NORTEL NETWORKS

Preside Multiservice Data Manager

# Installation

Guide

241-6001-100

Preside Multiservice Data Manager

# Installation

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# Contents

# About this document

This Preside Multiservice Data Manager (MDM) document describes

- how to install the MDM software on a new MDM workstation
- how to perform basic configuration of the MDM software
- how to upgrade the MDM software
- how to remove the MDM software

The following topics are discussed in this section:



## Who should read this document and why

This document is intended for system and network administrators responsible for the installation and administration of the Preside Multiservice Data Manager (MDM) software.

For information that describes how to use the MDM applications, refer to 241-6001-000 *Preside MDM Documentation Guide* which will direct you to the correct document.

## What you need to know

You need to have had some exposure to both computers and network concepts. Basic computer literacy is required to operate a Preside Multiservice Data Manager (MDM) host; you need to know how to use a keyboard and a mouse, what a menu is, and how to start applications from a menu using a mouse.

The MDM software resides on a UNIX workstation. You should be familiar with a UNIX editting facility (vi, for example) so that you are able to modify files. You should be familiar with SUN workstations, the UNIX operating system, and network communications (IP, FTP, ATM, or frame relay).

Knowledge of network management concepts is required.

## How this document is organized

This document contains the following sections:

- "Installing MDM software tasks" (page 21) describes the tasks required to install the Preside Multiservice Data Manager software on a new workstation.
- "Configuring network connectivity" (page 55) describes the network connectivity requirements for the Preside Multiservice Data Manager.
- "MDM workstation operating system" (page 29) provides installation information for the operating system required by the Preside Multiservice Data Manager software.
- "Device integration cartridge software" (page 33) describes how to obtain device integration cartridge software.
- "Installing MDM software" (page 35) describes how to install the Preside Multiservice Data Manager software.
- "MDM software patches" (page 51) describes how to install and remove Preside Multiservice Data Manager software patches.
- "Configuring a new MDM workstation" (page 65) describes how to configure a new Preside Multiservice Data Manager host.
- "Upgrading the MDM software" (page 95) describes how to install new Preside Multiservice Data Manager software on an existing Preside Multiservice Data Manager workstation.

- "Administration Database schema migration" (page 99) describes how to migrate the Preside Multiservice Data Manager Administration Database schema to a newer version.
- "Uninstall MDM" (page 103) describes how to remove Preside Multiservice Data Manager software that was properly installed with the MDM Installer.
- "Recovering from an incomplete MDM software installation" (page 106) describes how to remove Preside Multiservice Data Manager (MDM) software that was only partially installed as a result of premature termination of the MDM Installer.
- "Installing X.25 software (DPN)" (page 117) describes how to install X.25 software.
- "Configuring an X.25 link (DPN)" (page 129) describes how to configure an X.25 link between the Preside Multiservice Data Manager workstation and a Data Packet Network (DPN) switch.
- "Configuring an IP over X.25 link (DPN/Passport)" (page 141) describes how to configure an IP over X.25 connection between the Preside Multiservice Data Manager workstation and a Passport switch.
- "Installing frame relay software" (page 147) describes how to install and configure SunLink frame relay software.
- "Installing ATM software" (page 163) describes how to install and configure SunATM software.
- "HP OpenView Desktop" (page 173) describes how to install and configure the HP OpenView Desktop application.

## Text conventions

This document uses the following text conventions:

- `nonproportional spaced plain type`

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

- **`nonproportional spaced bold type`**

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

- *italics*

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

  Words that appear in italics in text are for naming.

- `[optional_parameter]`

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

- `<general_term>`

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

- UPPERCASE, lowercase

  In Preside Multiservice Data Manager (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 of 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

This section identifies documents related to the Preside Multiservice Data Manager.

## Preside Multiservice Data Manager

For a list of Preside Multiservice Data Manager documents, see 241-6001-000 *Preside MDM Documentation Guide*.

## Passport 6400

For a list of Passport 6000 documents, see 241-6401-001 *Passport 6400 Documentation Guide*.

## Passport 7400/15000/20000

For a list of Passport 7000/15000/20000 documents, see 241-5701-001 *Passport 7400, 15000, 20000 Documentation Guide*.

## Hewlett-Packard

If you are installing the HP OpenView Desktop (HP-OV) application, HP OpenView installation instructions can be obtained from the *HP OpenView Network Node Manager Products Installation Guide.*

## Oracle

If you are installing a Preside Multiservice Data Manager Administration Database, Oracle database installation instructions can be obtained from the *Oracle Administrators Reference for SUN SPARC Solaris*, part number A85349-01.

## Solaris

Solaris operating system installation instructions can be obtained from the Sun Microsystems Inc. Documentation Center at ‘www.sun.com/documentation’.

# Chapter 1
# Installing MDM software tasks

This section describes the tasks required to install the Preside Multiservice Data Manager software on a new network management workstation.

To upgrade the MDM software to release 15.1 on an existing MDM network management workstation, see “Upgrading the MDM software” (page 95).

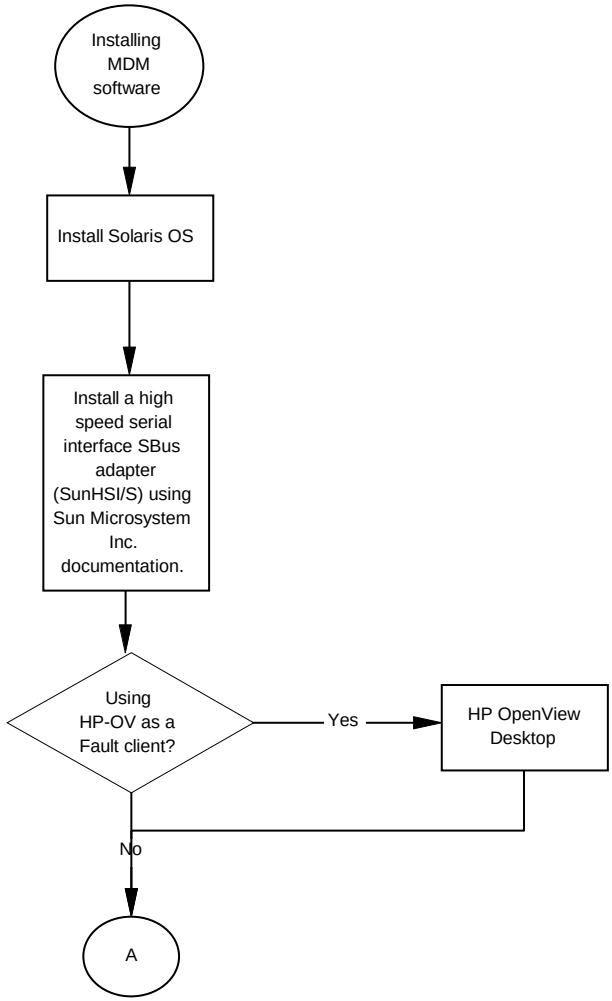
## Navigation links



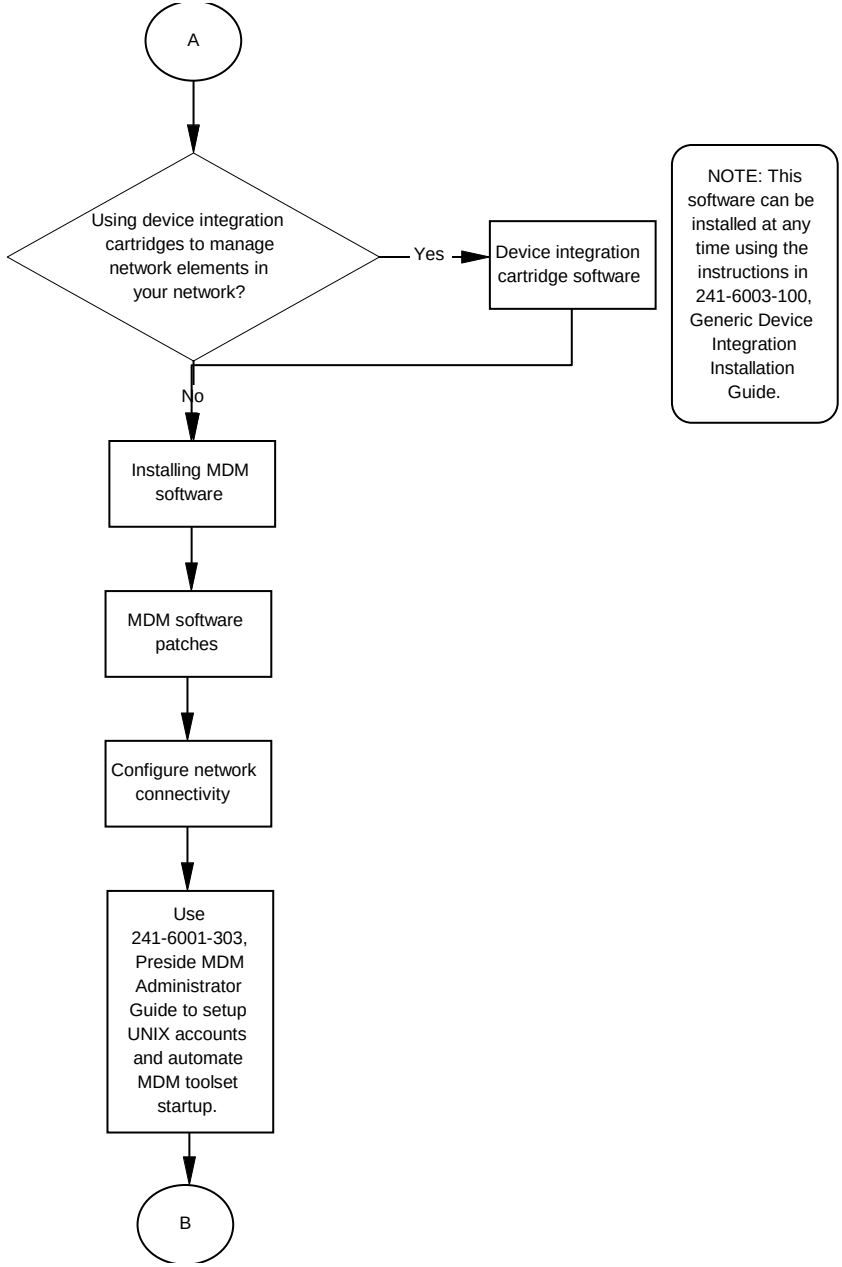
## Installing MDM software task flow

This task flow shows you the tasks you perform to install and initially configure software on a new Preside Multiservice Data Manager (MDM) workstation. To link to any task, go to “Installing MDM software task navigation” (page 27).

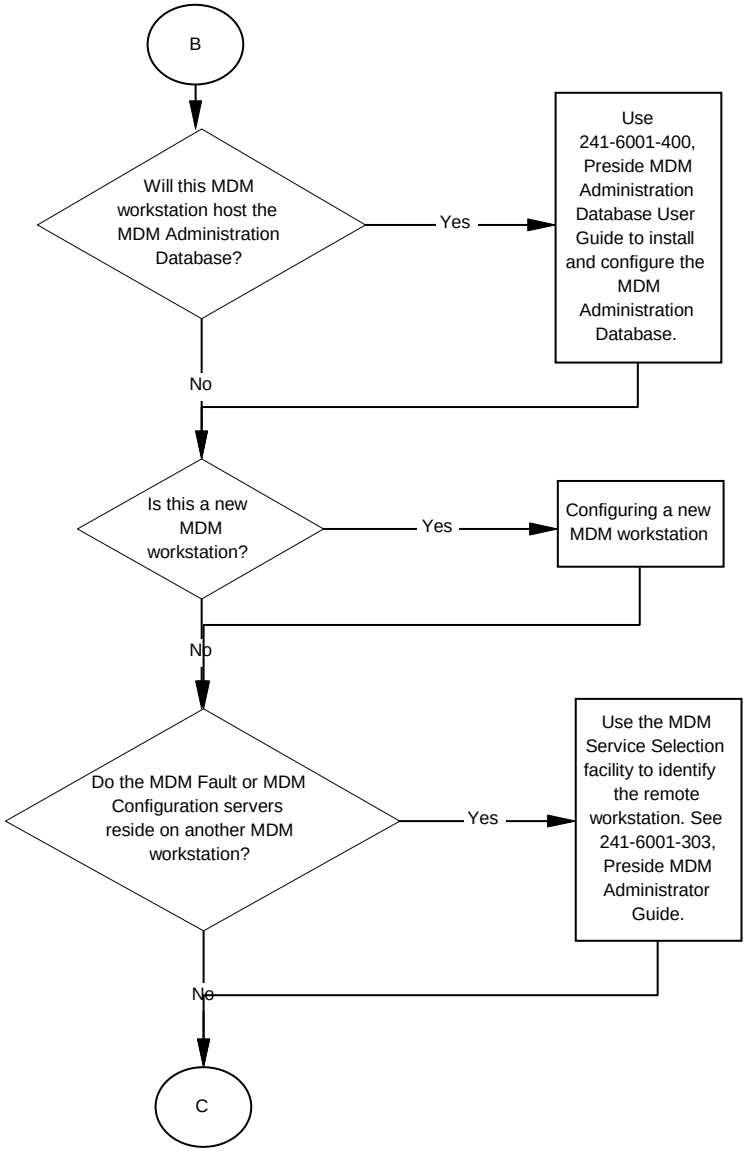
**Installing MDM software task flow (Sheet 1 of 5)**



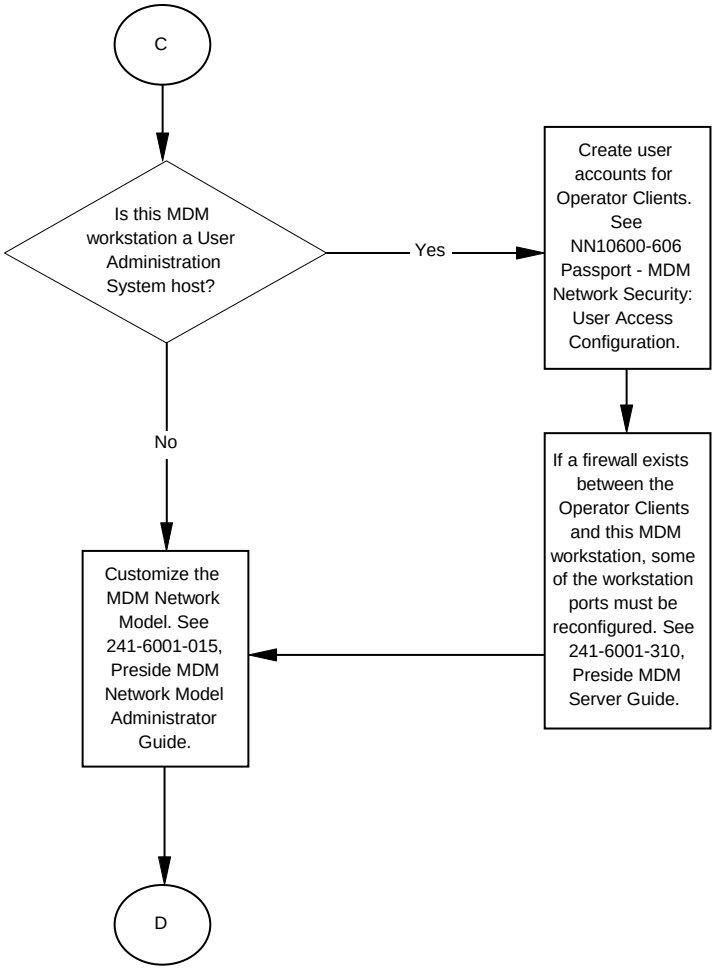
**Installing MDM software task flow (Sheet 2 of 5)**



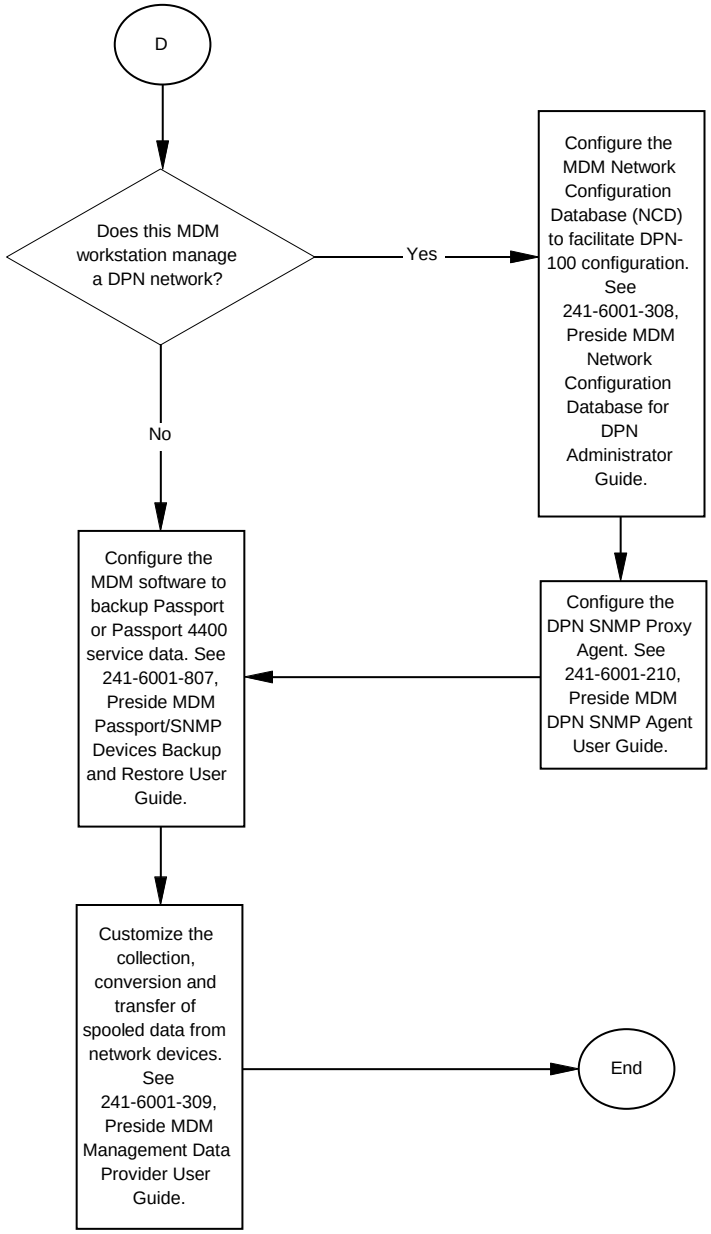
**Installing MDM software task flow (Sheet 3 of 5)**



**Installing MDM software task flow (Sheet 4 of 5)**



**Installing MDM software task flow (Sheet 5 of 5)**



# Installing MDM software task navigation


- “MDM workstation operating system” (page 29)
- “HP OpenView Desktop” (page 173)
- “Device integration cartridge software” (page 33)
- “Installing MDM software” (page 35)
- “MDM software patches” (page 51)
- “Configuring network connectivity” (page 55)
- “Configuring a new MDM workstation” (page 65)

# Chapter 2
# MDM workstation operating system

This section describes tasks related to the installation of the operating system on the Preside Multiservice Data Manager workstation.

## Procedure navigation



## Procedure prerequisites

- If the Solaris operating system is not installed on the Preside Multiservice Data Manager workstation, obtain the required software from Sun Microsystems Inc.

## Procedure steps

**1** Install the Solaris operating system according to the instructions provided by Sun Microsystems Inc.

Sun workstations can be delivered with the Solaris operating system software installed. If the operating system software is not installed, use the documentation provided by Sun Microsystems Inc. to install the software. If the documentation is not available or to ensure that the latest documentation was provided, go to the Sun Microsystems Documentation Center at 'www.sun.com/documentation'.

***Note:*** Ensure that you install the correct 'Solaris software group'. For more information, see 241-6001-102 *Preside MDM Planning Guide*.

**CAUTION**
Solaris 8 can operate in 32 bit or 64 bit mode. On most Sun workstations the firmware for frame relay is not compatible with the 64-bit mode of operation. If you plan to operate Solaris 8 in 64-bit mode, Nortel Networks recommends that you use an external router as a frame relay access device (FRAD) to connect the Preside Multiservice Data Manager workstation to Passports in your network.

**2** Ensure that the Preside Multiservice Data Manager workstation disk space is partitioned according to the information in “Recommended disk partition sizes” (page 30) as a minimum specification.

**3** Install all Solaris operating system patches as recommended by Sun Microsystems Inc.. See the Solaris Release Notes for a description of the required patches.

**4** Optionally, enable the 'logging' mount option in the Solaris file system for UFS type file partitions. Logging reduces the time required to reboot the workstation by eliminating the need to run fsck on startup. As the userID root, edit the file /etc/vfstab and add **logging** to the mount options.

The default is no logging (i.e. a dash "-" in the mount options column).

See “Example of file /etc/vfstab with the logging option enabled” (page 31) for an example of the file /etc/vfstab with logging enabled.

# Job aids

**Table 1**
**Recommended disk partition sizes**

| Partition | Size |
|---|---|
| swap | 3 * RAM |
| /var | 1 Gbyte |
| / (root) | All disk space remaining after allocations for swap and /var. |

**Table 2**
**Example of file /etc/vfstab with the logging option enabled**

| device to mount | device to fsck | mount point | FS type | fsck pass | mount at boot | mount options |
|---|---|---|---|---|---|---|
| /dev/dsk/c0t0d0s1 | - | - | swap | - | no | - |
| /dev/dsk/c0t0d0s0 | /dev/rdsk/c0t0d0s0 | / | ufs | 1 | no | logging |
| dev/dsk/c0t0d0s3 | /dev/rdsk/c0t0d0s3 | /var | ufs | 1 | no | logging |
| swap | - | /tmp | tmpfs | - | yes | - |

# Chapter 3
# Device integration cartridge software

Obtain the device integration software cartridges for those SNMP devices supported by this Preside Multiservice Data Manager (MDM) workstation.

***Note:*** This task is optional and is only required if the MDM Installer will be used to install device integration cartridges. The installation of device integration cartridges on an Preside Multiservice Data Manager workstation can be performed at any time without using the MDM Installer. This method of installation is described in 241-6003-100 *Preside Generic Device Integration Installation Guide*.

## Procedure navigation

- “Procedure prerequisites” (page 33)
- “Procedure steps” (page 34)

## Procedure prerequisites

- install the “MDM workstation operating system” (page 29)
- purchase a Nortel Networks support plan and register for software download access
- although the task of obtaining device integration cartridges can be performed before the Preside Multiservice Data Manager software is installed, device integration cartridge software cannot be installed until the Preside Multiservice Data Manager software is installed and configured.

## Procedure steps

1. As the userID root, from the UNIX command line, create a temporary directory.

   For example, only:

   **`mkdir /tmp/newcartridge`**

2. Record the new directory name. This directory name is required by the MDM Installer.

3. Download the cartridge from the Nortel Networks distribution site to the new directory. The URL is

   **`http://www130.nortelnetworks.com/cgi-bin/eserv/cs/main.jsp`**

4. Change directories to the new directory.

   For example, only:

   **`cd /tmp/newcartridge`**

5. Uncompress the file.

   For example, only:

   **`tar xvf MDM_Baystack_450_Cartridge_V1.0.0_Sun_b100.tar`**

   A new subdirectory is created that contains the device integration cartridge software.

# Chapter 4
# Installing MDM software

Install the Preside Multiservice Data Manager (MDM) software using the MDM Installer.

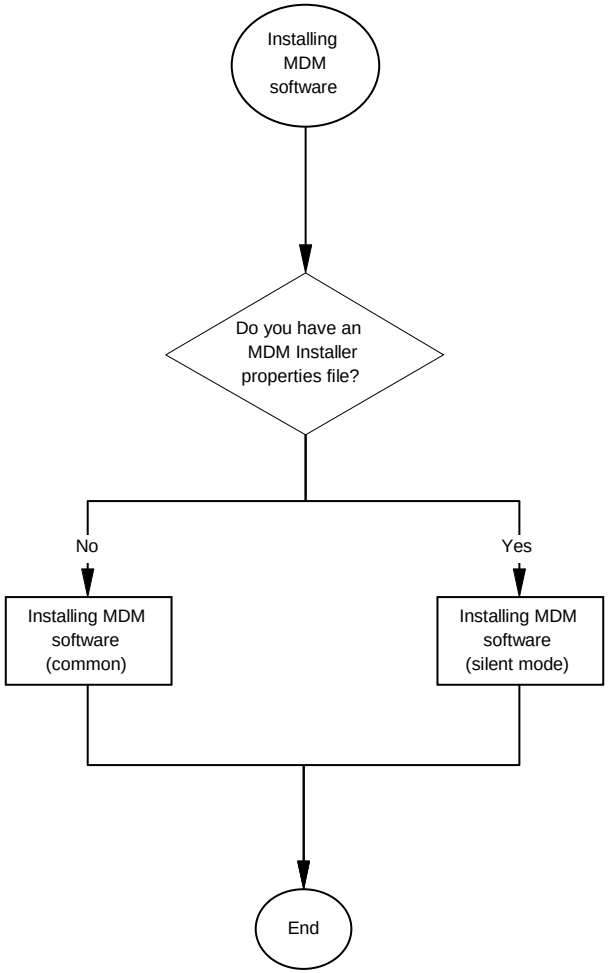
## Navigation links

- “MDM software installation task flow” (page 35)
- “Task navigation” (page 37)

## MDM software installation task flow

This taskflow shows you the sequence of procedures you perform to install the Preside Multiservice Data Manager (MDM) software. To link to any procedure, go to “Task navigation” (page 37).

**MDM software installation task flow**



## Task navigation

- “Installing MDM software (common)” (page 38)
- “Installing MDM software (silent mode)” (page 46)

# Installing MDM software (common)

Install the Preside Multiservice Data Manager (MDM) software with all of the MDM Installer windows displayed or create an MDM Installer properties file without installing the Preside Multiservice Data Manager software.

## Procedure navigation


- "Procedure prerequisites" (page 38)
- "Procedure steps" (page 38)
- "Job aids" (page 43)


## Procedure prerequisites

- install the "MDM workstation operating system" (page 29).
- to support SNMP device integration, "Device integration cartridge software" (page 33)

## Procedure steps

**1** On the Preside Multiservice Data Manager workstation, as userID root, open a UNIX xterm.

**2** If you are installing from a CD-ROM

***Note:*** Do not change directories (cd /cdrom/cdrom0) before executing the command install_mdm. Changing directories will cause problems when attempting to eject and load the CD-ROMs.

**a.** Insert the Preside Multiservice Data Manager compact disk labelled #1 into the CDROM driver, pattern side up. If your drive uses a disk caddy, insert the disk into the caddy pattern side up, then slide the disk caddy into the CD-ROM drive.

**b.** Launch the MDM Installer. Type

```
/cdrom/cdrom0/install_mdm [-p] [-h]
```

**3** If you are installing from a disk, launch the MDM Installer from the directory that contains the MDM software. Type

```
<MDM_software_pathname>/install_mdm [-p] [-h]
```

**4** You are prompted for a DISPLAY environment variable. The default is to use a console local to the Preside Multiservice Data Manager workstation.

**Enter the environment DISPLAY to launch the MDM Installer GUI [:0.0]**

If your console is not local to the Preside Multiservice Data Manager workstation, enter the DISPLAY environment value (for example, BELTOR32:0.0).

**5** The Nortel Networks splash screen opens, a countdown occurs, then the window closes.

**6** The **Introduction** window opens.

The left panel of the window indicates the current phase of the installation. As selections are made, the indicator for each phase changes color. The contents of the right panel changes as each installation phase is presented.

***Note:*** The MDM Installer can be stopped at anytime before you press the Install button in step 21. Do not stop the software installation after the installation process has begun.

You can easily remove the MDM software after successful completion (using “Uninstall MDM” (page 103)) and re-install the software.

To stop the MDM Installer, click **Cancel**.

**7** Click **Next**.

**8** The Preside Multiservice Data Manager **License agreement** window opens.

Review the license information.

Click **I accept the terms of the License Agreement,** then click **Next.**

Another window opens requesting that you wait while the workstation is examined.

**9** The **System information** window opens.

This window indicates

- the Solaris operating system (OS) currently installed on this workstation.
- the sizes of the disk partitions on this workstation and the disk partition sizes recommended for MDM software.
- Preside Multiservice Data Manager software (by release) currently installed on this workstation.

- Device integration software cartridges currently installed on this workstation.
- Preside Multiservice Data Manager licenses currently installed on this workstation.

If the actual sizes of the partitions are equal to, or larger than, the partition sizes recommended in *241-6001-102 Preside MDM Planning Guide*, click **Next**.

If the suggested size for a partition is larger than the available partition size, re-partition the disk. Depending on the size of the disk drive on the workstation, you may also need to add another disk drive or replace the existing drive with a larger drive. Click **Cance**l to exit the MDM Installer and use the Sun documentation to re-partition the disk drive.

**10** The **MDM 15.1 install options** window opens.

Select the software packages for this Preside Multiservice Data Manager workstation. For a list of the software packages, see “Preside Multiservice Data Manager software packages” (page 44).

Click **Next**.

**11** The **MDM 15.1 installation source path** window opens.

If the indicated directory corresponds to the location of the software, click **Next**.

If you are installing from a directory other than the indicated directory, click **Choose**, select the appropriate folder, click **Select;** then click **Next**.

If the software packages are located in different directories, you are provided with prompts to select the appropriate directory for each package selected in step 10.

If the CD-ROM is available, the default source path is /cdrom/cdrom0. If the CD-ROM is unavailable, the default source path is the directory that contains the MDM Installer.

**12** If one of the Preside Multiservice Data Manager software packages selected in step 10 was Multiservice Data Manager (MDM) or MDM Operator Client and User Administration and the domain name cannot be automatically determined, the window **Enter domain name** opens.

Type the domain name required to locate this workstation.

**13** If you selected the option Management Data Provider (MDP) in step 10 and this installation is not an Preside Multiservice Data Manager software upgrade, the **MDP Administration userID** window opens.

The MDP user information window prompts for the MDP administrator userID.

***Note:*** If the MDP administrator userID was not created previously, create the userID now and then complete this step.

**14** Click **Next**.

**15** If you selected the option Multiservice Data Manager (MDM) in step 10, the **Network Viewer background pixmaps** window opens.

This window enables you to select optional bitmap images that can be installed and then used as the background for the Network Viewer. For example, you can use a map of the world as the background.

If you have decided to use the optional bitmap images, click **Yes** and proceed to the next step.

If you have decided not to use optional bitmap images, click **No** and proceed to step 17.

**16** The **Network Viewer background pixmap selection** window opens.

Select the countries for which images should be installed.

**17** If you selected Device Integration cartridges in step 10, the **Device Integration cartridge selection** window opens.

Select the Device Integration cartridges to install.

**a.** If the Preside Network Services Platform (NSP) is also installed on this MDM network management workstation, click **NSP is co-resident with MDM**.

**b.** Enable the MDM Installer to update the Server Administration tool (SVMADM) with configuration information for the new device integration software.

In the data entry box **Enter Server Administration password**, type the current password for SVMADM access.

**c.** Click **Next**.

**18** If you used the -p option to create an MDM Installer properties file, the **Create installers.properties file** window opens.

To save the file in a directory other than the current directory, click **Choose**, select the appropriate folder, click **Select;** then click **Next**.

Record the location of the file for future use.

**19** If you used the -p option to create an MDM Installer properties file, the **Properties file created** window opens.

To continue installing the Preside Multiservice Data Manager software, click **Next**.

If you are using the MDM Installer to create the properties file without installing the Preside Multiservice Data Manager software, click **Cancel**.

**20** The **Pre-installation summary** window opens.

This summary indicates the software packages that will be installed and the space requirements for these packages.

If the software packages to be installed are incorrect, click **Previous** to return to the **MDM 15.1 install options** window and select the correct software packages.

If the amount of disk space required to install the indicated software exceeds the amount of available disk space, click **Cancel** to stop the installation.

**21** Click **Install**.

The **Installing MDM 15.1** window opens.

The MDM Installer displays the name of each Preside Multiservice Data Manager software package as it is installed.

If you are installing from a CD-ROM, the MDM Installer prompts for additional CD-ROMs until all of the selected Preside Multiservice Data Manager software is installed.

**22** After the installation of the Preside Multiservice Data Manager software is complete, if a valid 15.1 license key is not located on this workstation, the **Enter new license** window opens.

Type the new Preside Multiservice Data Manager software license in the provided data entry box.

***Note:*** If you do not enter an Preside Multiservice Data Manager software license key, a temporary software license is generated that is valid for all of the Preside Multiservice Data Manager software for a maximum of 30 days. When you have a permanent Preside Multiservice Data Manager software license, manually apply the new license using the appropriate procedure in 241-6001-303 *Preside MDM Administrator Guide*.

**23** Click **Next**.

**24** If this is a new Preside Multiservice Data Manager software installation, the **Launch QuickStart option** window opens.

Preside Multiservice Data Manager QuickStart assists you to configure the MDM software to provide basic Passport and Nortel Networks Multiservice Provider Edge support.

If you select **Yes**, QuickStart is launched after the MDM Installer window closes.

If you select **No**, QuickStart is not launched after the MDM Installer window closes.

**25** Click **Next**.

The **Install complete** window displays the installation summary.

Preside Multiservice Data Manager software installation is now complete.

**26** Review the Preside Multiservice Data Manager software installation summary. If the summary indicates failure to install any of the Preside Multiservice Data Manager packages, examine the installation logs found in directory /opt/MagellanNMS/data/log/<release>_Install_logs and follow the instructions in “Recovering from an incomplete MDM software installation” (page 106).

For more information about the installation logs, see “MDM software installation logs” (page 48).

**27** Click **Done**.

The MDM Installer window closes.

If you selected **Yes** in step 24, proceed to section “Configuring a new MDM workstation” (page 65).

If you find it necessary to remove the MDM software for any reason, follow the instructions in “Uninstall MDM” (page 103).

## Job aids

**Table 3**
**Variable definitions**

| Variable | Definition |
|---|---|
| -p | is used to create file 'installer.properties'. This file can then be used to clone this Preside Multiservice Data Manager software installation on other Preside Multiservice Data Manager workstations. |

**Table 3 (Continued)**
**Variable definitions**

| Variable | Definition |
|---|---|
| -h | displays this command usage information |
| MDM_software_ pathname | is the absolute pathname of the directory that contains the MDM Installer |

The following table describes the Preside Multiservice Data Manager software packages.

**Table 4**
**Preside Multiservice Data Manager software packages**

| Package | Description |
|---|---|
| Multiservice Data Manager (MDM) | applications including fault, provisioning, and administration toolsets |
| MDM NTPs | the online help sets used to provide context sensitive help and procedural information for Preside Multiservice Data Manager |
| MDM Operator Client and User Administration | the Preside Multiservice Data Manager Operator Client software and the software to administer Operator Clients. This package also includes software to create and administer users from a central location. |
| Management Data Provider (MDP) | a data collection application.<br><br>If Preside Multiservice Data Manager is not currently installed on this network management workstation, you must also select MDM. |
| MDP NTPs | the online help sets used to provide context sensitive help and procedural information for MDP |

(Sheet 1 of 2)

**Table 4**
**Preside Multiservice Data Manager software packages**

| Package | Description |
|---|---|
| HP OpenView Desktop client | a client for displaying fault information.<br><br>If Preside Multiservice Data Manager is not currently installed on this network management workstation, you must also select MDM. |
| Device Integration cartridges | fault management software for specific SNMP devices.<br><br>You cannot select MDM and Device Integration cartridges during the same MDM Installer session.<br><br>Device integration cartridge software cannot be installed unless the Preside Multiservice Data Manager software is currently installed on this workstation. |
| (Sheet 2 of 2) | |

The following table describes the Preside Multiservice Data Manager software installation logs.

**Table 5**
**Preside Multiservice Data Manager software installation logs**

| Log | Description |
|---|---|
| Install_summary.log | This file contains a summary of the installation, indicating which package versions were added or replaced and which package installations succeeded or failed. |
| stopServers | This file indicates Preside Multiservice Data Manager servers that were stopped during an MDM software upgrade. |
| Package_logs | This directory contains the detailed log files for each package installation or package removal. For example: install_MDM151Pbe, remove_MDM143Pac, install_MDMHELP. |

# Installing MDM software (silent mode)

Install the Preside Multiservice Data Manager (MDM) software without all of the MDM Installer windows displayed.

Use the instructions in this section if you are familiar with Preside Multiservice Data Manager software installation and you have an MDM Installer properties file.

## Procedure navigation


- "Procedure prerequisites" (page 46)
- "Procedure steps" (page 46)
- "Job aids" (page 48)


## Procedure prerequisites

- install the "MDM workstation operating system" (page 29).
- to support SNMP device integration, "Device integration cartridge software" (page 33)
- MDM Installer properties file

## Procedure steps

**1** On the Preside Multiservice Data Manager workstation, as userID root, open a UNIX xterm.

**2** If you are installing from a CD-ROM

***Note:*** Do not change directories (cd /cdrom/cdrom0) before executing the command install_mdm. Changing directories will cause problems when attempting to eject and load the CD-ROMs.

**a.** Insert the Preside Multiservice Data Manager compact disk labelled #1 into the CDROM driver, pattern side up. If your drive uses a disk caddy, insert the disk into the caddy pattern side up, then slide the disk caddy into the CD-ROM drive.

**b.** Launch the MDM Installer. Type

```
/cdrom/cdrom0/install_mdm -g
-silent <install_pathname>/installer.properties
[-h]
```

**3** If you are installing from a disk, launch the MDM Installer from the directory that contains the Preside Multiservice Data Manager software. Type

```
<MDM_software_pathname>/install_mdm
-silent <install_pathname>/installer.properties
[-g] [-h]
```

**4** If you used the -g option, you are prompted for a DISPLAY environment variable. The default is to use a console local to the Preside Multiservice Data Manager workstation.

```
Enter the environment DISPLAY to launch the MDM
Installer GUI [:0.0]
```

If your console is not local to the Preside Multiservice Data Manager workstation, enter the DISPLAY environment value (for example, BELTOR32:0.0).

**5** If you used the -g option, the MDM Installer displays the name of each Preside Multiservice Data Manager package as it is installed and, if applicable, prompts for additional CD-ROMs.

**6** The following message is displayed in the UNIX xterm.

```
Installation complete.
```

**7** Review the Preside Multiservice Data Manager software installation summary. If the summary indicates failure to install any of the Preside Multiservice Data Manager packages, examine the installation logs found in directory /opt/MagellanNMS/data/log/<release>_Install_logs and follow the instructions in “Recovering from an incomplete MDM software installation” (page 106).

For more information about the installation logs, see “MDM software installation logs” (page 48).

**8** To configure a new Preside Multiservice Data Manager workstation, use the instructions in section “Configuring a new MDM workstation” (page 65).

If you find it necessary to remove the MDM software for any reason, follow the instructions in “Uninstall MDM” (page 103).

## Job aids

**Table 6**
**Variable definitions**

| Variable | Definition |
|---|---|
| -silent | is used to install the MDM software without using the MDM Installer windows. Silent mode uses a properties file for the MDM installation and does not require user interaction. The properties file is created by running the MDM Installer with the '-p' option. |
| -g | is used to install the MDM software in Silent mode but provides a popup window to prompt for CD-ROM disc changes. This option also provides a popup window that indicates installation progress. |
| -h | displays this command usage information |
| install_pathname | is the absolute pathname of the directory that contains the MDM Installer properties file. |
| MDM_software_ pathname | is the absolute pathname of the directory that contains the MDM Installer |

The following table describes the Preside Multiservice Data Manager software installation logs.

**Table 7**
**MDM software installation logs**

| Log | Description |
|---|---|
| Install_summary.log | This file contains a summary of the installation, indicating which package versions were added or replaced and which package installations succeeded or failed. |
| (Sheet 1 of 2) | |

**Table 7 (Continued)**
**MDM software installation logs**

| Log | Description |
|---|---|
| stopServers | This file indicates MDM servers that were stopped during an MDM software upgrade. |
| Package_logs | This directory contains the detailed log files for each package installation or package removal. For example: install_MDM151Pbe, remove_MDM143Pac, install_MDMHELP. |
| (Sheet 2 of 2) | |

# Chapter 5
# MDM software patches

This section describes how to apply and remove softwares patches for the Preside Multiservice Data Manager (MDM) software.



## Installing an MDM software patch

This section describes how to apply a software patch for the Preside Multiservice Data Manager (MDM) software.

Normally, you are notified by your Nortel Networks customer respresentative when the latest MDM software patch for your MDM software release is available.

An MDM software patch includes all of the previous MDM software patches applicable to a software package in your MDM software release.

### Procedure navigation



### Procedure prerequisites

Perform this procedure when instructed by one of the following procedures:

- “Installing MDM software tasks” (page 21)

- “Upgrading the MDM software” (page 95)

## Procedure steps

1. Log in to the MDM network management workstation as userID root.
2. Transfer the MDM software patch tar file from the Nortel Networks Customer Support web site http://www130.nortelnetworks.com/cgi-bin/eserv/cs/main.jsp to the directory /tmp.
3. Exit from all MDM applications.
4. If this is a data collection workstation that does not use Server Administration tool (SVMADM) to control the Management Data Provider (MDP) servers, type

   **`/opt/MagellanMDP/bin/mdpadm stop all`**
5. Shutdown the MDM servers; type

   **`/etc/init.d/nmssvm.server stop`**
6. Change directories to the directory /tmp.

   **`cd /tmp`**
7. Unlink the individual MDM software patch.

   **`zcat <release>-<patch>.tar.Z |`**
   **`tar -xvpf -`**

   The files are placed in a new MDM software patch directory under directory /tmp. For example, /tmp/<release>-03.
8. Change directories to the MDM software patch directory.

   **`cd <release>-<patch>`**
9. Run the *Sun Microsystems Inc. patch installation utilitiy.*

   **`patchadd .`**

   The MDM software files being replaced by the patches are backed-up to directory /var/sadm/pkg/<release>-<patch>.

   The MDM software patch installs.

   You are informed of a successful installation.
10. Perform the instructions in the file README. This file contains detailed instructions for activating the MDM software patches after installation.

## Job aids

**Table 8**
**Variable definitions**

| Variable | Definition |
|---|---|
| <release> | the MDM software release number (for example, MDM142) |
| <patch> | the patch version (for example, 03) |

# Removing an MDM software patch

This section describes how to remove an MDM software patch from the Preside Multiservice Data Manager (MDM) software.

1. Log in to the MDM workstation as userID root.
2. Run the *Sun Microsystems Inc. patch removal utilitiy.* Type

   **`patchrm <release>-<patch>`**

   The MDM software patch is removed.

   You are informed of a successful patch removal.
3. Review the MDM Release Supplement for the current release or the README file included with the last installed MDM software patch. Determine the actions required to restore the MDM software to it's previous state.

# Chapter 6
# Configuring network connectivity

This section identifies the tasks required to configure connectivity from a network device to the Preside Multiservice Data Manager (MDM) workstation.

This section provides references to the documents required to perform the tasks.

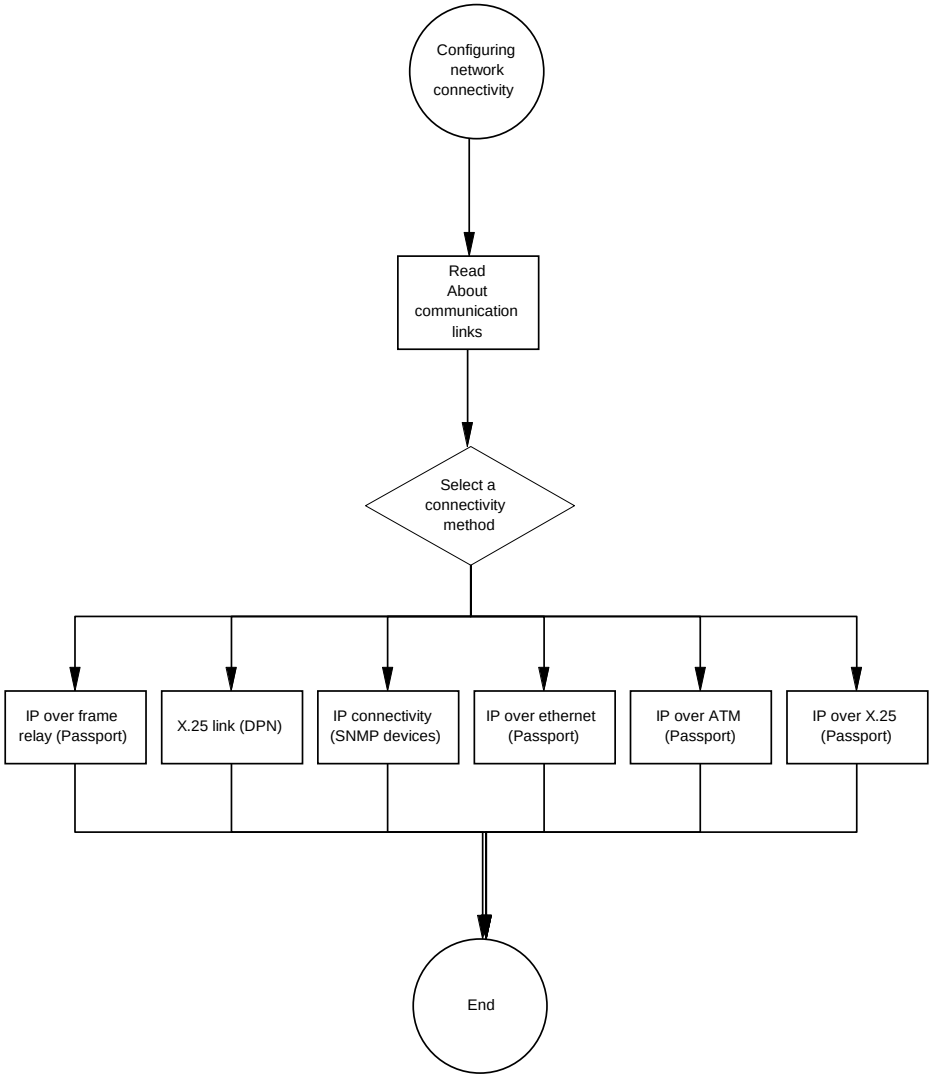
## Navigation links


- “Network connectivity task flow” (page 55)
- “Task navigation” (page 57)


## Network connectivity task flow

This task flow shows you the tasks you perform to connect a Nortel Networks network element to a Preside Multiservice Data Manager workstation. To link to any task, go to “Task navigation” (page 57).

### Network connectivity task flow



## Task navigation

# About communications links

To communicate with a Preside Multiservice Data Manager (MDM) workstation, you require the following:

- the hardware to establish a communications link to the workstation installed on the network element
- the service data for the communications link must be configured on the network element.

The type of communications link an MDM workstation uses for network access depends upon the composition of the network (see "Types of communications links" (page 58)).

For more information about each network access type, see 241-6001-101 *Preside MDM Engineering Guide*.

**Table 9**
**Types of communications links**

| Network Composition | Switch type | Link |
|---|---|---|
| DPN, only | DPN | X.25 link |
| mix of DPN and Passport | DPN | X.25 link |
| | Passport | IP over X.25 link through DPN |
| Passport, only | Passports configured as an ILS network | IP over ethernet or<br>IP over frame relay |
| | Passports not configured as an ILS network | IP over frame relay |
| | | IP over ATM |
| SNMP devices | | IP over ethernet |

# X.25 link (DPN)

Use the instructions in this procedure to configure an X.25 connection between a DPN switch and the Preside Multiservice Data Manager workstation.

For the instructions to provision the Network Control System (NCS), see 241-2001-102 *DPN-100 Network Control System User Guide*.

For the instructions to provision LAPB X.25 service on a PE and PI, see 241-1001-184 *DPN-100 LAPB/X.25 Specification*.

## Procedure steps

1. Provision the Network Control System (NCS) on the DPN switches in the network.
2. Provision a Workstation Management Data Interface (WS-MDI) on an OA in the NCS.
3. Provision X.25 service on the DPN Processing Element (PE), Peripheral Interface (PI), and Port (PO) to which the MDM workstation is connected.
4. Follow the instructions in “Installing X.25 software (DPN)” (page 117).
5. Follow the instructions in “Configuring an X.25 link (DPN)” (page 129).

# IP over X.25 link (Passport)

Use the instructions in this procedure to configure an IP over X.25 connection between a Passport and the Preside Multiservice Data Manager (MDM) workstation using a DPN switch.

For the instructions to select a topology and provision the DPN, see 241-7401-110 *Passport 7400, DPN-100 Interworking Guide*.

For instructions to provision the Passport IPIVC, see 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*.

## Procedure steps

1. Configure the Passports to be managed as a Routing Identifier (RID) subnet that is managed through a Call Server Resource Module (CSRM) on a DPN switch.
2. Configure an IP Interface over Virtual Circuit (IPIVC) on each Passport that is managed by the MDM workstation.
3. Follow the instructions in “Configuring an IP over X.25 link (DPN/ Passport)” (page 141).

# IP over ethernet (Passport)

Use the instructions in this procedure to configure an ethernet connection between a Passport and the Preside Multiservice Data Manager workstation.

For the instructions to configure an inter-LAN switching (ILS) network and provision a virtual router, see 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*.

## Procedure steps

1. Configure the Passports to be managed as an inter-LAN switching (ILS) network.
2. Provision a virtual router with an IP port on the Passport providing network access for the MDM workstation.

# IP over frame relay (Passport)

Use the instructions in this procedure to configure a frame relay connection between a Passport and the Preside Multiservice Data Manager (MDM) workstation.

For the instructions to configure a FRUNI, see 241-5701-900 *Passport 7400, 15000, 20000 Frame Relay UNI Guide*.

For the instructions to configure IPIFRs, see 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*.

## Procedure navigation


- "Procedure prerequisites" (page 62)
- "Procedure steps" (page 62)


## Procedure prerequisites

- If you have the Solaris 8 operating system configured in 64-bit mode on the MDM workstation, Nortel Networks recommends that you use an external router as a frame relay access device (FRAD) to connect to the Passport nodes in your network.

## Procedure steps

1. Configure a Frame Relay User-to-Network Interface (FRUNI) on the Passport for each frame relay link from the MDM workstation.
2. Provision an IP Interface over Frame Relay (IPIFR) on each Passport that is managed by the MDM.
3. Follow the instructions in "Installing frame relay software" (page 147).

# IP over ATM (Passport)

Use the instructions in this procedure to configure an ATM connection between a Passport and the Preside Multiservice Data Manager (MDM) workstation.

For the instructions to configure an IP over ATM (ATM MPE) connection, see 241-5701-810 *Passport 7400, 15000, 20000 Configuring IP*.

For the instructions to configure an IP over ATM connection, see 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*.

## Procedure steps

1. Configure an ATM Interface (ATMIF) on the Passport for each ATM link from the MDM workstation.
2. Provision an ATM Multi-Protocol Encapsulation (MPE) component on each Passport that is managed by the MDM.
3. Provision the static IP address of the ATM Network Interface Card (NIC) under the Virtual Router (VR) on the Passport.
4. Provision the logical IP address of the ATM port on the Passport under the VR on the Passport. The IP address of the Passport must be in the same subnet as the static IP of the ATM NIC.
5. Follow the instructions in “Installing ATM software” (page 163).

# IP connectivity (SNMP devices)

To manage SNMP devices, IP LAN or WAN connectivity must be provided on the Preside Multiservice Data Manager workstation and the SNMP devices.

# Chapter 7
# Configuring a new MDM workstation

Configure the Preside Multiservice Data Manager software on a new Preside Multiservice Data Manager workstation.

To upgrade the Preside Multiservice Data Manager software to release 15.1 on an existing Preside Multiservice Data Manager workstation, see “Upgrading the MDM software” (page 95).

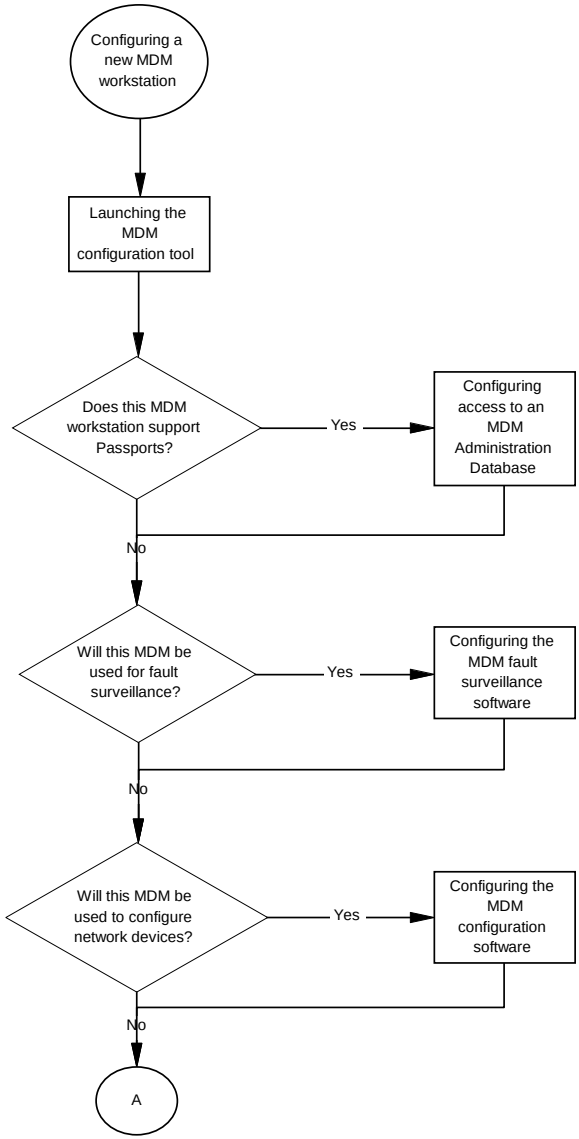
## Navigation links



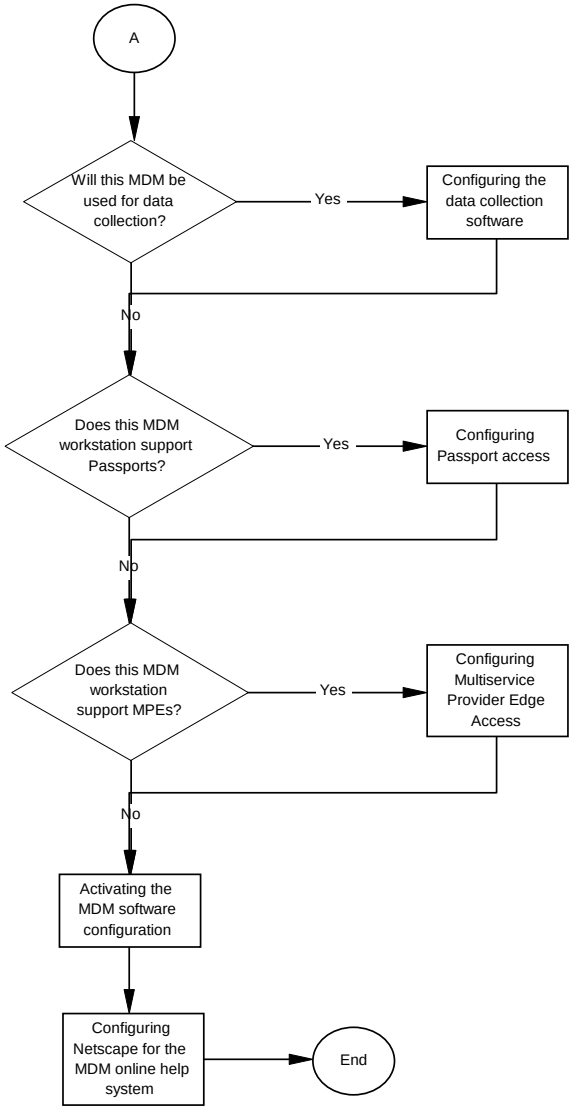
## Configuration task flow

This taskflow shows you the sequence of procedures you perform to configure the Preside Multiservice Data Manager (MDM) software on a new Preside Multiservice Data Manager workstation. To link to any procedure, go to “Task navigation” (page 68).

**Configuration task flow (sheet 1 of 2)**



**Configuration task flow(sheet 2 of 2)**



## Task navigation

# Launching the MDM configuration tool

This section describes how to

- launch the Preside Multiservice Data Manager configuration tool QuickStart
- register an Preside Multiservice Data Manager software license
- select the network devices to be supported on this Preside Multiservice Data Manager workstation
- select the Preside Multiservice Data Manager software components to be configured on this Preside Multiservice Data Manager workstation

## Procedure navigation


- "Procedure prerequisites" (page 69)
- "Procedure steps" (page 69)
- "Job Aids" (page 71)


## Procedure prerequisites

- perform "Installing MDM software" (page 35).
- review 241-6001-102 *Preside MDM Planning Guide* and identify how this Preside Multiservice Data Manager workstation fits into your network management architecture. Determine the following:
  - — the network devices supported on this workstation
  - — the Preside Multiservice Data Manager software components (fault, configuration, or data collection) to be configured on this workstation
- obtain a Preside Multiservice Data Manager software license key that permits the use of the selected Preside Multiservice Data Manager software components.

## Procedure steps

**1** If the MDM Installer was not used to launch QuickStart, using the userID root, do one of the following:

**a.** in a UNIX xterm, type

```
/opt/MagellanNMS/system/config/nms_QuickStart
```

**b.** from the MDM Toolset

**`System->Administration->MDM Software QuickStart`**

**2** If this workstation is already configured as a Preside Multiservice Data Manager workstation, you are prompted.

`Are you sure you wish to continue?`

If you do continue, QuickStart copies the Preside Multiservice Data Manager configuration files to the directory indicated on the current window. QuickStart then over-writes the configuration files.

**3** If this workstation was not previously configured as a Preside Multiservice Data Manager workstation or if you elected to continue from the **Warning - MDM Previously Configured** window prompt, the **QuickStart Introduction** window opens.

QuickStart can be halted at any time during the configuration process by clicking the **Cancel** button.

If you are unsure of the information requested or provided in a previous window, use the **Previous** button to return to that window.

**4** Click **Next**.

**5** If a valid Preside Multiservice Data Manager software license exists on this workstation, the **License** window opens. This window displays the existing license information including the enabled options.

If a license does not exist, or is invalid, the License window opens without information about existing Preside Multiservice Data Manager software options. Type the new software license in the data entry box **New license** and click **update**.

***Note:*** If you do not enter a software license key, a temporary software license is generated for you. This temporary license is valid for all of the Preside Multiservice Data Manager software components for a maximum of 30 days. When you have a permanent software license, manually apply it to this software as described in 241-6001-303 *Preside MDM Administrator Guide*.

**6** Click **Next**.

**7** The **MDM Component Selection** window opens.

Use this window to select the network devices to be supported and the Preside Multiservice Data Manager software components to be configured on this workstation. The network devices and Preside

Multiservice Data Manager software components to select are listed in "Network devices and MDM software components" (page 71).

The default is that Passport and MPE devices are supported and all of the Preside Multiservice Data Manager applications are selected for configuration if an Preside Multiservice Data Manager software license exists on this workstation to support the selections.

For example, if a software license for Data Collection (MDP) does not exist, the menu item for that Preside Multiservice Data Manager software component is greyed-out and cannot be selected for configuration on this workstation.

**8** Click **Next**.

Return to the taskflow "Configuration task flow (sheet 1 of 2)" (page 66).

## Job Aids

Table "Network devices and MDM software components" (page 71) describes the supported network devices and Preside Multiservice Data Manager software components.

**Table 10**
**Network devices and MDM software components**

| Network device or MDM software component | Description |
|---|---|
| Passport | network device (switch) |
| Nortel Networks Multiservice Provider Edge | network device (switch) |
| Fault | applications to display alarms and to provide a network status of network devices and circuits |
| Configuration | applications to configure network device components and services |
| Data Collection | the Management Data Provider (MDP) application |

# Configuring access to an MDM Administration Database

This section describes how to configure access to an Preside Multiservice Data Manager (MDM) Administration Database.

***Note:*** This section is applicable to Preside Multiservice Data Manager workstations that support Passports. That is, if this workstation supports only Nortel Networks Multiservice Provider Edge, this section is not applicable to the configuration of this Preside Multiservice Data Manager workstation.

## Procedure navigation


- "Procedure prerequisites" (page 72)
- "Procedure steps" (page 72)


## Procedure prerequisites

- perform "Launching the MDM configuration tool" (page 69)
- install and prepare for use an Preside Multiservice Data Manager Administration Database.
  For more information about the Preside Multiservice Data Manager Administation Database, see 241-6001-400 *Preside MDM Administration Database User Guide*.
- Determine the following:
  - the database name
  - if the database is not installed on the local workstation, the hostname (or IP address) and the database access port number on the remote workstation
  - the database access userID and password

## Procedure steps

**1** The **Database** window opens.

Click **No database** to indicate that a database is not required. This is the default.

Click **Administration database** to configure access to an Preside Multiservice Data Manager Administration Database.

2 Click **Next**.

If you selected No database, return to the taskflow “Configuration task flow (sheet 1 of 2)” (page 66).

3 The **Database Information** window opens.

4 Add the database access information in the **Database Access Information** panel.

**a.** Type the database name, recognized by the database server, in the data entry box **Database name**.

**b.** Type the database hostname or host IP address in the data entry box **Host name**.

**c.** Type the database host access port number in the data entry box **Port number**.

The default port number is 1521.

**d.** Type the the database access userID in the data entry box **User name**.

**e.** Type the password for User name in the data entry box **Password**.

**f.** Re-type the password for User name in the data entry box **Confirm Password**.

5 Click **Next**.

Return to the taskflow “Configuration task flow (sheet 1 of 2)” (page 66).

# Configuring the MDM fault surveillance software

This section describes how to use QuickStart to configure the Preside Multiservice Data Manager (MDM) software for fault surveillance and performance monitoring of network devices and services.

## Procedure navigation


- "Procedure prerequisites" (page 74)
- "Procedure steps" (page 75)
- "Job Aids" (page 77)


## Procedure prerequisites

- perform "Launching the MDM configuration tool" (page 69)
- select **Fault** in the **MDM Software Component** window
- review 241-6001-102 *Preside MDM Planning Guide* and determine if this Preside Multiservice Data Manager workstation is a Standalone Fault workstation, a Standalone Fault with redundancy workstation, an Fault Alarm Aggregation workstation, or a Fault Client.
- if this Preside Multiservice Data Manager workstation supports Passports and this is a Standalone Fault , Standalone Fault with redundancy, or an Aggregated Fault workstation, perform "Configuring access to an MDM Administration Database" (page 72)
- if this is a Standalone Fault with redundancy workstation, identify the name of the remote Standalone Fault workstation from which alarms will be received and to which alarms will be sent.
- if this Preside Multiservice Data Manager workstation supports Passports and this is a Standalone Fault or Standalone Fault with redundancy workstation, identify the UTC offset used in the network
- if this is an Fault Alarm Aggregation workstation, identify the remote Preside Multiservice Data Manager workstations that will send alarms to this workstation
- if this Preside Multiservice Data Manager workstation is a Fault Client, determine the hostname (or IP address) of the associated Standalone Fault workstation

## Procedure steps

1 The **Fault Type Selection** window opens.

Use this window to select the type of fault surveillance workstation to configure. The types of Preside Multiservice Data Manager Fault workstations are listed in “Types of Preside Multiservice Data Manager Fault workstations” (page 77).

The default is Standalone Fault.

2 Click **Next**.

If this Preside Multiservice Data Manager workstation supports Passports and you selected Standalone Fault or Standalone Fault with redundancy, proceed to step 3.

If this Preside Multiservice Data Manager workstation supports MPE, only, and you selected Standalone Fault or Standalone Fault with redundancy, return to the taskflow “Configuration task flow (sheet 1 of 2)” (page 66).

If you selected Fault Client, only, proceed to step 7.

If you selected Fault Alarm Aggregation, proceed to step 9.

3 The **UTC Offset** window opens.

Use this window to configure the Universal Time (UTC) offset. For more information about setting the UTC offset, see 241-6001-303 *Preside MDM Administrator Guide*.

To the prompt

```
Is the calculated value of Passport’s UTC offset
correct?
```

If the UTC offset is correct, click **Yes**. This is the default.

To enter a different UTC offset, click **No** and type the new UTC offset using the data entry box to specify the offset hours and the pull-down box to specify east or west.

4 Click **Next**.

If you selected Standalone Fault, return to the taskflow “Configuration task flow (sheet 1 of 2)” (page 66).

If you selected Standalone Fault with redundancy, proceed to step 5.

5 The **Fault Redundant** window opens.

In the data entry box **Workstation name**, type the name of the remote Standalone Fault with redundancy workstation from which alarms will be received and to which alarms will be sent .

**6** Click **Next**.

Return to the taskflow “Configuration task flow (sheet 1 of 2)” (page 66).

**7** The **Fault Client** window opens.

Type the name of the associated Standalone Fault workstation in the data entry box **Workstation name**.

**8** Click **Next**.

Return to the taskflow “Configuration task flow (sheet 1 of 2)” (page 66).

**9** The **Fault Alarm Aggregation** window opens.

Use this window to identify the Standalone Fault workstations that will send alarms to this Preside Multiservice Data Manager workstation.

**10** To add to the list of Standalone Fault workstations

**a.** Type the name of the Standalone Fault workstation in the data entry box **Workstation Name**.

**b.** Click **Add**.

The Standalone Fault workstation’s name appears in the Workstation Name table.

**11** To change a Workstation Name table entry

**a.** Click the table entry in the **Workstation Name** table.

**b.** Change the Standalone Fault workstation name in the data entry box **Workstation Name**.

**c.** Click **Modify**.

The changed Standalone Fault workstation name appears in the Workstation Name table.

**12** To remove a Workstation Name table entry

**a.** Click the table entry in the **Workstation Name** table.

**b.** Click **Delete**.

The Workstation Name table entry is removed from the Workstation Name table.

**13** Click **Next**.

Return to the taskflow “Configuration task flow (sheet 1 of 2)” (page 66).

## Job Aids

Table “Types of Preside Multiservice Data Manager Fault workstations” (page 77) describes the types of Preside Multiservice Data Manager fault workstations.

**Table 11**
**Types of Preside Multiservice Data Manager Fault workstations**

| Type of MDM Fault workstation | Description |
|---|---|
| Standalone Fault | This Preside Multiservice Data Manager workstation collects alarms from the network and provides tools to display and report faults. |
| Standalone Fault with redundancy | This Standalone Fault workstation also receives alarms from a remote Preside Multiservice Data Manager workstation and sends alarms to the remote Preside Multiservice Data Manager workstation.<br><br>***Note:*** The other Preside Multiservice Data Manager workstation in this redundant Preside Multiservice Data Manager workstation configuration must also be configured using QuickStart and using this option. |
| Fault Client, only | This Preside Multiservice Data Manager workstation has the Preside Multiservice Data Manager fault surveillance tools configured but uses the fault information collected on an associated Standalone Fault workstation. |
| Fault Alarm Aggregation | This Preside Multiservice Data Manager workstation collects alarms from Standalone Fault workstations. |

# Configuring the MDM configuration software

This section describes how to use QuickStart to configure the Preside Multiservice Data Manager (MDM) software for configuration of network devices and services.

## Procedure navigation


- "Procedure prerequisites" (page 78)
- "Procedure steps" (page 78)


## Procedure prerequisites

- perform "Launching the MDM configuration tool" (page 69)
- select **Configuration** in the **MDM Software Component** window
- review 241-6001-102 *Preside MDM Planning Guide* and determine if this Preside Multiservice Data Manager workstation is a Standalone Configuration workstation or an Configuration Client.
- if this Preside Multiservice Data Manager workstation supports Passports and this is a Standalone Configuration workstation, perform "Configuring access to an MDM Administration Database" (page 72)
- if this Preside Multiservice Data Manager workstation is a Configuration Client, determine the hostname (or IP address) of the associated Standalone Configuration workstation

## Procedure steps

**1** The **Configuration Type** window opens.

Click **Basic Configuration** to configure this workstation as a Standalone Configuration Preside Multiservice Data Manager.

Click **Configuration Client, only** to configure this Configuration Client to use Preside Multiservice Data Manager configuration servers on another Preside Multiservice Data Manager workstation.

**2** Click **Next**.

If you selected Basic Configuration, return to the taskflow "Configuration task flow (sheet 1 of 2)" (page 66).

**3** The **Configuration Client** window opens.

Type the name of the Standalone Configuration Preside Multiservice Data Manager workstation in the data entry box **Workstation name**.

**4** Click **Next**.

Return to the taskflow “Configuration task flow (sheet 1 of 2)” (page 66).

# Configuring the data collection software

This section describes how to use QuickStart to configure the MDM Management Data Provider (MDP) software to collect spooled data.

## Procedure navigation


- "Procedure prerequisites" (page 80)
- "Procedure steps" (page 80)


## Procedure prerequisites

- perform "Launching the MDM configuration tool" (page 69)
- select **Data Collection** in the **MDM Software Component** window
- identify the MDP administrator userID and password

## Procedure steps

**1** The **Spooled Data Collection (MDP)** window opens.

Use this window to configure spooled data collection.

**2** In the panel **MDP Admin Unix account**

**a.** select the userID of the MDP administrator from the pull-down box **MDP Admin user ID**.

The available name(s) were determined during MDM software installation. For more information, see "Installing MDM software" (page 35).

**b.** type the password for the MDP administrator userID in the data entry box **Password**.

The password is stored in an encrypted format.

**c.** re-type the password for the MDP administrator userID in the data entry box **Confirm password**.

**3** If this Preside Multiservice Data Manager data collection workstation supports Passports, the panel **Passport group for MDP** is displayed. In this panel

**a.** type a name for the Passport group in the data entry box **Group Name**. The default Passport group name is MDP.

The Passports added in "Configuring Passport access" (page 82) are included in this group.

**b.** type a Passport access userID in the data entry box **User ID**.

This userID must be configured on all of the Passports in the indicated Passport group.

**c.** type the password for the Passport access userID in the data entry box **Password**.

The password is stored in an encrypted format.

**d.** re-type the password for the Passport access userID in the data entry box **Confirm password**.

**4** If this MDM data collection workstation supports MPE the panel **MultiservIce Provider Edge group for MDP** is displayed. In this panel

**a.** type a name for the MPE group in the data entry box **Group Name**. The default MPE group name is MDPMPE.

The MPEs added in “Configuring MPE access” (page 86) are included in this group.

**b.** type a MPE access userID in the data entry box **User ID**.

This userID must be configured on all of the MPEs in the indicated MPE group.

**c.** type the password for the MPE access userID in the data entry box **Password**.

The password is stored in an encrypted format.

**d.** re-type the password for the MPE access userID in the data entry box **Confirm password**.

**5** The data collection software is configured to collect all datatypes from the network devices in the configured groups. Data collection begins at 00:00 hours. For more information about scheduling data collection, see 241-6001-309 *Preside MDM Management Data Provider User Guide*.

**6** Click **Next**.

Return to the taskflow “Configuration task flow(sheet 2 of 2)” (page 67).

# Configuring Passport access

This section describes how to use QuickStart to configure the MDM software to access Passport switches.

***Note:*** This section is applicable to Preside Multiservice Data Manager workstations that support Passport devices. That is, if this workstation supports only Nortel Networks Multiservice Provider Edge, this section is not applicable to the configuration of this Preside Multiservice Data Manager workstation.

## Procedure navigation


- "Procedure prerequisites" (page 82)
- "Procedure steps" (page 82)


## Procedure prerequisites

- perform "Launching the MDM configuration tool" (page 69)
- identify the Passport nodenames and IP addresses that this Preside Multiservice Data Manager workstation will support
- identify the Passport userID and password that this Preside Multiservice Data Manager workstation will require to access the supported Passports

## Procedure steps

**1** The **Passport Access Data** window opens.

This Passport network data is added to the Host Group Directory Server (HGDS) configuration file on the local Preside Multiservice Data Manager workstation.

For more information about the HGDS, see 241-6001-310 *Preside MDM Server Reference Guide*.

The HGDS can be updated after initial configuration using the Host Group Administration tool (hgadmin). For more information about this tool, see 241-6001-303 *Preside MDM Administrator Guide*.

**2** To import Passport access data from another Preside Multiservice Data Manager workstation, click **Import from HGDS.cfg file**.

The **Import Passports** window opens. Type

- the name of the remote Preside Multiservice Data Manager workstation to retrieve Passport access data from in the data entry box **Workstation Name**.
- **root** in the data entry box **Username**.
- the password for the userID **root** in the data entry box **Password**.

**a.** Click **OK**.

The **Import Passports** window closes.

The table below the Passport access information panel is populated with the imported Passport entries.

**3** In the panel **Passport group names**

- If this Preside Multiservice Data Manager workstation is being configured for Passport configuration and Passport fault surveillance, default Passport group names for Command access (PPALL) and Surveillance (SURV) are displayed.
- If this Preside Multiservice Data Manager workstation is being configured for Passport fault surveillance, only, default Passport group names for Command access (PPALL) and Surveillance (SURV) are displayed.
- If this Preside Multiservice Data Manager workstation is being configured for Passport configuration, only, the default Passport group name for Command access (PPALL) is displayed.
- If this Preside Multiservice Data Manager workstation is being configured for Passport spooled data collection (MDP), only, this panel is not displayed. The Passport group name defaults to the name configured in “Configuring the data collection software” (page 80).

If necessary, replace the Passport group name by double-clicking the Passport group name and typing a new name.

All of the Passport access information added or changed using this window is applied to all of the Passport groups in the Passport group names panel.

**4** In the panel **Passport group access**

- If this MDM workstation is being configured for Passport spooled data collection (MDP), only, this panel is not displayed.

***Note:*** The information in this panel is mandatory.

**a.** type the Passport access userID in the data entry box **User ID**.

This userID must be configured on all of the Passports within the Passport group.

**b.** type the password for the User ID in the data entry box **Password**.

The password is stored in an encrypted format.

**c.** re-type the password for the User ID in the data entry box **Confirm password**.

**5** To add Passports to the Passport group(s), in the panel **Passport access information**

**a.** type the Passport nodename in the data entry box **Node name**.

**b.** type the IP address for the Node name in the data entry box **IP address**.

**c.** click **Add**.

The Node name and IP address appear in the table below the Passport access information panel.

**6** To change a Passport entry

**a.** click the Passport entry in the table below the Passport access information panel.

The Node name and IP address appear in the data entry boxes.

**b.** to change the Passport nodename, re-type the Passport nodename in the data entry box **Node name**.

**c.** to change the IP address, re-type the IP address for the Node name in the data entry box **IP address**.

**d.** click **Modify**.

The changed Node name and IP address appear in the table below the Passport access information panel.

**7** To remove a Passport entry from the Passport group(s)

**a.** click the Passport entry in the table below the Passport access information panel.

The Node name and IP address appear in the data entry boxes.

**b.** click **Delete**.

The Passport entry is removed from the table below the Passport access information panel.

**8** Click **Next**.

Return to the taskflow “Configuration task flow(sheet 2 of 2)” (page 67).

# Configuring MPE access

This section describes how to use QuickStart to configure the Preside Multiservice Data Manager software to access supported Nortel Networks Multiservice Provider Edge devices.

***Note:*** This section is applicable to Preside Multiservice Data Manager workstations that support MPE devices. That is, if this workstation supports only Passports , this section is not applicable to the configuration of this Preside Multiservice Data Manager workstation.

## Procedure navigation


- "Procedure prerequisites" (page 86)
- "Procedure steps" (page 86)


## Procedure prerequisites

- perform "Launching the MDM configuration tool" (page 69)
- identify the Nortel Networks Multiservice Provider Edge nodenames and IP addresses that this Preside Multiservice Data Manager workstation will support
- identify the Nortel Networks Multiservice Provider Edge userID and password that this Preside Multiservice Data Manager workstation will require to access the supported MPE

## Procedure steps

**1** The **Multiservice Provider Edge Access Data** window opens.

This MPE network data is added to the Host Group Directory Server (HGDS) configuration file on the local Preside Multiservice Data Manager workstation.

For more information about the HGDS, see 241-6001-310 *Preside MDM Server Reference Guide*.

The HGDS can be updated after initial configuration using the Host Group Administration tool (hgadmin). For more information about this tool, see 241-6001-303 *Preside MDM Administrator Guide*.

**2** To import MPE access data from another Preside Multiservice Data Manager workstation, click **Import from HGDS.cfg file**.

The **Import Multiservice Provider Edge** window opens. Type

- the name of the remote MDM workstation to retrieve MPE access data from in the data entry box **Workstation Name**.
- **root** in the data entry box **Username**.
- the password for the userID **root** in the data entry box **Password**.

**a.** Click **OK**.

The **Import Multiservice Provider Edge** window closes.

The table below the Multiservice Provider Edge access information panel is populated with the imported MPE entries.

**3** In the panel **Multiservice Provider Edge group names**

- If this Preside Multiservice Data Manager workstation is being configured for MPE configuration and MPE fault surveillance, default MPE group names for Command access (MPEALL) and Surveillance (MPESURV) are displayed.
- If this Preside Multiservice Data Manager workstation is being configured for MPE fault surveillance, only, default MPE group names for Command access (MPEALL) and Surveillance (MPESURV) are displayed.
- If this Preside Multiservice Data Manager workstation is being configured for MPE configuration, only, the default MPE group name for Command access (MPEALL) is displayed.
- If this Preside Multiservice Data Manager workstation is being configured for MPE spooled data collection (MDP), only, this panel is not displayed. The MPE group name defaults to the name configured in “Configuring the data collection software” (page 80).

If necessary, replace the MPE group name by double-clicking the MPE group name and typing a new name.

All of the MPE access information added or changed using this window is applied to all of the MPE groups in the MPE group names panel.

**4** In the panel **Multiservice Provider Edge group access**

- If this Preside Multiservice Data Manager workstation is being configured for MPE spooled data collection (MDP), only, this panel is not displayed.

***Note:*** The information in this panel is mandatory.

**a.** type the MPE access userID in the data entry box **User ID**.

This userID must be configured on all of the MPEs within the MPE group.

**b.** type the password for the User ID in the data entry box **Password**.

The password is stored in an encrypted format.

**c.** re-type the password for the User ID in the data entry box **Confirm password**.

**5** To add MPE to the MPE group(s), in the panel **Multiservice Provider Edge access information**

**a.** type the MPE nodename in the data entry box **Node name**.

**b.** type the IP address for the Node name in the data entry box **IP address**.

**c.** click **Add**.

The Node name and IP address appear in the table below the MPE access information panel.

**6** To change a MPE entry

**a.** click the MPE entry in the table below the MPE access information panel.

The Node name and IP address appear in the data entry boxes.

**b.** to change the MPE nodename, re-type the MPE nodename in the data entry box **Node name**.

**c.** to change the IP address, re-type the IP address for the Node name in the data entry box **IP address**.

**d.** click **Modify**.

The changed Node name and IP address appear in the table below the MPE access information panel.

**7** To remove a MPE entry from the MPE group(s)

**a.** click the MPE entry in the table below the MPE access information panel.

The Node name and IP address appear in the data entry boxes.

**b.** click **Delete**.

The MPE entry is removed from the table below the MPE access information panel.

**8** Click **Next**.

Return to the taskflow “Configuration task flow(sheet 2 of 2)” (page 67).

# Activating the MDM software configuration

This section describes how to use QuickStart to activate the Preside Multiservice Data Manager (MDM) software configuration.

## Procedure navigation


- "Procedure prerequisites" (page 90)
- "Procedure steps" (page 90)


## Procedure prerequisites

- perform "Launching the MDM configuration tool" (page 69)
- perform one, or more, of
  - "Configuring access to an MDM Administration Database" (page 72)
  - "Configuring the MDM configuration software" (page 78)
  - "Configuring the MDM fault surveillance software" (page 74)
  - "Configuring the data collection software" (page 80)
  - "Configuring Passport access" (page 82)
  - "Configuring MPE access" (page 86)

## Procedure steps

**1** The **Summary** window opens.

This window displays the Preside Multiservice Data Manager software information collected during this QuickStart session. Displayed are reminders about Preside Multiservice Data Manager configuration, such as:

- for Fault Client workstations, configure the associated Standalone Fault workstation
- for Configuration Client workstations, configure the associated Standalone Configuration worksation
- for Standalone Fault with redundancy workstations, configure the remote Standalone Fault with redundancy workstation
- the shared memory is set to 256 Mbytes. If this is not sufficient, use the instructions in 241-6001-303 *Preside MDM Administrator Guide* to change the setting

Confirm that the information in the Summary window is correct.

If the information is correct, click **Configure**.

If the information is not correct, click **Previous** until the appropriate QuickStart window is displayed. Make the necessary configuration changes.

**2** The **Configuration Complete** window opens. This window indicates:

- successful configuration of this Preside Multiservice Data Manager workstation
- updated configuration files

**3** To the prompt

```
Reboot the workstation immediately after exiting MDM
QuickStart?
```

If you are ready to begin using this Preside Multiservice Data Manager workstation, click **Yes**.

If you need to delay using this Preside Multiservice Data Manager workstation, click **No**.

**4** Click **Done**.

The QuickStart wizard window closes.

The local Preside Multiservice Data Manager servers are launched after this workstation is restarted. For more information about the Preside Multiservice Data Manager servers, see 241-6001-310 *Preside MDM Server Reference Guide*.

A log of the QuickStart session is written to the file /opt/MagellanNMS/data/quickstart/Quickstart.log.

# Configuring Netscape for the MDM online help system

This section describes how to ensure that the Netscape application installed on this workstation can be used by the Preside Multiservice Data Manager (MDM) online help system.

## Procedure navigation


- "Procedure prerequisites" (page 90)
- "Procedure steps" (page 90)
- "Job aids" (page 93)


## Procedure prerequisites

- install the "MDM workstation operating system" (page 29)

## Procedure steps

**1** Determine the version of Netscape currently installed on this workstation. As the userID root, type

```
/usr/dt/appconfig/netscape/netscape -version
```

Compare the result to the recommended version of Netscape in the Preside Multiservice Data Manager Release Supplement document.

**2** If the version of Netscape currently installed on this workstation is compatible with the recommended version in the Preside Multiservice Data Manager Release Supplement, this task is complete.

If the version of Netscape currently installed on this workstation is not compatible with the recommended version in the Preside Multiservice Data Manager Release Supplement, continue with this procedure.

**3** Install the Netscape application in directory /usr/dt/appconfig/netscape.

If you install the Netscape application in directory /usr/dt/appconfig/netscape, this task is complete.

If you cannot install the Netscape application in directory /usr/dt/appconfig/netscape, continue with this procedure.

**4** Install the Netscape application in any directory.

**5** Perform **one** of the following steps:

**a.** Create a softlink to the installed Netscape application. As the userID root, type

```
ln -s <netscape> /usr/dt/appconfig/netscape/
netscape
```

**b.** Edit the Preside Multiservice Data Manager configuration file /opt/MagellanNMS/bin/nmscsh and replace the line

```
#setenv NMSWEBBROWSER
```

with

```
setenv NMSWEBBROWSER <netscape>
```

**6** This task is complete.

## Job aids

**Table 12**
**Variable definitions**

| Variable | Definition |
|---|---|
| <netscape> | The absolute pathname for the installed Netscape application. |

# Chapter 8
# Upgrading the MDM software

This section describes how to upgrade the Preside Multiservice Data Manager (MDM) software on a Preside Multiservice Data Manager workstation.

***Note:*** Nortel Networks does not support the rolling-back of the Preside Multiservice Data Manager (MDM) software. To return to a previous version, we suggest that you first remove the current version of the MDM software (see "Uninstall MDM" (page 103)) before re-installing a previous version (see "Installing MDM software" (page 35)).

## Procedure navigation



## Procedure prerequisites

- Review the MDM Release Supplement document and note:
  - — the MDM Platform and Software Level Compatibility section
  - — the MDM Software Installation Procedure for the supported migration restrictions
  - — the General Release Considerations
  - — the availability of software patches for this release of the MDM software

- Contact your Nortel Networks Customer Representative to determine the availability of software patches applicable to this MDM software release.
- If this workstation is part of one of the following network management architectures, ensure that an alternate MDM server workstation is performing the tasks of this workstation
  - redundant fault management
  - redundant fault management with aggregation
  - client-server configuration

## Procedure steps

**1** Log in to the MDM workstation as userID root.

**2** Increase available disk space by removing obsolete software and data files. For some examples of disk space savings, see “Examples of disk space savings” (page 97).

**CAUTION**
Do not remove software or data until you have verified that the software or data is not essential to current or future functional requirements.

**3** Shutdown all of the MDM servers; type

```
/etc/init.d/nmssvm.server stop
```

**4** Follow the instructions in section “Shutting-down MDM” (page 113).

**5** Follow the instructions in section “Backing-up MDM information” (page 115).

**6** If the MDM Release Supplement indicates a requirement to upgrade the Solaris operating system or to apply Solaris operating system patches, do this now. For more information, see “MDM workstation operating system” (page 29).

**7** Install the new MDM software. Follow the instructions in section “Installing MDM software” (page 35).

***Note:*** Before the MDM Installer window closes, you are instructed to restart the network management workstation. Postpone the workstation restart until later in this upgrade process.

**8** If software patches are required, follow the instructions in section "Installing an MDM software patch" (page 51).

**9** Follow the instructions in section "Restarting MDM" (page 114).

**10** If this MDM workstation is configured with the MDM Administration Database and

**a.** if it is necessary to upgrade the version of Oracle software used by the MDM Administration Database, do this now.

**b.** if the MDM Release Supplement indicates a requirement to upgrade the MDM Administration Database schema, see "Administration Database schema migration" (page 99).

**11** If free disk space is insufficient and testing of the new release and subsequent software patches is complete, remove the backed-up software files created by the installation of software patches in step 8.

**12** To increase the amount of free disk space, remove the previous release of the MDM software. Follow the instructions in section "Uninstall MDM" (page 103).

***Note:*** Do not remove the previous release of the MDM software until thorough testing of the new MDM software is complete.

# Job aids

**Table 13**
**Examples of disk space savings**

| Description | Location |
|---|---|
| old versions of Preside Multiservice Data Manager software<br><br>***Note:*** Do not remove the current version of the Preside Multiservice Data Manager software. It may be necessary to rollback the software after the upgrade. | /opt/MagellanNMS/loads/<software_loadname>/ |
| old Passport data models | /opt/MagellanNMS/cfg/PassportSchema/ |
| old Network Models | /opt/MagellanNMS/data/model/nmf/ |
| RTAC alarm files | /opt/MagellanNMS/data/rtac/data |
| old backup data | /opt/MagellanNMS/data/Backup_Data |

# Chapter 9
# Administration Database schema migration

This section describes how to migrate the Preside Multiservice Data Manager (MDM) Administration Database schema to the latest version.

## Procedure navigation



## Procedure prerequisites

- Export the Preside Multiservice Data Manager Administration Database contents to a secure location.

**CAUTION**

Nortel Networks recommends that you backup the contents of your MDM Administration Database before continuing with this procedure. After performing this procedure, if it is necessary to rollback to the previous release of Preside Multiservice Data Manager software, you will need to restore the database contents and resynchronize your database.

## Procedure steps

**1** If you are migrating the database schema from an Preside Multiservice Data Manager software version greater than R14.2, proceed to step 12.

2 If the destination database user is in the same database instance as the source database user and the destination database user is accessed by the public synonyms, remove the previous synonyms. In the Oracle SQL*Plus interface as the database administrator SYSTEM, type

```
SQL> @/opt/MagellanNMS/lib/sql/admindb/oracle/
drop_141_syns.sql
```

3 If the default customer does not own the majority of the database entities, it may be necessary to create a new customer and configure this new customer as the default customer. For more information, see 241-6001-400 *Preside MDM Administration Database User Guide*.

4 Create a new database user. For more information, see 241-6001-400 *Preside MDM Administration Database User Guide*

***Note:*** Do not attempt to populate the new database.

5 Connect to the database as the DBA user SYSTEM and grant CREATE PROCEDURE privilege to the new user created in step 4.

6 If the old database exists on a workstation other than the workstation where the new database resides, edit file $ORACLE_HOME/network/admin/tnsnames.ora to locate the old database from the new database workstation.

7 Connect to the database as the new database user.

```
$ORACLE_HOME/bin/sqlplus <new_user_name>/
<new_user_password>@database
```

8 Create a database link to the previous database user. In the Oracle SQL*Plus interface, type

```
SQL> CREATE DATABASE LINK <db_link_name> CONNECT TO
<old_user_name> IDENTIFIED BY <old_user_password>
USING '<old_database>'
```

9 Create the migration package. In the Oracle SQL*Plus interface, type

```
SQL> @/opt/MagellanNMS/lib/sql/admindb/oracle/
migrate_143.pkg
```

10 Execute the database migration process. In the Oracle SQL*Plus interface, type

```
SQL> @/opt/MagellanNMS/lib/sql/admindb/oracle/
runMigration <db_link_name>
```

The existing data is propogated to the new database instance and formatted using the new database schema.

**11** Remove the migration package. In the Oracle SQL*Plus interface, type

```
SQL> drop package migrate_143;
```

**12** Migrate the database schema. In the Oracle SQL*Plus interface, type

```
SQL> @/opt/MagellanNMS/lib/sql/admindb/oracle/
migrate_143_151
```

**13** Create the new load mapping. In the Oracle SQL*Plus interface, type

```
SQL> @/opt/MagellanNMS/lib/sql/admindb/
admin_cdl_mappings.sql
```

**14** Enable database access. Edit the file /opt/MagellanNMS/cfg/dba/dbaccess.cfg and set the parameter **databases** to the new database instance and set the parameter **admindb.disabled** to **false**.

**15** Disable circuit and IP VPN discovery.

- **a.** Using the Server Administration tool, select **Data Sync Server**.
- **b.** Right click to select **Edit Configuration** -> **Server Configuration**.
- **c.** Expand the Embedded Servers selection.
- **d.** Select **DBSyncController**.
- **e.** In the arguments field, add **-noDiscovery**.
- **f.** Select **File** -> **Save** to save your changes.
- **g.** Restart the Data Sync Server.

**16** Using the Data Synchronization Administration tool, monitor the loading status for all of the devices.

The network configuration data has completed loading when the loading status of all devices indicates LOADED.

***Note:*** Do not proceed until the network configuration data has completed loading.

**17** Stop the Database Synchronization Server (DATASYNCSERVER) using the MDM Server Administration tool.

**18** Enable circuit and IP VPN discovery.

- **a.** Using the Server Administration tool, select **Data Sync Server**.
- **b.** Right click to select **Edit Configuration** -> **Server Configuration**.
- **c.** Expand the Embedded Servers selection.
- **d.** Select **DBSyncController**.

**e.** In the arguments field, remove **-noDiscovery**.

**f.** Select **File** -> **Save** to save your changes.

**19** Restart the Database Synchronization Server (DATASYNCSERVER) using the Server Administration tool.

Discovery is complete when all of the nodes in the ADMIN_NODE_VIEW table indicate SUCCESS in the DISCOVERY_STATUS column.

# Job aids

**Table 14**
**Variable definitions**

| Variable | Definition |
|---|---|
| <db_link_name> | name of user's link to the database |
| <old_user_name> | previous database user name |
| <old_user_password> | password for previous database user name |
| <old_database> | name configured in the file tnsnames.ora for the previous database instance |
| <new_user_name> | new database user name |
| <new_user_password> | password for new database user name |

# Chapter 10
# MDM software removal

Use the information in this section to remove Preside Multiservice Data Manager (MDM) software that was installed with the MDM Installer.

## Navigation links



## Uninstall MDM

This section describes how to remove Preside Multiservice Data Manager (MDM) software that was properly installed with the MDM Installer.

### Procedure navigation



### Procedure prerequisites

- Perform the steps in procedure "Removing an MDM software patch" (page 54) to remove software patch files before using this procedure.

### Procedure steps

**1** Log in to the Preside Multiservice Data Manager workstation as userID root.

2 Change directories to the directory that contains the Preside Multiservice Data Manager uninstall tool for the Preside Multiservice Data Manager software release to be removed.

```
cd /opt/MDM<release>_INST
```

3 Start the Preside Multiservice Data Manager software removal tool **InstallAnywhere Uninstaller**. Type

```
./uninstall_mdm[134 or 141] (for release 13.4 or 14.1)

./uninstall_mdm (for any release above 14.1)
```

The InstallAnywhere Uninstaller window opens.

4 Select **Uninstall**.

A window that indicates the packages available for uninstallation opens. Select the packages to uninstall and click **Uninstall Selected Packages**.

A progress bar indicates the stage of removal for each package.

A popup window indicates completion. Click **Ok**.

The Uninstaller logs are located in the directory /opt/MagellanNMS/data/<release>_Install_logs. For more information about uninstaller logs, see “MDM software uninstall logs” (page 105).

5 Select **Done**.

6 You have completed this procedure.

## Job aids

**Table 15**
**Variable definitions**

| Variable | Definition |
|---|---|
| <release> | the MDM software release number (for example, 142) |

The following table describes the MDM software uninstall logs.

**Table 16**
**MDM software uninstall logs**

| Variable | Definition |
|---|---|
| stopServers | This file indicates MDM servers that were stopped during an MDM software upgrade. |
| Package_logs | This directory contains the detailed log files for each package uninstall. For example: uninstall_MDM143Pac, uninstall_MDMHELP. |
| Uninstall_summary.log | This file contains a summary of the software uninstall, indicating which package versions were uninstalled and which package uninstalls succeeded or failed. |

# Recovering from an incomplete MDM software installation

This section describes how to remove Preside Multiservice Data Manager (MDM) software that was only partially installed as a result of premature termination of the MDM Installer.

## Procedure steps

**1** Log in to the MDM workstation as userID root.

**2** Open the file /opt/MagellanNMS/data/log/<release>_Install_logs/Install_summary.log.

**3** Identify the last MDM software package to have been partially or completely installed. Find the last occurance of the following statement:

```
Starting Installation of <package>
```

**4** Perform the remaining steps in this procedure for each of the MDM software packages installed, or having attempted to install, in the last installation session. Begin with the software package identified in step 3 and proceed upwards in the log file towards the last occurance of the following statement:

```
Starting new installer session for:
```

**5** If the log messages for the software package includes the following statement, ignore this software package and proceed to the previous software package:

```
This package will not be re-installed.
```

**6** If the log messages for the software package includes the following statement, perform the remaining steps in this procedure.

```
Adding package ...
```

**7** Confirm the installation of the software package. Type

**`/bin/pkginfo <package>`**

If the result of this command is the following:

```
ERROR: information for "<package>" was not found
```

proceed to the previous software package in the log file.

If the result of this command is the following:

```
application <package> <package description>
```

perform the remaining steps in this procedure.

**8** Remove the software package. Type

```
/bin/pkgrm <package>
```

**9** Respond to the subsequent Solaris software package removal command prompts.

If the software package cannot be successfully removed, contact Nortel Networks support.

**10** Return to step 5 until all of the software packages identified in the last installation session of the log file have been addressed.

**11** You have completed this procedure.

Re-install the MDM software using the MDM Installer.

## Job aids

**Table 17**
**Variable definitions**

| Variable | Definition |
|---|---|
| <release> | the MDM software release number (for example, 151) |
| <package> | the name of an MDM software package (for example, NNlogbwsr) |

# Chapter 11
# Managing MDM software

This section describes how to manage the Preside Multiservice Data Manager (MDM) software.

## Navigation links

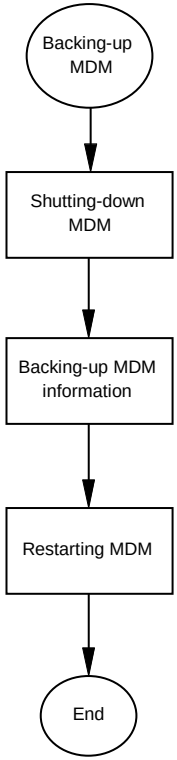
# MDM software management task flows

These taskflows show you the sequence of procedures you perform to manage the Preside Multiservice Data Manager (MDM) software. To link to any procedure, go to “Navigation links” (page 109).

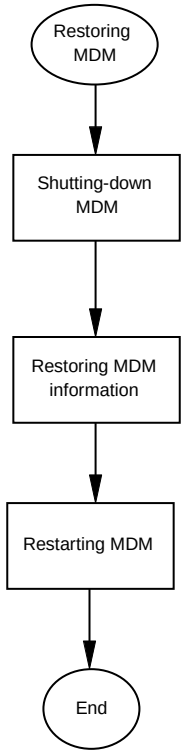
The following taskflows include

- “Backing-up MDM information task flow” (page 111)
- “Restoring MDM information task flow” (page 112)

**Backing-up MDM information task flow**



**Restoring MDM information task flow**



# Shutting-down MDM

This section describes how to shutdown the Preside Multiservice Data Manager (MDM) workstation.

## Procedure prerequisites

- If this workstation is part of one of the following network management architectures, ensure that an alternate Preside Multiservice Data Manager server workstation is performing the tasks of this workstation
  - — redundant fault management
  - — redundant fault management with aggregation
  - — client-server configuration

## Procedure steps

**1** Log in to the MDM workstation as userID root.

**2** Record the current state of the MDM servers. Type

```
svmcmd -list > /opt/MagellanNMS/serverList
```

A list of the MDM servers configured on this workstation is recorded in file /opt/MagellanNMS/serverList.

**3** Exit from all MDM applications.

**4** Shutdown all of the MDM servers; type

```
/etc/init.d/nmssvm.server stop
```

**5** If this MDM workstation is configured with the MDM Administration Database, disable access to the MDM Administration Database. Edit the file /opt/MagellanNMS/cfg/dba/dbaccess.cfg and set the parameter admindb.disabled to true.

# Restarting MDM

This section describes how to restart the Preside Multiservice Data Manager (MDM) workstation.

## Procedure steps

1. Log in to the MDM workstation as userID root.
2. Reboot the MDM workstation; type

   ```
   init 6
   ```

3. Ensure that the required MDM servers are running.
   a. Start the MDM Toolset.
   b. From the MDM main menu, select
      System -> Administration -> Server Administration.
   c. Select File -> Refresh Server list.
   d. Verify that the same servers that indicated a status of Running in “Shutting-down MDM” (page 113) now indicate a status of Running.
4. If this MDM workstation is configured with the MDM Administration Database, enable access to the MDM Administration Database. Edit the file /opt/MagellanNMS/cfg/dba/dbaccess.cfg and set the parameter admindb.disabled to false.

# Backing-up MDM information

This section describes how to backup the Preside Multiservice Data Manager (MDM) configuration and data information on a MDM workstation.

## Procedure navigation


- "Procedure prerequisites" (page 115)
- "Procedure steps" (page 115)
- "Job aids" (page 115)


## Procedure prerequisites


- "Shutting-down MDM" (page 113)


## Procedure steps

1. Log in to the MDM workstation as userID root.
2. Backup your MDM configuration and data information. If you are not backing-up the entire disk partition on which the MDM software resides, see "Backup directories" (page 115) for a list of Nortel Networks recommended MDM directories.

   If this MDM workstation does not include the Management Data Provider (MDP), the directory /opt/MagellanMDP is not to be backed-up.
3. Restart the MDM. Follow the instructions in section "Restarting MDM" (page 114).

## Job aids

**Table 18**
**Backup directories**

| Location | Comment |
|---|---|
| /opt/MagellanNMS/cfg | |
| /opt/nortel/config | MDM 15.1 and above. |
| /opt/MagellanNMS/data | |
| /opt/nortel/data | MDM 15.1 and above. |
| /opt/MagellanMDP/cfg | |
| /opt/MagellanMDP/data | |
| /opt/nortel/logs | MDM 15.1 and above. |
| /opt/nortel/EPIC/cfg | MDM 15.1 and above. |

# Restoring MDM information

This section describes how to restore the Preside Multiservice Data Manager (MDM) configuration and data information on a MDM workstation.

## Procedure navigation


- "Procedure prerequisites" (page 115)
- "Procedure steps" (page 115)
- "Job aids" (page 115)


## Procedure prerequisites


- "Installing MDM software" (page 35)


## Procedure steps

1. Log in to the MDM workstation as userID root.
2. Restore your MDM configuration and data information. If you are not restoring the entire disk partition on which the MDM software resides, see "Backup directories" (page 116) for a list of MDM directories to restore from your backups.

   If this MDM workstation does not include the Management Data Provider (MDP), the directory /opt/MagellanMDP should not be restored.
3. Restart the MDM. Follow the instructions in section "Restarting MDM" (page 114).

## Job aids

**Table 19**
**Backup directories**

| Location | Comment |
|---|---|
| /opt/MagellanNMS/cfg | |
| /opt/nortel/config | MDM 15.1 and above. |
| /opt/MagellanNMS/data | |
| /opt/nortel/data | MDM 15.1 and above. |
| /opt/MagellanMDP/cfg | |
| /opt/MagellanMDP/data | |
| /opt/nortel/logs | MDM 15.1 and above. |
| /opt/nortel/EPIC/cfg | MDM 15.1 and above. |

# Appendix A
# Installing X.25 software (DPN)

This section describes how to install Sun Microsystem Inc. X.25 software to access DPN switches from your Preside Multiservice Data Manager (MDM) workstation.

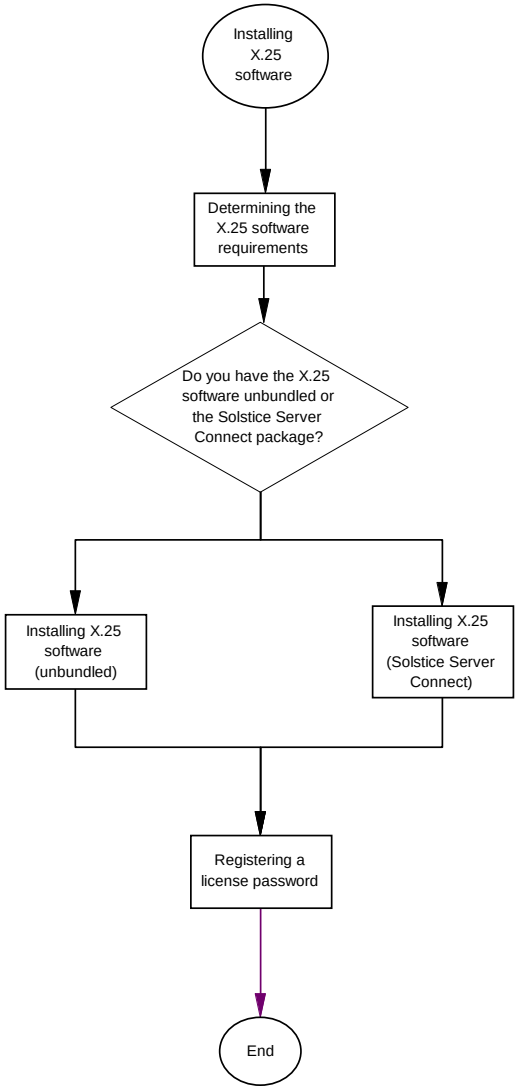
## Navigation links


- "X.25 software installation task flow" (page 117)
- "Task navigation" (page 119)


## X.25 software installation task flow

This task flow shows you the tasks you perform to install X.25 software on a Preside Multiservice Data Manager (MDM) workstation. To link to any task, go to "Task navigation" (page 119).

### X.25 software installation task flow



## Task navigation

# Determining the X.25 software requirements

Software packages on compact disk from SunSoft are combined into software subsets. Install the following software subsets:

- SunWx25a 9.2(X.25 kernel and include files for Solaris/SPARC)
- SUNWx25b 9.2 (X.25 user programs and libraries for Solaris/SPARC)
- SUNWx25h 1.1 (Solstice X.25 9.2 doc in HTML).
  The documentation is in HTML format and is useful for configuring and troubleshooting X.25 and IP over X.25 connections.
  To view this documentation, Netscape version 3.0 or higher must be installed on the MDM workstation.
  When you click Help in Sun's X.25 Administration Tool for the first time, you are prompted for the full path name to the Netscape executable.
- SUNWlicsw, FlexLM License System and SUNWlit License Installation Tool

The estimated disk space requirements for X.25 software are shown in the table "Estimated disk space requirements for X.25 software" (page 120).

**Table 20**
**Estimated disk space requirements for X.25 software**

| X.25 software subsets | Approximate size |
|---|---|
| STE License Installation Tool | 1 MByte |
| ( | |
| SUNWlit2.0) | |
| FlexLM License System (SUNWlicsw 4.1) | 2 Mbyte |
| X.25 kernel modules and include files for Solaris/ SPARC (SunWx25a 9.2) | 1 MByte |
| X.25 user programs and libraries for Solaris/SPARC (SUNWx25b 9.2) | 1 Mbyte |
| Solstice X.25 9.2 documentation in HTML (SUNWx25h 1.1) | 2 Mbyte |
| Total | 7 Mbyte |

# Installing X.25 software (unbundled)

Use the instructions in this procedure to install the X.25 software using a CD-ROM containing the Sunlink X.25 9.2 software, only.

## Procedure navigation


- "Procedure prerequisites" (page 121)
- "Procedure steps" (page 121)


## Procedure prerequisites

- "MDM workstation operating system" (page 29)
- "Determining the X.25 software requirements" (page 120)
- a CD-ROM drive is connected to the workstation and is powered up
- the workstation is displaying the login prompt
- you have the Sunlink X.25 9.2 software on compact disk.
  SunLink X.25 9.2 software is available on a compact disk as a discrete package or can be bundled with other SunSoft communications software referred to as the Solstice Server Connect package.

  If you have the Server Server Connect software, do not continue. Follow the instructions in the procedure "Installing X.25 software (Solstice Server Connect)" (page 124).

## Procedure steps

1. Log in as root.
2. Start c-shell

   ```
   csh
   ```
3. Insert the compact disk into the CD-ROM drive, pattern side up. If your drive uses a disk caddy, insert the disk into the caddy pattern side up, then slide the disk caddy into the CD-ROM drive.
4. Open a UNIX window or a Shell Tool window.
5. Start up Sun's admintool as a background process:

   ```
   /usr/bin/admintool &
   ```

   The admintool window opens.

**6** From the Browse menu, select Software.

The Admintool window now lists all software installed on the workstation.

**7** From the Edit menu, select Add.

The Set Source Media dialog opens.

**8** From Software Locations, select CD with Volume Management.

**9** Type in the path name of the source media:

**`/cdrom/cdrom0`**

**10** Click *OK*.

The Admintool: Add Software dialog opens and displays a list of the software on the CD.

**11** Select the name of the name of the software to load.

**12** Click Customize.

The Admintool: Customize Installation Dialog opens and displays a list of the software subsets to load.

**13** Select the software subsets you wish to load. For SunLink X.25 9.2, the minimum subsets are:

- STE License Installation Tool (SUNWlit2.0)
- FlexLM License System (SUNWlicsw 4.1)
- X.25 kernel modules and include files for Solaris/SPARC (SunWx25a 9.2)
- X.25 user programs and libraries for Solaris/SPARC (SUNWx25b 9.2)
- Solstice X.26 9.2 documentation in HTML (SUNWx25h 1.1)

**14** When you have finished selecting the software subsets, click OK.

The Admintool: Customize Installation Dialog closes.

**15** In the Admintool: Add Software Dialog, click Add.

The Command Input/Output dialog opens, and the software begins to load. This dialog displays prompts for confirmation (Y/N) at various stages as the software loads.

**16** Answer all prompts for confirmation that appear in the Command Input/Output dialog by entering: **Y**

When loading is complete, the Command Input/Output dialog displays a message to indicate that loading is successful and complete.

**17** Eject the compact disk by typing the following command in the UNIX window or the shell tool window.

```
eject cdrom
```

**18** Proceed to “Registering a license password” (page 127).

# Installing X.25 software (Solstice Server Connect)

Use the instructions in this procedure to install the X.25 software using a CD-ROM containing the Solstice Server Connect package.

## Procedure navigation


- "Procedure prerequisites" (page 124)
- "Procedure steps" (page 124)


## Procedure prerequisites

- "MDM workstation operating system" (page 29)
- "Determining the X.25 software requirements" (page 120)
- a CD-ROM drive is connected to the workstation and is powered up
- the workstation is displaying the login prompt
- you have the Sunlink X.25 9.2 software on compact disk. SunLink X.25 9.2 software is available on a compact disk as a discrete package or can be bundled with other SunSoft communications software referred to as the Solstice Server Connect package.

  If you do not have the Solstice Server Connect package, do not continue. Follow the instructions in the procedure "Installing X.25 software (unbundled)" (page 121).

## Procedure steps

**1** Log in as root.

**2** Start c-shell

```
csh
```

**3** Insert the compact disk into the CD-ROM drive, pattern side up. If your drive uses a disk caddy, insert the disk into the caddy pattern side up, then slide the disk caddy into the CD-ROM drive.

**4** Open a UNIX window or a Shell Tool window.

**5** Start up Sun's admintool as a background process:

```
/usr/bin/admintool &
```

The admintool window opens.

**6** From the Browse menu, select Software.

The Admintool window now lists all software installed on the workstation.

**7** From the Edit menu, select Add.

The Set Source Media dialog opens.

**8** From Software Locations, select CD with Volume Management.

**9** Type in the path to the X.25 software:

**`/cdrom/server_connect_397/products/x25/Image/sparc`**

**10** Click OK.

The Admintool: Add Software dialog opens and displays a list of the software on the CD.

**11** Select the software subsets. For SunLink X.25 9.2, the minimum subsets are:

- X.25 kernel modules and include files for Solaris/SPARC 9.2
- X.25 user programs and libraries for Solaris/SPARC 9.2

**12** When you have finished selecting the software subsets, click Add.

The Command Input/Output dialog opens, and the software begins to load. This dialog displays prompts for confirmation (Y/N) at various stages as the software loads.

**13** Answer all prompts for confirmation that appear in the Command Input/Output dialog by entering: **Y**

When loading is complete, the Command Input/Output dialog displays a message to indicate that loading is successful and complete.

**14** From the Edit menu, select Add.

The Admintool: Set Source Media dialog opens.

**15** From Software Locations, select CD with Volume Management.

**16** Type in the path to the X.25 licensing software:

**`/cdrom/server_connect_397/products/licenses/Image/sparc`**

**17** Click OK.

The Admintool: Add Software dialog opens and displays a list of the software on the CD.

**18** Select the following licensing tool software:

- Solstice Connect Center license information 4.1 License Installation Tool
- FlexLM License System

**19** When you have finished selecting the software subsets, click Add.

The Command Input/Output dialog opens, and the software begins to load. This dialog displays prompts for confirmation (Y/N) at various stages as the software loads.

**20** Answer all prompts for confirmation that appear in the Command Input/Output dialog by entering: **Y**

When loading is complete, the Command Input/Output dialog displays a message to indicate that loading is successful and complete.

**21** In the Admintool: Add Software Dialog, click the Set Source Media... button.

The Set Source Media dialog opens.

**22** From Software Locations, select CD with Volume Management.

**23** Type in the path to the X.25 documentation in HTML:

**`/cdrom/server_connect_397/products/licences/Docs/sparc/`**

**24** Select the following software subset:

- Solstice X.25 9.2 documentation in HTML (SUNWx25h 1.1)

**25** Click *OK*.

The Command Input/Output dialog opens, and the software begins to load. This dialog displays prompts for confirmation (Y/N) at various stages as the software loads.

**26** Answer all prompts for confirmation that appear in the Command Input/Output dialog by entering: **Y**

When loading is complete, the Command Input/Output dialog displays a message to indicate that loading is successful and complete.

**27** Eject the compact disk by typing in the following command in the UNIX window or the shell tool window.

**`eject cdrom`**

**28** Proceed to “Registering a license password” (page 127).

# Registering a license password

Use the instructions in this procedure to register a license password to use the SunLink X.25 communications software. Perform this procedure on all Preside Multiservice Data Manager workstations on which the SunLink X.25 software is installed.

## Procedure navigation


- "Procedure prerequisites" (page 127)
- "Procedure steps" (page 127)


## Procedure prerequisites

- "Installing X.25 software (unbundled)" (page 121) or
- "Installing X.25 software (Solstice Server Connect)" (page 124)
- Obtain a license from SunSoft to use the SunLink X.25 software. The license information must include the number of Rights to Use (RTUs), and the passwords to use SunLink X.25.

  The number of RTUs defines the number of instances of the software that the license allows to run concurrently. For RTUs and passwords, contact Sun's local license distribution center at the telephone number listed in the Sun documentation provided with the SunLink X.25 compact disk.

- Ensure that you have already loaded the SunLink X.25 application and software subsets: *SUNWlicsw, FlexLM License System* and *SUNWlit License Installation Tool.*

## Procedure steps

1. Log in as root on the workstation on which SunLink X.25 software is installed.
2. If you have not already done so, access c-shell:

   **`csh`**
3. Start the licensing tool:

   **`/etc/opt/licenses/lit &`**

   The License Installation Tool window opens.

4. From *Select Product*, choose the name of the communications application for which you wish to install a password.
5. From *Server Options,* choose the number of servers on which the licensing server software is to run. For a standalone workstation, select 1.
6. In the Rights to Use field, type in the number of rights to use that are to be enabled with this password. The number of Rights to Use you enter must match that provided along with the password.
7. In the *Password* field, type in the password you obtained from Sun's local license distribution center.
8. Click *Done With License*.
9. Click *Continue*.
10. Click *Exit - Install Licenses*.

    A script runs and when completed, a pop-up window appears containing a message which indicates that the license password has been installed.
11. Click *Quit*.
12. Install X.25 software patches as indicated by SunSoft.

# Appendix B
# Configuring an X.25 link (DPN)

This section describes how to configure an X.25 communications link between the Preside Multiservice Data Manager (MDM) workstation and a DPN switch.

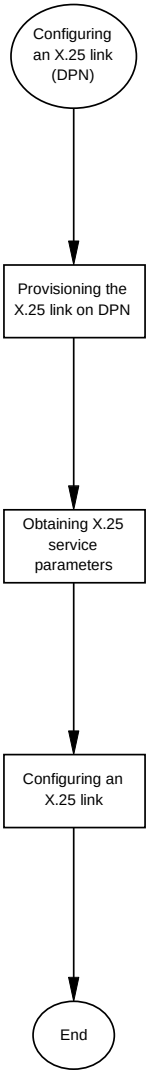
## Navigation links

- “Configuring an X.25 link task flow” (page 129)
- “Task navigation” (page 131)

## Configuring an X.25 link task flow

This task flow shows you the tasks you perform to configure X.25 software on a Preside Multiservice Data Manager (MDM) workstation. To link to any task, go to “Task navigation” (page 131).

### Configuring an X.25 link task flow



## Task navigation

# Provisioning the X.25 link on DPN

Use the instructions in this procedure to provision the DPN switch to which the Preside Multiservice Data Manager (MDM) workstation is connected.

## Procedure steps

1. Provision the Network Control System (NCS) on all of the DPN switches in the network. For instructions to provision the NCS, see 241-2001-102 *DPN-100 Network Control System User Guide*.
2. Provision the LAPB X.25 service on the Processing Element (PE), Peripheral Interface (PI), and Port (PO) on the DPN to which the MDM workstation is connected. For the instructions to provision the LAPB X.25 service on a PE and PI, see 241-1001-184 *DPN-100 LAPB/X.25 Specification*.

# Obtaining X.25 service parameters

Use the instructions in this procedure to obtain information about the LAPB X.25 service provisioned on the DPN port to which the Preside Multiservice Data Manager (MDM) workstation is connected.

## Procedure navigation


- "Procedure steps" (page 133)
- "Job aids" (page 133)


## Procedure steps

**1** At a maintenance terminal connected to the DPN switch, type the following sequence of commands:

```
[PI] <n> [PO] <m> Query SERVice

[PI] <n> [PO] <m> Query DNA

[PI] <n> [PO] <m> Query LINK

[PI] <n> [PO] <m> Query LCN
```

Print the results of the above commands. The service parameters required for successful X.25 link configuration are described in "Service parameters" (page 134).

## Job aids

**Table 21**
**Variable definitions**

| Variable | Definition |
|---|---|
| n | is the number of the Peripheral Interface (PI) card |
| m | is the number of the port (PO) on the PI card to which the MDM workstation is connected |

**Table 22**
**Service parameters**

| Parameter | Description |
|---|---|
| link number | The link number for the interface you are defining. If this is the first link you are defining, this must be link 0. |
| link type | The type of link. It must be WAN. |
| device | The type of device to which the X.25 link is connected on the workstation. The device type is ZSH for a low-speed port or HSI for a high-speed port on an HSI/P card. |
| port number | The workstation port to which the X25 link is connected. The port number must correspond to the physical workstation port. Most SPARCstations are equipped with two low-speed serial ports labelled A and B. The port labelled A is port 0 (ZSH-0) and the port labelled B is Port 1 (ZSH-1). When an HSI card is installed in the workstation, the workstation has four additional high-speed ports labelled 0 through 3. |
| local X.121 address | The X.121 address of the port on the DPN peripheral interface card to which the workstation is connected. This address includes the Data Network Identification Code (DNIC), the Network Terminal Number (NTN), and any sub-addressing digits.<br>You only need to include the DNIC if the information displayed with the [PI] n [PO] m Q DNA command shows that DNIC is set to international format OFF/NO. |

(Sheet 1 of 2)

**Table 22**
**Service parameters**

| Parameter | Description |
|---|---|
| version | The version of X.25 software running on the link. The version must match the version of X.25 software provisioned on the DPN port to which the workstation connects. |
| SVC Two-Way Logical Channel Range | The lowest and the highest number logical channel number on which an SVC is set up for X.25 communication. The range must match the minimum and maximum values configured in NCS. You can obtain these values by entering the following command at a maintenance terminal connected to the DPN switch.<br>[PI] <n> [PO] <m> Query LCN |
| (Sheet 2 of 2) | |

# Configuring an X.25 link

Use the instructions in the following procedure to configure an X.25 link from the Preside Multiservice Data Manager (MDM) workstation to a DPN switch using the Sun Microsystems Inc. X.25 Administration tool.

Some of the X.25 service parameters are critical, but for others the default values provided with the tool are adequate. The following procedure sets the critical values and leaves the others at their defaults. This is adequate for most installations. All settings are network dependent and may require fine tuning for efficient and stable operation of the X.25 link.

## Procedure navigation


- "Procedure prerequisites" (page 136)
- "Procedure steps" (page 136)


## Procedure prerequisites


- "Installing X.25 software (DPN)" (page 117)
- "Provisioning the X.25 link on DPN" (page 132)
- "Obtaining X.25 service parameters" (page 133)


## Procedure steps

1. Log in as root.
2. Open a UNIX xterm.
3. Start the X.25 Administration tool:

   **`/opt/SUNWconn/bin/x25tool &`**

   The *x25tool 9.2* main window opens and displays a set of default links.
4. From the Options menu, select Dynamic Mode.
5. From the Options menu, select Start X.25 automatically when booted.
6. Remove all default links displayed in the main window.

   To remove a link, click on the name of the link to select it, then click the Delete button.
7. In the main window, click the Add... button.

   A dialog opens that displays a list of link types.

**8** Click Default.

The Link Editor window opens. This window contains fields you must fill in to define an X.25 link.

**9** Enter the link number in the Link Number field. For the very first link, enter 0. For the subsequent link enter 1, and so on.

**10** Enter a descriptive name for the link in the Link Description field. For example: Internal Serial Port.

**11** Select WAN from the Link Type menu button.

**12** Select a device type from the Device menu button.

The device type must match the type of interface on the workstation to which the X.25 link is connected. The device type is ZSH for a link that connects to a low-speed port on the workstation or HSI for a link that connects to a high-speed port on an HSI/S card.

**13** Enter the port number in the Port Number field.

The port number must correspond to the physical workstation port to which the X.25 link is connected. Most SPARCstations are equipped with two low-speed serial ports labelled A and B. The port labelled A is port 0 (ZSH-0) and the port labelled B is Port 1 (ZSH-1). When an HSI card is installed in the workstation, the workstation has four additional high-speed ports labelled 0 through 3.

**14** Enter the workstation local address into the Local X.121 Address field.

This is the X.121 address of the port on the DPN peripheral interface card to which the workstation is connected. This address includes the Data Network Identification Code (DNIC), the Network Terminal Number (NTN), and any sub-addressing digits.

You only need to include the DNIC if the information displayed with [PI] n [PO] m Q DNA command shows that DNIC is set to international format OFF/NO.

**15** Select the version of X.25 software using the Version menu button.

This version must match the version of X.25 software provisioned on the DPN port to which the workstation connects.

**16** Set the Packet Size menu buttons as follows:

```
Local:  default: 512   maximum: 512
Remote: default: 512    maximum: 512
```

**17** Set the SVC Two-Way Logical Channel Range menu buttons to match the minimum and maximum values configured in NCS. Obtain these values

by entering the following command at command at a maintenance terminal connected to the DPN switch:

**[PI] <n> [PO] <m> Query LCN**

**18** Set the PVC, SVC Incoming, and SVC Outgoing Logical Channel Range menu buttons as follows:

```
PVC                minimum: 0   maximum: 0

SVC Incoming       minimum: 0   maximum: 0
SVC Outgoing       minimum: 0   maximum: 0
```

**19** Click Apply to activate the Advanced Configuration buttons in the main window that provide access to dialogs for configuring WAN links.

Lettering on the appropriate buttons turns from gray to black to indicate that they are active.

***Note:*** You are about to click on the Advanced Configuration buttons, one at a time. Clicking a button opens a dialog into which you enter service information, apply the information, then close the dialog. However, you are only going to click CUG and Facilities, Link Modes, and Throughput. It is not necessary to click the remaining buttons to open the accompanying dialogs and set values in them because the default values in these dialogs are satisfactory for most installations.

**20** From the Advanced Configuration list, select CUG and Facilities.

The Closed User Groups and Facilities Parameters dialog opens.

**21** Click on the following check boxes to select them:

*Closed User Group: CUG, no other access*

*Facilities: Incoming reverse charging*

*Size Negotiation: Request Size Negotiation*

*Fast Select: With no restriction on response*

**22** Leave all other check boxes deselected (empty) and the CUG Format menu button set to *Basic.*

**23** Click Apply, then OK.

The Closed User Groups and Facilities Parameters dialog closes.

**24** In the Link Editor window, click Link Modes.

The Link Mode Parameters dialog opens.

**25** If outgoing X25 calls are international, set the Outgoing International Calls menu button to Check National DNIC, and enter your Data Network International Code (DNIC) in the DNIC field.

**26** Leave all other menu buttons set to their default values and all other check boxes deselected.

**27** Click Apply, then OK.

The Link Mode Parameters dialog closes.

**28** In the Link Editor window, click Throughput.

The Throughput Classes and Window Sizes Parameters dialog opens.

**29** Enter the following values into the Throughput Class fields:

```
Local minimum:  3    default: 12   maximum:12
Remote minimum: 3    default: 12   maximum:12
```

**30** For Negotiate Toward Default, click the Yes toggle button.

**31** For Packet Size, enter 517 in the Max NSDU Length field.

**32** For Network Profile, leave Modulo set to 8.

**33** Enter the following values in the Window Size fields:

```
Local  default: 2    maximum:7
Remote  default: 2   maximum:7
```

**34** Click Apply then OK.

The Throughput Classes and Window Sizes Parameters dialog closes.

**35** In the Link Editor window, click Apply, then OK.

The Link Editor window closes.

**36** In the x25tool 9.2 window, select Save from the File menu.

The Save Information in Default Configuration dialog opens.

**37** Click OK.

The information about the new link is saved as part of the default configuration, and the dialog closes.

**38** In the x25tool 9.2 window, choose Start X25 from the Network menu.

**39** Ensure that the link you created is still highlighted, then select Start Link from the Network menu.

Progress messages are displayed in the x25tool 9.2 window as the link is started.

# Appendix C
# Configuring an IP over X.25 link (DPN/Passport)

Use the instructions in this section to configure an IP connection between the Preside Multiservice Data Manager (MDM) workstation and a Passport switch using an X.25 communications link to a DPN gateway switch.

Configure each IP over X.25 connection to a Passport switch as a point-to-point connection. Configuring a point-to-point connection involves configuring service parameters in two dialogs that can be opened from the Services menu of the x25tool 9.2 window.

To configure a point-to-point connection, the first dialog you open is the IP Interface Configuration Dialog. In this dialog, add the local IP address of the workstation, the remote IP address of the Passport switch, and specify the connection as a point-to-point connection. From this dialog, you must also open a sub-dialog to specify advanced IP over X.25 configuration parameters.

The second dialog you open is the Remote Host to X.25 Map dialog. In this dialog, you specify information that maps the Remote X.25 address you entered in the IP Interface Configuration Dialog to the DNA of the Passport switch.

For each point-to-point connection, add IP interface information into the IP Interface Configuration dialog, then add mapping information into the Remote Host to X.25 Map dialog.

## Procedure navigation



## Procedure prerequisites

- "Configuring an X.25 link (DPN)" (page 129)
- the IP address of the MDM workstation

  This is the address labelled localhost in file /etc/hosts.

- the Data Network Address (DNA) of the MDM workstation

  The DNA must match the one you provisioned in the Link Editor dialog when you configured the X.25 link to the DPN switch.

- the Link Number of the X.25 link.

  The Link Number must match the one you provisioned in the Link Editor dialog when you configured the X.25 link to the DPN switch.

- the DNA of the remote Passport switch and its corresponding IP address

  Obtain this information from your Passport network administrator.

## Procedure steps

1. Log in as root.
2. Open a UNIX xterm.
3. Start the X.25 Administration tool:

   **`/opt/SUNWconn/bin/x25tool &`**

   The x25tool 9.2 window opens.
4. Choose Dynamic Mode from the Options menu.
5. Choose IP->IP Interface from the Services menu.

   The IP Interface Configuration dialog opens.
6. If there are any default IP interfaces defined, select them one at time and click Delete.

**7** Click Add.

The fields and buttons in the lower half of the dialog turn from gray to black to indicate that they are active.

**8** Enter the following values in the fields dialog:

Local IP address:

This is the IP address of the workstation.

*Remote IP address:*

This is the IP address of the Passport switch.

**9** Set the Point to: menu button to *Point.*

**10** Leave the MTU field set to the default of 576.

**11** Click Apply.

The local and remote IP address information you just entered is added to list of mappings in the upper half of the dialog.

**12** Ensure that the mapping is still selected (highlighted).

**13** Click Modify.

The X.25 Parameters Advanced Configuration Parameters button turns from gray to black to indicate that it is active.

**14** Click X.25 Parameters.

The X25 Configuration IP Address dialog opens.

**15** Enter the pre-emption timeout in the Pre-emption Timer field.

This is the number of seconds that a connection must be idle before it can be closed (pre-empted) for another purpose. When all X.25 circuits available to the IP application are in use and an IP packet arrives for transmission to a new destination, SunLink closes the connection that has been idle the longest. The preemption timer determines the minimum time a connection must be idle before it can be preempted in this way.

If the workstation is being used for surveillance or data collection, you must set this timer to at least 6000 to avoid undesired teardown of Passport VC connections and to keep the communications path to the Passport stable. However, if the workstation is not being used for purposes that require the connection to remain up, say for entering commands, you can set the preemption timer to a lower value.

**16** Enter the disconnection timeout in the Disconnection Timer field.

This is the time in seconds that a connection to a given network can remain idle before being closed. For a value of 6000, this represents 100 minutes.

If the workstation is being used for surveillance or data collection, you must set this timer to at least 6000 to avoid undesired teardown of Passport VC connections and to keep the communications path to the Passport stable. However, if the workstation is not being used for purposes that require the connection to remain up, say for entering commands, you can set the disconnection timer to a value of less than 300. Why less than 300? This is because when a connection is set up, the Passport sends a reset packet after 5 minutes (value of 300), then every 3 minutes (value of 180) thereafter.

**17** Leave all other items in this dialog set at their default values.

**18** Click Apply, then OK.

The X25 Configuration for IP Interface dialog closes.

**19** In the x25tool 9.2 window, choose IP->IP Mapping from the Services menu.

The Remote IP Host to X.25 Address Map dialog opens.

**20** In the dialog, click Add.

The fields and buttons in the lower half of the dialog turn from gray to black to indicate that they are active.

**21** Enter the following values into the dialog:

*Remote IP address*

This the IP address of the Passport switch. This address must match the IP address of the Passport switch you entered in the IP Interface Configuration Dialog.

*Link number*

This is the number of the X.25 link on which the IP application is running. It must match the link number you entered in the Link Editor window when you configured X.25 on the link.

*Remote X.25 address*

This is the DNA that corresponds to the IP address of the Passport switch.

**22** Leave the other parameters in this dialog at their default values.

***Note:*** It is not necessary to click the Advanced Configuration X.25 Parameters button to specify X.25 parameters in the X25 Configuration for IP dialog because the default values in the dialog are adequate for most installations.

**23** Click Apply, then OK.

The Remote IP Host to X.25 Address Map dialog closes.

**24** In the x.25tool 9.2 window, choose Save from the File menu.

**25** Enter the following command to verify that the connection to the Passport switch is up:

**`ping <ip address>`**

where:

`<ip address>` is the IP address of the Passport switch. If the connection is up, the following response appears:

<ip address> is alive

# Appendix D
# Installing frame relay software

This section describes how to install and configure Sun Microsystem Inc. frame relay (FR) software to access Passport switches from your Preside Multiservice Data Manager (MDM) workstation.

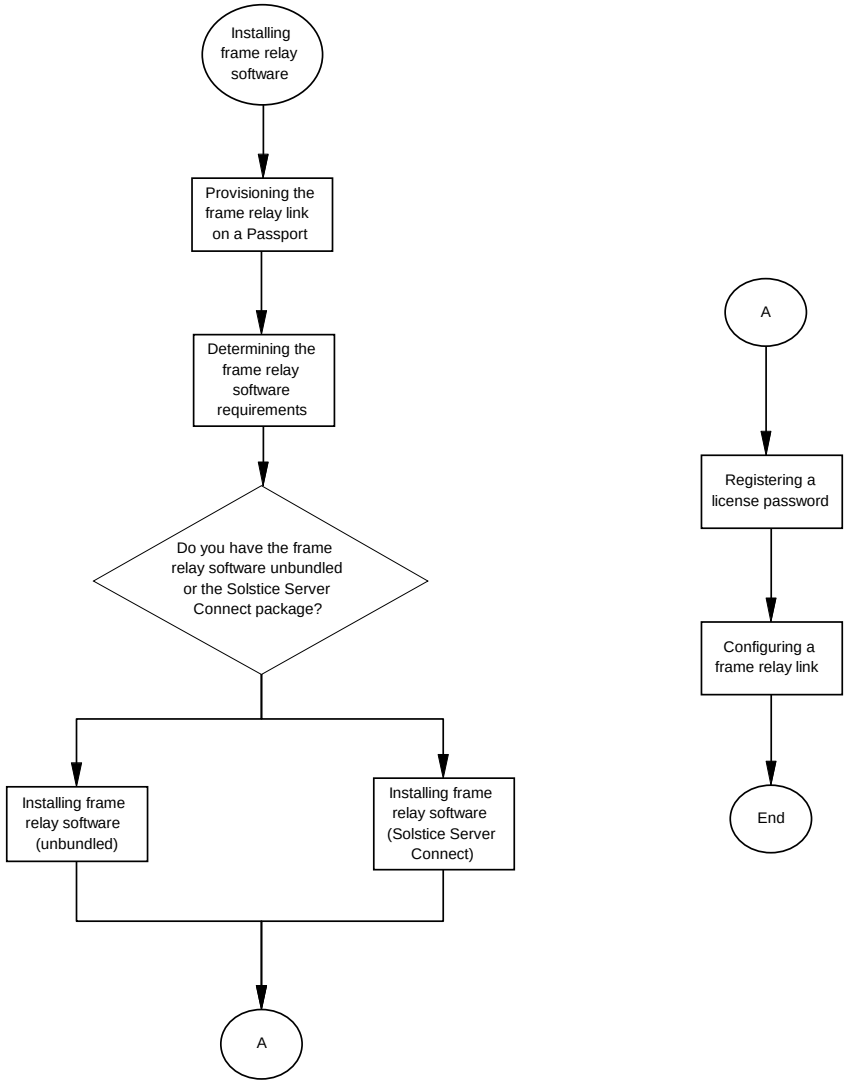
## Navigation links


- "Frame relay software installation task flow" (page 147)
- "Task navigation" (page 149)


## Frame relay software installation task flow

This task flow shows you the tasks you perform to install and configure frame relay software on a Preside Multiservice Data Manager (MDM) workstation. To link to any task, go to "Task navigation" (page 149).

### Frame relay software installation task flow



## Task navigation

# Provisioning the frame relay link on a Passport

Use the instructions in this procedure to provision the Passport switch to which the Preside Multiservice Data Manager (MDM) workstation is connected.

## Procedure steps

**1** Provision an IP over frame relay (IPIFR) interface on the Passport switch as described in 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*.

**a.** Provision the interface as a static IP connection to function as a Permanent Virtual Circuit.

**b.** The clock speed is set by the Passport switch.

**c.** Set the <proc> option of Lmi to none.

**d.** Set maximumFrameSize to 1600.

**e.** Set all other components values to the values specified in 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*.

# Determining the frame relay software requirements

Software packages on compact disk from SunSoft are combined into software subsets.

Load all of the software subsets in the SunLink frame relay package version 2.0.1, except for any Answerbook software subsets that contain Sun Microsystems Inc. online documentation. The minimum workstation configuration does not include disk space allowances for Answerbook subsets. If you choose to load the Answerbooks, increase the allowances for partition sizes and/or disk space capacity accordingly.

The estimated disk space requirements for frame relay software are shown in the table “Estimated disk space requirements for SunLink frame relay software” (page 151).

**Table 23**
**Estimated disk space requirements for SunLink frame relay software**

| SunLink rame relay software subsets | Approximate size |
|---|---|
| Solstice Frame Relay 2.0.1 driver and configuration (SUNWfra 2.0.1) | 1 Mbyte |
| Solstice Frame Relay 2.0.1 application programs (SUNWfrab 2.0) | 1 Mbyte |
| Total | 2 Mbyte |

# Installing frame relay software (unbundled)

Use the instructions in this procedure to install the frame relay software using a CD-ROM containing the Sunlink frame relay 2.0.1 software, only.

## Procedure navigation


- "Procedure prerequisites" (page 152)
- "Procedure steps" (page 152)


## Procedure prerequisites

- "Provisioning the frame relay link on a Passport" (page 150)
- "Determining the frame relay software requirements" (page 151)
- a CD-ROM drive is connected to the workstation and is powered up
- the Solaris operating system is installed and configured
- the workstation is displaying the login prompt
- you have the Sunlink frame relay 2.0 software on compact disk. SunLink frame relay 2.0 software is available on a compact disk as a discreet package or can be bundled with other SunSoft communications software referred to as the Solstice Server Connect package.

  If you have the Server Server Connect software, do not continue. Follow the instructions in the procedure "Installing frame relay software (Solstice Server Connect)" (page 155).

## Procedure steps

**1** Log in as root.

**2** Start c-shell

```
csh
```

**3** Insert the compact disk into the CD-ROM drive, pattern side up. If your drive uses a disk caddy, insert the disk into the caddy pattern side up, then slide the disk caddy into the CD-ROM drive.

**4** Open a UNIX window or a Shell Tool window.

**5** Start up Sun's admintool as a background process:

```
/usr/bin/admintool &
```

The admintool window opens.

**6** From the Browse menu, select Software.

The Admintool window now lists all software installed on the workstation.

**7** From the Edit menu, select Add.

The Set Source Media dialog opens.

**8** From Software Locations, select CD with Volume Management.

**9** Type in the path name of the source media:

**`/cdrom/cdrom0`**

**10** Click *OK*.

The Admintool: Add Software dialog opens and displays a list of the software on the CD.

**11** Select the name of the name of the software to load.

**12** Click Customize.

The Admintool: Customize Installation Dialog opens and displays a list of the software subsets to load.

**13** Select the following software subsets:

- Solstice Frame Relay driver and configuration files 2.0.1
- Solstice Frame Relay 2.0.1 application programs 2.0.1

***Note:*** Do not select any Answerbook subsets. These subsets contain Sun Microsystems Inc. online documentation. The minimum workstation configuration does not include sufficient disk space for the frame relay Answerbook. If you choose to load Answerbook subsets, you must increase partition sizes and/or disk space accordingly.

**14** When you have finished selecting the software subsets, click OK.

The Admintool: Customize Installation Dialog closes.

**15** In the Admintool: Add Software Dialog, click Add.

The Command Input/Output dialog opens, and the software begins to load. This dialog displays prompts for confirmation (Y/N) at various stages as the software loads.

**16** Answer all prompts for confirmation that appear in the Command Input/Output dialog by entering: **Y**

When loading is complete, the Command Input/Output dialog displays a message to indicate that loading is successful and complete.

**17** Eject the compact disk by typing the following command in the UNIX window or the shell tool window.

```
eject cdrom
```

**18** Proceed to “Registering a license password” (page 158).

# Installing frame relay software (Solstice Server Connect)

Use the instructions in this procedure to install the SunLink frame relay software using a CD-ROM containing the Solstice Server Connect package.

## Procedure navigation


- "Procedure prerequisites" (page 155)
- "Procedure steps" (page 155)


## Procedure prerequisites

- "Provisioning the frame relay link on a Passport" (page 150)
- "Determining the frame relay software requirements" (page 151)
- a CD-ROM drive is connected to the workstation and is powered up
- the Solaris operating system is installed and configured
- the workstation is displaying the login prompt
- you have the Sunlink frame relay 2.0 software on compact disk. SunLink frame relay 2.0 software is available on a compact disk as a discreet package or can be bundled with other SunSoft communications software referred to as the Solstice Server Connect package.

  If you do not have the Solstice Server Connect package, do not continue. Follow the instructions in the procedure "Installing frame relay software (unbundled)" (page 152).

## Procedure steps

1. Log in as root.
2. Start c-shell

   ```
   csh
   ```

3. Insert the compact disk into the CD-ROM drive, pattern side up. If your drive uses a disk caddy, insert the disk into the caddy pattern side up, then slide the disk caddy into the CD-ROM drive.
4. Open a UNIX window or a Shell Tool window.
5. Start up Sun's admintool as a background process:

   ```
   /usr/bin/admintool &
   ```

The admintool window opens.

**6** From the Browse menu, select Software.

The Admintool window now lists all software installed on the workstation.

**7** From the Edit menu, select Add.

The Set Source Media dialog opens.

**8** From Software Locations, select CD with Volume Management.

**9** Type in the path to the frame relay software:

**`/cdrom/server_connect_397/products/frelay/Image/sparc`**

**10** Click OK.

The Admintool: Add Software dialog opens and displays a list of the software on the CD.

**11** Select the following software subsets:

- Solstice Frame Relay driver and configuration files 2.0.1
- Solstice Frame Relay 2.0.1 application programs 2.0.1

***Note:*** Do not select any Answerbook subsets. These subsets contain Sun Microsystems Inc. online documentation. The minimum workstation configuration does not include sufficient disk space for the frame relay Answerbook. If you choose to load Answerbook subsets, you must increase partition sizes and/or disk space accordingly.

**12** When you have finished selecting the software subsets, click Add.

The Command Input/Output dialog opens, and the software begins to load. This dialog displays prompts for confirmation (Y/N) at various stages as the software loads.

**13** Answer all prompts for confirmation that appear in the Command Input/Output dialog by entering: **Y**

When loading is complete, the Command Input/Output dialog displays a message to indicate that loading is successful and complete.

**14** From the Edit menu, select Add.

The Admintool: Set Source Media dialog opens.

**15** From Software Locations, select CD with Volume Management.

**16** Type in the path to the Solstice licensing software:

**`/cdrom/server_connect_397/products/licenses/Image/sparc`**

**17** Click OK.

The Admintool: Add Software dialog opens and displays a list of the software on the CD.

**18** Select the following licensing tool software:

- Solstice Connect Center license information 4.1 License Installation Tool
- FlexLM License System

**19** When you have finished selecting the software subsets, click Add.

The Command Input/Output dialog opens, and the software begins to load. This dialog displays prompts for confirmation (Y/N) at various stages as the software loads.

**20** Answer all prompts for confirmation that appear in the Command Input/Output dialog by entering: **Y**

When loading is complete, the Command Input/Output dialog displays a message to indicate that loading is successful and complete.

**21** Eject the compact disk by typing in the following command in the UNIX window or the shell tool window.

**`eject cdrom`**

**22** Proceed to “Registering a license password” (page 158).

# Registering a license password

Use the instructions in this procedure to register a license password to use the SunLink frame relay communications software. Perform this procedure on all Preside Multiservice Data Manager workstations on which the SunLink frame relay software is installed.

## Procedure navigation


- "Procedure prerequisites" (page 158)
- "Procedure steps" (page 158)


## Procedure prerequisites

- "Installing frame relay software (unbundled)" (page 152) or
- "Installing frame relay software (Solstice Server Connect)" (page 155)
- Obtain a license from SunSoft to use the SunLink frame relay software. The license information must include the number of Rights to Use (RTUs), and the passwords to use SunLink frame relay.

  The number of RTUs defines the number of instances of the software that the license allows to run concurrently. For RTUs and passwords, contact Sun's local license distribution center at the telephone number listed in the Sun documentation provided with the SunLink frame relay compact disk.

- Ensure that you have already loaded the SunLink software subsets: *SUNWlicsw, FlexLM License System* and *SUNWlit License Installation Tool.*

## Procedure steps

**1** Log in as root on the workstation on which SunLink frame relay software is installed.

**2** If you have not already done so, access c-shell:

```
csh
```

**3** Start the licensing tool:

```
/etc/opt/licenses/lit &
```

The License Installation Tool window opens.

**4** From *Select Product*, choose the name of the communications application for which you wish to install a password.

**5** From *Server Options,* choose the number of servers on which the licensing server software is to run. For a standalone workstation, select 1.

**6** In the Rights to Use field, type in the number of rights to use that are to be enabled with this password. The number of Rights to Use you enter must match that provided along with the password.

**7** In the *Password* field, type in the password you obtained from Sun's local license distribution center.

**8** Click *Done With License*.

**9** Click *Continue*.

**10** Click *Exit - Install Licenses*.

A script runs and when completed, a pop-up window appears containing a message which indicates that the license password has been installed.

**11** Click *Quit*.

**12** Install frame relay software patches as indicated by SunSoft.

# Configuring a frame relay link

Use the instructions in this procedure to configure a frame relay link from the Preside Multiservice Data Manager (MDM) workstation to a Passport switch.

***Note:*** Nortel Networks recommends that you do not use the SunLink frame relay utilities to configure and launch the frame relay link.

## Procedure navigation

- "Procedure steps" (page 160)
- "Job aids" (page 160)

## Procedure prerequisites

- "Registering a license password" (page 158)

## Procedure steps

**1** As the UNIX userID root, open an Xterm.

**2** At the command line prompt, type

**`/opt/MagellanNMS/bin/passport.frconfig`**

For instructions to use this command, see 241-6001-303 *Preside MDM Administrator Guide*.

Respond to the prompts using the descriptions of the frame relay service parameters in "Service parameters" (page 160).

## Job aids

**Table 24**
**Service parameters**

| Parameter | Description |
|---|---|
| IP address (MDM) | the IP address of the Preside Multiservice Data Manager (MDM) workstation |
| IP address (Passport) | the IP address of the Passport switch |
| link name | the name of the frame relay interface on the workstation (hih0, hih1, hih2, or hih3) |

(Sheet 1 of 2)

**Table 24 (Continued)**
**Service parameters**

| Parameter | Description |
|---|---|
| DLCI | the Data Link Connection Identifier of the frame relay connection. Obtain the DLCI from your Passport Network Administrator. |
| clocking | the clocking for the link, which should always be external |
| MTU size | the Maximum Transmission Unit (MTU) size. The default value of 1500 should suffice for most installations. |

(Sheet 2 of 2)

# Appendix E
# Installing ATM software

This section describes how to install and configure Sun Microsystem Inc. SunATM software to access Passport switches from your Preside Multiservice Data Manager (MDM) workstation.

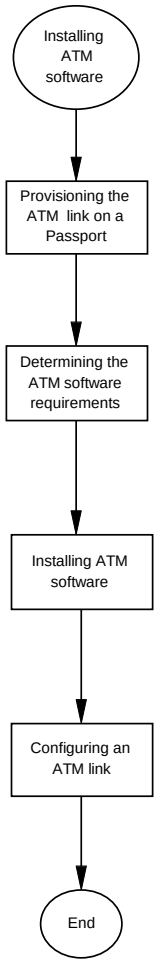
## Navigation links


- "ATM software installation task flow" (page 163)
- "Task navigation" (page 165)


## ATM software installation task flow

This task flow shows you the tasks you perform to install and configure ATM software on a Preside Multiservice Data Manager (MDM) workstation. To link to any task, go to "Task navigation" (page 165).

### ATM software installation task flow



## Task navigation

# Provisioning the ATM link on a Passport

Use the instructions in this procedure to provision the Passport switch to which the Preside Multiservice Data Manager (MDM) workstation is connected.

## Procedure steps

**1** Provision ATM interface (ATMIF) and an ATM multi-protocol encapsulation (MPE) components on the Passport switch as described in 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*.

**a.** Provision the interface as a nailed-up end point (NEP) to function as a Permanent Virtual Circuit.

**b.** The virtual connection identifier (VCI) number on the Passport switch is the same as the PVC number on the MDM workstation in the ATM network interface card (NIC) configuration.

**c.** Set maximum transmission unit (MTU) to 9180.

**d.** Provision the static IP address as the instance of the host under the Virtual Router (VR) on the Passport switch and ensure that this IP address is the same IP address assigned to the SunATM NIC card on the MDM workstation.

**e.** Set all other components values to the values specified in 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*.

# Determining the ATM software requirements

Software packages on compact disk from SunSoft are combined into software subsets. Load all of the software subsets in the SunATM (version 4.0, or later) package

The estimated disk space requirements for SunATM software are shown in the table “Estimated disk space requirements for SunATM software” (page 167).

**Table 25**
**Estimated disk space requirements for SunATM software**

| SunATM software subsets | Approximate size |
|---|---|
| SunATM device drivers and utilities | <1 Mbyte |
| SunATM interim API support software (optional) | <1 Mbyte |
| SunATM runtime support software (optional) | <1 Mbyte |
| Total | <3 Mbyte |

# Installing ATM software

Use the instructions in this procedure to install the ATM software using a CD-ROM containing the SunATM software.

## Procedure navigation


- "Procedure prerequisites" (page 168)
- "Procedure steps" (page 168)


## Procedure prerequisites

- Install an ATM NIC card in the MDM workstation and ensure that the workstation is connected to the network. For more information, see the SunATM Installation and User's Guide.
- "Provisioning the ATM link on a Passport" (page 166)
- "Determining the ATM software requirements" (page 167)
- a CD-ROM drive is connected to the workstation and is powered up
- the Solaris operating system is installed and configured
- the workstation is displaying the login prompt
- you have the SunATM 4.0 (or later) software on compact disk.

## Procedure steps

1. Log in as root.
2. Start c-shell

   ```
   csh
   ```

3. Insert the compact disk into the CD-ROM drive, pattern side up. If your drive uses a disk caddy, insert the disk into the caddy pattern side up, then slide the disk caddy into the CD-ROM drive.
4. Open a UNIX window or a Shell Tool window.
5. Add the SunATM software package.

   ```
   /usr/sbin/pkgadd -d/cdrom/sunatm_4_0/Product SUNWatm
   [SUNWatmu SUNWatma]
   ```

   The SunATM package(s) will be installed in the following directories:

- SunATM Device Drivers and Utilities (SunWatm) go into /kernel/mod, /kernel/mod/sparcv9, /kernel/drv, /etc/init.d, /platform/SUN, Ultra-4FT/kernel/drv, /kernel/drv/sparcv9, /etc/opt/SUNWconn/atm, /etc/rc2.d and /etc/opt/SUNWconn/bin.
- SunATM Runtime Support software (SUNWatmu) goes into /opt/SUNWconn/atm and /opt/SUNWconn/man.
- SunATM Interim API (SunWatma) goes into /opt/SUNWconn/atm/include, /opt/SUNWconn/atm/lib, /opt/SUNWconn/include and /opt/SUNWconn/lib.

**6** Eject the SunATM CD-ROM.

**7** Configure your SunATM interface. See “Configuring an ATM link” (page 170).

**8** Reboot the workstation and examine the network interface.

**9** Use the boot -rv command from the ok prompt.

**10** Execute ifconfig -a and netstat -i commands to examine the state of all network interfaces. You can also use the /usr/sbin/ping command to see if a network interface is active.

# Configuring an ATM link

Use the instructions in this procedure to configure an ATM link from the Preside Multiservice Data Manager (MDM) workstation to a Passport switch.

An ATM link can also be configured on the MDM workstation using the MDM Installer tool.

## Procedure navigation


- "Procedure steps" (page 170)
- "Job aids" (page 170)


## Procedure prerequisites


- "Installing ATM software" (page 168)


## Procedure steps

1. As the UNIX userID root, open an Xterm.
2. At the command line prompt, type

   **`/opt/MagellanNMS/bin/passport.atmconfig`**

   For instructions to use this command, see 241-6001-303 *Preside MDM Administrator Guide*.

   Respond to the prompts using the descriptions of the ATM service parameters in "Service parameters" (page 170).

## Job aids

**Table 26**
**Service parameters**

| Parameter | Description |
|---|---|
| IP address (MDM) | the IP address of the Preside Multiservice Data Manager (MDM) workstation |
| IP address (Passport) | the IP address of the Passport switch |

(Sheet 1 of 2)

**Table 26 (Continued)**
**Service parameters**

| Parameter | Description |
|---|---|
| PVC number | the PVC number input during the SunATM configuration of the MDM workstation must match the VCI number used on the Passport switch. An example of a VPI.VCI number on the switch is 0.50, where 0 is the VPI and 50is the VCI number.<br><br>***Note:*** The PVC number on the switch under the Virtual Router Static Host configuration does not correspond to the PVC number in the SunATM configuration. Instead, the Virtual Router Static Host PVC number on switch must correspond to the instance number of the atmConnection under the ATMMPE component on switch. |
| signaling level | set the signaling level to 4.0 in the SunATM configuration |

(Sheet 2 of 2)

# Appendix F
# HP OpenView Desktop

This section describes how to configure the Hewlett-Packard (HP) OpenView Desktop for use with the Preside Multiservice Data Manager (MDM).

The HP OpenView Desktop is a 3rd-party application used to display network fault information. The HP OpenView Desktop is an optional feature provided with the MDM software.

> ***Note:*** Nortel Networks does not support the installation of the HP OpenView Desktop on the same workstation as the MDM SNMP Surveillance Adapter or on the same workstation as MDM device integration cartridges.

## Procedure navigation



## Procedure prerequisites

- the node name or IP address of the MDM workstation with the primary NDAM server
- the node name or IP address of the MDM workstation with the backup NDAM (optional)
- the name of the device set file (optional)

## Procedure steps

1. Log in as root.
2. Edit the file

   `/etc/opt/OV/share/conf/C/nortel/nms/odn/ovdam.cfg`
3. Add as the first line, a line that specifies the location of the primary NDAM server. Use the following syntax:

   **`ndamServer: NDAM<service_name>@<host|ip_address>`**
4. Add an entry for an alternate NDAM server that can be used as a backup source for surveillance information, if an alternate NDAM server is available (optional).
5. To filter surveillance information, add a line that specifies the name of the device set file (optional). The device set file must exist on the workstation that runs the NDAM server. The syntax of an entry is:

   `deviceSet: <device set>`

   ***Note:*** The file ovdam.cfg contains an entry that specifies the name of the default typeset file used by NDAM. Do not modify this entry. An example of this entry follows:

   `compTypeSet: OMS_Passport`
6. Save the file and close it.
7. Ensure that the file permissions are set to read-write-execute by user, and read-execute by group and by others:

   **`chmod 755 /etc/opt/OV/share/conf/C/nortel/nms/odn/ovdam.cfg`**
8. Restart the OVDAM and OVAT processes:

   **`/opt/OV/bin/ovstart ovdam`**

   **`/opt/OV/bin/ovstart ovat`**
9. List the status of OV processes:

   **`/opt/OV/bin/ovstatus`**

   Ensure that the following processes are running:

   `OVsPMD`
   `ovwdb`
   `pmd`

```
ovat
ovdam
OVLicenseMgr
```

**10** If one of the processes identified in step 9 is not running, start it by entering the command:

```
/opt/OV/bin/ovstart <process_name>
```

# Job aids

**Table 27**
**Variable definitions**

| Variable | Definition |
|---|---|
| <service_name> | the service name of the NDAM process. If there is only one NDAM process running on the workstation and you chose not to specify a service name in the command to start the NDAM process, enter **NDAM** and omit the service name. |
| <host \| ip_address> | the host name or IP address of the workstation that runs NDAM. To use the host name, the IP address must be mapped to the hostname in the file /etc/hosts, or the workstation must have access to a Naming Information Service (yellow pages) server that maps the IP address to the host name. If there is no mapping, specify the IP address of the workstation. |
| <device_set> | the name of a device set defined for the NDAM server without the NDAM prefix and the .dev extension. For example, if the file name is NDAM_eastern_region.dev, the name of the device set is eastern_region. |
| <process_name> | is one of the processes identified in step 9 |

Preside Multiservice Data Manager

# Installation

Guide

Release: 15.1



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