1   In the **Component Parent Designation** dialog box, select one of the following options:

   •   To create a parent for a new component, select the **Create Parent Now** option. The adjacent parent field is enabled. You can select from a list of one or more paths of parents up to EM.

   •   To search for available parents on the device at runtime, select the **Find Parent at Runtime** option. The adjacent field is enabled and contains a dropdown list of one or more search strings of parents up to EM. Select the search string to the component that is to be a parent of the component that is created by the template. This search string is applied to existing components on the device at runtime.

   •   To search for this component of this type on the device at runtime, select the **Find Component at Runtime** option. The adjacent field is enabled and contains a drop down list of one or more search strings of this component and its possible parents up to EM. Select the search string to the type of component that you want to search for at runtime. This search string is applied to existing components on the device at runtime.

   •   To create the component using the location where the template is dropped in Nodal Provisioning, select the **Parent is a Dropsite** option.

2   Click **Ok**.

If you selected the **Create Parent Now** option and the parent path, **Ok** creates the selected parent components as branches in the component layout tree.

If you selected the **Find Parent at Runtime** option and the search string of parents, an instance list node is added as the root node, and is identified as an instance icon. The component is added as a branch from the Instance List node in the component layout tree. You can have more than one instance list per template.

If you selected the **Find Component at Runtime** option, the component is not created by the template but is added as an instance list. An instance list node is added to the template to represent the type of component that you want to search for at runtime. It is identified by an instance icon.

If you selected the **Parent is a Dropsite** option, the component is created as a sub-component of the component where you drop the template in Nodal Provisioning.

Changing the component designation

Use this procedure to change how a component is created or located.

Procedure steps

1   From the Component Layout, select the component whose designation you want to change and right-click to open the popup menu.

2   Select **Change Component Designation**.

The Component Designation dialog opens.

3   In the **Component Designation** dialog box, select one of the following options:

- To create the new component, select the **Create Component** option. The adjacent field contains only the component that you are adding, in other words, the component that you selected in the **Add Component** dialog box when adding a component. See "Adding a component" (page 274). You do not have to choose anything in this field.

- To search for the component on the device at runtime, select the **Find Component at Runtime** option. The component is not created by this template but is added as an instance list. The adjacent field is enabled. It contains the search string of the component you are adding. You do not need to choose anything in this field.

- To search for available parents on the device at runtime, select the **Find Parent at Runtime** option. The adjacent field is enabled and contains a dropdown list of one or more search strings of parents up to EM. Select the search string to the component that is to be a parent of the component that is created by the template. This search string is applied to existing components on the device at runtime.

- To indicate that the parent is a dropsite, select the **Parent is a Dropsite** option.

4   Click **Ok**.

If you selected **Create Component** option, **OK** creates the selected component.

If you selected the **Find Parent at Runtime** option and the search string of parents, an instance list node is added as the root node, and is identified as an instance icon. The component is added as a branch from the Instance List node in the component layout tree. You can have more than one instance list per template.

If you selected the **Find Component at Runtime** option, an instance list node is added to the template that represents the type of component that you want to search for at runtime. The search string is applied to existing components on the switch at runtime.

If you selected the **Parent is a Dropsite** option, the component is created as a sub-component of the component where you drop the template in Nodal Provisioning.

Removing links

Use this procedure to remove a link from a currently selected component.

Procedure steps

1   In the **Nodal Provisioning Template Editor** window, click on the **Component Layout** tab.

2   In the component layout tree, navigate to the linked component that you want to remove and select it.

3   On the **Selected** menu, click **Remove Link**.

If more than one link exists, a selection menu opens; go to step 4. Otherwise, the selected link is removed. The components remain.

4   Select the link to be removed and click **OK**.

The selected link is removed. The components remain.

Adding or removing attributes

Use this procedure to add to or remove attributes from a selected component in the component layout tree.

Procedure steps

1   In the **Nodal Provisioning Template Editor** window, click on the **Component Layout** tab.

2   Complete one of the following steps:

- in the component layout tree navigate to the component whose attributes you want to add to or remove and select it

- in the **Component Details** section, select the component from the **Components** drop down list.

3   To add an attribute, select the attribute in the **Available** attributes list and click **Add** to move the attribute to the **Included in Template** list.

To remove an attribute, select the attribute in the **Included in Template** list and click **Remove** to move the attribute to the **Available** attributes list.

4   Save the template. See the section "Saving service template files" (page 308).

Form Layout procedures overview

The following procedures apply to the form layout tab in the Nodal Provisioning Template Editor window. You can add and remove tabs and groups, and show and hide components from the form layout tree.

A tab is a collection of groups that you define. The collection is shown on the service template as a tab with a name that you specify.

A group is a collection of components that you define. The collection is shown on the service template as a bordered panel. You can specify a title for the panel.

See the following sections for additional information:

Reorganizing tabs or groups

Use this procedure to move a tab or group on the Form Layout tree.

Procedure steps

1   In the **Form Layout** tree, select the **Tab** or **Group** that you want to move.

The area below the tree shows the name of the selected tab or group and its details.

2   To move a tab or group to a new location in the form, use the drop down lists in the **Location** section of the **Details** area.

To move a tab, in the **Location** section, select a new position from the available positions listed in the drop down list. The tab moves to the selected position.

You can move a selected group to a new tab location and a new position. Select the desired tab location from the **Tab** drop down list. Select the desired position under the **Tab** from the **Position** drop down list.

Renaming tabs or groups

Use this procedure to edit the name of a tab or group.

Procedure steps

1 In the **Form Layout** tree, select the **Tab** or **Group** that you want to rename.

   If you select a tab, the name of the tab appears in the **Tab Name** field of the **Details** area.

   If you select a group, the name of the group appears in the **Group Name** field of the **Details** area.

2 Edit the name in the text field.

   The new tab or group name appears in the **Form Layout** tree.

Adding tabs to the form layout tree

Use this procedure to add a new tab to the form layout tree.

Procedure steps

1   Select the **Form Layout** tab.

2   Complete one of the following steps:

- On the **Form Layout** tab, right-click **Main Dialog Window** and then select **Add tab**.

- On the **Selected** menu, click **Add tab**.

The new tab appears as the last tab in the form layout tree. It has the default name of "New Tab". You can edit the default name to any new string.

Deleting tabs from the form layout tree

Use this procedure to delete a tab from the form layout tree.

Procedure steps

1 Select the **Form Layout** tab.

2 In the **Form Layout** tab, select the tab that you want to remove from the form layout tree.

Note: You can not remove tabs that have subcomponents.

3 Complete one of the following steps:

• Right-click on the tab and select **Remove** from the pop-up menu.

• On the **Selected** menu, click **Remove**.

The tab is deleted from the form layout tree.

Adding Groups to the form layout tree

Use this procedure to add a Group to a tab in the form layout tree. A Group shows a grouping of components that should be displayed together under a tab in the service creation form. A Group can only be added to tabs in the form layout tree.

Procedure steps

1   Select the **Form Layout** tab.

2   Select the tab to which you want to add a group.

3   Complete one of the following steps:

   • Right-click and select **Add Group** from the pop-up menu.

   • On the **Selected** menu, click **Add Group**.

   The new group appears as the last group in the tab. It has the default name of "New Group". You can edit the default name to any new string.

Deleting Groups from the form layout tree

Use this procedure to remove a group from a tab in the form layout tree.

Procedure steps

1   Select the **Form Layou**t tab.

2   Select the group that you want to delete.

   Note: .You can not delete a group that has sub-components. The **Delete Group** menu item is disabled.

3   Complete one of the following steps:

   •   Right-click and select **Remove** from the pop-up menu

   •   On the **Selected** menu, click **Remove**.

   The selected group is removed from the form layout tree.

Hiding a component in the form layout tree

Use this procedure to hide a selected component in the form layout tree.

Note: The **Hide Component** menu item is disabled for components whose key needs to be filled in at run-time.

Procedure steps

1   Select the **Form Layout** tab.

2   In the form layout tree, navigate to the component that you want to hide and select it.

3   Complete one of the following steps:

- Right-click and select **Hide** from the pop-up menu.

- On the **Selected** menu, click **Hide**.

The component is no longer accessible in the form layout tree. The value of key display and attribute display are set to false for each of the component's attributes and the instance value will not display. However, the component will still be in the template, and any values that were set for its attributes are applied when the component is created.

Showing components in the form layout tree

Use this procedure to display hidden components in the form layout tree.

Procedure steps

1 Select the **Form Layout** tab.

2 Select the hidden component that you want to display.

3 Complete one of the following steps:

- On the **Selected** menu, click **Show**.

- Right-click and select **Show** from the pop-up menu.

The selected component becomes visible in the form layout tree. **Display in form** is set to true for each of the component's attributes that has a non-default value and the instance value is displayed.

Removing a component from the form layout tree

To remove a component from the form layout tree, you need to remove it from the component layout tree. When you remove a component from the component layout tree, the change is reflected in the form layout tree. Removing a component has the following impact on the groups and tabs in the form layout tree:

- if the tab and groups have been automatically generated, and if the group is empty, the tab and group are removed

- if the tab and groups have been automatically generated, and if the tab contains multiple groups, only the empty groups are removed

- if you have created the tab, or changed the name of the automatically created tab, the tab and groups are not removed

For the procedure to remove a component from the Component layout tree, see "Removing components from the Component Layout" (page 281).

Modifying attribute details

Use this procedure to modify the attributes of the service template.

Procedure steps

1 In the **Nodal Provisioning Template Editor** window, click on the **Form Layout** tab.

2 Select the attribute that you want to modify from the form layout tree:

- **Display in Form value**,
  To modify the **Display in Form** value, select **Display in Form** check box.

If **Display in Form** is not checked, you will not see the attribute displayed in the service template form. **Display in Form** is normally left unchecked only if there is an override value for a specific attribute.

- **Value field**
  To modify the value, either select the desired value from the list that appears when you select **Value**, or edit the selection to be the value that you want. You have the following choices:
  -**override**
  -**default**
  -**gets value from**
  -**user selected**
  When you change **Value,** it is the override value for the **Attribute**.

- **Label field**
  To modify the **Label**, enter a new value in the **Label** field. Verify that the **Display in Form** check box is checked. This ensures that the new label is seen in the service creation form.

- **Initial Value**
  To modify the **Initial Value**, change the selected value in the widget that appears if this field is enabled.

- **Mandatory** check box
  To modify the **Mandatory** check box, click on it. A checked box means that this attribute is mandatory and must be filled in before a service creation form is valid. If left unchecked, the service creation form allows users to proceed without filling in a value for this attribute.

- **Editable** check box
  To modify the **Editable** check box, click on it. A checked box means that this attribute's values can be edited. **Mandatory** is ignored if **Editable** is unchecked.

3   Save the changes. See the section "Saving service template files"
(page 308).

Saving service template files

The Save dialog box opens when you select Save As to save a service template file for the first time, or if you select Save and you have not yet saved the file.

When you select Save As to open the Save dialog box, the default directory/folder for the saved template is *Service/UserTemplates*. You can change this by selecting another directory and folder in the dialog box.

The Save dialog box lets you add folders, remove folders, and rename folders. You can also remove and rename files if you have file permissions. These permissions are based on the userid of the account from where the editor was launched.

The Save dialog box provides the option of saving the template as a read-only file.

For additional information on saving service template files, see the following sections:

Saving a service template file for the first time

Use this procedure after you create a new service template file and you are saving it for the first time.

Note: You can write to /opt/MagellanNMS/cfg/... but you cannot overwrite the files that have been installed by Nortel Networks

Note: You cannot save a template with a name that is the same as the typeId of any component.

Procedure steps

1   In the menu bar of the **Nodal Provisioning Template Editor** window, select **File** -> **Save As**.

A **Save** file browser dialog box opens. The dialog box opens to the service directory and category subdirectory.

Note: If you have permissions, you can add folders, remove folders, rename folders, and remove files from the **Save** dialog box. Permissions are based on the userid of the account from where the template editor was launched.
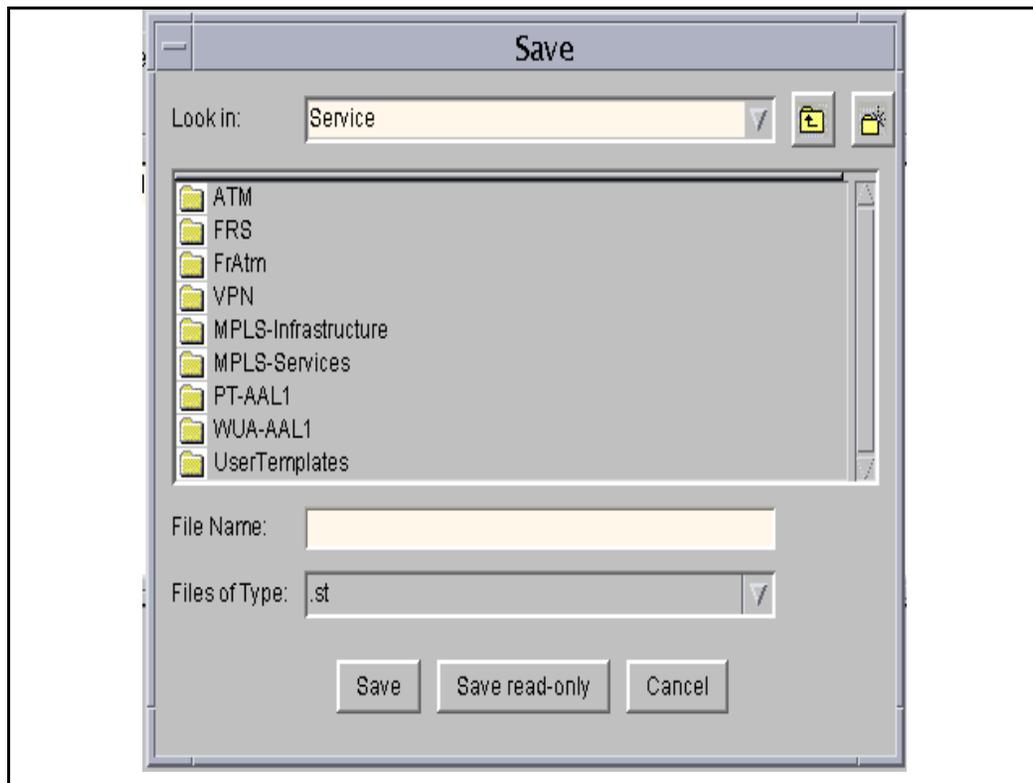
If you have not completed all the fields in the Template Identification panel, an error dialog box opens indicating the missing template identification details. Click **OK** and enter the missing information and click **Save As** again.

2 Do one of the following:

- To replace or rename an existing file, select the service category folder and select the file that you want. You can only replace or rename files for which you have write permissions.

- To save a new template file in an existing service category folder, select the service category folder that you want, and in the **File Name**

field, enter a new file name. The default folder for template files is
UserTemplates

- To save a new template file in a new folder, click the new folder icon,
  enter a name for the new folder, and in the **File Name** field, enter a
  new file name.

3   To save the template as a read-only file, click **Save read-only**. Otherwise,
    click **Save**.

The save actions generate a service template file in xml formal in the
selected directory and with the specified name. If you try to save another
file with the same name, a warning dialog box opens explaining that the
action is not allowed and why it is not allowed.

Saving a service template file after you have modified it

Use this procedure to save a service template after you have already saved the service template file at least once.

Note: You can write to /opt/MagellanNMS/cfg/... but you cannot overwrite the files that have been installed by Nortel Networks.

Procedure steps

1   In the **Nodal Provisioning Template Editor** window, edit the contents.

2   On the **File** menu, click **Save**.

If you are modifying a.st file that was shipped with the product, or if it is a read-only file, you will be warned that you cannot overwrite the file. You can then select **File** -> **Save As** to save the file with a new name.

If you try to save the file with a typeId as a name, a dialog box opens that explains that this action is not allowed and why.

If the file is not read-only, clicking **Save** generates a service template file in XML format with the same filename that was used to open the file.

Exiting Nodal Provisioning Template Editor

Use this procedure to close the Nodal Provisioning Template Editor window and exit the tool.

Procedure steps

1   From the **File** menu, select **Exit**.

The **Nodal Provisioning Template Editor** window closes.

If you have not yet saved your changes, you are prompted to save your changes. See "Saving service template files" (page 308).

Updating the service template palette in Nodal Provisioning

Use this procedure to update the template palette in the Nodal Provisioning window to include any newly created or edited templates.

Procedure steps

1 Complete one of the following steps:

- In the menu bar of the **Nodal Provisioning** window, select **View** -> **Reload Templates**, or

- In the toolbar of the **Nodal Provisioning** window, click the reload template icon.

Version checking tool overview

The version checking tool is an off-line tool that identifies inconsistencies between the following, when the Passport software version is upgraded:

- service templates and component models
- service models and the hierarchy model

You should run the service template version checking tool any time that the version of the software is changed since changes made in the new version may affect the current service model or templates.

The tool compares existing service model and template files with the hierarchy model and component model files. It reports when a service model or template refers to the following:

- removed attributes
- removed components
- obsoleted components
- obsoleted attributes.

When the tool finds inconsistencies, it outputs a line that specifies which files are affected. If no inconsistencies are found, the output line states that all files are OK.

Starting the version checking tool

Use this procedure to start the version checking tool to identify inconsistencies between service templates and component models and hierarchy models when a software version is upgraded in a device.

Procedure steps

1   Type the following command line.

    ```
    /opt/MagellanNMS/bin/anpstcheck [-devicetype
    <type>][-h] [-st | -fst <service template filename>]
    -version <model version>
    ```

    The tool outputs any inconsistencies that it has found between versions.

Command line options

`-devicetype <type>` is the option to select a Passport or MPE 9500 template. The <type> is either SRS or EM. If this option is not specified, the default is Passport.

`-h` is the option to display command usage.

`-st` is the option to check all service templates.

`-fst <service template filename>` is the option to only check a particular service template. The file name must include the path and extension.

`-version <model version>` is the version of the node to check against.

Sample outputs

The following sections provide examples of the tool's outputs when it finds the following:

•   all files are consistent

•   an error is found in the service template

Version checking tool output when all files are consistent

    ```
    All service model and template files are consistent
    with the hierarchy and component model files.
    ```

Version checking tool output when an error is found in the service template

```
An error was found in <filename>: Value of <attribute
name> on component <component name> is not valid in
this version of the <device> software.
```

Customizing how the Nodal Provisioning Template Editor starts

Preside Multiservice Data Manager (MDM) provides a set of default files that determine how MDM tools start. If required, you can customize the way the Nodal Provisioning Template Editor starts. For Nodal Provisioning Template Editor, multiple instances of the plug-in can run. You can change the default so that only a single instance of the plug-in is permissible. To customize the start up, you need to copy the original configuration file provided by MDM and then make any required changes to the copy.

Procedure steps

1   Copy the default application launch configuration files to the appropriate directory.

If running...	Copy the file from...	Save the file to...
Toolset	/opt/nortel/config/applications/ desktop/local/MDM/launchscripts/ default/MDMALaunch.cfg	/opt/nortel/config/applications/ desktop/local/MDM/launchscripts/ custom/MDMALaunch.cfg
Operator Client	/opt/nortel/config/applications/ desktop/jws/MDM/launchscripts/ default/MDMALaunch.cfg	/opt/nortel/config/applications/ desktop/jws/MDM/launchscripts/ custom/MDMALaunch.cfg

2   Using a UNIX editor, open the copy of the MDMALaunch.cfg file.

3 Within the file, locate the Nodal Provisioning Template Editor command block. See the following sample Nodal Provisioning Template Editor command block.

Nodal Provisioning Template Editor command block

```
{

Menutype = MenuBar

Menu/Submenu = Configuration

CommandLabel = Nodal Provisioning Template Editor

CommandType = Plugin

Command =
Class="com.nortel.anp.template.gui.ServiceTemplateEditor",
Client="yes", Single="no"

SandboxName = NPsteSandbox_<sandbox_id>

SandboxJars = /opt/MagellanNMS/lib/jar/ANPClient.jar
/opt/MagellanNMS/lib/jar/ANPShared.jar
/opt/MagellanNMS/lib/jar/ANPTemplateIcons.jar
/opt/MagellanNMS/lib/jar/MdmLib-MftApp.jar
/opt/MagellanNMS/lib/jar/nmsweb.jar
/opt/MagellanNMS/lib/jar/parser.jar
/opt/MagellanNMS/lib/jar/jaxp.jar
/opt/MagellanNMS/lib/jar/ANPTemplateEditor.jar
/opt/MagelanNMS/lib/mft/pluginJars/applications/SharedJVMApp.jar

}
```

4 Modify the file by changing the parameter Single="no" to Single="yes" on the line that begins with "Command =". See the following sample of a

customized Nodal Provisioning Template Editor command block. The modification is shown in bold font.

Modify the "Command=" line	{
	Menutype = MenuBar
	Menu/Submenu = Configuration
	CommandLabel = Nodal Provisioning Template Editor
	CommandType = Plugin
	Command = Class="com.nortel.anp.template.gui.ServiceTemplateEditor", Client="yes", Single="**yes**"
	SandboxName = NPsteSandbox_<sandbox_id>
	SandboxJars = /opt/MagellanNMS/lib/jar/ANPClient.jar /opt/MagellanNMS/lib/jar/ANPShared.jar /opt/MagellanNMS/lib/jar/ANPTemplateIcons.jar /opt/MagellanNMS/lib/jar/MdmLib-MftApp.jar /opt/MagellanNMS/lib/jar/nmsweb.jar /opt/MagellanNMS/lib/jar/parser.jar /opt/MagellanNMS/lib/jar/jaxp.jar /opt/MagellanNMS/lib/jar/ANPTemplateEditor.jar /opt/MagelanNMS/lib/mft/pluginJars/applications/SharedJVMApp.jar
	}

5   Save the file.

Chapter 10
Template Generator

The template generator of the Nodal Provisioning tool enables you to create a new template from an existing provisioned component of the connected node. The new template can be used to quickly configure other like components on the same node and on other nodes of the same type.

Prerequisites to using the template generator

- Nodal Provisioning GUI open in either the component hierarchy or the shelf view

Navigation

Generate Template From Existing Component dialog

The Generate Template From Existing Component dialog shows the selected component in a tree hierarchy with its subcomponents. The subcomponents can be expanded to show their subcomponents. This enables you to select or deselect the exact subcomponents that you want to include in the generated template. You cannot deselect the component that you initially selected in the Nodal Provisioning GUI component hierarchy.

The **Show template with NPTE** option is selected by default.

Command buttons

Use the command buttons in the Generate Template From Existing Component dialog to perform the following operations:

- **OK**
  Click this button to generate the template.
  If there is no link attribute in the selected component and if the **Show template with NPTE** option was de-selected, the template is automatically saved. Otherwise the NPTE launches so you can edit the template before you save it.
  If there is a link attribute, the template is not immediately generated and the **Link Attributes Solution** dialog opens.

- **Cancel**
  Click this button to cancel the template generator and return to the Nodal Provisioning GUI.

- **Help**
  Click this button to launch the information about the dialog.

Link Solutions Attribute dialog

The Link Solutions Attribute dialog opens only if there is a link attribute in the component when you click the **OK** button in the Generate Template from Existing Component dialog.

The dialog shows the link attributes for the components you selected in the Generate Template From Existing Component dialog. Each link attribute is shown with its linked component name. You use this dialog to select the link option for each link attribute and its linked component.

There are three possible link options:

- "Find linked component at run-time" (page 323)

- "Create linked component (and its parent if it has one)" (page 323)

- "Create linked component and find its parent at run-time" (page 323)

Find linked component at run-time

Select this option when you do not want to include the linked component in the template. This allows you to find the linked component when you apply the template.

Create linked component (and its parent if it has one)

Select this option when you want to include the linked component in the template. If the linked component has a parent component, the parent will automatically be included in the template. When you apply the template, the component and parent are created as new components.

Create linked component and find its parent at run-time

This option is available only if the existing linked component has a parent component. Select this option when you want to include the linked component in the template as a new component. When you apply the template, the component is created and its parent is found.

Command buttons

Use the command buttons in the Link Attributes Solution dialog to perform the following operations:

- **OK**
  Click this button to close the **Link Attributes Solution** dialog. The template will be immediately generated and saved unless the **Show template with NPTE** option was selected in the Generate Template From Existing Component dialog. Otherwise, the NPTE launches and you can edit the template before you save it.

- **Cancel**
  Click this button to cancel the selection of link options and return to the Generate Template From Existing Component dialog.

- **Help**
  Click this button to launch the information about the dialog.

Show template with NPTE option de-selected

If you de-selected the **Show template with NPTE** option, the template is saved automatically when you click **OK** in either the Generate Template From Existing Component or in the Link Attributes Solution dialog. The template is saved with a default file name on the server host workstation in the directory */opt/MagellanNMS/ANP/EM/Service/UserTemplates*.

The default settings for the generated template are as follows:

- **Title** is the name of the component

- **Author** is the user login id

- **Icon** is default.gif

- **Description** is a string *<Created by <user login id> on <created date> based on the view <view name> of Passport node <node name> whose Passport software version is <CDL version>*. The CDL version is that of the current Passport node connected to the Nodal Provisioning tool.

- the component template file name is *<user login id>_<component path without root>.st*

- the template dropsite is set to the parent of the component.

To display the generated template in the Nodal Provisioning main window, select **Reload templates** from the View menu.

Starting the template generator

Start the template generator from the component hierarchy view or the shelf view of the Nodal Provisioning tool.

Prerequisites

- Nodal Provisioning tool is open in either component hierarchy or shelf view.

Procedure steps

1   Select the existing component that you want to use to generate a new template.

2   From the Nodal Provisioning **Selected** menu, click **Generate Template**.

The Generate Template From Existing Component dialog box opens.

Generating a template from an existing component

Use the template generator to create a template based on an existing provisioned component.You can use the template to provision a similar component on the node you are connected to, or on another node.

Prerequisites

• Nodal Provisioning tool is open in either the component hierarchy view or the shelf view.

Procedure steps

1 Select the existing component that you want to use to generate the template.

2 From the Nodal Provisioning **Selected** menu, click **Generate Template**.

The Generate Template From Existing Component dialog box opens with the component and its first level subcomponents shown in a tree hierarchy.

Optionally, de-select the **Show template with NPTE** option.

3 Optionally, expand a subcomponent to display lower level subcomponents.

4 Optionally, click on the check box beside a subcomponent to select it.

5 Click **OK**.
If the Link Attributes Solution dialog opens, go to step 6. If the NPTE opens, go to step 8. Otherwise, the procedure is complete.

6 For each link attribute and its linked component, select the **Link Option** from the popup menu.

7 Click **OK**. If the NPTE opens, go to step 8. Otherwise, the procedure is complete

8 In the NPTE, edit and save the newly generated template as required. See "Creating or modifying service templates task flow" (page 250).

Applying a generated template

Apply a newly generated template to provision a similar component on the same node or on another node.

Prerequisite

- Nodal Provisioning tool is open in either the component hierarchy view or the shelf view.

Procedure steps

1   If you have not already done so after you generated the template, select Reload templates from the View menu.

2   From the Templates panel, click on User-templates or the directory where you have saved the template.

The available templates display as a list of titles.

3   Select the title of the template you created in "Generating a template from an existing component" (page 326).

4   Select a parent component to use as the dropsite for the template.

5   Right-click on the template title and select **Launch** from the popup menu.

6   Create the new component. See "Service template palette" (page 80).

Chapter 11
Report Generator

For information on the Report Generator tool, see the following sections

Overview

Use the Report Generator to create, compare, and save custom reports on component data. Report Generator lets you do the following tasks:

- reorganize the component data

- filter the component data to create a report on a subset of the data

- export the data in a desired format

- save the data and filters to a file

You can use these reports to record changes to components and services and to compare the component data of services.

Report Generator window

The Component Data panel of the Report Generator window is populated with a copy of the component that you selected in the hierarchy tree in the Nodal Provisioning main window, and includes the children that are visible in

the expanded component hierarchy at the time the Report Generator is launched. The corresponding component data is displayed in the Component Data panel.

You can choose what data will display in the Component Data panel through your selections in the Component Selection panel. You can select and deselect components in the Component Selection panel. The tool retrieves the data for the selected components and displays the data in the Component Data panel. For a list of procedures, see "Manipulating component data" (page 344)

You can filter the component data to create a report on a subset of component data. See the sections "Filtering dialog boxes" (page 339) and "Creating a component data report on a subset of component data" (page 362).

You can save Report Generator files. You can retrieve the saved file using a text editor or spreadsheet. The saved file appears with the title at the head, followed by column headers, and the column data. The column data is separated by tabs with carriage returns separating the rows. See the section "Retrieving saved Report Generator files" (page 364)

You can also save report templates. These templates are saved with the extension .rtp.

For an illustration of the relationship between the expanded component hierarchy in the Nodal Provisioning tool main window and the data contained in the Report Generator window, see "Report Generator window in relation to the selected component in the Nodal Provisioning window" (page 331).

Figure 15
Report Generator window in relation to the selected component in the Nodal Provisioning window

Selected component in the Nodal Provisioning window

Data corresponding to the selected component and its visible children
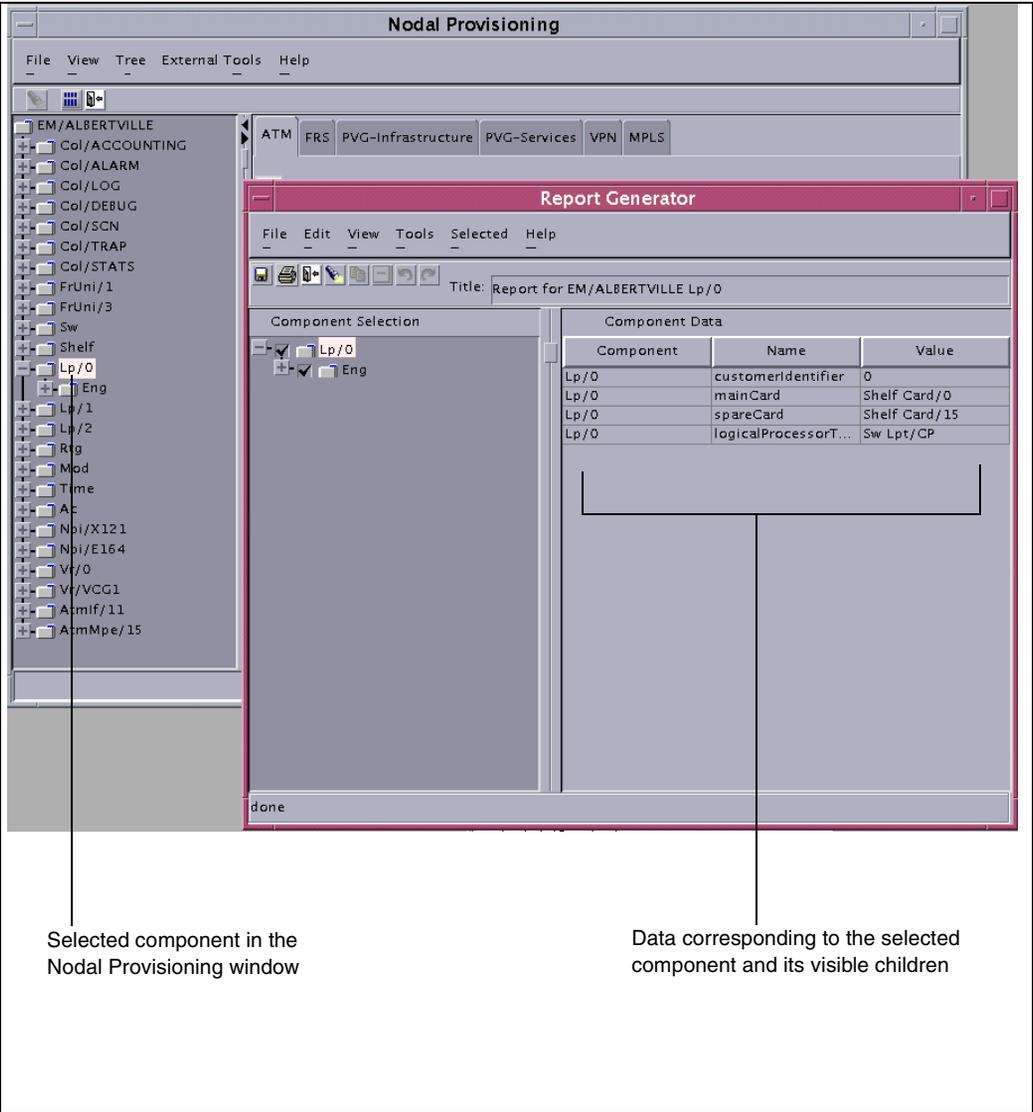
For a description of the parts of the Report Generator window, see the following sections:

- "Menu bar" (page 332)

- "Tool bar" (page 337)

- "Title field" (page 338)

- "Component Selection panel" (page 338)

- "Component Data panel" (page 338)

- "Status bar" (page 339)

For related procedures, see "Procedures" (page 344).

Menu bar

See the following sections for information on the menu bar options:

- "File menu" (page 332)

- "Edit menu" (page 333)

- "View menu" (page 334)

- "Tools menu" (page 335)

- "Selected menu" (page 335)

- "Help menu" (page 337)

File menu
The table "File menu commands" (page 333) describes the commands.

Table 31
File menu commands

Menu command	Description of menu command	Related information
Save	Overwrites the current saved file. If this is the first time that you have saved the file, the **Save Report** dialog box opens.	"Creating and saving service data reports" (page 360)
Save As	Opens the **Save Report** dialog box to save a new file. Specify a location and filename. Report Generator adds the extension.rpt to the report file. At a later time, you can open the saved file using a text editor.	"Creating and saving service data reports" (page 360)
Save Report Template	Overwrites the current report template file if you have already saved. If you have not already saved, **Save Report Template** opens a **Save Report Template** dialog box that lets you save the report template as a new file.	"Saving the report template" (page 374)
Save As Report Template	Opens a **Save Report Template** dialog box that lets you save the report template as a new file. When you save for the first time the tool automatically adds the extension .rtp to the report template file name.	"Saving the report template" (page 374)
Load Report Template	Opens a file selection dialog box. Locate the report template that you want to open and click **OK**.	"Loading a report template" (page 375)
Print	Opens a **Print** dialog box.	
Exit	Exits the Report Generator. If you have made changes a dialog box opens prompting you to save your changes.	"Exiting the Report Generator" (page 377)

Edit menu
The table "Edit menu commands" (page 334) describes the menu commands.

Table 32
Edit menu commands

Menu command	Description of menu command	Related information
Undo	Lets you undo any previous actions, such as editing filters, deleting rows, loading templates, clearing filters, expanding and compressing components, back to the point when the Report Generator was launched. The Undo label in the edit menu changes to reflect the action being undone; for example, Undo Select Component.	"Undoing and Redoing actions" (page 347)
Redo	Lets you redo previously undone actions. If you undo actions and then perform a new action, the redo command is disabled. This indicates that the previously undone operations have been lost. The Redo label in the edit menu changes to reflect the action being undone; for example, Redo Select Component.	"Undoing and Redoing actions" (page 347)
Copy	Copies the selected component information from the Report Generator window to a clipboard. You can open a text editor and paste the copied information to a text editor.	"Copying component data reports to a text editor" (page 376)
Delete Row(s)	Deletes a selected row from the Component Data panel.	"Deleting rows in component data reports" (page 359)
Find	Launches a component filter dialog box that lets you search for a subset of component information. This dialog box works in the same manner as the dialog box that opens when you select Add/Edit Filter in the Tools menu.	"Filtering dialog boxes" (page 339) "Creating a component data report on a subset of component data" (page 362)
Select All	Select All selects all the visible components in the Component Data panel.	"Selecting all components in the Component Data panel" (page 358)

View menu
The table "View menu commands" (page 335) describes the menu commands.

Table 33
View menu commands

Menu command	Description of menu command	Related information
Toolbar	Displays or hides the tool bar	"Displaying and hiding the tool bar" (page 348)
Statusbar	Displays or hides the status bar	"Displaying and hiding the status bar" (page 349)

Tools menu

The table "Tools menu commands" (page 335) describes the commands.

Table 34
Tools menu commands

Menu command	Description of menu command	Related information
Add/Edit Filter	Opens the Filter Component Data dialog box.	"Creating a component data report on a subset of component data" (page 362)
Save Filter	Opens a Save dialog box. Specify a filename and location to save the filter. When you save for the first time the tool automatically adds the extension .ftr to the filter file name.	"Creating a component data report on a subset of component data" (page 362)
Load Filter	Load Filter opens a file selection dialog box to locate and open a saved filter.	
Clear Filter	Clears the current filter	

Selected menu

The table "Selected menu commands" (page 336) describes the commands.

> *Note:* The Search, Hide, and Hide Children commands are enabled only when you select a component in the component hierarchy that has too many instances to display. These components are represented by a folder.

Table 35
Selected menu commands

Menu command	Description of menu command	Related information
Sort selected column	Provide the options to reorganizing component data in a selected column in the Component Data panel by ascending or descending order.	"Sorting component data" (page 350)
Select Component	Selects or deselects the currently selected component in the component hierarchy.	"Selecting and deselecting components in the component hierarchy" (page 351)
Select All	Selects a component and all of its visible children in the component hierarchy. The tool retrieves the component data and displays it in the Component Data panel.	"Selecting all components" (page 352)
Clear All	Deselects a selected component and all of its visible children. The component data is removed from the Component Data panel.	"Clearing component data" (page 353)
Search	Opens the Search dialog box which lets you search for component instances or a subset of component instances, for large components that exceed a pre-defined maximum number of instances. You can add a component to the component hierarchy. The data for the component is retrieved and displayed in the Component Data panel.	"Searching for a component in a large instance set" (page 126)
Hide	Removes the selected child of a folder from the component hierarchy in the Component Selection panel.	"Hiding a child in a folder" (page 354)
Hide Children	Removes all the children for a selected folder from the component hierarchy in the Component Selection panel.	"Hiding all children in a folder" (page 355)
Expand/Collapse	Expands or collapses the selected component to show or hide its children.	"Expanding or collapsing a component and its children" (page 356)
Expand All	Expands the selected component and all its children.	"Expanding a component and its children" (page 357)

Help menu
The table "Help menu commands" (page 337) describe the commands.

Table 36
Help menu commands

Menu command	Description of menu command	Related information
On Help	Opens information on using help.	"Help options" (page 35)
On Window	Opens the online documentation for the Report Generator window.	"Displaying help on the Nodal Provisioning window" (page 145)
About Report Generator	Provides the Report Generator version and copyright information.	

Tool bar
The tool bar contains the following icons:

- save icon
  The save icon saves the report. If you have already saved the file, selecting Save overwrites the current saved version. If this is the first time that you have saved the file, the Save dialog box opens.

- exit icon
  The exit icon closes the Report Generator tool.

- search icon
  The search icon opens the Component Data dialog box. See "Filtering dialog boxes" (page 339).

- copy icon
  The copy icon copies selected data to a clipboard.

- delete row(s) icon
  The delete row(s) icon deletes a selected row of data in the Report Generator.

- undo icon
  The undo icon lets you undo previous actions.

  Note: The undo text tool tips change to reflect the action being undone; for example, Undo Select Component.

- redo icon

  The redo icon lets you redo previous actions.

  Note: The redo text tool tips change to reflect the action being undone; for example, Redo Select Component.

Title field

The Title field displays a default title. You can edit this field and enter your own title to be added to the saved file.

Component Selection panel

The component selection panel displays a copy of the component that you have selected in the Nodal Provisioning tool window, and any visible children at the time that you opened the Report Generator window.

When you select a component in the Component Selection panel, you can perform the following actions by either selecting commands from the pop-up menu or from the Selected menu:

  Note: the Search, Hide, and Hide Children commands are enabled only for folders.

- select a component

- select all components in the hierarchy tree

- clear all components in the hierarchy tree

- search for component instances

- hide a child

- hide all children

- expand or collapse a selected component

- expand the selected component and all its children

Component Data panel

The component data panel displays the data for the selected component and, if the component hierarchy is expanded, the data for the visible children. It provides a list of components, their attributes and their values.

The Component Data panel has a pop-up menu that contains the following commands:

- **Copy** copies the component data for the component that you have selected in the Component Data panel

- **Delete** deletes the rows that you have selected in the Component Data panel

- **Select All** selects all the contents of the Component Data panel.

- **Sort** provides the following options to sort the components:

  — **Ascending**

  — **Descending**

Status bar

The status bar is found at the bottom of the Report Generator window. It shows the filename and the date and time of the last save.

Filtering dialog boxes

A filtering dialog box opens when you select Add/Edit Filter from the Tools menu, or Find from the Edit menu, in the Report Generator window.

All the data for the selected component and its visible children are displayed in the Report Generator window. The filtering dialog box lets you specify criteria to filter component data. You can specify one or more filters (compound filter) and subfilters.

You can save your filters to file and open the saved filter at a later time.

For an illustration of the filtering dialog box that opens when you select Add/Edit Filter in the Tools menu see the figure "Filter dialog box for a simple filter" (page 340). This illustration shows the Filter Component Data dialog box for a simple filter.

Figure 16
Filter dialog box for a simple filter
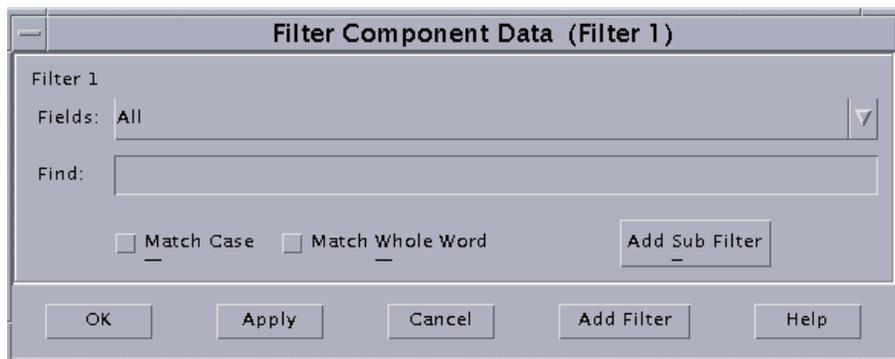
For an illustration of the Filter Component Data dialog box for a compound filter, see "Filter dialog box for a compound filter" (page 340).

Figure 17
Filter dialog box for a compound filter
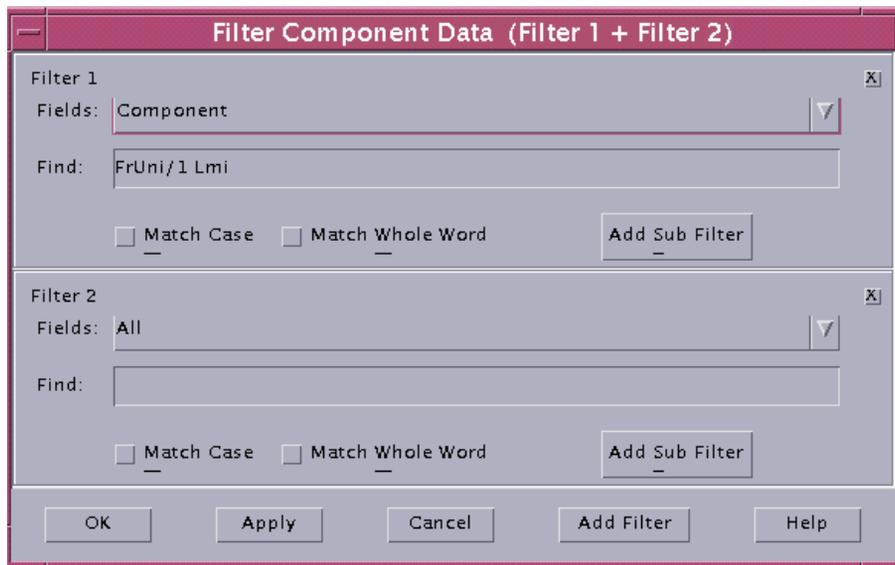
You can further refine the subset of data by apply a sub filter. For an illustration of a compound filter with a subfilters, see "Compound filter showing a sub-filter" (page 341).

Figure 18
Compound filter showing a sub-filter
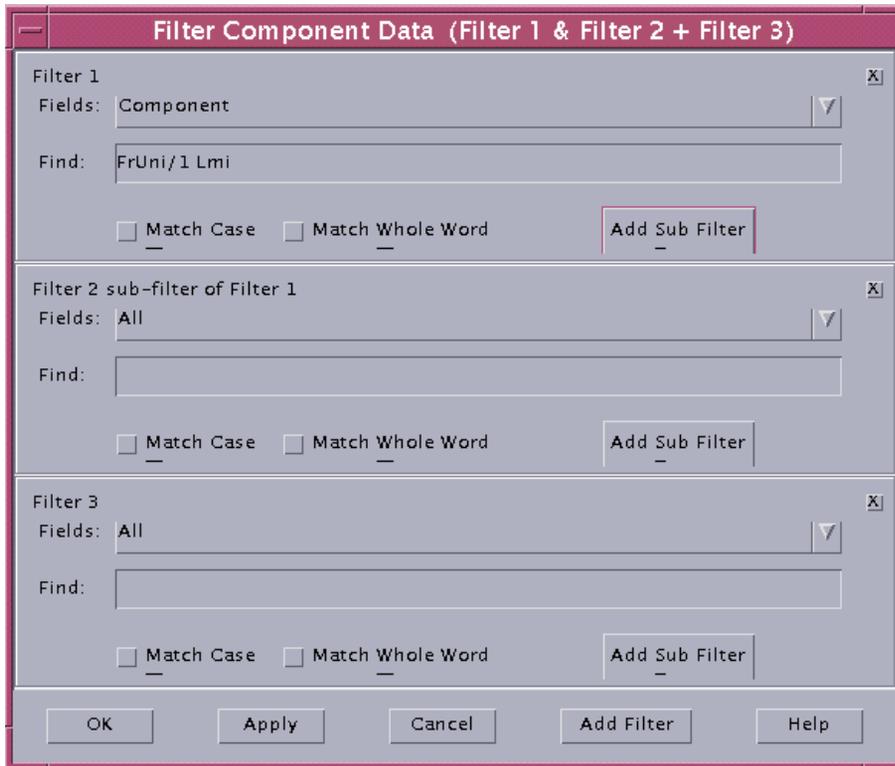
For a description of the parts of the Filter Component Data dialog box, see the following sections:

- "Fields" (page 342)

- "Find" (page 342)

- "Matching criteria buttons" (page 342)

- "Add Sub Filter command button" (page 342)

• "Command buttons" (page 343)

Note: The Fields drop down list, Find field, matching criteria buttons and Add Subfilters buttons are repeated in each filter and sub filter.

For the procedures to display a subset of component data by using filters, see "Creating a component data report on a subset of component data" (page 362).

Fields

Use the Fields drop down list to select the field on which you want to search. You have the following options:

• **All** searches in all fields. When you open the Find Component Data dialog box, All is the default.

• **Component** searches in the Component field.

• **Name** searches in the Name field

• **Value** searches in the Value field

Find

In the **Find** field enter a find string to match the subset of data that you want to find.

Matching criteria buttons

The following check boxes let you customize your search:

• **Match Case** lets you select or deselect the option to search for an item with specific capitalization.

• **Match Whole Word** lets you match on a complete word. Enter a word in the Find field and select Match Whole Word.

Add Sub Filter command button

The **Add Sub Filter** command button lets you search for a subset of the data generated by the filter.

Command buttons

The Find Component Data dialog box contains the following command buttons:

- **OK c**ompletes the search. The Filter Component Data dialog box closes. The Report Generator window displays the results of the search.

- **Apply** apply the search. The Filter Component Data dialog box remains open. The Report Generator window displays the results of the search.

- **Cancel** cancels the search. The Filter Component Data dialog box closes and you return to the Report Generator window.

- **Add Filter** expands the Filter component data dialog box to add another filter to the data.

- **Help a**ccesses the online help information for the Filter Component Data dialog box.

Procedures

> *Note:* The procedures in this section apply to the Toolset and Operator Client environments, unless otherwise specified.

This section contains the following procedures:

Basics

Manipulating component data

Working with data reports

Report templates

Starting the Report Generator

Use this procedure to start the Report Generator from the Nodal Provisioning window.

Prerequisites

The following conditions must exist:

• You have started Nodal Provisioning. See the section "Starting Nodal Provisioning" (page 37).

• you are connected to the Passport device. See "Starting Nodal Provisioning" (page 37)

Procedure steps

1 In the **Nodal Provisioning** window, select a valid component in the component hierarchy.

   Note: A folder is not a valid component.

2 Select one of the following steps:

   • On the selected component, right-click and from the pop-up menu, select **Generate Report.**

   • In the **Nodal Provisioning** window, select **Selected** -> **Generate Report**.

   The Report Generator window opens.

Undoing and Redoing actions

You can undo and redo previous actions. The Undo and Redo command toggle depending on your last command.

You can undo any previous actions, such as editing filters, deleting rows, loading templates, clearing filters, expanding and compressing components to the point that you started Report Generator. The Undo label in the Edit menu, is dynamic, that is, it reflects the action being undone.

The Redo command lets you redo previously undone actions. The Redo label in the Edit menu, is dynamic, that is, it reflects the action being undone. If you undo actions and then perform a new action, the Redo command is disabled. This indicates that the previously undone actions have been lost.

Procedure steps

1   To undo an action, on the **Edit** menu, click **Undo…**.

   The previous action is undone. For example, if your last action was to select a component, the **Undo** command is labelled as **Undo Selected Component**.

2   To redo an action, on the **Edit** menu, click **Redo…**.

   The previous **Undo** action is undone. For example, if your last action was to **Undo Selected Component**, the **Redo** command is labelled as **Redo reSelected Component**.

Displaying and hiding the tool bar

Use this command to display or hide the Report Generator tool bar.

Procedure steps

1 From the **View** menu in **Report Generator**, select **Toolbar**.

If the tool bar is displayed, it is hidden.

If the tool bar is hidden, it becomes visible.

Displaying and hiding the status bar

Use this procedure to display or hide the Report Generator status bar.

Procedure steps

1   From the **View** menu in **Report Generator**, select **Statusbar**.

If the status bar is displayed, it is hidden.

If the status bar is hidden, it becomes visible.

Sorting component data

Use this procedure to reorganize component data for a selected column in ascending or descending order.

Procedure steps

1 In the **Component Data** panel, select the column that you want to sort. You can select the **Component**, **Name** or **Value** column.

2 If you want to sort the column data in ascending order, in the **Selected** menu, select **Sort selected column** -> **Ascending**

If you want to sort the column data in descending order, in the **Selected** menu, select **Sort selected column** -> **Descending**.

The data is sorted in the columns in the specified manner.

Selecting and deselecting components in the component hierarchy

You can select and deselect a component data in the component hierarchy.

Procedure steps

1   Select the component in the component hierarchy

2   From the **Selected** menu, select **Select Component**.

The component is checked in the component hierarchy to indicate that it is selected.

Deselecting the component removes the check.

Selecting all components

Use this procedure to select a component and all its subcomponents.

Procedure steps

1 In the component hierarchy, select the component.

2 complete one of the following steps:

- From the **Selected** menu, select **Select All.**

- From the component's pop-up menu, select **Select All**.

The component and all its visible children are selected in the component hierarchy and the component data for the component and its children are retrieved and displayed in the Component Data panel.

Clearing component data

Use this procedure to clear all component data from the Component Data panel.

Procedure steps

1   In the **Component Selection** panel, select the component that you want to clear.

2   Complete one of the following steps:

- From the **Selected** menu, select **Clear All**.

- right-click on the component and from the pop-up menu, select **Clear All.**

The selected component and its visible children are deselected in the Component Selection panel and the components' data is cleared from the **Component Data** panel.

Hiding a child in a folder

Use this procedure to remove a selected child component from a folder in the component hierarchy in the Component Selection panel.

Procedure steps

1   In the component hierarchy, select the folder containing the child component.that you want to hide.

2   From the **Selected** menu, select **Hide.**

The selected child component is removed from the component hierarchy in the **Component Selection** panel.

Hiding all children in a folder

Use this procedure to remove all child components of a folder from view in the component hierarchy in the Component Selection panel.

Procedure steps

1   In the component hierarchy, select the folder containing the children that you want to hide.

2   From the **Selected** menu, select **Hide Children.**

All child components of the folder are removed from the component hierarchy in the **Component Selection** panel.

Expanding or collapsing a component and its children

Use this procedure to expand or collapse the view of all the subcomponents of a component.

Procedure steps

1   Select the component that you want to expand or collapse.

2   Complete one of the following steps:

•   From the **Selected** menu, select **Expand/Collapse**.

•   Right-click on the component and from the pop-up menu, select **Expand/Collapse**.

The selected component and all its children are expanded or collapsed to show or hide its children in the component hierarchy.

Expanding a component and its children

Use this procedure to expend a component in the component hierarchy.

Procedure steps

1   Complete one of the following steps:

- From the **Selected** menu, select **Expand All**.

- Right-click on the component and from the pop-up menu, select **Expand All**.

The selected component and all its child components are expanded in the component hierarchy.

Selecting all components in the Component Data panel

You can select all the component data in the Component Data panel. You can then copy or delete the selected data.

Procedure steps

1   From the **Edit** menu, select **Select All**.

All the visible components in the **Component Selection** panel are selected and displayed in the **Component Data** panel.

Deleting rows in component data reports

Use this procedure to delete data from the component data reports.

Procedure steps

1   In the **Component Data panel**, select the row, or rows, that you want to delete.

2   From the **Edit** menu, select **Delete Row(s)** or use the delete icon in the toolbar.

The selected row, or rows, of data is removed from the **Component Data** panel.

Creating and saving service data reports

Use this procedure to create and save a report on a selected component in the component hierarchy.

Procedure steps

1 In the **Nodal Provisioning** window, expand the component hierarchy to display the children that you want to report on.

2 Right-click on any valid component in the component hierarchy.

Note: Folders are not valid components.

3 Complete one of the following steps:

• From the **View** menu, select **Generate Report**.

• right-click on the component and from the pop-up menu, select **Generate Report**.

The **Report Generator** window opens, and shows the component and its visible subcomponents and their attributes and values.

4 Change the file title, if desired.

5 Adjust the report, as desired:

If you wish to create a report on a subset of the data, in the **Tools** menu, select **Add/Edit Filter**. This opens the **Filter Component Data** dialog box. For the procedure to select a subset of the data, see "Creating a component data report on a subset of component data" (page 362).

6 From the **File** menu, select **Save**.

If you have not previously saved the file, the **Save Report** dialog box opens allowing you to select or specify the file name to save the report as.

If you want to specify a different file name, or if you are saving for the first time, select **Save As** from the File menu. The **Save Report** dialog box opens. Specify a location and provide a filename for the report and then select **Save** to save the file to the specified location.

Select **Cancel** to return to the **Report Generator** window without saving.

The report is saved with the .rpt extension.

7 From the **File** menu, select **Exit** to close the **Report Generator** window.

If you have changed the report data, a dialog box opens asking you if you want to save the changes.

Click **Yes** to save the changes.

Click **Cancel** to return to the **Report Generato**r window.

8   Select **Save As** to open a **Save Report** dialog box.

9   Specify a location and enter a file name for the report.

10   Click **Save**.

The report is saved to the specified location with the extension .rpt.

Creating a component data report on a subset of component data

Use this procedure to filter component data to create a report on a subset of component data.

Procedure steps

1 Start the **Report Generator**. See "Starting the Report Generator" (page 346).

2 To open the **Filter Component Data** dialog box, do one of the following:

  • From the **Tools** menu of the **Report Generator** window, select **Add/ Edit Filter**.

  • From the **Edit** menu of the **Report Generator** window, select **Find**.

  The **Filter Component Data** dialog box opens.

3 From the **Fields** drop down list, select the field on which you wish to perform a search. You options are **All**, **Component**, **Name,** or **Value**.

  Note: The fields drop down list corresponds to the columns in the **Report Generator** spreadsheet.

4 In the **Find** field, enter a find string.

  To restrict the search to match the capitalization in the find string, select **Match Case**.

  To restrict the search to match the whole word, select **Match Whole Word**.

5 If this completes your search, click **OK** to close the **Find Component Data** dialog box. The data matching the search criteria appear in the **Report Generator** window.

  Click **Apply** to apply the search without closing the **Find Component Data** dialog box. You can continue to add filters for your search.

  If you want to cancel the search, click **Cancel.** This action closes the **Find Component Data** dialog box.

 If you want to search for a subset of the component data, click **Add Subfilter**. The **Filter Component Data** dialog box expands to add another filter panel labelled as **Filter 2 sub-filter of Filter 1**. Repeat steps 3 to 5 for the subfilter.

If you want to add another filter Click **Add Filter**. This expands the **Filter Component** dialog box to add another filter, labelled as **Filter 2**. Repeat steps 3 to 5.

Retrieving saved Report Generator files

Use this procedure to retrieve Report Generator files using a text editor or spreadsheet.

Procedure steps

1 Open a text editor.

2 Select the file that you want to retrieve.

For an illustration of the saved file that is retrieved using a text editor, see "Saved Report Generator file" (page 365).

Figure 19
Saved Report Generator file

```
Text Editor — EM_ALBERTVILLELp_1.rpt

 File  Edit  Format  Options                                      Help

Report for EM/ALBERTVILLE Lp/1

Component        Name     Value   Lp/1    customerIdentifier      0
Lp/1    mainCard          Shelf Card/14
Lp/1    spareCard
Lp/1    logicalProcessorType     Sw Lpt/ATMDS3
Lp/1 DS3/0        customerIdentifier       0
Lp/1 DS3/0        cbitParity        on
Lp/1 DS3/0        lineLength        1
Lp/1 DS3/0        applicationFramerName
Lp/1 DS3/0        vendor
Lp/1 DS3/0        commentText
Lp/1 DS3/0        clockingSource   local
Lp/1 DS3/0        ifIndex 1
Lp/1 DS3/0        ifAdminStatus    up
Lp/1 DS3/0        mapping direct
Lp/1 DS3/1        customerIdentifier       0
Lp/1 DS3/1        cbitParity        on
Lp/1 DS3/1        lineLength        1
Lp/1 DS3/1        applicationFramerName    AtmIf/11
Lp/1 DS3/1        vendor
Lp/1 DS3/1        commentText
Lp/1 DS3/1        clockingSource   local
Lp/1 DS3/1        ifIndex 4
Lp/1 DS3/1        ifAdminStatus    up
Lp/1 DS3/1        mapping direct
```

Example

The following example assumes that you wish to find the following subset of component data for the FrUni/1:

- all the dna data containing out in the data name

- all the Ca data containing bandwidth in the data name.

1   In **Nodal Provisioning** window, select **FrUni/1**.

2   Open the **Report Generator**. See see "Starting the Report Generator" (page 346)

3   In the **Component Selection** panel of the **Report Generator** window, select **FrUni/1**.

4   the **Tools** menu in the **Report Generator** window, select **Add/Edit Filter**.

5   In the **Filter 1** area, do the following:

   a. In the **Fields** drop down list, select **Component**.

   b. In the **Find** field, enter **Dna**

   c. If desired, select a matching case.

The **Report Generator** window shows all the **FrUni/1 Dna** components.
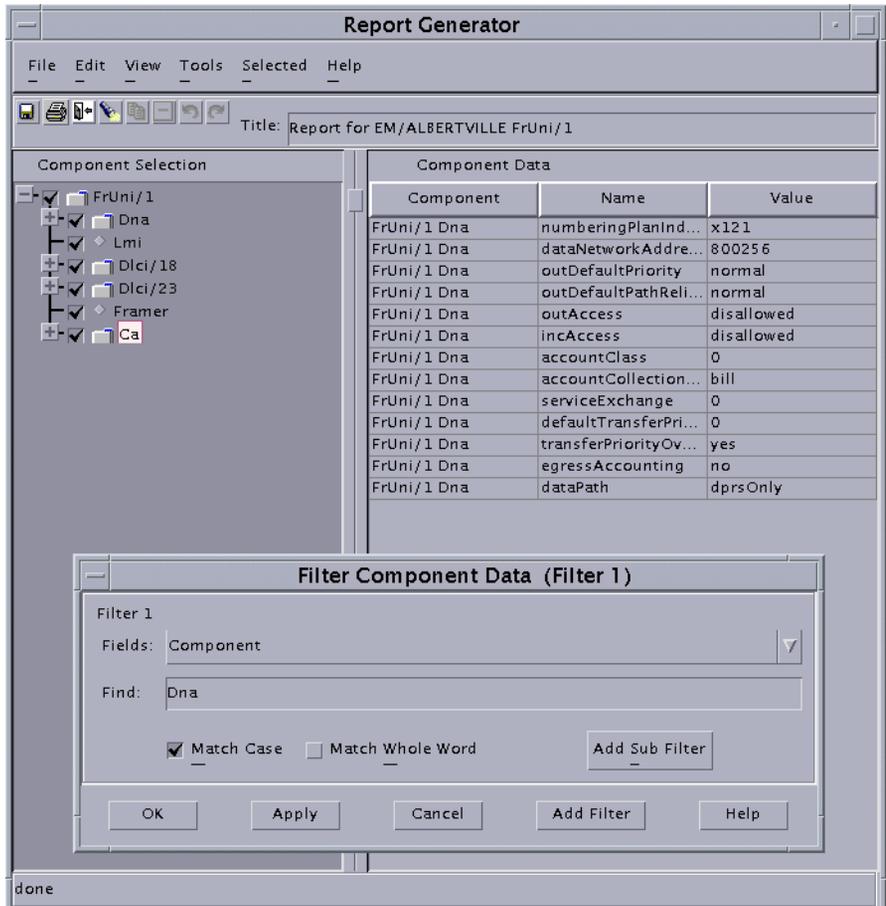
6 In the **Filter Component Data (Filter 1)**, select **Add Sub Filter**.

The **Filter Component Data** dialog box expands to add another filter panel **(Filter 2 with subfilter of Filter 1)**.

7   In the **Filter 2 sub-filter** of **Filter 1** panel, do the following:

    a.   In the **Fields** drop down list, select **Name**

    b.   In the **Find** field, enter **out**

    c.   If desired, select a matching case.

The **Component Data** panel shows the FrUni/1 Dna components with the Name out.
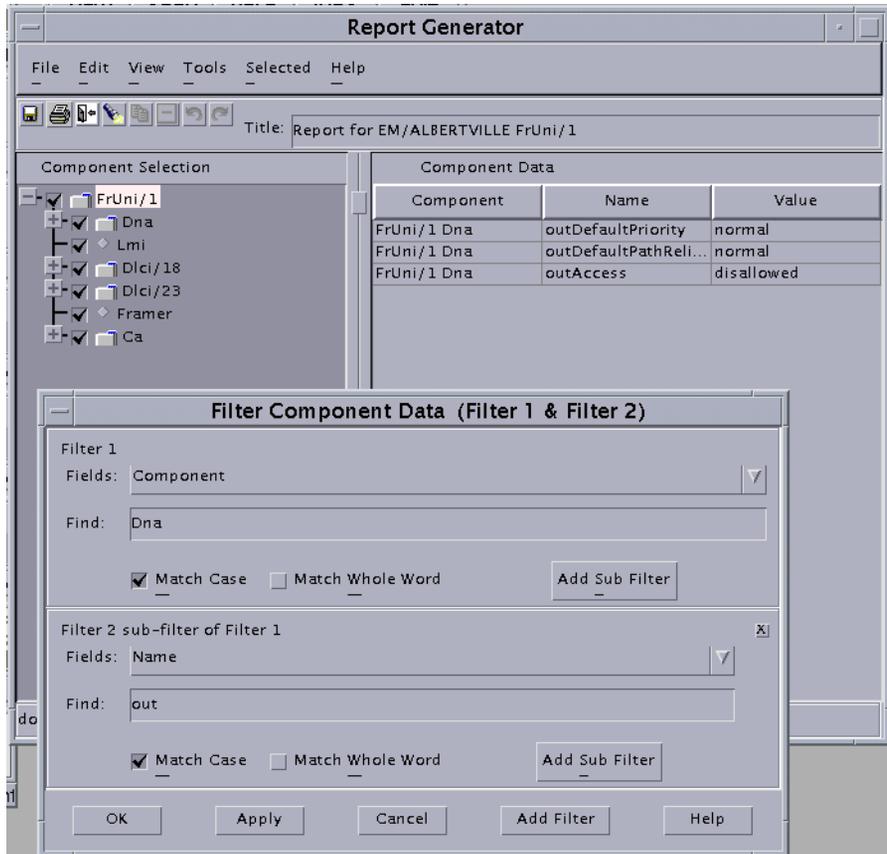
8   Select **Add Filter**.

The **Find Component Filter** dialog box expands to show another **Filter panel (Filter 3)**

9 In the **Filter 3 panel**, do the following:

    a. in the **Fields** drop down list, select **Component**

    b. in the **Find** field, **Ca**

c.   if desired, select **Match Case**.

The **Component Data** panel now shows the **FrUni/1 Dna** components with the name **out** and all the **Ca** components.
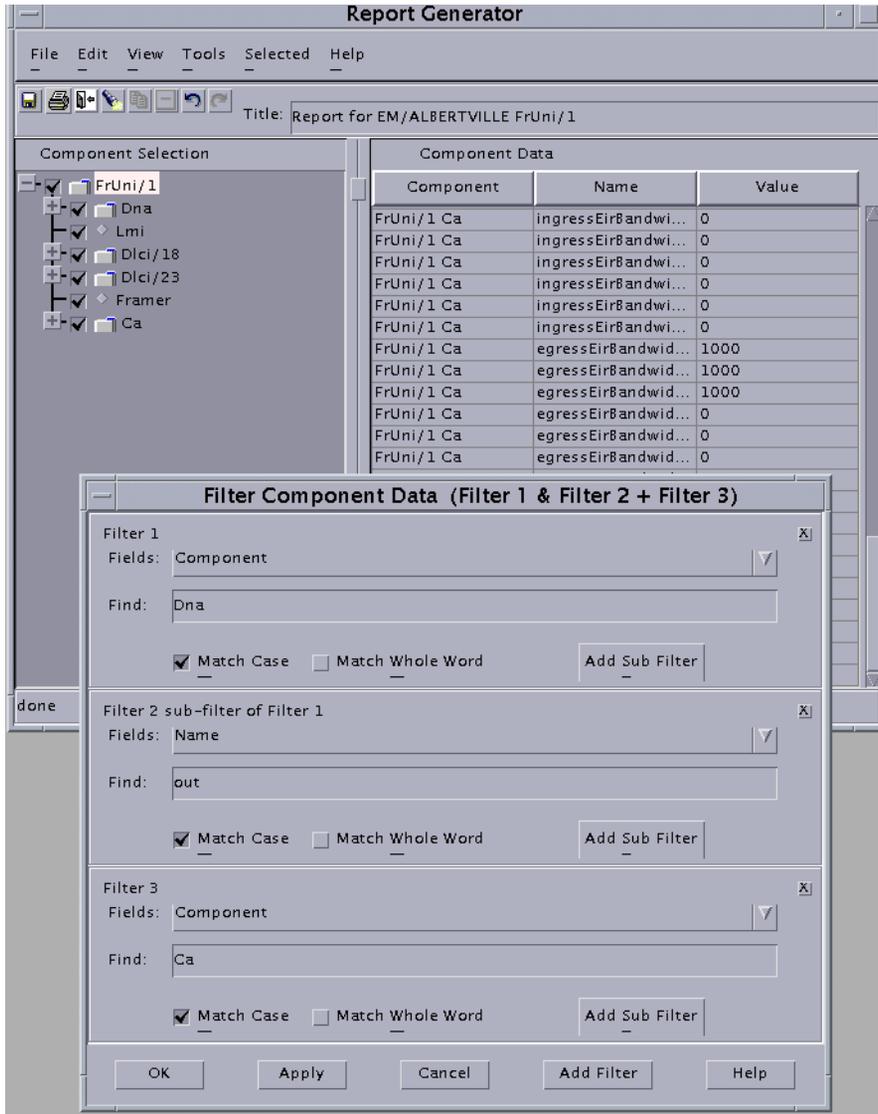
10 In the **Filter 3** section, select **Add Sub Filter**.

The **Find Component Filter** dialog box expands to show another **Filter panel (Filter 4 Sub Filter of Filter 3)**

11 In the panel, do the following:

a. in the **Fields** drop down list, select **Value**

b. in the **Find** field, 1000

c. if desired, select a **Matching Case**

The **Component Data** panel now shows the **FrUni/1 Dna** components with the name **out** and all the **Ca** components with the value **1000**.
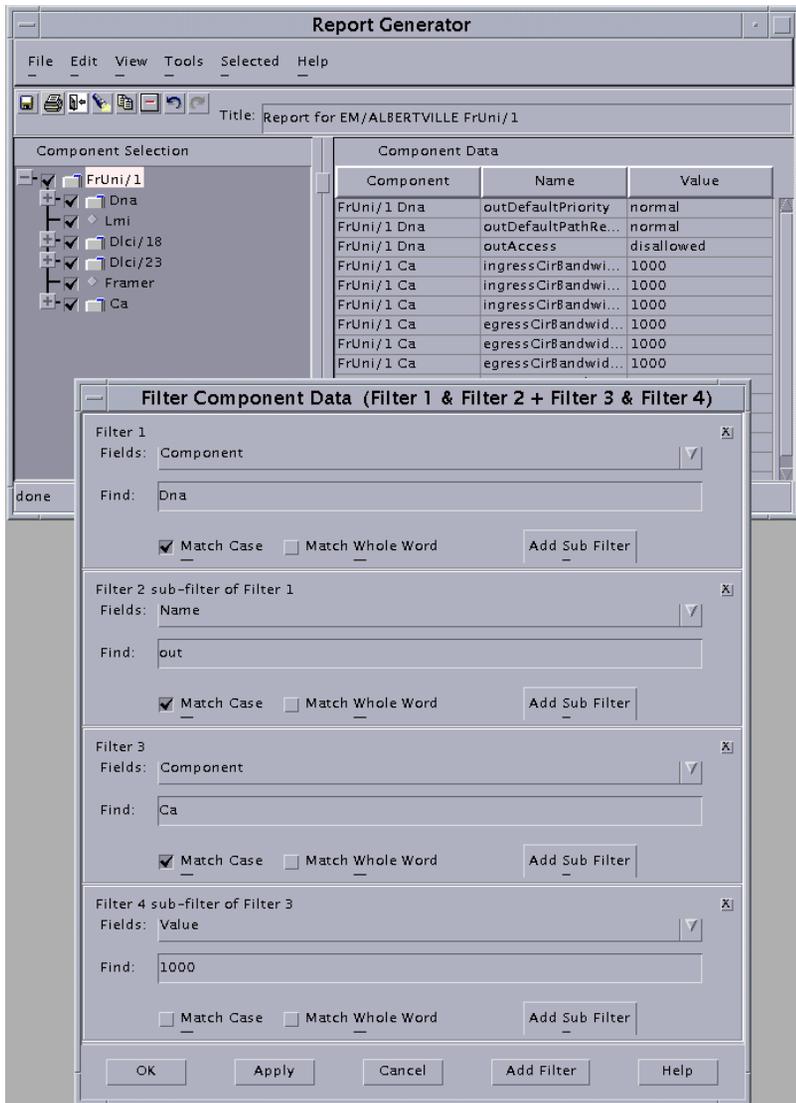
Saving the report template

Use this procedure to save the report template.

Procedure steps

1 If you have previously saved the report template, from the **File** menu, select **Save Report Template**.

If this is the first time that you save the report template, from the **File** menu, select **Save As Report Template**. A **Save Report Template** dialog box opens. Proceed to step 2.

2 In the save dialog box, select a location and specify a file name for the report template.

3 Click **Save**.

The report template is saved to the specified location with the file extension rtp.

Loading a report template

Use this procedure to retrieve a saved report template.

Procedure steps

1   From the **File** menu, select **Load Report Template**.

A **Load Report Template** file browser dialog box opens.

2   Select the file that you want to retrieve.

3   Click **OK**.

The saved report template is retrieved.

Copying component data reports to a text editor

Use this procedure to copy some or all component data displayed in the Report Generator window to a text editor.

Procedure steps

1 Edit the service data report contained in the **Report Generator** window, as desired.

2 In the **Edit** menu, of the **Report Generator** window, select **Select All** if you want to copy all the data contained in the report.

   If you only want to copy a subset of the data, select the rows that you want to copy.

3 In the **Edit** menu, select **Copy**.
   The selected data are copied to a clipboard.

4 Open a text editor.

5 In the **Edit** menu, select **Paste**.

   The selected component data appear in the text editor.

Exiting the Report Generator

Use this procedure to close the Report Generator tool.

Procedure steps

1   In the **Report Generator** window, select **File** -> **Exit**.

The **Report Generator** window closes.

Chapter 12
Embedded Nodal Provisioning

This section describes the Preside Multiservice Data Manager Embedded Nodal Provisioning application and how to use it. It contains the following sections:

- "Tool fundamentals" (page 379)

- "Embedded Nodal Provisioning window" (page 390)

- "Embedded Nodal Provisioning dialog boxes" (page 409)

- "Procedures" (page 410)

Tool fundamentals

Embedded Nodal Provisioning is embedded within a selection of other MDM tools such as Passport Shelf View and MPE Shelf View and provides a subset of Nodal Provisioning capabilities. The Embedded Nodal Provisioning tool is intended for small and discrete provisioning changes to a small number of Passport or Nortel Networks Multiservice Provider Edge (MPE) components.

Both Passport and MPE Shelf View are diagnostic tools that let you troubleshoot problems in real time. You access Embedded Nodal Provisioning from within these Shelf View tools to resolve any number of discrete problems. Using Embedded Nodal Provisioning, you define the required provisioning tasks and the order in which these tasks are to be applied. The provisioning changes that you make from Embedded Nodal Provisioning are reflected in the Shelf View tools when the tasks have been successfully applied. Provisioning tasks are always performed on the Passport

current view or MPE candidate configuration. If required, from Embedded Nodal Provisioning you can start Nodal Provisioning and the service provisioning tools.

Embedded Nodal Provisioning supports the following series of devices:

- Passport 6400

- Passport 7400

- Passport 15000

- Passport 20000

- MPE 9500

If you need to navigate and provision a large number of components or a variety of Passport views or MPE configurations, use Nodal Provisioning instead of Embedded Nodal Provisioning. Nodal Provisioning uploads the entire view file at startup resulting in quicker component access whereas Embedded Nodal Provisioning uploads one component at a time. Nodal Provisioning automatically retrieves possible values for link attributes whereas Embedded Nodal Provisioning does not. You need to search for these link values. This search may be slow because the entire view is not loaded.

The following sections describe the provisioning capabilities of Embedded Nodal Provisioning in greater detail:

Passport Embedded Nodal Provisioning overview

Embedded Nodal Provisioning permits simultaneous provisioning tasks on a Passport device. Provisioning through Embedded Nodal Provisioning does not reserve the provisioning session until you apply a task. Multiple users can initiate the provisioning and application processes on-switch, even if they have not secured the provisioning session on-switch. This capability is achieved by the queueing of provisioning requests. These requests are processed serially on a first-come-first-served basis. Automatic provisioning session retry ensures that you do not have to intervene to have your request processed and you can move on to the next provisioning task while your previous tasks, or tasks from another user, are being applied.

The Embedded Nodal Provisioning session secures the on-switch provisioning session when you apply a provisioning change. If the provisioning session is available when the request is issued, the apply operation proceeds. If the provisioning session is unavailable, the task periodically tries to obtain the provisioning session. You can configure the retry period in the Nodal Provisioning Server Administration tool. See 241-6001-303 *Preside MDM Administrator Guide*.

You can cancel the application of a provisioning task at any time while the automatic provisioning session retry is ongoing.

Note: Embedded Nodal Provisioning does not notify you if the current view has changed between the time you start a provisioning task and the time you apply the provisioning task. It also does not identify or resolve conflicts caused by more than one person trying to initiate provisioning or application processes on-switch at the same time. Such conflicts may occur when more than one person makes incompatible changes to the same components. Conflict checking and identification is done through the Passport semantic checks, and you must manually resolve the conflict.

MPE Embedded Nodal Provisioning overview

The configuration data currently running on the MPE is the running configuration. When you make provisioning changes, the changes are made to a candidate configuration. This configuration is the collection of configuration changes against the running configuration. The candidate configuration is not made part of the running configuration until it is

semantically correct, free of conflicts, and a commit operation has been performed. The commit operation first saves a copy of the unmodified running configuration to disk with a unique filename and then merges all the candidate configuration changes to create a new running configuration. This method lets you rollback to previous configurations, if required.

You have the option of specifying a confirm option for the commit operation.With the confirm option in effect, whenever you commit a configuration, a timer is started. If a confirmation of the new running configuration is not specified within the specified time frame, a rollback to the previously working configuration occurs. This option is useful for protecting against configuration changes that may cause a loss of connectivity.

Provisioning tasks

Embedded Nodal Provisioning arranges the provisioning actions that you require into tasks. You manage the selection of actions that comprise each provisioning task by such activities as adding, deleting, and reordering the actions.

Embedded Nodal Provisioning supports the following provisioning actions:

- adding a subcomponents

- changing a component

- deleting a component

- applying a service template

You can access these provisioning actions from the Shelf View tools or from the Embedded Nodal Provisioning tool. When you access these actions from the Shelf View tools, the Embedded Nodal Provisioning window automatically opens. If the Embedded Nodal Provisioning window is already open, it becomes the active window. Once the Embedded Nodal Provisioning window is open, you can also access the provisioning actions directly from the Embedded Nodal Provisioning window.

Embedded Nodal Provisioning uses the same component creation, component edit, and service creation forms as are used by Nodal Provisioning.

Provisioning actions

You can add a new provisioning action from the Passport and Nortel Networks Multiservice Provider Edge (MPE) Shelf View tools or from the Embedded Nodal Provisioning tool.

To add a provisioning action from the Shelf View tools

- Select a component and a provisioning action. The action and component are added to the Provisioning Tasks panel in the Embedded Nodal Provisioning window according to the following rules:

    — If the Embedded Nodal Provisioning window is not already open, or if there are not tasks in the Provisioning Tasks panel, the action is added as a new task with an automatically generated name.

    — If there is only one task in the Provisioning Tasks panel, the action is added to that task.

    — If there is more than one task in the Provisioning Tasks panel, a dialog box prompts you to specify the task to which the action is to be added.

To add a provisioning action from the Embedded Nodal Provisioning tool

- Use the New Action command when the Embedded Nodal Provisioning tool is already open. The action and component are added to the Provisioning Tasks panel according to the following rules

    — If there is only one task in the Provisioning Tasks panel, the action is added to that task.

    — If there is more than one task in the Provisioning Tasks panel, a dialog box prompts you to specify the task to which the action is to be added.

Managing provisioning actions

See the following procedures for managing provisioning actions:

- "Adding a subcomponent using the Shelf View tools" (page 416)

- "Adding a subcomponent using Embedded Nodal Provisioning" (page 419)

- "Modifying a component using the Shelf View tools" (page 422)

- "Modifying a component using Embedded Nodal Provisioning" (page 423)

- "Refreshing a component modification form" (page 425)

- "Deleting a component using the Shelf View tools" (page 426)

- "Deleting a component using Embedded Nodal Provisioning" (page 427)

- "Applying a service template using the Shelf View tools" (page 429)

- "Applying a service template using Embedded Nodal Provisioning" (page 431)

- "Linking a new service to a new port" (page 439)

Task Application overview

The following sections describe the various scenarios that may occur after you have applied the provisioning changes:

- "When a node's provisioning session is available" (page 384)

- "When the node's provisioning session is in use" (page 385)

- "When a task or action fails" (page 386)

- "When a service creation fails" (page 387)

The following section lists the procedures for tasks:

- "Managing provisioning tasks" (page 388)

When a node's provisioning session is available

The following events occur after you apply a task and the node's provisioning session is unavailable to you.

1 The task icon changes to indicate that the task is being applied.

2 The task is placed at the top of the Task Application Queue, and its status changes to "Application in progress".

3 A provisioning session opens.
   For Passport, an edit view is created from the current view. For MPE, a candidate configuration is created from the running configuration.

4   The provisioning actions in the task are applied in sequential order. Each action is logged in the Task Details panel.

5   The semantic check is done to verify that the provisioning details are valid. The results of the semantic check are logged to the Task Details panel.

6   The Passport edit view is activated or the MPE candidate configuration is committed.

7   The activation or commit operation is confirmed.

8   The task icon changes to indicate that the task has been applied.

9   The task is removed from the Task Application Queue.

When the node's provisioning session is in use

The following events occur after you apply a task and the node's provisioning session is in use. When this situation occurs, the task application enters retry mode:

1   The task icon changes to indicate that the task is pending application.

2   The task is placed at the end of the Task Application Queue, and its status changes to "Waiting for provisioning session".

3   The task tries to obtain the node provisioning session based on the configured Retry interval. The default is every minute. This is logged in the Task Details panel.

4   When the provisioning session becomes available, the task obtains the provisioning session.

5   The task moves to the top of the Task Application Queue, and its status changes to "Application in progress".

6   A provisioning session opens. For Passport, an edit view is created from the current view. For MPE, a candidate configuration is created from the running configuration.

7   The provisioning actions in the task are applied in sequential order. Each action is logged in the Task Details panel.

8   The semantic check is done to verify that the provisioning details are valid. The results of the semantic check are logged to the Task Details panel.

9   The Passport edit view is activated or the MPE candidate configuration is committed.

10   The activation or commit operation is confirmed.

11   The task icon changes to the Completed icon.

12   The task is removed from the Task Application Queue.

When a task or action fails

1   The task icon changes to indicate that the task is being applied.

2   The task is placed at the top of the Task Application Queue, and its status changes to "Application in progress".

3   The provisioning session is reserved. For Passport, an edit view is created from the current view. For MPE, a candidate configuration is created from the running configuration.

4   The provisioning actions in the task are applied in sequential order. Each action is logged in the Task Details panel.

5   The task icon changes to indicate an error has occurred.

6   The task is removed from the Task Application Queue.

7   The error message displays. You can retain the provisioning session while errors are repaired or release the provisioning session.

8   If you retain the provisioning session, the Application Error dialog box opens. Acknowledge the error and cancel other task applications, or leave the Task Application Queue unchanged. The Task Application Error dialog box closes.

9   Resolve the problem and apply the task again. If the Check Prov has failed, see the next step.

10   The Check Prov of a component creation task can fail in some cases. Normally, a node adds subcomponents with a default set of attributes and you are not required to perform any other task if the default attributes are acceptable. In some cases, though, (for example, FRUNI on a Passport), the Check Prov fails because of missing or invalid information set by the node when the subcomponent is added (for example, in the case of FRUNI, the FRUNI DNA (DataNetwork Address and the FRUNI FRAMER interfaceName attribute must be set).

Resolve the problem with one of the procedures below if it fits this situation:

- Modify the existing task
  Create a new action within the task for the component that caused the error and change the values for the attributes. Apply the task.

- Use a service template, if available, for creating the component.
  Create a new task. Apply the appropriate service template to the component and enter the attribute values. Apply the task.

When a service creation fails

1   The task icon changes to indicate that the task is being applied.

2   The task is placed at the top of the Task Application Queue, and its status changes to "Application in progress".

3   The provisioning session is reserved. For Passport, an edit view is created from the current view. For MPE, a candidate configuration is created from the running configuration.

4   The provisioning actions in the task are applied in sequential order. Each action is logged in the Task Details panel.

5   A service creation fails. The error is logged in the Task Details panel.

6   The Service Creation Errors dialog box opens. If this window is open for more than 3 minutes, you are prompted to confirm that you wish to continue holding the provisioning session. If you do not respond, the task icon changes to indicate an error, the task is removed from the Task Application Queue, and the provisioning session is released. You are prompted to determine if you want to cancel other pending applications.

7   If you select the accept or delete all options, the task application continues.

8   If you select the cancel option, the Service Creation Errors dialog box closes, the task icon changes to indicate an error, the task is removed from the Task Application Queue, and the provisioning session is released. You are prompted to determine if you want to cancel other pending applications.

9   If you select the repair option, the Service Creation Errors dialog closes. A repair dialog opens in which you can modify the service values that were involved in the service creation failure. If the repair dialog remains open for more than 3 minutes, you are prompted to confirm hat you wish

to continue holding the provisioning session. If you do not respond, the task icon changes to indicate an error, the task is removed from the Task Application Queue, and the provisioning session is released. You are prompted to determine if you want to cancel other pending applications.

Managing provisioning tasks

See the following procedures for managing provisioning tasks:

User preferences

Preside Multiservice Data Manager provides default preferences for Embedded Nodal Provisioning. You can override these values to establish your own preferences for activities such as opening, saving, and activating or committing a view.

To set user preferences, see

User logs

User logs for Embedded Nodal Provisioning are collected to capture the following information during each session:

- the start of the provisioning session

- the name of each action against the current view when a task is applied

- semantic check results

- activation or commit results

- end of provisioning session

User logs for both the Toolset and Operator Client environments are stored in the file *$HOME /.nortel_desktop/logs/MDM/ENP*.

The type of information captured in the log file is similar to the status information that displays during an apply operation.

Service selection

Embedded Nodal Provisioning uses service selection to determine which configuration management (CONFIGMAN) server it communicates with. For details, see "Service selection" (page 28).

Related information

For more information about

- Passport or MPE Shelf View tools, see 241-6001-011 *Preside MDM Fault Management User Guide*

- service provisioning tools, see

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

  — 241-6001-616 *Preside MDM IP VPN Service Configuration User Guide*

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

- Nodal Provisioning component creation, component edit, and service creation forms, see 241-6001-610 *Preside MDM Nodal Provisioning User Guide*

Embedded Nodal Provisioning window

Embedded Nodal Provisioning lets you provision the device viewed in the Passport or Nortel Networks Multiservice Provider Edge (MPE) Shelf View tool. Each instance of the Shelf View opens one instance of Embedded Nodal Provisioning for provisioning purposes.

The Embedded Nodal Provisioning window contains the following items:

- "Menu bar" (page 391)

- "Provisioning Tasks panel" (page 398)

- "Provisioning forms panel" (page 401)

- "Task Application Queue panel" (page 408)

- "Status bar" (page 408)

For an illustration of the Embedded Nodal Provisioning window, see the figure "Embedded Nodal Provisioning window" (page 391).

Figure 20
Embedded Nodal Provisioning window
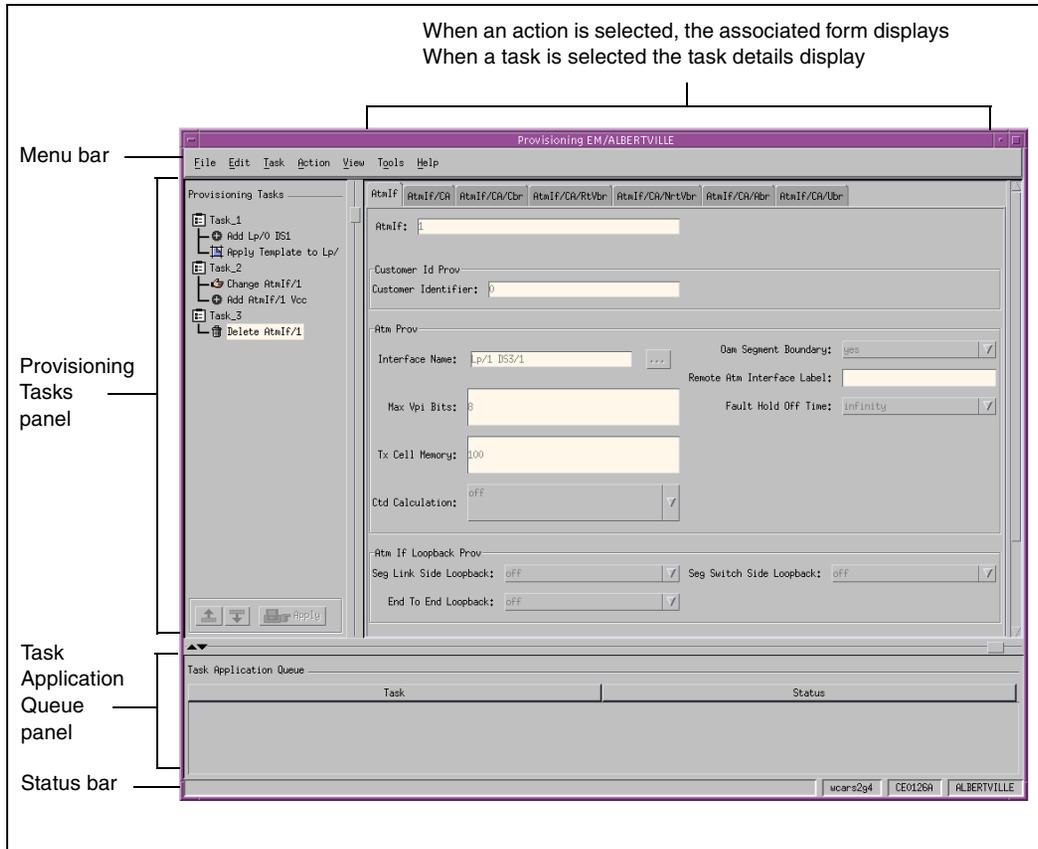
Menu bar

The Embedded Nodal Provisioning menu bar contains the following menus:

- "File menu" (page 392)

- "Edit menu" (page 392)

- "Task menu" (page 393)

- "Action menu" (page 395)

- "View menu" (page 396)

- "Tools menu" (page 397)

- "Help menu" (page 398)

Each task and provisioning action in the Provisioning Tasks panel, has a pop-up menu that contains commands that correspond to those contained in the Task and Action menus.

File menu
The table "File menu commands" (page 392) describes the menu commands.

Table 37
File menu commands

Command	Description	Related information
Exit	Exits the provisioning window. If you have not completed some tasks, a confirmation dialog box prompts for confirmation. If there is a task currently being applied on the device, the Exit command is disabled.	"Exiting Embedded Nodal Provisioning" (page 415)

Edit menu
The table "Edit menu commands" (page 392) describes the menu commands.

Table 38
Edit menu commands

Command	Description	Related information
Cut	Cuts the selected text.	
Copy	Copies the selected text.	
Paste	Pastes the copied text.	
Options...	Opens a dialog box to set the options for Embedded Nodal Provisioning.	"Setting user preferences for Embedded Nodal Provisioning" (page 456)

Task menu
The Task menu provides the commands to manipulate the tasks in the
Provisioning Task panel. The table "Task menu commands" (page 394)
describes the menu commands.

The following commands also appear in the pop-up menu when you right-
click on a task in the Provisioning Tasks panel:

- **New Action...** opens a dialog from which a new provisioning action can
  be added to the task. It is disabled if no task is selected.

- **Remove Task** removes the selected provisioning task from the
  Embedded Nodal Provisioning. It is disabled if no provisioning task is
  selected.

- **Apply Task** applies the currently selected task and adds it to the Task
  Application queue. It is disabled if no task is selected, or if the selected
  task is in retry or being applied.

- **Close Session** closes the provisioning session on the device.

- **Cancel Pending Apply** cancels the pending application of the selected
  task if it is in the retry state. The task returns to the open state and is
  removed from the Task Application Queue. It is disabled if there is no
  task selected or if the selected task is not in the retry state.

Table 39
Task menu commands

Command	Description	Related information
New Task	Adds a new task to the provisioning task tree.	"Adding a new provisioning task" (page 444)
Move Task Up	Changes the order in which the tasks in the queue are applied. This menu item moves the selected provisioning task up in the queue above the preceding task. If the selected task is the first in the queue, it becomes the last. This command is disabled under the following circumstances • if no provisioning task is selected • if the selected task is not in the Task Application queue, or • if the selected task is "In progress"	"Rearranging the order of tasks" (page 453)
Move Task Down	Changes the order in which the tasks in the queue are applied. This command moves the selected provisioning task down in the queue below the task that formerly followed it. If the selected task is the last in the queue, and the first task is not in application or retry state, it becomes the first. Otherwise it stays in the last position. This command is disabled under the following circumstances: • if no provisioning task is selected • if the selected task is not in the Task Application queue, or • if the selected task is "In progress"	"Rearranging the order of tasks" (page 453)
Remove Task	Removes the selected provisioning task from Embedded Nodal Provisioning. This command is disabled if you have not selected a task or if the task is in progress.	"Removing a provisioning task" (page 451)
Remove Completed Tasks	Removes all the tasks that have been successfully applied and are complete.	"Removing all provisioning tasks that are completed" (page 452)
(Sheet 1 of 2)		

Table 39 (Continued)
Task menu commands

Command	Description	Related information
Apply Task	Applies the currently selected tasks and adds it to the Task Application Queue. This command is disabled under the following circumstances: • if no task is selected • if the selected task is in retry, or • if the selected task is being applied	"Setting user preferences for Embedded Nodal Provisioning" (page 456) "Applying provisioning changes" (page 462)
Cancel Application	Cancels the application of the selected task if it is in retry state or queue status. The task returns to the open state. This command is disabled when there is no task selected or if the selected task is not in the retry state.	"Canceling the application of a single provisioning task" (page 465)
Cancel Applications	Opens a dialog box to cancel one or more applications that are in the retry state or queue status. This command is disabled if there are no applications in the retry state.	"Canceling the application of multiple provisioning tasks" (page 466)
Close Session	Closes the provisioning session on the device.	
(Sheet 2 of 2)		

Action menu

The Action menu provides the commands to manipulate the actions in the Provisioning Tasks panel. The table "Action menu commands" (page 396) describes the menu commands.

The following commands also appear in the pop-up menu when you right-click on an action in the Provisioning Tasks panel. They have the same effect as when you select the command from the Action menu.

•   Move Action Up

•   Move Action Down

•   Move Action to Task...

•   Remove Action

Table 40
Action menu commands

Command	Description	Related information
New Action...	Opens a dialog box from which a new provisioning action can be added to the task. This command is disabled if you have not selected a task.	"Adding a provisioning action" (page 447)
Move Action Up	Changes the order in which the provisioning actions in the task are applied. This command moves the selected provisioning action up so that it precedes the action that formally preceded it. If the selected action is the first in the task, if becomes the last. This command is disabled if no provisioning action is selected.	"Changing the order of actions within a task" (page 445)
Move Action Down	Changes the order in which the provisioning actions in the task are applied. This command moves the selected provisioning action down so that it will follow the action that formerly followed it. If the selected action is the last in the task, it becomes the first. This command is disabled if no provisioning action is selected.	"Changing the order of actions within a task" (page 445)
Move Action to Task...	Opens a dialog box to move the selected provisioning action to another task. This command is disabled if you have not selected a provisioning action.	"Moving an action to a specific task" (page 446)
Remove Action	Removes the selected provisioning action from the task. This command is disabled if you have not selected a provisioning action.	"Removing a provisioning action" (page 450)

View menu
The table "Tools menu commands" (page 397) describes the menu commands.

Table 41
View menu commands

Command	Description	Related information
Provisioning Session...	Displays or hides the state of the provisioning session. Displays who is using the session when the provisioning session is in use.	"Viewing the state of the provisioning session" (page 464)
Task Application Queue	Displays or hides the Task Application Queue panel at the bottom of the window.	"Viewing the Task Application Queue" (page 463)

Tools menu

The tools menu provides launch points for the Nodal Provisioning and service provisioning tools. The table "Tools menu commands" (page 397) describes the menu commands.

Table 42
Tools menu commands

Command	Description	Related information
Nodal Provisioning	Starts Nodal Provisioning.	"Starting other MDM tools from Embedded Nodal Provisioning" (page 475)
Service Provisioning	Opens a sub-menu of commands to start the following service provisioning tools: • ATM • Frame Relay • IP VPN Service Provisioning • IP VPN Provider Edge	For details, see 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide* 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide* 241-6001-616 *Preside MDM IP VPN Service Configuration User Guide*

Help menu

The Help menu provides a launch point to the on-line documentation. The table "Help menu command" (page 398) describes the menu command.

Table 43
Help menu command

Command	Description	Related information
On Window	Opens the online help documentation for the Embedded Nodal Provisioning window.	

Provisioning Tasks panel

The left side of the Embedded Nodal Provisioning window is the Provisioning Tasks panel. This panel lists the provisioning tasks and their associated actions. From this panel, you can browse the components being changed through the application of each task.

Provisioning actions are ordered top to bottom under each task. Each action is applied to the device in the order in which it appears in the task. You can create, order, and delete tasks. You can also create, order, and delete actions.

Icons indicate the nature of the provisioning change to the component. For a description of the tree icons, see the following tables:

• "Task icon descriptions" (page 399). The tree icons for tasks display the type of provisioning change to the component and their status.

• "Action icon descriptions" (page 400). The tree icons for actions display the actions within each task.

There are tool tips for each task and action in the Provisioning Tasks panel. These tooltips display the full name of the task or action, so you have this information when the tree width is too small to display the full text of the tasks and actions.

Table 44
Task icon descriptions

Icon	Name	Description
	Task Open	The provisioning task has not been applied.
	Task Completed	The provisioning task has been applied and is now complete. No further work can be done with this task.
	Task in Retry	You have requested to apply this provisioning task. However, the provisioning session is currently in use. Retry is in progress and this task will be applied as soon as the provisioning session is free.
	Task in Queue	You have requested to apply this provisioning task. However, the provisioning session is currently in use and there is already a task in Retry. This task is in the queue pending application.
	Task Applying	The provisioning task is in the process of being applied.
	Errors in Task	You have requested to apply the provisioning task. However, the apply operation failed because the provisioning task did not pass the node's semantic checks. You may modify the task and try to apply again.

Table 45
Action icon descriptions

Icon	Name	Meaning
	Service Template action	This is a service template that is applied to a component.
	Add Component action	This is a new component to be created.
	Change Component action	This is a component to be modified.
	Delete Component action	This is a component to be deleted.

The bottom of the Provisioning Tasks panel also provides the shortcut buttons. See the table "Provisioning Tasks panel buttons" (page 401).

Table 46
Provisioning Tasks panel buttons

Toolbar icon	Action
	This icon functions the same as the Move Action Up command in the Action menu. It changes the order in which the provisioning actions in the task are applied. It moves the selected provisioning action up so that it precedes the action that formerly preceded it. This icon is disabled if you have not selected a provisioning action.
	This icon functions the same as the Move Action Down command in the Action menu. It changes the order in which the provisioning actions in the task are applied. It moves the selected provisioning action down so that it follows the action that formerly followed it. This icon is disabled if you have not selected a provisioning action.
	This icon functions the same as the Apply Task command in the Task menu. This icon applies the currently selected task and adds it to the Task Application Queue. This icon is disabled if you have not selected a task or if the selected task is in retry or is being applied.

Provisioning forms panel

When you select a provisioning action, the right panel of the Embedded Nodal Provisioning window displays the forms associated with the provisioning action selected in the Provisioning Tasks panel. When you select a provisioning task, the right panel provides the task details. For details about the Task Details panel, see "Task details panel" (page 406).

The provisioning forms panel displays the forms corresponding to the selected provisioning action. These forms are the same as those used in Nodal Provisioning. You can set provisionable attribute values. Attribute entry field have tooltips that display the range and type of data that is valid for that attribute.

Attribute value range and type checking is done when the form displayed in the Provisioning Forms panel changes, or when the task that contains the component creation is applied, whichever comes first. The range and type are checked against those defined in the device Command Description Language

(CDL). If an invalid attribute is found, the task, action, and attribute that are in error are identified in a message dialog box, as well as the Task Details panel.

- "Provisioning forms panel for the Add Component action" (page 402)

- "Provisioning forms panel for the Change Component action" (page 403)

- "Provisioning forms panel for the Delete Component action" (page 404)

- "Provisioning forms panel for the Service Template action" (page 405)

Provisioning forms panel for the Add Component action

When you select Add Component, the panel displays a component creation form. You need to identify the component that is to be the parent of the new subcomponent. This component may, or may not, exist in the current view on the device. If it does not exist in the current view, you need to create the parent component by the same task, and before the new subcomponent is created.

The component creation form lets you specify the instance identifier for the new component, as well as modify any of the provisionable attributes for the new component.

> *Note:* When you add a new parent component, you can change or delete automatically added subcomponents in the same task.

For an illustration of the Provisioning Forms panel when you have selected an Add Component action, see the figure "Provisioning Forms panel for an Add Subcomponent action" (page 403). This figure shows an example of creating a new DS1 component as a subcomponent of Lp/1.

Figure 21
Provisioning Forms panel for an Add Subcomponent action

Provisioning forms panel for the Change Component action
When you select Change Component, the panel displays a component edit
form. The form lets you modify any of the provisionable attributes for the
component. The form contains a Refresh button to retrieve the component
data from the device and redisplay it in the Component edit form. When you
refresh, you lose any changes that you have already made in the form. The
form also displays the date and time of the last refresh.

For an illustration of the Provisioning Forms panel when you have selected an
Change Component action, see the figure "Provisioning Forms panel for a
Change Component action" (page 404). This figure is an example for
modifying the Lp/2 X21/0.

Figure 22
Provisioning Forms panel for a Change Component action
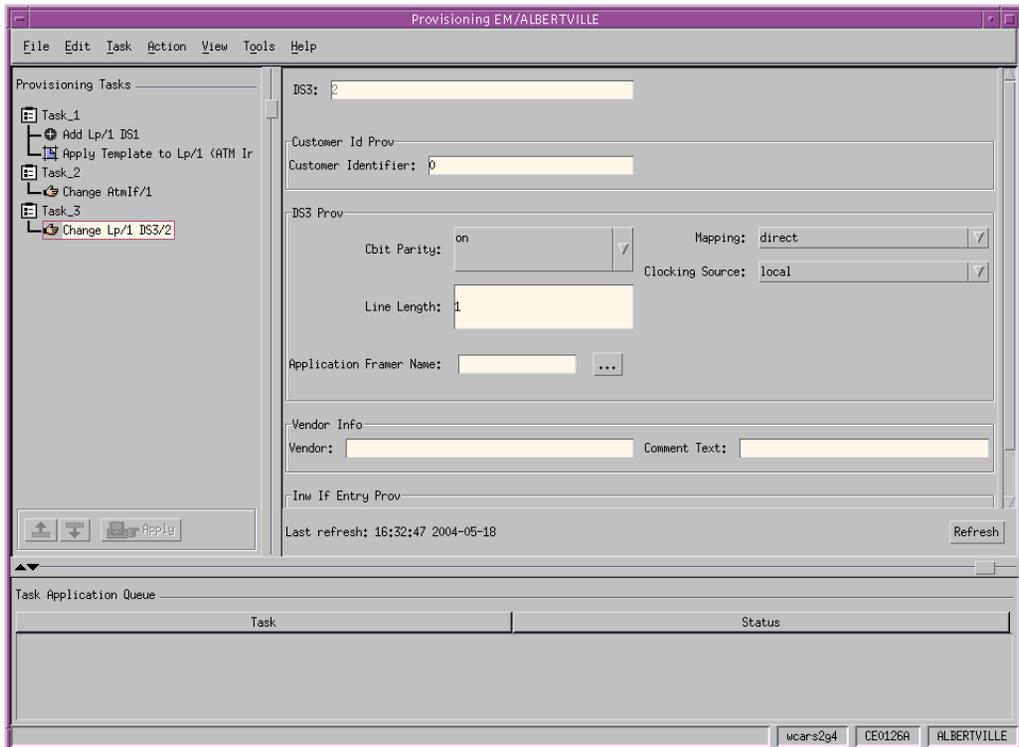
Provisioning forms panel for the Delete Component action

When you select Delete Component, the panel displays a component deletion form. You can view the provisionable attributes for the component. However, the form is disabled so you cannot make any changes to the component data.

For an illustration of the Provisioning Forms panel when you have selected a Delete Component action, see the figure "Provisioning Forms panel for a Delete Component action" (page 405).

Figure 23
Provisioning Forms panel for a Delete Component action

Provisioning forms panel for the Service Template action

When you select Service Template, the panel displays a service template form. This form lets you modify the visible provisionable attributes for the components contained in the template.

For an illustration of the Provisioning Forms panel when you have selected an Service Template action, see the figure "Provisioning Forms panel for a Service Template action" (page 406). This figure shows an example for applying the Create ATM Interface Service Template to Lp/1

Figure 24
Provisioning Forms panel for a Service Template action
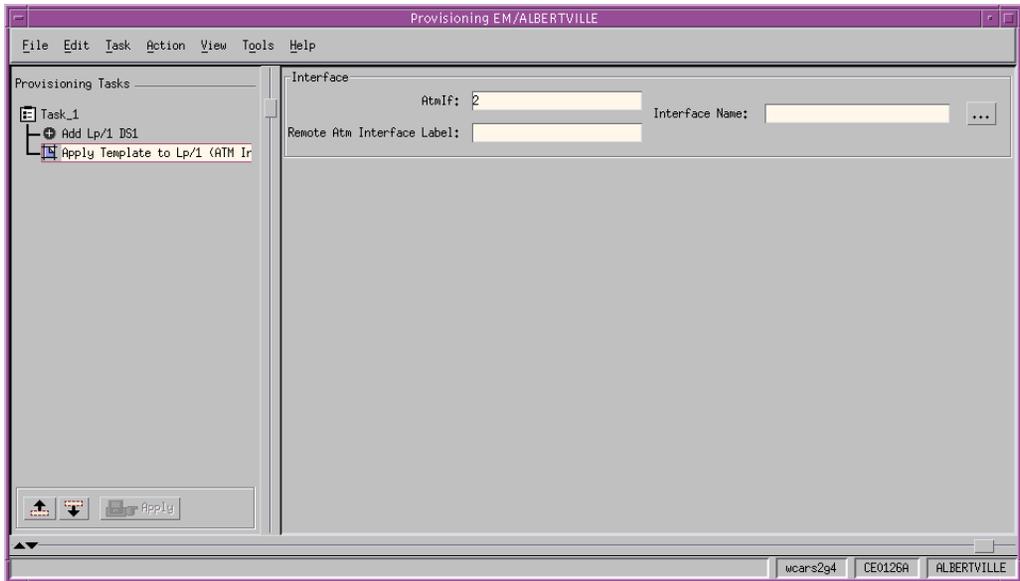
Task details panel

When you select a provisioning action, the right panel of the Embedded Nodal Provisioning window displays the forms associated with the provisioning action selected in the Provisioning Tasks panel. For details about the Provisioning Tasks panel, see "Provisioning Tasks panel" (page 398). When you select a provisioning task, the right panel provides the task details about the apply operation. The details in the window are similar in content to that collected in the user logs. For details about the user logs, see "User logs" (page 388).

The task details panel provides a log of all the steps performed by the system after you apply a task. You can view the status of the following actions:

- acquiring the provisioning session

- creating, modifying or deleting components

- applying service templates

- checking, saving, applying the view or configuration

- • activating the view or committing the configuration

- • releasing the provisioning session

- • warning or error messages encountered during the task application

You can change the name of the task by entering a name in the Task Name field of the Task Details panel. The task name is updated in the Provisioning Tasks panel.

The figure "Task Details panel" (page 407) shows an example of the Task Details panel for a task that is currently being applied.

Figure 25
Task Details panel
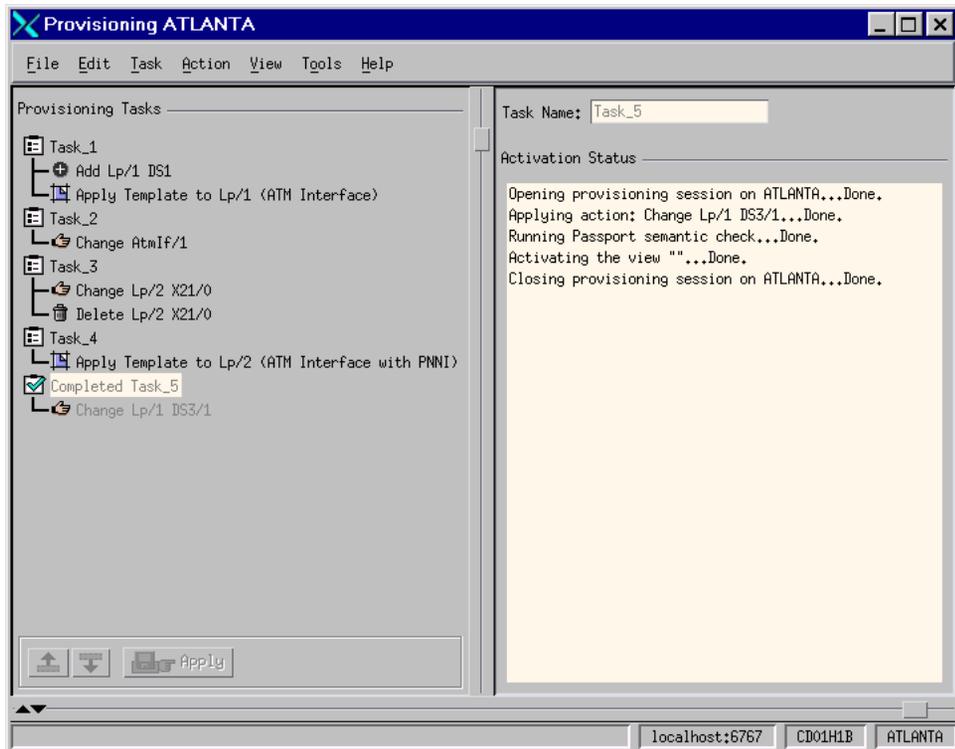
Task Application Queue panel

The Task Application Queue panel is an optional panel that appears at the bottom of the Embedded Nodal Provisioning window. It shows the tasks being applied in decreasing order from top to bottom.

You can show the Task Application Queue by selecting Task Application Queue from the View menu.

You can cancel the application of any task that has the status "Waiting for provisioning session by selecting the Cancel Application command from either the Task menu, or the task pop-up menu. You can also reorder tasks by using the Move Task Up and Move Task Down commands from the Task menu.

Status bar

The status bar shows the host name, CDL version, and the device to which you are connected.

Embedded Nodal Provisioning dialog boxes

Embedded Nodal Provisioning includes the following dialog box:

• "Add Component Action Dialog" (page 409)

Add Component Action Dialog

For some components that you add, Embedded Nodal Provisioning automatically adds any associated mandatory subcomponents. For example, if you add a FrUni, Embedded Nodal Provisioning also adds the mandatory FrUni DataNetworkAddress and FrUni Framer InterfaceName attributes. When there are mandatory subcomponents, the Add <component> Action dialog box opens. (The title bar of the dialog box changes according to the component being added.) This dialog box lists the component to add along with its mandatory subcomponents. If required, you can make a selection of provisioning changes to the subcomponents.

If there are no mandatory subcomponents, the dialog box does not display.

Instance value

If you require an instance value for the component, a text box displays beside the component name. Type an appropriate instance value in the box. When you click the OK button in the dialog box, the instance value displays in the form on the right side of the Embedded Nodal Provisioning window. You cannot edit the instance value in the Embedded Nodal Provisioning window.

Provisioning actions

The mandatory subcomponents are listed in the dialog box. If required, you can create provisioning actions to modify or delete these subcomponents. If you select a mandatory subcomponent for deletion, any children of that subcomponent that also display in the list will not be available for other provisioning actions.

Command buttons

The dialog box contains the following command buttons:

• **OK** closes the dialog box and adds the provisioning actions to the task.

• **Cancel** closes the dialog box without adding any provisioning actions.

• **Help** displays online help for the dialog box.

Procedures

See the following sections for the procedures for Embedded Nodal
Provisioning:

General procedures

- "Starting Embedded Nodal Provisioning" (page 412)

- "Viewing on-line help" on page 414

- "Exiting Embedded Nodal Provisioning" (page 415)

Provisioning procedures

- "Adding a subcomponent using the Shelf View tools" (page 416)

- "Adding a subcomponent using Embedded Nodal Provisioning"
  (page 419)

- "Modifying a component using the Shelf View tools" (page 422)

- "Modifying a component using Embedded Nodal Provisioning"
  (page 423)

- "Refreshing a component modification form" (page 425)

- "Deleting a component using the Shelf View tools" (page 426)

- "Deleting a component using Embedded Nodal Provisioning"
  (page 427)

- "Setting component context" (page 433)

- "Getting a context for a component" (page 434)

- "Applying a service template using the Shelf View tools" (page 429)

- "Applying a service template using Embedded Nodal Provisioning"
  (page 431)

- "Linking a new service to a new port" (page 439)

Organizing provisioning tasks and actions

- "Adding a new provisioning task" (page 444)

- "Changing the order of actions within a task" (page 445)

Application tasks

Concurrent provisioning conflicts and error resolution

Starting Embedded Nodal Provisioning

You start Embedded Nodal Provisioning from within the Passport Shelf View or MPE Shelf View tool. As Embedded Nodal Provisioning starts, it performs a group authentication to access the device that displays in the Shelf View tool.

Prerequisites

This procedure assumes that you have opened either Passport Shelf View or MPE Shelf View. For information about these tools, see 241-6001-011 *Preside MDM Fault Management User Guide*.

Procedure steps

1   In the Shelf View tool, right-click a component.

    A pop-up menu opens.

2   On the pop-up menu, click one of the following provisioning tasks:

    • **Add Subcomponent**…

    • **Change Component**…

    • **Delete Component…**

    • **Apply Service Template…**

    A **Group Authentication** dialog box opens.

3   In the **Group Authentication** dialog box, complete the following steps.

    • In the **Group Name** box, type or select an appropriate group name.

    • In the **User ID** box, type or select an appropriate user name

    • In the **Password** box, type or select an appropriate password. Depending on your previous activities and any predefined preferences, the User ID and Password fields may be populated. If the entries are not correct, edit the values.

    • click **OK**.

    If the authentication succeeds, the dialog box closes and a read-only session of Embedded Nodal Provisioning opens. The provisioning action selected in the Shelf View tool shows as a new provisioning task in the **Provisioning Tasks** panel.

If the authentication fails, a message displays in the Group Authentication dialog. Click **Details** for information about the cause of failure. Correct the entries in the dialog box and click **OK**.

Viewing on-line help

Use this procedure to view the on-line help about the Embedded Nodal Provisioning window.

Prerequisites

This procedure requires that you have started Embedded Nodal Provisioning.

Procedure steps

1   On the **Help** menu, click **Help On Window**.

The online documentation for the **Embedded Nodal Provisioning** window opens in a **Netscape** window.

Exiting Embedded Nodal Provisioning

Use this procedure to exit Embedded Nodal Provisioning.

Prerequisites

This procedure requires that Embedded Nodal Provisioning is not holding a provisioning session and is not in the process of applying a task. If Embedded Nodal Provisioning has the provisioning session and is in the process of applying a task, the Exit menu item is disabled.

Procedure steps

1   On the **File** menu, click **Exit**.

The **Embedded Nodal Provisioning** window closes.

If there are tasks in the **Provisioning Tasks** panel that have not yet been completed, either because they have not been applied, or the applied tasks were unsuccessful, an **Exit** dialog box opens and prompts for the next action.

2   In the Exit dialog box, select one of the following actions:

- To exit **Embedded Nodal Provisioning**, click **Yes**. All inactivated tasks are lost.

- To return to the **Embedded Nodal Provisioning** window, click **No**.

- To cancel the exit operation, click **Cancel**.

Adding a subcomponent using the Shelf View tools

From Passport Shelf View or MPE Shelf View, you can add a subcomponent and, if required, edit its own automatically added subcomponents.

Mandatory subcomponents of components are automatically added with default attribute values. If needed, you can edit these default attribute values. For example, if you add a Fruni subcomponent, you can modify the default values for the dataNetworkAddress and framer attributes.

Prerequisites

This procedure requires the following conditions:

- you have opened the Passport or MPE Shelf View tool

- you have sufficient privileges to provision the device.

Procedure steps

1   Right-click a component and on the pop-up menu, click **Add Subcomponent**.

The **Select subcomponent type** dialog box opens.
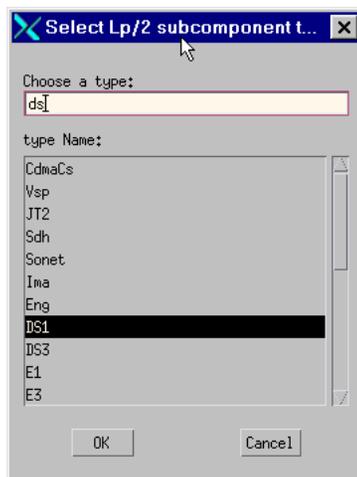
2   In the **Select subcomponent type** dialog box

a.   Select the type of subcomponent that you need to create.

    b. Click **OK.**

The **Select subcomponent type** dialog box closes.

If you added a subcomponent that has its own mandatory subcomponents, the Add <Component> Action dialog box opens. Go to step 3.

Otherwise, if you added a subcomponent that does not have its own associated subcomponents, the new action is placed in the Embedded Nodal Provisioning window's task list. Go to step 4

3   In the Add <Component> Action dialog box,

Add FrUni Action

This component has sub components that will be automatically added. You have the options of creating actions against these sub components.

FrUni/ [   ]

Mandatory sub component(s)	Action to perform
FrUni/ Dna	Do Nothing ▽
FrUni/ Ca	Do Nothing ▽
FrUni/ Lmi	Do Nothing ▽
FrUni/ Framer	Do Nothing ▽

OK   Cancel   Help

    a. add an instance value, if required. You cannot edit this instance value in the Embedded Nodal Provisioning window.

    b. modify any mandatory subcomponents as required, using the actions in the drop-down list.

    c. click **OK**.

The Add <Component> Action dialog box closes and the new action is placed in the Embedded Nodal Provisioning window's task list.

4   If the Embedded Nodal Provisioning window already contains multiple tasks, the **Move to Task** dialog box opens and lets you specify the task to which the action should be added. See the procedure "Moving an action

to a specific task" (page 446). Otherwise, the Embedded Nodal Provisioning window opens.

5   In the Provisioning Tasks panel, select the new action.

The Add <subcomponent type> form opens in the panel on the right side of the **Embedded Nodal Provisioning** window.

6   Enter the component identifier for the new subcomponent, and modify attribute values, as required.
Optionally, set or get the context for this component. See "Setting component context" (page 433) or "Getting a context for a component" (page 434).

7   Optionally, add more provisioning actions to the task by repeating step 1 to step 6.

8   Optionally, modify or delete automatically added subcomponents of the parent component. See "Modifying a component using Embedded Nodal Provisioning" (page 423) or "Deleting a component using Embedded Nodal Provisioning" (page 427).

9   Apply the task. See "Task Application overview" (page 384).

If the application is successful, the new subcomponent is added.

Adding a subcomponent using Embedded Nodal Provisioning

Use this procedure to add a subcomponent from within Embedded Nodal Provisioning window.

Prerequisites

This procedure requires the following conditions:

- You have opened Embedded Nodal Provisioning.

- You have sufficient privileges to provision the device

- You know the full name of the parent component.

Procedure steps

1   Select one of the following actions:

- Right-click a task in the Provisioning Tasks panel and on the popup menu, click **New Action….**

- Select a task in the Provisioning Tasks panel and then on the **Action** menu, click **New Action...**.

The **New Action** dialog box opens.

2   In the **New Action** dialog box, complete the following steps.

- In the **Component Name** field, enter the name of the parent component to which the subcomponent is to be added. This may be the name of an existing component or the name of a component that will be created as part of the same provisioning task.

  Optionally, set or get the context for this component. See "Setting

component context" (page 433) or "Getting a context for a
component" (page 434).

- In the **Provisioning Action** list, click **Add Subcomponent**.

- Specify the task to which the provisioning action is to be added. To
  add the action to an existing task, select existing and then select the
  task name from the drop down list. Otherwise, select new and the
  task name is automatically generated. You can choose to use the
  default name for the new task or modify it to provide a new name.

- Click **OK**.

The **Select Component Type** dialog box opens.
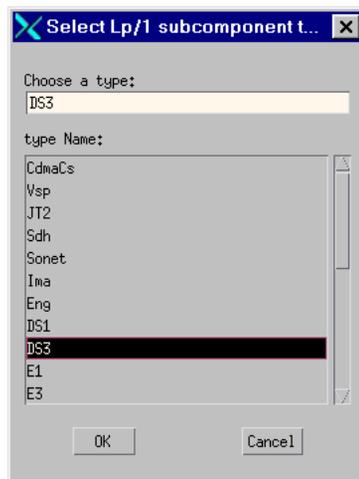
3   In the **Select Component Type** dialog box, complete the following steps.

- Select the type of component to create.

- Click **OK**.

The **Select subcomponent type** dialog box closes.

If you added a subcomponent that has its own mandatory
subcomponents, the Add <Component> Action dialog box opens. Go to
step 4.

Otherwise, if you added a subcomponent that does not have its own
associated subcomponents, the new action is placed in the Embedded
Nodal Provisioning window's task list. Go to step 5.

4   In the Add <Component> Action dialog box, complete the following steps.

a.   Add an instance value, if required. You cannot edit this instance value in the Embedded Nodal Provisioning window.

b.   Modify any mandatory subcomponents as required, using the actions in the drop-down list.

c.   Click **OK**.

The Add <Component> Action dialog box closes and the new action is placed in the **Provisioning Tasks** panel.

5   In the Provisioning Tasks panel, select the new action.

The **Add <subcomponent type>** form opens on the right side of the **Embedded Nodal Provisioning** window.

6   Enter the component identifier for the new subcomponent and modify attribute values, as required.

7   Optionally, add more provisioning actions to this task.

8   Apply the task. See "Task Application overview" (page 384).

If the apply action is successful, the new subcomponent is added.

Modifying a component using the Shelf View tools

Use this procedure to modify a component using the Passport Shelf View or MPE Shelf View tool.

Prerequisites

This procedure requires the following conditions:

- You have opened the Passport Shelf View or MPE Shelf View tool

- You have sufficient provisioning privileges to provision the device.

- You have located the component that you want to modify.

Procedure steps

1   Right-click a component and on the pop-up menu, click **Change Component…**.

The **Select subcomponent type** dialog box opens.

2   On the pop-up menu, click **Change Component…**

If the **Embedded Nodal Provisioning** window is not already open, it now opens.

The component to be modified is added to the **Provisioning Tasks** panel. The icon for the subcomponent is the Change Component icon and the label is Change <component name>.

3   Select the new action in the Provisioning Tasks panel.

The Change <component name> form opens on the right of the Embedded Nodal Provisioning window.

4   Modify the provisional attribute values in the form, as desired.

5   Optionally, add more provisioning actions to the task.

6   Apply the task. See "Task Application overview" (page 384).

Modifying a component using Embedded Nodal Provisioning

Use this procedure to modify a component from within the Embedded Nodal Provisioning window.

Prerequisites

This procedure requires the following conditions:

- You have opened the Embedded Nodal Provisioning window.

- You have sufficient privileges to provision a device.

- You know the full name of the component that you want to modify.

Procedure steps

1   Select one of the following actions:

- Right-click a task in the Provisioning Tasks panel and on the popup menu, click **New Action….**

- Select a task in the Provisioning Tasks panel and then on the **Action** menu, click **New Action...**.

The **New Action** dialog box opens.

2   In the **New Action** dialog box, complete the following steps.

- Type a **Component Name**.

- In the **Provisioning Action** list, click **Change**.

- Specify the task into which to place this provisioning action.

- Click **OK**.

The component to be modified is added to the **Provisioning Tasks** panel. The icon for the subcomponent is the Change Component icon and the label is the component name.

3   In the Provisioning Tasks panel, select the new action.

The Change <component name> form appears on the right of the Embedded Nodal Provisioning window.

4   Modify the provisional attribute values in the form, as desired.

5   Optionally, add more provisioning actions to the task.

6   Apply the task. See "Task Application overview" (page 384).

Refreshing a component modification form

Use this procedure to refresh the display in the Embedded Nodal Provisioning window of a component modification form with the data from the current view of the device.

Procedure steps

1   Right-click a component in the **Provisioning Tasks** panel, and on the pop-up menu, click **Change Component**….

The Change Component form appears on the right of the window.

2   In the Change Component form, click **Refresh**.

The **Last refresh timestamp** is updated with the current date and time. The component data is replaced with data from the node's current view or candidate configuration.

If Embedded Nodal Provisioning is unable to retrieve the component data from the node, an error message displays. A possible cause of the error may be that the component has been deleted from the node.

Deleting a component using the Shelf View tools

Use this procedure to delete a component using the Passport Shelf View or MPE Shelf View tools.

Prerequisites

This procedure requires the following conditions:

• You have opened the Passport Shelf View or MPE Shelf View tool

• You have sufficient privileges to provision a device.

Procedure steps

1 Right-click a component and on the pop-up menu, click **Delete Component**.

If the **Embedded Nodal Provisioning** window is not already open, it opens.

The component to be deleted displays in the **Provisioning Tasks** panel. The icon for the subcomponent is the Delete Component icon and the label is the component name.

2 In the **Provisioning Tasks** panel, select the new delete action.

The Delete <component name> form opens on the right of the **Embedded Nodal Provisioning** window. The provisionable attributes are visible but disabled so that you cannot change them.

3 Optionally, add more provisioning actions to the task.

4 Apply the task. See "Task Application overview" (page 384).

Deleting a component using Embedded Nodal Provisioning

Use this procedure to delete a component from within the Embedded Nodal Provisioning window.

Prerequisites

This procedure requires the following conditions:

•   You have opened Embedded Nodal Provisioning.

•   You have sufficient privileges to provision a device.

•   You know the full name of the component that you want to delete.

Procedure steps

1   Select one of the following actions:

•   Right-click a task in the Provisioning Tasks panel and on the popup menu, click **New Action….**

•   Select a task in the Provisioning Tasks panel and then on the **Action** menu, click **New Action...**.

The **New Action** dialog box opens.
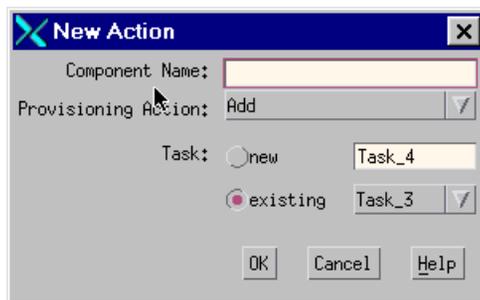
2   In the **New Action** dialog box, complete the following steps.

•   In the **Component Name** field, type the name of the component that you want to delete

•   In the **Provisioning Action** list, click **Delete**.

•   Specify the task into which to place this provisioning action.

•   Click **OK**.

The component to be deleted displays in the **Provisioning Tasks** panel. The icon for the subcomponent is the Delete Component icon and the label is the component name.

3   In the Provisioning Tasks panel, select the new action.

You can view the provisionable attribute values in the component but they are disabled so you cannot change them.

4   Optionally, add more provisioning actions to the task.

5   Apply the task. See "Task Application overview" (page 384).

Applying a service template using the Shelf View tools

Use this procedure to apply a service template to a component that you have
selected in the Passport Shelf View or MPE Shelf View tool.

Prerequisites

This procedure requires that the following conditions are met:

• You have opened the Passport Shelf View or MPE Shelf View tool

• You have sufficient privileges to provision the device.

Procedure steps

1   Right-click the component to which you want to apply a service template
and from the pop-up menu, click **Apply Service Template…**.

The **Select Service Template** dialog box opens.
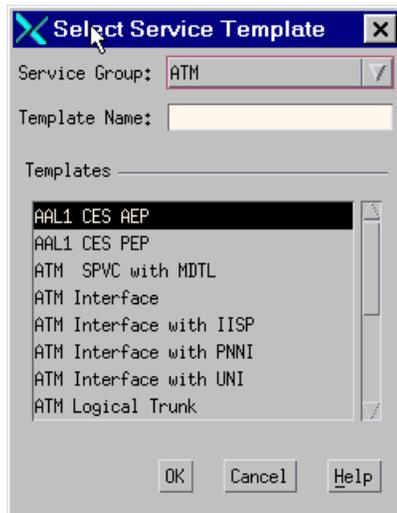
2   In the **Select Service Template** dialog box, complete the following steps.

• Select a template to apply from the **Templates** list.

• Click **OK**.

See "Selecting a service template" (page 435) for the procedure to select
a service template.

The **Embedded Nodal Provisioning window** opens if it is not already open. The component to which the service template is being applied displays in the Provisioning Tasks panel. The icon for the subcomponent is the Apply Template icon and the label contains the name of the template and the name of the component that it is being applied to.

3   In the **Provisioning Tasks** panel, select the new action.

The **Apply Service Template** form display on the right of the **Embedded Nodal Provisioning window**.

4   Enter the required component identifier and attribute values.

5   Optionally, add more provisioning actions to the task.

6   Apply the task. See "Task Application overview" (page 384).

Applying a service template using Embedded Nodal Provisioning

Use this procedure to apply a service template to a component that you have selected in the Embedded Nodal Provisioning window.

Prerequisites

This procedure requires that the following conditions are met:

- you have opened the Embedded Nodal Provisioning window

- you have sufficient privileges to provision the device

- you know the full name the component to which to apply the service template.

Procedure steps

1   Select one of the following steps:

- Right-click a task in the Provisioning Tasks panel and from the pop-up menu, click **New Action…**.

- On the **Action** menu, click **New Action…**.

The **New Action** dialog box opens.

2   In the **New Action** dialog box, complete the following steps.

- In the **Component Name** field, type the name of the component to which you want to apply the service template.

- From the **Provisioning Action** drop down list, select **Apply Service Template**.

- Specify the task into which to place this provisioning action.

- Click **OK**.

See the detailed procedure "Adding a provisioning action" (page 447).

The **Select Service Template** dialog box opens.
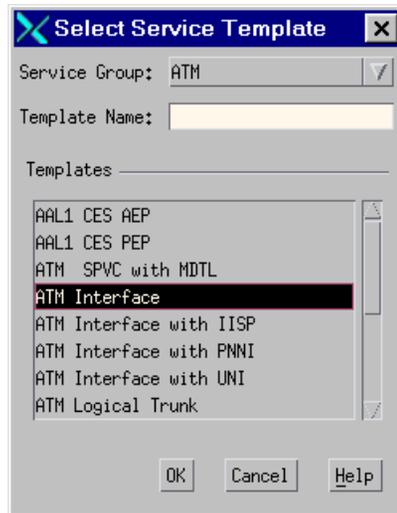
3   In the **Select Service Template** dialog box, complete the following steps.

- Select a service template.
- Click **OK**.

See the procedure "Selecting a service template" (page 435).

The **Select Service Template** dialog box closes. The component to which the template will be applied displays in the Provisioning Tasks panel. The icon for the subcomponent is the Apply Template icon and the label contains the name of the template and the name of the component it is applied to in the form <template name> to <component name>.

4   In the **Provisioning Tasks** panel, select the new action.

The Apply Service Template form appears on the right side of the Embedded Nodal Provisioning window.

5   Enter the service template data, including the component identifiers and attribute values.

6   Optionally, add more provisioning actions to the task.

7   Apply the task. See "Task Application overview" (page 384).

Setting component context

Use this procedure together with the "Adding a subcomponent using Embedded Nodal Provisioning" (page 419) to set the context for a selected component. Once the context is set for a component, this context can be applied to other components.

Prerequisites

This procedure requires the following conditions:

- you have opened the Embedded Nodal Provisioning window and have added a new component

- you have sufficient privileges to provision the device

- you know the full name of the component that you want to set as the context.

Procedure steps

1   In the **New Action** dialog box right-click in the **Component Name** box and from the pop-up menu, click **Set Context**.

The **Set Context Completed** confirmation dialog opens.

Getting a context for a component

Use this procedure to get the context for a selected component from another component in the component hierarchy.

Prerequisites

This procedure requires the following conditions:

- you have opened the Embedded Nodal Provisioning window and have added a new component

- you have sufficient privileges to provision the device

- you know the full name of the component that you want to set as the context.

Procedure steps

1   In the **New Action** dialog box right-click in the **Component Name** box and from the pop-up menu, click **Get Context.**

The context component name appears in the text field.

Selecting a service template

Use this procedure to select a service template to apply to a component. You can use this procedure from Embedded Nodal Provisioning or from the Passport and MPE Shelf View tools. You use the Select Service Template dialog box to select the service template to apply. The Select Service Template dialog box is populated with the names of all the templates that can be applied to the selected component, including custom templates.

Prerequisites

This procedure requires the following conditions:

- You have sufficient privileges to provision the device.

- You have selected the component to which the template will be applied.

- You have selected the Apply Service Template command from a component's pop-up menu in the Shelf View tools, or in Embedded Nodal Provisioning, from the Provisioning Action drop down list in the New Action dialog box.

Procedure

1   Optionally, use the **Service Group** drop down list and the **Template Name** list to restrict the templates shown in the **Templates** list.

- From the **Service Group** drop down list, select a service group. The **Service Group** list contains all of the template categories for which there are templates that can be applied to the component. Minimally one category is required for the dialog box to open.

- In the **Templates Name** field start to enter the name of the template that you want to apply. The template that most closely matches what you type in this field is highlighted in the list.

selected service template for the apply service template operation

Select Service Template

Service Group: ATM

Template Name:

Templates

AAL1 CES AEP
AAL1 CES PEP
ATM SPVC with MDTL
ATM Interface
ATM Interface with IISP
ATM Interface with PNNI
ATM Interface with UNI
ATM Logical Trunk

OK   Cancel   Help
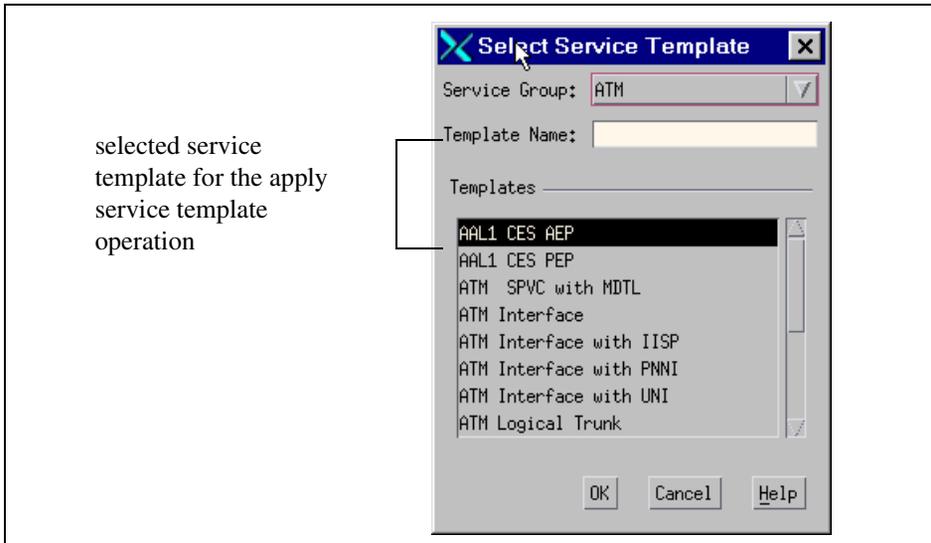
2 Click **OK** to apply the selected template.

Browsing for available component instances

Use this procedure to browse for component instances for node component attributes that have a value that is in reference to another component instance. You can type the component name of the other instance in the attribute value text field, or you can use the Component Link Search dialog box to search for such component instances. A browse button[...] is provided beside each attribute with a component instance.

The ability to browse for component instances improves the ability to handle situations where there are large numbers of components for a linked attribute.

Prerequisites

This procedure requires that the following conditions are met:

•   You have opened Embedded Nodal Provisioning.

•   You have sufficient privileges to provision the device.

•   The component attribute has a value that is a reference to another component instance, as indicated by a browse button [...] beside the attribute.

Procedure

1   For those attributes that have a value that is in reference to another component instance, type the component name of the other instance in the text field, or click the browse button [...] next to the attribute with a component instance.

2   If you click the browse button, the **Component Link Search** dialog box opens.

3   Enter search criteria in the Search Criteria panel:

•   In the **Start Search at Component** field, type the name of the other instance or use the wild card (*) to search for all instances.

•   In the **Max Number to Retrieve**, type the number of instances to retrieve. The default is 100.

4   Click **Search**.

The list of available component links found as a result of the search, are listed in the **Search Results** panel.

5   Select a component link from the list and click **OK**.

The selection is entered in the field beside the browse button.

Linking a new service to a new port

Use this procedure as an example of how you can create a new port and link a new service to it in a single task.

Prerequisites

This procedure requires that the following conditions are met:

- You have opened the Passport Shelf View or MPE Shelf View tool

- You have sufficient privileges to provision the device.

Procedure

1   Right-click the component for which you want to create a new port and from the pop-up menu, click **Add Subcomponent…**.

   The **Select subcomponent type** dialog box opens.
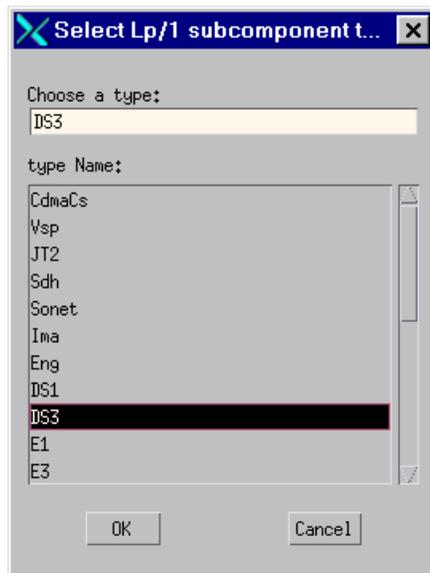
2   In the **Select subcomponent type** dialog box, complete the following steps.

- In the type Name list, select the port component (for example DS3).

- Click **OK**.

The **Select Component Type** dialog box closes and the add port action appears in the **Provisioning Tasks** panel.

3   In the **Provisioning Tasks** panel, select the task associated with the newly added action item.

4   On the action menu, click **New Action**.

The **New Action** dialog box opens.
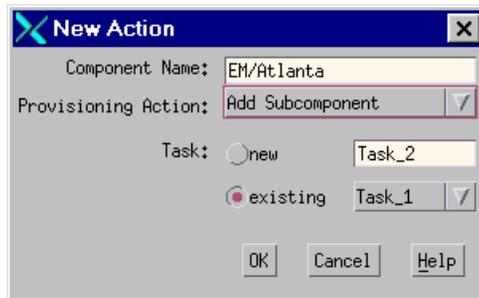
5   In the **New Action** dialog box, complete the following steps.

- In the C**omponent Name** field, type the name of the parent component of the new service component that is being created, (for example, EM/Atlanta, EM, or empty string).

- In the **Provisioning Action** list, click **Add Subcomponent**.

- Click **OK**.

The **New Action** dialog box closes and the **Select subcomponent type** dialog box opens.

6   In the **Select subcomponent type** dialog box, complete the following steps.

- In the **type Name** list, select a service component type (for example, Atmlf)

- Click **OK**.

The **Select Component Type** dialog box closes and the service action is added to the **Provisioning Task** panel.
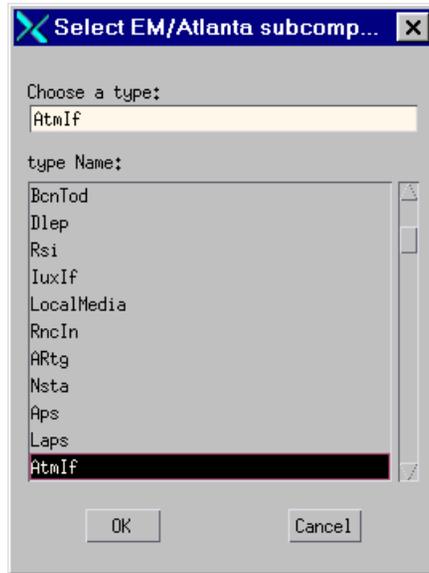
7   In the **Provisioning Task** panel, select the add port action that was added in step 2.

The Add Lp/1 DS3 form appears in the right side panel of the **Embedded Nodal Provisioning** window.

8   In the Add Lp/1 DS3 form, complete the following steps.

- Type the component identifier for the new port.

- Modify the attribute values, as required.

- Do not set the Application Framer Name attribute.

9   In the **Provisioning Tasks** panel, select the add service action.

The Add EM/Atlanta AtmIf form displays on the right side of the **Embedded Nodal Provisioning** window.

10   In the Add EM/Atlanta AtmIf form, complete the following steps.

- Type the component identifier for the new service

- Set the attribute values, as required.

- Type Lp/1 DS3/2 for the value of the Interface attribute.

11 Apply the task. See "Task Application overview" (page 384).

Organizing provisioning tasks and actions overview

This section describes the procedures for organizing provisioning actions into provisioning tasks as well as reorganizing actions within a task. See the following procedures for additional information:

- "Adding a new provisioning task" (page 444)

- "Changing the order of actions within a task" (page 445)

- "Moving an action to a specific task" (page 446)

- "Adding a provisioning action" (page 447)

- "Renaming a provisioning task" (page 449)

- "Removing a provisioning action" (page 450)

- "Removing a provisioning task" (page 451)

- "Removing all provisioning tasks that are completed" (page 452)

- "Rearranging the order of tasks" (page 453)

Adding a new provisioning task

Use this procedure to add a new provisioning task.

Prerequisites

This procedure requires that the following conditions are met:

- You have opened the Embedded Nodal Provisioning window.

- You have sufficient privileges to provision the device.

Procedure

1 On the Embedded Nodal Provisioning **Task** menu, click **New Task**.

   A new task is added to the bottom of the Provisioning Tasks panel with the format Task_X, where X is a unique number in the task list. Tasks are automatically added sequentially.

2 Select the new task.

   The panel on the right side of the **Embedded Nodal Provisioning** window displays the task details.

3 If desired, in the task details panel, change the name of the new task in the **Task Name** field.

Changing the order of actions within a task

Use this procedure to change the order of actions within a task. Action items within a task are applied in consecutive order.

Prerequisites

This procedure requires that the following conditions are met:

- You have opened the Embedded Nodal Provisioning window.

- You have sufficient privileges to provision the device.

- The Provisioning Tasks panel contains one or more tasks with several actions.

Procedure

1 In the Provisioning Tasks panel, select a provisioning action.

2 Complete one of the following steps to move an action up one position. (If the provisioning action is the first one in the task, it becomes the last.)

- On the **Action** menu, click **Move Action Up**.

- Right-click on the action in the Provisioning Tasks panel and on the pop-up menu click **Move Action Up**.

3 Complete one of the following steps to move an action down one position. (If the provisioning action is the last one in the task, it becomes the first.)

- From the **Action** menu, select **Move Action Down**.

- Right-click on the action in the Provisioning Tasks panel and select **Move Action Down** from the popup menu.

Moving an action to a specific task

Use this procedure to add a provisioning action to a new task or to move an action from one task to another. The Move to Task dialog box opens automatically when you specify an action and there is more than one open task in the Embedded Nodal Provisioning window.

When you add a provisioning action to a task, the action is added to the bottom of any existing list of actions. When you move a provisioning action from one task to another, the action is removed from the one task and added to the bottom of any existing list of actions in the other task.

Prerequisites

This procedure requires the following conditions:

*   You have opened Embedded Nodal Provisioning.

*   You have sufficient privileges to provision the device.

*   The Move to Task dialog box is open, either because Embedded Nodal Provisioning has more than one open task, or you have selected Move to Task from the menu bar.

Procedure

1   To create a new task for the action, in the **Move to Task** dialog box, click **new**.

2   To add or move an action to an existing task, in the **Move to Task** dialog box, click **existing** and then select the task from the list.

3   Click **OK.**

Adding a provisioning action

Use this procedure to add a provisioning action to a task.

Prerequisites

This procedure requires that the following conditions are met:

- You have opened the Embedded Nodal Provisioning window.

- You have sufficient privileges to provision the device.

- You know the name of the component to which the subcomponent is to be added.

Procedure

1 Select one of the following steps:

- Right-click an action in the Provisioning Tasks panel and from the pop-up menu, click **New Action…**.

- On the **Action** menu, click **New Action…**.

The **New Action** dialog box opens.

2 In the **Component Name** field, enter the name of the parent component that the action will operate on. This may be the name of an existing component or the name of a component that will be created as part of the same provisioning task.

Note: The only provisioning action appropriate to a component that does not yet exist is **Add Subcomponent**. Any other action will result in an error message, since the provisioning form cannot open for a component that does not exist.

3 From the **Provisioning Action** drop down list, select an action. You have the following options:.

- **Add**

- **Change**

- **Delete** deletes a subcomponent

- **Add Subcomponent**

- **Apply Template**

4 Specify the task into which the current provisioning action will be placed;

- If in an existing task, select **existing** and then select from the list of existing task names in the drop down list.

- If in a new task, select **new**. The new task name is automatically generated.

5 Click **OK**.

6 Use the existing name of the task, or optionally, select the task in the Provisioning Tasks panel and change the name in the **Task Name** field in the task details panel. See "Renaming a provisioning task" (page 449).

Renaming a provisioning task

Use this procedure to rename a provisioning task.

Prerequisites

This procedure requires that the following conditions are met:

- You have opened the Embedded Nodal Provisioning window.

- You have sufficient privileges to provision the device.

- The Provisioning Tasks panel contains at least one task.

Procedure

1 In the Provisioning Task panel, select a provisioning task.

2 In the **Task Name** field in the task details panel, change the name of the task. The task name must be different than any existing task name.

The task name is updated in the Provisioning Tasks panel when the focus moves from the **Task Name** field. If the new task name is the same as one of the existing task names, it reverts to the previous task name.

Removing a provisioning action

Use this procedure to remove a provisioning action from a provisioning task.

Prerequisites

This procedure requires that the following conditions are met:

- You have opened the Embedded Nodal Provisioning window.

- You have sufficient privileges to provision the device.

- The Provisioning Tasks panel contains at least one task and one action.

Procedure

1   Select one of the following steps:

- Right-click an action in the Provisioning Tasks panel and from the pop-up menu, click **Remove Action…**.

- On the **Action** menu, click **Remove Action…**.

The provisioning action is removed from the Provisioning Tasks panel.

Removing a provisioning task

Use this procedure to remove a provisioning task from the Provisioning Tasks panel.

Prerequisites

This procedure requires that the following conditions are met:

- You have opened the Embedded Nodal Provisioning window.

- You have sufficient privileges to provision the device.

- The Provisioning Tasks panel contains at least one task.

Procedure

1   Select one of the following options:

- Right-click a task in the Provisioning Tasks panel and from the pop-up menu, click **Remove Task…**.

- Select a task in the **Provisioning Tasks** panel and then on the **Task** menu, click **Remove Task…**.

If the task has not been completed through a successful apply operation, you are prompted to confirm that you want to remove the task.

2   Click **OK**.

Removing all provisioning tasks that are completed

Use this procedure to remove all the tasks from the Provisioning Tasks panel that have been completed, that is successfully applied.

Prerequisites

This procedure requires that the following conditions are met:

• You have opened the Embedded Nodal Provisioning window.

• You have sufficient privileges to provision the device.

• The Provisioning Task list contains at least one or more tasks that have been successfully applied

Procedure

1 On the **Task** menu, click **Remove Completed Tasks**.

The completed tasks are removed from the Provisioning Tasks panel.

Rearranging the order of tasks

Use this procedure to rearrange the order of tasks in the Task Application Queue. This procedure applies to either moving a task up the queue or moving a task down a queue.

Prerequisites

This procedure requires that the following conditions are met:

- You have opened the Embedded Nodal Provisioning window.

- You have sufficient privileges to provision the device.

- The Task Application Queue contains more than one task waiting to be applied

Procedure

1 In the **Task Application Queue**, select the task whose order you want to change.

2 To move the task up one position in the queue, on the **Task** menu, click **Move Task Up**:

The selected task moves up one position in the queue. If the task is the first in the queue, it moves the last.

3 To move the task down one position in the queue, on the **Task** menu, click **Move Task Down**

The selected task moves down one position. If the task is the last in the queue and the first task status is not in an apply or retry state, then the task moves to the first position in the queue.

Applying a task

Use this procedure to apply the provisioning actions contained by the task to the current Passport view or MPE candidate configuration.

Prerequisites

This procedure requires that the following conditions are met:

- You have opened Embedded Nodal Provisioning.

- You have sufficient privileges to provision the device.

Procedure

1   In the **Provisioning Tasks** panel, select a task.

2   Select one of the following options:

- On the **Task** menu, click **Apply Task.**

- In the **Provisioning Tasks** panel, click **Apply**.

Depending on your user preferences you may be prompted to confirm the apply operation. If so, click **OK** to proceed.

3   Refer to the section "Task Application overview" (page 384) for a description of the application process under the following conditions.

- "When a node's provisioning session is available" (page 384)

- "When the node's provisioning session is in use" (page 385)

- "When a task or action fails" (page 386)

- "When a service creation fails" (page 387)

4   Optionally, set the context for the application task. Select the task and right-click to select **Set Context**.

Applying a task without sufficient provisioning privileges

Use this procedure to apply a task when your user ID does not have sufficient provisioning privileges.

Prerequisites

This procedure requires that the following conditions are met:

- The Passport Shelf View or MPE Shelf View user ID and password do not have sufficient impact to provision a device.

Procedure

1   In the **Provisioning Tasks** list, select a task.

2   Select one of the following options:

- On the **Task** menu, click **Apply**,

- In the **Provisioning Tasks** panel click **Apply**.

Depending on your user preferences you may be prompted to confirm the apply operation. If so, click **OK** to proceed.

3   The **Device Authentication** dialog box opens.

4   Enter a user ID and password for provisioning and click **OK**.

The **Device Authentication** dialog closes. The task icon changes to the "Applying" icon.

5   Refer to the section "Task Application overview" (page 384) for a description of the following possible outcomes.

- "When a node's provisioning session is available" (page 384)

- "When the node's provisioning session is in use" (page 385)

- "When a task or action fails" (page 386)

- "When a service creation fails" (page 387)

Setting user preferences for Embedded Nodal Provisioning

Use this procedure to modify the user preferences settings for Embedded Nodal Provisioning. Passport user preferences for save and activate options take effect immediately; other options take effect the next time the tool starts. MPE user preferences for open, commit, and save options take effect immediately; admin preferences take effect the next time the tool starts.

Prerequisites

This procedure requires that the following conditions are met:

* You have opened Embedded Nodal Provisioning.

Procedure steps

1   On the **Options** menu, click **User Preferences**, and then the appropriate tab.

2   Modify the user preference settings as required.

* For details about Passport user preferences, see the table "Passport user preferences for Embedded Nodal Provisioning" (page 456).

* For details about MPE user preferences, see the table "MPE user preferences for Embedded Nodal Provisioning" (page 459).

3   Click **OK**.

Table 47
Passport user preferences for Embedded Nodal Provisioning

Preference type	Preference	Use when you want to...
Save/Activate:		
Check View	Check View	Check the provisioning view. You can check only the changes made to the view or the complete view, depending on the option you select in the Type list. Checking the complete view is the default setting.
(Sheet 1 of 3)		

Table 47 (Continued)
Passport user preferences for Embedded Nodal Provisioning

Preference type	Preference	Use when you want to...
Save View	Save	Save the view. You can save the view in ascii, delta, portable, or both portable and ascii formats. Name the new service by selecting the Keyed, Dated, or User specified options. Saving the view in portable format with a keyed name is the default setting.
		• Keyed - Start a key with a number or letter. You can use numbers, letters, or underscores for subsequent characters. The key cannot exceed 6 characters. If the key contains only numbers, then its length must be at least three characters. The service data view that matches the pattern and has the highest index is used, and the next view in the sequence is created.
		• Dated - Type "today" or type a date in the format yymmdd (where yy is the year, mm is the month, and dd is the day). When you save a provisioning view with a dated key, Nodal Provisioning adds a two-digit index to the date to keep track of the number of saved views on the same date, for example <yymmdd><nn>. When you enter a date, the service data view with the highest index is used and the next view in the sequence is created.
		• User specified - Type a view name. Or, click the Browse button and select a file name.
		• Same as Opened View Name - The adjacent field is pre-filled with the name of the selected open view and the extension **full.<nnn>**.
(Sheet 2 of 3)		

Table 47 (Continued)
Passport user preferences for Embedded Nodal Provisioning

Preference type	Preference	Use when you want to...
Activate View	Activate	Apply the provisioning tasks to the view being modified.
Commit View	Commit	Make the view the one that opens after the node restarts.
Other Option	Always Prompt to Save View	Open a confirmation box before a view is saved.
Others:		
Task Repair Timeout		Specify a maximum time to retain a provisioning session while repairing a task. The default value is 5 minutes.
Prov Session Retry Interval		Specify the time interval between attempts to obtain the node's provisioning session. The default value is 1 minute.
Server Reconnect		Specify the maximum number of attempts to reconnect to the server. The default value is 5 attempts.
Communications Timeout		Specify the maximum time to wait for a response. If the response time exceeds the maximum specified, a dialog box opens and prompts for whether or not you want to continue waiting. The default value is 45 seconds.
Always prompt for confirmation before applying task		Open a confirmation dialog box before each task is applied.
(Sheet 3 of 3)		

Table 48
MPE user preferences for Embedded Nodal Provisioning

Preference type	Preference	Use when you want to...
Open:		
Access Mode	Shared	Start a multiple user Embedded Nodal Provisioning session.
	Sole-commit	Start Embedded Nodal Provisioning and lock the configuration until you commit or exit the provisioning session.
	Read only	Start Embedded Nodal Provisioning with read access only.
Configuration	Running	Start Embedded Nodal Provisioning with with the running configuration. The running configuration reflects the system view of configuration data currently in effect on the MPE.
	Previous Running	Start Embedded Nodal Provisioning with the rollback configuration.
	Other	Start Embedded Nodal Provisioning with a specific configuration file. You can select the Keyed, Dated, or User Specified options. The default is Keyed.
	Always Prompt Before Open Configuration	Specify whether or not to open a dialog box that lets you select the candidate configuration and access mode whenever you select a new device. This setting is the default option.
Save:		
Save Configuration	User Specified	Save the configuration to a specific file. You can specify the filename using the Keyed, Dated, or User Specified options.
	Always Prompt Before Save Configuration	Open a confirmation box before you save a configuration.
Commit:		
(Sheet 1 of 3)		

Table 48 (Continued)
MPE user preferences for Embedded Nodal Provisioning

Preference type	Preference	Use when you want to...
Commit Configuration	Commit confirmation required	Specify whether or not you want to display a dialog box that prompts before making the configuration permanent by committing it. The dialog box also lets you specify the maximum time to wait for confirmation before rolling back to the previous configuration.
		With the confirm option in effect, whenever you commit a configuration, a timer starts. If a confirmation of the new running configuration is not specified within the time frame, a rollback to the previously working configuration occurs.
	Wait period for confirmation (min.)	Modify the time to wait for a confirmation. The default time is five minutes. If no confirmation occurs within the specified time, then the configuration rolls back to the previous running configuration.
	Always Prompt before Commit Configuration	Specify whether or not to open the Commit Confirmation dialog box whenever you commit a configuration.
Admim:		
Task Repair Timeout		Specify a maximum time to retain a provisioning session while repairing a task. The default value is 5 minutes.
Prov Session Retry Interval		Specify the time interval between attempts to obtain the node's provisioning session. The default value is 1 minute.
(Sheet 2 of 3)		

Table 48 (Continued)
MPE user preferences for Embedded Nodal Provisioning

Preference type	Preference	Use when you want to...
Server Reconnect		Specify the maximum number of attempts to reconnect to the server. The default value is 5 attempts.
Communications Timeout		Specify the maximum time to wait for a response. If the response time exceeds the maximum specified, a dialog box opens and prompts for whether or not you want to continue waiting. The default value is 45 seconds.
(Sheet 3 of 3)		

Applying provisioning changes

When you apply provisioning changes, you may be prompted to confirm the apply operation. The prompt depends on your user preferences. If the prompt option is set, the dialog box opens before each task is applied so that you can modifying the options for applying provisioning changes. If not, the task is applied using the existing user preferences.

When you apply a task, semantic checks are done and, if successful, the provisioning changes are made to the current node view or candidate configuration.

Procedure steps

1   To apply your provisioning changes, select one of the following actions:

   •   Select a task and then in the Provisioning Task panel, click **Apply.**

   •   Select a task and the on the **Task** menu, click **Apply Task**.

   •   Right-click a task and then select **Apply Task** from the pop-up menu.

2   Depending on the user preferences in effect and the type of device being provisioned. If set, you may be prompted before

   •   an apply process

   •   a save view or commit configuration process

If these preferences are set, make changes to the preset selections, as required, and click **OK**. If these preferences are not set, the apply operation proceeds without any prompts.

Viewing the Task Application Queue

Use this procedure to display or hide the Task Application Queue in a panel at the bottom of the Embedded Nodal Provisioning window. The queue displays the tasks that are pending and the order in which they will be applied to the device.

Procedure

1   To open the **Task Application Queue,** on the **View** menu, click to select **Task Application Queue**.

2   To close the **Task Application Queue,** on the **View** menu, click to clear **Task Application Queue**.

Viewing the state of the provisioning session

Use this procedure to display the state of the provisioning session.

Procedure

1   On the **View** menu, click **Provisioning Session...**.

If the provisioning session is in use, you are provided details on who is using the session.

Canceling the application of a single provisioning task

Use this procedure to cancel the application of a single task.

Prerequisites

This procedure requires that the following condition is met:

•   The task must be waiting for a provisioning session in the Task Application Queue.

Procedure

1   In the **Task Application Queue**, select the task whose application you want to cancel.

2   Complete one of the following steps:

•   In the **Task** menu, select **Cancel Application**.

•   Right-click on the task in the **Task Application Queue**, and from the pop-up menu, select **Cancel Application**.

The task icon changes to the "Open" icon, and the task is removed from the T**ask Application Queue**.

Canceling the application of multiple provisioning tasks

Use this procedure to cancel the application of one or more tasks showing in the Task Application Queue.

Prerequisites

This procedure requires that the following condition is met:

• There is more than one task waiting for a provisioning session in the Task Application Queue.

Procedure

1 Complete one of the following steps:

• On the Task menu, click **Cancel Applications**

• Right-click on the task in the **Task Application Queue**, and from the pop-up menu, select **Cancel Applications**.

The **Cancel Applications** dialog box opens. It displays all of the provisioning tasks that have been applied, but are waiting for the provisioning session to be free.
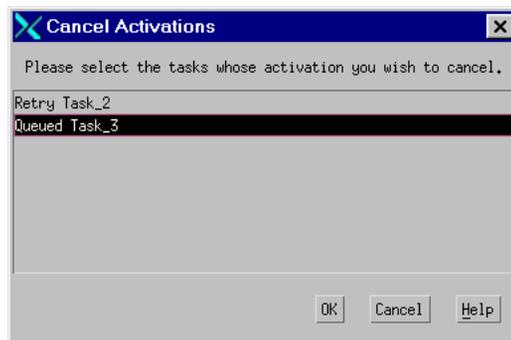
2 Select one or more of the provisioning tasks.

3 Click **OK**.

The **Cancel Applications** dialog box closes. The icons on the selected tasks change to the Open icon, and the selected tasks are removed from the **Task Application Queue**.

Concurrent provisioning conflicts and resolution

See the table "Concurrent provisioning conflicts and resolution" (page 467) for information on identifying and resolving conflicts arising from having one or more persons provisioning at the same time.

Table 49
Concurrent provisioning conflicts and resolution

Conflict condition	Remedial action
Concurrent component creation Two people try to create the same component on the same device, the first person to activate or commit the component creation on the device succeeds. When the second person tries to activate or commit the component creation, the activation fails because the component already exists in the current view or candidate configuration.	The second person can create a different component ID, or remove the component creation action from the task being applied, or create the new change action on the same component.
Concurrent component modification Two people try to modify the same component on the same device, the last person to activate or commit the component modification on the device succeeds. The first person to activate or commit will not know that their modifications may have been lost, and the second person to activate or commit will not know that they may have overwritten another person's changes.	Reduce the chance of concurrent component modification conflict by clicking Refresh on the component modification form as close as possible to the time of activating or committing for that component modification.
(Sheet 1 of 2)	

Table 49 (Continued)
Concurrent provisioning conflicts and resolution

Conflict condition	Remedial action
Concurrent component deletion Two people try to delete the same component on the same device, the first person to activate or commit the component deletion on the device succeeds. When the second person tries to activate or commit the component deletion, the deletion fails.	Remove the component deletion action from the task being applied.
Concurrent service template activation Two people try to create the same service on the same device, the first person to activate or commit the service creation succeeds. When the second person tries to activate or commit the service creation, the service creation may fail if both of the service templates defines the same component creations, deletions, and modifications.	The second person needs to change the component instance IDs that are set in the service template form.

(Sheet 2 of 2)

Error messages

The table "Error messages" (page 470) describes the error messages that you may encounter while using Embedded Nodal Provisioning.

If error messages are encountered during Passport Check Prov, you are asked if you wish to keep the provisioning session open while they fix the problem.

If an attempt to create a service is only partially successful, a Service Creation Errors dialog opens. The provisioning session remains open while the Service Creation Errors dialog is open.

In both cases, as long as the provisioning session is held by the task, the task repair timeout value is used to limit the amount of time you hold onto the provisioning session. If required, you can change the default value for Task Repair timeout. See "Setting user preferences for Embedded Nodal Provisioning" (page 456).

When the timeout value has elapsed, you are prompted to confirm that you still want to hang on the provisioning session. You are given thirty seconds to respond to the prompt. If you do not respond in this time frame, the provisioning session is released and the entire task application fails. Other tasks pending application in the Task Application Queue are not processed until you acknowledge the task failure. At this point, you are given the chance to cancel one or more of the pending applications.

If the provisioning session to the device is lost, Embedded Nodal Provisioning automatically tries to re-establish the connection a specific number of times. If required, you can change the default value for the provisioning session retries. See "Setting user preferences for Embedded Nodal Provisioning" (page 456). If the connection cannot be reestablished, Embedded Nodal Provisioning terminates with an error message.

If Embedded Nodal Provisioning is in the process of applying a task when the server connection is lost, one of the following occurs:

•   If the connection is lost before the new node view is saved or applied, the provisioning changes are lost.

•   If the connection is lost after the new node view is saved, but before it is applied, the provisioning changes are in the saved view, but are not active on the device. You need to manually apply the saved view.

•   If the connection is lost after the new node view is applied, but before the activation or commit is confirmed or, you must manually confirm the activation or commit.

Table 50
Error messages

Error condition	Error message	Remedial action
Cannot connect to the Configuration Manager server. This can occur when you start Passport Shelf View and it cannot connect to the ConfigMan server, or if the connection to the server cannot be established when a provisioning action is initiated from Passport Shelf View.	`Unable to connect to the Configuration Manger Server. Verify that the server is running and that there is no value defined for the server port.`	Check to ensure that Configman, MNSD, and MNSD agent are running.
Connection to the Configuration Manager is lost.	`The connection to the Configuration Manager Server for provisioning has been lost. Verify that the server is running.`	Restart the server, if required.
Semantic check completed with errors during the application of the provisioning task. The actual node semantic check error message is also displayed in this dialog	`Passport semantic check completed with errors. [Passport Check Prov Error Message] This task will not be activated. Do you wish to retain the provisioning session while you repair the problem?`	Click Yes or No to acknowledge the error and to optionally retain the provisioning session while repairing the problem. Click. The Task Repair Timeout is applied to this dialog. The dialog automatically selects No and closes after waiting for the timeout value. You are shown the remaining amount of time before timeout on the "No" button.
(Sheet 1 of 5)		

Table 50 (Continued)
Error messages

Error condition	Error message	Remedial action

Errors from semantic check; provisioning session released.
 	
This message is displayed if the semantic check completed with warnings/ errors during the application of a provisioning task. You selected to release the provisioning session.
	`Passport semantic check`
	`completed with errors.`
	`[Passport Check Prov`
	`Error Message]`
	`This provisioning`
	`session has been`
	`released. Do you wish to`
	`proceed with activation`
	`of the remaining tasks.`
		Click Yes or No to optionally proceed with other task activations in the queue. Until you respond, no other tasks in the Task Application Queue are applied, even though the provisioning session has been released.

Semantic check completed with warnings during the application of a provisioning task. The actual semantic check warning message is also displayed in this dialog.	`Passport semantic check`
	`completed with warnings`
	`[Passport Check Prov`
	`Warning Message]`
	`Do you wish to retain the`
	`provisioning session`
	`while you repair the`
	`problem?`
		Click Yes or No to acknowledge the warning message and optionally retain the provisioning session while repairing the problem. The Task Repair Timeout is applied to this dialog. The dialog automatically selects No and closes after waiting for the timeout value. You are shown the remaining timeout on the No button.

Semantic check completed with warnings during the application of a provisioning task. You selected to release the provisioning session.	`Passport semantic check`
	`completed with warnings`
	`[Passport Check Prov`
	`Warning Message]`
	`The provisioning session`
	`has been released. Do you`
	`wish to proceed with the`
	`activation of the`
	`remaining tasks.`
		Click Yes or No to optionally proceed with other task applications in the queue. Until you respond, no other tasks in the Task Application Queue are applied, even though the provisioning session has been released.

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Table 50 (Continued)
Error messages

Error condition	Error message	Remedial action
Errors encountered while a service is being created on the device	Service Creation errors dialog box opens.	See the procedure "Repairing Passport service creation errors overview" (page 194)
Provisioning servers are unable to connect to the device either to read data from the node or provision data on the device.	Unable to connect to [Passport name] for provisioning.	
Insufficient provisioning privileges on the device	The device authentication dialog box opens.	See the procedure "Starting Embedded Nodal Provisioning" (page 412)
Unable to Create/Modify/ Delete Component because the provisioning actions in the task could not be performed on the current node view	Activation failed for [task name]. Unable to [create/modify/delete] [component name]. [Passport error message]. The task will not be activated. Do you wish to retain the provisioningsession while you repair the problem?	Click Yes or No to acknowledge the application failure and optionally retain the provisioning session while repairing the problem. The Task Repair Timeout is applied to this dialog. The dialog automatically selects No and closes after waiting for the timeout value. You are shown the remaining timeout on the No button.
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Table 50 (Continued)
Error messages

Error condition	Error message	Remedial action
Unable to Create/Modify/ Delete Component because the provisioning actions in the task could not be performed on the current node view. You have chosen to release the provisioning session.	Activation failed for [task name]. Unable to [create/modify/delete] [component name]. [Passport error message]. The provisioning session has been released. Do you wish to proceed with the activation of the remaining tasks?	Click Yes or No to optionally proceed with other task applications in the queue. Until you respond, no other tasks in the Task Application Queue are applied, even though the provisioning session has been released. If a component could not be deleted because it does not exist in the current view, remove the component from the provisioning task. If a component could not be created because if already existed in the current view, remove the component from the provisioning task, or assign another component instance ID to it in the Component Creation form, or change the Add action into a change action. If a component could not be modified because it does not exist in the current view change the component modification action to a component creation action.
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Table 50 (Continued)
Error messages

Error condition	Error message	Remedial action
In a Component Modification form, the Embedded Nodal Provisioning is unable to retrieve the component data from the node, possibly because the component to be modified has been deleted from the current node view.	Unable to refresh the form for [component name]. [Passport error message]	Check if the component to be modified has been deleted from the current node view.
An attribute in an applied task is invalid according to the CDL range and type	An invalid value has been specified for [attribute name] in [provisioning action name]. Enter a value in the valid range and apply the task again.	Enter a valid attribute and tgeb reapply the task.
Internal software error detected in the provisioning window.	An internal software error has occurred in the ENP provisioning window. The provisioning window will now close.	The Embedded Nodal Provisioning window closes. This is unlikely to affect the operation of Passport Shelf View. Only errors affecting the Java virtual machine, such as an out of memory error, will cause Passport Shelf View to shut down.
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Starting other MDM tools from Embedded Nodal Provisioning

Use this procedure to start a selection of other MDM tools from the Embedded Nodal Provisioning window:

Procedure

1   On the **External tools** menu, click one of the following:

- **Nodal Provisioning**

- **Nodal Provisioning Template Editor**

- **Service Provisioning** -> **ATM**

- **Service Provisioning** -> **Frame Relay**

- **Service Provisioning** -> **IP VPN**

- **Service Provisioning** -> **IP VPN Provider Edge**

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Preside Multiservice Data Manager
Nodal Provisioning
User Guide

Release: 15.1RSUP

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