Upgrading Preside MDM in Succession SN07

ATTENTION
Direct upgrade from SN05 to SN07 is not supported for Multiservice Switch 15000 nodes. Upgrade to SN06.2 first and then upgrade from SN06.2 to SN07. Refer to your SN06.2 Helmsman collection for the upgrade to SN06.2 and use this document to complete the upgrade to SN07.

This document is intended for people who are upgrading Nortel Networks Preside Multiservice Data Manager (MDM) servers from software release 14.2 or 14.3 to 15.1 in a SN06/SN06.2 to SN07 upgrade. If you are installing Preside MDM server for the first time, see 241-6001-100 *Preside MDM Installation*.

The upgrade of other components within Succession solutions is not within the scope of this document. For more information about the solution level upgrades, see NN10320-100 *ATM Solutions Basics* and NN10300-100 *IP Solutions Basics*.

During an upgrade of Succession solutions components, Preside MDM servers must be upgraded so that you have access to the functionality provided by a newer version of the software. This is required to support communication with Nortel Networks Multiservice Switch nodes. Earlier Preside MDM releases cannot support newer Multiservice Switch 15000 releases.

What you need to know

Before you upgrade Nortel Networks Multiservice Switch nodes you must clearly understand the impact of upgrading Preside Multiservice Data Manager (MDM) servers within the Succession portfolio architecture. In addition, review the solution level upgrade strategies in NN10320-100 *ATM Solutions Basics* and NN10300-100 *IP Solutions Basics*.

You must also have an extensive knowledge of Unix and the Preside MDM toolset.

What's new in this document

Branding Changes

The terms Passport 15000 and PVG have been rebranded in conjunction with the new Nortel Networks' brand simplified naming format:

- The Passport 15000 is now referred to as the Nortel Networks Multiservice Switch 15000.

- The packet voice gateway (PVG) is now referred to as the Media Gateway 15000.

The Multiservice Switch 15000 and Media Gateway 15000 network elements continue to share common hardware and software aspects. Hybrid systems can combine these network elements' capabilities, despite the fact that no specific brand exists for such hybrids.

For more information on the product rebranding, refer to NN10600-000 *Nortel Networks Multiservice Switch 7400/15000/20000 What's New in PCR6.1*.

MDM 15.1 new features

The following features are new in SN07:

MDP Administration enhancements

This feature simplifies Management Data Provider (MDP) administration by capitalizing on existing Nortel Networks Preside Multiservice Data Manager (MDM) services (Server Administration, Host Group directory server, Multi-nodal name server agent). Configuring the MDP servers is simpler. The following servers are now managed by the Server Administration tool:

- MDP Disk Manager (mdpdiskmgr)

- MDP File Mover Manager (mdpfmmgr)

- MDP Passport Data Model Manager (mdpdmm)

- MDP Passport File Manager (mdppmgr)
- MDP File Prober Manager (mdpfpmgr)

Note: MDP servers can now be installed and started using the Server Administration tool. The servers must be started in a specific order taking into account server dependencies. See the Activating new features for Preside MDM SN07 on page 63 before starting servers.

Shelf view enhancements

This feature enhances the Nortel Networks Preside Multiservice Data Manager (MDM) Shelf View nodal troubleshooting tool by providing:

- a card inventory for non-Wireless Nortel Networks Multiservice Switch cards for PCR 5.2
- sparing indications for LAPS/APS, DLEP (non-Wireless), PBG
- a maintenance state that can be set to on or, off
- ports that can be set to Lock or, Unlock

This feature also makes the Shelf View agent a full-time server with integrated Command Console (CC agent) functionality.

Server Administration enhancements

The Server Administration (SVM) tool enhancement simplifies Nortel Networks Preside Multiservice Data Manager (MDM) server administration and configuration by allowing users to add or delete servers from a server list. Context-sensitive help is now available on the servers, and servers can be re-ordered in the list by selecting and moving the server to a new location in the list.

> **CAUTION**
> **Use caution when re-ordering a server sequence**
> Only an expert Preside MDM administrator should re-order servers. Consult the 241-6001-310 *Preside MDM Server Reference Guide*.

This feature also provides a launch point for configuration editors associated with servers.

Configuring the Succession Release name

This feature adds two utilities to the Nortel Networks Preside Multiservice Data Manager (MDM) toolset. It allows operators to set the Succession release name on Preside MDM (visible in the tool

launcher), and to modify the *CommentText* attribute of the Multiservice Switch node. After an upgrade has been successfully completed, this tool can be used to change the software release number. If a software rollback is necessary, the tool should be used to change the Release number after the rollback is successfully completed.

Upgrade overview

This document provides detailed procedures on how to upgrade Nortel Networks Preside Multiservice Data Manager (MDM) servers. It also provides procedures to verify the success of the upgrade and to configure security on the servers.

This following sections of this document were modified:

Preside MDM server upgrade overview

This section describes the:

- pre-requisites to performing an upgrade on Nortel Networks Preside Multiservice Data Manager (MDM) servers
- Preside MDM deployment considerations
- Solution level migration logistics
- Preside MDM Succession feature baseline
  — new Preside MDM features in SN07
- Preside MDM server upgrade task flow

Prerequisites to performing a server upgrade

Before undertaking the upgrade, confirm that you have met the following pre-requisites.

- Upgrade Preside MDM servers before upgrading the Nortel Networks Multiservice Switch nodes they manage. Preside MDM software is backwards compatible and can manage the current and previous releases of Multiservice Switch, however it is not necessarily forward compatible. To upgrade Multiservice Switch 15000 nodes, see NN10070-461 *Upgrading Nortel Networks Multiservice Switch 15000 in Succession Networks PT-AAL1/UA-AAL1* and NN10419-461 *Upgrading Nortel Networks Multiservice Switch 15000 and Media Gateway 15000/20000 in Succession IP Solutions*.

- To ensure that one Preside MDM server remains in contact with the CS2000 Core Manager, IEMS, or the OSS at all times and continues to provide OAM&P information, isolate and completely upgrade one server while the other server remains fully operational. Following the successful upgrade of the first server, isolate and upgrade the second server using the same procedure.

- Both Preside MDM servers must be sane and operating without any errors:
  — Both servers must be in service, operating in a redundant capacity, and capable of supporting traffic and network management functions with no major alarms.
  — Check the Alarm Display and the System Log Display tools and ensure there are no serious or unexplained logs or alarms.

— Ensure that the second server (the one not being upgraded) is sane before proceeding with the upgrade.

— If using disk mirroring, it must be enabled on both servers and operating without any errors.

- This document describes the upgrade of servers from a baseline Preside MDM deployment within Succession, which involves the configuration of a Sun Fire ^{TM} V480 servers located in the Network Operation Center.

  In SN07, Preside MDM, Multiservice Switch 15000 and Media Gateway releases for VoA and VoIP are aligned and a Preside MDM Succession baseline configuration has been defined to achieve a consistent deployment. The following baseline configuration must be achieved before performing a Preside MDM 14.2 or 14.3 upgrade to 15.1 in SN07:

  — standalone/server and client-sets (optional)

  — SUN workstation configuration

  — Preside MDM Succession feature baseline

  See Preside MDM deployment considerations on page 8 and Solution level migration logistics on page 9 for information regarding standalone/server and client-sets baseline configuration. The SUN workstation configuration is covered in other points in this section.

  See the Preside MDM Succession feature baseline on page 10 for a list of features that must be activated before you upgrade from 14.2 or 14.3 to Preside MDM 15.1.

- If you have deployed client-sets, upgrade them before completing the upgrade task flow described in Preside MDM server upgrade task flow on page 14. See Activating new features for Preside MDM SN07 on page 64.

- If you have not deployed Preside MDM servers according to the standard deployment, follow the upgrade task flow described in Preside MDM server upgrade task flow on page 14 as a guideline, but selected steps may be different. Refer to the Preside Multiservice Data Manager (MDM) base documentation and release notes for additional information.

- The Sun Fire ^{TM} V480 server hardware does not change during the upgrade to SN07. The Solaris 8 operating system does not change but there are new patches identified. Please review *Preside Multiservice Data Manager Release 15.1 Supplement* to determine the latest set of patches.

- If you are upgrading Preside MDM servers from CD-ROM, you must have an X11 terminal with IP connectivity to the Sun Fire ^{TM} V480

server that you are upgrading. If using a CD to perform the upgrade, you must have access to the CD ROM drive. If upgrading from software that you download from Nortel Networks Electronic Software Distribution (ESD) page, you only need access to the downloaded file. You must also have access to a text editor so that you can edit various files during the upgrade. We recommend using the UNIX VI text editor.

- Review the *Preside Multiservice Data Manager Release 15.1 Supplement*. If you are migrating from Preside MDM release 14.2, then also review the *Preside Multiservice Data Manager Release 14.3 Supplement*. The release supplement describes the features that are new to the software release and includes information on differences in functionality and capability from the old release to the new release. It is essential that you understand the potential impacts before beginning the upgrade.

- You must have extensive knowledge of Unix and Preside MDM tools and software.

- If you have deployed firewalls in your network, you need to understand which sockets the firewalls have been deployed on. For more information, see NN10225-512 *Nortel Networks Multiservice Switch 15000 and Media Gateway 15000 in Succession Networks Configuration Attribute Summary PT-AAL1/UA-AAL1/UA-IP*.

- If you do not have a UNIX terminal, an Xterm application such as Exceed is required to launch the upgrade GUI.

Preside MDM deployment considerations

Since Nortel Networks Preside MDM can be deployed in many ways, upgrading cannot be viewed simply from the perspective of upgrading a single server but must be viewed from the perspective of upgrading Preside MDM in a Succession deployment. Some common Succession deployment options are:

- stand-alone/server-set (combined server and client)

- separate client sets

- distributed server and client sets

illustrates the common deployments. Note that the server and client-sets are deployed as a redundant pair.

Typical client/standalone/server-set deployment

MSS 3527 001 AA
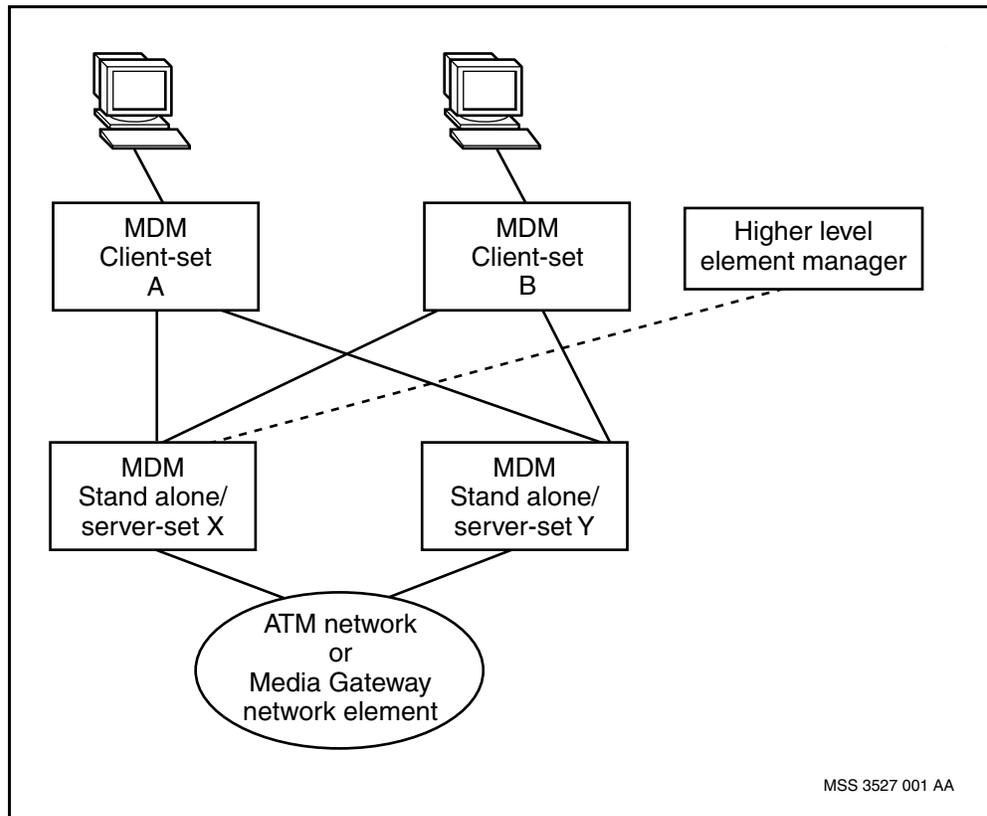
Standalone/server-sets

Standalone/server-sets support the main server processes that allow Preside MDM to perform surveillance and gather network data (fault and/or performance). They are usually run without a monitor and keyboard.

Standalone/server-sets support the main server processes that allow Preside MDM to perform surveillance and gather network data (fault and/or performance).

Client-sets

Client-sets host the servers that allow operators to view the surveillance information and network data, and perform provisioning. They are dependent on the standalone/server-sets for the acquisition of surveillance, network data and communication to Preside MDM nodes. Client-sets may host operator desk tops (remote users) as indicated in .

Separate standalone/server and client-sets

While separate server and client-sets are not mandatory to Nortel Networks Preside MDM deployment, they do optimize performance in a large network.

Solution level migration logistics

Before performing an upgrade, you must consider:

- redundancy (stand-alone/server-set, client-set)

- impact on the OSS and the higher level element manager (this could be the CS2000 Core Manager, SDM (VoA) or IEMS (VoIP))

- order of migration of the server vs. client-sets

Redundancy ensures that the network can be observed and network data collected. Redundancy is unavoidably lost during an upgrade when the server is rebooted (applies to either the server or client-set). At that point the server is running in simplex mode. To minimize the risk of losing the ability to observer the network and collect data, upgrade one of the redundant servers (both server and client-set) at any given time.

A Nortel Networks Preside MDM feature may possibly impact the OSS and the higher level element manager. Software changes may need to be addressed at the OSS level to ensure that incompatibilities do not exist and prevent the OSS and the higher level element manager from losing network visibility.

The general rule when performing migrations is to migrate the most north-bound system first. Migrate systems in the following order:

- OSS and/or IEMS (VoIP) and/or SDM (VoA)

- Client-set A

- Client-set B

- Standalone/server-set A
- Standalone/server-set B
- Multiservice Switch and/or Media Gateway nodes

> *Note:* For Succession Solution specific requirements, refer to the Solution level upgrade procedures.

Migrate the client-sets before the standalone/server-sets because Preside MDM is backwards compatible but not forwards compatible. Home the operator desk tops to the client that is not being migrated to prevent any loss of visibility to the desk tops. Migrate one client-set at a time.

When migrating a standalone/server-set, ensure that the client-sets are not homed into that server-set, otherwise the operator will see an outage because clients do not dynamically switch from one client-server to another. This way the network operator can service select a client-server that is not actively being migrated. Migrate one standalone/server-set at a time.

Preside MDM Succession feature baseline

Nortel Networks Preside Multiservice Data Manager (MDM) features can be Succession-specific, or not specific to Succession. This section lists the features that are relevant to Succession. These features are already installed for the current VoA customer base (UA-AAL1/PT-AAL1) who have upgraded to SN06 or SN06.2 for those who have done a greenfield ILEC UA-IP installation in SN07 using the Installation Method.

For VoIP and Media Gateway customers outside these deployments, table <u>Preside MDM In Succession - baseline feature list on page 11</u>:

- lists the features that must be activated (appropriate to individual deployments)
- identifies the applicability of the feature to the server vs. client-set
- identifies the Succession release where the feature was introduced
- identifies the Preside MDM release where the feature was introduced
- identifies where the feature originated from: Preside MDM base or Succession

You must establish this baseline before you can upgrade from 14.2 to 15.1, or 14.3 to 15.1. (This document does not describe how to achieve the baseline configuration.)

Preside MDM In Succession - baseline feature list

Feature Name	Required for Solution?	Server or client-set feature	Succession Release	Preside MDM Release	Originator
Core functionality:					
Network Time Protocol Support	Y	Y	both	NA	in 15.1, this feature is not applicable	Preside MDM base
Preside MDM Patch	Y	Y	both	all	all	Preside MDM base
Client-sets	N	N	client	SN06.2	all	Preside MDM base
Redundancy (standalone/server-set)	Y	Y	both	all	all	Preside MDM base
Redundancy (client server-set if deployed)	Y	Y	both	SN06.2	all	Preside MDM base
Software Distribution Site	Y	Y	server	all	all	Preside MDM base
Data Collection (MDP)	Y	Y	server	all	all	Preside MDM base
Generating and setting secure passwords for Preside MDM servers (FMDR, PMSP) password encryption	Y	Y	server	SN05	13.4	Preside MDM base
Secure FTP	Y	Y	server	SN05	13.4	Preside MDM base
Multiservice Switch backup and Restore	Y	Y	server	SN06	all	Preside MDM base
Network Model & Viewer configuration	Y	Y	server	all	all	Preside MDM base
Additional features:					
FDTM Succession configuration	Y	Y	server	SN02	13.1	Succession
Support for Seasonal time change	N	N	server	SN06	14.2	Succession
pserver process	Y	Y	server	SN04	13.3	Preside MDM base

Preside MDM In Succession - baseline feature list

Feature Name	Required for Solution?		Server or client-set feature	Succession Release	Preside MDM Release	Originator
NP template installation	Y	Y	server	SN04	13.3	Preside MDM base
Multiservice Switch 15000 Configuration Model Server	Y	Y	server	SN06	14.1	Preside MDM base
MDP to make BDF files accessible	Y	Y	server	SN06	14.1	Preside MDM base
MDP file prober collection times	Y	Y	server	SN06	14.1	Preside MDM base
Succession Enabling HSM	Y	Y	client	SN06	14.1	Succession
PMs (pmsp & supporting directory structures)	Y	Y	server	SN06	14.1	Succession
real-time alarm collection (rtac)	Y	Y	server	SN06	14.1	MDM base
File mover for BDF files	Y	Y	server	SN06	14.1	MDM base
Shared memory and semaphore setting	Y	Y	server	SN06	14.1	MDM base

New features in SN07

Nortel Networks Preside Multiservice Data Manager (MDM) base features added in SN07 are froM Preside MDM release 14.3. There are also several Succession specific features added in release 15.1. Table Preside MDM features new in SN07 on page 13 lists all of the new features for SN07.

Note: If you are upgrading from release 14.3 to 15.1, MDP Administration enhancements, Shelf view enhancements, and Server Administration enhancement features are already installed and activated.

Preside MDM features new in SN07

Feature Name	Required for Solution?		Server or client-set impact	Succession Release	Preside MDM release	Originator
	VoA	VoIP				
MDP Administration enhancement	Y	Y	server	SN07	14.3	Preside MDM base
Shelf View enhancements	Y	Y	client	SN07	14.3	Preside MDM base
Server Administration enhancements	Y	Y	server	SN07	14.3	Preside MDM base
Support for 5 min. PMs	Y	N	server	SN07	15.1	Succession
SASM Enhancements	Y	N	client	SN07	15.1	Succession
Succession Release Name appears in GUI	Y	Y	client	SN07	15.1	Succession
XNTP Support	Y	Y	both	SN07	15.1	Preside MDM base

Preside MDM server upgrade task flow

The figure Preside MDM server upgrade task flow on page 14 shows the sequence of procedures you must perform to upgrade one Preside MDM server.

Preside MDM server upgrade task flow

PPT 3393 004 AA
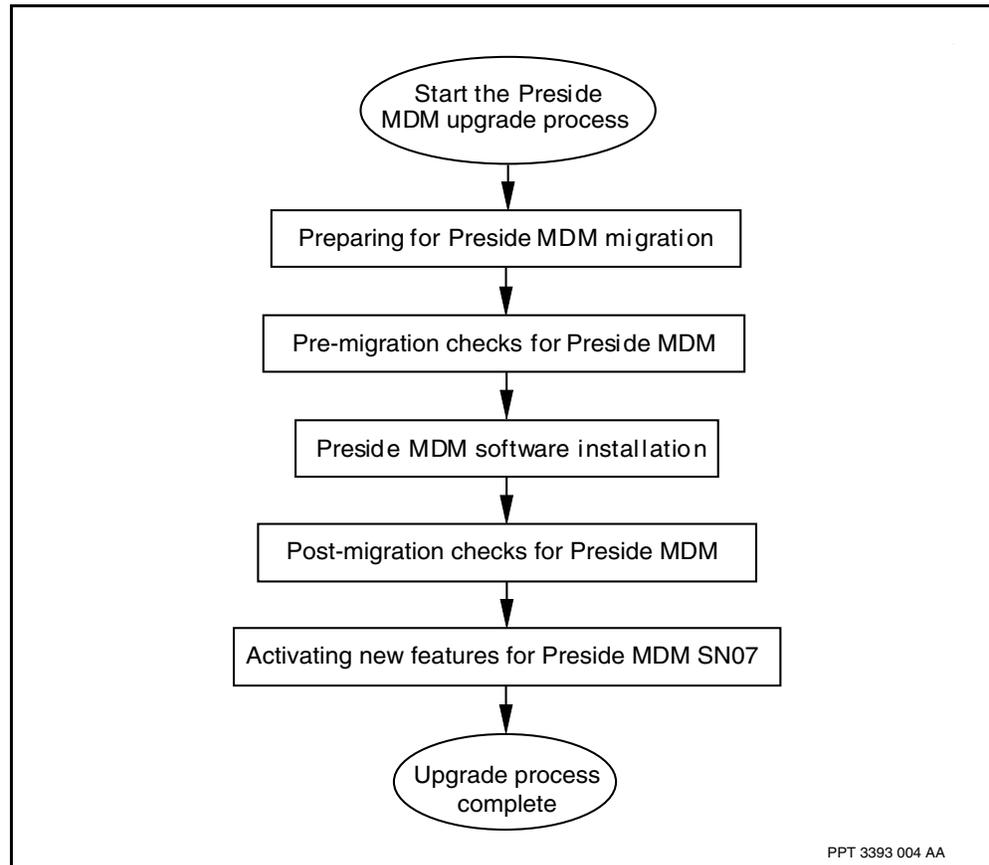
Repeat the sequence of procedures to upgrade the second server.

- Preparing for Preside MDM software migration on page 15
- Pre-migration checks for upgrading Preside MDM servers on page 27
- Preside MDM software installation on page 37
- Post-migration checks on page 59
- Activating new features for Preside MDM SN07 on page 63

After upgrading both servers, upgrade the Nortel Networks Multiservice Switch 15000 nodes. For more information, see NN10070-461 *Upgrading Nortel Networks Multiservice Switch 15000 in Succession Networks PT-AAL1/UA-AAL1.*

Preparing for Preside MDM software migration

The following figure displays the sequence of procedures you must perform to install Nortel Networks Preside Multiservice Data Manager (MDM) software and patches.

Preside MDM pre-migration task flow

```
                          ( Start pre-migration )
                                      |
                          /\          |
                         /  \
              Has the   /    \
           Preside MDM  \    / --Yes--> ( End the upgrade )
           server       \  /
           already been  \/
           upgraded?
               |
               No
               |
          /\
         /  \                              +---------------------+
   Is the   /    \                         | Ensure that there   |
Preside MDM \    / --Yes--> | is enough disk space|
server running \  /                        | on the Preside MDM  |
the minimum    \/                          | server to download  |
level of                                   | the software and    |
software?                                  | patches             |
    |                                      +---------------------+
    No                                               |
    |                                                v
    v                                      +---------------------+
  (  End the          )                    | Download the        |
  ( SN07 upgrade      )                    | required software   |
  ( process and upgrade the)               | from the            |
  ( server to the minimum  )               | Nortel Networks'    |
  ( software level using   )               | website             |
  ( the appropriate        )               +---------------------+
  ( documentation          )                          |
                                                       v
                                           +---------------------+
                                           | Download the required|
                                           | patches from the    |
                                           | Nortel Networks'    |
                                           | website             |
                                           +---------------------+
                                                       |
                                                       v
                                           ( Pre-migration is    )
                                           ( complete            )

                                                        PPT 3438 001 AA
```

Perform the following procedures before installing Preside MDM software and patches:

Checking the currently active software version

To determine if Nortel Networks Preside Multiservice Data Manager (MDM) has already been upgraded, check the release currently running on the server. Use the command:

```
/opt/MagellanNMS/system/inst/nmsLinks
```

If the response to the command is *MDM142xxx* or *MDM143xxx* proceed with the upgrade.

Ensuring that there is enough disk space on the servers

If you will be using Nortel Networks ESD page to download the software (not installing it from a CD), ensure that you have sufficient disk space to accommodate the downloaded software.

Checking server disk space

From the Preside MDM server

1   Login — see Logging into Preside MDM servers on page 81.

2   Determine how much disk space is available on each of the servers: **df -k**

Type system indicates in kilobytes how much disk space is used in each of the disk partitions.

Sample response from issuing the df -k command

```
Filesystem   kbytes  used    avail   capacityMounted
on
/proc        0       0       0       0%      /proc
/dev/md/dsk/d06196234182399974310275 30%     /
fd           0       0       0       0%      /dev/fd
/dev/md/dsk/d4018865671782201651750 10%      /var
```

> ***Note:*** Preside MDM data directories (/opt/MagellanNMS/data/) should not be part of the root (/) partition. A separate/data partition with a soft-link to /opt/MagellanNMS/data/ or an NFS mount to a separate physical medium is recommended.

3   Review *Preside MDM supporting PP15K* entry in *Preside Multiservice Data Manager Release 15.1 Supplement* to determine how much disk space you need. Typically, you need 2000 Mb of disk space.

4   Compare the space available under / with the value in step 3.

5   If you need more disk space on the server, investigate the following strategies:

- Remove older, unwanted Preside MDM software versions

- List the software version currently available:

  ls /opt/MagellanNMS/loads

- Select loads that are no longer required and enter the following commands, where <release> is the name of the software load you wish to uninstall:

> **cd /opt/MDM<release>_INST**
> **./uninstall_mdm<release>**

- remove old CSV files

- remove core files

- remove bdf files

- contact GNTS for alternative strategies

Note: Preside MDM software configuration is persistent. As a result, you will not lose your configuration when you delete Preside MDM packages.

Retrieving Preside MDM software and patches from a drop box

After verifying that the server has sufficient disk space, you can begin to download Nortel Networks Preside Multiservice Data Manager (MDM) software. Preside MDM patches are jumbo patches that include all previous patches. As a result, you only need to retrieve the most current version of a patch. One method is to retrieve the software from your customer drop box.

Prerequisites

- You need a dropbox and an account with a user name and password. Contact your Nortel Networks customer representative for more information on accessing Nortel Networks website.

- You must have performed the procedure: Ensuring that there is enough disk space on the servers on page 18.

- Refer to the software downloads area of Nortel Networks website (*www.nortelnetworks.com*) to verify that the drop box contains the software files you need to retrieve. If there are no patches listed for this release, it means that there are no patches currently required for this release.

Retrieving software from a drop box

From the Preside MDM server

1   Login — see Logging into Preside MDM servers on page 81.

2   Retrieve the required software files and patches according to your retrieval procedure:

- MDM 15.1 Supplement
- MDM 15.1 CD1
- MDM 15.1 CD2
- MDM 15.1 CD3

Downloading Preside MDM software from Nortel Networks website

After verifying that the server has sufficient disk space, begin downloading software. One method is to download the required software from Nortel Networks website. When you download the software from this website, a copy of the software is placed in the directory you specify.

Prerequisites

- Refer to the software downloads area of Nortel Networks website *www.nortelnetworks.com* to determine the software load and patches that you need. If there are no patches listed for this release, it means that there are no patches currently required for this release.

- Ensure that you download all software files that belong to the release you require. The software you need to download may be composed of more than one file.

- Download the associated patches after downloading the required software release from the website. For more information, see Downloading Preside MDM patches from Nortel Networks website on page 23.

- Perform the procedure: Ensuring that there is enough disk space on the servers on page 18.

From the Preside MDM server

1   Login — see Logging into Preside MDM servers on page 81.

2   Change directories to the / directory: **cd /**

3   Create a directory to which you can download the software: **mkdir MDM151**

      Note: Remove this directory at the end of the installation procedure.

4   On the web, go to: *www.nortelnetworks.com*.

5   In the Support section of the window, click *Software Downloads*.

6   Click on *Log In.*

7   When prompted, enter your user name and password for the login.

8   In the Product Family section of the Software Downloads window, click *Preside*.

9   Under the Preside MultiService Data Manager for Succession PT/UA-AAL1 section, click *Software*.

10   The loads and patches for the release are identified at *www.nortelnetworks.com*

> ***Note:*** Software loads are contained in zip files, while each patch is contained in a single file. The MDM 15.1 Supplement is found under the Documentation tab. The software is found under the Software tab.

11   Download the following software:

- MDM R15.1 Supplement

- MDM 151 CD1

- MDM 151 CD2

- MDM 151 CD3

12   Enter the following directory to indicate where you want the software load files placed: */MDM151*.

13   Click *Save*.

14   On the Preside MDM server, change directories to the directory containing the software:

    cd /MDM151

15   Uncompress the software load file:

    uncompress <swload_name>.tar.Z

16   Untar the software load file: **tar xvf <swload_name>.tar**

17   Repeat step 14 through step 16 for every software file you want to download.

18   Delete each tar file: **rm -r <swload_name>.tar**

Variable values

Variable	Value
<swload_name>	The name of the software load file that you want to download.

Downloading Preside MDM patches from Nortel Networks website

In addition to the main software release, you may need to download patches from Nortel Networks website to the Preside Multiservice Data Manager (MDM) server. When you download the patches from this website, a copy of the patches is placed in the directory you specify.

Prerequisites

- You need a dropbox and an account with a user name and password. Contact your Nortel Networks customer representative for more information on accessing Nortel Networks website.

- Refer to the software downloads area of the website (to determine which patches you need to download.

  www.nortelnetworks.com

  > *Note:* Consult the Release Notes for this release to identify the most current list of patches you require.

- Preside MDM patches are jumbo patches that include all previous patches. As a result, you only need to download the most current version of a patch.

- You must have performed the procedure: Ensuring that there is enough disk space on the servers on page 18.

From the Preside MDM server

1   Login — see Logging into Preside MDM servers on page 81.

2   Change directories to the / directory: **cd /**

3   Create a directory to download the software to: **mkdir patch151**

  > *Note:* Remove this directory when the patches are installed.

4   On the web, go to *www.nortelnetworks.com*.

5   In the Support section of the window, click **Software Downloads.**

6   Click on *Log In*.

7   When prompted, enter your user name and password for the login.

8   In the Product Family section of the Software Downloads window, click *Preside*.

9   Under the Preside Multiservice Data Manager for Succession section, click *Software*.

10   Refer to the software downloads area of Nortel Networks website (*www.nortelnetworks.com*) to determine which patches you want to download.

11   Download the following patches if they exist (if the patch does not exist then no patch is required):

- MDM151-xx

- MDP151-xx

- DVR151-xx

12   Click on the file listed beside the File Download heading.

13   Enter the following directory to indicate where you want the patch placed: **/patch151**

14   Click *Save*.

15   Repeat steps 13 through step 14 for the other patches you need.

Updating Preside MDM license files

Before you can run Nortel Networks Preside Multiservice Data Manager (MDM) server software, you need a license password and a customer identifier. This comes with your Nortel Networks Preside Multiservice Data Manager server upgrade CD. For information on how to upgrade and configure your new server license, see "Software licenses for MDM (mandatory)" in the 241-6001-100 *Preside MDM Installation*. If you do not have the license, you will need to order one. Contact your Nortel Networks Sales Representative for additional information.

Pre-migration checks for upgrading Preside MDM servers

Before starting to upgrade Nortel Networks Preside Multiservice Data Manager (MDM) servers, you must verify that the servers are in a state that will permit the upgrade.

Prerequisites

You must have:

- access to a text editor on the terminal connected to the servers so that you can open various files. We recommend using the UNIX VI text editor.

- an extensive knowledge of UNIX and Preside MDM tools and software.

- a full backup of the Preside MDM workstation. Refer to NN10402-600 *Global Administration and Security*

The figure shows you the sequence of procedures you must perform to determine the status of the servers.

Preside MDM pre-migration checks task flow

PPT 3393 008 AA
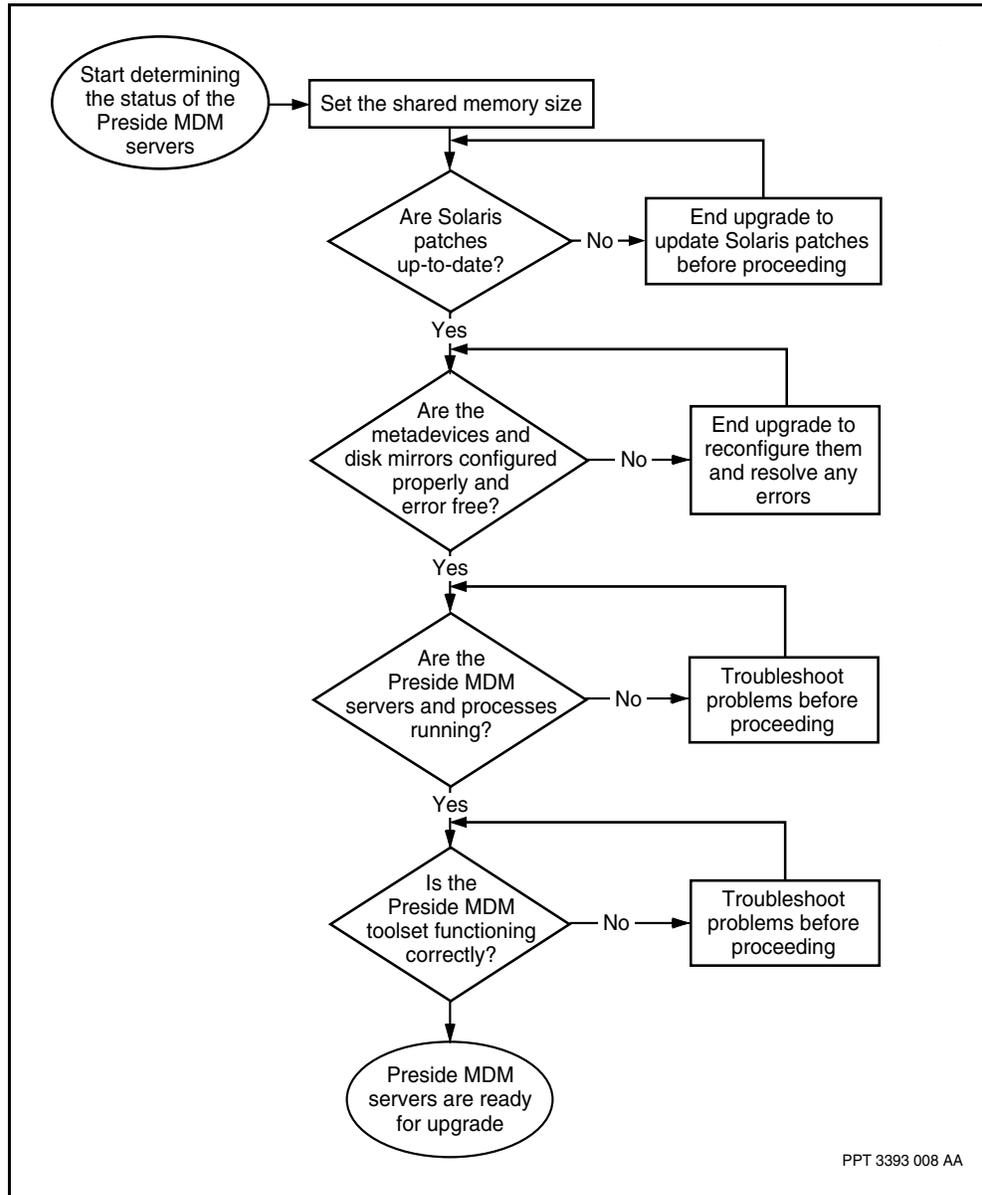
To link to one of the pre-migration procedures, click on one of the following:

Setting the shared memory size

Before beginning the upgrade, you need to set the shared memory size to the value 256.

Prerequisites

- Check the *Preside Multiservice Data Manager Release 15.1 Supplement* to determine if the specific value should be other than 256.

Setting the shared memory size

From the Preside MDM server

1   Login - see <u>Logging into Preside MDM servers on page 81</u>.

2   Issue the following command:
/opt/MagellanNMS/system/config/config_sys_shmem 256

The system prompts you to confirm the change in shared memory size.

3   Confirm the change: **yes**

4   The system may prompt you to reboot. You are required to reboot later during the installation, therefore it is not necessary to reboot at this time. Do not confirm the reboot: **no**

Verifying Solaris and its patch level

Before beginning the upgrade, determine if the Sun workstation OS is at the right level with the correct patches. Check the *Preside Multiservice Data Manager 15.1 Release Supplement* to determine which SUN OS patches to upgrade. Use the supplement that was obtained from the Electronic Software Distribution (ESD) page (*www.nortelnetworks.com*).

Verifying Solaris and its patch level

From the Preside MDM server

1   Login - see <u>Logging into Preside MDM servers on page 81</u>.

2   Open an xterm session.

3   Issue the following command: **uname -a**

The system response indicates that the OS is running at Solaris 8 represented by a 5.8.

4   Check what release of OS is currently running on the workstation:

cat /etc/release

An example of a Solaris 8 OS output is as follows:

```
Solaris 8 HW 7/03 s28s_hw3wos_05a SPARC
```

In this example the OS version date is 7/03.

5   Compare the output with the Solaris Maintenance Releases as specified in the *Preside Multiservice Data Manager 15.1 Release Supplement*.

6   If the OS version is equal to or greater than the OS version as specified in the *Preside Multiservice Data Manager 15.1 Release Supplement*, an upgrade is not required.

If the OS version is less than the version specified in the *Preside Multiservice Data Manager 15.1 Release Supplement*, you must upgrade the OS Maintenance release to the correct version of the specified Solaris OS. Refer to the *Preside Multiservice Data Manager 15.1 Release Supplement* for information on where to find the Solaris Maintenance release software.

Verifying the status of the metadevices and disk mirroring

If you are running disk mirroring on your Sun server, ensure the mirrors are functioning correctly. Consult the SUN documentation for more information.

Verifying that Preside MDM servers and processes are running

The state of Nortel Networks Preside Multiservice Data Manager (MDM) servers will be one of the following:

- *Not started,* which indicates that the server has not been started since the SVMDMN process was started or since it was added to the list.

- *Running,* which indicates that the server has been started automatically by the SVMDMN process or by an administrator.

- *Exited,* which indicates that the server has exited unexpectedly and is awaiting a restart. When a server is in this state, information about the server is displayed on a yellow background.

- *Quit,* which indicates that the server has shut itself down. No restarts are being attempted. When a server is in this state, information about the server is displayed on a red background.

- *Failed,* which indicates that the server has exceeded all restart limits and that no further attempts to restart it automatically are being made. When a server is in this state, information about the server is displayed on an orange background.

Verifying the servers and processes are running

From the Preside MDM server

1   Login — see Logging into Preside MDM servers on page 81.

2   Open a Preside MDM window — see Opening the Preside MDM window on page 81.

3   From the Preside MDM window, choose System > Administration > Server Administration.

4   Scan the server list and verify that all of the servers are in a *Running* state.

> *Note:* See the 241-6001-310 *Preside MDM Server Reference Guide* for information on starting a server.

5   To view more detailed information about the server, click on the name of the server whose information you wish to view.

6   From the Edit menu, select *View*.

The server name in the Server Administration dialog indicates the descriptive name assigned to the server.

7   Click *Ok* when you have finished with the dialog.

8   Close the Server Administration tool.

9   From the Preside MDM window choose System -> Administration -> GMDR Administration.

> *Note:* For more information, see Using the GMDR Administration tool in the 241-6001-303 *Preside MDM Administrator Guide*.

10   Ensure that there are two FMDR servers for every distinct Succession office, and two IMDR servers (total) listed. Ensure that each server is associated with a different workstation, and that all are in a connected state.

11   Close the GMDR Administration window.

12   If MDP is running on this system and you are running release MDM 14.2, login as mdpadmin (or the mdpadmin user ID for your system).

From a UNIX window, type: **mdpadm display**

If you are running release MDM 14.3, open and use the Server Administration tool to check that the servers are running.

Verifying that the Preside MDM toolset is functioning

During a pre-migration check, perform the following procedure to verify that Nortel Networks Preside Multiservice Data Manager (MDM) processes are working correctly.

Verifying Preside MDM toolset is functioning

From the Preside MDM server

1   Login, see Logging into Preside MDM servers on page 81.

2   Open a Preside MDM window:

/opt/MagellanNMS/bin/nmstool &

3   Click OK to close the copyright dialog.

4   Verify that the Alarm display opens and displays alarms.

    a   From the Preside MDM window, choose Fault>Alarm Display: Active

    b   When the Alarm Display window opens, verify that the alarms are being received.

5   Verify that the Network Viewer opens and displays the nodes. From the Preside MDM window, select Fault > Network Viewer.

    a   From the Preside MDM window, select Fault > Network Viewer.

    b   When the Network Viewer window opens, double-click the group icon to expand it.

       Right-click on the icons to see the node name. Select the node(s) you wish to check.

6   Confirm that the viewer displays the status of the nodes.

7   Verify that the Nodal Provisioning tool opens. From the Preside MDM window, select Configuration > Passport Devices> Nodal Provisioning.

8   If more than one Configuration Manager server is specified in the configuration file, a Select Server dialog box opens. Otherwise, go to step 10.

9   If required, select a valid host in the Select Server dialog and click *OK.*

10   In the Nodal Provisioning Device Selection dialog, select a valid device and click *OK.*

11   In the Authenticating dialog, log on to the network destination by entering a valid user ID and password.

12   In the Open View dialog, select the Access Mode and the desired View Mode.

The Nodal Provisioning window opens with a component hierarchy displayed by default.

Preside MDM software installation

This module contains:

- [Prerequisites to installing Preside MDM software on page 37](#)
- [Preside MDM software installation task flow on page 39](#)

> **CAUTION**
> **This upgrade strategy removes network management equipment from service.**
> This upgrade strategy removes the servers from service and eliminates server redundancy.
>
> After you shut down the servers and software on this Preside MDM server, communication from this server to the CS2000 Core Manager or IEMS, and the Multiservice Switch network stops. The other Preside MDM server reports alarms as long as the server being upgraded is out of service.
>
> Load balancing between Preside MDM servers is not available and the Preside MDM platform compliance to connectivity standards cannot be met during the upgrade.

The Succession MDM Software Migration window opens displaying the current MDM release.

Prerequisites to installing Preside MDM software

Before installing new Nortel Networks Preside Multiservice Data Manager (MDM) software and patches, review the following points:

- The upgrade procedure uses the software installation tools and procedures that are packaged with Preside Multiservice Data Manager 15.1 release. Preside MDM software will not support copying the software, configuration, or data from one server to the other. This approach would cause Preside MDM references and process calls to fail.

- You must have extensive knowledge of Unix and Preside MDM tools and software.

- Review the *Preside Multiservice Data Manager Release 15.1 Supplement*. The release supplement describes the features that are new to the software release and includes information on differences in functionality and capability from the old release to the

new release. It is essential that you understand the potential impacts before beginning the upgrade.

- You need a Preside Multiservice Data Manager 15.1 software license. If you do not have the license, you will need to order one. Contact your Nortel Networks Sales Representative for additional information.

- Ensure you have performed the procedure: [Downloading Preside MDM software from Nortel Networks website on page 21](#).

- If you are upgrading Preside MDM servers from CD-ROM, you must have an X11 terminal with IP connectivity to the Sun Fire ^{TM} V480 server that you are upgrading. If using a CD to perform the upgrade, you must have access to the CD ROM drive. If upgrading from software that you download from Nortel Networks Electronic Software Distribution (ESD) page, you only need access to the downloaded file. You must also have access to a text editor so that you can edit various files during the upgrade. We recommend using the UNIX VI text editor.

- If you do not have a UNIX terminal, use an Xterm application such as Exceed to launch the upgrade GUI.

Preside MDM software installation task flow

The following figure shows you the sequence of procedures you need to perform to install new Nortel Networks Preside Multiservice Data Manager (MDM) software and patches. To link to any procedure, go to the list that follows the task flow chart.

Preside MDM software installation task flow
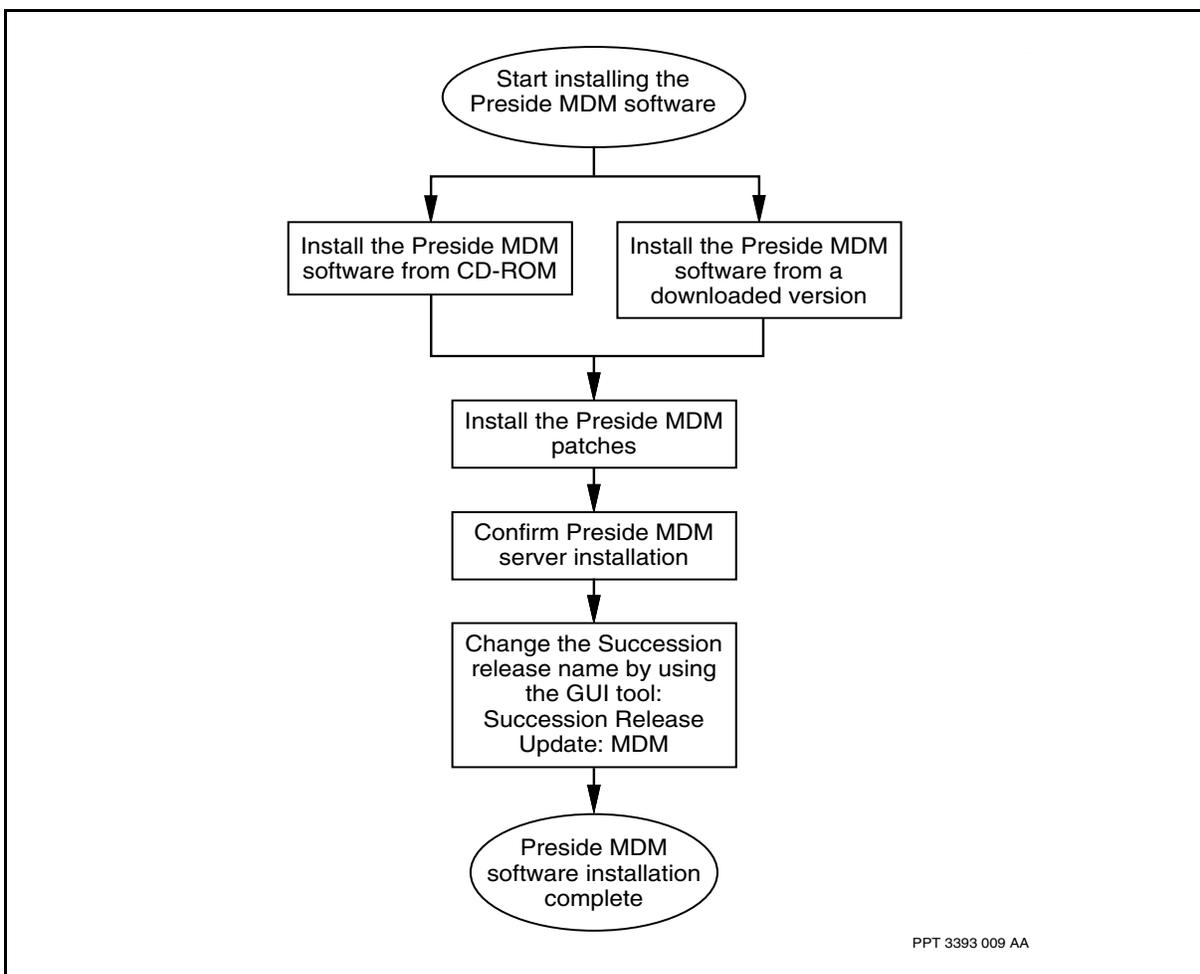
Click on the following links to access the procedure:

- Installing Preside MDM software from a CD-ROM on page 40
- Installing Preside MDM software release from a downloaded software version on page 43
- Installing Preside MDM patches on page 46
- Confirming successful Preside MDM server installation on page 49
- Setting Succession release name identification on page 50

Installing Preside MDM software from a CD-ROM

Begin installing Nortel Networks Preside Multiservice Data Manager (MDM) software by installing the Preside MDM and MDP software packages using the InstallAnywhere program. The Preside MDM software installation takes up to 45 minutes depending on the server hardware and packages you are installing. The InstallAnywhere program removes files that need to be removed before loading the new software. The system retains the previous version of Preside MDM software on the server as a back-up while installing the new version.

Preside MDM data configuration is persistent. As a result, you will not lose your configuration data when Preside MDM data packages are deleted.

Prerequisites

* If you have already downloaded the software as described in Preparing for Preside MDM software migration on page 15, do not perform this procedure. Perform the procedure: Installing Preside MDM software release from a downloaded software version on page 43.

    Note: For more information, see 241-6001-100 *Preside MDM Installation*.

From the Preside MDM server

1   Login - see Logging into Preside MDM servers on page 81.

2   Insert the *Multiservice Data Manager 15.1 Software Disk 1 of 3* CD in the server's CD-ROM drive.

3   Open a Unix window.

4   Create a directory for mounting the CD:

cd /

mkdir /cdrom

    Note: If mountable CDs have been used in the past for other applications, you may not have to create this directory.

5   Stop the MDP servers. If you are running release MDM 14.2, use the command: **mdpadm stop all**

    Note: This command must be executed using the mdpadmin user ID.

If you are running release MDM 14.3 or higher, use the Server Administration tool to stop the MDP servers.

6   Stop the Preside MDM servers:

/etc/init.d/nmssvm.server stop

7   Start the installer:

/cdrom/cdrom0/install_mdm

The system indicates that it is launching the installer.

8   Enter the environment **DISPLAY** to launch the MDM Installer GUI. If the local IP address is not already populated as the default, enter the local IP address. The command "echo DISPLAY" will show this value. Set the display in the following format: **<IP address>:0.0**

9   Use the following default values required by Succession when prompted. For more information about installation, see 241-6001-100 *Preside MDM Installation*.

Install panel	Options
Installation Option Panel	Select MDM and MDP.
Installation Source Path	`/cdrom/cdrom0`
Current domain name	<domain name required to locate the Preside MDM workstation>
MDP User/group info	Provide the user name, password, and UNIX group for MDP. ***Note:*** These values are customer dependent.
NV Background Pix Maps	No

Note: During the installation, you will be prompted to enter CD 2. Before inserting CD 2, eject CD 1 by issuing the eject command in the terminal window. Before inserting CD 3, eject CD 2 by issuing the eject command in the terminal window.

10   To ensure that all changes have been applied, synchronize the file systems by issuing the sync command three times, pressing Enter after each one.

sync

sync

sync

11   Return the server to service and apply the changes by rebooting it:

init 6

After the reboot, the server should return to service without any problems.

12   Eject CD 3.

Installing Preside MDM software release from a downloaded software version

Begin installing Nortel Networks Preside Multiservice Data Manager (MDM) and MDP software packages using the InstallAnywhere program.

The installation of Preside MDM software takes up to 45 minutes depending on the server hardware and the packages you are installing. The InstallAnywhere program removes files that need to be removed before loading the new software.The system retains the previous version of Preside MDM software on the server as a back-up while installing the new version.

Preside MDM configuration data is persistent. As a result, you will not lose your configuration data when Preside MDM packages are deleted. For more information about installing Preside MDM software, see 241-6001-100 *Preside MDM Installation*.

Prerequisites

- Access the software either by Downloading Preside MDM software from Nortel Networks website on page 21 or, Retrieving Preside MDM software and patches from a drop box on page 20.

- Make a note of the directory name where the software that you downloaded or retrieved was placed.

- Refer to the software downloads area of Nortel Networks website (*www.nortelnetworks.com*) to determine the software load and patches that you need. If there are no patches listed for this release, it means that there are no patches currently required for this release.

From the Preside MDM server

1   Login - see Logging into Preside MDM servers on page 81.

2   Open a Unix window or terminal.

3   Change directories to the directory containing the software that you downloaded in Downloading Preside MDM software from Nortel Networks website on page 21.

4 Stop the MDP servers. If you are running release MDM 14.2, use the command: **mdpadm stop all**

> *Note:* This command must be executed using the mdpadmin user ID.

If you are running release MDM 14.3 or higher, use the Server Administration tool to stop the MDP servers.

5 Stop the Preside MDM servers:

/etc/init.d/nmssvm.server stop

6 Start the installer: **./install_mdm**

The system indicates that it is launching the installer.

7 Use the following default values required by Succession when prompted. For more information about installation, see 241-6001-100 *Preside MDM Installation*.

Install Panel	Options
Installation Option Panel	Select MDM and MDP.
Installation Source Path	/MDM151
Current domain name	<domain name required to locate the Preside MDM workstation>
MDP User/group info	Provide the user name, password, and UNIX group for MDP. *Note:* These values are customer dependent. If MDP is already installed, this information is not required.
MDM Operator Client and User Administration	Do not select this option.
NV Background Pix Maps	No

8 Click *Done* to exit the installer window when the install is complete.

9   To ensure that all changes have been applied, synchronize the file systems by issuing the sync after each one:

sync

sync

sync

10   Return the server to service and apply the changes by rebooting it:

init 6

After the reboot, the Preside MDM server should return to service without any problems.

Installing Preside MDM patches

After installing Nortel Networks Preside Multiservice Data Manager (MDM) software, you need to install the patches on the server.

Preside MDM patches are jumbo patches that include all previous patches. As a result, only install the most current versions of each of the patches you need. You cannot install multiple versions of the same patch since you must remove the older version of a patch before you can install a newer version.

The following procedure uses a Preside MDM patch as an example. Repeat the procedure for all the patches that you need installed.

Prerequisites

- You must have performed the procedure Installing Preside MDM software from a CD-ROM on page 40 or Installing Preside MDM software release from a downloaded software version on page 43.
- Refer to the software downloads area of Nortel Networks website (*www.nortelnetworks.com*) to determine which patches you need to install. If there are no patches listed for this release, it means that there are no patches currently required for this release.
- See Downloading Preside MDM patches from Nortel Networks website on page 23 to download the required Preside MDM patches.

From the Preside MDM server

1   Login - see Logging into Preside MDM servers on page 81.

2   Display the patches that are currently installed on the system:

   cd /var/sadm/patch

   ls

   Note: This step and the next two steps are not required if you are performing this procedure immediately after a software migration because there are no previously installed patches.

3   If there are any patches for previous releases listed, uninstall them. Uninstall the patches from the highest (numerically) to the lowest.

   patchrm <patch_name>

4   When you are prompted to either reboot, re-initialize the NMS servers, or do nothing, choose to do nothing.

> *Note:* Do not reboot the server at this time. You will reboot the server after completely installing the new patches.

5   Change directories to the *patch151* directory:

cd /patch151

> *Note:* The *patch151* directory was created in step 3 of <u>Downloading Preside MDM patches from Nortel Networks website on page 23</u>. Record the location where you downloaded the patches, if it is not the temporary directory.

6   Display the available patches:

ls

7   Using the software downloads area of Nortel Networks website (*www.nortelnetworks.com*), determine which patches you need to install. There could be up to three patches to install: MDM, MDP, and DVR.

8   Uncompress the first patch that you need:

uncompress <patch_name>.tar.Z

9   Untar the patch:

tar xvf <patch_name>.tar

10   Remove the tar file:

rm -r <swload_name>.tar

11   Change directories to the specific patch subdirectory:

cd /patch151/<patch_name>

12   In that subdirectory, open the README file associated with the patch and follow the instructions to install the patch.

> *Note:* In the README file, ignore the steps that have you uncompress, tar and reboot.

13   Repeat steps 8 through step 12 for each of the patches you need to install.

14   To ensure that all changes have been applied, synchronize the file systems by issuing the sync command three times, pressing Enter after each one:

sync

sync

sync

15   Return the server to service and apply the changes by rebooting it:

init 6

After the reboot, the Preside MDM server should return to service without any problem.

Variable values

Variable	Value
<patch_name>	The name of the patch that you want to remove or install. The patch names have the MDM, MDP, or DVR release number followed by the patch number. For example, MDM151-01.

Confirming successful Preside MDM server installation

After installing Nortel Networks Preside Multiservice Data Manager (MDM) server software and patches, you need to confirm that the installation was successful. Perform the checks found in .

Setting Succession release name identification

To help identify which Succession release the MDM and Multiservice Switch 15000 are running, and help operators determine if these elements are compatible with other elements in the Succession network, the MDM 15.1 toolset allows you to set the Succession release name on the MDM tool launcher and to modify the *commentText* field of the Multiservice Switch 15000 shelf component. (The *commentText* field contains release and load information).

For Multiservice Switch 15000/Media Gateway 15000 in a VoIP network, the Succession release name can be added through the MDM toolset. However, for Multiservice Switch 15000 in Core ATM networks, migration is done through the Succession ATM Software Migration (SASM) tool. The SASM tool uses Network Activation Tool (NAT) with pre-scripts and post-scripts to validate the health of the Multiservice Switch 15000 before and after the migration. The SASM post script prompts the operator performing the migration to enter the Succession release name.

Perform the procedures:

- Setting Succession release name on MDM on page 50
- Setting Succession release name for Multiservice Switch 15000/ Media Gateway 15000 in VoIP on page 53 or,
- Setting Succession release name for Multiservice Switch 15000 in VoA on page 56

Prerequisites

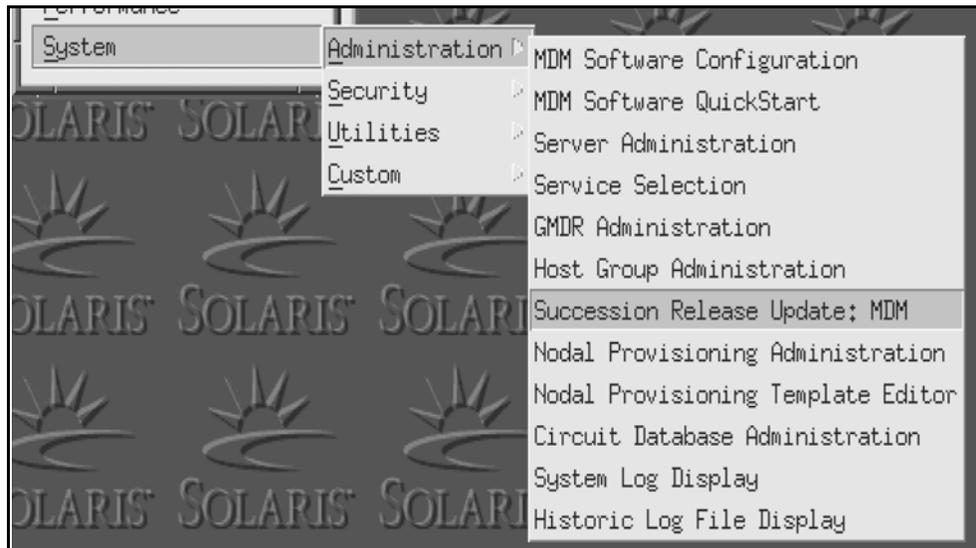- the file /opt/MagellanNMS/cfg/.SuccessionEnabled must exist

Setting Succession release name on MDM

From the Preside MDM server

1   Login - see Logging into Preside MDM servers on page 81.

2   From the Preside MDM window, choose System > Administration > Succession Release Update: MDM.

The Succession MDM Software Migration window opens and displays the current MDM release.

3   Enter the Succession release name using the format: SNxx.y
For example: SN06.2 or SN07.

The Succession MDM Software Migration window opens
displaying the current MDM release.
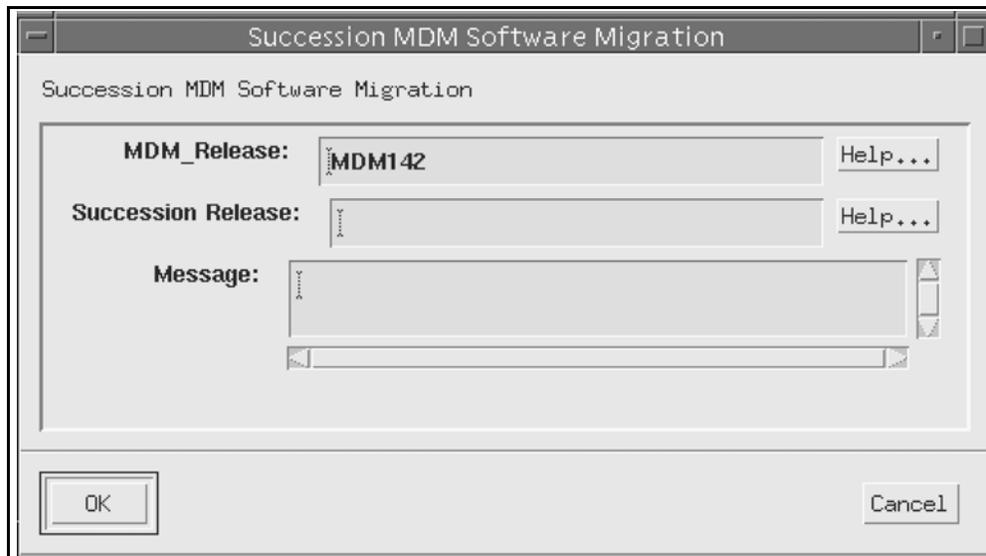
4   Click *OK*.

The file */opt/MagellanNMS/system/info/release.name* is
changed and the MDM toolset icon displays the MDM release
name followed by the Succession release name.

If you click *Cancel,* the process is cancelled and the file opt/MagellanNMS/system/info/release.name is unchanged. If nothing is entered into the Succession release field, the information is removed from the MDM toolset.

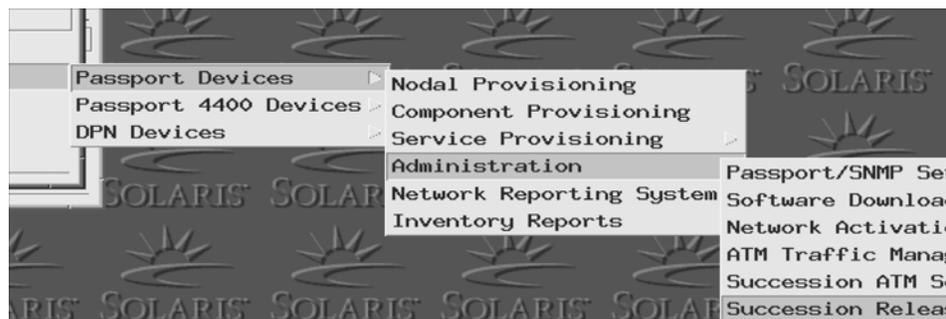**MDM toolset menu after modification**

Setting Succession release name for Multiservice Switch 15000/Media Gateway 15000 in VoIP

The *commentText* field of the Multiservice Switch 15000/Media Gateway 15000 shelf component contains record release and load information. When upgrading nodes in a Succession network, you can change the node *Shelf CommentText* attribute using the MDM toolset, or run the *Set Shelf CommentText* command to change the attribute information. See NN10070-461 *Upgrading Nortel Networks Multiservice Switch 15000 in Succession Networks PT-AAL1/UA-AAL1* for information about the *Set Shelf CommentText* command.

Setting Succession release name for Multiservice Switch 15000/ Media Gateway 15000 in VoIP

From the Preside MDM server

1   Login - see .

2   From the Preside MDM window, choose:

Configuration > Passport > Administration > Succession Release Update: Passport.
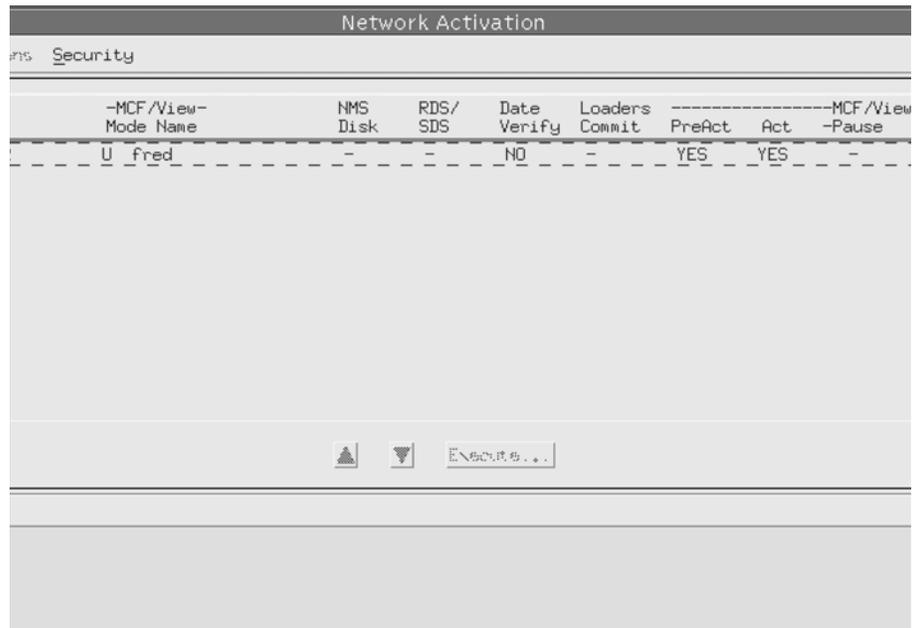

Initial screen for setting the Media Gateway 15000/Media Gateway 15000 shelf display.

3   Select the Multiservice Switch 15000//Media Gateway 15000 element name.

4   Select the View name.

         This is the Multiservice Switch 15000/Media Gateway 15000 element name and View name where the provisioning will be saved.

5   Click *OK*.

   The Network Activation tool (NAT) starts.

6   Enter the group name (or select) a Multiservice
          Switch 15000/Media Gateway 15000 group that has
          configuration privileges.

7   Click *Execute*.

          After you execute the NAT record, you are prompted for the new
          Succession release that will appear in the *Shelf CommentText*
          field.

          Use the format: SNxx.y (for example, SN06.2 or SN07)

          The Succession Shelf comment text change window appears.
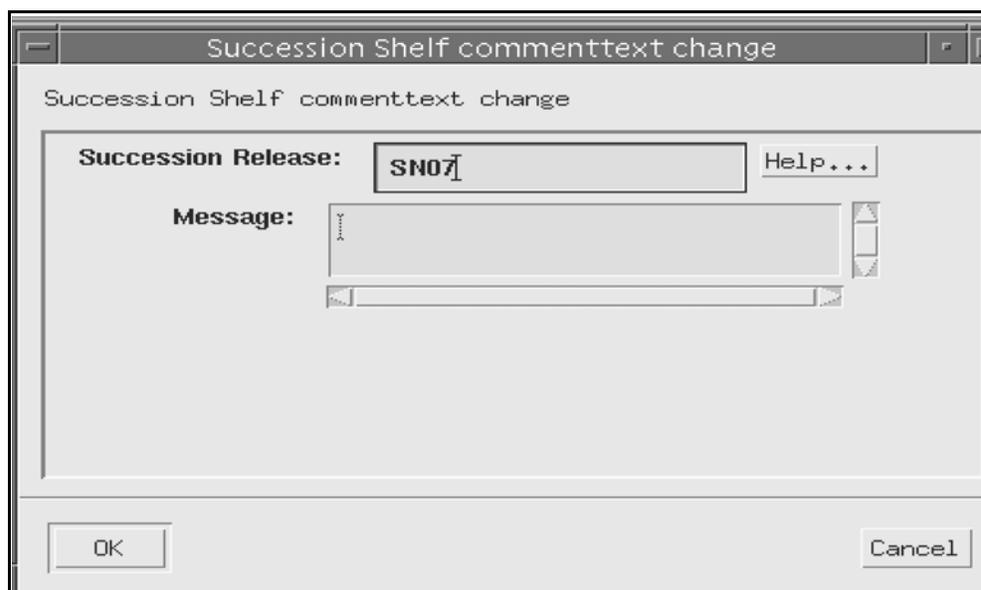
8   Click *OK*.

          The Multiservice Switch 15000/Media Gateway 15000 *Shelf
          CommentText* attribute on the target node is updated with the
          Succession release name being displayed before the rest of the
          information in the *Shelf CommentText* field.

          If you click *Cancel*, the process is cancelled and the *Shelf
          CommentText* attribute remains unchanged.

Setting Succession release name for Multiservice Switch 15000 in VoA

When the SASM tool migrates the Multiservice Switch 15000 in Core ATM network, a customized version of the NAT tool is displayed to the operator running the SASM tool. This version of NAT has Succession pre-scripts and post-scripts to validate the Multiservice Switch 15000 state before and after the migration. When the post-activation script is finished, tool prompts the operator performing the migration to enter the Succession release name.

Prerequisites

- The Multiservice Switch 15000 hitless software migration must have been performed using the Preside SASM tool. See NN10070-461 *Upgrading Nortel Networks Multiservice Switch 15000 in Succession Networks PT-AAL1/UA-AAL1*.

Setting Succession release name for Multiservice Switch 15000 in VoA

From the Preside MDM server

1   The SASM tool post-activation script prompts you for the new Succession release name.
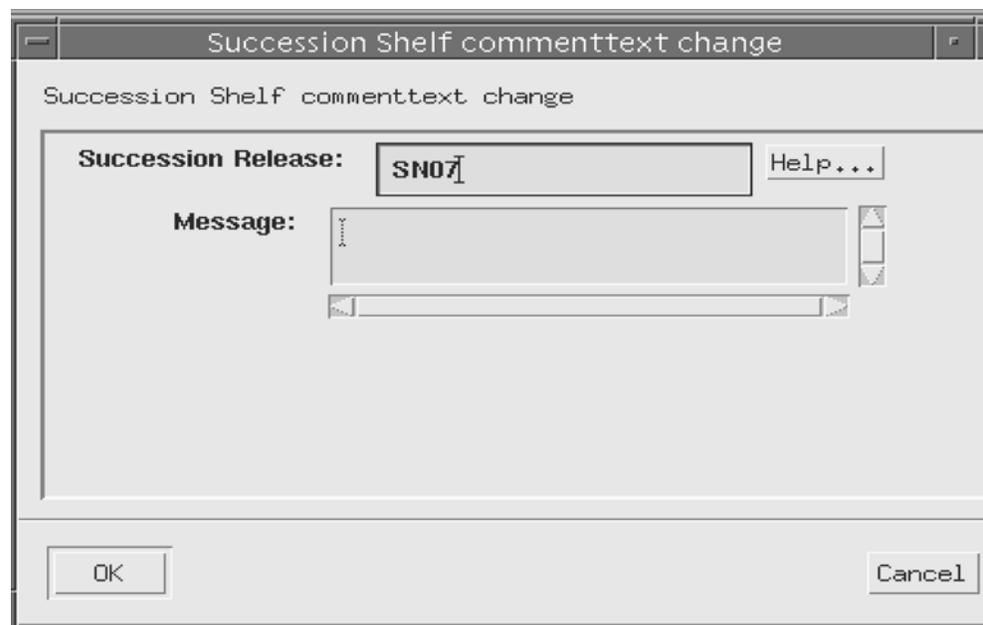
2   Enter the new Succession release name that you want displayed in the *Shelf CommentText* field.

Use the format: SNxx.y (for example, SN06.2 or SN07)

If you click *Cancel*, the process is cancelled and the *Shelf CommentText* attribute remains unchanged.

3   Click *OK*.

A NAT record is created and the NAT window is displayed for a second time since SASM started.

This time it activates the service data (the only change is the *Shelf CommentText*) with no pre- and post-checks.

The Multiservice Switch 15000 *Shelf CommentText* attribute on the target node is updated. The Succession release name is displayed in front of the information in the *Shelf CommentText* field.
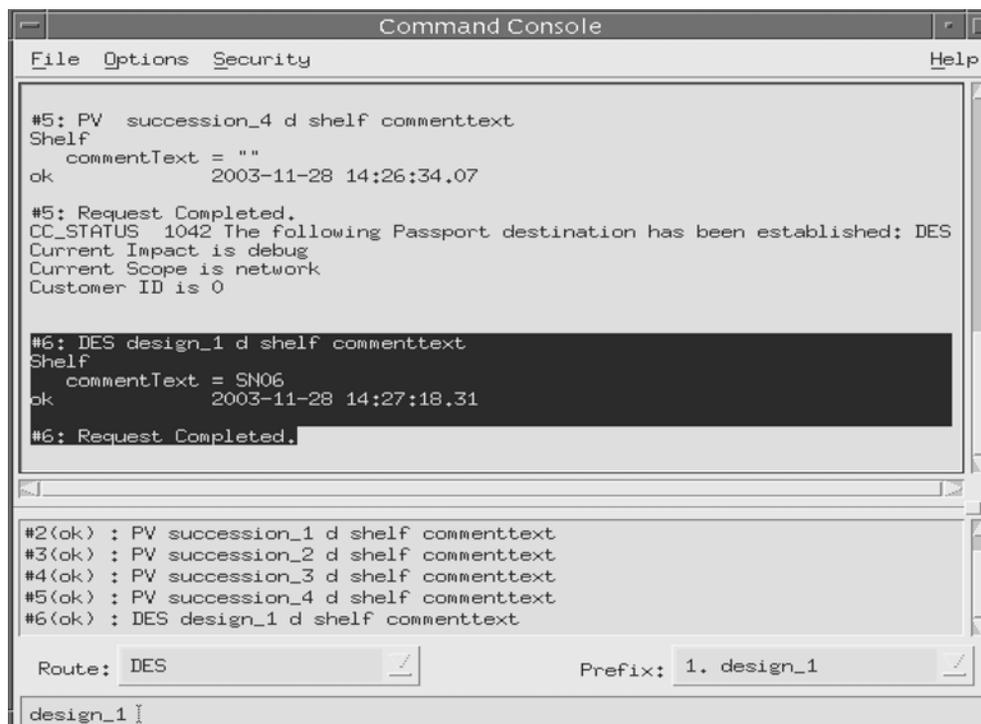
```
┌─────────────────────────────── Command Console ──────────────────────┐
│ File   Options   Security                                      Help   │
├───────────────────────────────────────────────────────────────────┬──┤
│ #5: PV  succession_4 d shelf commenttext                          │▲ │
│ Shelf                                                             │  │
│    commentText = ""                                              │  │
│ ok              2003-11-28 14:26:34.07                          │  │
│                                                                   │  │
│ #5: Request Completed.                                           │  │
│ CC_STATUS  1042 The following Passport destination has been established: DES│
│ Current Impact is debug                                          │  │
│ Current Scope is network                                         │  │
│ Customer ID is 0                                                 │  │
│                                                                   │  │
│ #6: DES design_1 d shelf commenttext                             │  │
│ Shelf                                                             │  │
│    commentText = SN06                                            │  │
│ ok              2003-11-28 14:27:18.31                          │  │
│                                                                   │  │
│ #6: Request Completed.                                           │▼ │
├───────────────────────────────────────────────────────────────────┴──┤
│ #2(ok) : PV succession_1 d shelf commenttext                      │▲ │
│ #3(ok) : PV succession_2 d shelf commenttext                      │  │
│ #4(ok) : PV succession_3 d shelf commenttext                      │  │
│ #5(ok) : PV succession_4 d shelf commenttext                      │  │
│ #6(ok) : DES design_1 d shelf commenttext                         │▼ │
│                                                                   │  │
│   Route:  DES              ⌐|        Prefix:  1. design_1      ⌐| │
│                                                                   │  │
│ design_1 |                                                        │  │
└───────────────────────────────────────────────────────────────────┘
```

Post-migration checks

After completing the software upgrade for Nortel Networks Preside Multiservice Data Manager (MDM) servers, you must verify that the servers are functioning correctly.

Prerequisites

You must have:

- access to a text editor on the terminal connected to the servers so that you can open various files. We recommend using the UNIX VI text editor.

- an advanced knowledge of UNIX and Preside MDM tools and software.

The figure shows you the sequence of procedures you must perform to determine the status of the servers after a migration.

Preside MDM post-migration check task flow

MSS 3521 001 AA
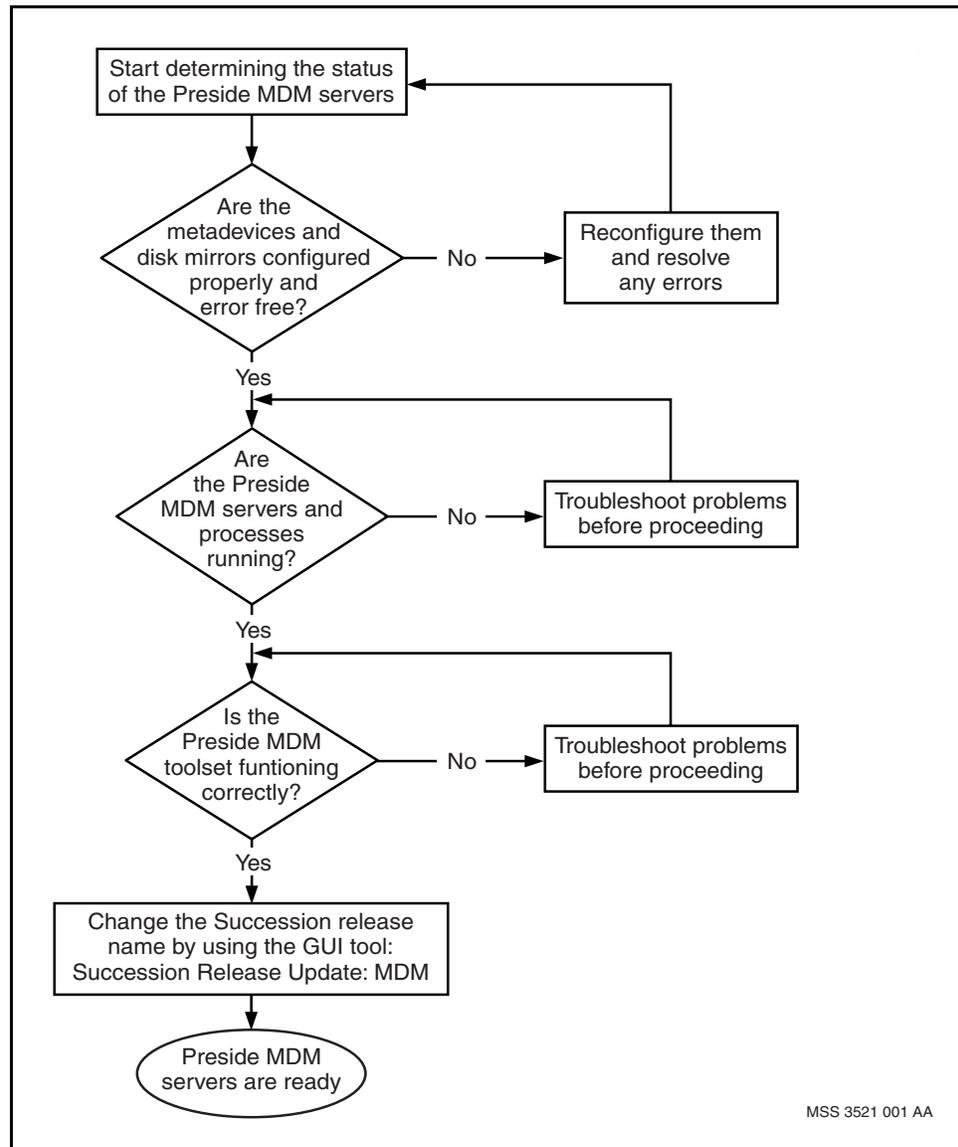
Post-Migration checks

After you have successfully completed the upgrade, perform the following procedures:

- Verifying the status of the metadevices and disk mirroring on page 32

- Verifying that Preside MDM servers and processes are running on page 33

- Verifying that Preside MDM servers and processes are running post-migration on page 61

Verifying that Preside MDM servers and processes are running post-migration

From the Preside MDMserver

1   Login — see <u>Logging into Preside MDM servers on page 81</u>.

2   Open a Preside MDM window — see <u>Opening the Preside MDM window on page 81</u>.

3   From the window, choose Administration > Server Administration.

4   Scan the server list and verify that all of the servers are in a *Running* state.

> *Note:* See the 241-6001-310 *Preside MDM Server Reference Guide* for information on starting a server.

5   To view more detailed information about the server, click on the name of the server whose information you wish to view.

6   From the Edit menu, select *View*.

The server name in the Server Administration dialog indicates the descriptive name assigned to the server.

7   Click *OK* when you have finished with the dialog.

8   Close the Server Administration tool.

9   From the Preside MDM window choose System -> Administration -> GMDR Administration.

> *Note:* For more information, see Using the GMDR Administration tool in the 241-6001-303 *Preside MDM Administrator Guide*.

10   Ensure that there are two FMDR servers for every distinct Succession office, and two IMDR servers (total) listed. Ensure that each server is associated with a different workstation, and that all are in a connected state.

11   Close the GMDR Administration window.

12   If you have migrated from release MDM 14.3 and the MDP servers were installed, use the Server Administration tool to ensure the servers are running.

The servers must be started in the following sequence:

- MDP Disk Manager (mdpdiskmgr)
- MDP File Mover Manager (mdpfmmgr)
- MDP Data Model Manager (mdpdmm)

- MDP Passport File Manager (mdppmgr)
- MDP File Prober Manager (mdpfpmgr)

    Note: Start the Server Administration tool using the "mdpadmin" userid used to start the MDP servers.

If the installation was successful, follow these steps.

From the Preside MDM server

1   If the software was downloaded successfully, remove the software download directory:

rm -r /MDM151

2   Remove the software patch directory:

rm -r /patch151

Activating new features for Preside MDM SN07

Note: Before activating the SN07 features, Nortel Networks Preside Multiservice Data Manager (MDM) Succession features listed in the Preside MDM Succession feature baseline on page 10 must have been activated.

The new Preside MDM SN07 features include:

- MDP Administration enhancements
- Shelf view enhancements
- Server Administration enhancements
- Succession Release Name GUI
- Network Time Protocol (NTP) support

Note: If the upgrade is from release MDM 14.3 to 15.1, the MDP Administration enhancements, Shelf view enhancements, and the Server Administration enhancement features have already been activated and no further activation is required for these features.

After installing Preside MDM software and patches, you must perform some additional configuration to set up:

- MDP Administration enhancements
- Shelf view enhancements
- Network Time Protocol (NTP) support

Before you activate the new features for SN07, ensure you have installed the software and have reviewed the Impact of MDP administration enhancements on page 65.

The following features are activated automatically:

- Server Administration extensions
- Succession Release Name GUI

Activating new features for Preside MDM SN07

Nortel Networks Preside Multiservice Data Manager (MDM) SN07 features can be activated in any order once the upgrade is completed successfully.

- Adding an MDP server using the Server Administration tool on page 67
- Adding the psvagent on page 69
- Removing the Command Console (CC) Agent on page 71

However, you should review the following sections carefully before you re-order a server or change the release number on Preside MDM software or Nortel Networks Multiservice Switch nodes.

- Server Administration enhancements on page 72
- Setting the Succession release number on page 75
- Network Time Protocol (NTP) support on page 73

Activating MDP administration enhancements

To activate the MDP administration enhancements, you must perform the procedure Adding an MDP server using the Server Administration tool on page 67.

Prerequisites:

Before activating the MDP administration enhancements, read the Impact of MDP administration enhancements on page 65 section carefully.

Impact of MDP administration enhancements

When you are using the Server Administration tool to manage the MDP servers, the servers must be started in the following sequence:

- MDP Disk Manager (mdpdiskmgr)
- MDP File Mover Manager (mdpfmmgr)
- MDP Passport Data Model Manager (mdpdmm)
- MDP Passport File Manager (mdppmgr)
- MDP File Prober Manager (mdpfpmgr)

While some servers do not have any server dependencies, others do (mostly to manage file acquisition from Multiservice Switch nodes and to handle disk cleanup so that the work station does not run out of file space).

The following servers have no inter-dependencies:

- MDP Disk Manager (mdpdiskmgr)
- MDP File Mover Manager (mdpfmmgr)
- MDP Passport Data Model Manager (mdpdmm)

The MDP Passport File Manager (mdpdmm) has the following dependencies:

- requires mdpfpmgr to acquire node data
- mdpdiskmgr to manage disk space
- mdpfmmgr to transfer files to OSS

The MDP File Prober Manager (mdpfpmgr) requires:

- mdpdmm
- HGDS

- mdpppmgr for conversion of node files from FMIP to BDF

- mdpfmmgr to transfer files to OSS

> **CAUTION**
> **Ensure the HGDS and the MDP Data Model Manager are running before you start the MDP File Prober Manager.**
> The HGDS and the mdpdmm must be running before the mdpfpmgr server is started.

Other factors that may impact MDP configuration files depend on the individual customer deployment. Any configuration information that was configured in special files must be ported to HGDS before the MDP servers are started. See *Preside Multiservice Data Manager Release 15.1 Supplement* for more details on migrating configuration files.

After the MDP servers are started, HGDS is used by MDP to connect to Nortel Networks Multiservice Switch nodes.

Adding an MDP server using the Server Administration tool

Use the following procedure to add an MDP server using the Server Administration tool.

Adding an MDP server

From the Preside MDM server

1 Login to the server using the "mdpadmin" user ID used to start the MDP servers. See Logging into Preside MDM servers on page 81.

2 Open a Preside MDM window:

   /opt/MagellanNMS/bin/nmstool &

3 Click *OK* to close the copyright dialog.

4 From the Preside MDM window System menu, select Administration > Server Administration.

5 From the Security menu, select *Authorize*.

6 Enter the password in the SVM Enter Authorization Password dialog.

7 From the Edit menu, select *New server*.

8 From the SVM New Server Selection list, open the Accounting/Data Collection folder.

9 Select the MDP Disk Manager (mdpdiskmgr) from the list and click *Select server.*

   In the SVM New Server dialog, ensure that "Automatic startup at reboot time" is selected.

10 Click OK and save the new server setting.

11 Repeat steps 9 and 10 from the Accounting/Data Collection folder for the remaining servers:

   • MDP File Mover Manager (mdpfmmgr)

   • MDP Passport Data Model Manager (mdpdmm)

   • MDP Passport File Manager (mdppmgr)

   • MDP File Prober Manager (mdpfpmgr)

   Note: The order in which you add a new server is important.

12 In the SVM New Server Selection tool, click *Close*.

13 From the Server Administration tool start all the servers in the following order:

- MDP Disk Manager (mdpdiskmgr)
- MDP File Mover Manager (mdpfmmgr)
- MDP Passport Data Model Manager (mdpdmm)
- MDP Passport File Manager (mdppmgr)
- MDP File Prober Manager (mdpfpmgr)

  by right-clicking and selecting *Start.*

14 Close the Server Administration tool.

Variable values

Variable	Value
<svadm password>	The password for Server Administration authorization.

Activating shelf view enhancements

To activate the shelf view enhancements, perform the procedures:

Adding the psvagent

Use the following procedure to add the View Shelf agent (psvagent) to the Server Administration tool.

From the Preside MDM server

1   Login — see Logging into Preside MDM servers on page 81.

2   Open a Preside MDM server window:
        /opt/MagellanNMS/bin/nmstool &

3   Click *OK* to close the copyright dialog.

4   From the Preside MDM window System menu, select Server Administration.

5   View the list of servers and verify that the Shelf View Agent is present and running.

> *Note:* In release MDM 15.1 the name of the server has changed to Fault Dev Access Agent.

6   If the Shelf View Agent is not running, go to the Security menu, and select *Authorize*.

7   Enter the password in the SVM Enter Authorization Password dialog, and click *OK.*

8   From the Edit menu, select *New Server*.

        The SVM New Server Selection dialog opens.

9   From the SVM New Server Selection list, select and open the Fault folder.

10   Select the View Shelf agent (psvagent) from the list and click *Select server.*

        In the SVM New Server dialog, ensure that "Automatic startup at reboot time" is selected.

11   Click OK and save the new server setting.

12   Verify that the server appears in the Server Administration tool and that the server is running.

Variable values

Variable	Value
<svadm password>	The password for Server Administration authorization.

Removing the Command Console (CC) Agent

Adding the Shelf View agent to the server administration makes the CC agent redundant. If applicable, remove the CC agent by performing the following procedure.

Prerequisites

Perform Adding the psvagent on page 69 before you remove the CC agent.

From the Preside MDM server

1   Login — see Logging into Preside MDM servers on page 81.

2   Open a Preside MDM window:
       /opt/MagellanNMS/bin/nmstool &

3   Click *OK* to close the copyright dialog.

4   From the Preside MDM window System menu, select Administration > Server Administration.

5   View the list of servers and determine if the CC agent is present.

6   If the CC agent is present, go to the Security menu, and select *Authorize*.

7   Enter the password in the SVM Enter Authorization Password dialog, and click *OK.*

8   Select the server from the list.

9   From the Edit menu, select **Remove Server**.

10   Click *OK* in the SVM New Server Selection dialog.

11   Verify that the server is no longer present in the Server Administration tool.

Server Administration enhancements

The Server Administration (SVM) tool enhancements simplify Nortel Networks Preside Multiservice Data Manager (MDM) server administration and configuration by allowing users to add or delete servers from a server list and providing context-sensitive help on the servers. Servers can be re-ordered in the list.

> **CAUTION**
> **Use caution when re-ordering a server sequence.**
> Only an expert Preside MDM administrator should re-order servers. Consult 241-6001-310 *Preside MDM Server Reference Guide.*

The SVM tool enhancements also provides a launch point for configuration editors associated with servers.

Network Time Protocol (NTP) support

Network Time Synchronization (NTS) refers to the synchronization of the time-of-day on Preside MDM servers and Multiservice Switch 15000 switches. Use the NTP software supplied with Solaris as part of the SUNWnptr and SUNWnptu packages to perform Network Time Synchronization.

The executable is located in */etc/init.d/xntpd*. The configuration for the process is defined in */etc/init/ntp.conf*. The process is automatically started at reboot by */etc/rc2.d/S74xntpd* if the file */etc/inet/ntp.conf* exists.

Network Time Protocol (NTP) protocol

From the MDM

1   Login — see .

2   Copy the file ntp.server to ntp.conf:

      cp/etc/inet/ntp.server /etc/inet/ntp.conf

3   Edit the ntp.conf file to set a particular server as the timing reference:

    a   Locate the line that begins with "server 127.127". Change it to: **server <IP address> prefer**

       For example, where the IP address is 127.127.1.1, as follows: server 127.127.1.1 prefer

    b   Add references to any other servers the MDM can obtain time synchronization information from. In Succession, this is usually the higher level element manager.

    c   The Preside MDM server can be in a peer relationship, also known as a server set, with another MDM server. In that case, the ntp.conf file must exist on each of the MDM servers. Each ntp.conf file must specify the IP addresses of both MDM servers. Use the syntax:

```
peer <ip address of MDM server 1>
peer <ip address of MDM server 2>
```

4   Use the comment character (#), to comment out the line that begins with "fudge 127.127".

5   Use the comment character (#), to comment out the line that begins with "broadcast".

6   Use the comment character (#), to comment out the lines that contain the encryption keys.

If you do not comment out these key lines, the default value of 0 allows anyone to access the workspace and set the clock.

7 Save the file.

Example ntp.conf file:

```
server <ip address of clocking source> prefer
peer <ip address of MDM server 1>
peer <ip address of MDM server 2>
driftfile /var/ntp/ntp.drift
#fudge 127.127.XType.0 stratum 0
#broadcast 224.0.1.1 ttl 4
#trustedkey 0
#requestkey 0
#controlkey 0
```

8 Set up the drift file.

The drift file contains the oscillator frequency offset of the clocking source. If you know the oscillator frequency, enter it in this file. Otherwise, enter 0, and the XNTP daemon determines it automatically. It just takes a little longer for the time to stabilize to a consistent value.

a Edit the drift file: **/etc/inet/ntp.drift** (this step is optional)

b Enter the value of the oscillator frequency offset, if you know it. Otherwise, enter 0.

c Save the file.

9 Set up permissions for the configuration and drift files.

a Change the privileges to npt.conf, ntp.drift to 500 with an owner of root.

b Change the owner of both the files to root.

10 Start the server or XNTP daemon: **/etc/init.d/xntpd start**

Note: The command "ntpq" allows you to query the ntpd configuration and its status. See Sun documentation for more information.

For more information on how Network Time Synchronization system is configured, see the NN10225-512 *Nortel Networks Multiservice Switch 15000 and Media Gateway 15000 in Succession Networks Configuration Attribute Summary PT-AAL1/UA-AAL1/UA-IP*.

Setting the Succession release number

This feature adds two utilities to the Nortel Networks Preside Multiservice Data Manager (MDM) toolset that allows operators to set the Succession release name in the Preside MDM tool launcher window, and the *CommentText* attribute of the Multiservice Switch node.

See the .

Preside MDM rollback

Nortel Networks Preside MDM SN07 can manage either a SN06 or SN06.2 Multiservice Switch ATM core network, but you may decide that you need to back out your current Preside MDM software version.

Note: For full details about performing a rollback, refer to "Managing MDM Software," in 241-6001-100 *Preside MDM Installation*.

A rollback of Preside MDM software involves the following:

| Required for rollback from release MDM 15.1 to:	MDM 14.2	MDM14.3
Rollback the Preside MDM software (see 241-6001-100 *Preside MDM Installation* for instructions on how to install the MDM software).	Yes	Yes
Rollback the MDP software.	Yes	Yes
Reset Succession release name on Preside MDM and Multiservice Switch node.	Yes	Yes

Perform the following tasks before you roll back Preside MDM software to a previous version:

- Verify that the Nortel Networks Multiservice Switch ATM core network has been rolled back if necessary.

- Ensure that the backup Preside MDM server is working by performing the steps in .

Preside MDM server rollback task flow

The figure shows you the sequence of procedures you must perform to rollback one Preside MDM server. Repeat the sequence of procedures to rollback the second server. To link to any procedure, go to the list that follows the task flow chart.

Preside MDM rollback task flow chart
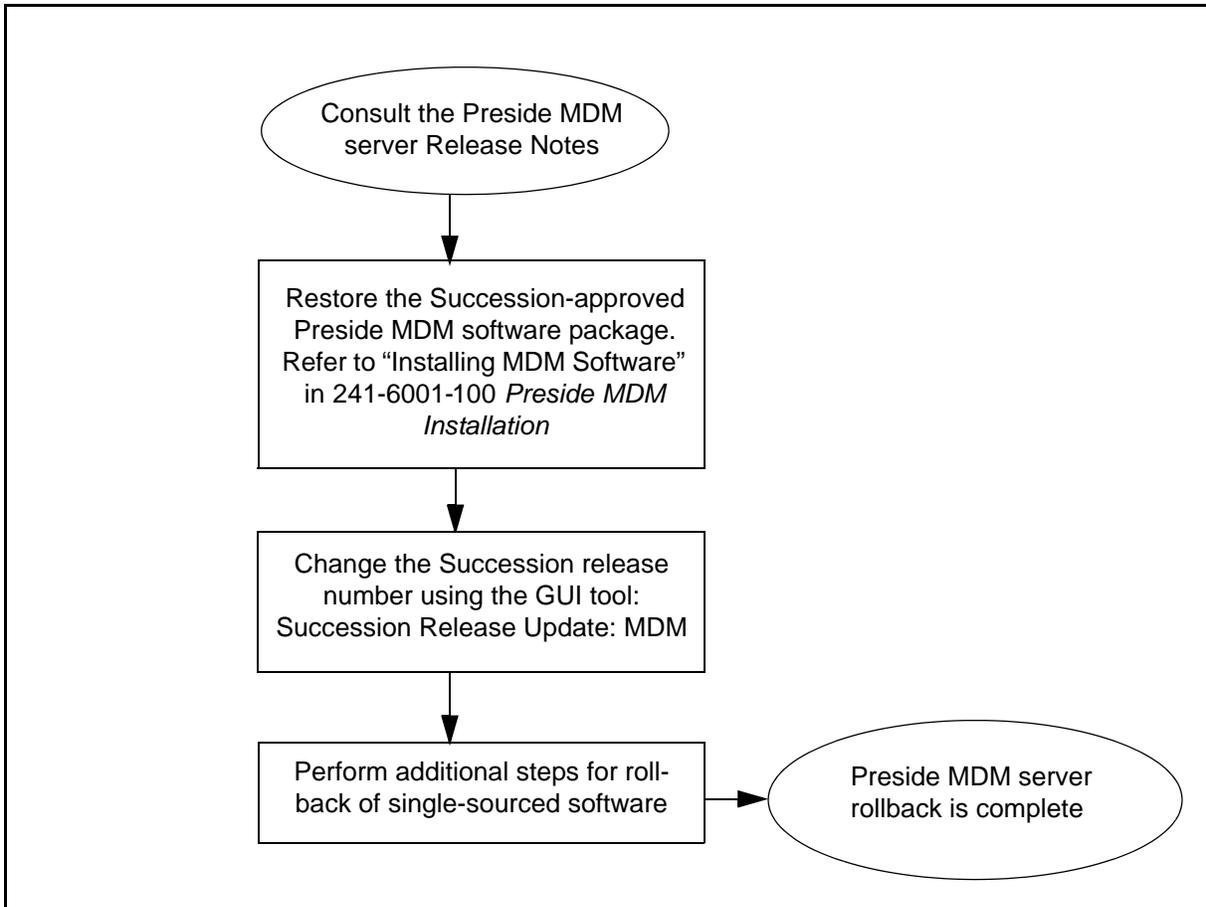
Rollback task flow

-
-

Rollback from SN07 to SN06 or SN06.2 Preside MDM

To roll back Preside MDM software from SN07 to SN06 or SN06.2, you must uninstall the MDM software using the MDM Installer. For more information, refer to "Managing MDM Software," in 241-6001-100 *Preside MDM Installation*.

Note: The 241-6001-100 *Preside MDM Installation* documents rollbacks from MDM 15.1 to MDM 14.3 software, but the instructions apply for rollbacks from MDM 15.1 to MDM 14.2 software as well.

Setting the Succession release number

Operators must change the Succession release number reported by Nortel Networks Preside MDM and Multiservice Switch nodes to correctly reflect the release after a rollback has been successfully completed.

From the Preside MDMserver

1   Login as the root user.

2   Change directory to:

cd /optMagellanNMS/system/info/release.name

3   Change the Succession release name by editing the release name file.

The release.name file contains the MDM release name in the form of R*<release>*, for example: "R15.1 SN07".

Appendix A - Preside MDM access procedures

These procedures describe how to log into Nortel Networks Preside Multiservice Data Manager (MDM) servers and open the toolset menu.

Logging into Preside MDM servers

The Network Activation tool (NAT) starts.

To login to a Preside MDM server, perform the following steps.

From the Preside MDM server

1 Login as the root user.

2 Enter the root password when prompted.

Opening the Preside MDM window

Open a Preside Multiservice Data Manager (MDM) window before beginning the upgrade process.

From the Preside MDM server

1 If the window does not automatically open at login, open the window with the following command:

/opt/MagellanNMS/bin/nmstool &

The copyright dialog opens, followed by the Preside MDM window. Click *OK* to close the copyright dialog.