Preside Multiservice Data Manager

Nodal Provisioning

User Guide

241-6001-610

Preside Multiservice Data Manager
Nodal Provisioning
User Guide

Publication history

December 2003

14.3RSUP Standard
Commercial availability

Contents

Chapter 2
Starting Nodal Provisioning   39

Chapter 3
Connecting to a Passport device   51

Chapter 4
Component hierarchy view   63

Chapter 5
Shelf view   79

Chapter 8
Nodal Provisioning procedures **135**

Chapter 12
Report Generator   323

Chapter 13
Nodal Provisioning Log Viewer   **373**

Chapter 14
Embedded Nodal Provisioning 389

About this document

This document describes how to use the Nortel Networks Preside Multiservice Data Manager (MDM) 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 7000, 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 21)

- "Related documents" (page 22)

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 (MDM) Nodal Provisioning application.

What you need to know

This document assumes that you have knowledge of the Preside Multiservice Data Manager (MDM) 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

The following feature was added to this document:

Nodal Provisioning for JVM Support

This feature affects the behavior of minimizing and closing windows. See "Minimizing and closing windows" (page 32).

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

  In MDM, 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:

- 241-5701-060 *Passport 7400, 15000, 20000 Components*

- 241-6001-100 *Preside MDM Installer Guide*

- 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*

- 241-6001-601 *Preside MDM Service Provisioning for IP VPN Global Update User Guide*

- 241-6001-602 *Preside MDM Service Provisioning for CES SVC 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*

- 241-6001-801 *Preside MDM Overview*

Chapter 1
Nodal provisioning overview

For an overview of Nodal Provisioning see the following sections:

- "About Nodal Provisioning" (page 23)

- "Nodal Provisioning functionality" (page 24)

- "Nodal Provisioning architecture" (page 25)

- "Date Convention" (page 31)

- "Using the keyboard" (page 31)

- "Minimizing and closing windows" (page 32)

- "Help options" (page 32)

  — "Accessing Help on the main window" (page 34)

  — "Accessing attribute descriptive help" (page 35)

  — "Accessing Help on dialogs and forms" (page 36)

  — "Accessing attribute range tool tip help" (page 37)

About Nodal Provisioning

Nodal Provisioning is part of the Preside Multiservice Data Manager (MDM).
It provides a graphical user interface (GUI) for provisioning Passport
components and selected services. Nodal Provisioning lets you define, edit
and display service data. Provisioning changes do not affect the operation of
the device until the configuration is activated.

Nodal Provisioning provides service templates for the following:

- ATM access

- VPN FR DTE access

- Frame Relay access

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

- MPLS Infrastructure and Services

Nodal Provisioning functionality

Nodal provisioning provides the following main functions:

- "Component provisioning" (page 24)

- "Service provisioning" (page 24)

- "Service template creation" (page 25)

Component provisioning

You can create and edit components using Nodal Provisioning.

You can add a component to the component hierarchy using a component creation form. You can add multiple instances of a component from a single component creation form. For a description of the component creation form, see the section "Component forms" (page 103)

You can also edit a single component instance using a dynamically generated component edit form. These forms display the attributes that comprise the component. For a description of the component edit form, see the section "Component edit form" (page 104):

Service provisioning

You can create and edit services using Nodal Provisioning.

You can create some services by applying a service template to a valid dropsite in the component hierarchy. This action opens a service creation form which contains the provisionable attributes for the components in the service. Only those attributes that you need to set are visible. All other

component attributes are handled by the provisioning software. The service template form also lets you add multiple instances of a service from a single component creation form.

For additional information, see the following sections:

- for a generic description of the service template form, see the section "Service template form" (page 106)

- 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*.

You can also edit provisioned services, such as ATMIf, using a dynamically generated service edit form.

The service edit form contains all the components in the service, and displays the attributes that you can provision.

> *Note:* Only the services that correspond to a single sub-tree in the component hierarchy can be edited (for example, FRUNI and ATMIF).

For a description of the service form, see the section "Service edit form" (page 108).

Service template creation

You can create and modify your own service templates using 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 219).

Nodal Provisioning architecture

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

- "Nodal Provisioning User interface" (page 28)

- "Configuration Manager (CONFIGMAN)" (page 29)

- "Passport configuration server (PCSERVER)" (page 29)

- "Component model generator" (page 29)

- "Model files" (page 30)

- "Nodal Provisioning Template Editor" (page 30)

For an illustration of the Nodal Provisioning architecture, see the figure "Nodal Provisioning architecture" (page 27).

Figure 1
Nodal Provisioning architecture

PPT 3007 001 AA
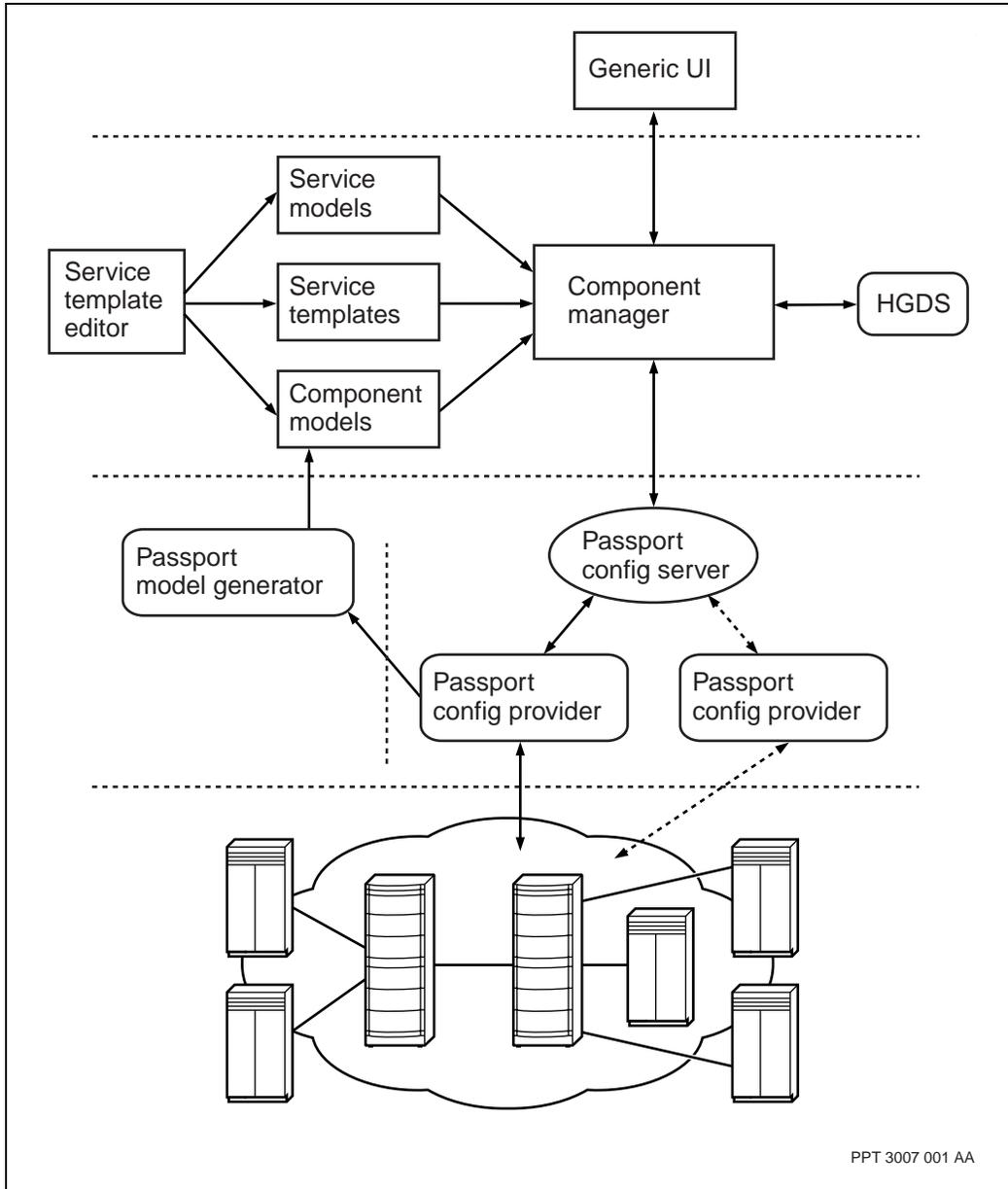
Nodal Provisioning User interface

The Nodal Provisioning user interface is driven by a set of components and service models. It provides the following features:

- device selection

- hierarchical representation of components (referred to as the component hierarchy)

- graphical representation of the physical and logical views of the Passport shelf (referred to as the shelf view)

- component and service provisioning using dynamically generated forms

- cut, copy and paste capability for components and subcomponents, within a device and between devices

- service template creation and modification

- nodal data spreadsheets

- records of user actions

The user interface also provides Passport specific session control:

- authenticating to a Passport device

- opening a Passport view

- saving a Passport view

- activating and committing a Passport view

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

Configuration Manager (CONFIGMAN)

The Configuration Manager (CONFIGMAN) 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 Passport devices.

For additional information on the Configuration Manager, see the Configuration Manager (CONFIGMAN) section in 241-6001-310 *Preside MDM Server Reference Guide*.

Passport configuration server (PCSERVER)

The configuration servers connect to devices and translate configuration requests from the configuration manager to device specific messages and vice versa. For example, the Passport configuration server creates and manages the Passport configuration providers. Each Passport configuration provider provides access to a single Passport device. The Passport configuration provider provides the communication with the Passport and all the functions related to Passport 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 MDM configuration management applications.

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

Component model generator

The component model generator converts device-specific component descriptions to component models that are used by the Configuration Manager and the 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.

Model files

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

- Component model (CM) 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 (HM) contains the hierarchical relationship between components in a device.

- Service model (SM) 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 provides a graphical user interface for creating and modifying service templates based on existing model files. 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).

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

You install and run the Nodal Provisioning Template Editor on the server workstation.

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 000101 represents January 1, 2000.

Using the keyboard

You can use the keyboard instead of the mouse to select a menu command. You can execute a command by using a command accelerator. See the following sections:

• "Mnemonics" (page 31)

• "Command accelerators" (page 31)

Mnemonics

Every menu option in the menu bar has a mnemonic associated with it. The mnemonics are usually the Alt key followed by a single character that uniquely identifies a particular menu item. The single character that selects a given menu item is shown by the underscore under that letter in the name of the menu item.

You can use mnemonics by pressing the Alt key, entering the mnemonic for the menu bar option, and then entering the mnemonic for the entry that you want to use in the menu. For example:

Alt + F + N is the mnemonic for New Device
Alt + F + O is the mnemonic for External Tools

Command accelerators

You can use command accelerators to execute menu commands. The accelerators are usually the control key followed by the first letter of the menu option. For example:

Ctrl + N is the command accelerator for New Device
Ctrl + O is the command accelerator for Open View

Cutting, copying and pasting text

To cut, copy and paste text when using the Nodal Provisioning, you use the cut, copy and paste buttons on the Solaris keyboard.

Minimizing and closing windows

When a window is minimized, all its children windows are minimized. Similarly, when a window is closed, all its children windows are closed as well.

Help options

Help is available in most Preside Multiservice Data Manager (MDM) 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 "Accessing attribute descriptive help" (page 35).

  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 "Accessing attribute range tool tip help" (page 37).

Nodal Provisioning and Nodal Provisioning Template Editor provide various types of help. For information on using the help options, see the following sections:

- "Accessing Help on the main window" (page 34)

- "Accessing Help on dialogs and forms" (page 36)

- "Accessing attribute descriptive help" (page 35)

- "Accessing attribute range tool tip help" (page 37)

Accessing Help on the main window

Purpose

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

1   In the menu bar of the **Nodal Provisioning** window, click **Help**.

2   Select **Help on Window**.

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

Accessing attribute descriptive help

Purpose

Use this procedure to access a pop-up dialog box that provides descriptive information on selected attributes.

Procedure

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 35).

Figure 2
Example of attribute descriptive help
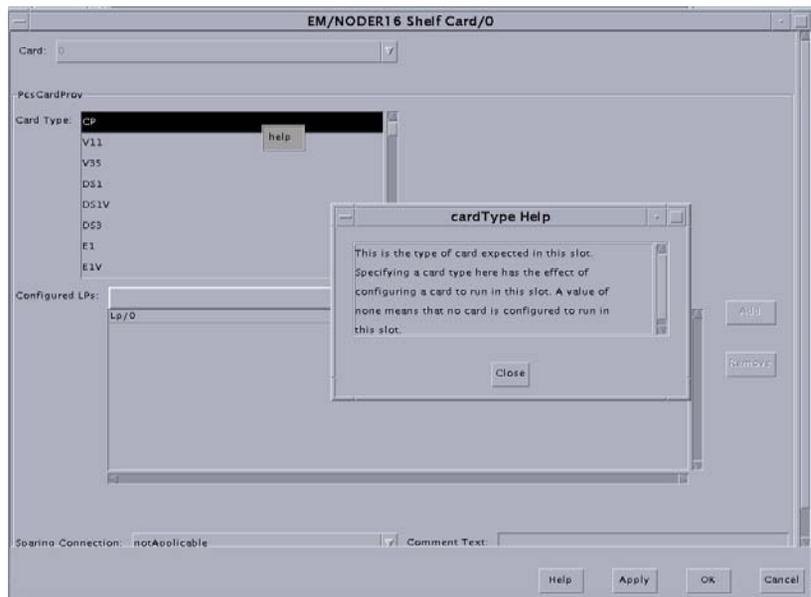
Accessing Help on dialogs and forms

Purpose

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

1   Open a form.

2   Click **Help**.

A window opens with descriptive help for the form.

Accessing attribute range tool tip help

Purpose

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

Procedure

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.

Chapter 2
Starting Nodal Provisioning

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

Overview

On a Preside Multiservice Data Manager (MDM) workstation, you can start Nodal Provisioning without or with component context using the following methods:

- without context

  — Preside MDM window. See "Starting Nodal Provisioning without context from the Preside MDM window" (page 41).

  — Tools menu in the ATM, Frame Relay, and IP VPN Global Update service provisioning tools. See "Starting Nodal Provisioning without context from the service provisioning tools" (page 42).

- with component context from the Start Tool menu in the Fault Management tools. See "Starting Nodal Provisioning with context from the Start Tool menu in the Fault toolset" (page 43).

- command line. See "Starting Nodal Provisioning from a command line" (page 44).

You can start Nodal Provisioning on a workstation that is not running MDM (referred to as the client workstation) from a command line. See "Starting Nodal Provisioning from a command line" (page 44).

If the configuration file contains more than one Configuration Manager server, a dialog box opens asking you to specify a Configuration Manager server.

Once you have started Nodal Provisioning, and before you can provision service data on a Passport node you need to successfully log on to a network destination with a valid userid and password, and open a view. See "Connecting to a Passport device" (page 51).

Starting Nodal Provisioning without context from the Preside MDM window

Purpose

Use this procedure to start Nodal Provisioning without context from the Preside Multiservice Data Manager window.

Procedure

1   From the **Preside MDM** window, select **Configuration** ->**Passport Devices** ->**Nodal Provisioning**.

If more than one Configuration Manager server is specified in the configuration file, a **Select Server** dialog box opens.

Before you can provision a Passport device, you will need to complete the following procedures:

- "Selecting the Configuration Manager server" (page 50)

- the sequence of procedures described in "Connecting to a Passport device" (page 51)

If only one Configuration Manager server is specified in the configuration file, the Nodal Provisioning splash screen opens followed by the **Nodal Provisioning - Device Selection** dialog box. Proceed to complete the sequence of procedures described in "Connecting to a Passport device" (page 51).

Starting Nodal Provisioning without context from the service provisioning tools

Purpose

Use this procedure to launch Nodal Provisioning from the Tools menu in the main window of the following service provisioning tools:

- ATM

- Frame Relay

- IP VPN Global Update

Procedure

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 Global Update tool, see 241-6001-601 *Preside MDM Service Provisioning for IP VPN Global Update User Guide*.

2 In the menu bar of the service provisioning tool window, select **Tools** -> **Nodal Provisioning**.

If more than one Configuration Manager server is specified in the configuration file, a **Select Server** dialog box opens. Before you can provision a Passport device, you will need to complete the following procedures:

- "Selecting the Configuration Manager server" (page 50)

- the sequence of procedures described in "Connecting to a Passport device" (page 51)

If only one Configuration Manager server is specified in the configuration file, the **Nodal Provisioning** splash screen opens followed by the **Nodal Provisioning - Device Selection** dialog box. Proceed to complete the sequence of procedures described in "Connecting to a Passport device" (page 51).

Starting Nodal Provisioning with context from the Start Tool menu in the Fault toolset

Purpose

Use this procedure to start Nodal Provisioning with component context from the Start Tool menu of any of the following Preside Multiservice Data Manager (MDM) Fault tools:

• Network Status Bar

• Network Viewer

• Component Status Display

• Alarm Display

• Component Information Viewer

Note: Since the device is determined from the context, you do not need to select a device. You therefore bypass the procedure for selecting a Passport Device.

Procedure

1   Select a component, and right-click on the component.

2   From the pop-up menu, select **Start Tool** -> **Configuration** -> **Nodal Provisioning**.

If more than one Configuration Manager server is specified in the configuration file, a **Select Server** dialog box opens. Before you can provision a Passport device, you will need to complete the following procedures:

• "Selecting the Configuration Manager server" (page 50)

• the sequence of procedures described in "Connecting to a Passport device" (page 51)

If only one Configuration Manager server is specified in the configuration file, the **Nodal Provisioning** splash screen opens followed by a authentication dialog box. For the procedure to authenticate to a Passport device, see "Authenticating to a Passport device" (page 55).

Starting Nodal Provisioning from a command line

You can start Nodal Provisioning from a command line. You have the following options:

- "Starting Nodal Provisioning from a command line without a device name or component specified" (page 45)

- "Starting Nodal Provisioning from a command line with a device name" (page 46)

- "Starting Nodal Provisioning from a command line with a component name" (page 47)

See also, "Command line options" (page 48) for a description of the command line options.

Starting Nodal Provisioning from a command line without a device name or component specified

Purpose
Use this procedure to start Nodal Provisioning from a command line, but without the device or component options specified.

Procedure
1   Use one of the following commands to start **Nodal Provisioning** from a command line from the client machine or from the machine where the MDM server is located.

`/opt/MagellanNMS/bin/anpui`

The **Nodal Provisioning** splash screen opens, and one of the following occurs:

If more than one Configuration Manager server is specified in the configuration file, a **Select Server** dialog box opens. Before you can provision a Passport device, you will need to complete the following procedures:

- "Selecting the Configuration Manager server" (page 50)

- the sequence of procedures described in "Connecting to a Passport device" (page 51)

If only one Configuration Manager server is specified, the **Nodal Provisioning - Device Selection** dialog box opens displaying a list of managed devices. Proceed to complete the Passport pre-provisioning tasks described in "Connecting to a Passport device" (page 51).

Starting Nodal Provisioning from a command line with a device name

Purpose

Use this procedure to start the nodal provisioning script with a device name specified. Nodal Provisioning opens with device context.

You can start the nodal provisioning script (anpui) without options or with any combination of options. If you do not specify any options and you have predefined user preferences, then Nodal Provisioning uses those preferences to open a provisioning session. If you do specify options, those options override any predefined user preferences. For details about user preferences and how to set them, see "Nodal Provisioning user preferences" (page 205).

If you specify all the options to the script, Nodal Provisioning opens directly, without dialog boxes prompting for authentication and views.

Procedure

1   Use one of the following commands to start Nodal Provisioning with a Passport device name from either the client workstation or the workstation where the MDM server is located.

```
/opt/MagellanNMS/bin/anpui
[-emcomp <passport_node_name>]
[-aut <userid> <password>]
[-loadview <view_mode> <view_name>]
[-access <ro|rw>]
[-configman <host>]
[-help]
```

For example, /opt/MagellanNMS/bin/anpui -emcomp LONDON. For details about the command line options, see "Command line options" (page 48).

If you specify the full options when starting the nodal provisioning script and those options are correct, the Nodal Provisioning window opens. If you did not specify all options, dialog boxes prompt for the required information before opening the Nodal Provisioning window.

Starting Nodal Provisioning from a command line with a component name

Purpose

Use this procedure to start Nodal Provisioning with component context from a command line. When you start the nodal provisioning script with a full component name specified, Nodal Provisioning opens with component context.

You can start the nodal provisioning script (anpui) without options or with any combination of options. If you do not specify any options and you have predefined user preferences, then Nodal Provisioning uses those preferences to open a provisioning session. If you do specify options, those options override any predefined user preferences. For details about user preferences and how to set them, see "Nodal Provisioning user preferences" (page 205).

If you specify all the options to the script, Nodal Provisioning opens directly, without dialog boxes prompting for authentication and views.

Procedure

1   Use one of the following commands to start **Nodal Provisioning** with a component's full path. If you specify a component's full path but no other options, **Nodal Provisioning** uses any predefined user preferences to determine the service data view. The -action option determines how the component displays. You can use this command to evoke Nodal Provisioning from a client workstation or from the workstation where the MDM server is located:

```
/opt/MagellanNMS/bin/anpui
[-emcomp <component_full_path>]
[-aut <userid> <password>]
[-loadview <view_mode> <view_name>]
[-access <ro|rw>]
[-action <select|edit>]
[-configman <host>]
[-help]
```

For example, /opt/MagellanNMS/bin/anpui -emcomp EM/LONDON AtmIf/11. For details about the command line options, see "Command line options" (page 48).

For details about the command line options, see "Command line options" (page 48).

If you specify the full options when starting the nodal provisioning script and those options are correct, the **Nodal Provisioning** window opens. If you did not specify all options, dialog boxes prompt for the required information before opening the **Nodal Provisioning** window.

Command line options

The following options are available when starting the Nodal Provisioning script (anpui) with a device or full component name.

`<passport_node_name>` is the name of the Passport node to which you want to connect.

`<component_full_path>` is the full path of a component that you want to provision. For example, `/opt/MagellanNMS/bin/anpui -emcomp EM/LONDON AtmIf/11`.

`-aut <userid> <password>` is the authentication option. Specify the appropriate authentication user ID and password for the node.

`-loadview <view_mode> <view_name>` is the service data view mode. Possible values for view_mode are commit, current, edit, key, date, or user. If you specify a view_mode value of key, date, or user, then you need to specify the view_name. For example, `/opt/MagellanNMS/bin/anpui -emcomp EM/LONDON -loadview user myView.full.001`.

`-access <ro|rw>` is the access mode when opening a data service view. Access can be read only (ro) or read and write (rw).

`-action <edit|select>` specifies how nodal provisioning opens. `Edit` opens a component form; `select` opens a tree view with the specified component selected. If you do not specify the -action option, Nodal Provisioning uses the component tree display.

`-configman <host>` specifies the configuration manager. <host> is the host workstation.

-help   displays the nodal provisioning command and its associated options. If you specify an incorrect number of arguments for any option, then the help information displays.

Selecting the Configuration Manager server

Select a Configuration Manager server when the configuration file contains more than one Configuration Manager server. When you start Nodal Provisioning and multiple Configuration Manager servers exist, the Select Server dialog box opens automatically. This dialog box displays a list of servers from which you can make a selection.

Procedure steps

1 In the **Select Server** dialog box, select the desired configuration manager sever from the list of servers.
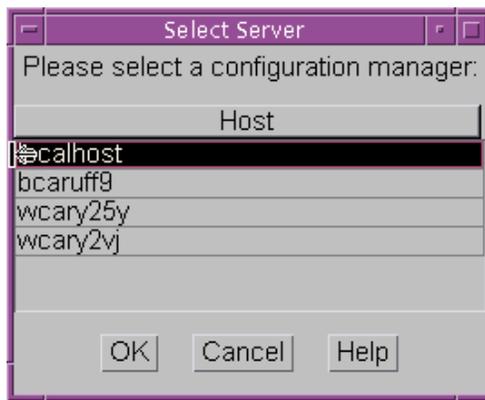
2 Click **OK**.

The **Nodal Provisioning - Device Selection** dialog box opens and displays a list of managed devices.

3 To select and connect to a Passport device, see the section "Connecting to a Passport device" (page 51).

If you have selected a device that is in provisioning mode, an error dialog box opens stating that the selected device is in provisioning mode. You are provided with the option of selecting a new device.

Chapter 3
Connecting to a Passport device

This section describes procedures that you need to perform to connect to a Passport device. For more information, see the following sections:

- "Overview" (page 51)

- "Selecting a Passport device" (page 52)

- "Authenticating to a Passport device" (page 55)

- "Selecting the access mode and view mode" (page 57)

- "Selecting a CDL version" (page 61)

Overview

After you start Nodal Provisioning, you need to complete the following sequence of tasks before the Nodal Provisioning window opens and you can provision a Passport device:

- "Selecting a Passport device" (page 52)

- "Authenticating to a Passport device" (page 55)

- "Selecting the access mode and view mode" (page 57)

In addition, you may need to select a Command Data Language (CDL) version if the model files are not available. See "Selecting a CDL version" (page 61).

Selecting a Passport device

Use this procedure to select the Passport device from a list of available devices. You can specify or select a device directly, or if your network contains a large number of devices, you can expand the dialog box to specify criteria to search on all or a subset of the Passport devices in the network.

Note: The last device to appear in the Device Name field before you click OK is the selected device. Any prior selections are overwritten.

Prerequisites

This procedure requires the following conditions:

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

- if the configuration file contains more than one configuration manager server, you have selected a Configuration Manager

Procedure

1 In the **Nodal Provisioning - Device Selection** dialog, complete one of the following steps:
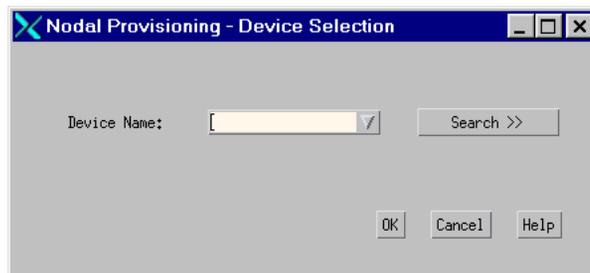
- From the **Device Name** drop down list of devices, select a device. The **Device Name** field is populated with the selected device. Click **OK**.

- Enter the device name directly into the **Device Name** field. As you type the name, the list entry that matches, or partially matches, the input is highlighted. Select a device and click **OK**.

- Click Search to expand the **Nodal Provisioning - Device Selection** dialog box to display the **Additional search capability** panel. Proceed to step 2.
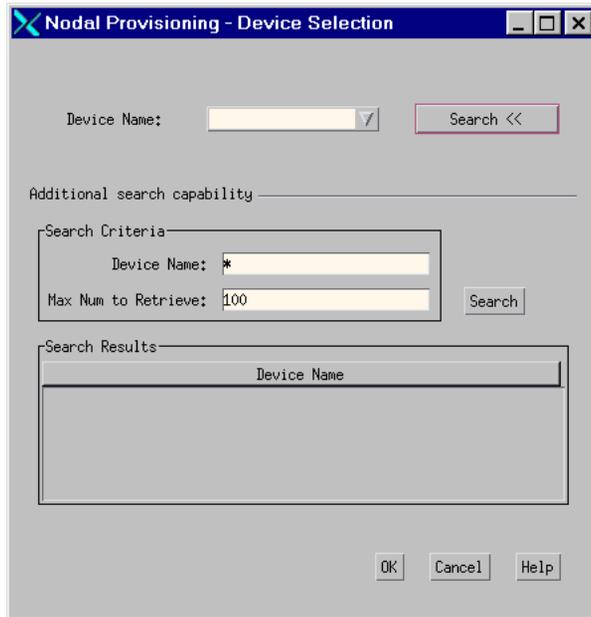
2   Specify the search criteria:

- **Device Name** specifies the device or device name search pattern for retrieval. This field supports wild-card matching.

- **Max Num to Retrieve** limits the number of devices that your retrieve to the number that you enter in this field. The default value is 100.

3   Click **Search** to initiate the search for the device, or devices, based on the specified search criteria.

The **Search Results** panel is populated with the devices that meet the search criteria.

4   In **Search Results** panel, select a device.

The **Device Name** field is populated with the name of the selected device.

5   Click **OK**.

An authentication dialog box opens. Proceed to "Authenticating to a Passport device" (page 55).

Authenticating to a Passport device

Use this procedure and an authentication dialog box to authenticate to the selected Passport device with a valid user ID and password.

Prerequisites

This procedure requires the following conditions:

• Nodal Provisioning is started

• if the configuration file contains more than one configuration manager server, you have selected a configuration manager

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

Procedure

Note: If you have already authenticated, the Username and Password fields are populated with a user name and password. You may need to change this information, or you can proceed directly to step 3.

1   In the **Username** field, type a valid user ID.

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

3   Click **OK**.

If the authentication is successful, the authentication dialog box closes. If the Open View dialog box opens, proceed to "Selecting the access mode and view mode" (page 57).

If the authentication fails, an error dialog box opens with a message describing the authentication problem.

4   The error dialog box gives you the following options:

- **New Device** opens the **Device Selection** dialog box. See "Selecting a Passport device" (page 52).

- **New Password** returns you to the authentication dialog box. Return to step 1.

- **Cancel** closes the error dialog box and returns you to the **Preside MDM** window.

Selecting the access mode and view mode

Use the Open View dialog box and this procedure to change the access mode and Passport view settings.

The Open View dialog opens under the following circumstances:

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

- automatically when you select **File** -> **Open View**

- when you select **File** -> **New Device**, and the **Always Prompt to Open View when opening a new device** is selected in the User Preferences dialog for the Open View dialog box. See "Setting User Preferences for uploading the service data view" (page 208).

If default user preferences have already been preset for the Open View, and these preferences have been saved in the file MagellanNMS/NPUserPreferences.cfg, the Open View dialog opens with these preferences.

If the MagellanNMS/NPUserPreferences.cfg file does not exist, Nodal Provisioning creates the file using the default values, and the Open View dialog opens with the default settings.

Once you change the default settings or the preset settings, your selections are valid for the duration of the provisioning session.

For information on setting user preferences, see the section "Nodal Provisioning user preferences" (page 205).

Figure 3
Open View dialog

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

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

- **Read and Write** lets you modify the service data.

- **ReadOnly** lets you 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** uploads the committed service data view.

- **Current** uploads the current service data view.

- **Edit** uploads the edit service data view. Service data does not preload if you specify Edit mode.

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

If you select...,	then type the following information in the adjacent field.
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
Dated	today, or the date in the format <yymmdd>, where yy is the year, mm is the month and dd is the day. See "Date Convention" (page 31) for more information on the date format. When you enter a date, the service data view with the highest two digit index (nn) is found. When an exact match does not exist, the most recent service data view, relative to the date is used. That is, the dated service data view with the latest date earlier than the given date is opened. When you enter today, the view with today's date, or the view closest to today's date, is opened.
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 Optionally, in the **Other Options** panel, if you wish to turn off automatic preloading, deselect **Preload View**.

Note: **Preload View** is selected by default. This option enables automatic preloading of the Passport service data view whenever users start a provisioning session. This option provides few advantages when the view contains only a few components, or if you need to access only a small number of them.

When preloading is turned off, Nodal Provisioning needs to send requests to upload the service data view from the Passport. It takes time to process these requests, especially when the view contains many components and users need to access many of them.

The **Preload View** option is ignored when you set the open view mode preference to Edit. This is because the Passport provisioning stack needs to retrieve data from the Passport editing view located on the Passport device.

4   Optionally, if you wish to create a log file of the changes made to the Passport service data during a provisioning session, select **Propagation Logging To**.

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.

5   Click **Ok** to accept the access mode and view mode selections and close the dialog. The **Nodal Provisioning** window opens.

Click **Cancel** If you want to close the dialog without applying the changes.

If the Passport 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 190).

If the Passport 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 191).

To proceed with this view, click **Continue**. If you proceed with this view and activate the view, the previous view is destroyed.

Selecting a CDL version

Purpose

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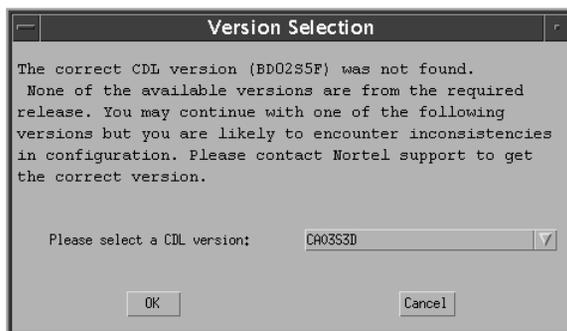
The Version Selection dialog box warns you that the correct CDL version was not found, provides the option to accept the default CDL version, or to select another version, and advises of the potential error conditions that may result from choosing the wrong version.

Procedure

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 4
Component hierarchy view

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

- "Nodal Provisioning window in component hierarchy view" (page 63)

- "Menu bar" (page 67)

- "File menu" (page 67)

- "View menu" (page 68)

- "Selected menu" (page 69)

- "Options menu" (page 72)

- "External Tools menu" (page 72)

- "Help menu" (page 73)

- "Tool bar" (page 74)

- "View area" (page 74)

- "Service template palette" (page 76)

- "Status bar" (page 78)

- "Component hierarchy view pop-up menus" (page 78)

Nodal Provisioning window in component hierarchy view

When you start Nodal Provisioning, the Nodal Provisioning window opens in component hierarchy view.

For information on starting Nodal Provisioning, see"Starting Nodal Provisioning" (page 39).

For Passport devices, you must have selected a device and authenticated before the Nodal Provisioning window opens. For related procedures, see "Connecting to a Passport device" (page 51).

While in component hierarchy view, you can change the view to shelf view at any time. You can also change the user preferences so that you start Nodal Provisioning in shelf view. For additional information on setting user preferences for the main window display, see"Nodal Provisioning user preferences" (page 205).

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

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

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

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 74)

    — "View area" (page 74)

    — "Service template palette" (page 76)

— "Status bar" (page 78)

• For information on navigating in component hierarchy view, see "Navigating component hierarchy and shelf view" (page 111).

• For information on the forms to create and edit components, see "Component forms" (page 103).

• For information on the forms to edit services, see "Service edit form" (page 108).

• For information on the forms to create services, see "Service template form" (page 106).

• For provisioning procedures, see "Nodal Provisioning procedures" (page 135)

• For post-provisioning procedures, see "Post-provisioning procedures" (page 197).

• For information on the Nodal Provisioning Template Editor, and procedures to create service templates, see "Nodal Provisioning Template Editor" (page 219).

• For procedures to set user preferences for the Nodal Provisioning window, and for opening and saving the view, see "Nodal Provisioning user preferences" (page 205).

• For information on creating custom reports, see "Report Generator" (page 323).

• For information on viewing real time log messages produced by Nodal Provisioning processes, see "Nodal Provisioning Log Viewer" (page 373).

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
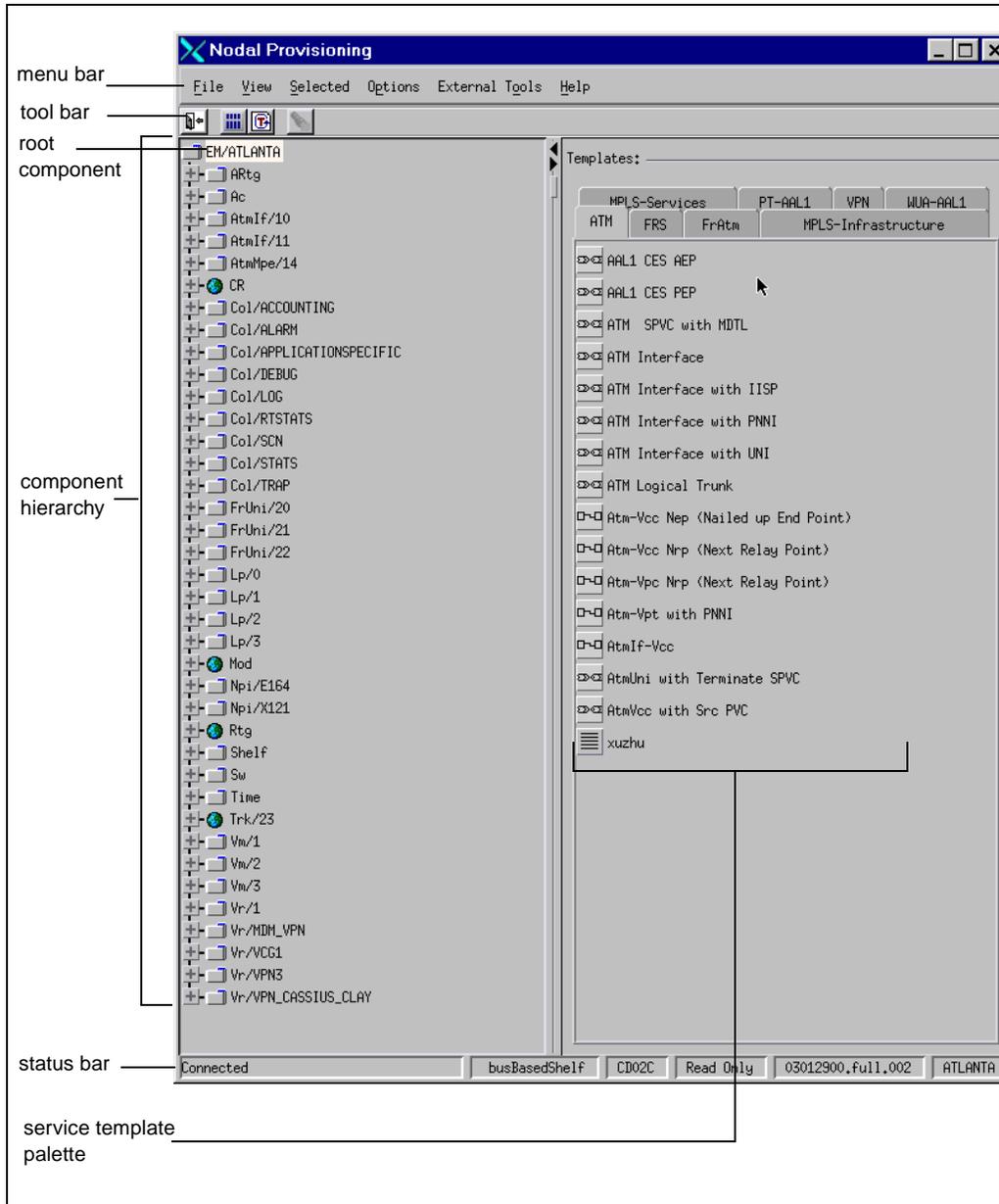
Menu bar

The menu bar has the following menus:

- "File menu" (page 67)

- "View menu" (page 68)

- "Selected menu" (page 69)

- "Options menu" (page 72)

- "External Tools menu" (page 72)

- "Help menu" (page 73)

File menu

The table "File menu commands" (page 67) describes the menu commands.

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

Table 1
File menu commands

Command	Description	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 Passport device" (page 52)
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.	"Selecting the access mode and view mode" (page 57)
(Sheet 1 of 2)		

Table 1 (continued)
File menu commands

Command	Description	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. A Check View dialog box opens specifying whether or not problems were found. If problems are found, they are listed in the dialog box.	"Checking the view during a provisioning session" (page 181)
Close View	Closes the current view. The component hierarchy in the main window becomes unpopulated.	"Closing the current view" (page 112)
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 198)
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 69) describes the menu commands.

Table 2
View menu commands

Command	Description	Related information
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.	"Viewing and saving a record of changes made during a provisioning session" (page 194)
Shelf	Selects or deselects the shelf view.	"Switching between component hierarchy and shelf view" (page 113)
Toolbar	Shows or hides the tool bar.	"Showing and hiding the toolbar" (page 114)
Statusbar	Shows or hides the status bar.	"Status bar" (page 78) "Showing and hiding the status bar" (page 115)
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 318)

Selected menu

The Selected menu provides the commands for component level provisioning as shown in the table "Selected menu commands" (page 70). 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, Copy and Paste menu commands are available.

The same commands are available from a selected component's pop-up menu. For additional information on the pop-up menu, see "Component hierarchy view pop-up menu" (page 75)

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 70) describes the menu commands.

Table 3
Selected menu commands

Command	Description	Related information
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.	"Searching for a component in a large instance set" (page 120)
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.	"Hiding all component instances in a folder" (page 123)
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 138)
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 148)
Delete	Deletes the selected component and all its subcomponents.	"Deleting a component" (page 153)
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 partial semantic check" (page 182)
(Sheet 1 of 3)		

Table 3 (continued)
Selected menu commands

Command	Description	Related information
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.	"Service template form" (page 106) "Creating a service" (page 168)
Hide	Hides the selected component in the parent folder. This command is only available if the parent is a folder.	"Hiding a component instance in a folder" (page 122)
Cut	Opens the cut component dialog box. This dialog box displays the selected component and all of its subcomponents. You select the component or subcomponents that you want to cut. 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.	
Copy	Opens the copy component dialog box. This dialog box displays the selected component and all of its subcomponents. You select the component or 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 155)
(Sheet 2 of 3)		

Table 3 (continued)
Selected menu commands

Command	Description	Related information
Paste	Opens a paste dialog box. This 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 155)
Generate Report	Opens the Report Generator tool which allows you to create custom reports on component data.	"Report Generator" (page 323)
(Sheet 3 of 3)		

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 72) 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 "Nodal Provisioning user preferences" (page 205)

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 73) 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 219).
Service Provisioning -> ATM	Provides a launch point for the ATM service provisioning tool.	For procedures to use the ATM service provisioning tool, see 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide*
Service Provisioning -> CES SVC	Provides a launch point for the CES SVC service provisioning tool.	For procedures to use the CES SVC service provisioning tool, see 241-6001-602 *Preside MDM Service Provisioning for CES SVC User Guide*
Service Provisioning -> Frame Relay	Provides a launch point for the Frame Relay service provisioning tool.	For procedures to use the Frame Relay service provisioning tool, see 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide*
Service Provisioning -> IP VPN Global Update	Provides a launch point for the IP VPN Global Update service provisioning tool.	For procedures to use the IP VPN Global Update service provisioning tool, see 241-6001-601 *Preside MDM Service Provisioning for IP VPN Global Update User Guide*

Help menu

The Help menu provides access to online documentation for the Nodal Provisioning tool. The table "Help menu commands" (page 74) describes the menu commands.

Table 6
Help menu commands

Command	Description	Related information
Help on Help	Describes how to use help.	"Help options" (page 32)
Help on Window	Accesses the online documentation for the Nodal Provisioning window.	"Accessing Help on the main window" (page 34)
About Nodal Provisioning	Opens a screen that displays the Nodal Provisioning version information.	

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 Search dialog box when in component view only. For information on searching for components, see "Searching for a component in a large instance set" (page 120).

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 118).

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 120).

Component hierarchy view pop-up menu

Components in the component hierarchy view have a pop-up menu that corresponds to the menu options in the Selected menu. You can access the pop-up menu by positioning the mouse pointer over the component in the hierarchy and then click the right mouse button. For a description of the pop-up menu commands, see the section "Selected menu" (page 69).

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

- 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 two 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.

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" (page 168) and "Repairing service creation errors overview" (page 183).

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 Passport you are connected to. For example, "fabricBasedShelf" indicates the Passport 15000 family and "busBasedShelf indicates the Passport 7000 family.

- CDL software 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 69).

Chapter 5
Shelf view

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 opens in component hierarchy view. See"Starting Nodal Provisioning" (page 39).

For Passport devices, you must have selected a device and authenticated before the main window opens. See "Connecting to a Passport device" (page 51).

While you are in component hierarchy view, you can change the view to shelf view at any time.

You can also change the user preferences so that you start Nodal Provisioning in shelf view. To set user preferences, see "Nodal Provisioning user preferences" (page 205).

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 125).

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 85)

  — "Tool bar" (page 93)

  — "Shelf panel" (page 93)

  — "Sparing panel" (page 93)

  — "Logical shelf panel" (page 93)

  — "Shelf Details panel" (page 95)

  — "Shelf view pop-up menus" (page 99)

- For navigation in shelf view, see "Navigating component hierarchy and shelf view" (page 111).

- For information on the forms that you use to create and edit components, see "Component forms" (page 103).

- For information on the forms that you use to edit services, see "Service edit form" (page 108).

- For information on the forms that you use to create services, see "Service template form" (page 106).

- For provisioning procedures, see "Nodal Provisioning procedures" (page 135).

- For post-provisioning procedures, see "Post-provisioning procedures" (page 197).

- For information on the Nodal Provisioning Template Editor, and procedures to create service templates, see "Nodal Provisioning Template Editor" (page 219).

- For procedures to set user preferences for the Nodal Provisioning window, and for opening and saving the view, see "Nodal Provisioning user preferences" (page 205).

- For information on creating custom reports, see "Report Generator" (page 323).

- For information on viewing real time log messages produced by Nodal Provisioning processes, see "Nodal Provisioning Log Viewer" (page 373).

For an illustration of the main window in shelf view, see "Main window in shelf view" (page 84).

Figure 6
Main window in shelf view
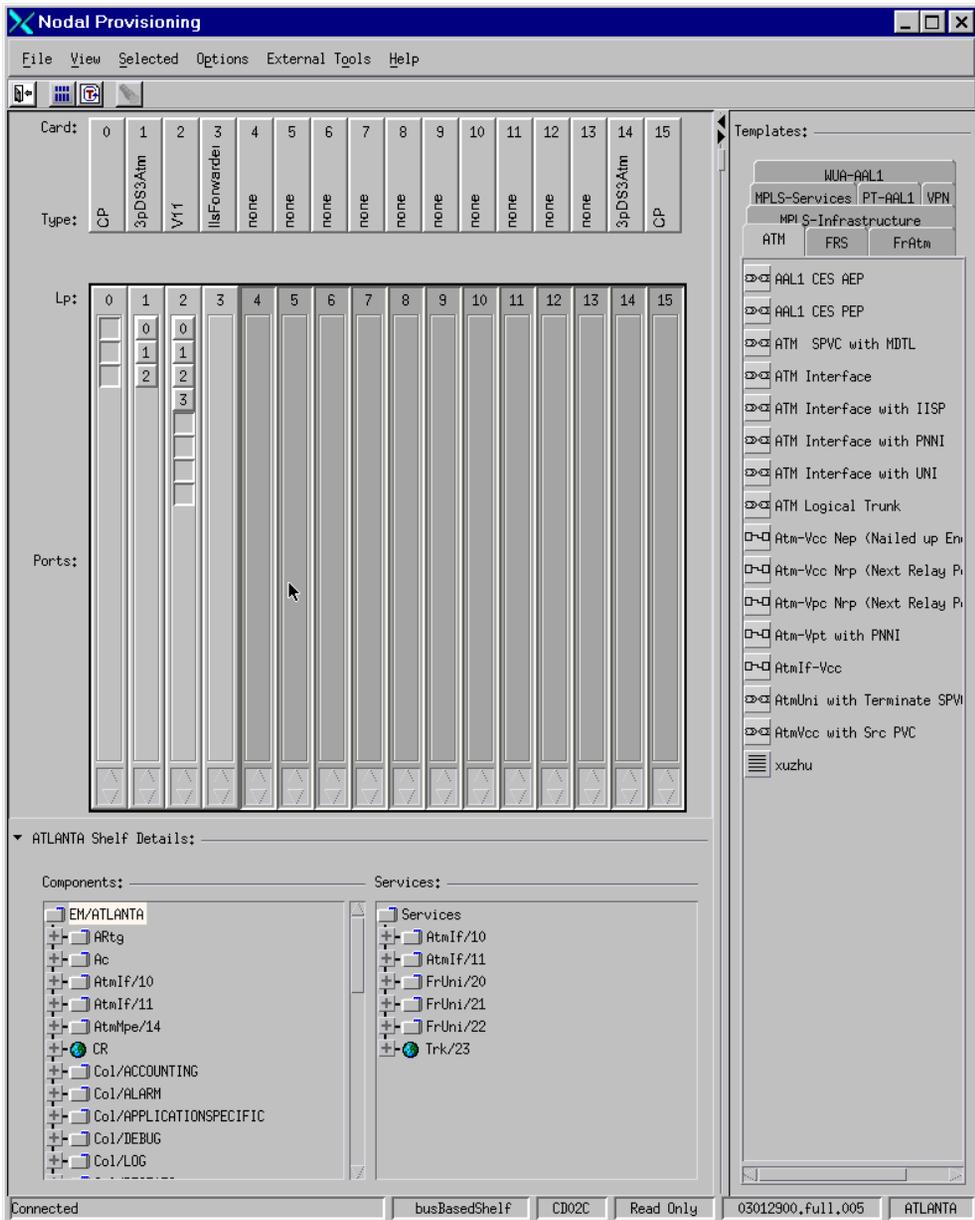
Menu bar

The menu bar has the following menus:

- "File menu" (page 85)

- "View menu" (page 86)

- "Selected menu" (page 87)

- "Options menu" (page 90)

- "External Tools menu" (page 91)

- "Help menu" (page 92)

File menu

The table "File menu commands" (page 85) 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 Passport device" (page 52)
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.	"Selecting the access mode and view mode" (page 57)
(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.	"Checking the view during a provisioning session" (page 181)
Close View	Closes the current view. The component hierarchy in the Nodal Provisioning window becomes unpopulated.	"Closing the current view" (page 112)
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 198)
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 87) 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 194)
Shelf	Selects or deselects the shelf view.	"Switching between component hierarchy and shelf view" (page 113)
Toolbar	Shows or hides the tool bar.	"Tool bar" (page 93)

"Showing and hiding the toolbar" (page 114) |
| Statusbar | Shows or hides the status bar. | "Status bar" (page 99)

"Showing and hiding the status bar" (page 115) |
| 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 318) |

Selected menu

With some exceptions, the Selected menu provides the commands displayed in "Selected menu commands" (page 88). 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 selected component's pop-up menu. For additional information on the pop-up menu, see "Shelf view pop-up menus" (page 99).

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 120)
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 in a folder" (page 123)
(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 138)
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 148)
Delete	Deletes the selected component and all its subcomponents.	"Deleting a component" (page 153)
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 partial semantic check" (page 182)
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" (page 168) "Service template form" (page 106)
Hide	Hides the selected component in the parent folder. The Hide menu item is available if the parent is a folder.	"Hiding a component instance in a folder" (page 122)
(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 155)
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 155)
Generate Report	Opens the Report Generator tool which allows you to create custom reports on component data.	"Report Generator" (page 323)
(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 91) 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.	"Nodal Provisioning user preferences" (page 205)

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 91) 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 225)
Service Provisioning -> ATM	Provides a launch point for the ATM service provisioning tool.	For procedures to use the ATM service provisioning tool, see 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide*.
Service Provisioning -> CES SVC	Provides a launch point for the CES SVC service provisioning tool.	For procedures to use the CES SVC service provisioning tool, see 241-6001-602 *Preside MDM Service Provisioning for CES SVC User Guide*.
(Sheet 1 of 2)		

Table 11 (continued)
External Tools menu commands

Menu command	Description of menu command	Related procedure or information
Service Provisioning -> Frame Relay	Provides a launch point for the Frame Relay service provisioning tool.	For procedures to use the Frame Relay service provisioning tool, see 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide*.
Service Provisioning -> IP VPN Global Update	Provides a launch point for the IP VPN Global Update service provisioning tool.	For procedures to use the IP VPN Global Update service provisioning tool, see 241-6001-601 *Preside MDM Service Provisioning for IP VPN Global Update User Guide*.
(Sheet 2 of 2)		

Help menu

The Help menu provides access to online documentation for Nodal Provisioning. The table "Help menu commands" (page 92) describes the menu commands.

Table 12
Help menu commands

Menu command	Description of menu command	Related procedure or information
Help on Help	Describes how to use help.	"Help options" (page 32)
Help on Window	Opens the on-line documentation for the Nodal Provisioning window.	"Accessing Help on the main window" (page 34)
About Nodal Provisioning	Opens a screen that displays the Nodal Provisioning version information.	

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 94)

• "Graphical port provisioning" (page 94)

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 graphical port display depends on the /opt/Nortel/ANP/lib/ NDCardTypes.ad data file to determine how many ports are on each card type. If the NDCardTypes data file cannot be read, an error dialog opens when the shelf view is first shown. This error dialog informs you that the system cannot read the specified file /opt/MagellanNMS/lib/app-defaults/C/ NDCardTypes.ad.

When this error occurs, the shelf view only displays ports that have been provisioned 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 95)

- "Service drill down panel" (page 96)

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 74).

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 125).

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 125).

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

- 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.

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" (page 168) and "Repairing service creation errors overview" (page 183).

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 Passport you are connected to. For example, "fabricBasedShelf" indicates the Passport 15000 family and "busBasedShelf indicates the Passport 7000 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 that corresponds to the menu options in the Selected menu. You can access 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. For a description of the pop-up menu commands, for components other than unconfigured LPs and ports, see the section "Selected menu" (page 87).

Chapter 6
Nodal Provisioning forms

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

Overview of Nodal Provisioning forms

Nodal Provisioning provides forms to add and edit components. The following are the available component forms and their purpose:

- "Component creation form" (page 103) lets you create a single component instance, or multiple instances of the same component.

- "Component edit form" (page 104) lets you edit a single component instance.

Nodal Provisioning provides forms to add and edit services. The following are the available service forms and their purpose:

- "Service edit form" (page 108) lets you edit a service that corresponds to a component in the component hierarchy.

- "Service template form" (page 106) lets you add a single service, or multiple instances of the same service.

Also see the following sections:

- "Attribute fields for Nodal Provisioning forms" (page 102)

- "Navigating Nodal Provisioning forms" (page 102)

Attribute fields for Nodal Provisioning forms

The fields available on the Nodal Provisioning forms are specific to the component that you select. 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 menu 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

The Nodal Provisioning tool is designed to use the OK button as the default button whenever you hit the Enter key, and the focus is not on OK, Multiple, Cancel or Help. To trigger the Add or Remove buttons, you can move the focus to these buttons and hit the space bar.

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 103)

- "Component edit form" (page 104)

- "Adding a single component instance" (page 138)

- "Editing a component instance" (page 148)

- "Creating multiple instances of a component" (page 175)

Component creation form

A component creation form is dynamically generated when you select a component from the Add Component dialog box to add to a selected component in the component hierarchy. The component creation form displays the provisionable attributes that you can modify for the selected component.

A component creation form lets you add a single component instance, or multiple component instances.

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 component or service" (page 173).

For an example of a component creation form, see the figure "Example of a component creation form" (page 104). This example shows the component creation form that opens when you add a DS1 to Lp/1 for EM/Atlanta.

Figure 7
Example of a component creation form

Component edit form

A component 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 lets you edit the provisionable attributes for the selected component.

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 105). This edit form opens when you edit the DS1/1 component that you created with the component creation form described in "Component forms" (page 103).

Figure 8
Example of a component edit form

Service forms

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

- • "Service template form" (page 106)

- • "Service edit form" (page 108)

Service template form

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 107), 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 component or service" (page 173).

- **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" (page 168)

• 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

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 109) 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" (page 170).

Chapter 7
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 111)

- "Navigating the component hierarchy" (page 117)

- "Navigating the shelf view" (page 124)

Nodal Provisioning window navigation

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

- "Closing the current view" (page 112)

- "Switching between component hierarchy and shelf view" (page 113)

- "Showing and hiding the toolbar" (page 114)

- "Showing and hiding the status bar" (page 115)

- "Detaching and reattaching the template palette" (page 116)

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 component hierarchy and shelf view

Use this procedure to switch between component hierarchy and shelf view while using Nodal Provisioning.

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 hierarchy view or the component hierarchy in the components drill down panel in the shelf view.

- "Expanding a component" (page 118)

- "Compressing a component" (page 119)

- "Searching for a component in a large instance set" (page 120)

- "Hiding a component instance in a folder" (page 122)

- "Hiding all component instances in a folder" (page 123)

- "Detaching and reattaching the component and service hierarchies" (page 125)

Expanding a component

Use this procedure to expand a component hierarchy in the component hierarchy view or the component hierarchy in the components drill down panel in the shelf view display the next level of subcomponents below the selected component.

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

Use this procedure to compress a component in the component hierarchy in the component hierarchy view or in the components drill down panel in shelf view. This procedure hides the next level of displayed sub-components of the selected component.

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.

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

Searching for a component in a large instance set

Use this procedure to search for a specific component instance, or a subset of instances, for large components.

This procedure is necessary when the number of component instances exceeds a pre-defined threshold size, as shown visually in the component hierarchy in both shelf view and component hierarchy view by (x of y). When you expand the parent folder, Nodal Provisioning does not automatically fetch all the instances and add them to the component hierarchy.

Search dialog

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 in either component hierarchy or shelf view.

The results of a search are displayed to the right of the folder. For example, if a search finds 53 instances to add to the tree, the folder displays (53 of 15748).

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.

- Click the search icon in the tool bar.

The **Search** dialog box opens.
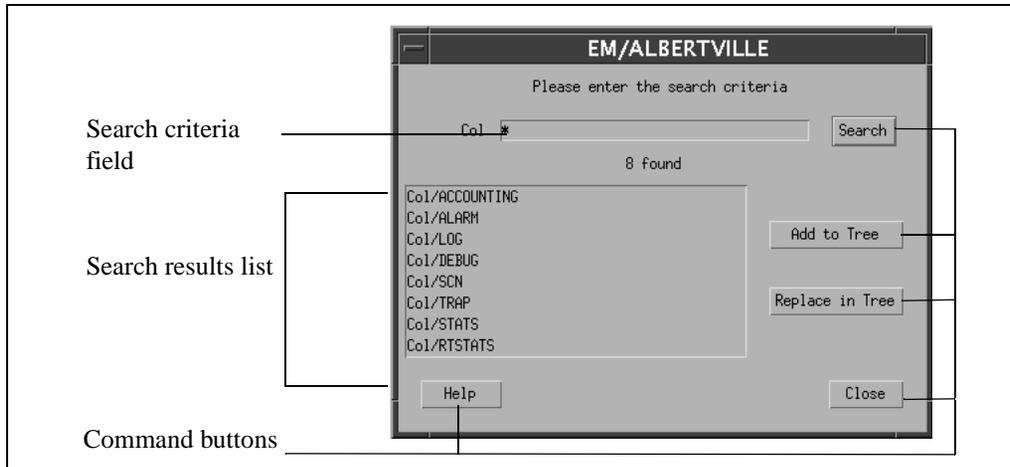
3 Enter the criteria for the search in the search criteria field.

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 component instance in a folder

Use this procedure to hide a single component instance in a folder in the component hierarchy of the component hierarchy view or in the components drill down panel in the shelf view. The Hide command is only enabled for a folder and is disabled 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 in a folder

Use this procedure to hide all component instances in a folder in the component hierarchy in component hierarchy view, or in the component drill down panel of shelf view. The Hide Children command is only enabled for a folder and is disabled 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 shelf view

The following procedures apply only to 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 Nodal Provisioning window in shelf view.

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 shelf view the EM root component (the device) is graphically displayed to the left of the logical processors.

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 shelf component. The shelf component is graphically displayed to the left of the cards in shelf view.

Procedure

1   Select 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 card components. All cards are graphically displayed in the shelf panel.

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 logical processors. Configured logical processors (LPs) are shown graphically in the logical shelf view panel.

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 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.

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 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.

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 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.

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 unconfigured channels in shelf view.

Prerequisites

Channels can only be viewed on ports that have been configured.

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 Nodal Provisioning shelf view.

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 8
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:

Component provisioning procedures overview

See the following sections for component provisioning procedures:

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 component or service" (page 173).

Prerequisites

This procedure requires the following conditions:

• you have started Nodal Provisioning

• you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

• you are in read-write mode

Procedure steps

1 If selecting a component from the component hierarchy in component hierarchy view, or its hierarchical representation in the drill down panels in shelf view, expand the component hierarchy to the parent of the component you want to add. For the procedure to expand a component, see "Expanding a component" (page 118).

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

2 Select the component that you want to provision.

3 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 **Component Name** list contains the components that you can add to the selected component.

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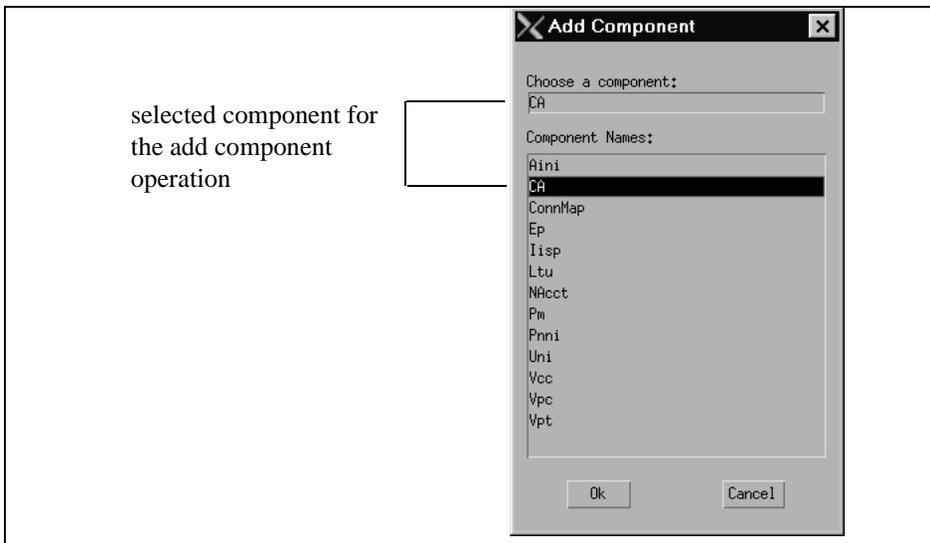
4   From the **Component Name** list, select the component that you want to add.

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

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

Clicking **Ok** opens a component creation form containing the provisionable attributes for the component.

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

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

7   Click **OK** to validate the form and save the current data.

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 197).

Setting a context for a component

Use this procedure to set the context for a selected component in the component hierarchy. Once a context is set for a component, this context can be applied to other components.

Prerequisites

This procedure requires the following conditions:

- you have started Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write mode

Procedure steps

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

2   Right click on the component then select **Set Context.**from the pop-up menu.

    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 started Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write mode

- a context must be set for a component. See "Setting a context for a component" (page 140).

Procedure steps

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

2   Right click on the component then select **Get and Select Context.**from the pop-up menu.

   The name of the context component is highlighted.

Getting a context when opening a new device

Use this procedure to get the context for a new device.

Prerequisites

This procedure requires the following conditions:

- you have started Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write mode

- a context must be set for a component. See "Setting a context for a component" (page 140).

Procedure steps

1   In **Nodal Provisioning** window, select **New Device** from the File menu.

2   In the **Device Selection** dialog, select a device that has the context component.

3   Check the **Launch NP with Context Component** checkbox.

4   Click **OK.**

5   Enter your userid and password.

6   In the **Open View** dialog, select a view that has the context component.

7   Click **OK.**

The name of the context component is highlighted.

Finding and getting a context for a component

Use this procedure to get the context for a component that you have identified in the Find a Component dialog.

Prerequisites

This procedure requires the following conditions:

- you have started Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write mode

- a context must be set for a component. See "Setting a context for a component" (page 140).

Procedure steps

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

2   Right click on a component then select **Find and select a component** from the pop-up menu.

The **Find a component** dialog opens.

3   Right click on the **Component Name** text field and select **Get Context**.

The context component name displays in the **Component Name** text field.

4   Click **OK.**

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 Passport device, for the attribute "featureList". You can select the values that you want to use from the list.

Prerequisites

This procedure requires the following conditions:

- you have started Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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.
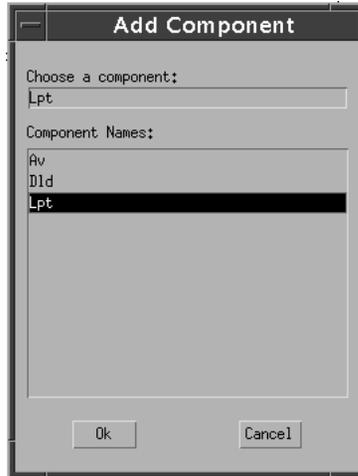
3   Select the Lpt component, and click **Ok**.

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 Passport device.

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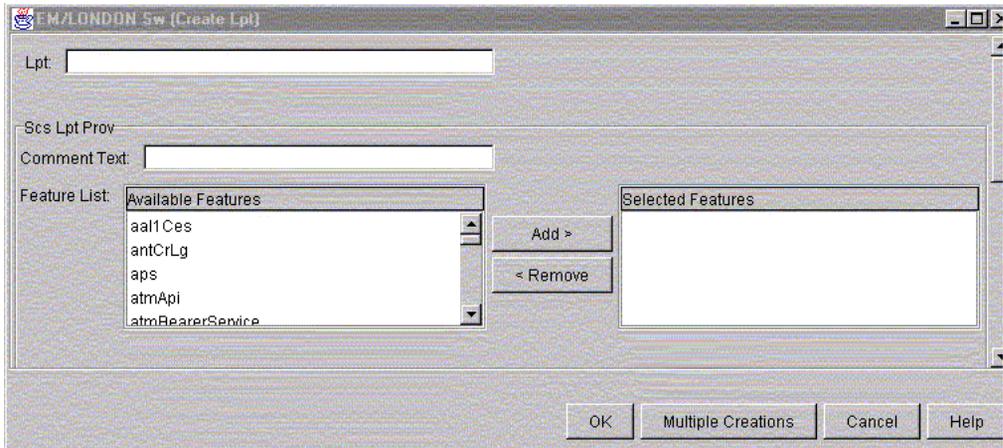
4 To add a new feature to the **Selected Features** list, from the **Available Features** list, select a required feature value and click **Add** or alternatively, double click on the feature value in the **Available Features** list.

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 conditions:

- you have started Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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 component that you want to edit.

    If selecting a component from the shelf view, proceed directly to step 2.

2   Select the component.

3   Complete one of the following steps:

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

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

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

4   Make any necessary 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 198).

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 selected and available candidate values, derived from the Passport device, for the avList attribute. You can modify an existing avList attribute by adding or removing candidate values.

Prerequisites

This procedure requires the following conditions:

• you have started Nodal Provisioning

• you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

• you are in read-write 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.

• In the menu bar, select the **Selected** menu option and then select **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.
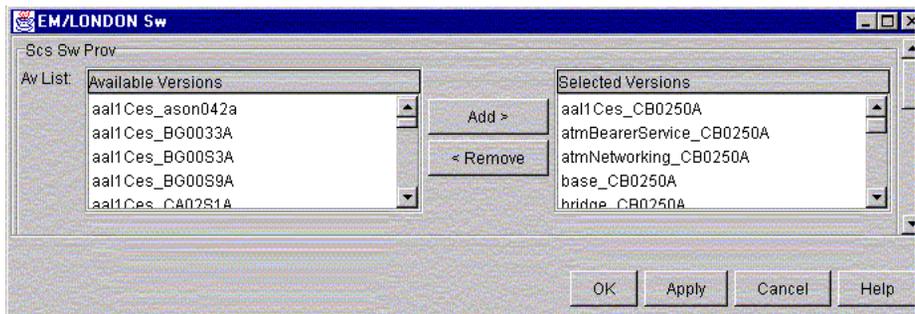
3   To add a value, select a value from the **Available Versions** list and click the **Add** button, or double-click on a value. This step adds this value to the **Selected Versions** list.

   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.

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 Passport device, for the featureList attribute. You can modify an existing featureList attribute by adding or removing candidate values.

Prerequisites

This procedure requires the following conditions:

- you have started Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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. 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 conditions:

- you have started Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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 component that you want to delete. For the procedure to expand a component, see "Expanding a component" (page 118).

If selecting a component from the shelf view, proceed directly to step 2.

2   Select the component.

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**.

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 198).

Cutting, copying and pasting components

You can cut, copy and paste a component, and its subcomponents, within and between supported devices and between shelf and component hierarchy view. The target for the paste operation can be within the same device hierarchy or in a different device hierarchy.

Therefore, you can open two nodal provisioning sessions, cut or copy a component from one session and paste it into the target component of the other session. If the paste is done between sessions, the copied information is stored. Because the information is stored, you can copy a component, delete it and then paste the copied component into a target.

The paste operation checks the paste target to make sure that it is a valid action for the copied component.

> *Note 1:* 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.

> *Note 2:* The client for the cut and copy operations and the client for the paste operation must both be connected to the same Configuration Manager.

The cut and copy and paste functionality is accessed from the Selected menu in the Nodal Provisioning window menu bar or through the pop-up menu in component hierarchy or shelf view. For components that have a graphical representation in shelf view, you can select the component to be copied by clicking on its graphical representation in the shelf view or its hierarchical representation in the drill down panels and then selecting the command from the pop-up menu.

For the procedure to cut and copy components, see "Cutting and copying components" (page 156).

For the procedure to paste components, see "Pasting Components" (page 159).

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 conditions:

- you have started Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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

```
┌─────────────────────────────────────────────┐
│ ✕  Select the Components to be Copied    [✕] │
│  ☑ ⊐ Lp/0                                    │
│     ☑ ⊐ Eng                                  │
│        ☐ ⊐ Ds    ( 5 of 7 )                  │
│           ☐ ⊐ Ds/ACCOUNTING                  │
│           └ ☐ ◇ Ov                           │
│           ☐ ⊐ Ds/ALARM                       │
│           └ ☐ ◇ Ov                           │
│           ☐ ⊐ Ds/LOG                         │
│           └ ☐ ◇ Ov                           │
│           ☐ ⊐ Ds/DEBUG                       │
│           └ ☐ ◇ Ov                           │
│           ☐ ⊐ Ds/SCN                         │
│           └ ☐ ◇ Ov                           │
│                                              │
│                                              │
│   [   OK   ]   [  Cancel  ]   [   Help   ]   │
└─────────────────────────────────────────────┘
```

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 120).

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 sessions, 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 159).

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 have started Nodal Provisioning

*   you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

*   you are in read-write mode

*   you have previously copied a component. See "Cutting and copying components" (page 156).

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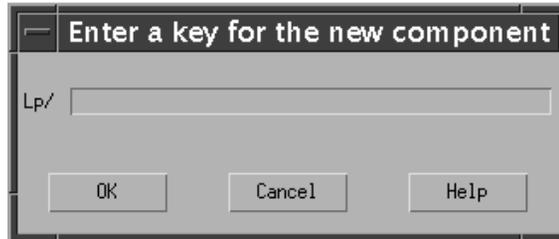
3   Enter an identifier, and click **OK** to initiate the paste operation.

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 service creation errors overview" (page 183).

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 148).

5   Save the view. See "Post-provisioning procedures" (page 197).

Cutting, copying and pasting components between shelf view and component hierarchy view

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

Note 1: 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 have launched the Nodal Provisioning

• you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

• you are in read-write 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 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. Each dialog box displays the selected component and its children.

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

4   Click **OK**.

The device information for the selected components is retrieved.

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.

5   Click the **shelf icon** in the **tool bar** to switch to component hierarchy view or deselect **Shelf** in the **View** menu.

6   In the component hierarchy view, select the target component for the paste action.

7   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**.

   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.

8   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 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 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 service creation errors overview" (page 183).

9   Modify the attributes for the pasted components, as desired. See "Editing a component instance" (page 148).

10 Save the view. See "Post-provisioning procedures" (page 197).

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 conditions:

- you have launched the Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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 197).

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 conditions:

- you have launched the Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)
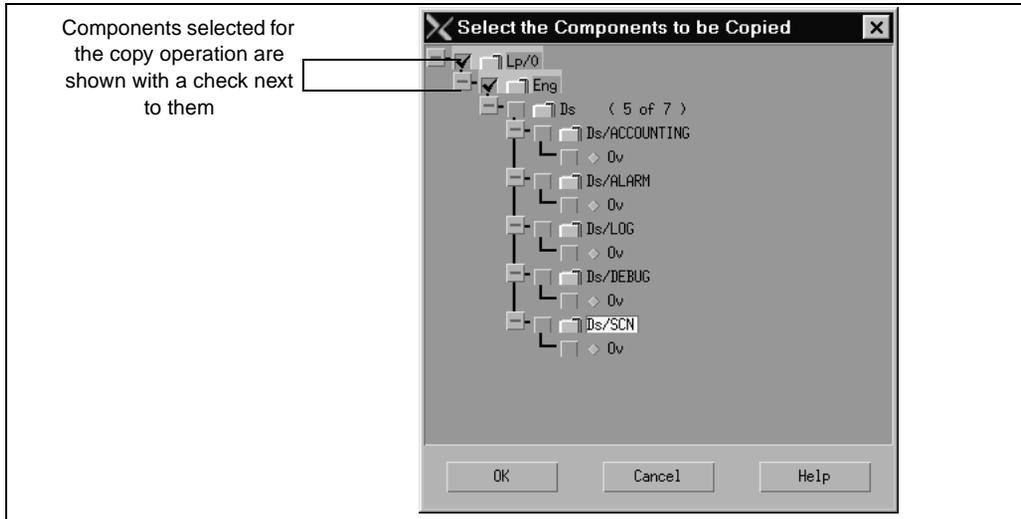
- you are in read-write mode

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 197).

Service provisioning procedures

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

- "Creating a service" (page 168)

- "Editing a service" (page 170)

- "Deleting a service" (page 172)

Creating a service

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 component or service" (page 173).

Prerequisites

This procedure requires the following conditions:

- you have launched the Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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 118).

   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 service creation errors overview" (page 183).

6 Save the view. See "Post-provisioning procedures" (page 197).

Editing a service

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 conditions:

- you have launched the Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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 118).

   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 197).

Deleting a service

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 conditions:

- you have launched Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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 component or service

Nodal provisioning provides the ability to create multiple instances of a 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 173) 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, 8, 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 component" (page 175)

•   "Creating multiple instances of a service" (page 177)

•   "Canceling the current or remaining instances during a multiple creation of components or services" (page 179)

Creating multiple instances of a component

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

Prerequisites

This procedure requires following conditions:

- you have launched Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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 173).

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.

If an error occurs, a service creation error dialog box opens. Correct the error. See "Repairing service creation errors overview" (page 183).

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 service

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

Prerequisites

This procedure requires the following conditions:

- you have launched Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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 173).

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 service creation errors overview" (page 183).

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 components or services

Use this procedure to cancel the creation of a single instance or all remaining component remaining instances during the process of creating multiple instances of a 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 have launched the nodal provisioning tool

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write mode

- you are creating multiple instances of a component or service as described in "Creating multiple instances of a component or service" (page 173) 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.
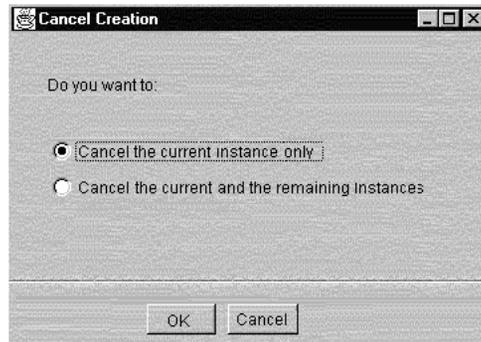
2 In the **Cancel Creation** dialog box, select one of the following options:

- 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 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 are displayed in the Check View dialog box.

Prerequisites

This procedure requires the following conditions:

- you have launched Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write mode

Procedure steps

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

A **Check View** message dialog box opens to indicate that the check view option may take a few minutes. You are asked to confirm that you want to proceed with the check.

2   Click **Yes**.

A **Check View** message dialog opens and displays any errors encountered during the check view operation.

Performing a partial semantic check

Use this procedure to perform a limited check for semantic errors under a selected component. Any semantic errors or warnings encountered during the partial semantic check operation are displayed in the Check View dialog box.

Prerequisites

This procedure requires the following conditions:

- you have launched Nodal Provisioning

- you are connected to the Passport device. See "Connecting to a Passport device" (page 51)

- you are in read-write 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 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 activation of more than one provisioning task" (page 482). 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 186).

Figure 11
Service Creation Errors dialog box
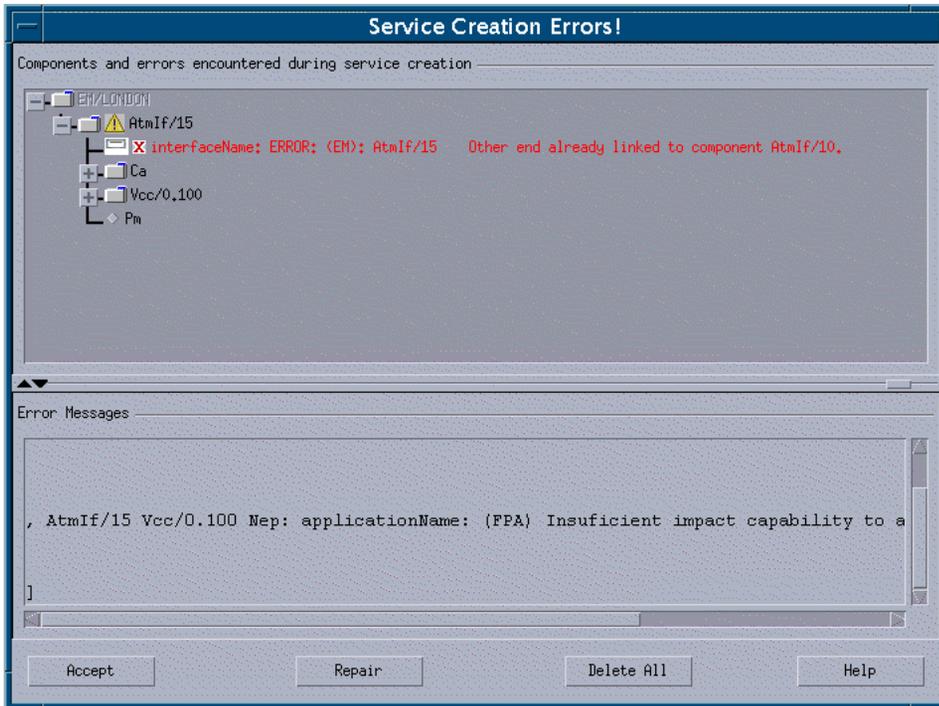
The **Components and errors encountered during the service creation**
panel displays the errors in component hierarchy format. It shows visually the
following:

- 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 187).

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 service creation errors

Use this procedure to correct 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 journaled 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 Passport. 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".

```
 ──┬─────────────────────────────┬──
 │ Open View Warning             │ ▪ │
 ├───────────────────────────────┴───┤
 │                                    │
 │     Passport indicates that the    │
 │     previous "current view" need to│
 │     be restored.                   │
 │      - To restore the view, please │
 │     select "Close View" and follow │
 │     the procedure described in     │
 │  ☝  "Help".                        │
 │                                    │
 │     - You may proceed with this view;│
 │     however, any subsequent        │
 │     activation will destroy the    │
 │     previous "current view".       │
 │                                    │
 │                                    │
 ├────────────────────────────────────┤
 │  ┌──────────┐ ┌──────────┐ ┌──────┐ │
 │  │Close View│ │ Continue │ │ Help │ │
 │  └──────────┘ └──────────┘ └──────┘ │
 │                                    │
 └────────────────────────────────────┘
```
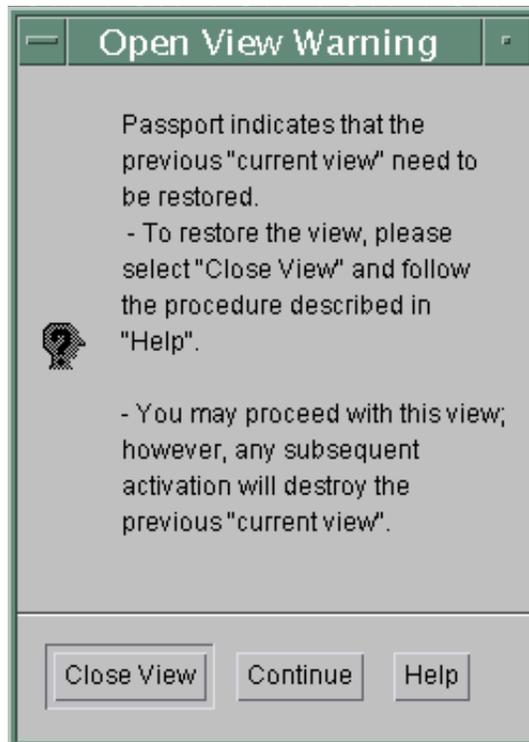
2   Confirm that the display prov restorePossible command is set to yes.

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   In the **Open View 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".

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
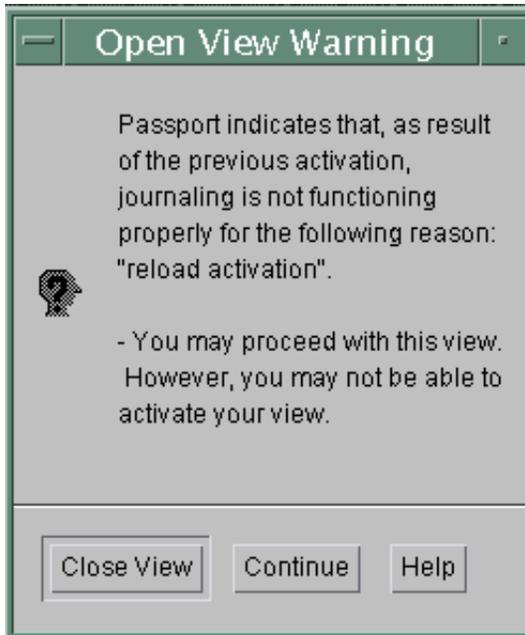
2   Query the attribute journalDisabledReason.

To determine if the FileSystem 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 the operator should ensure that the file system is not locked. If it is locked, the file system should be unlocked. Otherwise the operator should look for the file system or disk alarms to determine the root cause of the failure. Once the root cause is determined and fixed, the operator should re-commit to clear this alarm.

For any other value of journalDisabledReason, the user should re-commit the current provisioning view, as this will 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.

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.

```
┌─────────────────────────────────────────────┐
│  ─              History File            ▫  □ │
├─────────────────────────────────────────────┤
│                                               │
│  Enter path or folder name:                   │
│  /local/users/nmguest                         │
│                                               │
│  Filter                      Files            │
│  *                      ▼    &.viewfilelist   │
│                              adb              │
│  Folders                     browser.config   │
│  ..                          config.cfg       │
│  ALBERTVILLE                 core             │
│  BERLIN                      demo             │
│  jll                         demo_code        │
│  LAKEPLACID                  demo_demo        │
│  MagellanNMS                 device.cfg       │
│  mnt_pnt                     dpnmcdf          │
│  nms                         EMECLIRRENTEMINDEX│
│  NODER16                                      │
│                                               │
│  Enter file name:                             │
│  demo_demo                                    │
│                                               │
│  ┌──────┐  ┌────────┐  ┌────────┐  ┌──────┐  │
│  │ Save │  │ Update │  │ Cancel │  │ Help │  │
│  └──────┘  └────────┘  └────────┘  └──────┘  │
└─────────────────────────────────────────────┘
```

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.

Chapter 9
Post-provisioning procedures

This section describes post-provisioning procedures. It contains the following sections:

- "Saving the view for Passport devices" (page 198)

- "Activating and Committing the View for Passport devices" (page 202)

Saving the view for Passport devices

Use this procedure to save the service data view after completing a provisioning session on a Passport device.

You use the Save/Activate View dialog box to 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 202).

 If you have selected default user preferences for the Save/Activate View and saved these preferences to the file MagellanNMS/NPUserPreferences.cfg, Nodal Provisioning uses these preferences for subsequent provisioning sessions. For the procedure to set your user preferences for the Save View dialog box, see "Setting user preferences for saving and activating the service data view" (page 211).

 If you do not have write access to a home directory, as is the case with remote login, the Nodal Provisioning opens without user preferences and displays the Save/Activate View dialog box from which you can specify your preferences for the service data view.

If the MagellanNMS/NPUserPreferences.cfg file does not exist, Nodal Provisioning creates the file using the default values.

Procedure steps

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

```
┌──────────────────────────────────────────────────┐
│ ▬ │        Save/Activate View — ATHENS            │
├──────────────────────────────────────────────────┤
│                                                    │
│  Check View ─────────────────────────────────     │
│                                                    │
│   ☑ Check                    Type:  complete  │▽│  │
│                                                    │
│  Save View ──────────────────────────────────     │
│                                                    │
│   ☑ Save                     Type:  portable   │▽│ │
│                                                    │
│                                                    │
│  Same As Opened View N...  │▽│  DIEUAI06   Bro...  │
│                                                    │
│  Activate View ──────────────────────────────     │
│                                                    │
│   ☐ Activate                                       │
│                                                    │
│  Commit View ────────────────────────────────     │
│                                                    │
│   ☐ Commit                                         │
│                                                    │
│                           OK    Cancel    Help     │
└──────────────────────────────────────────────────┘
```
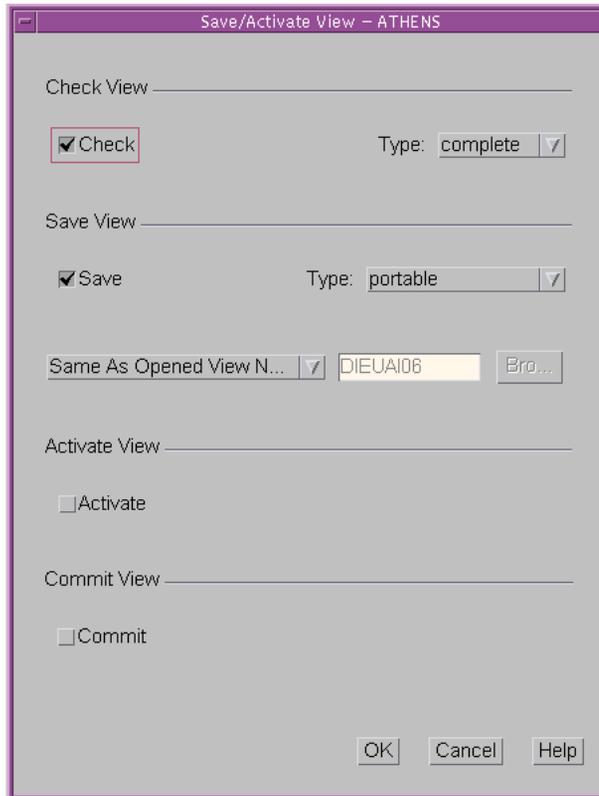
2   If you wish to check the view, retain the **Check View** option.

The adjacent drop down list is enabled.

Note: When journaling is enabled, you can activate the Passport device without saving the view. However, a complete check is required for activating the provisioning view.

Deselect **Check View** to bypass the check operation. The adjacent combo box is disabled.

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 Passport 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 Passport device:
  String = check -stoponerror prov

Since the stopOnError is specified implicitly, the Passport 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 type a date in the format yymmdd where yy is the year, mm is the month and dd is the day. When you enter a date, the service data view with the highest two digit index (nn) is found and the next view in the sequence is created, in the format <yymmdd><nn>. For example 03012901. See "Date Convention" (page 31) for more information on the date format. When you enter **today**, the view is saved with today's date, in the format yymmd<nn>.

- 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

incremented 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 202).

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 Passport without saving the view when journaling is enabled on the Passport 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.
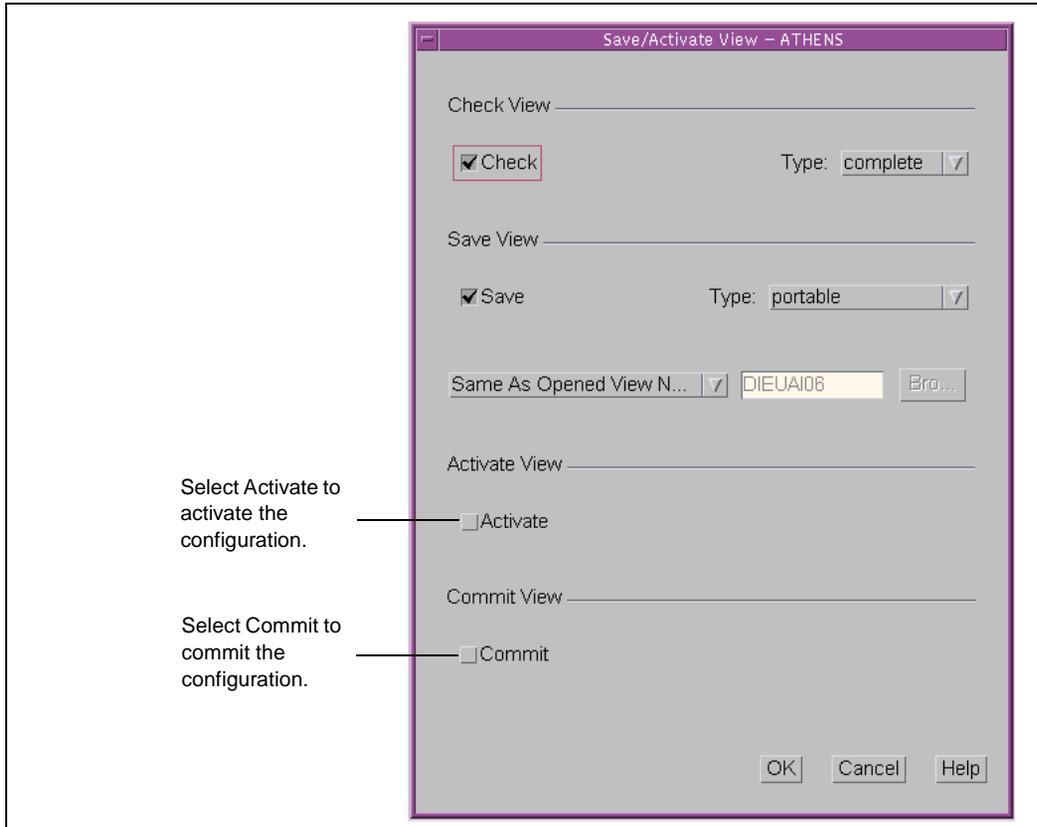
2   If you want to commit the view, select **Commit**. The default is unchecked.

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 191).

- restorePossible. For the procedure to resolve a restorePossible condition, see "Resolving a restorePossible error condition" (page 190).

Chapter 10
Nodal Provisioning user preferences

This section provides information and procedures on setting user preferences in Nodal Provisioning. This section contains the following topics:

- "User preferences overview" (page 205)

- "Setting User Preferences for uploading the service data view" (page 208)

- "Setting user preferences for saving and activating the service data view" (page 211)

- "Setting user preferences for the Nodal Provisioning window" (page 215)

User preferences overview

You can modify user preferences after you start Nodal Provisioning. You use the User Preferences dialog box to select default settings and save them to a file for the following items:

- Open View dialog box

- Save/Activate View dialog box

- Nodal Provisioning window

The User Preferences dialog box lets you specify your preferences for the following items when you upload the service data view:

- access mode

- view mode

- the option to preload the Passport service data view whenever a provisioning session begins

- the option to create a log file of the changes made to the Passport service data during a provisioning session

- the option to always prompt to open the view

For the procedure to set user preferences for opening a service data view, see "Setting User Preferences for uploading the service data view" (page 208).

The User Preferences dialog box lets you select the following preferences for saving the service data view:

- options for checking the view

- format for the save view

- options for activating the view

- the option to always prompt to save the view

For the procedure to set user preferences for saving the service data view, see "Setting user preferences for saving and activating the service data view" (page 211).

The User Preferences dialog box lets you select the following options for the Nodal Provisioning window:

- the maximum number of components to display in the component hierarchy

- the look and feel of the Nodal Provisioning window

- the option to open the window in component hierarchy view or shelf view

For the procedure to set user preferences for the Nodal Provisioning window, see "Setting user preferences for the Nodal Provisioning window" (page 215).

User preferences are stored in your home directory in an XML file, MagellanNMS/NPUserPreferences.cfg.

When you start a nodal provisioning session, Nodal Provisioning to see if the MagellanNMS/NPUserPreferences.cfg file exits. If the file exists Nodal Provisioning uses the preferences specified in this file. If the file does not exist, Nodal Provisioning creates the file using the default values. If you do not have write access to a home directory (for example, a remote log in), Nodal Provisioning displays the Open View and Save/Activate View dialog boxes from which you can specify your preferences.

When you save the user preferences to a file, these preferences take effect in the next action of the current provisioning session. You are prompted to save the changes. If multiple provisioning sessions occur on one switch using the same user ID, then the NPUserPreferences.cfg file will contain the last saved user preferences.

You cannot modify the MagellanNMS/NPUserPreferences.cfg file using a text editor. You can only modify this file through the User Preferences dialog box.

Setting User Preferences for uploading the service data view

Use the Open View pane in the User Preferences dialog box to specify the following preferences:

- how service data views will be uploaded by Nodal Provisioning. This includes the access and view modes.

- whether to enable the following options:

  — preloading the service data view

  — propagation logging

  — prompting to open the view

Procedure steps

1   In the menu bar of the **Nodal Provisioning** window, select **Options -> User Preferences**.

The **User Preferences** dialog box opens. The dialog box has three tabbed panes -- **Open View**, **Save/Activate View**, and **General**. The dialog box opens with the **Open View** pane visible.

Select the Open
View tab to set
user preferences
for the Open View
dialog box.
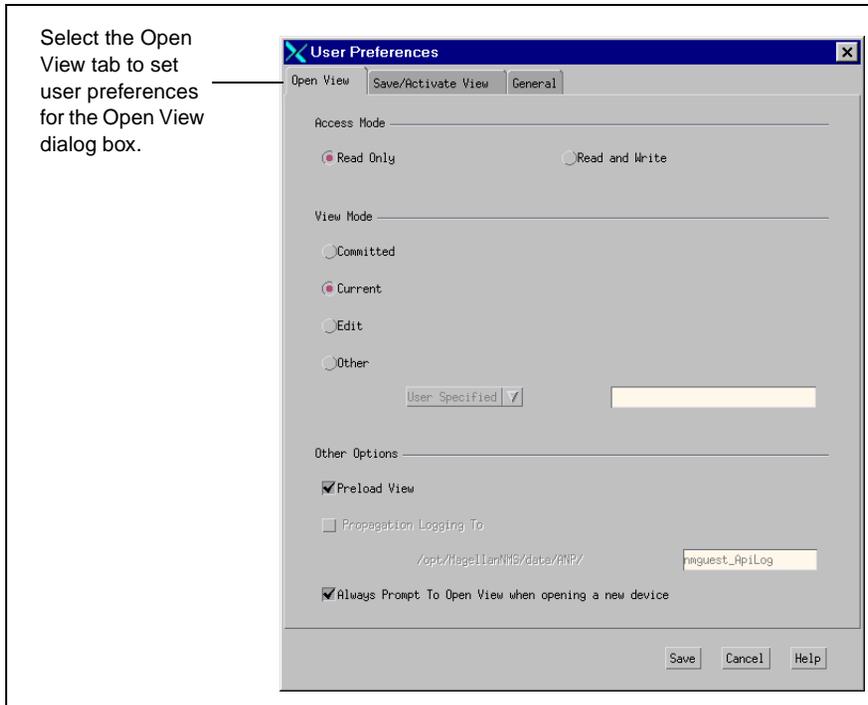
2   In the **Access Mode** panel, select one of the following access mode
options:

- **Read Only** restricts you to viewing service data. You cannot update
  the service data.

- **Read and Write** is selected by default. **Read and Write** lets you
  update or modify the service data.

3   In the **View Mode** panel, select one of the following options to specify the
type of service data to open:

- **Committed** uploads the committed service data view. The
  committed view is the view Passport uses when the node restarts.

- **Edit** uploads the edit service data view. The edit view is the view that
  you are currently modifying. It can potentially become the next
  current view.

- **Current** uploads the current service data view. The current view is the configuration that is currently running on your node.

- **Other** provides you with additional options for opening the view. The default is **Keyed**. You can select **Keyed**, **Dated,** or **User Specified** from the drop down list.

4   In the **Other Options** panel, select one of the following additional options:

- **Preload View** loads the Passport service data view whenever a provisioning session begins. By default, the **Preload View** option is enabled. Enabling this option is advantageous if the view contains many components and you need to access a large number of them. You don't need to enable this option if the view contains a small number of components, or if you need to access only a small number of components in a large view. If you set the view mode preference to **Edit**, the **Preload View** option is ignored.

- **Propagation Logging To** creates a log file of the changes made to the Passport service data 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 with the specified file name. 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 **Log File Name**.

- **Always Prompt to Open View when opening a new device**
  This option determines whether the **Open View** dialog box with the user preference values displays when you select **File** -> **New Device** in the Nodal Provisioning window.

5   Click **Save** to save your user preferences.

Save saves the preferences to your home directory in the file ~/ MagellanNMS/NPUserPreferences.cfg and closes the dialog box. A confirmation dialog box opens indicating that the user preferences will take effect in the next action of the current provisioning session and asking if you want to save the changes. Proceed to step 6.

If you wish to cancel the operation, click **Cancel**. The **User Preferences** dialog box closes without saving your changes.

6   In the confirmation dialog box, click **Yes** to confirm the changes.

Setting user preferences for saving and activating the service data view

Use the Save/Activate View panel in the User Preferences dialog box to set the user preferences for the Save/Activate View dialog box. You can specify the following preferences for saving the service data view:

• check view options

• format for saving the view

• activation and commit options

• option to always prompt to save the view

Procedure steps

1   In the menu bar of the **Nodal Provisioning** window, select **Options** -> **User Preferences**.

The **User Preferences** dialog box opens displaying preferences that you can change. The dialog box has three tabbed panes -- **Open View**, **Save/ Activate View**, and **Genera**l. The dialog box opens with the **Open View** pane visible.

2   Select the **Save/Activate View** tab.

Select the Save/Activate View tab to set user preferences for the Save/Activate View dialog box.
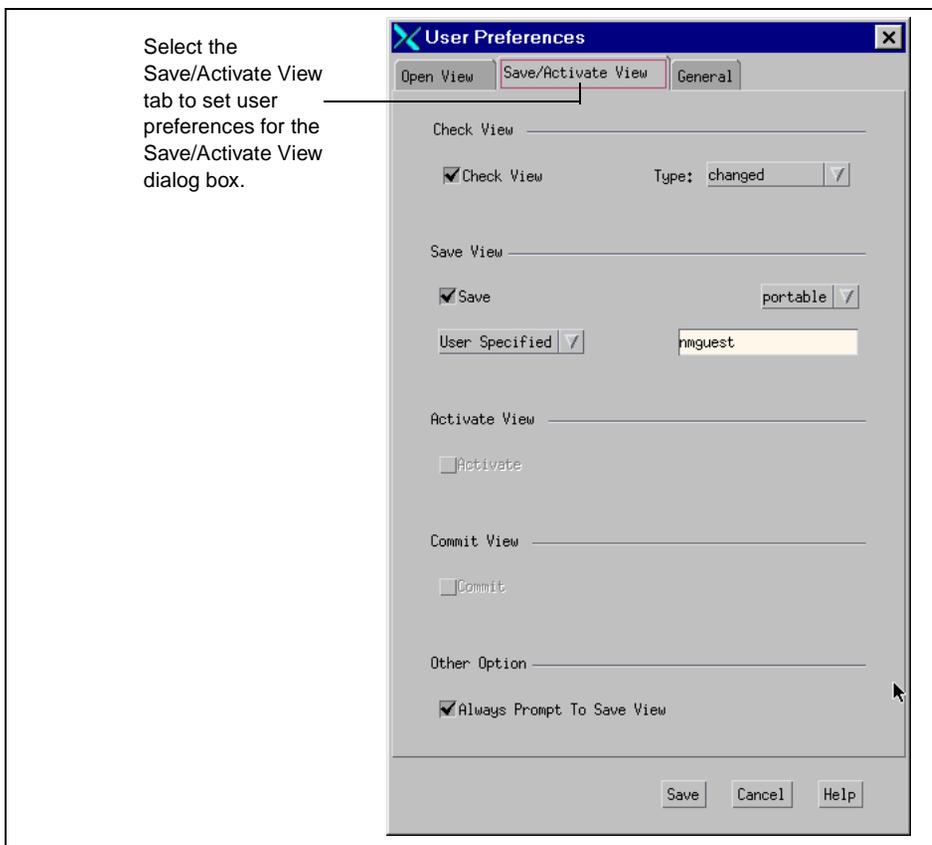
3 In the **Check View** panel, select the type of check from the drop down list. By default **Check View** is selected when you open the **User Preferences** dialog box. The following check view options are available from the adjacent drop down list:

- **changed** only checks the changes made to the view.

- **complete** is the default option. When you select this option, the complete view is checked.

If you do not want a check of the provisioning view, you can deselect the **Check View**.

If you wish to activate, the service data view should be completely checked before saving.

4   In the **Save View** panel, select **Save,** and then select the format for the saved data view file. You have the following options:

- Selecting **ascii** saves the data view file in ASCII format.

- Selecting **delta** saves the data view file in delta format.

- By default the data view file is saved in **portable** format.

- Selecting **portable and ascii** saves the data view file in both portable and ascii formats.

5   Specify the method for naming the new service data view when a save occurs. You can select Keyed, Dated, User Specified, or Same as Opened View from the

- **Keyed**. In the adjacent text field, type a key, 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.

- **Dated**. In the adjacent text field, 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 enter a date, the service data view with the highest two digit index (nn) is found and the next view in the sequence is created, in the format <yymmdd><nn>. For example 03012901. See "Date Convention" (page 31) for more information on the date format. When you enter **today**, the view is saved with today's date, in the format yymmd<nn>.

- **User Specified**. You need to type a view name in the adjacent field. Nodal Provisioning saves the service data view according to a user-specified view name.

- **Same As Opened View Name**. When you select this option, the adjacent text field is disabled.

6   In the **Activate Option** panel, select **Activate** to activate the view.

7   In the **Commit View** panel, select **Commit** to commit your view

There are no default settings for **Activate View** or **Commit View**.

8   If you do not want to be prompted to save the view, in the **Other Options** panel, deselect **Always Prompt to Save View**.

By default, the **Always Prompt to Save View** is selected.

9   Click **Save** to save your user preferences.

Save saves the preferences to your home directory in the file ~/ MagellanNMS/NPUserPreferences.cfg and closes the dialog box. A confirmation dialog box opens asking you to confirm that the changes will apply to the next action of the current provisioning session.

Click **Cancel** if you wish to cancel the operation.The **User Preferences** dialog box closes without saving your changes.

10   In the confirmation dialog box, click **Yes** to confirm the changes.

Setting user preferences for the Nodal Provisioning window

You set the user preferences for the appearance of the Nodal Provisioning window in the General pane of the User Preferences dialog box. You can select the following preferences for the Nodal Provisioning window:

•   maximum number of component instances to display in the component hierarchy

•   view presentation

Procedure steps

1   In the menu bar of the **Nodal Provisioning** window, select **Options** -> **User Preferences**.

The **User Preferences** dialog box opens displaying preferences that you can change. The dialog box has three tabbed panes -- **Open View**, **Save View**, and **General**. The dialog box opens with the **Open View** pane visible.

2 Select the **General** tab.

Select the General tab to
set user preferences for the
Nodal Provisioning window.

```
┌─────────────────────────────────────────────────┐
│ ╳ User Preferences                            ✕   │
│ ┌─────────┬──────────────────┬─────────┐         │
│ │Open View│ Save/Activate View│ General │         │
│ │         └──────────────────┴─────────┘         │
│                                                   │
│                                                   │
│                                                   │
│                                                   │
│                                                   │
│                                                   │
│       Max Instances:              │50          │  │
│                                                   │
│                                                   │
│       View Presentation ─────────────────────    │
│                                                   │
│                                                   │
│         ● Tree                      ○ Shelf       │
│                                                   │
│                                                   │
│                                                   │
│                                                   │
│                                                   │
│                                                   │
│                         │Save│ │Cancel│ │Help│    │
└───────────────────────────────────────────────────┘
```
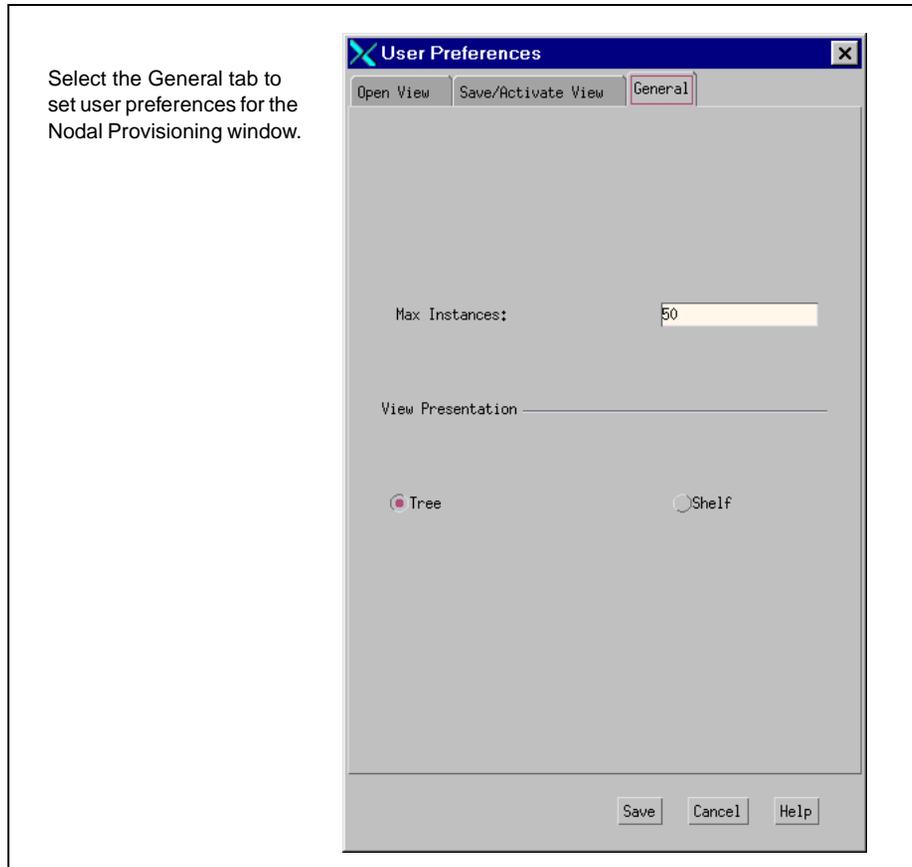
3 In the **Max Instances** field, specify the maximum number of component instances to display in the component hierarchy in the **Nodal Provisioning** window. The default value is 50.

4 In the **View Presentation** panel, select how you want the **Nodal Provisioning** window to display when you restart **Nodal Provisioning**. You have the following options:

- **Tree** is the default setting. When you select this option, the **Nodal Provisioning** window displays the component hierarchy view.

- **Shelf** displays the **Nodal Provisioning** window in shelf view.

5   To save your user preferences, click **Save**.

Save saves the preferences to your home directory in the file ~/ MagellanNMS/NPUserPreferences.cfg and closes the dialog box. A dialog box opens asking you to confirm that the changes will apply in the next action of the current provisioning session. Proceed to step 6.

If you wish to cancel the operation, click **Cancel**. The **User Preferences** dialog box closes without saving your changes.

6   In the confirmation dialog box, click **Yes** to confirm that the changes.

Chapter 11
Nodal Provisioning Template Editor

For a description of the Nodal Provisioning Template Editor, and how to use it, see the following sections:

- "Adding or removing a dropsite" (page 287)
- "Selecting the component parent designation" (page 293)
- "Selecting the component designation" (page 295)
- "Removing links" (page 297)
- "Adding or removing attributes" (page 298)
- "Modifying attribute details" (page 299)
- "Form Layout procedures overview" (page 301)
- "Saving service template files" (page 312)
- "Exiting Nodal Provisioning Template Editor" (page 317)
- "Updating the service template palette in Nodal Provisioning" (page 318)
- "Version checking tool overview" (page 319)
- "Starting the version checking tool" (page 320)

Nodal Provisioning Template Editor overview

The Nodal Provisioning Template Editor is a graphical user interface for creating and modifying service templates. The template editor lets you do the following tasks:

- create service templates that have multiple top level or root components, such as two AtmIfs

- create multiple same type components, such as multiple Channels on a single port

- specify a valid CDL Passport 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>/<templatefile name>.st**

Nortel Networks provides service templates with the Preside Multiservice Data Manager (MDM). 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 Passport 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 320)

- "Sample outputs" (page 320)

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 CDL version as unselected and the Valid CDL versions as All.

Before you can create a template, you need to select a CDL version. See "Selecting a CDL version overview" (page 259).

For an illustration of the Nodal Provisioning Template Editor window to create a new service template at start-up, see "Template Editor at startup" (page 222).

Figure 12
Template Editor at startup
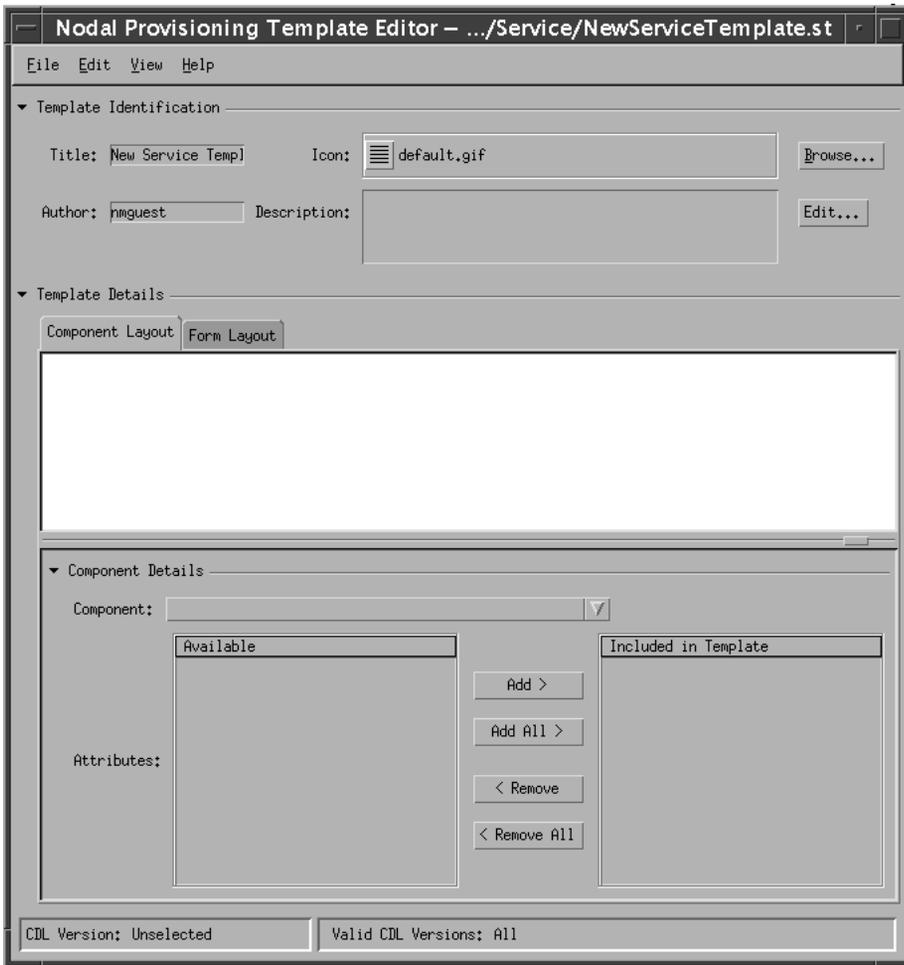
When you load a service template file, the template editor populates the fields in the Nodal Provisioning Template Editor window with the information contained in the selected service template (.st) file.

The status bar shows the selected CDL version and the Valid CDL 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 224). This example shows the main window after the file atmIf.st is loaded from the location /opt/MagellanNMS/cfg/ANP/EM/Service/ATM. The selected component has its details shown in the Component Details section.

Figure 13
Nodal Provisioning Template Editor after loading a service template file
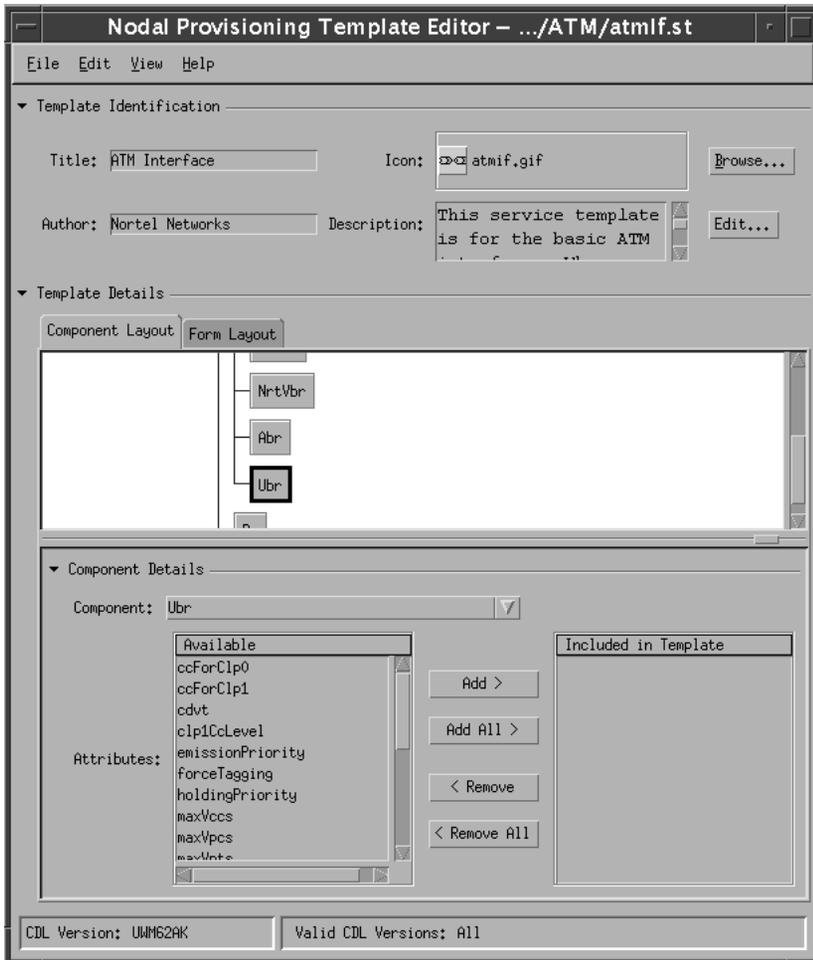
The Nodal Provisioning Template Editor window contains the following items:

- "Nodal Provisioning Template Editor menu bar" (page 225)

- "Template Identification panel" (page 229)

- "Template Details panel" (page 230)

- "Status bar" (page 247)

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 225)

- "Edit menu" (page 226)

- "View menu" (page 229)

- "Help Menu" (page 229)

File menu

See the table "File menu commands" (page 225) for a description of the menu commands.

Table 15
File menu commands

Command	Description	Additional Information
New	Clears the template editor window so you can create a new service template.	"Selecting a CDL version overview" (page 259)
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 CDL version specified within it, you must select a CDL version before the main window populates.	"Opening a saved service template file" (page 254) "Selecting a CDL version overview" (page 259)
(Sheet 1 of 2)		

Table 15 (continued)
File menu commands

Command	Description	Additional Information
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 316)
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 313)
Change CDL Version	Opens the Choose CDL Version dialog box so you can select a CDL version on which to base the service template.	"Selecting a CDL version overview" (page 259)
Set Valid CDL Versions	Opens the Set Valid CDL Versions dialog box so you can specify the CDL versions applicable to the connected Passport device.	"Specifying a Passport software version range" (page 263)
Exit	Closes the template editor. If you have not yet saved your file, you are prompted to save.	"Exiting Nodal Provisioning Template Editor" (page 317)
(Sheet 2 of 2)		

Edit menu

The content of the Edit menu depends on whether you have selected the Component layout tab or the Form Layout tab. The Edit menu options are also available from the pop-up menu for the selected item.

See the following tables:

- "Edit menu commands for the Component Layout tab" (page 227). These commands let you build the structure of the service template.

- "Edit menu commands for the Form Layout tab" (page 228). These commands determine the layout of the service template.

Table 16
Edit 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 components" (page 276)
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 281)
Add Linked Component	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 Linked Components" (page 283)
Remove Component	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 tree" (page 286)
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 297)

Table 17
Edit 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 303) "Adding tabs to the form layout tree" (page 304)
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 306)
Delete Tab	Deletes a selected tab from the display layout tree. The Delete Tab command is enabled only when you select an empty tab.	"Deleting tabs from the form layout tree" (page 305)
Delete Group	Deletes a selected Group from the display layout tree. The Delete Group command is enabled only when you select an empty Group.	"Deleting Groups from the form layout tree" (page 308)
Show Component	Turns on the display for the key and attributes of a hidden component and displays it in the form preview, and when you use the template in Nodal Provisioning. Shown components appear normal in the Form Layout tree.	"Showing components in the form layout tree" (page 310)
Hide Component	Turns off the display for the key and attributes of a component and stops it from displaying in the form preview, and when you use the template in Nodal Provisioning. The hidden component is greyed out in the Form Layout tree. The Hide Component 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 309)

View menu

See the table "View menu command" (page 229) for a description of the Preview command.

Table 18
View menu command

Command	Description	Additional Information
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 229) describes the Help menu commands.

Table 19
Help menu commands

Command	Description	Additional Information
Help on Help	Opens a help window that describes the on-line help.	"Help options" (page 32)
Help on Window	Opens the online documentation describing the Nodal Provisioning Template Editor window.	"Help options" (page 32)
About Template Editor	Opens a dialog box containing the name of the tool	

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 273)

- "Modifying template identification attributes of an existing service template (.st) file" (page 274)

Template Details panel

The Template Details panel contains the following tabs with their corresponding details:

- "Component Layout tab" (page 231)

- "Form Layout tab" (page 234)
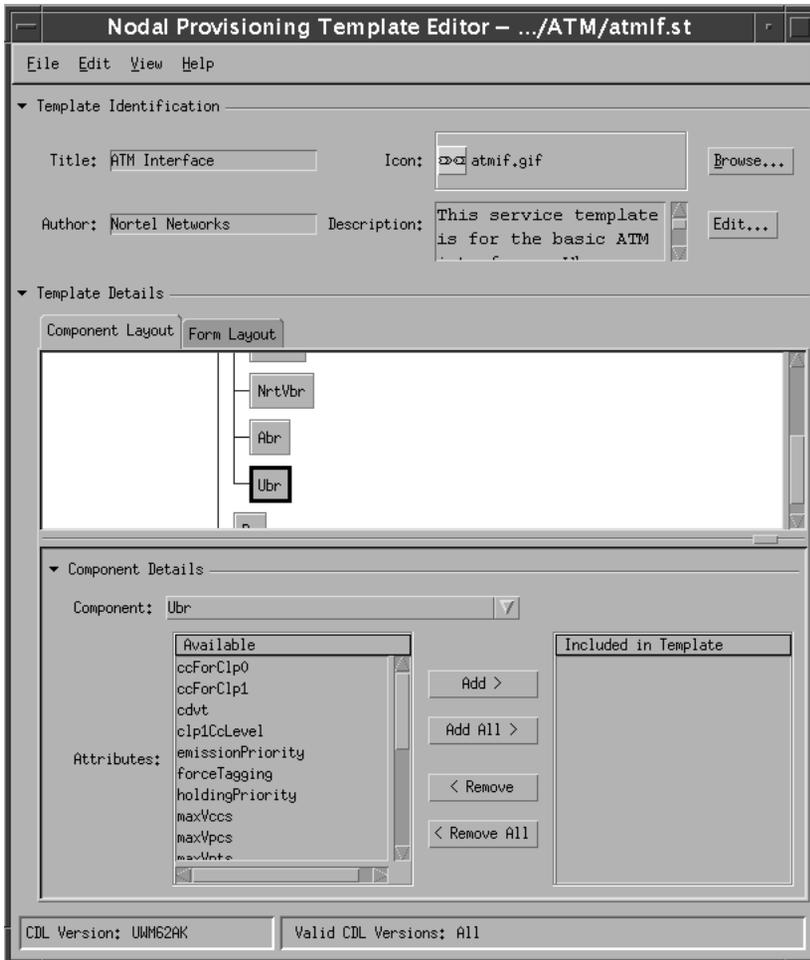
Component Layout tab

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.

See the figure "Template Details for the Component Layout tab" (page 232).

Figure 14
Template Details for the Component Layout tab

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:

- for a parent dropsite, see "Details panel for a parent dropsite" (page 233)

- for a link dropsite, see "Details panel for a link dropsite" (page 234)

- for a component dropsite, see "Details panel for a component dropsite" (page 234)

Table 20
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 21
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 22
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.
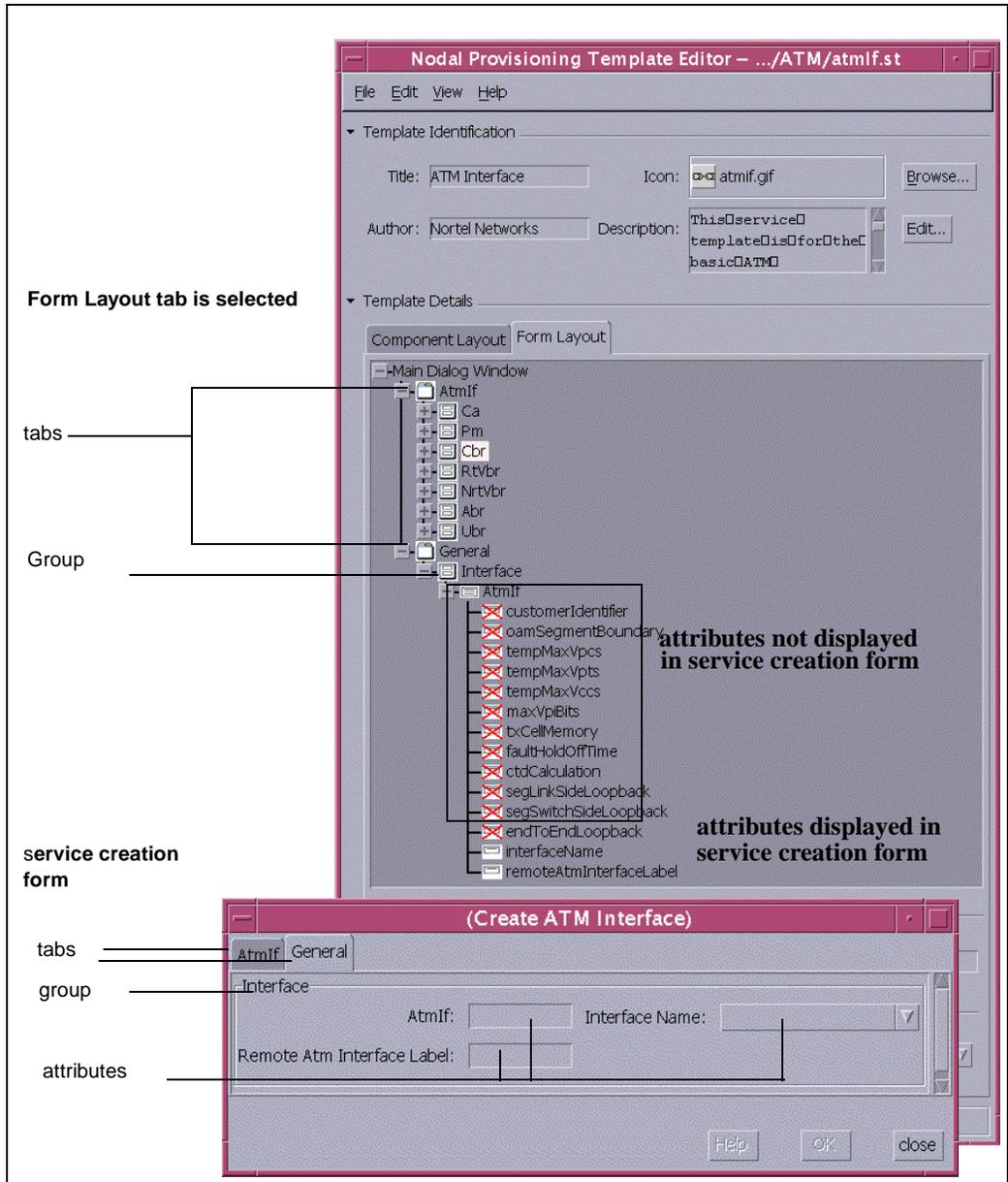
The Form Layout tab displays the following items:

- 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.

For an illustration of the Form Layout tab when the AtmInterface template is loaded, see "Form Layout tab and its relationship to the service creation form" (page 236).

Figure 15
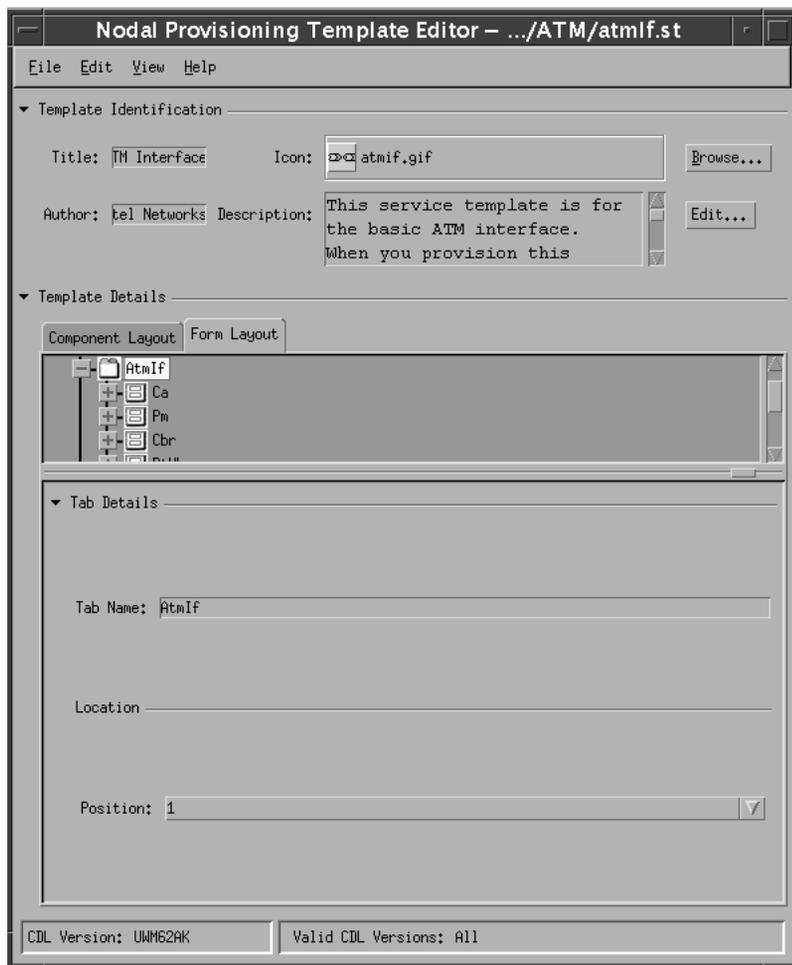**Form Layout tab and its relationship to the service creation form**

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 237)

- "Details panel for a Group" (page 239)

- "Details panel for a Component" (page 241)

- "Details panel for an Attribute" (page 244)

Table 23
Details panel for a tab

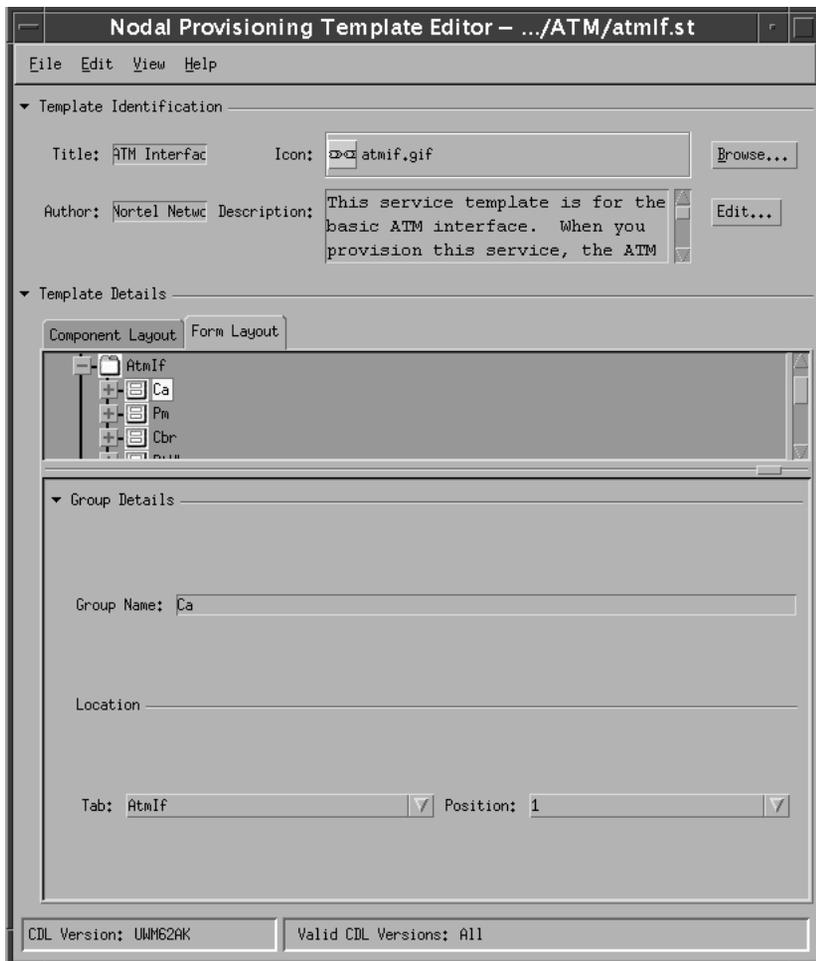| Title of Details panel	Details panel content	Description
Tab Details	Tab Name	An editable field in which you can enter a name for the Tab.
	Location • Position	A combo box containing a list of valid positions for the tab. The current position of the tab in the form layout tree is shown. You can change the position of the tab by selecting another position from the combo box.

See the figure "Tab Details" (page 238) for an illustration of the Tab Details panel.

Figure 16
Tab Details

Table 24
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.

See the figure "Group Details" (page 240) for an illustration of the Group Details panel.

Figure 17
Group Details
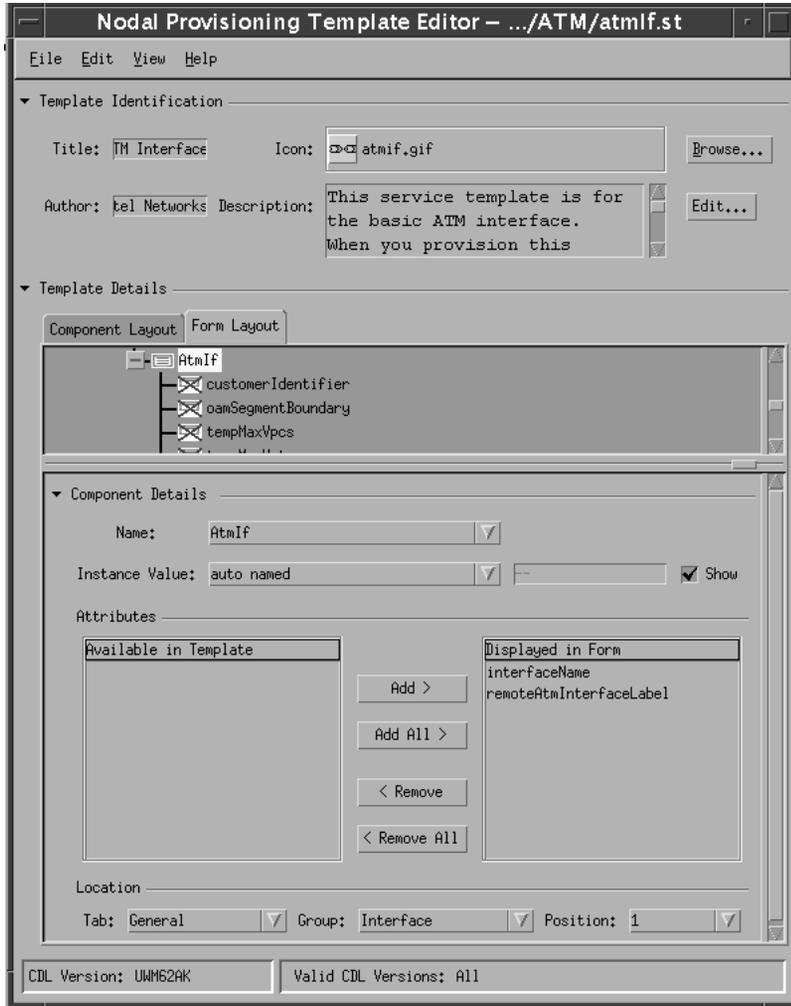
Table 25
Details panel for a Component

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 25 (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)		

See the figure "Component Details for AtmIf" (page 243) for an illustration of the Component Details panel.

Figure 18
**Component Details for AtmIf**

Table 26
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 26 (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)		

Figure 19
Attribute Details
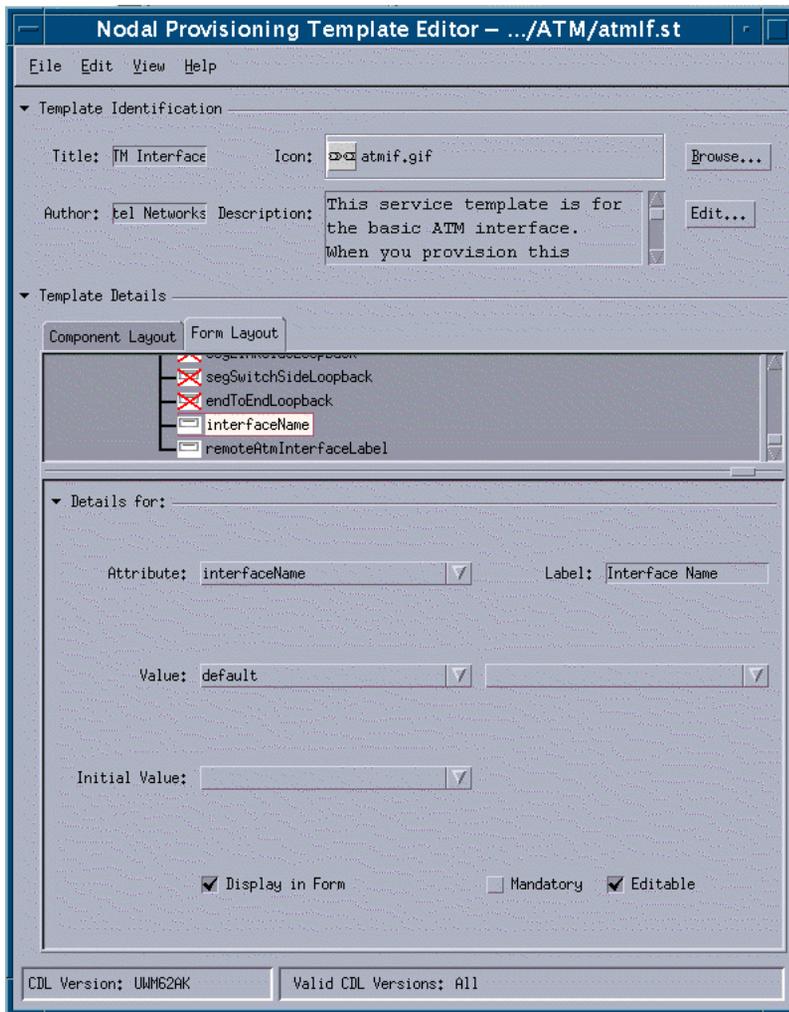
Status bar

The status bar at the bottom of the Nodal Provisioning Template Editor window shows the following items:

- **CDL Version** shows the selected CDL version. When you open the Nodal Provisioning Template Editor for the first time, the CDL version is unselected.

- **Valid CDL versions** shows the valid CDL version range or ranges. When you open the Nodal Provisioning Template Editor for the first time, the Valid CDL Versions is All.

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 250)

- If you are modifying a service template, see "Opening a saved service template file" (page 254)

- If you are creating a new service template, see "Clearing the template editor window to create a new service template file" (page 258)

- "Selecting a CDL version overview" (page 259)

- Specify a valid Passport Software Command Data Language (CDL) version range or ranges for a service template "Specifying a Passport software version range" (page 263)

- Identify the template. See, "Specifying template identification attributes" (page 272)

- Add components, see"Adding components" (page 276)

- Adding or modifying links. See, "Adding Linked Components" (page 283)

- To Specify a parent or link dropsite for the first component that you add. See, "Adding or removing a dropsite" (page 287)

- For all attributes in the component, modify attribute details. See, "Modifying attribute details" (page 299)

- Arrange the tabs and groups of the Form Layout tab. See, "Form Layout procedures overview" (page 301)

- "Saving service template files" (page 312)

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 the Nodal Provisioning Template Editor from the Preside MDM window" (page 251)

- "Starting the Nodal Provisioning Template Editor from the Nodal Provisioning window" (page 252)

- "Starting the Nodal Provisioning Template Editor from a command line" (page 253)

Starting the Nodal Provisioning Template Editor from the Preside MDM window

Use this procedure to start the Nodal Provisioning Template Editor from the Preside Multiservice Data Manager (MDM) window.

Procedure steps

1   In the Preside MDM window, select **System** -> **Administration** -> **Nodal Provisioning Template Editor.**

The **Nodal Provisioning Template Editor** window opens. The fields in the window are empty.

If you are opening the template editor for the first time, you need to select a Command Data Language (CDL) before you can create a new service template. See "Selecting a CDL version overview" (page 259).

Starting the Nodal Provisioning Template Editor from the Nodal Provisioning window

Use this procedure to start the Nodal Provisioning Template Editor from the Nodal Provisioning window.

Procedure steps

1   In the **Preside MDM** window, select **Configuration** -> **Passport Devices** -> **Nodal Provisioning**.

The **Device Selection** dialog box opens.

2   From the drop down list, select a Passport device.

The **Authentication** dialog box opens.

3   In the **Username** and **Password** fields of the **Authentication** dialog box, enter a user name and password.

The **Nodal Provisioning** window opens.

4   Select **External Tools** -> **Nodal Provisioning Template Editor**.

The **Nodal Provisioning Template Editor** window opens. The fields in the window are empty.

If you are opening the template editor for the first time, you need to select a Command Data Language (CDL) before you can create a new service template. See "Selecting a CDL version overview" (page 259).

Starting the Nodal Provisioning Template Editor from a 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/anpste &`

The **Nodal Provisioning Template Editor** window opens. The fields in the window are empty.

If you are opening the template editor for the first time, you need to select a Command Data Language (CDL) before you can create a new service template. See "Selecting a CDL version overview" (page 259).

To modify a service template, proceed to "Opening a saved service template file" (page 254).

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 CDL 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>. A service template file has the extension .st.

Procedure steps

1   In the template editor main window, select **File -> Open**.

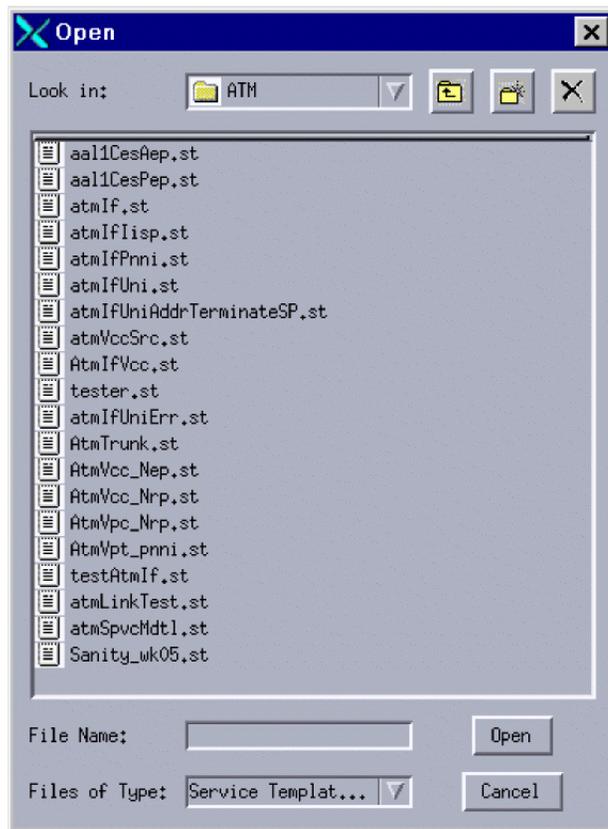A file browser **Open** dialog box opens to the service directory.

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.
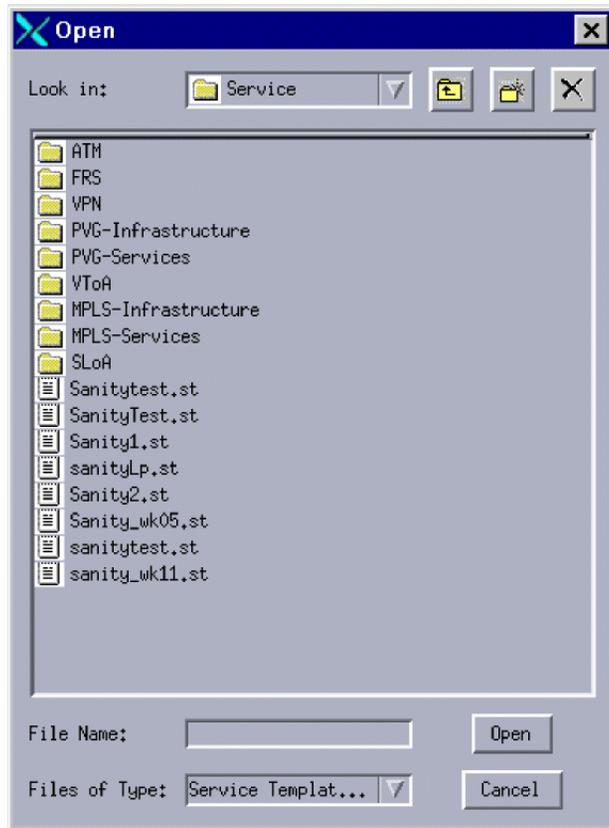
2   Select the folder that contains the service template file that you want to edit and click **Open**.

The file browser displays the service templates (.st) files in the selected folder.

```
╔══════════════════════════════════════════════════════╗
║ ✖ Open                                          ✕      ║
╠══════════════════════════════════════════════════════╣
║                                                        ║
║  Look in:        📁 ATM          ▽   🔼   🗂   ✕        ║
║  ┌──────────────────────────────────────────────┐     ║
║  │ 📄 aal1CesAep.st                               │     ║
║  │ 📄 aal1CesPep.st                               │     ║
║  │ 📄 atmIf.st                                    │     ║
║  │ 📄 atmIfIisp.st                                │     ║
║  │ 📄 atmIfPnni.st                                │     ║
║  │ 📄 atmIfUni.st                                 │     ║
║  │ 📄 atmIfUniAddrTerminateSP.st                  │     ║
║  │ 📄 atmVccSrc.st                                │     ║
║  │ 📄 AtmIfVcc.st                                 │     ║
║  │ 📄 tester.st                                   │     ║
║  │ 📄 atmIfUniErr.st                              │     ║
║  │ 📄 AtmTrunk.st                                 │     ║
║  │ 📄 AtmVcc_Nep.st                               │     ║
║  │ 📄 AtmVcc_Nrp.st                               │     ║
║  │ 📄 AtmVpc_Nrp.st                               │     ║
║  │ 📄 AtmVpt_pnni.st                              │     ║
║  │ 📄 testAtmIf.st                                │     ║
║  │ 📄 atmLinkTest.st                              │     ║
║  │ 📄 atmSpvcMdtl.st                              │     ║
║  │ 📄 Sanity_wk05.st                              │     ║
║  └──────────────────────────────────────────────┘     ║
║                                                        ║
║  File Name:    [_____]      [  Open  ]      ║
║                                                        ║
║  Files of Type: [Service Templat... ▽] [ Cancel ]      ║
╚══════════════════════════════════════════════════════╝
```

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 CDL 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 249).

If you select a template that does not have a CDL version specified in it, the **Choose CDL Version** dialog box opens. Proceed to choose a CDL

version. See the procedure, "Selecting a CDL version overview"
(page 259).

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 CDL version associated with it, you can proceed to create the template with the existing CDL version.

If you wish to base the template on a new CDL version, proceed to "Changing the CDL version of a service template" (page 261).

If you wish to specify valid Passport software version ranges, proceed to "Specifying a Passport software version range" (page 263).

Selecting a CDL version overview

Use the Choose CDL Version dialog box to select a Command Data Language (CDL) on which to base a service template.

If you are opening the Nodal Provisioning template editor for the first time, you must select a CDL version before you can create the new service template. The Nodal Provisioning Template Editor uses the CDL version to find the version of the hierarchy model required, the components attributes, and their defaults.

The Choose CDL Version dialog box also opens in the following circumstances:

- **you select File -> Open** and select an service template file that has no version specified in it to modify.

- you select **Edit** ->**Add Component** to add the first component to the service template and you have not yet selected a CDL version.

- **you select File -> Change CDL Version** to select a CDL version on which to base a new service provisioning template, or to change the CDL version of the template that you are currently working on.

By default, the most current CDL version available is selected and appears in the CDL version field.

The procedure to select the device Command Data Language (CDL) version of a template depends on whether you are starting with a cleared template, or if you want to change the CDL version of an existing template. For the relevant procedures, see the following sections:

- "Selecting the CDL version for a new service template" (page 260)

- "Changing the CDL version of a service template" (page 261)

Selecting the CDL version for a new service template

Use this procedure to select the Command Data Language (CDL) version for a new service template.

Procedure steps

If you have already loaded a service template file, and you want to select a CDL 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 258) dialog box.

1 Select **File** -> **Change CDL version**.

   The **Choose CDL Version** dialog box opens.

2 In the **Choose CDL Version** dialog box, accept the default CDL version, or from the drop down list of available versions, select the CDL version that you want to change to.

   By default, the most current and available CDL version is selected and appears in the **CDL version** field.

3 Click **OK**.

   The left side of the status bar of the Nodal Provisioning Template Editor window contains the CDL Version that you selected. This version remains until you load a different template that specifies a version or you select **File** -> **Change CDL Version** again.

Changing the CDL version of a service template

Use this procedure to change the Command Data Language (CDL) version of your template. You can change the CDL version immediately upon opening the service template file, or you can change the CDL version at any time while you are modifying a service template. You can open a saved template file without first changing the CDL version since templates created by the template editor are saved with a version.

Procedure steps

You use the Choose CDL Version dialog box to select a new CDL version.

1   In the menu bar, select **File** -> **Change CDL version**.
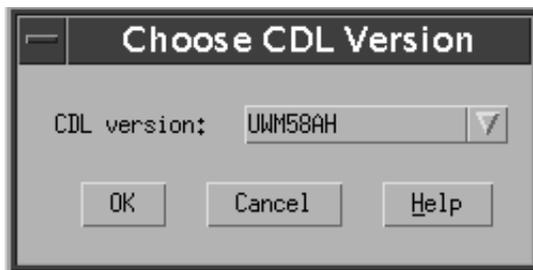
The **Choose CDL Version** dialog box opens.

2   Select the CDL version that you want to change to from the drop down list of available versions.

By default, the most current and available CDL version is selected and appears in the **CDL 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 CDL version appears in the status bar at the bottom of the **Nodal Provisioning Template Editor** window. The template is reloaded with the new CDL version so any attributes and components that do not exist in the new CDL 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 CDL version, or has a different range of values, an error dialog box opens. Proceed to step 4.

4   Select **Show Details**.

The error dialog box displays which items are not consistent with the newly chosen CDL version and the template remains unchanged.

5   If you want to make the template consistent with the new CDL version, leave the error dialog box open, and proceed to step 6.

If you do not want to make the template consistent with the new CDL 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 CDL version.

7   Select **File** -> **Change CDL Version**.

If the template is now consistent with the CDL version, the error dialog box closes. The template's CDL version is updated and the template is re-loaded with the new version.

If the template is still not consistent with the newly chosen CDL, the error dialog box updates with the new reasons why this template is not consistent with the CDL version. Return to step 6, or close the error dialog box and continue to edit the template without changing the CDL version.

Specifying a Passport software version range

You use the Set Valid CDL Versions dialog box to specify the valid Passport Software Command Data Language (CDL) 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 Passport devices whose software version is included within the specified range or ranges. Nodal Provisioning filters out all templates that do not apply to the Passport software version of the connected device. The Nodal Provisioning window displays only those templates that apply to the Passport software version or versions of the connected Passport device.

You can specify the Passport 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 CDL Versions dialog box opens with the default setting of **All CDL Versions** and displays a single empty row in the range selection table.

You are provided two options for selecting a CDL version range or ranges:

- All CDL Versions lets you create a template that applies to all Passport CDL software versions.

- Specify CDL range(s) lets you create a template which applies to specific Passport CDL software versions.

For an illustration of the Set CDL Range dialog box, see the figure "Set Valid CDL Versions dialog box for creating a new service template" (page 264).

Figure 20
Set Valid CDL Versions dialog box for creating a new service template
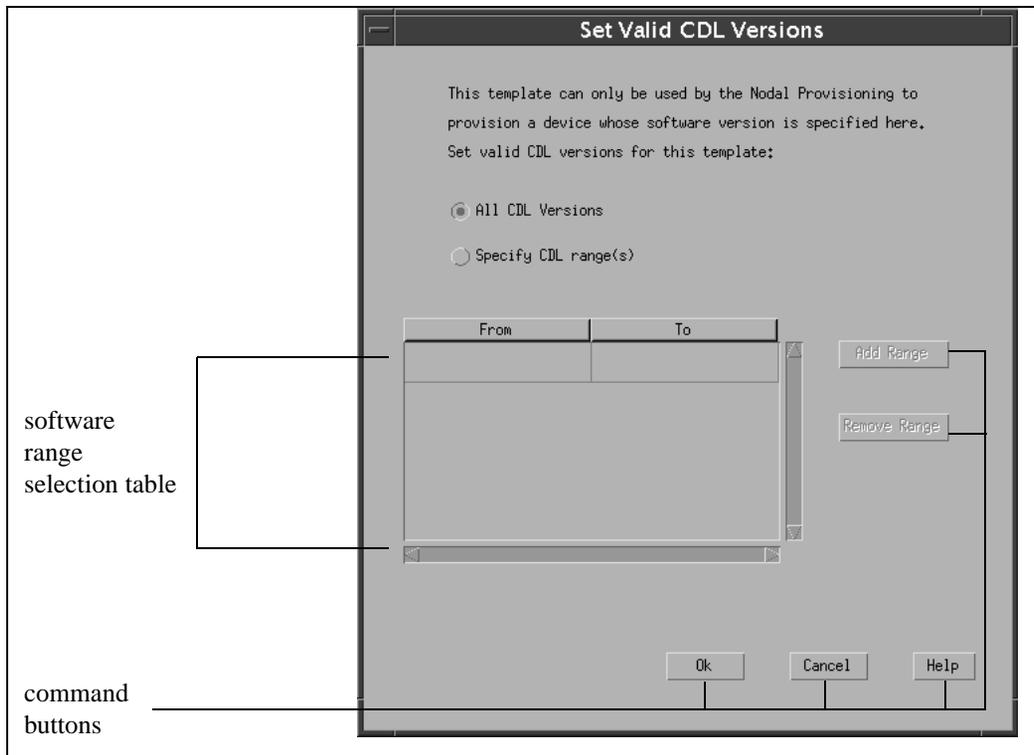
When you open an existing service template file, and then select **Set Valid CDL Versions**, the template editor will read from the service template file to find the list of previously selected software ranges that apply to the template. One of the following occurs:

- If any Passport software version applies to the template, then the software range selection table is list is empty. The **All CDL 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 Passport software versions apply to the template, then the software range selection table is populated with the list of valid software versions. The CDL range table displays the **From** and **To** columns of

combo boxes that display the lower and upper limit pairs of a CDL version range. When a combo box is expanded, it shows the list of all available Passport software versions. For example,

— 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 CDL range(s)** option is selected and the **Add Range** and **Remove Range** buttons are enabled.

See "Examples of CDL ranges" (page 267) for examples of valid CDL ranges.

• If no Passport software version was specified in the template, as is the case with the older templates, the Set Valid CDL Versions dialog box defaults to **All CDL Versions**. The template file is not tagged with a device version tag.

When you click OK in the Set Valid CDL 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 CDL 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 CDL 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 Passport 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 CDL Versions dialog box remains open. See "Error messages" (page 268) 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 Passport CDL software version ranges" (page 266)

- "Error messages" (page 267)

- "Specifying the Passport software version range or ranges for a new service template" (page 269)

- "Specifying template identification attributes for a new template" (page 273)

Examples of Passport CDL software version ranges

The table "Examples of CDL ranges" (page 267) provides examples of valid Passport CDL software version ranges.

Table 27
Examples of CDL ranges

In Set CDL Range Dialog box From	In Set CDL Range Dialog box To	In XML file <lower>-<upper>	Explanation
All previous versions	CD*	*-CD*	applies to all CDL versions which are released earlier and include release CD<version><developmentNumber> <cycleNumber><debugNumber>
CD*	All later versions	CD*-*	applies to all CDL versions which are released from CDL version CD<version><developmentNumber>< cycleNumber><debugNumber> and later
CD*	CE*	CD*-CE*	applies to all CDL versions which are released from CDL version CD<version><developmentNumber> <cycleNumber><debugNumber> to CE<version><developmentNumber>< cycleNumber><debugNumber>
CD*	CD*	CD*-CD*	applies to the exact CDL version which starts with CD

Error messages

The table "Error messages" (page 268) describes possible error messages when specifying version ranges in the Set Valid CDL Versions dialog box.

Table 28
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 CDL 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 CDL versions.	The base version <version> is outside the valid CDL 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 CDL versions is already included in other valid CDL 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 Passport 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 Passport software version at any time after you launch the Nodal Provisioning Template Editor. For relevant procedures, see the following sections:

Specifying the Passport software version range or ranges for a new service template

Use this procedure to select the valid Command Description Language (CDL) software version range or ranges for a Passport device.

Procedure steps

1   From the **File** menu, select **Set Valid CDL Versions**.

The **Set Valid CDL Versions** dialog box opens and displays a single empty row. By default, the **All CDL Versions** option is selected, and the **Add Range** and **Remove Range** buttons are disabled.

2   If you wish the template to apply to all Passport CDL software versions, click **OK** to save the valid CDL versions. The template file is not tagged with a device version tag.

If you wish to create a template which applies to specific Passport CDL software versions, select the **Specify CDL range(s)** option and proceed 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 CDL ranges" (page 267).

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 Passport Command Description Language (CDL) software version range or ranges of a service template.

Procedure steps

1 From the **File** menu, select **Set Valid CDL Versions**.

The **Set Valid CDL 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 Passport software version applies to the template, the dialog box opens with an empty range selection table, the **All CDL Versions** option selected, and the **Add Range** and **Remove Range** buttons are disabled.

- if a specific Passport software version or versions apply to the template, the software range selection table is populated with the list of valid software versions. The **Specify CDL range(s)** option is selected and the **Add Range** and **Remove Range** buttons are enabled.

- if no Passport software version was specified in the template, as in older service templates, the **Set Valid CDL Versions** dialog box defaults to **All CDL Versions**.

2 To create a service template that applies to specific Passport CDL software versions, select the **Specify CDL 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 CDL ranges" (page 267).

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 CDL 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 CDL Range** dialog box closes.

Another check is performed if you have already set the CD

The template file is tagged with a device version tag.

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 273)

- "Modifying template identification attributes of an existing service template (.st) file" (page 274)

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 312).

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 components" (page 276)

- "Adding sub-components to a dropsite or component node" (page 281)

- "Adding Linked Components" (page 283)

- "Removing components from the Component Layout tree" (page 286)

- "Adding or removing a dropsite" (page 287)

- "Selecting the component parent designation" (page 293)

- "Selecting the component designation" (page 295)

- "Removing links" (page 297)

- "Specifying template identification attributes" (page 272)

Adding components

Use the Add Component dialog box to select a component or subcomponent to add to the template.

When you add the first component, it can take one of two possible forms:

- top-level component

- non top-level component

See the following procedures:

- "Adding the first top-level component (direct sub-component of EM)" (page 277)

- "Adding the first non-top level component (not a direct sub-component of EM)" (page 279)

- "Adding additional components to EM" (page 280)

Adding the first top-level component (direct sub-component of EM)

Use this procedure to create a direct subcomponent under the root component, EM.

Procedure steps

1   From the **Edit** menu in the **Nodal Provisioning Template Editor**, select **Add Component**.

If you have not yet selected the CDL version for the template being created, the **Choose CDL Version** dialog box opens. Proceed to step 2 to select the CDL Version.

If you have already selected a CDL version, the **Add Component** dialog box opens. Proceed to step 3.

2   In the **Choose CDL Version** dialog box, select the CDL version for the template being created and click **Ok**.

The **Add Component** dialog box opens. When you add the first component to the template, the **Component Name** list contains every component that you can add to the Passport device.

```
┌─────────────────────────────────────┐
│ ─   │     Add Component    │ ▪ │ □ │
├─────────────────────────────────────┤
│                                       │
│ Choose a component:                   │
│ │AtmIf (AtmInterface)            │     │
│                                       │
│ Component Name:                       │
│ ┌─────────────────────────────────┐   │
│ │Art (DpnAutomaticRouteTester)    │▨ │
│ │ARtg (AtmRouting)                │▯ │
│ │As (InwBgpAs)                    │   │
│ │Asp (NstaVgsAsp)                 │   │
│ │Ate (InwBrNsAte)                 │   │
│ │Atm (AtmAccess)                  │   │
│ │Atm (PaAtmAccess)                │   │
│ │AtmAp (InwWanAtmAdaptionPoint)   │   │
│ │AtmCon (NapAtmConnection)        │   │
│ │AtmIf (AtmInterface)             │   │
│ │AtmMpe (InwAtmMpe)               │   │
│ │AtmNet (AtmNetworking)           │   │
│ │AtmSap (MsAtmServiceAccessPoint) │   │
│ │AtmTConn (NstaVgsConnection)     │   │
│ │ATStats (InwNetSentryAppleTalkStatist│
│ │Audio (MvpDs1AudioStatus)        │   │
│ │Audio (MvpE1AudioStatus)         │   │
│ │AuthQuint (UmtsAuthenticationQuintet)▨│
│ └─────────────────────────────────┘   │
│ ◁░░░░░░░░░░░░░░░░░░░░░░░░░▷            │
│                                       │
│    ┌────────┐      ┌──────────┐       │
│    │   Ok   │      │  Cancel  │       │
│    └────────┘      └──────────┘       │
└─────────────────────────────────────┘
```

3 Select the component that you want to add by 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.

4 Click **Ok**.

If the component has only one dropsite, has no link attributes, and is a direct sub-component of EM, the component and all its required sub-components are automatically added to the component layout tree. To display this, the tool places a dropsite node, represented by a dropsite icon, at the root of the tree. The component is played as the first branch in the component layout tree.

If you wish to cancel the operation, click **Cancel**. You return to the **Nodal Provisioning Template Editor** window.

Adding the first non-top level component (not a direct sub-component of EM)

Use this procedure to add a non-top level component.

Procedure steps

1   From the **Edit** menu in the **Nodal Provisioning Template Editor** window, select **Add Component**.

If you have not yet selected the CDL version for the template being created, the **Choose CDL Version** dialog box opens. Proceed to step 2.

If you have already selected a CDL version, the **Add Component** dialog box opens. Proceed to step 3.

2   In the **Choose CDL Version** dialog box, select the CDL version for the template being created, and click **Ok**.

The A**dd Component** dialog box opens containing a list of all the component that can be created on the device.

3   Choose the component that you want to add by 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.

4   Click **Ok**.

If the component is not a direct sub-component of EM, and the component has no link attributes, the **Select Dropsite** dialog box opens. You need to select a parent dropsite. See "Adding a parent dropsite" (page 289).

If the component is not a direct sub-component of EM, and the component has link attributes, the **Select Dropsite** dialog box opens. You need to select either a link or parent dropsite. See "Adding or removing a dropsite" (page 287).

Adding additional components to EM

Use this procedure to add additional component to the root, EM.

Procedure steps

1   From the **Edit** menu in the **Nodal Provisioning Template Editor** window, select **Add Component**.

    The **Add Component** dialog box opens containing a list of components that you can add.

2   Choose the component that you want to add by 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 you are adding a new component at the root level of the template, and the component is a direct subcomponent of EM, the Component Designation dialog box opens. For additional information, see "Selecting the component designation" (page 295).

    If the component requires a parent, the Component Parent Designation dialog box opens. See "Selecting the component parent designation" (page 293).

Adding sub-components to a dropsite or component node

Use this procedure to add a sub-component to a dropsite or component node.

The Add Sub-component command is enabled only when you select a component that can have sub-components or parent-type dropsite node.

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   Complete one of the following steps:

   • In the **Nodal Provisioning Template Editor** window, select **Edit** -> **Add Sub-component**, or

   • right click 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.
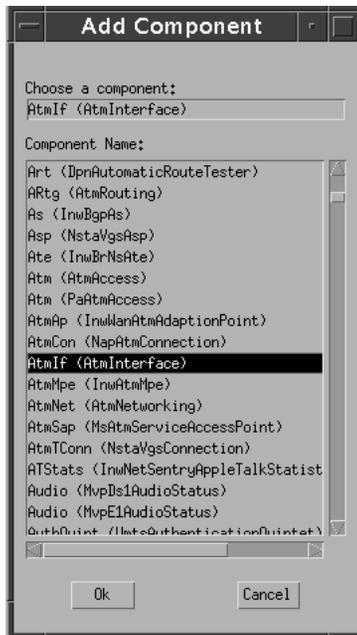
4   Choose the sub-component that you want to add by typing the sub-component's name in the **Choose a component** field.

As you type the name, the corresponding sub-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 Linked Components

Use this procedure to add a linked component to a dropsite component, or to another component in the component layout tree.

The Add Linked Component command is only enabled if it is a valid action for the selected component.

You use the Add Linked Component dialog box to add a linked component.

> *Note 1:* 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.

> *Note 2:* For any component that can serve as the linked destination of multiple components, the links must be added at the source components.

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   Complete one of the following steps:

- In the **Nodal Provisioning Template Editor** window, select **Edit** -> **Add Linked Component**, or

- Right-click on the component and select **Add Linked Component** from the pop-up menu.

The **Add Linked Component** dialog box opens.
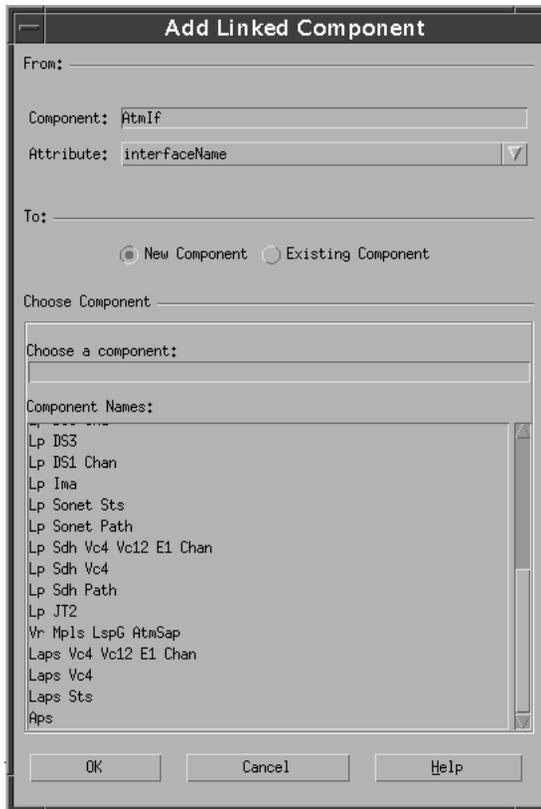
In the **From** panel, the **Component** field is populated with the component that is selected in the component layout tree. If no component is selected, the first component from the tree that has a link attribute is selected.

The **Attribute** list lets you select the link attribute to which to link the new linked component.

4   If you want to link to an attribute other than the one shown in the **Attribute** list, from the drop down list, select the link attribute that you want the new component to link to.

5   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.

6   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.

7   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 293).

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 Linked Component** dialog box and return to the **Nodal Provisioning Template Editor** window.

Removing components from the Component Layout tree

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   Select one of the following steps:

- right-click and select **Remove Component** from the pop-up menu.

- in the menu bar of the **Nodal Provisioning Template Editor** window, select **Edit** -> **Remove Component**.

The selected item and all its sub-components are removed from the component layout tree. In the case of a linked item, only the link is deleted.

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.When a component is not a direct sub-component of EM, you need to pick a dropsite.

Only one dropsite node is allowed for the template because the template must be connected to a single component from the template. However, a dropsite node can contain several components because it is possible to drop the template in several places.

There are two types of dropsites:

— link dropsite

A link dropsite is a component that has a link attribute. When a template is dropped on a link dropsite component, its link attributes are connected to the corresponding link attributes for the linked components in the template.A link-type dropsite is needed if you are adding a component that is to be linked to an existing component. The existing component is the location where the template is dropped when using Nodal Provisioning. The new component is created with its necessary parents, and is then linked to the existing component. The link is bi-directional. That is, 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 need if you are adding 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 select a dropsite by using the Select Dropsite dialog box. The Select Dropsite dialog box opens when you select Add Component from the Edit menu, and you need to create a dropsite for the new component.

For an illustration of the Select Dropsite after you add the AtmIf (Atminterfarce), see the figure "Select Dropsite dialog box with Parent dropsite type selected" (page 288).

Figure 21
Select Dropsite dialog box with Parent dropsite type selected
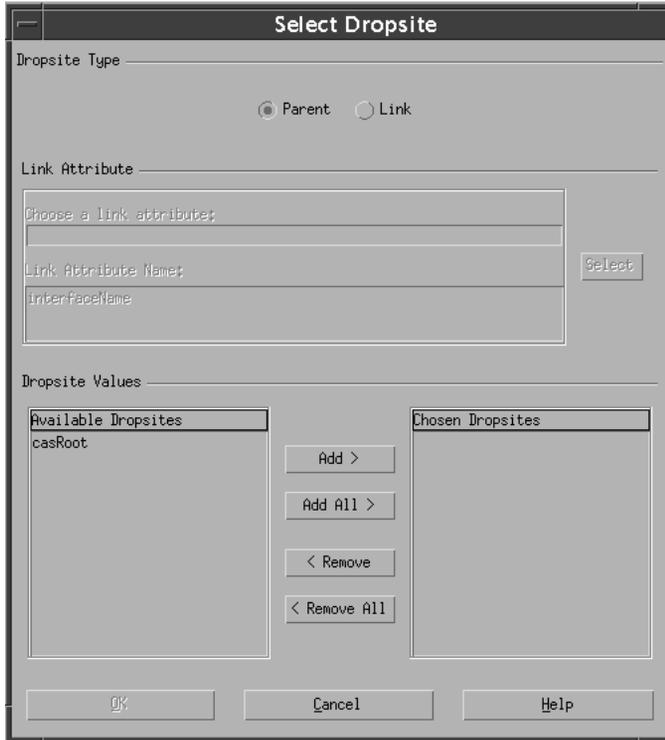
You select the dropsite by using the Select Dropsite dialog box. Depending on the component, the Parent, or both Parent and Link dropsite options are enabled.

• If the component has link attributes, both the link and parent dropsite options are enabled.

• If the component has no link attributes only the Parent dropsite option is enabled.

Adding a parent dropsite

Use this procedure to add a parent-type dropsite. A parent drop-site is needed if you are adding a component that is to be created as a sub-component of a component that already exists on the device. The existing component is where this template is applied when using Nodal Provisioning.

Prerequisites

This procedure requires that the following conditions exist.

- You have added a component and that component needs a dropsite.

- The Select Dropsite dialog box is open.

Procedure steps

1   To select the parent-type dropsite, In the **Dropsite Type** area, of the **Select Dropsite** dialog box, select the **Parent** option.

The fields in the Link Attribute pane are disabled. The **Available Dropsites** list is populated with all the components that can be parents of the component that you are currently adding.

2   In the **Available Dropsites** list, highlight one or more of the components in the list. The list contains all the components that can be parents of the component that you are currently adding.

Note: Only select more that one parent dropsite if they all can have the same type of sub-component.

3   Select **Add** to move the selected components from the **Available Dropsites** list to the **Chosen Dropsites** list.

If you want to add all the available dropsites from the **Available Dropsites** list to the **Chosen Dropsites** list, click **Add All**.

If you want to remove one or more components from the **Chosen Dropsites** list to the **Available Dropsites** list, select the component(s) and click **Remove**.

If you want to remove all the components in the **Chosen Dropsites** list to the **Available Dropsites** list, click **Remove All**.

The components in the **Chosen Dropsites** list are the components that the templates can be dropped on when using Nodal Provisioning.

4   Click **OK**.

The **Select Dropsite** dialog box closes and you return to the **Nodal Provisioning Template Editor** window. A dropsite node is added to the component layout tree as the root node. The dropsite component is distinguished by a "drop" icon to distinguish it as a dropsite node. A component node representing the new component is added to the component layout under the dropsite node.

Adding a link dropsite

Use this procedure to add a link-type dropsite. A link-type dropsite is needed if you are adding a component that is to be linked to an existing component.

Procedure steps

1   In the **Dropsite Type** area, of the **Select Dropsite** dialog box, select the **Link** option.

The fields in the Link Attribute pane are enabled. The **Link Attribute Name** list is populated with every component that has a link attribute.

2   In the **Choose a link attribute** field, type the name of a link attribute.

As you type, the link attribute that most closely matches what you have typed is highlighted in the **Link Attribute Name** list. The **Link Attribute Name** list contains every link attribute that can link to the component that you are currently adding.

3   Click **Select** to select the link attributed that is highlighted in the **Link Attribute Name** list.

4   In the **Available Dropsites** list, highlight one or more of the components in the list. The list contains all the components that can be parents of the component that you are currently adding.

Note: Only select more that one parent dropsite if they all can have the same type of sub-component.

5   Select **Add** to move the selected components from the **Available Dropsites** list to the **Chosen Dropsites** list.

If you want to add all the available dropsites from the **Available Dropsites** list to the **Chosen Dropsites** list, click **Add All**.

If you want to remove one or more components from the **Chosen Dropsites** list to the **Available Dropsites** list, select the component(s) and click **Remove**.

If you want to remove all the components in the **Chosen Dropsites** list to the **Available Dropsites** list, click **Remove All**.

The components in the **Chosen Dropsites** list are the components that the templates can be dropped on when using **Nodal Provisionin**g.

6   Click **OK**

The link dropsite node is added to the **Component Layout** tab as the root node. It is labeled with a drop icon to distinguish it a dropsite node.

Removing a dropsite

Use this procedure to 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 top level 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 top-level component is in the **Available Dropsites** list

2 From the **Chosen Dropsites** list, select the dropsite or dropsites that you want to remove.

3 Click **Remove.**

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 create a parent component immediately, or to find the parent component at runtime when you add a linked component or a component that is not a sub-component of the root EM.

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.

For an illustration of the Component Parent Designation dialog box, see the figure "Component Parent Designation dialog box" (page 293).

Figure 22
Component Parent Designation dialog box
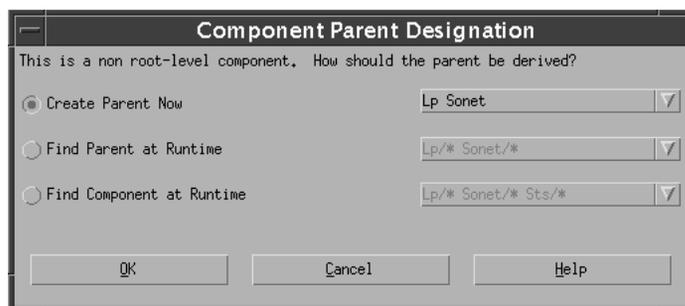
Procedure steps

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.

294 Chapter 11 Nodal Provisioning Template Editor

- 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.

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.

241-6001-610   14.3RSUP

Selecting the component designation

Use this procedure to find the component designation immediately or at runtime when you add a new component to the root.

Component Designation dialog box

The Component Designation dialog box opens when you add a new component at the root level of the template. That is, the new component is a direct subcomponent of EM. The Component Designation dialog box gives you the choice to create the component, or to find it at runtime.

For an illustration of the Component Designation dialog box, see the figure "Component Designation dialog box with Create Component selected" (page 295).

Figure 23
Component Designation dialog box with Create Component selected
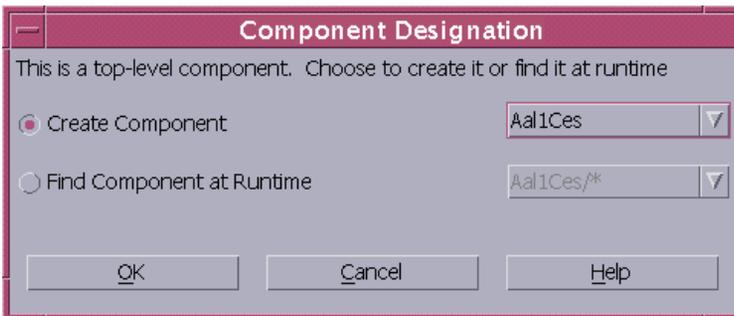
Procedure steps

1   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 components" (page 276). 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.

2   Click **Ok**.

If you selected **Create Component** option, **Ok** creates the selected component.

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.

To cancel the operation, select **Cancel**. You return to the **Nodal Provisioning Template Editor** window.

To access the on-line documentation, click **Help**.

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   Complete one of the following steps:

- click the mouse menu button and select **Remove Link** from the pop-up menu

- in the menu bar of the template editor window, select **Edit** -> **Remove Link**.

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 312).

Modifying attribute details

Purpose

Use this procedure to modify the attributes of the service template.

Procedure

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 312).

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

Purpose

Use this procedure to move a tab or group on the Form Layout tree.

Procedure

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

Purpose
Use this procedure to edit the name of a tab or group.

Procedure
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

Purpose

Use this procedure to add a new tab to the form layout tree.

Procedure

1   Select the **Form Layout** tab.

2   Complete one of the following steps:

- click the mouse menu button on **Main Dialog Window** node in the **Form Layout** tree and select **Add tab** from the pop-up menu

- In the menu bar, select **Edit** -> **Add tab**.

The new tab appears as the last tab in the form layout tree. It has the default name of Tab<n>. You can edit the default name to any new string.

Deleting tabs from the form layout tree

Purpose
Use this procedure to delete a tab from the form layout tree.

Procedure
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:

   •   click the mouse menu button on the tab and select **Delete Tab** from the pop-up menu, or

   •   In the menu bar, select **Edit** -> **Delete Tab**

   The tab is deleted from the form layout tree.

Adding Groups to the form layout tree

Purpose
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
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:

   •   click the mouse menu button and select **Add Group** from the pop-up menu, or

   •   from the menu bar, select **Edit** -> **Add Group**.

   The new group appears as the last group in the tab. It has the default name of Group<n>. You can edit the default name to any new string.

The figure below shows the addition of a new Group1. The Group Details panel shows the newly added Group1.
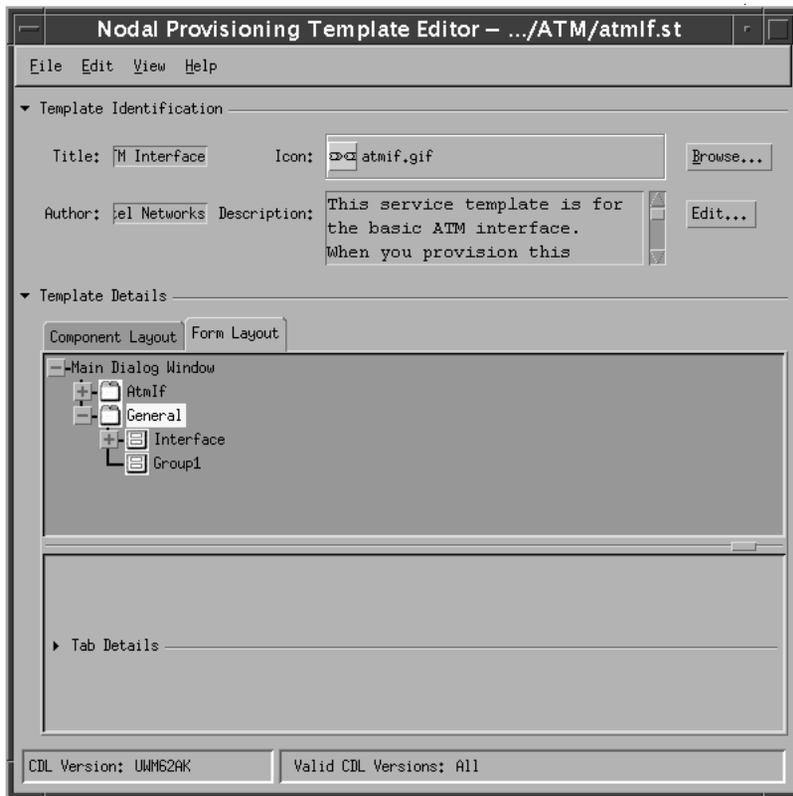
Deleting Groups from the form layout tree

Purpose
Use this procedure to remove a group from a tab in the form layout tree.

Procedure
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 **Delete Group** from the pop-up menu, or

   • from the menu bar, select **Edit** -> **Delete Group**.

   The selected group is removed from the form layout tree.

Hiding a component in the form layout tree

Purpose

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

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 Component** from the pop-up menu

- from the menu bar, select **Edit** -> **Hide Component**

The component is greyed out 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

Purpose
Use this procedure to display hidden components in the form layout tree.

Procedure
1   Select the **Form Layout** tab.

2   Select the hidden component that you want to display.

3   Complete one of the following steps:

•   in the menu bar, select **Edit** -> **Show Component**, or

•   right-click on the hidden component and select **Show Component** 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 tree" (page 286).

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. The Save dialog box lets you add folders, remove folders, and rename folders. You can also remove and rename files. You can only remove and rename files and folders if you have file permissions. These permissions are based on the userid of the account from where the editor was launched.

For additional information on saving service template files, see the following sections:

- "Saving a service template file for the first time" (page 313)

- "Saving a service template file after you have modified it" (page 316)

Saving a service template file for the first time

Purpose
Use this procedure after you create a new service template file and you are saving it for the first time.

Note 1: You can write to /opt/MagellanNMS/cfg/... but you cannot overwrite the files that have been installed by Nortel Networks.

Note 2: You cannot save a template with a name that is the same as the typeId of any component.

Procedure
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.
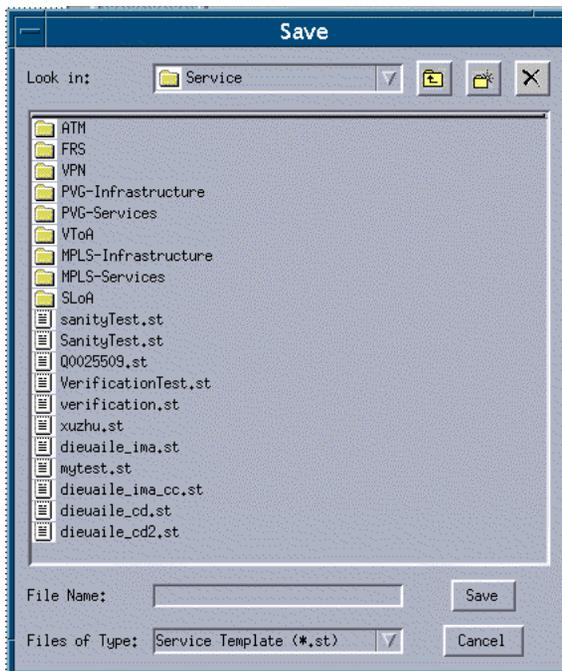
If you have not completed all the fields in the Template Identification panel, an error dialog box opens indicating the missing template identification details. Click **OK** and enter the missing information and click **Save As** again.

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.

- 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 In the Save dialog box, select **Save**.

The Save action generates 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

Purpose
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
1 In the **Nodal Provisioning Template Editor** window, edit the contents.

2 In the menu bar of the template editor window, select **File** -> **Save**.

If you are modifying a.st file that was shipped by Nortel Networks 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 **Edit** -> **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

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 312).

Updating the service template palette in Nodal Provisioning

Purpose

Use this procedure to update the template palette in the Nodal Provisioning window to include any newly created or edited templates.

Procedure

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 Passport 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

Purpose

Use this procedure to start the version checking tool to identify inconsistencies between service templates and component models and service models and hierarchy models when a Passport software version is upgraded.

Procedure

1   Type the following command line.

    ```
    /opt/MagellanNMS/bin/anpstcheck [-h] [-st | -fst
    <service template filename>] -version <passport
    version>
    ```

    The tool outputs any inconsistencies that it has found between versions.

Command line options

`-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 <passport version>` is the version of the Passport switch 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

- an error is found in the service model

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 Passport software.
```

Version checking tool output when an error is found in the service model

```
An error was found in <file name>: hierarchy involving
component <component name>.
```

Default query output

```
<service model 1>
   <service template 1>
   <service template 2>

<service model 2>
   no dependencies
```

Chapter 12
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. See the section "Manipulating component data overview" (page 343).

You can filter the component data to create a report on a subset of component data. See the sections "Filtering dialog boxes" (page 333) and "Creating a component data report on a subset of component data" (page 356).

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 358)

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 325).

Figure 24
Report Generator window in relation to the selected component in the Nodal Provisioning window
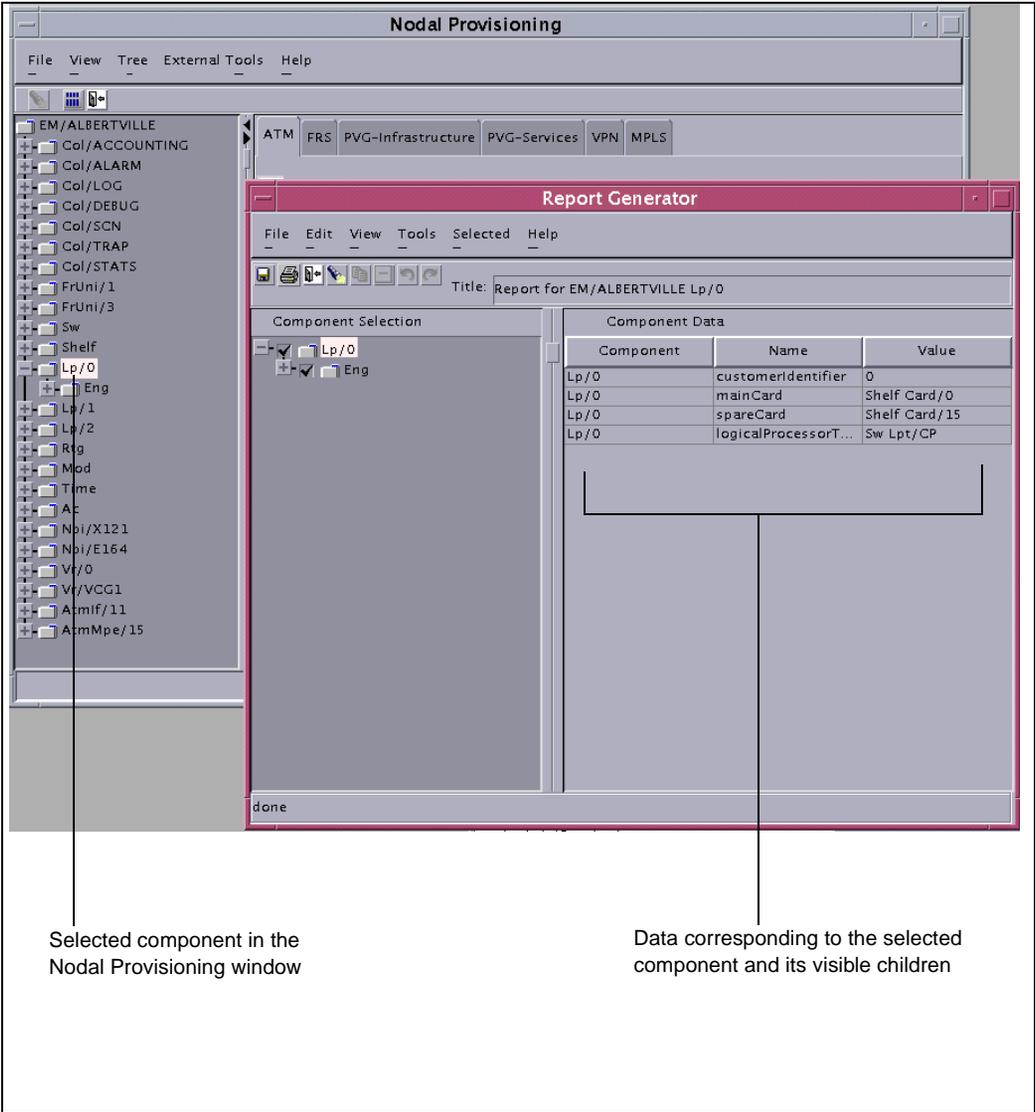
Selected component in the Nodal Provisioning window

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 326)

- "Tool bar" (page 331)

- "Title field" (page 332)

- "Component Selection panel" (page 332)

- "Component Data panel" (page 332)

- "Status bar" (page 333)

For related procedures, see "Using the Report Generator tool" (page 337).

Menu bar

See the following sections for information on the menu bar options:

- "File menu" (page 326)

- "Edit menu" (page 327)

- "View menu" (page 328)

- "Tools menu" (page 329)

- "Selected menu" (page 329)

- "Help menu" (page 331)

File menu
The table "File menu commands" (page 327) describes the commands.

Table 29
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 354)
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 354)
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 368)
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 368)
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 369)
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 371)

Edit menu
The table "Edit menu commands" (page 328) describes the menu commands.

Table 30
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 previous actions" (page 340)
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.	"Redoing actions" (page 340)
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 370)
Delete Row(s)	Deletes a selected row from the Component Data panel.	"Deleting rows in component data reports" (page 353)
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 333) "Creating a component data report on a subset of component data" (page 356)
Select All	Select All selects all the visible components in the Component Data panel.	"Selecting all components in the Component Data panel" (page 352)

View menu
The table "View menu commands" (page 329) describes the menu commands.

Table 31
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 341)
Statusbar	Displays or hides the status bar	"Displaying and hiding the status bar" (page 342)

Tools menu

The table "Tools menu commands" (page 329) describes the commands.

Table 32
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 356)
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 356)
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 330) 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 33
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 344)
Select Component	Selects or deselects the currently selected component in the component hierarchy.	"Selecting and deselecting components in the component hierarchy" (page 345)
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 346)
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 347)
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 120)
Hide	Removes the selected child of a folder from the component hierarchy in the Component Selection panel.	"Hiding a child in a folder" (page 348)
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 349)
Expand/Collapse	Expands or collapses the selected component to show or hide its children.	"Expanding or collapsing a component and its children" (page 350)
Expand All	Expands the selected component and all its children.	"Expanding a component and its children" (page 351)

Help menu

The table "Help menu commands" (page 331) describe the commands.

Table 34
Help menu commands

Menu command	Description of menu command	Related information
On Help	Opens information on using help.	"Help options" (page 32)
On Window	Opens the online documentation for the Report Generator window.	"Accessing Help on the main window" (page 34)
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 333).

- 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 334). This illustration shows the Filter Component Data dialog box for a simple filter.

Figure 25
Filter dialog box for a simple filter
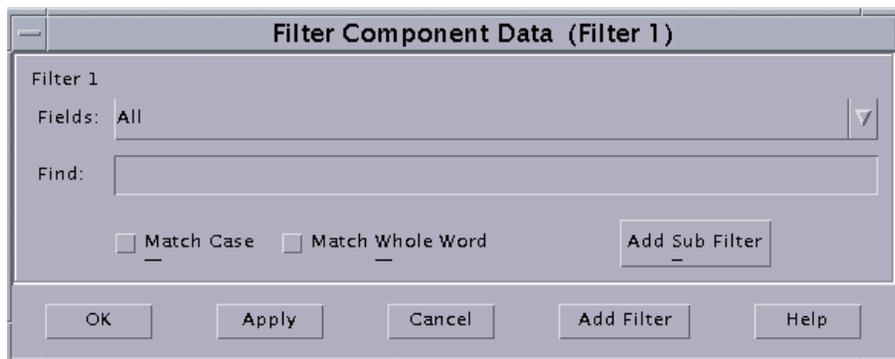
For an illustration of the Filter Component Data dialog box for a compound filter, see "Filter dialog box for a compound filter" (page 334).

Figure 26
Filter dialog box for a compound filter
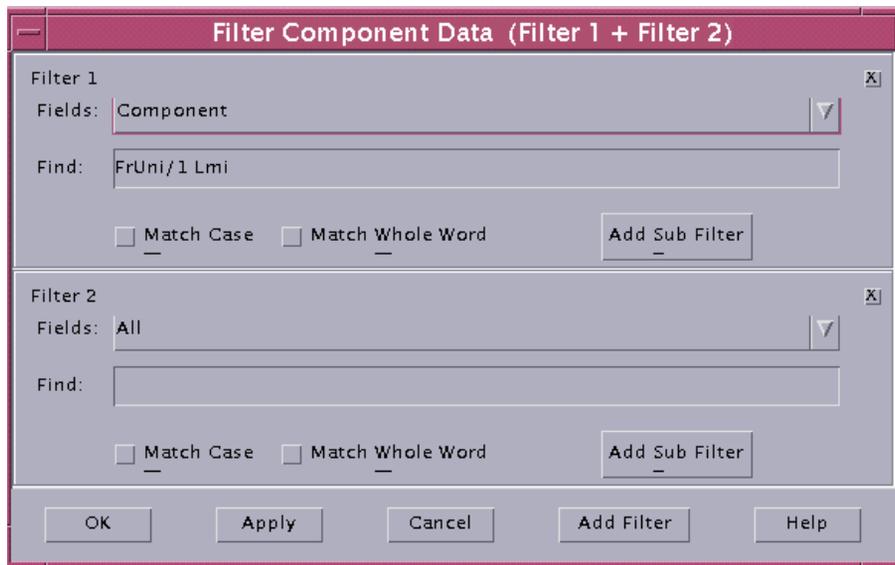
You can further refine the subset of data by apply a sub filter. For an illustration of a compound filter with a subfilters, see "Compound filter showing a sub-filter" (page 335).

Figure 27
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 336)

- "Find" (page 336)

- "Matching criteria buttons" (page 336)

- "Add Sub Filter command button" (page 336)

• "Command buttons" (page 337)

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 356).

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.

Using the Report Generator tool

See the following for procedures to use the Report Generator tool:

Starting Report Generator

Purpose
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 39).

- You are connected to a Passport device. See the section "Connecting to a Passport device" (page 51).

Procedure

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

For related procedures, see the following sections:

Undoing previous actions

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.

Note: The Undo label in the Edit menu, is dynamic, that is, it reflects the action being undone.

Procedure

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

Redoing actions

The Redo command lets you redo previously undone actions.

Note: 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

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

Procedure

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

Procedure

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.

Manipulating component data overview

See the following sections for procedures to adjust the data in the Component Data panel.

Sorting component data

Purpose
Use this procedure to reorganize component data for a selected column in ascending or descending order.

Procedure
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

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

Procedure

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

Purpose
Use this procedure to clear all component data from the Component Data panel.

Procedure
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

Purpose
Use this procedure to remove a selected child component from a folder in the component hierarchy in the Component Selection panel.

Procedure
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

Purpose
Use this procedure to remove all child components of a folder from view in the component hierarchy in the Component Selection panel.

Procedure
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

Procedure

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

Procedure

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

Purpose
You can select all the component data in the Component Data panel. You can then copy or delete the selected data.

Procedure
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

Procedure

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

Purpose

Use this procedure to create and save a report on a selected component in the component hierarchy.

Procedure

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 356).

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

Purpose

Use this procedure to filter component data to create a report on a subset of component data.

Procedure

1   Start the **Report Generator**. See "Starting Report Generator" (page 339).

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

Purpose

Use this procedure to retrieve Report Generator files using a text editor or spreadsheet.

Procedure

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 359).

Figure 28
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 Report Generator" (page 339)

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.
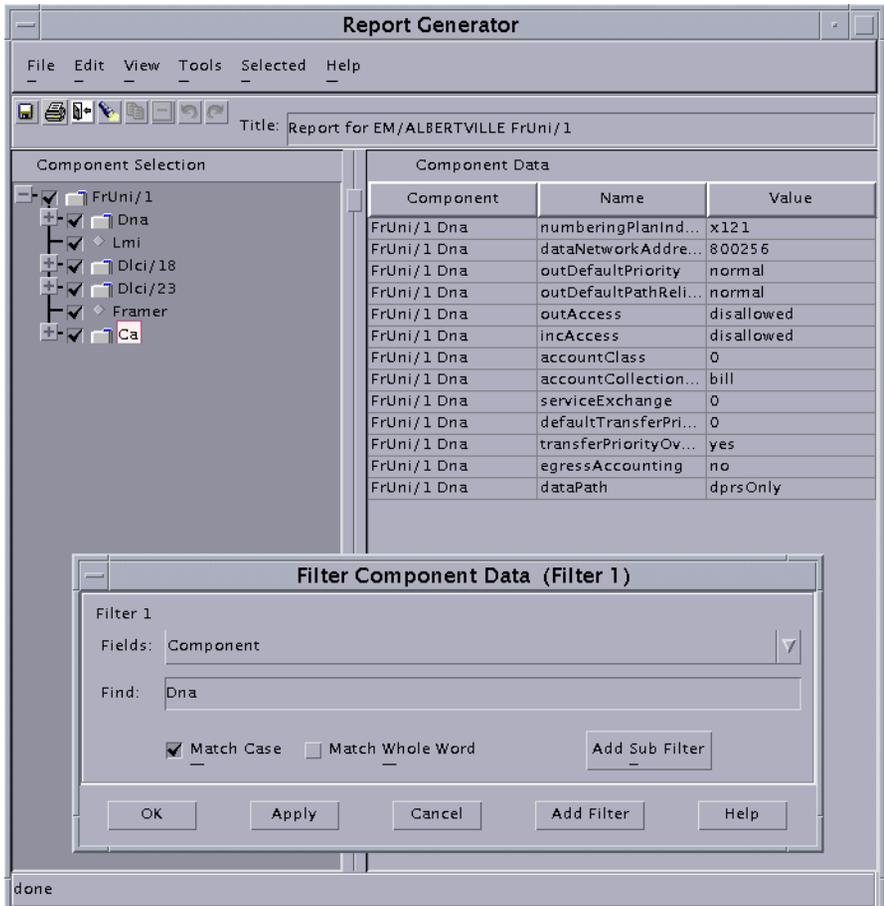
6 In the **Filter Component Data (Filter 1)**, select **Add Sub Filter**.

  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.
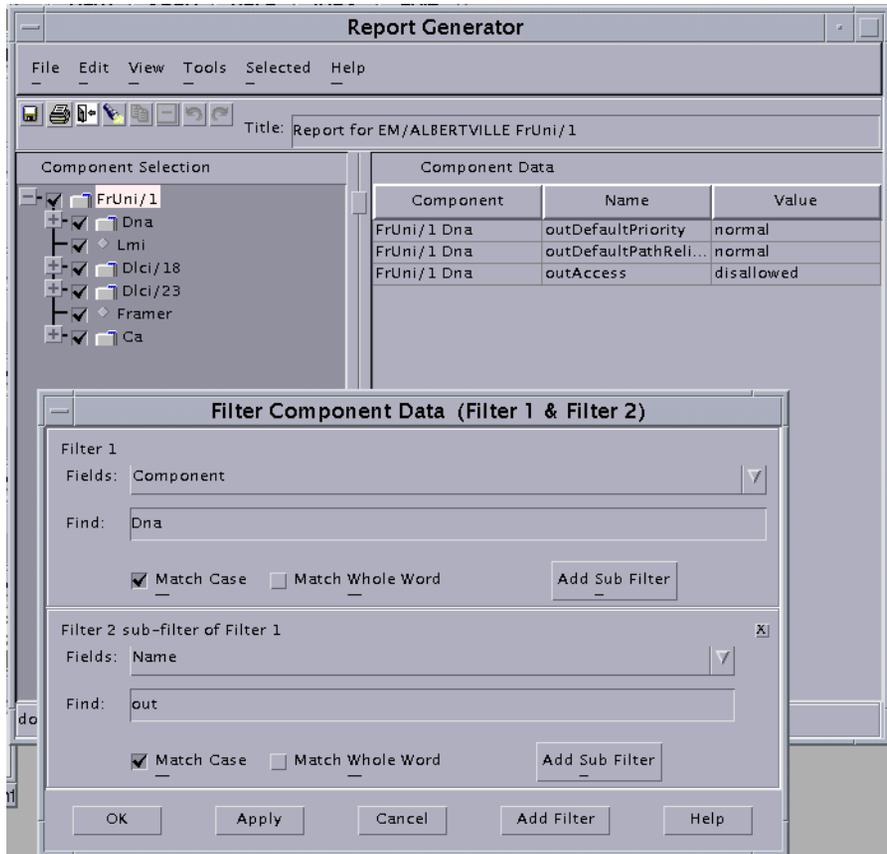
8   Select **Add Filter**.

   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.
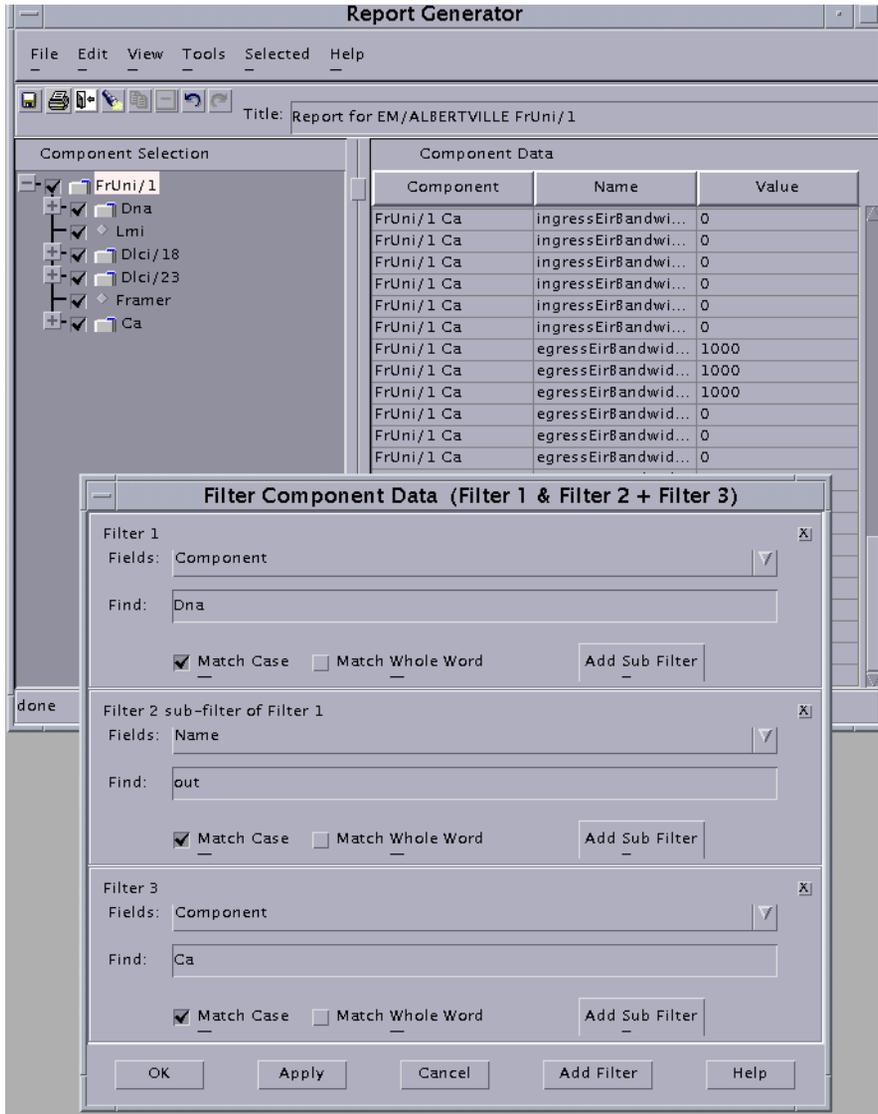
10 In the **Filter 3** section, select **Add Sub Filter**.

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**.
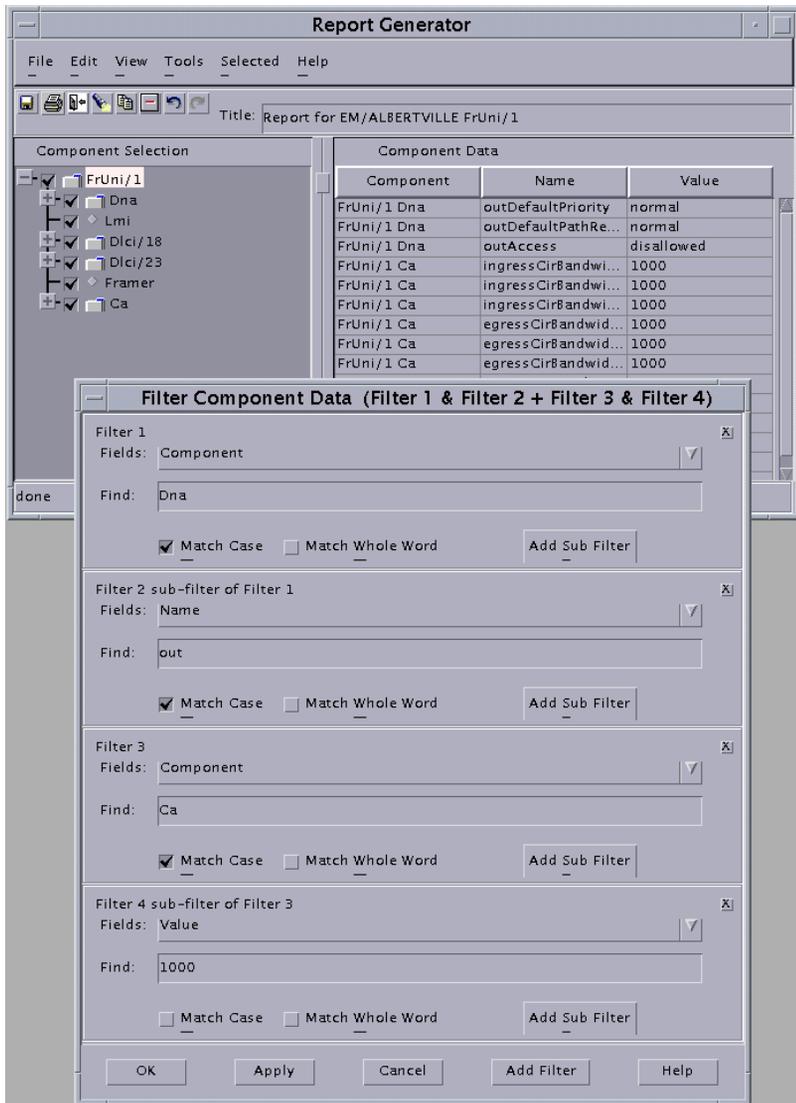
Saving the report template

Procedure

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

Purpose

Use this procedure to retrieve a saved report template.

Procedure

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

Purpose

Use this procedure to copy some or all component data displayed in the Report Generator window to a text editor.

Procedure

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

Procedure

1   In the **Report Generator** window, select **File** -> **Exit**.

The **Report Generator** window closes.

Chapter 13
Nodal Provisioning Log Viewer

This section provides information on the Nodal Provisioning Log Viewer and how to use it. This section contains the following topics:

Log Viewer overview

The Log Viewer window displays a real-time view of all log messages produced by Nodal Provisioning processes. Log Viewer supports the following types of logging:

- state

- error

- debug

You can filter logging messages by disabling the error, state, or debug logging at source so that the Log Viewer does not receive the messages.

Log Viewer appends a time stamp that displays the event time.

Log Viewer window

The following sections describe the Log Viewer window:

- "Log Viewer menu bar" (page 375)

- "Tool bar" (page 378)

- "Messages panel" (page 378)

- "Status bar" (page 378)

For an illustration of the Log Viewer window, see the figure "Log Viewer window" (page 375).

Figure 29
Log Viewer window
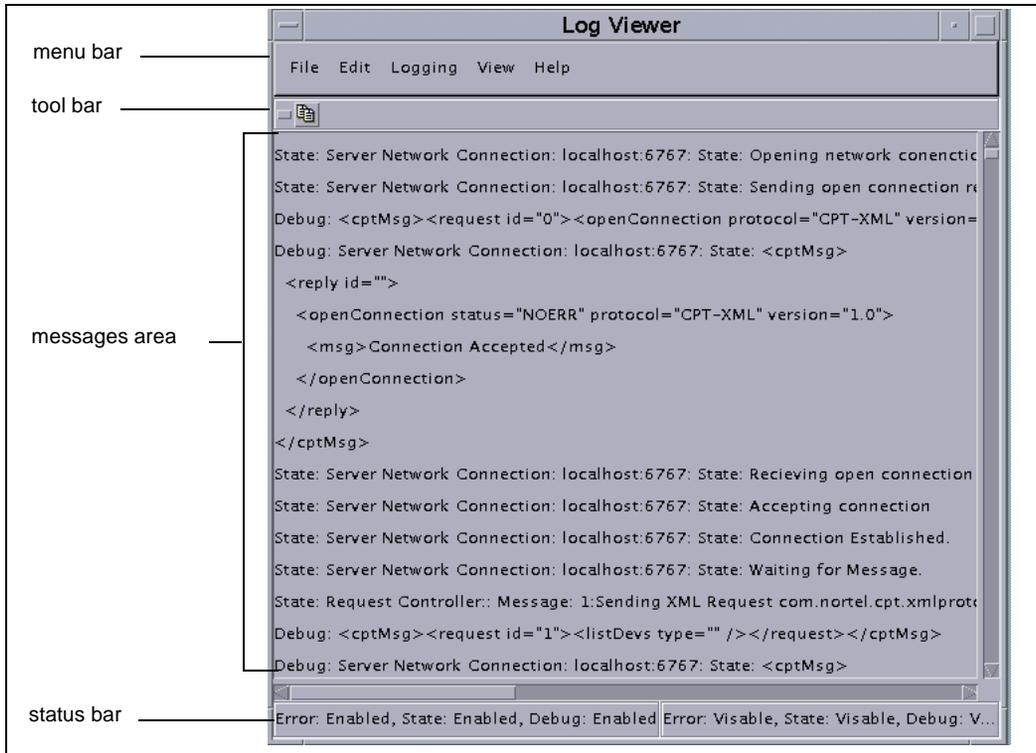
Log Viewer menu bar

The menu bar contains the following menus:

- "File menu" (page 375)

- "Logging menu" (page 376)

- "Edit menu" (page 376)

- "View menu" (page 377)

- "Help menu" (page 377)

File menu
See the table "File menu commands" (page 376) for a description of the commands.

Table 35
File menu commands

Command	Description	Related information
Save	Saves all the currently displayed log messages to file.	"Saving logging messages" (page 387)
Save As	Opens a dialog box to specify a name for the message file, and saves the messages to a specified file.	"Saving logging messages" (page 387)
Exit	Exits Log Viewer.	"Exiting Log Viewer" (page 388)

Logging menu

See the table "File menu commands" (page 376) for a description of the commands.

Table 36
Logging menu command

Command	Description	Related information
Options	Opens the Logging Options dialog box which lets you disable logging options at source.	"Disabling logging options" (page 382)

Edit menu

See the table "Edit menu commands" (page 376) for a description of the commands.

Table 37
Edit menu commands

Command	Description	Related information
Copy	Copies selected text to a clipboard.	"Copying logging messages" (page 385)
(Sheet 1 of 2)		

Table 37 (continued)
Edit menu commands

Command	Description	Related information
Clear	Clears all the logging messages and resets the log.	"Clearing logging messages" (page 386)
Select All	Selects all the logging messages.	"Copying logging messages" (page 385)
(Sheet 2 of 2)		

View menu

The View menu provides toggled commands to view or hide the type of log messages that display in the messages panel. Although messages may be hidden, they are still generated. See the table "View menu commands" (page 377) for a description of the commands.

Table 38
View menu commands

Command	Description	Related information
Time stamp	Displays or hides the time stamps for the messages that are generated.	"Viewing or hiding the time stamp and logging messages" (page 381)
State messages	Displays or hides state logging messages.	"Viewing or hiding the time stamp and logging messages" (page 381)
Error messages	Displays or hides error logging messages.	"Viewing or hiding the time stamp and logging messages" (page 381)
Debug messages	Displays or hides debug messages.	"Viewing or hiding the time stamp and logging messages" (page 381)

Help menu

The Help menu provides access to the online help for the Log Viewer window. See the table "Help menu command" (page 378) for a description of the commands.

Table 39
Help menu command

Command	Description	Related information
Help on Help	Provides general information on using Help.	"Help options" (page 32)
Help on Window	Accesses the online documentation for the Log Viewer window.	"Accessing Help on the main window" (page 34)
About Box	Provides version and copyright information.	

Tool bar
The tool bar contains two icons:

- The **Save** icon opens the Save dialog box which lets you select a location and specify a file name to save the log messages.

- The **Copy** icon copies selected messages to a clipboard.

Messages panel
The Messages panel displays the log messages. The messages that appears in the messages panel depend on the type of log message that you select from the View menu.

Status bar
The status bar shows the error messages that are enabled and visible.

Starting Log Viewer on a Preside MDM workstation

Purpose

Use the -Dlogview=true option from the command line to start Log Viewer on a Preside Multiservice Data Manager (MDM) workstation,.

Procedure

1   On a MDM workstation, type the following command:

```
/opt/MagellanNMS/bin/anpui -Dlogview=true
```

Starting Log Viewer on a client workstation

Purpose

Use the -Dlogview=true option from the command line to start Log Viewer on a client workstation.

Procedure

1 On a Preside MDM workstation, type the following command:

```
/opt/MagellanNMS/bin/anpui -Dlogview=true
```

Viewing or hiding the time stamp and logging messages

Purpose

Use this procedure to view or hide the time stamp, and the type of logging messages that display in the messages panel of the Log Viewer window.

Procedure

1   From the **View** menu select one or more of the following options:

- To display or hide the time stamp, select **Time Stamp.**

- To display or hide state messages, select **State Messages**.

- To display or hide error messages, select **Error Messages**.

- To display or hide debug messages, select **Debug Messages**.

Disabling logging options

Purpose

Use the Logging Options dialog box to specify the types of logging messages that you want to receive from Log Viewer.

- the types of logging options to enable or disable at source so that you will only receive the messages that you enable. Your choices are Error, State, and Debug.

- the types of logging options to save. Your choices are Error, State, and Debug.

- where to save the log messages

  Note: By disabling the State and Debug logging, you increase the speed of the application.

Procedure

1 In the **Logging** menu in the **Log Viewer** window, select **Options**.

   The **Logging Options** dialog box opens.

2 Select the types of logging messages you want to receive. Your options are **Error**, **State**, and **Debug**.

Logging Options

What Types of logging do you want enabled?

Disabling State and Debug will increase application speed.

☑ Error   ☐ State   ☑ Debug

Would you like to save logging directly to file?

○ Yes   ◉ No

Which types?

☐ Error   ☐ State   ☐ Debug

File Na...   [   ]   Browse

Ok   Cancel

3   If you wish to save your logging messages to a file, click **Yes** and proceed to step 4.

If you do not wish to save your logging messages to file, click **No** and proceed to step 8.

4   Select the type of log messages you wish to save to file. You choices are **Error**, **State**, and **Debug**.

5   Complete one of the following steps:

- Type a file name in the **File Name** field and click **OK** to close the **Logging Options** dialog box.

- Click **Browse** to open a **Save** file browser dialog box and proceed to step 6.

6   In the **Save** dialog box, select the location for your file, and specify a file name in the **Enter file name** field.

```
┌─────────────────────────────────────────────────────────┐
│  ─                      Save                       ┌  □  │
├─────────────────────────────────────────────────────────┤
│  Enter path or folder name:                              │
│  /local/users/nmguest                                    │
│                                                          │
│  Filter                          Files                   │
│  *                        ▽      # find : -name core     │
│                                  6_101.pdf               │
│  Folders                         a                       │
│  ..                              adb                      │
│  ALBERTVILLE                     browser.config          │
│  ANP                             client.ini              │
│  API_model                       core                    │
│  ATHENS                          data131_dir             │
│  dpn                             false                   │
│  ftp                             libpsmsem.so.2          │
│  jll                             ls                      │
│  LAKEPLACID                      mkdir:                  │
│  MagellanNMS                     nat.log                 │
│  mnt_pnt                         nmstool                 │
│  MUNICH                          passportSwDist.pref     │
│  NAGANO                          PPAPI                   │
│  nrs_sr                          proed                   │
│  nsmail                          setenv                  │
│  PARIS                           top                     │
│  ROME                            vcdb.2001.14.Thu.153201.gbk │
│  TOKYO                                                   │
│  xtlu                                                    │
│                                                          │
│  Enter file name:                                        │
│  false                                                   │
│                                                          │
│   ┌──────┐   ┌────────┐   ┌────────┐   ┌──────┐          │
│   │ Save │   │ Update │   │ Cancel │   │ Help │          │
│   └──────┘   └────────┘   └────────┘   └──────┘          │
└─────────────────────────────────────────────────────────┘
```

7   Click **Save**.

You return to the **Logging Options** window.

8   Click **OK**.

When you expand nodes in the component hierarchy in the **Nodal Provisioning** window, or drag templates onto nodes, the log file you specified appears in the location you specified. The log file contains the log messages that arrived since exiting the **Logging Options** dialog box. You will only receive messages of the type that you enabled.

Copying logging messages

Purpose

Use this procedure to copy some or all the messages from the Log Viewer window to a clipboard. This information can then be pasted into a text editor.

Procedure

1   Complete one of the following steps:.

- In the messages area of the **Log Viewer** window, select the messages that you want to copy.

- To select all the information in the **Log Viewer** window, from the **Edit** menu, select **Select All**.

2   From the **Edit** menu, select **Copy**.

The logging messages are copied to a clipboard.

Clearing logging messages

Purpose

Use this procedure to clear log messages from the Log Viewer window.

Procedure

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

1 The **Log Viewer** messages area is cleared of logging messages.

Saving logging messages

Purpose

Use this procedure to save logging messages to a file.

Procedure

1   If you have already saved the messages to file, from the **File** menu, select **Save**.

If you are saving the logging messages for the first time, proceed to step 2.

2   From the File menu, select **Save As**.

A **Save** dialog box opens.

3   Select a location and specify a file name for the logging options file.

4   Click **Save**.

The logging messages are saved to the specified file.

Exiting Log Viewer

Purpose

Use this procedure to exit Log Viewer.

Procedure

1 From the **File** menu, select **Exit**.

The **Log Viewer** window closes and you return to the Nodal Provisioning window.

Chapter 14
Embedded Nodal Provisioning

This section describes the Preside Multiservice Data Manager (MDM) Embedded Nodal Provisioning application and how to use it. It contains the following sections:

Overview

Embedded Nodal Provisioning provides a simple internal interface through which key elements of Nodal Provisioning are integrated into the Passport Shelf View so that you can perform component and service provisioning tasks. From Passport Shelf View, you can both surveil and configure a Passport device from a single shelf view.

Embedded Nodal Provisioning supports the following devices:

- Passport 6000

- Passport 7000

- Passport 15000

- Passport 20000

Passport Shelf View is a diagnostic tool that lets you troubleshoot problems in real time. Therefore, provisioning tasks performed while in Passport Shelf View should focus on solving single, discrete problems that involve small changes to a small number of components in the current, active Passport view. For the effects of the provisioning tasks to be reflected in the Passport Shelf View, provisioning tasks are always performed on the current view, and are automatically activated when applied.

For a description of Passport Shelf View and how to use it, see 241-6001-011 *Preside MDM Fault Management User Guide*.

You should use Nodal Provisioning if you wish to navigate and provision a large number of Passport components in a variety of Passport views. In this case, the performance of Nodal Provisioning is better than that of Embedded Nodal Provisioning since Nodal Provisioning uploads the entire Passport view file at startup instead of one component at a time as is the case with Embedded Nodal Provisioning. Thereafter, component access is faster. As well, Embedded Nodal Provisioning does not automatically retrieve possible values for link attributes available in Nodal Provisioning. In Embedded Nodal Provisioning, you need to search for possible link values. This may be slow, since the entire Passport view has not been loaded.

Embedded Nodal Provisioning provides launch points for Nodal Provisioning and the service provisioning tools. For additional information, on the service provisioning tools and Nodal Provisioning, see the following NTPs:

- 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide*
- 241-6001-601 *Preside MDM Service Provisioning for IP VPN Global Update User Guide*
- 241-6001-602 *Preside MDM Service Provisioning for CES SVC User Guide*
- 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide*
- 241-6001-610 *Preside MDM Nodal Provisioning User Guide*
- 241-6001-611 *Preside MDM Nodal and Service Provisioning Reference Guide*

The following sections describe the provisioning capabilities of Embedded Nodal Provisioning in greater detail:

- "Provisioning in Passport Shelf View" (page 391)

- "Simultaneous provisioning" (page 392)

Provisioning in Passport Shelf View

You can select a component in Passport Shelf View and perform the following provisioning actions:

- add, modify and delete subcomponents

- apply a service template form to link the component to a service or to provision service sub-components.

You can perform these same actions from the Embedded Nodal Provisioning interface.

Embedded Nodal Provisioning uses the same component creation, component edit, and service creation forms as are used by Nodal Provisioning. For a description of these forms, see 241-6001-610 *Preside MDM Nodal Provisioning User Guide*.

For the effects of provisioning actions to be reflected in the client MDM application, provisioning is always performed on the current view and automatically activated when applied.

From the Embedded Nodal Provisioning interface, you can activate any number of discrete provisioning tasks, consisting of operations on any number of Passport components.

Adding, modifying, and deleting subcomponents

You can add subcomponents from either Passport Shelf View or the Embedded Nodal Provisioning window. To add a subcomponent, you must first identify the parent component. Once you have selected the parent component, you need to select the type of subcomponent to create.

You can also modify and delete components from Passport Shelf View and the Embedded Nodal Provisioning window.

See the following sections for additional information:

Applying a service template

You can apply a service template from either Passport Shelf View or the Embedded Nodal Provisioning window. To apply a service template, you need to first identify the component to which the service template is being applied. One the component is identified, you then need to identify the name of the template to apply to that component,

See the following sections for additional information:

Simultaneous provisioning

Embedded Nodal Provisioning permits simultaneous provisioning tasks on a Passport device. Provisioning through Embedded Nodal Provisioning does not reserve the Passport provisioning session until you activate the task. Multiple users can initiate the provisioning and activation 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 activated.

The Embedded Nodal Provisioning session secures the on-switch Passport provisioning session when you activate a provisioning change. If the provisioning session is available when the request is issued, the activation 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 activation 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 activate the provisioning task. It also does not identify or resolve conflicts caused by more than one person trying to initiate provisioning or activation processes on-switch at the same time. Such conflicts may occur when more than one person makes incompatible changes to the same Passport components. Conflict checking and identification is done through the Passport semantic checks, and you must manually resolve the conflict.

Embedded Nodal Provisioning interface

The Embedded Nodal Provisioning interface consists of a single window from which you can provision the Passport device viewed in Passport Shelf View. Each instance of the Passport Shelf View opens one instance of Embedded Nodal Provisioning for provisioning purposes.

Provisioning changes are organized into individual, tasks which can be activated. Each task can include any number of the following provisioning actions:

- create components
- modify components
- delete components
- apply a service template

For an overview of Embedded Nodal Provisioning and its functionality, see "Overview" (page 389).

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

- "Menu bar" (page 397)

- "Provisioning Tasks panel" (page 404)

- "Provisioning forms panel" (page 407)

- "Task Activation Queue panel" (page 415)

- "Status bar" (page 416)

- For a description of the user logs, see "User logs" (page 416)

For the procedures to use Embedded Nodal Provisioning, see the following sections:

- **General procedures**

  — "Starting Embedded Nodal Provisioning" (page 419)

  — "Authenticating to a device" (page 421)

  — "Viewing on-line help" on page 422

  — "Exiting Embedded Nodal Provisioning" (page 423)

- **Provisioning procedures**

  — "Provisioning tasks overview" (page 424)

  — "Adding a subcomponent from Passport Shelf View" (page 426)

  — "Selecting the task in which to add or move an action" (page 456)

  — "Adding a subcomponent from the Embedded Nodal Provisioning window" (page 429)

  — "Modifying a component from Passport Shelf View" (page 432)

  — "Modifying a component from the Embedded Nodal Provisioning window" (page 433)

  — "Refreshing a component modification form" (page 435)

  — "Deleting a component from the Passport Shelf View" (page 436)

  — "Deleting a component from the Embedded Nodal Provisioning window" (page 437)

- **Organizing provisioning tasks and actions**

- **Activating tasks**

- **Concurrent provisioning conflicts and error resolution**

— "Concurrent provisioning conflicts and resolution" (page 483)

— "Error messages" (page 484)

See also...

- "Repairing service creation errors" (page 188)

- "Resolving a restorePossible error condition" (page 190)

- "Resolving a journalDisabledReason error condition" (page 191)

For an illustration of the Embedded Nodal Provisioning interface, see the figure "Embedded Nodal Provisioning interface" (page 397).

Figure 30
Embedded Nodal Provisioning interface
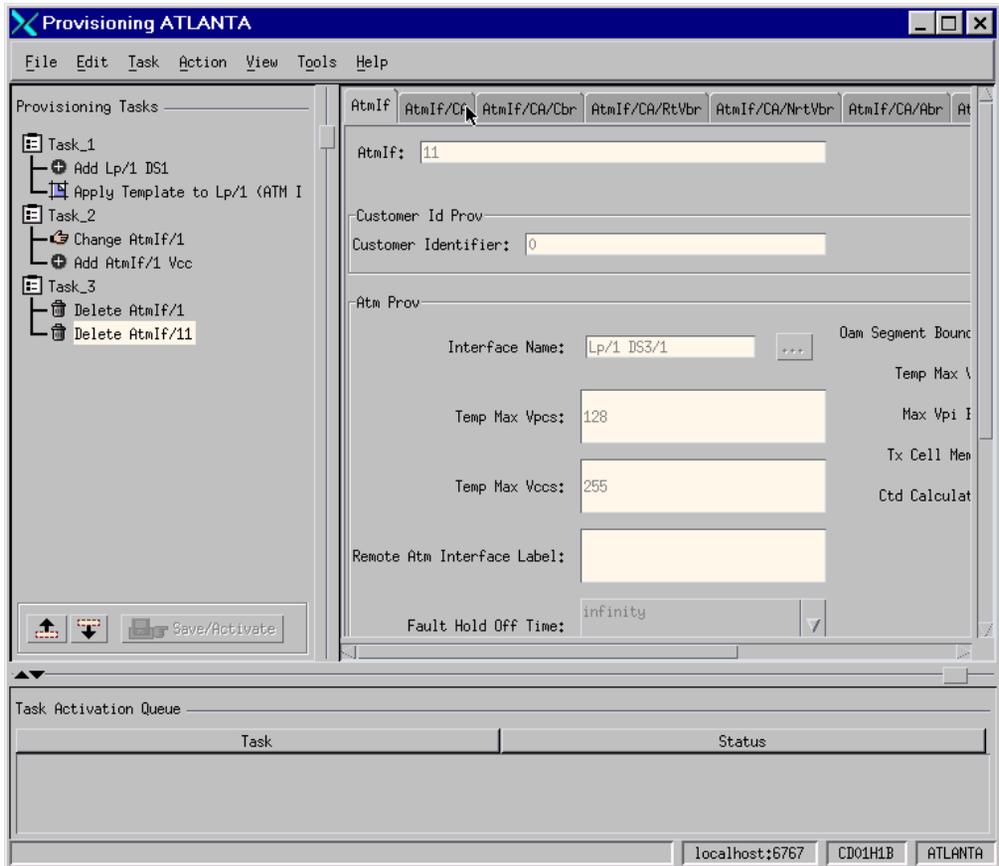
Menu bar

The Embedded Nodal Provisioning user interface has the following menus:

- "File menu" (page 398)

- "Edit menu" (page 398)

- "Task menu" (page 399)

- "Action menu" (page 401)

- "View menu" (page 402)

- "Tools menu" (page 403)

- "Help menu" (page 404)

Each task and provisioning action in the task navigation tree, has a pop-up menu which contains commands that correspond to the commands contained in the Task and Action menus.

File menu
The table "File menu commands" (page 398) describes the menu commands.

Table 40
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 activated on the Passport device, the Exit command is disabled.	"Exiting Embedded Nodal Provisioning" (page 423)

Edit menu
The table "Edit menu commands" (page 398) describes the menu commands.

Table 41
Edit menu commands

Command	Description	Related information
Cut	Cuts the selected text.	
Copy	Copies the selected text.	
Paste	Pastes the copied text.	
Save/Activate Options...	Opens a dialog box to set the activation options for this window.	"Setting the options for saving and activating provisioning changes" (page 473)

Task menu

The Task menu provides the commands to manipulate the tasks in the task navigation tree. The table "Task menu commands" (page 400) describes the menu commands.

The following commands also appear in the pop-up menu when you right-click on a provisioning task in the task navigation tree:

*   **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.

*   **Save/Activate Task** activates the currently selected task and adds it to the Task Activation queue. It is disabled if no task is selected, or if the selected task is in retry or being activated.

*   **Cancel Activation** cancels the activation of the selected task if it is in the retry state. The task returns to the open state and is removed from the Task Activation Queue. It is disabled if there is no task selected or if the selected task is not in the retry state.

Table 42
Task menu commands

Command	Description	Related information
New Task	Adds a new task to the provisioning task tree.	"Adding a new provisioning task" (page 454)
Move Task Up	Changes the order in which the tasks in the queue are activated. 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 activation queue, or • if the selected task is "In progress"	"Rearranging the order of tasks for activation" (page 464)
Move Task Down	Changes the order in which the tasks in the queue are activated. 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 activating 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 activation queue, or • if the selected task is "In progress"	"Rearranging the order of tasks for activation" (page 464)
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 462)
Remove Completed Tasks	Removes all the tasks that have been successfully activated and are complete.	"Removing all provisioning tasks that are completed" (page 463)
(Sheet 1 of 2)		

Table 42 (continued)
Task menu commands

Command	Description	Related information
Save/Activate Task	Activates the currently selected tasks and adds it to the Task Activation 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 activated	"Setting the options for saving and activating provisioning changes" (page 473) "Saving and activating provisioning changes" (page 476)
Cancel Activation	Cancels the activation 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 activation of a single provisioning task" (page 481)
Cancel Activations	Opens a dialog box to cancel one or more activations that are in the retry state or queue status. This command is disabled if there are no activations in the retry state.	"Canceling the activation of more than one provisioning task" (page 482)
(Sheet 2 of 2)		

Action menu

The Action menu provides the commands to manipulate the actions in the task navigation tree. The table "Action menu commands" (page 402) describes the menu commands.

The following commands also appear in the pop-up menu when you right-click on a provisioning action in the task navigation tree. 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 43
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 458)
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 provisioning actions" (page 455)
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 provisioning actions" (page 455)
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.	"Selecting the task in which to add or move an action" (page 456)
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 461)

View menu
The table "External Tools menu commands" (page 403) describes the menu commands.

Table 44
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 480)
Task Activation Queue	Displays or hides the Task Activation Queue panel at the bottom of the window.	"Viewing the Task Activation Queue" (page 479)

Tools menu

The tools menu provides launch points for the Nodal Provisioning and service provisioning tools. The table "External Tools menu commands" (page 403) describes the menu commands.

Table 45
External Tools menu commands

Command	Description	Related information
Nodal Provisioning	Starts Nodal Provisioning.	"Launching external tools from Embedded Nodal Provisioning" (page 491)
Nodal Provisioning Template Editor	Starts the Nodal Provisioning Template Editor.	"Launching external tools from Embedded Nodal Provisioning" (page 491)
Service Provisioning	Opens a sub-menu of commands to start the following service provisioning tools: • ATM • CES SVC • Frame Relay • IP VPN Global Update	"Launching external tools from Embedded Nodal Provisioning" (page 491)

Help menu

The Help menu provides a launch point to the on-line documentation. The table "Help menu command" (page 404) describes the menu command.

Table 46
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 contains the task navigation tree. This tree lets you browse the components being changed through the activation of each task.

Provisioning actions are ordered top to bottom under each task in the task navigation tree. Each provisioning action is applied to the Passport device in the order in which it appears in the task. You are provided menu options and tool bar buttons that let you do the following:

• change the order of provisioning actions by menu options and tool bar buttons.

• add provisioning tasks and actions to the task navigation tree.

• remove provisioning tasks and actions from the task navigation tree.

Icons indicate the nature of the provisioning change to the component. For a description of the tree icons, see the following tables:

• "Task navigation tree task icons" (page 405). The tree icons for tasks display the type of provisioning change to the component and their status.

• "Task navigation tree action icons" (page 406). The tree icons for actions display the actions within each task.

You can add and remove provisioning tasks and actions from the tree by using the main menu and pop-up menu commands.

You are also provided tool tips for each task and action in the task navigation tree. 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 47
Task navigation tree task icons

Icon	Name	Meaning
	Task Open	The provisioning task has not been activated.
	Task Completed	The provisioning task has been activated and is now complete. No further work can be done with this task.
	Task in Retry	You have requested to activate this provisioning task. However, the provisioning session is currently in use. Retry is in progress and this task will be activated as soon as the provisioning session is free.
	Task in Queue	You have requested to activate 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 activation.
(Sheet 1 of 2)		

Table 47 (continued)
Task navigation tree task icons

Icon	Name	Meaning
	Task Activating	The provisioning task is in the process of being activated.
	Errors in Task	The user has requested to activate the provisioning task. However, the activation failed because the provisioning task did not pass the Passport semantic checks. You may modify the task and try to activate again.
(Sheet 2 of 2)		

Table 48
Task navigation tree action icons

Icon	Name	Meaning
	Service Template action	This is a service template that is applied 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 task navigation tree also provides the shortcut buttons. See the table "Task navigation tree shortcut buttons" (page 407).

Table 49
Task navigation tree shortcut buttons

Toolbar icon	Action
	This icon is the same as Action -> Move Action up menu command. 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 is the same as Action -> Move Action Down menu command. 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 is the same as Task -> Save/Activate Task... menu command. This icon activates the currently selected task and adds it to the Task Activation Queue. This icon is disabled if you have not selected a task or if the selected task is in retry or is being activated.

Provisioning forms panel

The right side of the Embedded Nodal Provisioning user interface is dynamic and displays the forms associated with the provisioning action selected in the task navigation tree.

When you select an action in the task navigation tree, 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 which contains the component creation is activated, whichever comes first. The range and type are checked against those defined in the Passport Command Description

Language (CDL). If an invalid attribute is found, the task, action, and attribute that is in error is identified in a message dialog box, as well as the Task Details panel.

- "Provisioning forms panel for the Add Component action" (page 408)

- "Provisioning forms panel for the Change Component action" (page 409)

- "Provisioning forms panel for the Delete Component action" (page 411)

- "Provisioning forms panel for the Service Template action" (page 412)

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 Passport 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 409). This figure shows an example of creating a new DS1 component as a subcomponent of Lp/1.

Figure 31
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 Passport 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 an Change Component action" (page 410). This figure is an example for modifying the Lp/2 X21/0.

Figure 32
Provisioning Forms panel for an Change Component action
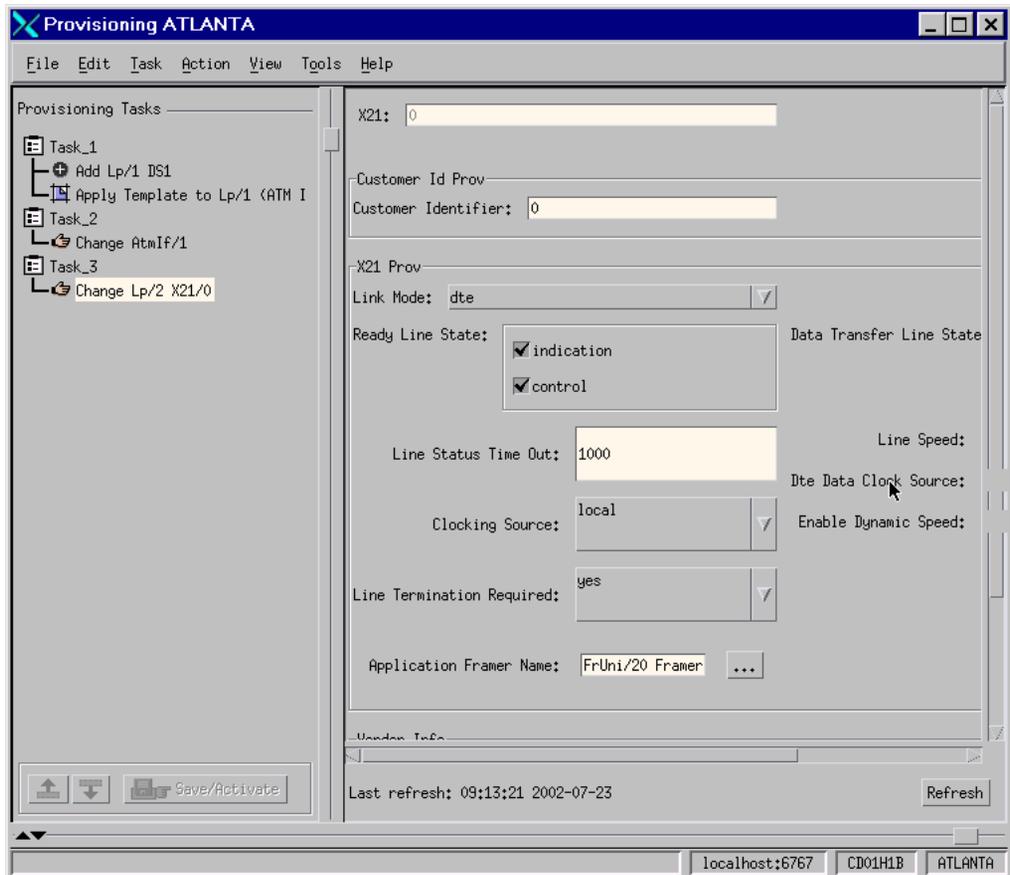
Provisioning forms panel for the Delete Component action

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 can not make any changes to the component data.

For an illustration of the Provisioning Forms panel when you have selected an Delete Component action, see the figure "Provisioning Forms panel for an Delete Component action" (page 411).

Figure 33
Provisioning Forms panel for an Delete Component action
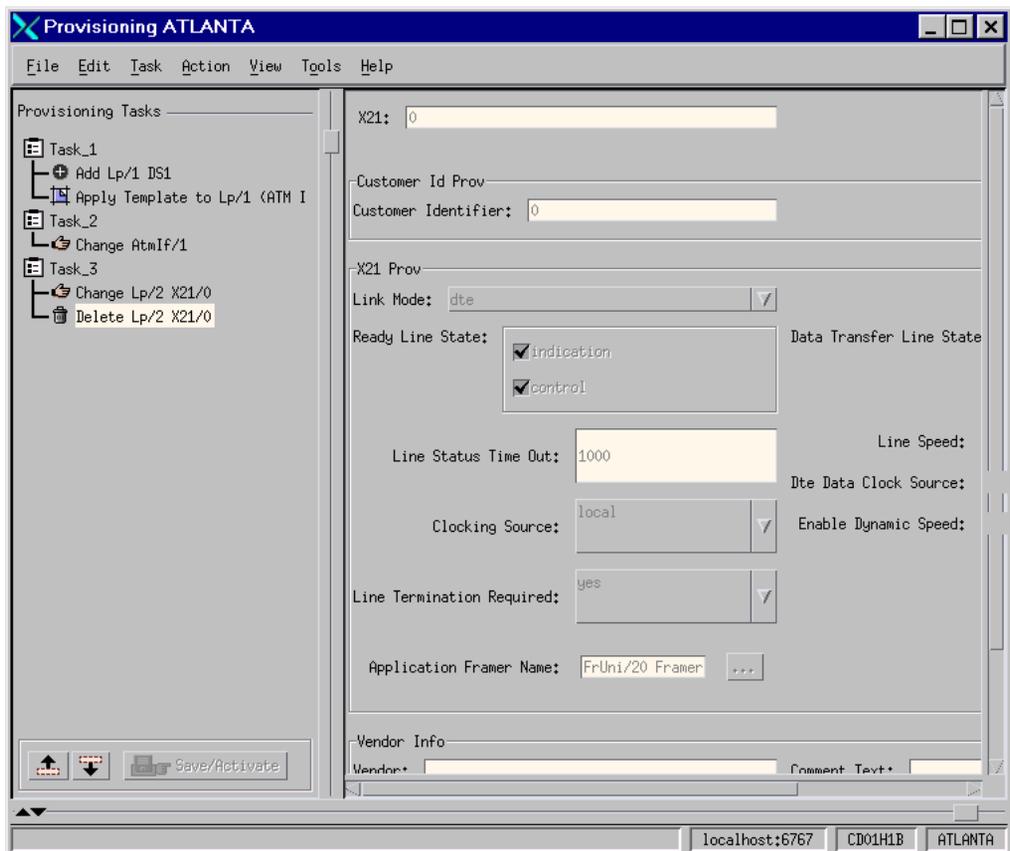
Provisioning forms panel for the Service Template action

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 413). This figure shows an example for applying the Create ATM Interface Service Template to Lp/1

Figure 34
Provisioning Forms panel for a Service Template action
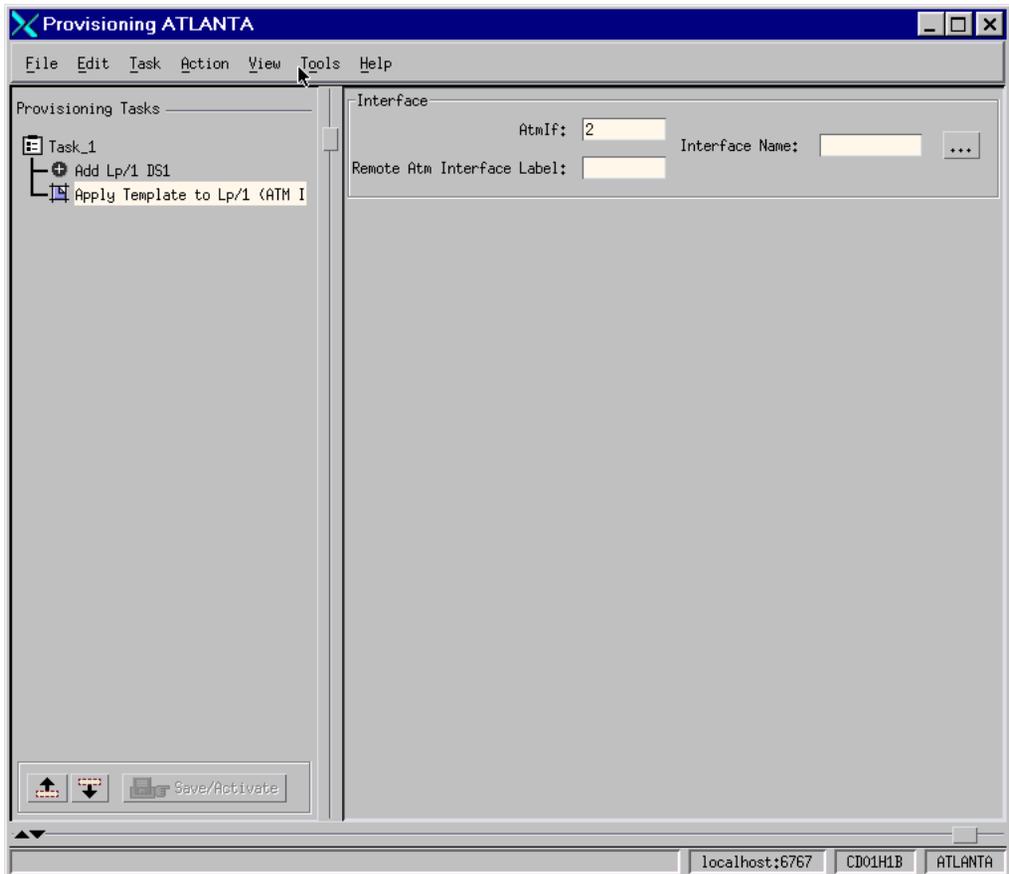
Task Details panel

If you select a task in the task navigation tree, the right side of the Embedded Nodal Provisioning window displays the activation details for the selected task. You can change the name and view the activation status of the task. If a task has not yet been activated, the status text states:

```
This task has not yet been activated.
```

The activation status provides a log of all the steps performed by the system after you request to activate a task. The activation status will display the following types of information:

- acquiring the provisioning session

- creating, modifying or deleting components

- applying service templates

- checking, saving, activating the view

- confirming and committing the view

- releasing the provisioning session

- warning or error messages encountered during the activation

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 task navigation tree.

The figure "Task Details panel" (page 415) shows an example of the Task Details panel for a task that is currently being activated.

Figure 35
Task Details panel
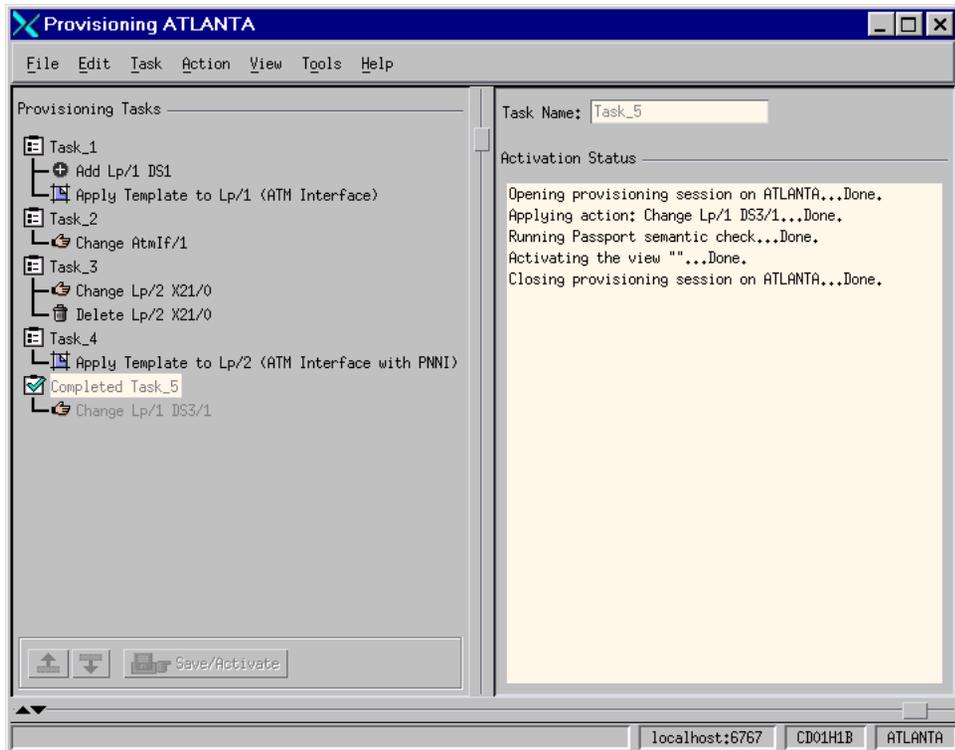
Task Activation Queue panel

The Task Activation Queue panel is an optional panel that appears at the bottom of the Embedded Nodal Provisioning window. It shows the tasks in decreasing order of activation from top to bottom.

You can show the Task Activation Queue by selecting Task Activation Queue from the View menu.

You can cancel the activation of any task that has the status "Waiting for provisioning session by selecting Cancel Activation 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 Passport device to which you are connected.

User logs

User logs are provided to capture the following information during each session of Embedded Nodal Provisioning.

- start of the provisioning session

- the name of each action that is applied to the current view when a task is activated

- Passport semantic check results

- Passport activation results

- End of provisioning session

Error logs are stored in /opt/MagellanNMS/data/enp.

Using Embedded Nodal Provisioning

See the following sections for the procedures for Embedded Nodal Provisioning:

- **General procedures**

- **Provisioning procedures**

Starting Embedded Nodal Provisioning

Use this procedure to open the Embedded Nodal Provisioning window.

Prerequisites

This procedure assumes that you have opened Passport Shelf View. For information on how to open Passport Shelf View, see 241-6001-011 *Preside MDM Fault Management User Guide*.

Procedure

1   In Passport Shelf View, select a component and right click to open the component's popup menu.

Note: Passport Shelf View opens with the State Summary tab selected. However, you can also select a component from the Physical Shelf or Component Information panels.

2   Right click on the component, and from the pop-up menu, select **Configuration**.

3   Select any one of the following provisioning sub-menu items:

- **Add Subcomponent**

- **Change**

- **Delete**

- **Apply Service Template**

4   If more than one Configuration Manager is specified in the configuration file, a **Select Server** dialog box opens. You need to select a Configuration Manager server. See "Selecting the Configuration Manager server" on page 420.

5   A Provisioning Login dialog box opens. See "Authenticating to a device" (page 421).

After you click OK in the Provisioning Login dialog box, a read-only session of **Embedded Nodal Provisioning** opens. The provisioning action selected in **Passport Shelf View** shows as a new provisioning task in the task navigation tree in the **Provisioning Tasks** panel.

Selecting the Configuration Manager server

Select a Configuration Manager server when the configuration file contains more than one Configuration Manager server. When you start Embedded Nodal Provisioning and multiple Configuration Manager servers exist, the Select Server dialog box opens automatically. This dialog box displays a list of servers from which you can make a selection.

Procedure steps

1   In the **Select Server** dialog box, select the desired configuration manager server from the list servers.
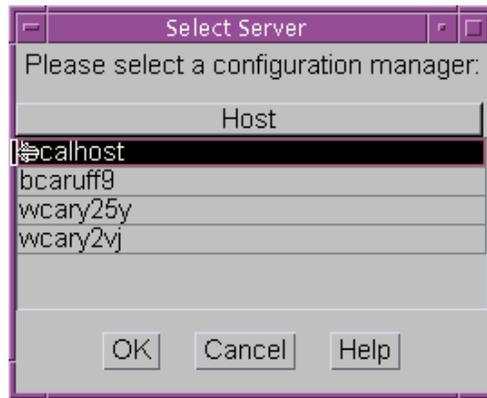
2   Click **OK**.

Authenticating to a device

Use this procedure to enter a user ID and password before you activate the first provisioning change to the device. This userid and password is remembered and used for all subsequent provisioning changes.

Prerequisites

You need to have sufficient provisioning capabilities to successfully login.

Procedure

1   In the **User name** and **Password** fields, enter a valid user name and password that will allow you to provision the device.

2   Click **OK**.

This opens a read-only session of **Embedded Nodal Provisioning**. The provisioning action selected in **Passport Shelf View** shows as a new provisioning task in the task navigation tree in the **Provisioning Tasks** panel.

If you enter a user ID or password with insufficient provisioning capabilities, the Provisioning Login dialog box shows again. Return to step 1.

If you enter an invalid user ID or password, an error dialog box opens and you are asked to enter a valid user ID and password. Return to step 1

Cancel closes the dialog box.

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

1   From the **Help** menu in the **Embedded Nodal Provisioning** window, select **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 activating a task. If Embedded Nodal Provisioning has the provisioning session and is in the process of activating a task, the Exit menu item is disabled.

Procedure

1   From the **File** menu, select **Exit**.

The **Embedded Nodal Provisioning** window closes.

If there are tasks in the task navigation tree that have not yet been completed, either because they have not been activated, or the activation was unsuccessful, a dialog box opens confirming that you want to exit the **Embedded Nodal Provisioning** window.
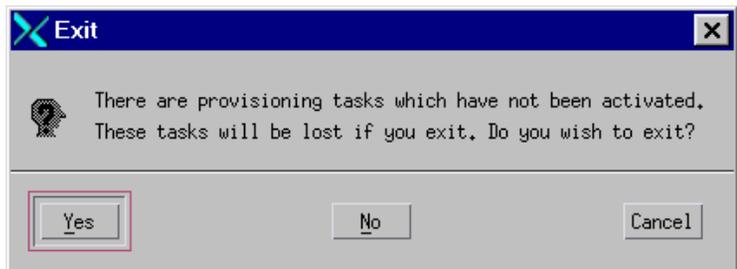
2   Click **Yes** to exit the **Embedded Nodal Provisioning** window. All the tasks are lost.

Click **No** to return to the **Embedded Nodal Provisioning** window.

Click **Cancel** to cancel the operation.

Provisioning tasks overview

This section describes the procedures to make provisioning changes from Passport Shelf View and from Embedded Nodal Provisioning.

You can add a new provisioning action to the Embedded Nodal Provisioning window in two ways:

• by selecting a component in Passport Shelf View and using the component's pop-up menu to select the type of provisioning action to perform on the component. The selected action and component is then added as a new task in the Embedded Nodal Provisioning window using the following rules:

— If the Embedded Nodal Provisioning window is not already open, or if there is no Open task in the Provisioning Tasks panel, the action is added to a new task with an auto generated name

— If there is only one Open task in the Provisioning Tasks panel, the action is added to that open task

— If there is more than one Open task in the Provisioning Tasks panel, a Move To Task dialog box opens and prompts you to choose the task in which to place the action. For the procedure to choose the task, see "Selecting the task in which to add or move an action" (page 456).

• From the Action menu of the Embedded Nodal Provisioning window, select New Action..., or select a task in the Provisioning Tasks panel, and then select the New Action... command from the task's pop-up menu.

See the following sections for provisioning actions:

• "Adding a subcomponent from Passport Shelf View" (page 426)

• "Adding a subcomponent from the Embedded Nodal Provisioning window" (page 429)

• "Modifying a component from Passport Shelf View" (page 432)

• "Modifying a component from the Embedded Nodal Provisioning window" (page 433)

• "Refreshing a component modification form" (page 435)

- "Deleting a component from the Passport Shelf View" (page 436)

- "Deleting a component from the Embedded Nodal Provisioning window" (page 437)

- "Applying a service template in Passport Shelf View" (page 439)

- "Applying a service template from the Embedded Nodal Provisioning window" (page 441)

- "Linking a new service to a new port" (page 449)

Adding a subcomponent from Passport Shelf View

Use this procedure to add a subcomponent to a parent component in Passport Shelf View. To create a component you need to first identify its parent component in Passport Shelf View. Once you select the parent component. you need to select the type of the subcomponent that is to be created using the Select Component Type dialog box.

Prerequisites

This procedure requires the following conditions

- you have opened Passport Shelf View and located a parent component from the State Summary, Physical Shelf, or component information panel. For information about Passport Shelf View, see 241-6001-011 *Preside MDM Fault Management User Guide*.

- you have sufficient privileges to provision the device.

Procedure

1   In Passport Shelf View, select a component and right click to open the component's popup menu.

    Note: Passport Shelf View opens with the State Summary tab selected. However, you can also select a component from the Physical Shelf or Component Information panels.

2   From the component's pop-up menu, select **Configuration** -> **Add Subcomponent**.

The **Select Component Type** dialog box opens.
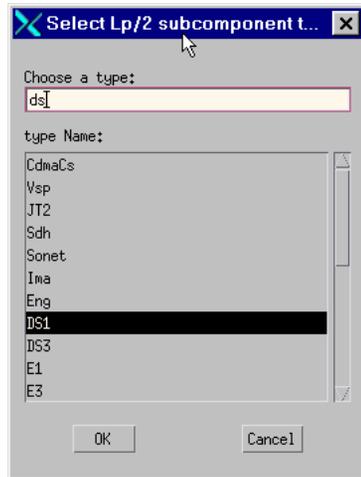
3   Select the type of component that you wish to create, and click **OK**.

The **Select Component Type** dialog box closes and the new action is placed in a task in the task navigation tree, according to the following rules:

- If the **Embedded Nodal Provisioning** window is not already open, or there is no "open" task in the Embedded Nodal Provisioning interface, the action is added to a new task with an auto generated name. The task navigation tree in the Provisioning Tasks panel shows the subcomponent as a child of the task. The icon for the subcomponent is the Create Component icon, and the label is the subcomponent type.

- If there is only one "open" task, the action is added to that open task.

- If the **Embedded Nodal Provisioning** window is already open and has more than one open task, a **Move to Task** dialog box opens. Select the task to which to add the action. See the procedure "Selecting the task in which to add or move an action" (page 456).

4   In the task navigation tree, select the new component.

The Add <subcomponent type> form appears in the panel on the right side of the **Embedded Nodal Provisioning** window.

5   Enter the component identifier for the new subcomponent, and modify attribute values, as desired.

Optionally, set or get the context for this component. See "Setting a context for a component" (page 443) or "Getting a context for a component" (page 444).

6 Optionally, add more provisioning actions to the task by repeating steps1 to 5.

7 Optionally, modify or delete automatically added subcomponents of the parent component. See "Modifying a component from the Embedded Nodal Provisioning window" (page 433) or "Deleting a component from the Embedded Nodal Provisioning window" (page 437).

8 Activate the task. See "Task Activation overview" (page 465).

If the activation is successful, the new subcomponent is added.

Adding a subcomponent from the Embedded Nodal Provisioning window

Use this procedure to add a subcomponent in the 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

1 Select a task from the task navigation tree in the Provisioning Tasks panel.

2 Select one of the following options:

- From the task popup menu, select **New Action...** .

- From the **Action** menu, select **New Action...**.

The **New Action** dialog box opens.

3 Complete the fields in the **New Action** dialog box.

- 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 a

context for a component" (page 443) or "Getting a context for a component" (page 444).

- From the **Provisioning Action** drop down list, select **Add Subcomponent**.

- Specify the task into which to add this provisioning action. 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.

For additional information, see "Adding a provisioning action" (page 458).

4   Click **OK**.

The **Select Component Type** dialog box opens.
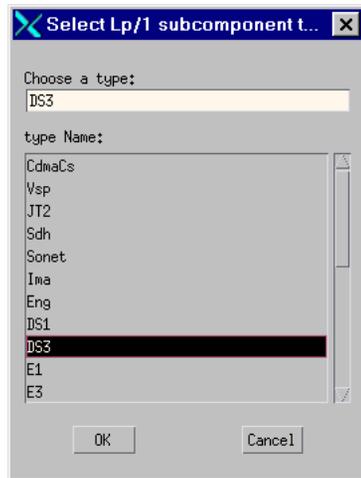
5   Select the type of component to create and click **OK**.

The **Select Component Type** dialog box closes. The subcomponent to be created appears in the task navigation tree as a child of the task selected in step 5. The icon for the subcomponent is the Add Component icon and the label is the subcomponent type.

6   In the task navigation tree, select the new action.

7   The **Add <subcomponent type>** form opens on the right side of the **Embedded Nodal Provisioning** window.

8   Enter the component identifier for the new subcomponent and set the attribute values, as required.

9   Optionally, add more provisioning actions to this task.

10   Optionally, modify or delete automatically added subcomponents of the parent component. See "Modifying a component from the Embedded Nodal Provisioning window" (page 433) or "Deleting a component from the Embedded Nodal Provisioning window" (page 437).

11   Activate the task. See "Task Activation overview" (page 465).

Modifying a component from Passport Shelf View

Use this procedure to modify a component from Passport Shelf View.

Prerequisites

This procedure requires the following conditions:

- You have opened Passport Shelf View.

- You have sufficient provisioning privileges to provision the device.

- You have located the component that you want to modify.

For information on Passport Shelf View, see 241-6001-011 *Preside MDM Fault Management User Guide*.

Procedure

1 In **Passport Shelf View**, select the component that you want to modify.

Note: Passport Shelf View opens with the State Summary tab selected. However, you can also select a component from the Physical Shelf or Component Information panels.

2 From the component's pop-up menu, select **Configuration -> Change...**.

If the **Embedded Nodal Provisioning** window is not already open, it now opens.

The component to be modified appears in the task navigation tree of the **Provisioning Tasks** panel. It displays as a child of the task. The icon for the subcomponent is the Change Component icon and the label is Change <component name>.

3 Select the new action in the task navigation tree.

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 Activate the task. See "Task Activation overview" (page 465).

Modifying a component from the Embedded Nodal Provisioning window

Use this procedure to modify a component from 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

1 Select one of the following steps:

- Select a task in the task navigation tree, right-click, and from the pop-up menu, select **New Action...** .

- From the **Action** menu in the Embedded Nodal Provisioning window select **New Action...**.

The **New Action** dialog box opens.
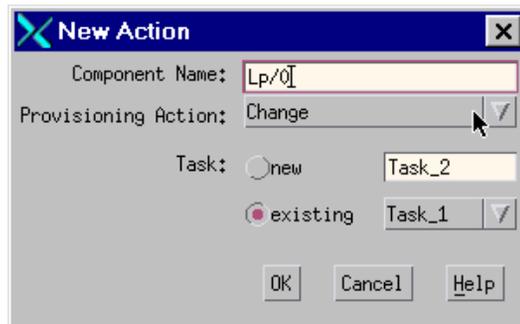
2 In the New Action dialog box, complete the following steps:

- Type a **Component Name**.

- From the **Provisioning Action** drop down list, select **Change**.

- Specify the task into which to place this provisioning action.

See the procedure "Adding a provisioning action" (page 458).

3   Click **OK**.

The component to be modified appears in the task navigation tree of the **Provisioning Tasks** panel. It displays as a child of the task selected in step 4. The icon for the subcomponent is the Change Component icon and the label is the component name.

4   Select the new action in the task navigation tree.

The Change <component name> form appears on the right of the Embedded Nodal Provisioning window.

5   Modify the provisional attribute values in the form, as desired.

6   Optionally, add more provisioning actions to the task.

7   Activate the task. See "Task Activation overview" (page 465).

Refreshing a component modification form

Use this procedure to refresh the display of a component modification form with the data from the current view of the Passport device.

Procedure

1   In the task navigation tree in the **Embedded Nodal Provisioning** window, select a **Change Component** action.

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 Passport current view.

If ENP is unable to retrieve the component data from the Passport, an error message is displayed, as follows:

```
Unable to refresh the form for [component name]

[Passport error message]
```

A possible cause of the error is that the component may have been deleted from the Passport.

Deleting a component from the Passport Shelf View

Use this procedure to delete a component that you have located in Passport Shelf View.

Prerequisites

This procedure requires the following conditions:

• You have opened Passport Shelf View.

• You have sufficient privileges to provision a device.

Procedure

1 In **Passport Shelf View**, select a component.

   Note: Passport Shelf View opens with the State Summary tab selected. However, you can also select a component from the Physical Shelf or Component Information panels.

2 Right-click and from the component's popup menu, select **Configuration -> Delete...**.

   If the **Embedded Nodal Provisioning** window is not already open, it opens.

   The component to be deleted appears in the task navigation tree of the Provisioning Tasks panel. It displays as a child of the task. The icon for the subcomponent is the Delete Component icon and the label is the component name.

3 In the task navigation tree, 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.

4 Optionally, add more provisioning actions to the task.

5 Activate the task. See "Task Activation overview" (page 465).

Deleting a component from the Embedded Nodal Provisioning window

Use this procedure to delete a component from 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

1   Select one of the following steps:

• Select a task in the task navigation tree, right-click, and from the pop-up menu, select **New Action...** .

• From the **Action** menu in the **Embedded Nodal Provisioning** window select **New Action...**.

The **New Action** dialog box opens.
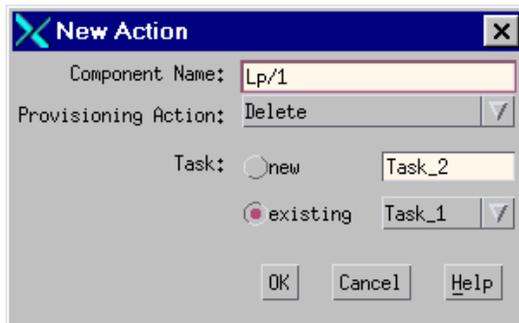
2   In the New Action dialog box, complete the following steps:

• In the **Component Name** field, type the name of the component that you want to delete

• From the **Provisioning Action** drop down list, select **Delete**.

      •   Specify the task into which to place this provisioning action.

      See the detailed procedure "Adding a provisioning action" (page 458).

3   Click **OK**.

      The component to be deleted appears in the task navigation tree as a child of the task selected in step 1. The icon for the subcomponent is the Delete Component icon and the label is the component name.

4   In the task navigation tree, select the new action.

      You can view the provisionable attribute values in the component but they are disabled so you cannot change them.

5   Optionally, add more provisioning actions to the task.

6   Activate the task. See "Task Activation overview" (page 465).

Applying a service template in Passport Shelf View

Use this procedure to apply a service template to a component that you have located in the Passport Shelf View. You will use the Select Service Template dialog box to select a service template.

Prerequisites

This procedure requires that the following conditions are met:

• You have opened Passport Shelf View.

• You have sufficient privileges to provision the device.

Procedure

1   In **Passport Shelf View**, select a component.

Note: Passport Shelf View opens with the State Summary tab selected. However, you can also select a component from the Physical Shelf or Component Information panels.

2   Right-click and from the component pop-up menu, select **Configuration -> Apply Service Template...**.

The **Select Service Template** dialog box opens.
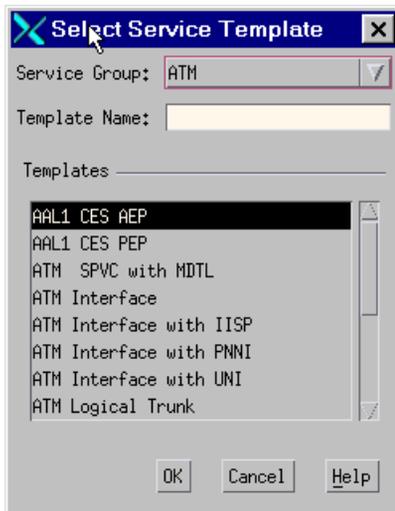
3   Select a template to apply from the **Templates** list and click **OK**.

See "Selecting a service template" (page 445) 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 appears in the task navigation tree as a child of the task. 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.

4   In the task navigation tree, select the new action.

The **Apply Service Template** form displays on the right of the **Embedded Nodal Provisioning window**.

5   Enter the required component identifier and attribute values.

6   Optionally, add more provisioning actions to the task.

7   Activate the task. See "Task Activation overview" (page 465).

Applying a service template from the Embedded Nodal Provisioning window

Use this procedure to apply a service template to a component that you have located 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

1   Select one of the following steps:

- Select a task in the task navigation tree, right-click, and from the pop-up menu, select **New Action...** .

- From the **Action** menu in the Embedded Nodal Provisioning window select **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.

See the detailed procedure "Adding a provisioning action" (page 458).

3   Click **OK**.

The **Select Service Template** dialog box opens.
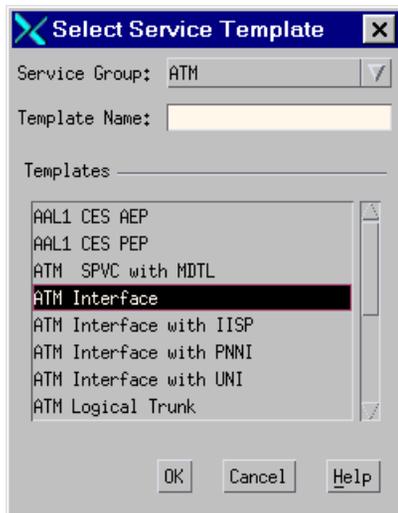
4 Select a service template and click **OK**. See the procedure "Selecting a service template" (page 445).

The **Select Service Template** dialog box closes. The component to which the template will be applied appears in the task navigation tree as the child of the selected task. 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>.

5 From the task navigation tree, select the new action.

The Apply Service Template form appears on the right side of the Embedded Nodal Provisioning window.

6 Enter the service template data, including the component identifiers and attribute values.

7 Optionally, add more provisioning actions to the task.

8 Activate the task. See "Task Activation overview" (page 465).

Setting a context for a component

Use this procedure together with the "Adding a subcomponent from the Embedded Nodal Provisioning window" (page 429) to set the context for a selected component. Once a 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 the **Component Name** text field.

2   Select **Set Context** from the pop-up menu.

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 the **Component Name** text field.

2   Select **Get Context** from the pop-up menu.

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 from either Embedded Nodal Provisioning or Passport Shelf View. 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 Passport Shelf View, 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
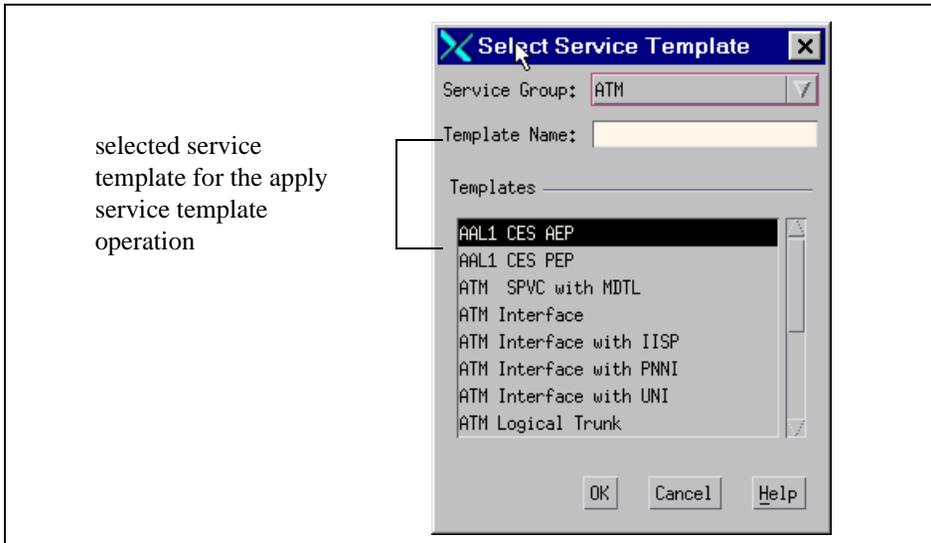
2 Click **OK** to apply the selected template.

Click **Cancel** to cancel the operation.

Browsing for available component instances

Use this procedure to browse for component instances for Passport 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 Passport Shelf View.

- You have sufficient privileges to provision the device.

Procedure

1 In **Passport Shelf View**, select an LP.

Note: Passport Shelf View opens with the State Summary tab selected. However, you can also select a component from the Physical Shelf or Component Information panels.

2 From the component's pop-up menu, select **Add Subcomponent** (for example, Lp/1).

The **Select Component Type** dialog box opens.

3 Select the port component from the **Type Name** list (for example DS3)
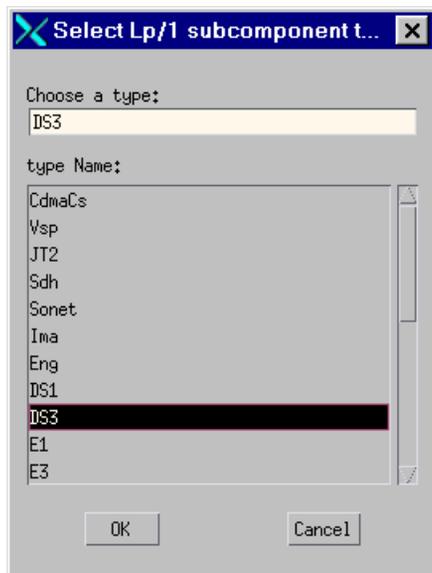
4 Click **OK**.

The **Select Component Type** dialog box closes and the add port action appears in the task navigation tree in the **Provisioning Tasks** panel of the **Embedded Nodal Provisioning** window.

5 From the menu bar, select **Action** -> **New Action**.

The **New Action** dialog box opens.

6 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).

7 From the **Provisioning Action** drop down list, select the **Add Subcomponent** action.

8   In the **Provisioning Tasks** panel, select the task that was created in step 4, and click **OK**.
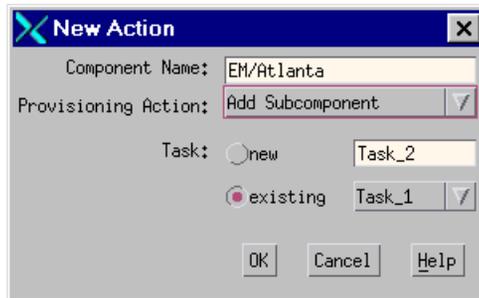
The **Select Component Type** dialog box opens.

9   From the **type Name** list, select a service component type (for example, AtmIf) and click **OK**.

The **Select Component Type** and the **New Action** dialog boxes close. The add service action is added to the task created in step 4.
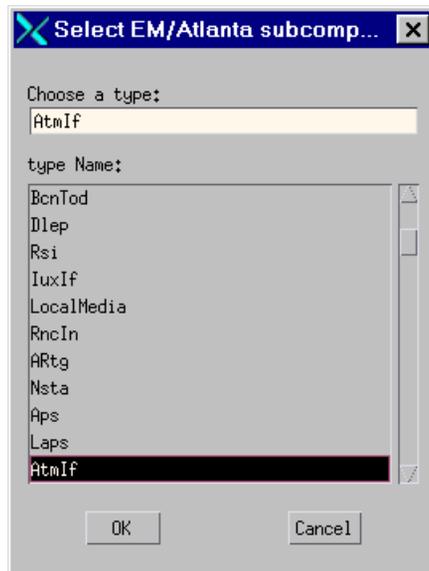
10 Select the add port action which was added to the task navigation tree in step 4.

The Add Lp/1 DS3 form appears in the right side panel of the **Embedded Nodal Provisioning** window.

11 Type the component identifier for the new port and modify the attribute values, as desired. Do not set the Application Framer Name attribute.

12 Select the add service action.

13 The Add EM/Atlanta AtmIf form displays on the right side of the **Embedded Nodal Provisioning** window.

14 Type the component identifier for the new service and set the attribute values, as desired.

15 Type Lp/1 DS3/2 for the value of the Interface attribute.

16 Activate the task. See "Task Activation overview" (page 465).

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

Use this procedure to add a new provisioning task to the task activation tree.

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   From the **Task** menu bar in the **Embedded Nodal Provisioning** window, select **New Task**.

   A new task is added to the bottom of the task navigation tree 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 provisioning actions

Use this procedure to change the order in which the provisioning actions in a provisioning task are applied to the view when the task is activated.

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 navigation tree contains one or more tasks with several actions.

Procedure

1   In the task navigation tree in the **Embedded Nodal Provisioning** window, select a provisioning action.

2   Complete one of the following steps to switch the order with the one above it:

- From the **Action** menu, select **Move Action Up**.

- Right-click on the action in the task navigation tree and selec**t Move Action Up** from the pop-up menu.

If the provisioning action is the first one in the task, it becomes the last.

Complete one of the following steps to switch the order of the action with the one below it:

- From the **Action** menu, select **Move Action Down**.

- Right-click on the action in the task navigation tree and select **Move Action Down** from the popup menu.

 If the provisioning action is the last one in the task, it becomes the first.

Selecting the task in which to add or move an action

Use this procedure to select a task in which the provisioning action will be performed, or to move a provisioning action from one task to another task. 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.

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   In the **Move to Task** dialog box, select the task in which you wish to add or move the action:
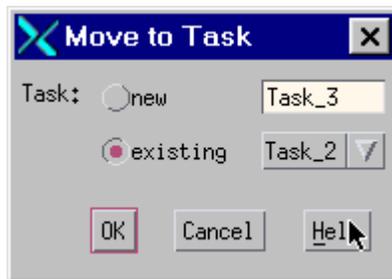
If you wish to create a new task to which to add or move the action, select **new**. The text box displays the name of the new task to which the action will be added or moved.

If you wish to add or move the action to an existing task, select **existing** and select the task from the dropdown list of tasks.

2   Click **OK** to add or move the action to the selected task and to close the **Move to Action** dialog box.

Click **Cancel** to cancel the operation.

If moving a provisioning action from one task to another, the action is removed from the task that it is currently in and is added as the last provisioning action in the task that you selected in step 1.

If adding a provisioning action to a task, the task is added as the last provisioning action in the task that you selected in step 1.

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   From the menu bar, select **Action** -> **New Action**.

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 task navigation tree and change the name in the **Task Name** field in the task details panel. See "Renaming a provisioning task" (page 460).

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 task navigation tree contains at least one task.

Procedure

1   In the task activation tree in the **Embedded Nodal Provisioning** window, 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 task navigation tree 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 task navigation tree contains at least one task and one action.

Procedure

1   In the task activation tree in the **Embedded Nodal Provisioning** window, select a provisioning action.

2   In the **Action** menu, select **Remove Action**.

The provisioning action is removed from the task navigation tree.

Removing a provisioning task

Use this procedure to remove a provisioning task from the task navigation tree.

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 navigation tree contains at least one task.

Procedure

1 In the task activation tree in the **Embedded Nodal Provisioning** window, select the task that you want to remove.

2 Select one of the following options:

- From the selected task's pop-up menu, select **Remove Task**.

- From the **Task** menu, select **Remove Task**.

If the task has not been completed through a successful activation, you are prompted to confirm that you want to remove the task.

3 Click **OK** to remove the task and all of its provisioning actions from the task navigation tree.

Removing all provisioning tasks that are completed

Use this procedure to remove all the tasks from the task navigation tree that have been completed, that is successfully activated.

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 navigation tree contains at least one or more tasks that have been successfully activated

Procedure

1 From the **Task** menu, select **Remove Completed Tasks**.

The completed tasks are removed from the task navigation tree.

Rearranging the order of tasks for activation

Use this procedure to rearrange the order of activation of any task in the Task Activation 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 Activation Queue contains more than one task waiting for activation

Procedure

1   In the **Task Activation Queue**, select the task whose order of activation you wish to change.

2   Complete one of the following steps to move a task up the queue:

- From the **Task** menu, select **Move Task Up**.

This step moves the order of the selected task up the queue to precede the task that formerly preceded it. If the selected task is the first in the queue, it becomes the last.

Complete one of the following steps to move a task down the queue:

- From the **Task** menu, select **Move Task Down**.

This step moves the order of the selected task down the queue to that it follows the task that formerly followed it. If the task is the last in the queue, and the first task status is not in an activating or retry state, then it becomes the first. Otherwise, it remains at the end of the queue.

Task Activation overview

This section describes the procedures and processes for activating provisioning changes:

Activation scenarios

The following sections describe the various activation scenarios that may occur after you have activated the provisioning changes:

Activation process when the Passport provisioning session is available

When you successfully activate a task the following events occur:

1   The task icon changes to the Activating icon.

2   The task is placed at the head of the Task Activation Queue, and its status is "Activation in progress".

3   The Passport provisioning session is opened. An edit view is initialized to be the same as the current view.

4   The provisioning actions in the task are applied in order to the Passport edit view. Each action is logged in the Task Details panel.

5   The Passport 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, and becomes the current view.

7   The activation is confirmed.

8   The task icon changes to the Completed icon.

9   The task is removed from the Task Activation Queue.

Activation process when the Passport provisioning session is in use

When you activate a task and the Passport provisioning session is in use, the task activation enters retry mode:

1   The task icon changes to the **Task In Queue** icon.

2   The task is placed at the end of the **Task Activation Queue**, and its status is **Waiting for provisioning session**.

3   The task tries to obtain the Passport provisioning session, as per the configured Retry interval. The default is every minute. This is logged in the **Task Details** panel.

4   When the Passport provisioning session becomes free, the task obtains the Passport provisioning session for itself.

5   The task moves to the head of the **Task Activation Queue**, and its status is **Activation in progress**.

6   The Passport provisioning session is opened. An edit view is initialized to be the same as the current view.

7   The provisioning actions in the task are applied in order to the Passport edit view. Each action is logged in the **Task Details** panel.

8   The Passport 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, and becomes the current view.

10   The activation is confirmed.

11   The task icon changes to the **Completed** icon.

12   The task is removed from the T**ask Activation Queue**.

Activation process when a task, component creation, modification, or deletion fails

1   The task icon changes to the **Activating** icon.

2   The task is placed at the head of the **Task Activation Queue**, and its status is **Activation in progress**.

3   The Passport provisioning session is reserved. The edit view is initialized to be equivalent to the current view.

4   The provisioning actions in the task are applied in order to the Passport edit view. Each action is logged in the **Task Details** panel.

5   The task icon changes to the **Errors** icon.

6   The task is removed from the **Task Activation Queue**.

7   The error message appears and you are asked if you wish to hold on to the provisioning session while they repair the errors. If no, the Passport provisioning session is released.

8   The **Activation Error** dialog box opens.

9   You acknowledge the error, and click **Yes** to cancel other task activations, or **No** to leave the **Task Activation Queue** unchanged.

10   The **Task Activation Error** dialog box closes.

11   Resolve the problem and activate the task again. If the Check Prov has failed, see the next step.

12   The Check Prov of a component creation task can fail in some cases. Normally, Passport adds subcomponents with a default set of attributes and the user is not required to perform any other task if the default attributes are acceptable. In some cases, though, (for example, FRUNI), the Check Prov fails because of missing or invalid information set by

Passport 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**

  — Select the existing task and right click and select **New Action**.

  — In the **Component Name** field, enter the name of the component that caused the error.

  — From the **Provisioning Action** drop down list, select **Change**.

  — Click **OK**.

  — Enter the new values for the attributes to fix the problem.

  — From the **Task** Menu, select **Save/Activate**.

- **Use the applicable service template if one exists for creating the component**

  — From the **Task** Menu, select **New Task**

  — Select the newly-created task and right click and select **New Action**.

  — Choose **Apply Service Template** and type the drop site name in the **Component Name** field.

  — The **Select Service Template** dialog is displayed. Select the service group and the applicable template.

  — When the template is displayed, enter the attribute values in the specific fields.

  — From the **Task** Menu, select **Save/Activate** for the newly-created task.

Activation process when a service creation fails

1 The task icon changes to the **Activating** icon.

2 The task is placed at the head of the **Task Activation Queue**, and its status is **Activation in progress**.

3   The Passport provisioning session is reserved. The current view is copied into the edit view.

4   The provisioning actions in the task are applied in order to the Passport edit view. 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 Passport provisioning session. If you do not respond, the task icon changes to an **Errors** icon, the task is removed from the **Task Activation Queue** and the Passport provisioning session is released. You are prompted to determine if you want to cancel other pending activations as well.

7   If you select **Accept** or **Delete All**, the task activation continues.

8   If you select **Cancel**, the **Service Creation Errors** dialog box closes. The task icon changes to the **Errors** icon. The task is removed from the **Task Activation Queue**. The Passport provisioning session is released. You are prompted to determine if you want to cancel other pending activations as well.

9   If you select **Repair**, 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 Passport provisioning session. If you do not respond, the task icon changes to an **Errors** icon, the task is removed from the **Task Activation Queue** and the Passport provisioning session is released. You are prompted to determine if you want to cancel other pending activations as well.

Activating a task

Use this procedure to apply the provisioning actions contained by the task to the current Passport view.

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 task navigation tree of the **Embedded Nodal Provisioning** window, select a task.

2   From the **Task** menu, select **Save/Activate Task...** or click the **Save/ Activate** button at the bottom of the **Provisioning Tasks** panel.

    If you have configured the Embedded Nodal Provisioning session to prompt for confirmation before each activation, the confirmation dialog opens. Click **OK**.

    If you have configured the Embedded Nodal Provisioning session to prompt for save/commit options before each activation, the **Save/Activate Options** dialog box opens. Proceed to the procedure "Saving and activating provisioning changes" (page 476).

3   Refer to the section "Activation scenarios" (page 465) for a description of the following possible outcomes.

    - "Activation process when the Passport provisioning session is available" (page 465)

    - "Activation process when the Passport provisioning session is in use" (page 466)

    - "Activation process when a task, component creation, modification, or deletion fails" (page 467)

    - "Activation process when a service creation fails" (page 468)

4   Optionally, set the context for the activation task. Select the task and right click to select **Set Context**.

Activating a task when you have insufficient provisioning privileges

Use this procedure to activate a task when your userid has insufficient provisioning privileges.

Prerequisites

This procedure requires that the following conditions are met:

- The Passport Shelf View userid and password do not have sufficient impact to Provision a Passport device

Procedure

1   In the task navigation tree of the **Embedded Nodal Provisioning** window, select a task.

2   From the **Task** menu, select **Save/Activate Task...**, or click the **Save/ Activate Task** button in the **Provisioning Tasks** panel.

If you have configured the Embedded Nodal Provisioning session to prompt for confirmation before each activation, the confirmation dialog opens. Click **OK**.

If you have configured the Embedded Nodal Provisioning session to prompt for save/commit options before each activation, the **Save/Activate Options** dialog box opens. Proceed to the procedure "Saving and activating provisioning changes" (page 476).

3   The **Device Authentication** dialog box opens.

4   Enter a userid and Password for provisioning and click **OK**.

The **Device Authentication** dialog closes. The task icon changes to the "Activating" icon.

5   Refer to the section "Activation scenarios" (page 465) for a description of the following possible outcomes.

- "Activation process when the Passport provisioning session is available" (page 465)

- "Activation process when the Passport provisioning session is in use" (page 466)

- "Activation process when a task, component creation, modification, or deletion fails" (page 467)

- "Activation process when a service creation fails" (page 468)

Setting the options for saving and activating provisioning changes

Use this procedure to set the options for saving and activating provisioning changes. You use the Save/Activate Options dialog box to preset your save and activation options to save provisioning changes to a named view file and to commit the saved view.

These options can only be set for this Embedded Nodal Provisioning session.

Procedure

1   To pre-select your save/activate options, from the **Edit** menu bar, select **Save/Activate Options...** .

The **Save/Activate Options** dialog box opens.
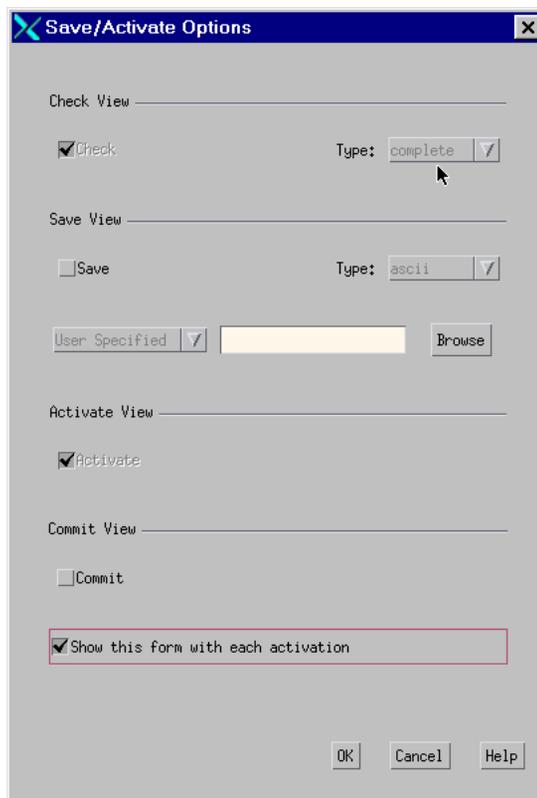
2   In the **Save View** panel, select **Save** and then from the **Type** drop down
list, select one of the following format options for saving the view:

• **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

3   From the view mode drop down list, select one of the following view mode
options: **User Specified, Keyed, and Dated.**

• 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 type a date in the format yymmdd where yy is the year, mm is the month, and dd is the day. When you enter a date, the service data view with the highest two digit index (nn) is found and the next view in the sequence is created, in the format <yymmdd><nn>. For example 03012901. See "Date Convention" (page 31) for more information on the date format. When you enter **today**, the view is saved with today's date, in the format yymmd<nn>.

- If you selected **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**, the adjacent field is pre-filled with the name of the opened view used in step 3 and the extension **full.<nnn>**.

Alternatively, if you select **User Specified**, click **Browse...** and in the file browser, select a file name and location to save the file.

4   If you also wish to commit the saved view, select **Commi**t, otherwise proceed to step 5.

   Note: The **Activate** option is selected an can not be deselected.

5   If you want the **Save/Activate Options** dialog box to display with each activation, ensure that the **Show this form with each activation** check box is selected. Modified

6   Click **OK** to close the **Save/Activate Options** dialog box.

   Subsequent task actions will result in the current view being saved to the chosen named view. If you also selected **Commit**, any subsequent task actions will result in the current view being saved to the chosen named view and that named view will also be committed.

Saving and activating provisioning changes

If "Show this form with each activation is selected, the Save/Activate Options dialog box will open each time you click Save/Activate in the Embedded Nodal Provisioning window or Save/Activate Task from the Task menu or popup menu. If you have preselected the save/activate options, the dialog box opens with these options. If you do not want this dialog box to open with each activation, you need to deselect this option. See the procedure "Setting the options for saving and activating provisioning changes" (page 473).

For an illustration of the figure that opens, see the figure "Save/Activate Options dialog box when you select Save/Activate Task" (page 477). This dialog box is the same as the dialog box that opens when you select Save/Activate Options... from the Edit menu except the "Show the form with each activation" check box does not appear.

Figure 36
Save/Activate Options dialog box when you select Save/Activate Task
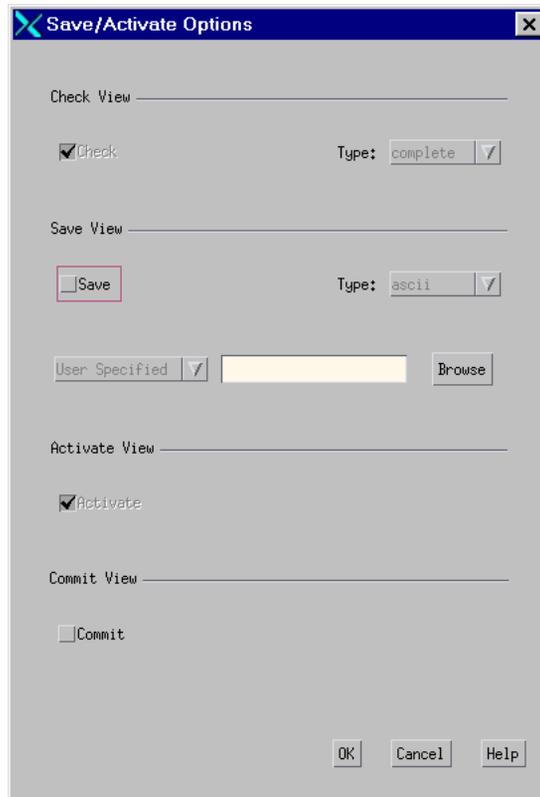
If "Show this form with each activation", is deselected, this dialog box does not open and the task is saved and activated using the default options if you have not made changes to them or, if you have made changes to the default options, with the options that you have selected.

Each provisioning change is made to the current Passport view and activated and confirmed when applied. The provisioning view is checked for semantic errors before it is activated. By default, the changes are not saved to a named view file and are not committed.

Procedure

1 To save/activate your provisioning changes, do one of the following:

- click **Save/Activate** in the **Provisioning Task** panel

- select **Save/Activate Task** from the T**ask** popup menu

- select **Save/Activate Task** from the **Task** menu

If "**Show this form with each activation**" is selected, the **Save/Activate Options** dialog box opens. Proceed to step 2.

If the "**Show this form with each activation**" is deselected, the **Save/Activate Options** dialog box does not open and the provisioning changes are saved and activated using the default options if you have not made changes to them or, if you have made changes to the default options, with the options that you have selected

2 Make changes to the preset selections, as desired, and click **OK**.

Viewing the Task Activation Queue

Use this procedure to display or hide the Task Activation Queue in a panel at the bottom of the Embedded Nodal Provisioning window. The Task Activation Queue shows the provisioning tasks that are waiting for the Passport provisioning session to become free before you can begin provisioning the device. You can also view the order in which these pending tasks will be applied to the device.

Procedure

1   From the **View** menu, select **Task Activation Queue** to display order in which tasks will be activated and their present status in the task activation queue at the bottom of the **Embedded Nodal Provisioning** window.

To hide the task activation queue, deselect **Task Activation Queue**.

Viewing the state of the provisioning session

Use this procedure to display the state of the provisioning session.

Procedure

1 From the **View** menu, select **Provisioning Session...** to display the state of the provisioning session.

If the provisioning session is in use, you are provided details on who is using the session.

Canceling the activation of a single provisioning task

Use this procedure to cancel the activation 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 Activation Queue.

Procedure

1   In the **Task Activation Queue**, select the task whose activation you wish to cancel.

2   Complete one of the following steps:

•   In the **Task** menu, select **Cancel Activation**.

•   Right-click on the task in the **Task Activation Queue**, and from the pop-up menu, select **Cancel Activation**.

The task icon changes to the "Open" icon, and the task is removed from the T**ask Activation Queue**.

Canceling the activation of more than one provisioning task

Use this procedure to cancel the activation of one or more tasks showing in the Task Activation 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 Activation Queue.

Procedure

1   Complete one of the following steps:

• In the Task menu, select **Cancel Activations**

• Right-click on the task in the **Task Activation Queue**, and from the pop-up menu, select **Cancel Activations**.

The **Cancel Activations** dialog box opens. It displays all of the provisioning tasks that have been activated, but are waiting for the Passport provisioning session to be free.
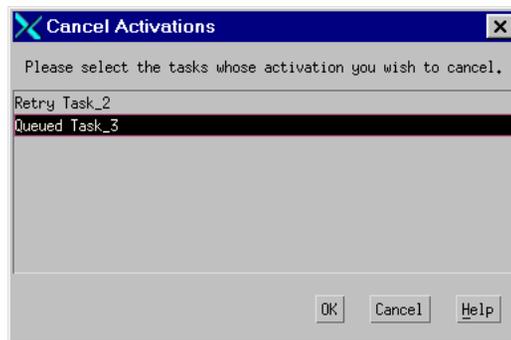
2   Select one or more of the provisioning tasks.

3   Click **OK**.

The **Cancel Activations** dialog box closes. The icons on the selected tasks change to the Open icon, and the selected tasks are removed from the **Task Activation Queue**.

Concurrent provisioning conflicts and resolution

See the table "Concurrent provisioning conflicts and resolution" (page 483) for information on identifying and resolving conflicts arising from having one or more persons provisioning at the same time

Table 50
Concurrent provisioning conflicts and resolution

Conflict condition	Remedial action
Concurrent component creation Two people try to create the same Passport component on the same device, the first person to activate the component creation on the device succeeds. When the second person tries to activate the component creation, the activation fails because the component already exists in the current view.	The second person can create a different component ID, or remove the component creation action from the task being activated, or create the new change action on the same component.
Concurrent component modification Two people try to modify the same Passport component on the same device, the last person to activate the component modification on the device succeeds. The first person to activate will not know that their modifications may have been lost, and the second person to activate 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 activation for that component modification.
(Sheet 1 of 2)	

Table 50 (continued)
Concurrent provisioning conflicts and resolution

Conflict condition	Remedial action
Concurrent component deletion Two people try to delete the same Passport component on the same device, the first person to activate the component deletion on the device succeeds. When the second person tries to activate the component deletion, the activation fails.	Remove the component deletion action from the task being activated.
Concurrent service template activation Two people try to create the same service on the same device, the first person to activate the service creation succeeds. When the second person tries to activate the service creation, the activation 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 486) 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 Passport 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. The timeout is configurable by the administrator. For the procedure to set the Timeout, see the section about the Nodal Provisioning Administration tool in 241-6001-303 *Preside MDM Administrator Guide*.

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 activation fails. Other tasks pending activation in the Task Activation Queue do not proceed to be activated until you acknowledge the task failure. At this point, you are given the chance to cancel one or more of the pending activations.

If the provisioning session to the device is lost, Embedded Nodal Provisioning automatically tries to re-establish the connection a specific number of times. You can configure the number of retries in the Nodal Provisioning Administration tool. If the connection cannot be reestablished, Embedded Nodal Provisioning terminates with an error message.

If Embedded Nodal Provisioning is in the process of activating a task when the server connection is lost, one of the following occurs:

- If the connection is lost before the new Passport view is saved or activated, the provisioning changes are lost.

- If the connection is lost after the new Passport view is saved, but before it is activated, the provisioning changes are in the saved view, but are not active on the device. You need to manually activate the saved view.

- If the connection is lost after the new Passport view is activated, but before the activation is confirmed, the provisioning changes are activated for a short period of time, and you must manually confirm the activation.

Table 51
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 the server configuration and restart the server if required.
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.
Passport semantic check completed with errors during the activation of the provisioning task. The actual Passport 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 51 (continued)
Error messages

Error condition	Error message	Remedial action
Errors from Passport semantic check; provisioning session released. This message is displayed if the Passport semantic check completed with warnings/errors during the activation 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 Activation Queue are activated, even though the provisioning session has been released.
Passport semantic check completed with warnings during the activation 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.
Passport semantic check completed with warnings during the activation 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 activations in the queue. Until you respond, no other tasks in the Task Activation Queue are activated, even though the provisioning session has been released.
(Sheet 2 of 5)		

Table 51 (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 service creation errors overview" (page 183)
Provisioning servers are unable to connect to the Passport device either to read data from the Passport 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 "Authenticating to a device" (page 421)
Unable to Create/Modify/ Delete Component because the provisioning actions in the task could not be performed on the current Passport 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 activation 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.
(Sheet 3 of 5)		

Table 51 (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 Passport 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 activations in the queue. Until you respond, no other tasks in the Task Activation Queue are activated, 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.
(Sheet 4 of 5)		

Table 51 (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 Passport, possibly because the component to be modified has been deleted from the current Passport 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 Passport view.
An attribute in an activated 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 reactivate the task.	Enter a valid attribute and reactivate 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.
(Sheet 5 of 5)		

Launching external tools from Embedded Nodal Provisioning

Use this procedure to launch any of the following tools from the Embedded Nodal Provisioning window:

- Nodal Provisioning

- Nodal Provisioning Template Editor

- Service Provisioning

    — ATM

    — CES SVC

    — Frame Relay

    — IP VPN Global Update

Procedure

1   From the **External tools** menu, select the desired tool:

- **Nodal Provisioning**

- **Nodal Provisioning Template Editor**

- **Service Provisioning** -> **ATM** to open the ATM service provisioning tool.

- **Service Provisioning** -> **CES SVC** to open the CES SVC service provisioning tool

- **Service Provisioning** -> **Frame Relay** to open the Frame Relay service provisioning tool

- **Service Provisioning** -> **IP VPN Global Update** to open the IP VPN Global Update tool

Index

A

adding a component 138
adding a link dropsite in template editor 291
adding a service 168
adding component in the template editor component layout tree 276
adding groups in template editor form layout tree 306
adding subcomponents in the template editor component layout tree 281
adding the first non-top level component in the template editor component layout tree 279
adding the first top-level component in the template editor component layout tree 277
ANP nodal provisioning forms 101
    component form 101
    service form 108
ANP nodal provisioning main window
    component pop-up menu 75
    service palette 76, 97
architecture 25
attribute descriptive help
    accessing 35
attribute details in template editor
    modifying 299
attribute range tool tip help
    accessing 37

C

CDL version
    selecting in template editor 259
component
    adding a component 138
    compressing 119
    deleting 153
    expanding 118
    searching 120
Component Data panel 324, 332
component data report
    copying to a text editor 370
    on subset of component data 356
component data reports
    removing rows 353
component form
    about 101
component hierarchy navigation tasks
    compressing a component 119
    expanding a component 118
component model file 30
component model generator 29
component parent designation
    selecting 293
component provisioning procedures
    adding a component 138
    deleting a component 153
Component Selection panel 332
compound filter 334
compressing a component 119

Preside Multiservice Data Manager
Nodal Provisioning
User Guide

Release: R14.3