Nortel

Optical Metro 5100/5200

Commissioning Procedures

Standard   Release 8.0   Issue 1   April 2005

What's inside...

Installing the System Manager
Preparing a shelf for commissioning
Commissioning a shelf
Commissioning the Enhanced Trunk Switch
Configuring a remote connection to the System Manager

N❂RTEL

Contents

Commissioning the Enhanced Trunk Switch   4-1

Configuring a remote connection to the System Manager   5-1

About this document

This document provides procedures for commissioning the Nortel Optical Metro 5100/5200 product.

This document contains the following information:

- installing the System Manager
- preparing a shelf for commissioning
- commissioning a shelf
- configuring a remote connection to the System Manager

Audience for this document

This document is intended for the following audience:

- strategic and current planners
- provisioners
- installers
- transmission standards engineers
- field maintenance engineers
- system line-up and testing (SLAT) personnel
- maintenance technicians
- network administrators

Optical Metro 5100/5200 library

The Optical Metro 5100/5200 library consists of the *Nortel Optical Metro 5100/5200 Technical Publications*, NT0H65AM.

Technical Publications

The *Optical Metro 5100/5200 Nortel Technical Publications* (NTP) consist of descriptive information and procedures.

Descriptive information
These NTPs provide detailed descriptive information about the Optical Metro 5100/5200, including system software and hardware descriptions, technical specifications, ordering information, and TL1 user information.

Procedures
These NTPs contain all procedures required to install, provision, and maintain the Optical Metro 5100/5200.

The following roadmap lists the documents in the Optical Metro 5100/5200 library.

OM2805p

Planning a Network

About the NTP Library
(323-1701-090)

Network Planning and Link Engineering Part 1
(323-1701-110)

Network Planning and Link Engineering Part 2
(323-1701-110)

Network Planning and Link Engineering Part 3
(323-1701-110)

Software and User Interface
(323-1701-101)

Hardware Description Part 1
(323-1701-102)

Hardware Description Part 2
(323-1701-102)

Technical Specifications
(323-1701-180)

Installing, Commissioning and Testing a Network

Installing Optical Metro 5200 Shelves and Components, Part 1
(323-1701-201)

Installing Optical Metro 5200 Shelves and Components, Part 2
(323-1701-201)

Installing Optical Metro 5100 Shelves and Components, Part 1
(323-1701-210)

Installing Optical Metro 5100 Shelves and Components, Part 2
(323-1701-210)

Commissioning Procedures
(323-1701-220)

Connection Procedures Part 1
(323-1701-221)

Connection Procedures Part 2
(323-1701-221)

Testing and Equalization Procedures
(323-1701-222)

Managing, Provisioning and Testing a Network

Provisioning and Operating Procedures Part 1
(323-1701-310)

Provisioning and Operating Procedures Part 2
(323-1701-310)

Customer Acceptance Testing Procedures
(323-1701-330)

TL1 Interface, Part 1
(323-1701-190)

TL1 Interface, Part 2
(323-1701-190)

TL1 Interface, Part 3
(323-1701-190)

TL1 Interface, Part 4
(323-1701-190)

Maintaining and Troubleshooting a Network

Trouble Clearing and Alarm Reference Guide, Part 1
(323-1701-542)

Trouble Clearing and Alarm Reference Guide, Part 2
(323-1701-542)

Trouble Clearing and Alarm Reference Guide, Part 3
(323-1701-542)

Trouble Clearing and Alarm Reference Guide, Part 4
(323-1701-542)

Maintenance and Replacement Procedures
(323-1701-546)

Technical assistance service telephone numbers

For technical support and information from Nortel Networks, refer to the following table.

Technical Assistance Service	
For service-affecting problems: For 24-hour emergency recovery or software upgrade support, that is, for: • restoration of service for equipment that has been carrying traffic and is out of service • issues that prevent traffic protection switching • issues that prevent completion of software upgrades	**North America:** 1-800-4NORTEL (1-800-466-7835) **International:** 001-919-992-8300
For non-service-affecting problems: For 24-hour support on issues requiring immediate support or for 14-hour support (8 a.m. to 10 p.m. EST) on upgrade notification and non-urgent issues.	**North America:** 1-800-4NORTEL (1-800-466-7835) *Note:* You require an express routing code (ERC). To determine the ERC, see our corporate Web site at www.nortel.com. Click on the Express Routing Codes link. **International:** Varies according to country. For a list of telephone numbers, see our corporate Web site at www.nortel.com. Click on the Contact Us link.
Global software upgrade support:	**North America:** 1-800-4NORTEL (1-800-466-7835) **International:** Varies according to country. For a list of telephone numbers, see our corporate Web site at www.nortel.com. Click on the Contact Us link.

Installing the System Manager

Use the procedures in this chapter to install the Optical Metro 5100/5200 System Manager and supporting applications.

Software and documentation CD

The software and documentation are ordered as Release 8.0 software delivery kit (NT0H60NA) that includes two CDs: one for installations from a Solaris platform and one for installations from a Windows platform. Each CD contains the following:

- Optical Metro 5100/5200 System Manager files
- Optical Metro 5100/5200 network element software library
- Optical Metro 5100/5200 technical documentation

  Note: You can also download Optical Metro 5100/5200 documentation at any time from the Nortel Networks Customer Support Web site.

- Acrobat Reader 5.05 (for Windows only) or Acrobat Reader 4.0 (for Solaris only)

  — Use this application to view Optical Metro 5100/5200 documentation.

- Web browsers that you use to host the System Manager, and the required Java Plug-ins

  — Microsoft Internet Explorer 6.0 and Java Plug-in 1.4.1_05
  (For Windows only)

    or

  — Netscape Communicator 4.76 and Java Plug-in 1.4.1_05
  (For Solaris only)

  — Netscape Communicator 4.76 and Java Plug-in 1.4.1_05
  (For Windows only)

Before you begin

Before you begin the procedures in this chapter:

- complete the installation procedures in *Installing Optical Metro 5200 Shelves and Components,* 323-1701-201, or *Installing Optical Metro 5100 Shelves and Components*, 323-1701-210.

- make sure that the System Manager computer meets the minimum requirements. Refer to *Technical Specifications*, 323-1701-180, for information.

Most of the procedures in this chapter need only be performed once. The only procedures you will regularly perform are Procedure 1-8 "Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)" and Procedure 1-9 "Connecting locally to a commissioned GNE shelf using Ethernet port 1 and configuring a static IP address (Windows 2000/NT/XP)".

Requirements

Table 1-1 lists the tools and materials required to complete the System Manager installation procedures.

Table 1-1
Tools and materials required to install the System Manager

Item	Quantity	Supplied
Release 8.0 software delivery kit (NT0H60NA)	1	yes
Straight-through Ethernet cable ***Note:*** This item is only required if you are connecting the System Manager computer locally to a shelf. You can only connect locally if the System Manager computer runs on Windows 2000/NT/XP.	1	no

Sequence for setting up the first System Manager session

Table 1-2 lists the tasks and corresponding procedures to set up the first System Manager session.

Table 1-2
Setting up the first System Manager session

Task	Follow these procedures as applicable	In
Install the System Manager software on the computer from which you will launch System Manager	• Procedure 1-1 "Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)" • Procedure 1-2 "Transferring software from the CD to the System Manager computer (Solaris)"	this book
Configure the Ethernet connection on the System Manager computer	• Procedure 1-3 "Configuring an Ethernet connection (Windows 2000/NT/XP)"	this book
Configure the Web browser on the System Manager computer	• Procedure 1-4 "Configuring Internet Explorer (Windows 2000/NT/XP)" • Procedure 1-5 "Configuring Netscape Communicator (Windows 2000/NT or Solaris)" • Procedure 1-6 "Setting Netscape environment variables in Solaris" • Procedure 1-7 "Configuring 64 Mbytes of memory for the Java Plug-In for Solaris"	this book
Connect to an uncommissioned shelf	• Procedure 3-1 "Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)"	this book
Connect remotely to a commissioned shelf through a LAN	• Procedure 1-1 "Logging into the network"	*Provisioning and Operating Procedures,* 323-1701-310
Connect locally to a commissioned shelf using Ethernet port 1 or port 2	• Procedure 1-8 "Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)"	this book
Connect locally to a commissioned GNE shelf using Ethernet port 1	• Procedure 1-9 "Connecting locally to a commissioned GNE shelf using Ethernet port 1 and configuring a static IP address (Windows 2000/NT/XP)"	this book

Procedure list

Table 1-3 lists the procedures in this chapter.

Table 1-3
System Manager installation procedures

Procedure	Page	Comments
1-1 Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)	1-6	Required (once) to transfer the following from the Release 8.0 software delivery kit (NT0H60NA) CD to a Windows 2000/NT/XP computer. • Optical Metro 5100/5200 System Manager files • Optical Metro 5100/5200 network element software library • Optical Metro 5100/5200 technical documentation • Supporting applications (for example, Adobe Acrobat, Java Plug-in).
1-2 Transferring software from the CD to the System Manager computer (Solaris)	1-19	Required (once) to transfer the following from the Release 8.0 software delivery kit (NT0H60NA) CD to a Solaris computer. • Optical Metro 5100/5200 System Manager files • Optical Metro 5100/5200 network element software library • Optical Metro 5100/5200 technical documentation • Supporting applications (for example, Adobe Acrobat, Java Plug-in)
1-3 Configuring an Ethernet connection (Windows 2000/NT/XP)	1-21	Required (once) to configure the System Manager computer (running Windows 2000/NT/XP) for an Ethernet connection to the Optical Metro 5100/5200 shelf.
1-4 Configuring Internet Explorer (Windows 2000/NT/XP)	1-24	Required (once) to configure the Internet Explorer 5.5 or Internet Explorer 6.0 Web browser for the System Manager on Windows 2000/NT/XP.
1-5 Configuring Netscape Communicator (Windows 2000/NT or Solaris)	1-26	Required (once) to configure the Netscape Communicator 4.76 Web browser for the System Manager on Windows 2000/NT or Solaris.
1-6 Setting Netscape environment variables in Solaris	1-27	Required (once) to set the Netscape Communicator environment variables for the Java Plug-in 1.4.1_05 in the Solaris 8 operating systems.

Table 1-3 (continued)
System Manager installation procedures

Procedure	Page	Comments
1-7 Configuring 64 Mbytes of memory for the Java Plug-In for Solaris	1-29	Required (once) to configure Netscape Communicator to allocate 64 Mbytes of memory for the Java Plug-in 1.4.1_05.
1-8 Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)	1-31	Required each time you are connecting the System Manager computer locally to a commissioned shelf using Ethernet port 1 or port 2. You can only connect locally if the System Manager computer runs on Windows 2000/NT/XP. This procedure allows the shelf to communicate with the System Manager computer.
1-9 Connecting locally to a commissioned GNE shelf using Ethernet port 1 and configuring a static IP address (Windows 2000/NT/XP)	1-39	Required each time you are connecting the System Manager computer locally to a GNE shelf using Ethernet port 1. You can only connect locally if the System Manager computer runs on Windows 2000/NT/XP. This procedure allows the shelf to communicate with the System Manager computer.

Procedure 1-1
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Follow this procedure to transfer the following from the Release 8.0 software delivery kit (NT0H60NA) Windows installation CD to a Windows 2000/NT/XP computer.

• Optical Metro 5100/5200 System Manager files

• Optical Metro 5100/5200 network element software library

• Optical Metro 5100/5200 technical documentation

• supporting applications (for example, Adobe Acrobat, Java Plug-in)

Requirements

Table 1-4 lists the materials required to install the Optical Metro 5100/5200 software and supporting applications.

Table 1-4
Tools and materials required

Item	Quantity	Supplied
Release 8.0 software delivery kit (NT0H60NA)	1	yes

If your PC runs Windows NT, Windows 2000 or Windows XP, you must use an administrator user ID and password to log into the PC when you perform this procedure.

Ensure that your Windows 2000/NT/XP computer meets the minimum requirements (refer to *Technical Specifications*, 323-1701-180, for requirement details). If you do not have the required Web browser on your computer, the Release 8.0 software delivery kit (NT0H60NA) CD includes Internet Explorer 6.0 and Netscape Communicator 4.76 installation programs. See the Readme file included on the CD for instructions on how to install these applications.

Precautions

Nortel Networks recommends that you save files to the default directories during installation.

—continued—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Expected results

When you complete this procedure

- the Optical Metro 5100/5200 System Manager files, and one of the required Web browsers are installed on the System Manager computer

- the required Java Plug-in is installed on the System Manager computer

Action

Step	Action
1	Close all other applications before you install the Optical Metro 5100/5200 software.

Uninstalling the Java plug-in

2	**If** your PC uses	**Then** go to
	Windows 2000	step 28
	Windows XP	step 45
	Windows NT	step 3

3	On the desktop of the PC:
	• click on the **Start** button
	• click on **Settings**
	• click on **Control Panel**
	The Control Panel window opens.
4	In the Control Panel window, double-click on **Add/Remove Programs**.
	The Add/Remove Programs Properties dialog opens.
5	In the Add/Remove Programs Properties dialog, scroll through the list of software and locate any Java 2 Runtime Environment application.

6	**If** you have	**Then** go to
	located a Java 2 Runtime Environment, SE v1.4.1_05 application and no other Java 2 Runtime Environment application	step 25
	located a Java 2 Runtime Environment, SE v1.4.1_05 application and another Java 2 Runtime Environment application	step 7
	located a Java 2 Runtime Environment application and it is not Java 2 Runtime Environment, SE v1.4.1_05	step 15
	not located any Java 2 Runtime Environment application	step 25

—continued—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action
7	In the Add/Remove Programs Properties dialog: • select the **Java 2 Runtime Environment, SE v1.4.1_05** application • click on the **Add/Remove** button *A confirmation dialog opens.*

> ### ATTENTION
> At step 8 the system can prompt you with a message indicating that some files may be used by another application. If so, do not delete these files.

Step	Action
8	In the confirmation dialog, click on the **OK** button. *A dialog opens.*
9	Click on the **OK** button. *The system deletes the Java Plug-in files from your computer. A dialog can open, which indicates that you must restart your computer to complete the uninstall.*

10	**If** at step 8	**Then** go to
	the dialog opens	step 11
	the dialog does not open	step 12

Step	Action
11	In the dialog: • click on the **Yes, I want to restart my computer now** button • click on the **Finish** button *The dialog closes.*
12	Wait for the restart to complete, then go to step 3.
13	In the Add/Remove Programs Properties dialog, click on the **OK** button. *The Add/Remove Programs Properties dialog closes.*
14	Go to step 4.
15	In the Add/Remove Programs Properties dialog: • select the **Java 2 Runtime Environment** application • click on the **Add/Remove** button *A confirmation dialog opens.*

> ### ATTENTION
> At step 16 the system can prompt you with a message indicating that some files may be used by another application. If so, do not delete these files.

—continued—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action
16	In the confirmation dialog, click on the **Yes** button.
	The Remove Programs From Your Computer dialog opens. The system deletes the Java Plug-in files from your computer.
17	In the Remove Programs From Your Computer dialog, click on the **OK** button.
	A dialog can open to recommend that you restart your PC.

18	**If** at step 17	**Then** go to
	the dialog opens	step 19
	the dialog does not open	step 23

Step	Action
19	In the dialog, click on the **OK** button.
	The dialog closes.
20	In the Add/Remove Programs Properties dialog, click on the **OK** button.
	The Add/Remove Programs Properties dialog closes.
21	Restart your PC.
22	Wait for the restart to complete, then go to step 3.
23	In the Add/Remove Programs Properties dialog, click on the **OK** button.
	The Add/Remove Programs Properties dialog closes.
24	Go to step 4.
25	In the Add/Remove Programs Properties dialog, click on the **OK** button.
	The Add/Remove Programs Properties dialog closes.
26	Close the Control Panel window.
27	Go to step 68.
28	On the desktop of the PC:
	• click on the **Start** button
	• click on **Settings**
	• click on **Control Panel**
	• click on **Add/Remove Programs**
	The Add/Remove Programs dialog opens.
29	In the Add/Remove Programs dialog scroll through the list of software and locate any **Java 2 Runtime Environment** application.

—**continued**—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action	
30	**If** you have	**Then** go to
	located a Java 2 Runtime Environment, SE v1.4.1_05 application and no other Java 2 Runtime Environment application	step 43
	located a Java 2 Runtime Environment, SE v1.4.1_05 application and another Java 2 Runtime Environment application	step 31
	located a Java 2 Runtime Environment application and it is not Java 2 Runtime Environment, SE v1.4.1_05	step 36
	not located any Java 2 Runtime Environment application	step 43

31 In the Add/Remove Programs dialog:

- select the **Java 2 Runtime Environment, SE v1.4.1_05** application

- click on the **Change/Remove** button

A confirmation dialog opens.

ATTENTION

At step 32 the system can prompt you with a message indicating that some files may be used by another application. If so, do not delete these files.

---

32 In the confirmation dialog, click on the **OK** button.

The InstallShield Wizard dialog opens. The system deletes the Java Plug-in files from your computer. A dialog can open which indicates that you must restart your computer to complete the uninstall.

33	**If** at step 32	**Then** go to
	the dialog opens	step 34
	the dialog does not open	step 29

34 In the dialog:

- click on the **Yes, I want to restart my computer now** button

- click on the **Finish** button

The dialog closes.

35 Wait for the restart to complete, then go to step 28.

—continued—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action
36	In the Add/Remove Programs dialog:

- select the **Java 2 Runtime Environment** application
- click on the **Change/Remove** button

A confirmation dialog opens.

ATTENTION

At step 37 the system can prompt you with a message indicating that some files may be used by another application. If so, do not delete these files.

Step	Action
37	In the confirmation dialog, click on the **Yes** button.

The Remove Programs From Your Computer dialog opens. The system deletes the Java Plug-in files from your computer.

| 38 | In the Remove Programs From Your Computer dialog, click on the **OK** button. |

A dialog can open to recommend that you restart your PC.

39	**If** at step 38	**Then** go to
	the dialog opens	step 40
	the dialog does not open	step 29

| 40 | In the dialog, click on the **OK** button. |

The dialog closes.

41	Restart your PC.
42	Wait for the restart to complete, then go to step 28.
43	Close the Add/Remove Programs dialog.
44	Go to step 68.
45	On the desktop of the PC:

- click on the **Start** button
- click on **Settings**
- click on **Control Panel**

The Control Panel window opens.

| 46 | In the Control Panel window, double-click on **Add or Remove Programs**. |

The Add or Remove Programs dialog opens.

| 47 | In the Add or Remove Programs dialog scroll through the list of software and locate any **Java 2 Runtime Environment** application. |

—continued—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action	
48	**If** you have	**Then** go to
	located a Java 2 Runtime Environment, SE v1.4.1_05 application and no other Java 2 Runtime Environment application	step 66
	located a Java 2 Runtime Environment, SE v1.4.1_05 application and another Java 2 Runtime Environment application	step 49
	located a Java 2 Runtime Environment application and it is not Java 2 Runtime Environment, SE v1.4.1_05	step 56
	not located any Java 2 Runtime Environment application	step 66

49 In the Add or Remove Programs dialog:

- select the **Java 2 Runtime Environment, SE v1.4.1_05** application

- click on the **Change/Remove** button

A confirmation dialog opens.

> ### ATTENTION
> At step 50 the system can prompt you with a message indicating that some files may be used by another application. If so, do not delete these files.

50 In the confirmation dialog, click on the **OK** button.

The InstallShield Wizard dialog opens. The system deletes the Java Plug-in files from your computer. A dialog can open which indicates that you must restart your computer to complete the uninstall.

51	**If** at step 50	**Then** go to
	the dialog opens	step 52
	the dialog does not open	step 54

52 In the dialog:

- click on the **Yes, I want to restart my computer now** button

- click on the **Finish** button

The dialog closes.

53 Wait for the restart to complete, then go to step 45.

54 Close the Add or Remove Programs dialog.

55 Go to step 46.

—continued—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action
56	In the Add or Remove Programs dialog: • select the **Java 2 Runtime Environment** application • click on the **Change/Remove** button *A confirmation dialog opens.*

> **ATTENTION**
> At step 57 the system can prompt you with a message indicating that some files may be used by another application. If so, do not delete these files.

Step	Action
57	In the confirmation dialog, click on the **Yes** button. *The InstallShield Wizard dialog open. The system deletes the Java Plug-in files from your computer. A successful completion dialog opens.*
58	IClick on the **OK** button. *A dialog can open to recommend that you restart your PC.*
59	**If** at step 58 — **Then** go to the dialog opens — step 60 the dialog does not open — step 64
60	In the dialog, click on the **OK** button. *The dialog closes.*
61	Close the Add or Remove Programs dialog.
62	Restart your PC.
63	Wait for the restart to complete, then go to step 45.
64	Close the Add or Remove Programs dialog.
65	Go to step 46.
66	Close the Add or Remove Programs dialog.
67	Close the Control Panel window.

Transferring the software from the CD to the PC

Step	Action
68	Insert the Release 8.0 software delivery kit (NT0H60NA) Windows CD into the CD-ROM drive of the PC. *After up to 15 seconds, the Optical Metro 5100/5200 release 8.0 Setup dialog opens.*
69	In the Optical Metro 5100/5200 release 8.0 Setup dialog, click on the **Next** button. *The License Agreement dialog opens.*

—continued—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action
70	After reading the License Agreement dialog, click on the **Yes** button.
	The Please select the directory for installation dialog opens or the Setup Type dialog opens.

71	**If** at step 70 the	**Then** go to
	Please select the directory for installation dialog opens	step 72
	Setup Type dialog opens	step 74

72	In the Please select the directory for installation dialog, select the directory path you want to use.
73	In the Please select the directory for installation dialog, click on the **Next** button.
	The Setup Type dialog opens.
74	In the Setup Type dialog:
	• select **Custom**
	• click on the **Next** button
	The Select Components dialog opens.
75	In the Select Components dialog:
	• select **Library files**
	• select **Documentation**
	• select **SMI Runtime Environment**
	• click on the **Next** button

ATTENTION

As a minimum, you must install the Library Files and SMI Runtime Environment. A browser (Netscape or Internet Explorer) must be already installed on your computer before installing SMI Runtime Environment.

The Selection Confirmation Windows dialog opens.

—continued—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action
76	In the Selection Confirmation Windows dialog, click on the **Next** button.

The Setup Status dialog opens. The installation of the upgrade software starts. The progress field shows the percentage of completion. The Setup Status dialog closes.
The Acrobat Reader 5.05 Choose Destination Location dialog opens or a dialog with one of the following messages appears:

Message 1

```
The JAVA Runtime installation may prompt for a reboot.
***Please answer NO to the JAVA reboot request.***
```

Message 2

```
The Optical Metro 5100/5200 Library Files are located in:
<D:\NortelNetworks\OPTeraMetro\Library\8.0.xy.z>
```

77	**If** at step 76	**Then** go to
	the Acrobat Reader 5.05 Choose Destination Location dialog appears	step 78
	message 1 appears	step 81
	message 2 appears	step 86

78 In the Choose Destination Location dialog:

- select the directory path you want to use
- note the directory path which appears in the Destination Folder
- click on the **Next** button

The installation of Acrobat Reader 5.05 starts. The progress field shows the percentage of completion. The information dialog opens with the following message:

```
Thank you for choosing Acrobat Reader!
```

—continued—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action
79	In the Information dialog, click on the **OK** button.
	The Information dialog closes. A dialog with one of the following messages appears:
	Message 1
	`The JAVA Runtime installation may prompt for a reboot.` `***Please answer NO to JAVA reboot request.***`
	Message 2
	`The Optical Metro 5100/5200 Library Files are located in:` `<D:\NortelNetworks\OPTeraMetro\Library\8.0.xy.z>`

80	**If** at step 79	**Then** go to
	message 1 appears	step 81
	message 2 appears	step 86

Step	Action
81	In the dialog, click on the **OK** button.
	The dialog closes. The Java 2 Runtime Environment - InstallShield Wizard dialog and the Software License Agreement dialog open.
82	After reading the Software License Agreement dialog, click on the **Yes** button.
	The Setup Type dialog opens.
83	In the Setup Type dialog:
	• click on the **Custom** button
	• click on the **Next** button
	The Choose Destination Location dialog is displayed.
84	In the Choose Destination Location dialog:
	• select the directory path you want to use
	• note the directory path which appears in the Destination Folder
	• click on the **Next** button
	The Select Browsers dialog opens.

—**continued**—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action
85	In the Select Browser dialog:

- uncheck any browser(s) listed

- click on the **Next** button

The Setup Status dialog is displayed.

The installation of Java 2 Runtime Environment, SE v1.4.1_05 starts. The progress field shows the percentage of completion.
The Setup Status dialog closes.

An Information dialog opens with the following message:

```
The Optical Metro 5100/5200 Library Files are located in:
<D:\NortelNetworks\OPTeraMetro\Library\8.0.xy.z>
```

86	In the Information dialog, click on the **OK** button.

The Information dialog closes. The InstallShield Wizard Complete dialog opens or the InstallShield Wizard Complete dialog opens which recommends that you restart the computer.

87	**If** at step 86	**Then** go to
	the InstallShield Wizard Complete dialog opens	step 91
	the InstallShield Wizard Complete dialog opens and recommends that you restart the computer	step 88

88	Remove the Release 8.0 software delivery kit (NT0H60NA) CD from the CD-ROM drive of the PC.
89	In the InstallShield Wizard dialog:

- click on the **Yes, I want to restart my computer now** button

- click on the **Finish** button

90	Wait for the restart to complete, then go to step 93.
91	In the InstallShield Wizard Complete dialog, click on the **Finish** button.

The InstallShield Wizard Complete dialog closes.

92	Remove the Release 8.0 software delivery kit (NT0H60NA) CD from the CD-ROM drive of the PC.

Clearing Web browser temporary files

93	Open your web browser.
94	**If** your web browser is	**Then** go to
------	--------	--------
	Internet Explorer	step 95
	Netscape Communicator	step 100

—continued—

Procedure 1-1 (continued)
Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)

Step	Action
95	In the web browser:
	• select the **Tools** menu
	• in the Tools menu, select **Internet Options...**
	The Internet Options dialog opens.
96	In the Internet Options dialog, select the **Delete Files...** button in the Temporary Internet files window.
	A confirmation dialog opens.
97	In the confirmation dialog, click on the **OK** button.
	All temporary internet files are deleted. This may take several minutes.
98	In the Internet Options dialog, click on the **OK** button.
99	Go to step 107.
100	In the web browser:
	• select the **Edit** menu
	• in the Edit menu, select **Preferences…**
	The Preferences dialog opens.
101	In the Preferences dialog:
	• Double-click on **Advanced**
	• Click on **Cache**
	The Cache information is displayed.
102	Click on the **Clear Memory Cache** button.
	A confirmation dialog opens.
103	In the confirmation dialog, click on the **OK** button.
	All memory cache files are deleted. This may take several minutes.
104	Click on the **Clear Disk Cache** button.
	A confirmation dialog opens.
105	In the confirmation dialog, click on the **OK** button.
	All disk cache files are deleted. This may take several minutes.
106	In the Preferences dialog, click on the **OK** button.
107	In the web browser:
	• select the **File** menu
	• in the File menu, select **Close**
	The web browser closes.
	—end—

Procedure 1-2
Transferring software from the CD to the System Manager computer (Solaris)

Follow this procedure to transfer the following from the Release 8.0 software delivery kit (NT0H60NA) Solaris installation CD to a Solaris computer.

- Optical Metro 5100/5200 System Manager files

- Optical Metro 5100/5200 network element software library

- Optical Metro 5100/5200 technical documentation

- supporting applications (for example, Adobe Acrobat, Java Plug-in)

Requirements

Table 1-5 lists the materials required to install the Optical Metro 5100/5200 software and supporting applications.

Table 1-5
Tools and materials required

Item	Quantity	Supplied
Release 8.0 software delivery kit (NT0H60NA)	1	yes

You must use a root user ID and password to log into the Solaris computer when you perform this procedure.

Ensure sure that your Solaris computer meets the minimum requirements (refer to *Technical Specifications*, 323-1701-180, for requirement details).

Precautions

Nortel Networks recommends that you save files to the default directories during installation.

Expected results

When you complete this procedure

- the Optical Metro 5100/5200 System Manager files, and one of the required Web browsers, are installed on the System Manager computer

- the required Java plug-in is installed on the System Manager computer

—**continued**—

Procedure 1-2 (continued)
Transferring software from the CD to the System Manager computer (Solaris)

Action

Step	Action
1	Insert the Release 8.0 software delivery kit (NT0H60NA) Solaris CD into the CD-ROM drive of the Solaris computer.
	After up to 15 seconds, the File Manager dialog opens.
2	In the File Manager dialog, double-click on the **solaris** folder.
3	In the Solaris folder, double-click on **install**.
	The Run window appears.

ATTENTION

At step 4, you can safely answer yes to the following question that may occur during the installation:

```
The following files are already installed on the system and are being used
by another package:
/opt/OPTeraMetro/ShelfLoadFiles/common/JTGOBeans.jar
/opt/OPTeraMetro/ShelfLoadFiles/common/JViewsBeans.jar
/opt/OPTeraMetro/ShelfLoadFiles/common/logging.jar
/opt/OPTeraMetro/blue/FTPProtocol.jar
/opt/OPTeraMetro/blue/blue.bat
/opt/OPTeraMetro/blue/blue.jar
/opt/OPTeraMetro/blue/blue.sh
/opt/OPTeraMetro/blue/fixSP.o
/opt/OPTeraMetro/blue/instruction.pdf
/opt/OPTeraMetro/blue/jta20.jar
/opt/OPTeraMetro/blue/nelist.txt
/opt/OPTeraMetro/blue/readme.html
/opt/OPTeraMetro/blue/version
Do you want to install these conflicting files [y,n,?,q]
```

Step	Action
4	Follow the on-screen instruction to install all the applications. Install all the applications in the default directories.
5	When the installation completes, close the Run window.
6	In the File Manager dialog, select the **File** menu.
	A drop-down menu appears.
7	In the drop-down menu, select **Eject**.
	The Solaris computer ejects the Release 8.0 software delivery kit (NT0H60NA) CD.
8	Log out of the computer.

—end—

Procedure 1-3
Configuring an Ethernet connection (Windows 2000/NT/XP)

Follow this procedure to configure the System Manager computer (running Windows 2000/NT/XP) for an Ethernet connection to the Optical Metro 5100/5200 shelf.

The Windows 2000/NT/XP Ethernet configuration enables the connection between the System Manager computer and the 10Base-T Ethernet port on the maintenance panel of the Optical Metro 5100/5200 shelf.

Requirements

If your PC runs Windows NT, Windows 2000 or Windows XP, you must use an administrator user ID and password to log into the PC when you perform this procedure.

Action

Step	Action	
1	**If** the System Manager computer is running	**Then** go to
	Windows 2000	step 2
	Windows XP	step 12
	Windows NT	step 22
2	On your System Manager computer, perform the following:	
	a. right-click on the My Network Places icon on your desktop	
	b. select Properties	
	The Network and Dial-up Connections window opens.	
3	In the Network and Dial-up Connections window:	
	a. right-click on the Local Area Connection icon	
	b. select Properties	
	The Local Area Connection Properties dialog box opens.	
4	Select Internet Protocol (TCP/IP) in the list.	
5	Click **Properties**.	
	The Internet Protocol (TCP/IP) Properties dialog box opens.	
6	Ensure the following are selected:	
	• Obtain an IP address automatically	
	• Obtain DNS server address automatically	

—**continued**—

Procedure 1-3 (continued)
Configuring an Ethernet connection (Windows 2000/NT/XP)

Step	Action
7	Click **OK**.
8	In the Local Area Connection Properties dialog box, click **OK**.
9	If prompted to restart your PC, click **Yes**.
10	Close the Network and Dial-up Connections window.
11	Go to step 34.
12	On your System Manager computer, perform the following:
	a. select Settings from the Start menu
	b. select Control Panel
	c. double-click on the Network Connections icon
	The Network Connections window opens.
13	Right-click on Local Area Connection and select Properties.
	The Local Area Connections Properties dialog box opens.
14	Select Internet Protocol (TCP/IP) in the list.
15	Click **Properties**.
	The Internet Protocol (TCP/IP) Properties dialog box opens.
16	Ensure the following are selected
	• Obtain an IP address automatically
	• Obtain DNS server address automatically
17	Click **OK**.
18	In the Local Area Connection Properties dialog box, click **OK**.
19	If prompted to restart your PC, click **Yes**.
20	Close the Network Connections window.
21	Go to step 34.
22	On your System Manager computer, perform the following:
	a. select Settings from the Start menu
	b. select Control Panel
	c. double-click the Network icon
	The Network window opens.
23	Click the Protocols tab.
24	Select TCP/IP Protocol in the list.
25	Click **Properties**.
	The Microsoft TCP/IP Properties dialog box opens.

—**continued**—

Procedure 1-3 (continued)
Configuring an Ethernet connection (Windows 2000/NT/XP)

Step	Action
26	Select the IP Address tab.
27	Select "Obtain an IP address from a DHCP server".
28	Select the WINS Address tab.
29	Select "Enable DNS for Windows Resolution".
30	In the Microsoft TCP/IP Properties dialog box, click **OK**.
31	In the Network window, click **Close**.
32	If prompted to restart your PC, click **Yes**.
33	Close the Control Panel window.
34	You have completed this procedure.

—**end**—

Procedure 1-4
Configuring Internet Explorer (Windows 2000/NT/XP)

Follow this procedure to configure the Internet Explorer 5.5 or Internet Explorer 6.0 Web browser for the System Manager on Windows 2000/NT/XP.

Requirements

Make sure that Internet Explorer is not configured to use proxies or addresses that are not available on your computer.

If your PC runs Windows NT, Windows 2000, or Windows XP, you must use an administrator user ID and password to log into the PC when you perform this procedure.

Action

Step	Action
1	**If** the Web browser is **Then** go to

	If the Web browser is	Then go to
	Internet Explorer 5.5	step 2
	Internet Explorer 6.0	step 10

Step	Action
2	Open Internet Explorer.
3	From the Tools menu, select Internet Options.
4	Select the General tab.
5	In the Temporary Internet Files panel, click **Settings**.
	The Settings dialog box opens.
6	Adjust the slider or use the arrow keys to define a minimum of 20 MBytes of disk space available for storage.
7	In the Settings dialog box, click **OK**.
8	In the Internet Options dialog box, click **OK**.
9	Go to step 21.
10	Open Internet Explorer.
11	From the Tools menu, select Internet Options.
12	Select the Connections tab.
13	In the Local Area Network (LAN) settings panel, click **LAN Settings**.
	The Local Area Network (LAN) Settings dialog box opens.

—**continued**—

Procedure 1-4 (continued)
Configuring Internet Explorer (Windows 2000/NT/XP)

Step	Action
14	Deselect all the check boxes.
15	Click **OK**.
16	From the Internet Options window, select the General tab.
17	In the Temporary Internet Files panel, click **Settings**. *The Settings dialog box opens.*
18	Adjust the slider or use the arrow keys to define a minimum of 20 MBytes of disk space available for storage.
19	In the Settings dialog box, click **OK**.
20	In the Internet Options dialog box, click **OK**.
21	Close Internet Explorer.

—**end**—

Procedure 1-5
Configuring Netscape Communicator (Windows 2000/NT or Solaris)

Follow this procedure to configure the Netscape Communicator 4.76 Web browser for the System Manager on Windows 2000/NT or Solaris.

Requirements

Make sure that Netscape Communicator is not configured to use proxies or addresses that are not available on your computer.

Do not use a manual proxy setting in Netscape Communicator.

If your PC runs Windows NT or Windows 2000, you must use an administrator user ID and password to log into the PC when you perform this procedure.

You must be logged into the Solaris computer with a non-root user ID and password.

Action

Step	Action	
1	Open Netscape Communicator.	
2	From the Edit menu, select Preferences.	
	The Preferences dialog box opens.	
3	**If** you are running this procedure on a	**Then** go to
	Windows 2000/NT computer	step 6
	Solaris computer	step 4
4	In the Categories list on the left side of the dialog box, click on the arrow to the left of Advanced.	
5	Go to step 7.	
6	In the Categories list on the left side of the dialog box, click on the + to the left of Advanced.	
7	Select Cache from the expanded Advanced categories list.	
	The dialog to the right of the Category list changes to display your Cache settings.	
8	Set the Disk Cache to at least 20480 KBytes.	
9	Click **OK**.	
10	Close Netscape Communicator.	

—*end*—

Procedure 1-6
Setting Netscape environment variables in Solaris

Follow this procedure to set the Netscape Communicator environment variables for the Java Plug-in 1.4.1_05 in the Solaris 8 operating systems.

Requirements

You must be logged into the Solaris computer with a non-root user ID and password.

Every non-root user who has access to the Solaris computer and who will be using the System Manager must complete this procedure.

Expected results

When you complete this procedure, Netscape Communicator environment variables are set for the correct operation of the Java Plug-in for the System Manager.

Action

Step	Action
1	On your Solaris computer, open a Terminal session.
2	Enter:
	`cd <homedir>` ↵

3	**If** you use	**Then** go to
	csh	step 4
	sh or **ksh**	step 7

4	In the .cshrc file, enter:
	`setenv NPX_PLUGIN_PATH` `/opt/om5kjava/j2re1.4.1_05/plugin/sparc/ns4`
	Note: If you have commands in the .cshrc file that contain a different path for the Java plug-in, you must comment out the commands before you add the new path.
5	In the .cshrc file, enter:
	`setenv PATH /opt/NSCPcom:/opt/Acrobat4/bin:$PATH`
	Note: If you have commands in the .cshrc file that contain a different path for Netscape or Acrobat, you must comment out the commands before you add the new path.
6	Go to step 9.

—continued—

Procedure 1-6 (continued)
Setting Netscape environment variables in Solaris

Step	Action

7	In the .profile file, enter:
	
	`NPX_PLUGIN_PATH=/opt/om5kjava/j2re1.4.1_05/plugin/sparc/`
	`ns4 export NPX_PLUGIN_PATH`
	
	Note: If you have commands in the .profile file which contain a different path for the Java plug-in, you must comment out the commands before you add the new path.

8	In the .profile file, enter:
	
	`PATH=/opt/NSCPcom:/opt/Acrobat4/bin:$PATH`
	`export PATH`
	
	Note: If you have commands in the .profile file which contain a different path for Netscape or Acrobat, you must comment out the commands before you add the new path.

9	Log out of the computer and then log back in. —**end**—

Procedure 1-7
Configuring 64 Mbytes of memory for the Java Plug-In for Solaris

Follow this procedure to configure Netscape Communicator to allocate 64 Mbytes of memory for the Java Plug-in 1.4.1_05.

Requirements

You must be logged into the Solaris computer with a non-root user ID and password.

Every non-root user who has access to the Solaris computer and who will be using the System Manager must complete this procedure.

Precautions

A Null Pointer Exception error can occur if the Java Plug-in runs out of memory in a Solaris environment. This error causes the System Manager to close. If you do not complete the following procedure, the Java Plug-in can run out of memory when you run the System Manager.

Expected results

When you complete this procedure, the Java Plug-in is configured for the correct operation of the System Manager on Solaris.

Action

Step	Action
1	Open the web browser on the Solaris computer.
2	In the URL field of the web browser, enter:
	`/opt/om5kjava/j2re1.4.1_05/ControlPanel.html`
3	Click on the Advanced tab.
4	In the Java RunTime Parameters text field, enter:
	`mx64m`
5	Click on the **Apply** button.
6	Click on the Cache tab.
7	Click on the **Clear** button.
	A confirmation dialog opens.

—**continued**—

Procedure 1-7 (continued)
Configuring 64 Mbytes of memory for the Java Plug-In for Solaris

Step	Action
8	Click on the **Yes** button.
9	Close the web browser.
10	Log out of the computer and then log back in.

—**end**—

Procedure 1-8
Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)

If the System Manager computer is running on a Windows 2000, Windows NT, or Windows XP platform, you must run Dynamic Host Configuration Protocol (DHCP) to communicate with a shelf that has not been commissioned as a gateway network element (GNE) shelf. When you run DHCP and the Windows DOS ipconfig /renew command, an IP address is assigned to the System Manager computer by the shelf so that they can communicate.

Note: Once you have finished communicating with the shelf, it is important to release the port correctly using the Windows DOS ipconfig /release command (see step 31 to step 36); otherwise, you may not be able to log back into the shelf for a period of time. When the initial ipconfig /renew is done, the Optical Metro 5100/5200 shelf port gives out a DHCP lease for 10 minutes. Before the lease expires, the System Manager computer requests a refresh of the lease. At that time, the Optical Metro 5100/5200 shelf port gives out a DHCP lease of 60 minutes. If the port is not released correctly using the ipconfig /release command (for example, the Ethernet cable is disconnected), it can take from 10 minutes to 60 minutes before the port can be used again, depending on whether the initial lease is active or a subsequent lease (a refresh) is active.

If the shelf you are connected to is a GNE shelf, then you cannot connect to it using Ethernet port 1. DHCP is disabled on Ethernet port 1 on a shelf commissioned as a GNE shelf. To connect to a GNE shelf using Ethernet port 1, use Procedure 1-9, "Connecting locally to a commissioned GNE shelf using Ethernet port 1 and configuring a static IP address (Windows 2000/NT/XP)" on page 1-39.

If the shelf you want to connect to using the Ethernet port 2 normally has the Ethernet port 2 connected to an Ethernet hub (since it forms a hubbing group with other shelves at the site), disconnecting the Ethernet port 2-to-hub cable in order to connect the System Manager computer causes a physically broken subnet (the subnet connected to the Ethernet port 2 interfaces of the various shelves at the site). This setup may cause some nodes to report loss of contact with any active System Manager sessions. To avoid this condition, you can instead connect the System Manager computer to a spare port on the Ethernet hub.

—continued—

Procedure 1-8 (continued)
Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)

Requirements

The Ethernet port you connect to must be enabled. If it is not, have your next level of support enable the port using Procedure 1-26 "Provisioning Ethernet and serial ports" in *Provisioning and Operating Procedures*, 323-1701-310.

If you are connecting to Ethernet port 2 or the Ethernet hub, the Ethernet port 2 access control parameter must be set to None. If this parameter is set to Filter or Encrypt, you cannot connect using Ethernet port 2. Have your next level of support change the Ethernet port 2 access control parameter to None using Procedure 1-27 "Provisioning Ethernet port 2 access control" in *Provisioning and Operating Procedures*, 323-1701-310.

Table 1-6 lists the tools and materials required for this procedure.

Table 1-6
Tools and materials required

Item	Quantity	Supplied
Straight-through Ethernet cable	1	no

Expected results

When you complete this procedure, the shelf assigns an IP address to the System Manager computer.

—**continued**—
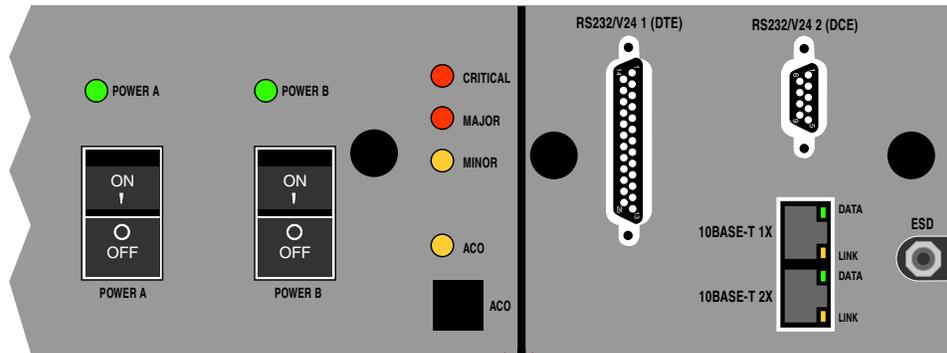
Procedure 1-8 (continued)
Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)

Action

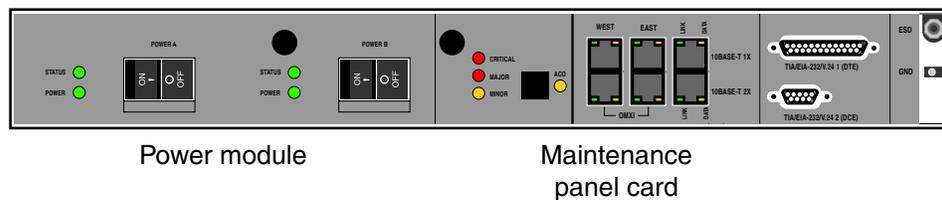| Step	Action
1	Use the straight-through Ethernet cable to connect the 10Base-T 1X Ethernet port on the maintenance panel, the 10Base-T 2X Ethernet port on the maintenance panel or a spare port on the Ethernet hub to the PC's LAN/Ethernet card. See Figure 1-1 for the Optical Metro 5200 maintenance panel, and Figure 1-2 for the Optical Metro 5100 maintenance panel.

Figure 1-1
Optical Metro 5200 maintenance panel

OM0147p

Figure 1-2
Optical Metro 5100 maintenance panel

OM0975t

Power module   Maintenance
                                 panel card

—continued—

Procedure 1-8 (continued)
Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)

Step	Action	
2	**If**	**Then** go to
	you know the IP address of the shelf you are connecting to	step 10
	you do not know the IP address of the shelf you are connecting to	step 3
3	Perform the following:	
	a. From the Windows Start menu, select Run...	
	b. In the Open field, type:	
	`cmd ↵`	
	A DOS prompt window opens.	
	c. Type:	
	`ipconfig /release ↵`	
	d. Wait for the DOS prompt to appear, then type:	
	`ipconfig /renew ↵`	
4	In the DOS window, note the shelf Default Gateway IP address.	
5	Close the DOS window.	
6	On your computer, open your Web browser and enter the Default Gateway IP address noted in step 4 in the Address field.	
	The Optical Metro window appears in the Web browser.	
7	In the Optical Metro window, note the IP Address. This is the shelf IP address.	
	Note: If you connected the System Manager computer to the Ethernet hub, then this is the IP address of one of the shelves that is part of the hubbing group connected to the Ethernet hub.	

—continued—

Procedure 1-8 (continued)
Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)

Step	Action
8	In the Web browser, enter the IP address noted in step 7 in the Address field. *The Optical Metro window appears in the Web browser.*
9	Go to step 12.
10	Perform the following:
	a. From the Windows Start menu, select Run...
	b. In the Open field, type: `cmd ⏎` *A DOS prompt window opens.*
	c. Type: `ipconfig /release ⏎`
	d. Wait for the DOS prompt to appear, then type: `ipconfig /renew`
	e. Close the DOS window.
11	On your computer, open your Web browser and enter the shelf IP address (URL) into the Address field. *The Optical Metro window appears in the Web browser.*
12	In the Optical Metro window, click **Start the System Manager**. *The System Manager web page opens and the system checks for the required security certificate.*

13	**If**	**Then** go to
	the System Manager Login dialog appears	step 15
	the Warning - Security dialog appears	step 14

14	Click on the **Always** button to indicate that you trust the signed applet. *The System Manager Login window opens.*

<div align="center">**—continued—**</div>

Procedure 1-8 (continued)
Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)

Step	Action
15	In the System Manager Login dialog box:

    a. Enter your user ID in the "User name" field.

    b. Enter your user password in the "Password" field.

    c. Click the **OK** button.

Note 1: The System Manager password is case sensitive.

Note 2: If you click **Cancel** or if the number of login failures equal the provisioned Failed Login Attempt Threshold, the System Manager Login dialog box and the System Manager automatically close.

A Warning Notice dialog box appears if Local authentication mode is provisioned, if Centralized authentication mode is provisioned and the Radius server is reachable or if Centralized authentication mode is provisioned, the Radius server is not reachable, the alternate login method is set to Local User and the User name and password is provisioned at the network element as a Local user.

The Challenge Response dialog is displayed if Centralized authentication mode is provisioned, the Radius server is not reachable, and the alternate login method is set to Challenge Response.

The Login failed dialog with message "Centralized authentication is unavailable, please use local user authentication" is displayed if Centralized authentication mode is provisioned, the Radius server is not reachable, the alternate login method is set to Local User, and the User name and password is not provisioned at the network element as a Local user.

16	**If**	**Then** go to
	the Warning Notice dialog appears	step 23
	the Challenge Response dialog appears	step 19
	the Login failed dialog with the message "Centralized authentication is unavailable, please use local user authentication" appears	step 17

17	In the Login failed dialog, click **Close**.

The System Manager Login dialog box appears.

18	Go back to step 15 and enter a User name and password that is provisioned as a local user at the network element.

—**continued**—

Procedure 1-8 (continued)
Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)

Step	Action
19	Obtain the Challenge Response code. Contact your administrator to obtain the Challenge Response code. You can obtain the Challenge Reponse code using the Challenge Response Tool. The Challenge Response Tool is available as part of the Optical Manager Element Adaptor or as a standalone application, which can be installed and executed on a computer. For more information, refer to the *Challenge Response Tool User Guide (*NT0H7212).
20	Enter the Challenge Response code in the "Response" field of the Challenge Response dialog and then click **OK**. *A Warning Notice dialog box appears.*
21	In the Warning Notice dialog box, click **OK**. *The main window of the System Manager appears.*
22	Go to step 30.
23	In the Warning Notice dialog box, click **OK**. *The main window of the System Manager appears. The Login Information dialog can appear, the Password Expiry Warning dialog can appear or the Login Warning dialog can appear. The Login Information dialog appears if Centralized authentication mode is provisioned and the Radius server is reachable. The Login Warning dialog appears if Centralized authentication mode is provisioned, the Radius server is not reachable and the alternate login method is set to Local User.*

24	**If**	**Then** go to
	the Password Expiry Warning dialog appears	step 25
	the Login Warning dialog appears	step 27
	the Login Information dialog appears	step 29
	otherwise	step 30

Step	Action
25	In the Password Expiry Warning dialog, click **Close**. *The Login Information dialog appears.*
26	Go to step 29.
27	In the Login Warning dialog, click **Close**. *The main window of the System Manager appears.*
28	Go to step 30.
29	In the Login Information dialog, click **Close**. *The main window of the System Manager appears.*

—**continued**—

Procedure 1-8 (continued)
Connecting locally to a commissioned shelf using Ethernet port 1 or port 2 and configuring DHCP (Windows 2000/NT/XP)

Step	Action
30	In the System Manager main window **a.** click the maximize button **b.** click on the **Selected Shelves** drop-down list to display the network tree After you are finished communicating with the shelf, continue with the procedure. Go to step 31.
31	In the System Manager window, select **Exit** from the File menu. *A dialog box opens with the following message:* `Do you really want to shut the System Manager down?`
32	In the dialog box, click **Yes**. *The Optical Metro System Manager closes.*
33	In the web browser: **a.** select the **File** menu **b.** in the File menu, select **Close** *The web browser closes.*
34	Perform the following: **a.** From the Windows Start menu, select Run... **b.** In the Open field, type: `cmd` ↵ *A DOS prompt window opens.* **c.** Type: `ipconfig /release` ↵ **d.** Close the DOS window.
35	Disconnect the straight-through Ethernet cable from the 10Base-T 1X port on the maintenance panel, the 10Base-T 2X port on the maintenance panel or or the spare port on the Ethernet hub .
36	If the Ethernet port 2 access control feature was changed from "Filter" or "Encrypt" to "None" in order to perform this procedure, ensure that the original state of the Ethernet port 2 access control feature is restored (back to Filter or Encrypt).

—**end**—

Procedure 1-9
Connecting locally to a commissioned GNE shelf using Ethernet port 1 and configuring a static IP address (Windows 2000/NT/XP)

Follow this procedure to communicate with a shelf that has been commissioned as a gateway network element (GNE) shelf.

Note: DHCP is disabled on the 10Base-T 1X port on a shelf commissioned as a GNE shelf.

Requirements

You must know the IP address and subnet mask parameters for the GNE shelf you are connecting to.

Ethernet port 1 must be enabled. If it is not, have your next level of support enable the port using Procedure 1-26 "Provisioning Ethernet and serial ports" in *Provisioning and Operating Procedures*, 323-1701-310.

Table 1-7 lists the tools and materials required for this procedure.

Table 1-7
Tools and materials required

Item	Quantity	Supplied
Straight-through Ethernet cable	1	no

Action

Step	Action	
1	**If** the System Manager computer is running	**Then** go to
	Windows 2000/XP	step 2
	Windows NT	step 13
2	On your System Manager computer, perform the following:	

    a. right-click on the My Network Places icon on your desktop

    b. select Properties

    c. right-click on the Local Area Connection icon

    d. select Properties

    The Local Area Connection Properties window opens.

—continued—

Procedure 1-9 (continued)
Connecting locally to a commissioned GNE shelf using Ethernet port 1 and configuring a static IP address (Windows 2000/NT/XP)

Step	Action
3	Select "Internet Protocol (TCP/IP)" from the list.
4	Click on the Properties button.
	The Internet Protocol (TCP/IP) Properties dialog box opens.
5	Click on the "Use the following IP address" radio button.
6	Enter an IP address. The IP address entered must be unique and must be in the same subnet as the GNE.
7	Enter a Subnet Mask. The Subnet Mask entered must be the same as the subnet mask provisioned on the GNE shelf you are connecting to.
8	Enter a Default Gateway address. The Default Gateway address entered must be the same as the Shelf IP address provisioned on the GNE shelf you are connecting to.
9	In the Internet Protocol (TCP/IP) Properties dialog, click **OK**.
10	In the Local Area Connections Properties dialog, click **OK**.
	Note: You may have to restart your computer for the changes to take effect.
11	Close the Network Connections window.
12	Go to .
13	On your System Manager computer, perform the following:
	a. right-click on the Network Neighborhood icon on your desktop
	b. select Properties
14	*The Network window opens.*
15	Select the Protocols tab.
16	Select TCP/IP Protocol in the list.
17	Click on the **Properties** button.
	The Microsoft TCP/IP Properties dialog box opens.
18	Select the IP Address tab.
19	Click on the "Specify an IP address" radio button.
20	Enter an IP address. The IP address entered must be unique and must be in the same subnet as the GNE.

—**continued**—

Procedure 1-9 (continued)
Connecting locally to a commissioned GNE shelf using Ethernet port 1 and configuring a static IP address (Windows 2000/NT/XP)

Step	Action
21	Enter a Subnet Mask. The Subnet Mask entered must be the same as the Subnet Mask provisioned on the GNE shelf you are connecting to.
22	Enter a Default Gateway address. The Default Gateway address entered must be the same as the Shelf IP address provisioned on the GNE shelf you are connecting to.
23	In the Microsoft TCP/IP Properties dialog box, click **OK**.
24	In the Network window, click **Close**.
	Note: You may have to restart your computer for the changes to take effect.
25	Use a straight-through Ethernet cable to connect your PC LAN card to the 10Base-T 1X Ethernet port on the shelf maintenance panel.
26	On your computer, open your Web browser and enter the shelf IP address (URL) into the Address field.
	The Optical Metro window appears in the Web browser.
27	In the Optical Metro window, click **Start the System Manager**.
	The System Manager web page opens and the system checks for the required security certificate.

Step	If	Then go to
28	**If**	**Then** go to
	the System Manager Login dialog appears	step 30
	the Warning - Security dialog appears	step 29

Step	Action
29	Click on the **Always** button to indicate that you trust the signed applet.
	The System Manager Login window opens.

—continued—

Procedure 1-9 (continued)
Connecting locally to a commissioned GNE shelf using Ethernet port 1 and configuring a static IP address (Windows 2000/NT/XP)

Step	Action
30	In the System Manager Login dialog box

    a. enter your user ID in the "User name" field

    b. enter your user password in the "Password" field

    c. click **OK**

Note 1: The System Manager password is case sensitive.

Note 2: If you click **Cancel** or if the number of login failures equal the provisioned Failed Login Attempt Threshold, the System Manager Login dialog box and the System Manager automatically close.

A Warning Notice dialog box appears if Local authentication mode is provisioned, if Centralized authentication mode is provisioned and the Radius server is reachable or if Centralized authentication mode is provisioned, the Radius server is not reachable, the alternate login method is set to Local User and the User name and password is provisioned at the network element as a Local user.

The Challenge Response dialog is displayed if Centralized authentication mode is provisioned, the Radius server is not reachable and the alternate login method is set to Challenge Response.

The Login failed dialog with message "Centralized authentication is unavailable, please use local user authentication" is displayed if Centralized authentication mode is provisioned, the Radius server is not reachable, the alternate login method is set to Local User, and the User name and password is not provisioned at the network element as a Local user.

Step	If	**Then** go to
31	the Warning Notice dialog appears	step 38
	the Challenge Response dialog appears	step 34
	the Login failed dialog with message "Centralized authentication is unavailable, use local user authentication" appears	step 32

| 32 | In the Login failed dialog, click **Close**. |

The System Manager Login dialog box appears.

| 33 | Go back to step 30 and enter a User name and password that is provisioned as a local user at the network element. |

—continued—

Procedure 1-9 (continued)
Connecting locally to a commissioned GNE shelf using Ethernet port 1 and configuring a static IP address (Windows 2000/NT/XP)

Step	Action
34	Obtain the Challenge Response code. Contact your administrator to get the Challenge Response code. You can obtain the Challenge Reponse code using the Challenge Response Tool. The Challenge Response Tool is available as part of the Optical Manager Element Adaptor or as a standalone application, which can be installed and executed on a computer. For more information, refer to the *Challenge Response Tool User Guide* (NT0H7212).
35	Enter the Challenge Response code in the "Response" field of the Challenge Response dialog and then click **OK**. *A Warning Notice dialog box appears.*
36	In the Warning Notice dialog box, click **OK**. *The main window of the System Manager appears.*
37	Go to step 45.
38	In the Warning Notice dialog box, click **OK**. *The main window of the System Manager appears. The Login Information dialog can appear, the Password Expiry Warning dialog can appear or the Login Warning dialog can appear. The Login Information dialog appears if Centralized authentication mode is provisioned and the Radius server is reachable. The Login Warning dialog appears if Centralized authentication mode is provisioned, the Radius server is not reachable and the alternate login method is set to Local User.*

39	If	**Then** go to
	the Password Expiry Warning dialog appears	step 40
	the Login Warning dialog appears	step 42
	the Login Information dialog appears	step 44
	otherwise	step 45

Step	Action
40	In the Password Expiry Warning dialog, click **Close**. *The Login Information dialog appears.*
41	Go to step 44.
42	In the Login Warning dialog, click **Close**. *The main window of the System Manager appears.*
43	Go to step 45.
44	In the Login Information dialog, click **Close**. *The main window of the System Manager appears.*

—**continued**—

Procedure 1-9 (continued)
Connecting locally to a commissioned GNE shelf using Ethernet port 1 and configuring a static IP address (Windows 2000/NT/XP)

Step	Action
45	In the System Manager main window
	a. click the maximize button
	b. click on the **Selected Shelves** drop-down list to display the network tree
	—**end**—

Preparing a shelf for commissioning

Use the procedures in this chapter to prepare a shelf for commissioning.

Requirements

Table 2-1 lists the tools and materials required to complete the procedure in this chapter.

Table 2-1
Tools and materials required for circuit pack seating procedures

Item	Quantity	Supplied
Antistatic wrist strap	1	no
Fiber-optic cleaning kit	1	no
Fiber inspection scope	1	no

Before you begin

Before you begin the procedure in this chapter:

- make sure that every site in your network has the correct equipment for your network plan as described in the "Site requirements and equipping rules" chapter in *Network Planning and Link Engineering,* 323-1701-110

- make sure that the circuit packs are inserted but not seated in the correct slots as described in *Installing Optical Metro 5200 Shelves and Components,* 323-1701-201, and *Installing Optical Metro 5100 Shelves and Components,* 323-1701-210

- make sure that filler cards are completely installed in the shelf as described in *Installing Optical Metro 5200 Shelves and Components,* 323-1701-201, and *Installing Optical Metro 5100 Shelves and Components,* 323-1701-210

Precautions

CAUTION
Optical Metro 5100 shelf database
The Optical Metro 5100 shelf database is stored on one or two circuit packs. Any circuit pack seated in slots 1 to 4, or slot 6 can carry the database. One circuit pack is automatically assigned as the active database, while the other is on standby. The System Manager Inventory window highlights the database carrying circuit packs in bold text.

As of Release 6.1, an Optical Metro 5100 shelf can be equipped with only one database-carrying circuit pack and a Shelf Processor circuit pack. However, it is still recommended that two database-carrying circuit packs be equipped in the Optical Metro 5100 shelf for database redundancy.

CAUTION
Optical Metro 5200 shelf database
The Optical Metro 5200 shelf database is stored on two OCM circuit packs in slots 9 and 10. One circuit pack is automatically assigned as the active database, while the other is on standby. The System Manager Inventory window highlights the database carrying circuit packs in bold text.

> ⚠ **CAUTION**
> **Removing the Optical Metro 5100/5200 active database circuit pack**
> Removing the active database circuit pack will automatically switch the standby circuit pack to an active state, and copy the database to the next available circuit pack to act as standby.
>
> In Release 8.0, in the event of a complete loss of database (for example, if both OCM circuit packs fail in an Optical Metro 5200 shelf, or if all database carrying circuit packs fail from an Optical Metro 5100 shelf), the database information is automatically backed up to the Shelf Processor and the commissioning and provisioning information is preserved. However, it is still recommended to perform a manual shelf back-up to the Shelf Processor prior to removing all non-Shelf Processor circuit packs in an Optical Metro 5100 shelf.
>
> When you remove a database-carrying circuit pack from an Optical Metro 5100/5200 shelf, you must wait two minutes before inserting a circuit pack in this slot. Database-carrying circuit pack replacement must always be done one database-carrying circuit pack at a time. Always insert one database-carrying circuit pack at a time in the shelf.

Sequence for commissioning a shelf

Table 2-2 lists the tasks for commissioning a shelf.

Table 2-2
Tasks for commissioning a shelf

Task	Follow these procedures as applicable	In
Install the System Manager software on the computer from which you will launch System Manager	• Procedure 1-1 "Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)" • Procedure 1-2 "Transferring software from the CD to the System Manager computer (Solaris)"	this book
Configure the Ethernet connection on the System Manager computer	• Procedure 1-3 "Configuring an Ethernet connection (Windows 2000/NT/XP)"	this book
Configure the Web browser on the System Manager computer	• Procedure 1-4 "Configuring Internet Explorer (Windows 2000/NT/XP)" • Procedure 1-5 "Configuring Netscape Communicator (Windows 2000/NT or Solaris)" • Procedure 1-6 "Setting Netscape environment variables in Solaris" • Procedure 1-7 "Configuring 64 Mbytes of memory for the Java Plug-In for Solaris"	this book

Table 2-2 (continued)
Tasks for commissioning a shelf

Task	Follow these procedures as applicable	In
Power up the shelf	• Procedure 2-1 "Powering up an Optical Metro 5200 shelf" OR • Procedure 2-2 "Powering up an Optical Metro 5100 shelf"	this book
Connect the PC to the shelf	• Procedure 3-1 "Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)"	this book
Commission a shelf using the Shelf Commissioning Wizard	• Procedure 3-2 "Commissioning the shelf using the Shelf Commissioning Wizard"	this book
Commission a shelf using a backup file	• Procedure 3-3 "Commissioning the shelf from a backup file"	this book
Ensure that all circuit packs are running Release 8.0.	• Procedure 3-4 "Ensuring all circuit packs are running Release 8.0"	this book
Engage the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)	• Procedure 3-5 "Engaging the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)"	this book
Engage the remaining circuit packs into the backplane (for Optical Metro 5100 shelf)	• Procedure 3-6 "Engaging the remaining circuit packs into the backplane (for Optical Metro 5100 shelf)"	this book

Procedure list

Table 2-3 lists the procedures in this chapter.

Table 2-3
Shelf commissioning preparation procedures

Procedure	Page	Comments
Procedure 2-1 "Powering up an Optical Metro 5200 shelf"	2-6	Required.
Procedure 2-2 "Powering up an Optical Metro 5100 shelf"	2-9	Required.

Procedure 2-1
Powering up an Optical Metro 5200 shelf

Follow this procedure to seat

- the SP in slot 19
- an OCM in slot 9

so that you can commission the Optical Metro 5200 shelf, and install the correct software load.

Requirements.

> **CAUTION**
> **Risk of equipment damage**
> Do not apply power to the shelf until the SP is seated in slot 19, and the OCM is seated in slot 9.

Action

Step	Action
1	Remove the shelf cover by opening the latches on each side of the cover.

> **DANGER**
> **Risk of personal injury or equipment damage**
> Do not let go of the shelf cover when you open it.
> The shelf cover is not permanently attached to the shelf and you must remove the door completely. If you let go of the door when you open it, you can cause personal injury, damage to the equipment, or both.

2	Seat the SP circuit pack in slot 19, as shown in Figure 2-1 on page 2-7.
3	Seat an OCM circuit pack in slot 9.

<div align="center">—continued—</div>

Procedure 2-1 (continued)
Powering up an Optical Metro 5200 shelf

Step	Action

Figure 2-1
Seating the circuit packs in the shelf

OM0144t
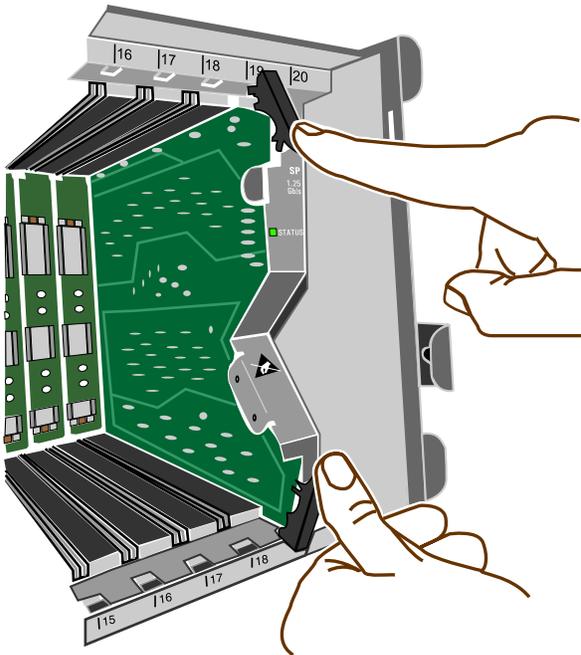
4	Apply power to the shelf.
5	Wait for the Status LED light to turn ON green on the SP circuit pack (approximately five minutes).

6	If	Then
	the Status LED turns ON green	you have completed this procedure
	otherwise	step 7

7	Power off the shelf.
8	Unseat the SP and in its place seat another SP that has Release 5.0 or greater software load installed on it.
9	Apply power to the shelf.

—**continued**—

Procedure 2-1 (continued)
Powering up an Optical Metro 5200 shelf

Step	Action
10	Wait for the Status LED to turn ON green on the SP circuit pack (approximately five minutes).

11	**If**	**Then**
	the Status LED turns ON green	you have completed this procedure
	otherwise	contact Nortel Networks technical support

—**end**—

Procedure 2-2
Powering up an Optical Metro 5100 shelf

Follow this procedure to seat

- the SP in slot 5, and either
- an OCI, OCLD, or OTR 10 Gbit/s Enhanced in slot 1, 2 or 3,
- a Muxponder (MOTR) in slot 1, 2 or 3,
- an OCLD or OTR 2.5 Gbit/s in any of slots 1 to 4
- or an OSC in slot 6

so that you can commission the Optical Metro 5100 shelf, and install the correct software load.

Requirements

⚠	**CAUTION** **Risk of equipment damage** Do not apply power to the shelf until the SP is seated in slot 5, and an OCI, OCLD, OTR 10 Gbit/s Enhanced is seated in slot 1 or 3, an OCLD or OTR 2.5 Gbit/s is seated in any of slots 1 to 4, a Muxponder is seated in slots 1, 2, or 3, or an OSC is seated in slot 6.

⚠	**CAUTION** **Release 3.2 software baseline requirement** All circuit packs installed on an Optical Metro 5100 shelf must meet the Release 3.2 software baseline requirement.

—continued—

Procedure 2-2 (continued)
Powering up an Optical Metro 5100 shelf

Action

Step	Action
1	Remove the shelf cover by opening the latches on each side of the cover.

⚠️ **DANGER**
Risk of personal injury or equipment damage
Do not let go of the shelf cover when you open it.
The shelf cover is not permanently attached to the shelf and you
must remove the door completely. If you let go of the door
when you open it, you can cause personal injury, damage to the
equipment, or both.

Step	Action
2	Seat the SP circuit pack in slot 5.
3	Seat either:
	— an OCI, OCLD or OTR 10 Gbit/s Enhanced in slot 1, 2 or 3
	— a Muxponder in slot 1, 2, or 3
	— an OCLD or OTR 2.5 Gbit/s in any of slots 1 to 4
	— or an OSC in slot 6
4	Apply power to the shelf.
5	Wait for the Status LED to turn ON green on the SP circuit pack (approximately five minutes).

6	If	Then
	the Status LED turns ON green	you have completed this procedure
	otherwise	go to step 7

7	If	Then go to
	you have no circuit pack in slot 1 or slot 2	step 8
	otherwise	step 14

8	Power off the shelf.

—**continued**—

Procedure 2-2 (continued)
Powering up an Optical Metro 5100 shelf

Step	Action
9	Seat either:
	— an OCI in slot 1
	— or an OCLD or OTR 2.5 Gbit/s in slot 1 or 2
	— or a Muxponder in slot 1, 2, or 3
	— or an OTR 10 Gbit/s Enhanced in slot 1
10	Unseat any circuit pack in slot 3, 4 or 6.
11	Apply power to the shelf.
12	Wait for the Status LED to turn ON green on the SP circuit pack (approximately five minutes).

13	**If**	**Then**
	the Status LED turns ON green	you have completed this procedure
	otherwise	go to

Step	Action
14	You may have an SP running Release 4.1 software and the other card is running Release 4.0 or lower software. This combination is not supported.
15	Power off the shelf.
16	Unseat the SP and in its place seat another SP that has Release 5.0 or greater software load installed on it.
17	Apply power to the shelf.
18	Wait for the Status LED to turn ON green on the SP circuit pack (approximately five minutes).

19	**If**	**Then**
	the Status LED turns ON green	you have completed this procedure
	otherwise	contact Nortel Networks technical support

—**end**—

Figure 2-2
Seating the circuit packs in the Optical Metro 5100 shelf

OM1006t
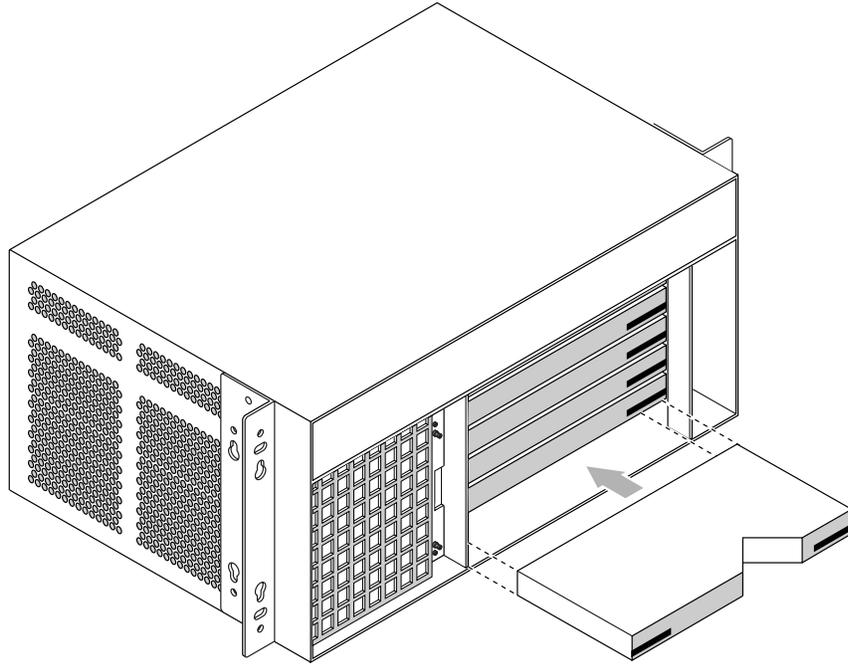
Commissioning a shelf

Use the procedures in this chapter to commission shelves for your network. The Commissioning Wizard is the software tool for these procedures.

The Commissioning Wizard launches automatically when you log into an uncommissioned shelf.

Assigning IP addresses

Make sure that you know your network IP address plan before you assign IP addresses. For restrictions on user-assignable IP addresses, refer to the "Data communications in the Optical Metro 5100/5200 network" chapter of *Network Planning and Link Engineering*, 323-1701-110.

Table 3-1 on page 3-2 lists the IP addresses that are used for Optical Metro 5100/5200 communications. After you define the Ethernet hubbing group and the shelf ID in the Commissioning Wizard, the system automatically assigns the IP addresses listed in Table 3-1.

The IP addresses in Table 3-1 are not visible to the client data communication network (DCN).

You can manually assign the IP addresses for the Ethernet ports 1 and 2 and serial ports 1 and 2 if the shelf subnet mask is 30 bits or less (255.255.255.252). If you change a system-assigned IP address, you can reuse that IP address elsewhere in the network. You must use the System Manager to assign Ethernet port or serial port addresses. See Procedure 1-29 "Defining or changing advanced communications settings for the network", or Procedure 1-30 "Assigning IP addresses for Ethernet port 2 and Serial port 1" in *Provisioning and Operating Procedures,* 323-1701-310.

Follow these guidelines when you assign IP addresses.

- You must assign unique IP addresses to avoid conflicts in the network.
- When using a single IP address for each shelf, assign this address to the 10BaseT 1X address.

You can commission an uncommissioned shelf from an existing backup file using the Commissioning Wizard. See Procedure 3-3 "Commissioning the shelf from a backup file" in this chapter.

Table 3-1
IP addresses used by Optical Metro 5100/5200

IP address	Details	User-assignable
10.0.0.x (x = 1 to 20)	Used for intrashelf communications	No, reserved
10.0.shelfID.x (x = 1 to 254)	Used for intershelf communications	No, reserved
10.1.254.1	Uncommissioned shelf address	No, reserved
10.1.shelfID.1 (see Note 1)	IP address for 10BaseT 1X	Yes, Ethernet Port 1
10.1.shelfID.2 (see Note 1)	DHCP address for 10BaseT 1X	Yes, Ethernet Port 1
10.2.hubbinggroup.(shelfID + 128)	DHCP address for 10BaseT 2X	Yes, Ethernet Port 2
10.2.hubbinggroup.shelfID	IP address for 10BaseT 2X	Yes, Ethernet Port 2
10.3.shelfID.1	DTE local	Yes, Serial port 1
10.3.shelfID.2	DTE remote	Yes, Serial port 1
10.4.shelfID.1	DCE local	Yes, Serial port 2 (see Note 2)
10.4.shelfID.2	DCE remote	Yes, Serial port 2 (see Note 2)

Note 1: These addresses are used by the Optical Metro 5100/5200 shelf when the shelf subnet mask is 255.255.255.255, or as default private IP addresses when the Optical Metro 5100/5200 network is configured in private IP mode.

Note 2: Serial port 2 is not supported.

Before you begin

Before you begin the procedures in this chapter, make sure you have followed the procedures for installing and configuring the System Manager on your PC by following the procedures provided in the "Installing the System Manager" chapter in this book.

Note: You cannot commission an Optical Metro 5100/5200 shelf through a modem, or using Solaris. You can manage a shelf from Solaris after commissioning is complete.

Precautions

	CAUTION **Risk of shelf malfunction** Nortel Networks recommends that you do not use cellular phones at any Optical Metro 5100/5200 site. The use of cellular phones in proximity to Optical Metro equipment can cause shelf malfunction.

Procedure list

Table 3-2 lists the procedures in this chapter.

Table 3-2
Commissioning a shelf procedures

Procedure	Page	Comments
3-1 Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)	3-4	Required.
3-2 Commissioning the shelf using the Shelf Commissioning Wizard	3-8	Required, if you do not commission the shelf from an existing backup file.
3-3 Commissioning the shelf from a backup file	3-27	Optional. Use this procedure if you have a valid backup file with which to commission the shelf.
3-4 Ensuring all circuit packs are running Release 8.0	3-34	Required, if the circuit packs of the shelf to be commissioned are not running Release 8.0.
3-5 Engaging the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)	3-43	Required.
3-6 Engaging the remaining circuit packs into the backplane (for Optical Metro 5100 shelf)	3-48	Required.
3-7 Determining software load location on your PC	3-53	Optional.

Procedure 3-1
Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)

If the System Manager computer is running on a Windows 2000, Windows NT, or Windows XP platform, you must run Dynamic Host Configuration Protocol (DHCP) to communicate with an uncommissioned shelf. When you run DHCP, an IP address is assigned to the System Manager computer by the shelf so that they can communicate.

Requirements

Make sure that you have

• followed the procedures for installing and configuring the System Manager on your PC by following the procedures provided in the "Installing the System Manager" chapter, in this book.

• followed the procedure for powering up the shelf. That is either Procedure 2-1 "Powering up an Optical Metro 5200 shelf" or Procedure 2-2 "Powering up an Optical Metro 5100 shelf".

Table 3-3 lists the tools and materials required for this procedure.

Table 3-3
Tools and materials required

Item	Quantity	Supplied
Straight-through Ethernet cable	1	no

Expected results

When you complete this procedure, the first window of the commissioning wizard (shelf naming window) appears.

Action

Step	Action

1 Use the straight-through Ethernet cable to connect the 10Base-T 1X Ethernet port on the maintenance panel to the PC's LAN/Ethernet card. See Figure 3-1 on page 3-5 for the Optical Metro 5200 maintenance panel, and Figure 3-2 on page 3-5 for the Optical Metro 5100 maintenance panel.

—continued—

Procedure 3-1 (continued)
Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)

Step	Action

Figure 3-1
Optical Metro 5200 maintenance panel

Figure 3-2
Optical Metro 5100 maintenance panel

Power module   Maintenance
                      panel card
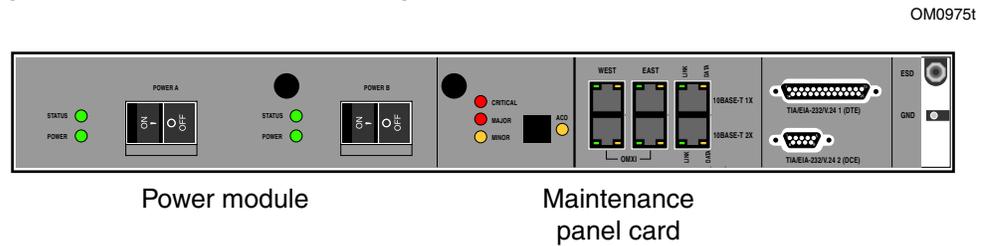
2   Perform the following:

　　a.   From the Windows Start menu, select Run...

　　b.   In the Open field, type:

　　　　`cmd` ↵

　　　　A DOS prompt window opens.

　　c.   Type:

　　　　`ipconfig /release` ↵

　　d.   Wait for the DOS prompt to appear, then type:

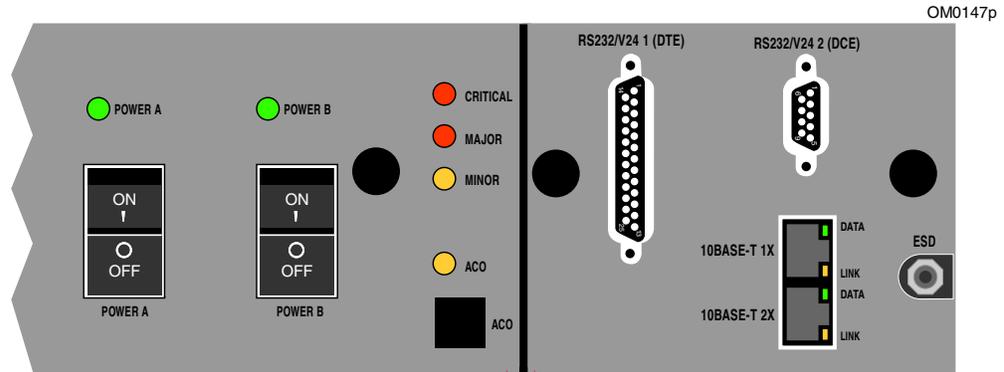　　　　`ipconfig /renew` ↵

　　e.   Close the DOS window.

　　　　　　　　—continued—

Procedure 3-1 (continued)
Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)

Step	Action
3	Open the Web browser and enter the default shelf IP address (URL) in the address field. The default shelf IP address is 10.1.254.1
	The OPTera Metro or Optical Metro window opens in the Web browser.
	Note: If your Web browser shows the status message "Detecting proxy settings..." for more than 30 seconds, have your LAN administrator check the LAN settings on your Web browser.
4	In the Web browser, note the System Manager running version in the Release field.

5	**If**	**Then** go to
	the Release field indicates a Release 8.0 software version	step 6
	otherwise	Procedure 3-4, "Ensuring all circuit packs are running Release 8.0"

6	In the Optical Metro window, click the **Start the System Manager** button.
	The System Manager web page opens and the system checks for the required security certificate.

7	**If**	**Then** go to
	the System Manager Login dialog opens	step 9
	the Warning - Security dialog opens	step 8

8	Click on the **Always** button to indicate that you trust the signed applet.
	The System Manager Login window opens.
9	In the System Manager Login window:
	a. Enter the admin user ID (admin) in the "User name" field
	b. Enter the default password (opterasm) in the "Password" field
	c. Click the **OK** button
	The Warning Notice window opens or the Shelf Commissioning wizard - Shelf Naming window opens.
	Note 1: The System Manager password is case sensitive.
	Note 2: If the Login Failed message appears, reseat the SP, wait for the green Status LED to turn ON green and then go to step 3.

—**continued**—

Procedure 3-1 (continued)
Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)

Step	Action	
10	**If**	**Then** go to
	the Warning Notice window opens	step 11
	the Shelf Commissioning wizard - Shelf Naming window opens	step 12
11	In the Warning Notice window, click on the **OK** button.	
	The Shelf Commissioning wizard - Shelf Naming window opens.	
12	You can commission the shelf using the Shelf Commissioning wizard or from a backup file.	
13	**If** you want to commission the shelf	**Then** go to
	using the Shelf Commissioning wizard	Procedure 3-2 on page 3-8
	from a backup file	Procedure 3-3 on page 3-27

—**end**—

Procedure 3-2
Commissioning the shelf using the Shelf Commissioning Wizard

Follow this procedure to commission the shelf using the Shelf Commissioning Wizard.

Requirements

Make sure that you have

- determined your network IP address plan. For information about system-assigned IP addresses, and for restrictions on user-assigned IP addresses, see the "Data communications in the Optical Metro 5100/5200 network" chapter of *Network Planning and Link Engineering*, 323-1701-110.

- gathered values for all parameters identified in Table 3-4 on page 3-15 to Table 3-9 on page 3-26 for the shelf you are commissioning.

- followed the procedures for installing and configuring the System Manager on your PC by following the procedures provided in the "Installing the System Manager" chapter, in this book.

- followed the procedure for powering up the shelf. That is, either Procedure 2-1 "Powering up an Optical Metro 5200 shelf", or Procedure 2-2 "Powering up an Optical Metro 5100 shelf".

- logged into the uncommissioned shelf. See Procedure 3-1 "Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)".

Expected results

When you complete this procedure

- the network, site and shelf are identified for the System Manager

- IP addresses are assigned to shelves in the network

- the date and time is set for the network

- the shelf data file is created

Nortel Networks recommends that you change the default password once you have completed this procedure. See Procedure 2-6 "Changing your password" in *Provisioning and Operating Procedures*, 323-1701-310.

—continued—

Procedure 3-2 (continued)
Commissioning the shelf using the Shelf Commissioning Wizard

Action

Step	Action
1	Enter the following data in the Shelf Commissioning wizard - Shelf Naming window (see Table 3-4 on page 3-15): • Network Name • Site Name • Shelf Name • Shelf Description • Site Identifier • Shelf Identifier *Note:* The System Manager uses the names that you enter in the Shelf Naming window to display and sort information about shelves.
2	Click the **Next** button. *The Shelf Commissioning wizard - Shelf Communication window opens.*
3	Enter the following data in the Shelf Commissioning wizard - Shelf Communications window (see Table 3-5 on page 3-16): • Shelf is DCN Gateway • External Routing Mode *Note:* This parameter is only accessible when the Shelf is DCN Gateway box is selected. • Shelf Address • Primary Shelf Address • Subnet Mask • DHCP Address • Default Gateway Address • Shelf Type • Ethernet Hubbing Group *Note:* Except for the DCN gateway shelves, the default values are the recommended settings for networks configured with private IP addresses.

—continued—

Procedure 3-2 (continued)
Commissioning the shelf using the Shelf Commissioning Wizard

Step	Action

4	**If**	**Then** go to
	the External Routing Mode is set to OSPF	step 5
	the External Routing Mode is set to BGP	step 9
	otherwise	step 12

5	Click on the **Set** button.
	The OSPF Setting window opens.

6   Enter the following data in the OSPF Setting window (see Table 3-6 on page 3-23):

- External Area ID
- Cost
- Password Enabled
- Password
- Transit Delay
- Retransmit Interval
- Hello Interval
- Router Dead Interval

7   Click on the **OK** button.

8   Go to step 12.

9   Click on the **Set** button.

The BGP Setting window opens.

10   Enter the following data in the BGP Setting window (see Table 3-7 on page 3-24):

- Local AS Number
- Local AS Weight
- Peer 1 IP Address
- Peer 1 AS Number
- Peer 2 IP Address
- Peer 2 AS Number
- Retry Interval
- Holddown Time

11   Click on the **OK** button.

12   In the Shelf Commissioning wizard - Shelf Communications window, click the **Next** button.

The Shelf Commissioning wizard - Shelf Date and Time window opens.

—**continued**—

Procedure 3-2 (continued)
Commissioning the shelf using the Shelf Commissioning Wizard

Step	Action
13	Set the shelf date and time.

If you	**Then**
want to use the date and time of the System Manager computer for the network	click the "Apply PC date/time to the shelf" checkbox.
do not want to use the data and time of the System Manager computer for the network	de-select the "Apply PC date/time to the shelf" checkbox. Then enter the date and time information in the Year, Month, Day, Hour, Minutes, and Second fields.

Note 1: If synchronizing the network date and time from the System Manager computer, make sure that the time and date on the System Manager computer is correct.

Note 2: The TOD clocks on Optical Metro 5100/5200 shelves are synchronized to Greenwich Mean Time (GMT). When the System Manager displays events, the time stamp of the event is converted to the local time of the system that is running the System Manager.

Step	Action
14	Click the **Next** button.

The Shelf Commissioning wizard - Shelf TID window opens.

| 15 | Enter the following data in the Shelf Commissioning - Shelf TID window (see Table 3-8 on page 3-25). |

- TID
- Set TID to Shelf Name
- TID required for all TL1 commands

| 16 | Click on the **Next** button. |

The Shelf Commissioning wizard - Shelf Data File opens.

17	Review the Shelf Data File information.
18	Review the IP address of the shelf as listed in the Shelf URL field.
19	Note the location of the Data File. This file contains all of the information entered in the Commissioning Wizard. It can be used by Nortel Networks Technical Support for troubleshooting.
20	Click on the **Finished** button.

The Shelf Commissioned window opens with the following message:

```
The shelf will now restart. The System Manager will shut
down.
```

—continued—

Procedure 3-2 (continued)
Commissioning the shelf using the Shelf Commissioning Wizard

Step	Action
21	Click on the **Close** button.
	The System Manager closes.
22	Wait for the green status LED to turn ON green on the SP circuit pack before proceeding with the next step.
23	Perform the following:
	a. From the Windows Start menu, select Run...
	b. In the Open field, type:
	cmd ↵
	A DOS prompt window appears.
	c. Type:
	ipconfig /release ↵
24	Disconnect the straight-through Ethernet cable from the 10Base-T 1X port on the shelf maintenance panel.
25	Connect the straight-through Ethernet cable to the 10Base-T 2X port on the shelf maintenance panel.
26	In the DOS window, type:
	ipconfig /renew ↵
27	Wait until an IP address is provided before proceeding with the next step.
28	Close the DOS window.
29	In the Web browser, enter the Shelf IP address (the one you provisioned in step 3) in the address field.
	The Optical Metro window opens in the Web browser.
30	Click **Start the System Manager**.
	The Optical Metro - System Manager Web page opens and the system checks for the required security certificate. The System Manager Login window opens.

—continued—

Procedure 3-2 (continued)
Commissioning the shelf using the Shelf Commissioning Wizard

Step	Action
31	In the System Manager Login window:

    a. Enter the admin user ID (admin) in the "User name" field.

    b. Enter the default password (opterasm) in the "Password" field.

    c. Click the **OK** button.

The Warning Notice window opens or the Optical Metro System Manager window opens.

Note 1: The System Manager password is case sensitive.

Note 2: On Optical Metro 5200 shelves, the Database Redundancy is Unavailable alarm and OCM related alarms may be active. These alarms will clear when you install the second OCM (see Procedure 3-5 "Engaging the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)").

Note 3: On Optical Metro 5100 shelves, the "Loss of Signal" alarm can be active on OCLD, OTR, Muxponder (MOTR) or OSC circuit packs.

32	**If**	**Then** go to
	the Warning Notice window opens	step 33
	the Optical Metro System Manager window opens	step 34

33	In the Warning Notice window, click on the **OK** button.

The Optical Metro System Manager window opens.

34	**If**	**Then** go to
	you want to enable the Audible Alarm	step 35
	Note: When enabled, the shelf audible alarm sounds whenever a Major or Critical alarm is raised by the shelf.	
	otherwise	step 38

35	In the Optical Metro System Manager window:

    a. click on the **Configuration** tab

    b. click on the **Surveillance** tab

The Surveillance window opens.

36	In the Audible Alarm area, click the **Enable** button.

A confirmation dialog opens.

Procedure 3-2 (continued)
Commissioning the shelf using the Shelf Commissioning Wizard

Step	Action
37	In the dialog, click on the **Yes** button.
	The dialog closes.
38	In the Optical Metro System Manager window:
	a. click on the **Configuration** tab
	b. click on the **Communications** tab
39	Right-click on the line and then select **Modify**.
	The Shelf Configuration dialog box appears.
40	Click on the **Advanced...** button.
	The Advanced Communications Settings dialog box appears.
41	Enter the OSPF Area ID in the Internal OSPF Setting section of the dialog box.
42	In the Advanced Communications Settings dialog, click on the **OK** button.
	The dialog closes.
43	In the Shelf Configuration dialog, click on the **OK** button.
	The Confirm commissioning data modification dialog box appears.
44	In the Confirm commissioning data modification dialog, click on the **Yes** button.
	The System Manager closes and the shelf restarts.

Step	**If** the shelf you are connected to is an	**Then** go to
45	Optical Metro 5200 shelf	Procedure 3-5, "Engaging the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)"
	Optical Metro 5100 shelf	Procedure 3-6, "Engaging the remaining circuit packs into the backplane (for Optical Metro 5100 shelf)"

—**end**—

Table 3-4
Commissioning Shelf wizard - Shelf Naming window parameters

Parameter	Definition	Value/range
Network Name	User-defined name of the network	Character string up to 31 characters ***Note:*** Nortel Networks recommends that all shelves in a ring have the same network name.
Site Name	User-defined name of the site	Character string up to 31 characters ***Note:*** Nortel Networks recommends that all shelves at a site have the same site name.
Shelf Name	User-defined name of the shelf	Character string up to 31 characters ***Note 1:*** Nortel Networks recommends that each shelf in a ring have a different descriptive shelf name, such as Surveillance Site Band 3. ***Note 2:*** Do not use brackets in the shelf name.
Shelf Description	User-defined description of the shelf	Character string up to 63 characters ***Note:*** Nortel Networks recommends that each shelf in a ring have a different shelf description.
Site Identifier	Number of the site in the network used to group shelves logically in the System Manager	Number from 1 through 64
Shelf Identifier	Unique number of the shelf in the network	Number from 1 through 64
Shelf Role	The role of the shelf in the network	Not available through the Commissioning Wizard.

Table 3-5
Commissioning Shelf wizard - Shelf Communications window parameters

Parameter	Definition	Value/range
Shelf is a DCN Gateway	When the check box is checked, this indicates that the shelf is connected to the DCN and the shelf is used as a DCN access point for the Optical Metro 5100/5200 system.	• Selected • Unselected
External Routing Mode	Indicates how a GNE (a DCN gateway) shelf interfaces with the DCN for routing IP packets between the DCN and remote Optical Metro 5100/5200 shelves. This parameter can only be set when the "Shelf is a DCN Gateway" check box is checked. Otherwise, its value is automatically set to NONE.	None, ProxyARP, OSPF, BGP For a definition of these values, see the "Data communications in the Optical Metro 5100/5200 network" chapter of *Network Planning and Link Engineering*, 323-1701-110

Table 3-5 (continued)
Commissioning Shelf wizard - Shelf Communications window parameters

Parameter	Definition	Value/range
Shelf Address (see Note 2)	This field indicates the IP address of the shelf. Each shelf in a network must have a unique IP address. The IP address chosen for each shelf will depend on whether the Optical Metro 5100/5200 network is to be configured with public IP addresses, (used when the Gateway shelves' external routing mode is set to "Proxy ARP", "OSPF" or "BGP"), or private IP addresses, (used when the Gateway shelves' external routing mode is set to "None").	If the Gateway shelves are running Proxy ARP, OSPF or BGP, all shelves must have an IP address visible from the DCN. When OSPF is running on the GNE shelves, the non-GNE shelves can be, but do not have to be, in the same subnet as the GNE shelves. When BGP is running on the GNE shelves, the non-GNE shelves cannot be in the same subnet as the GNE shelves. When Proxy ARP is running on the GNE shelf, all non-GNE shelves must be in the same subnet as the GNE shelf. If the Gateway shelves' external routing mode is set to "None" (private IP address configuration), non-GNE shelves are not visible from the customer DCN and may therefore be assigned private IP addresses. The recommended IP address in this case is 10.1.shelfID.1 (this is the default IP address set by the commissioning wizard). Not permitted: • any IP address with a first octet of "0" (0.nnn.nnn.nnn) • any IP address with a first octet of "127" (127.nnn.nnn.nnn) • any IP address with a first octet of "10" and a second octet of "0" (10.0.nnn.nnn) • any IP address with a first octet of "224 or greater" (224.n.n.n, 225.n.n.n, etc.)

Table 3-5 (continued)
Commissioning Shelf wizard - Shelf Communications window parameters

Parameter	Definition	Value/range
Primary Shelf Address	This field indicates the IP address of the primary node shelf in the network. The primary shelf distributes network-level information across all the shelves in a network. You use the primary node to add and remove other shelves in the Optical Metro 5100/5200 network. Assign all shelves in the network the same primary node address. ***Note 1:*** If you change the Primary IP address after it is in use in the network, the System Manager will not be able to receive shelf list changes or updates. The non-primary shelves will not be able to communicate with the primary shelf. Every non-primary shelf would need to be reconfigured to point to the new primary address. ***Note 2:*** If you have to change the IP address of the primary shelf for an in-service Optical Metro 5100/5200 network, and some shelves have their internal OSPF area ID set to the default value of 0.0.0.0, you can avoid a loss of contact explicitly setting the OSPF area ID for these shelves to the current IP address of the primary shelf, before changing the IP address of the primary shelf.	Not permitted: • any IP address with a first octet of "0" (0.nnn.nnn.nnn) • any IP address with a first octet of "127" (127.nnn.nnn.nnn) • any IP address with a first octet of "10" and a second octet of "0" (10.0.nnn.nnn) • any IP address with a first octet of "224 or greater" (224.n.n.n, 225.n.n.n, etc.)

Table 3-5 (continued)
Commissioning Shelf wizard - Shelf Communications window parameters

Parameter	Definition	Value/range
Subnet mask (see Notes 1 and 2)	This field sets the subnet mask for the shelf.	The value of this field depends on whether the shelf is a GNE or non-GNE, and whether the Optical Metro 5100/5200 network is configured in a public IP address mode or a private IP address mode. If the shelf is a GNE, the following applies: • GNE shelves must be configured with a subnet mask of 30 bits or less (for example, 255.255.255.252). The size of the subnet is determined by the configuration of the DCN segment to which the GNE is connected. Also, when Proxy ARP is running on the GNE shelf, the subnet mask must be defined large enough to include all the LAN connected devices and all the Optical Metro 5100/5200 IP addresses in the subnetwork. If the shelf is a non-GNE and the network is configured to operate in public IP mode, the following applies: • The recommended subnet mask is 32 bits (for example, 255.255.255.255), since only a single IP address from the DCN address space is needed for the shelf. The 10Base-T 1X port is assigned a private address, separate and distinct from the shelf address. Non-GNE shelves may be configured with a larger subnet by setting the subnet mask to 30 bits or less (for example, 255.255.255.252). In this case, the number of IP addresses that need to be allocated from the DCN address space corresponds to the size of the subnet assigned to the shelf. For example, with a subnet mask of 255.255.255.252, four IP addresses from the DCN address space are used (corresponding to the subnet address, the shelf address, an address allocated through DHCP, and the subnet broadcast address). In this configuration, the shelf address and the 10Base-T 1X port address are one and the same.

Table 3-5 (continued)
Commissioning Shelf wizard - Shelf Communications window parameters

Parameter	Definition	Value/range
Subnet Mask Cont'd		If the shelf is a non-GNE and the network is configured to operate in private IP mode, the following applies: • The subnet mask of the non-GNE shelf must be set between 24 and 30 bits. The recommended value is a 30 bit mask (255.255.255.252) along with a shelf IP of 10.1.shelfID.1.
DHCP address	The DHCP address is an IP address that allows you to connect a PC to the 10Base-T 1X port on the maintenance panel of the shelf. DHCP issues a lease on the craft interface, initially for 10 minutes and then subsequently renews it for one hour periods. If the craftsperson ends a session and explicitly releases the lease, the port is available for immediate reuse by another computer. If the lease is not explicitly given up, no other computer will be able to use that node until the lease expires. The original lease owner can, however, reconnect since their lease is still valid.	For a GNE shelf, must be "0.0.0.0". For a non-GNE shelf, address must be in the same subnet as shelf address. ***Note:*** When the subnet mask is set as 255.255.255.255, any DHCP address other than 0.0.0.0 causes an error message. DHCP addresses are set according to Table 3-1 on page 3-2. Not permitted: • any IP address with a first octet of "0" (0.nnn.nnn.nnn) • any IP address with a first octet of "127" (127.nnn.nnn.nnn) • any IP address with a first octet of "10" and a second octet of "0" (10.0.nnn.nnn) • any IP address with a first octet of "224 or greater" (224.n.n.n, 225.n.n.n, etc.) To use the DHCP address at a non-GNE shelf: • enter an IP address that the LAN segment assigned to the network supports • configure the System Manager computer to "Obtain an IP address automatically" in the TCP/IP Properties window of the Network Control Panel

Table 3-5 (continued)
Commissioning Shelf wizard - Shelf Communications window parameters

Parameter	Definition	Value/range
Default gateway address (see Note 2)	This field sets the default gateway address.	This field is only set to a non-zero value on a DCN gateway shelf (GNE) that has its external routing mode set to "Proxy ARP" or "None". If the DCN gateway shelf is running Proxy ARP, the following applies: • If the System Manager is on the same subnet as the shelf, the Default Gateway Address is set to the shelf's IP address. If the System Manager computer is on a different subnet than the GNE shelf, the Default Gateway Address is set to the IP address of the IP router residing between the DCN and the GNE shelf. If the DCN gateway shelf external routing mode is configured as "None", to operate in private IP address mode, the following applies: • The Default Gateway address should be set to the address of the IP router residing between the DCN and the GNE shelf. If the shelf is not a DCN gateway, or is a DCN gateway running OSPF or BGP, the default gateway is set to 0.0.0.0. Not permitted: • any IP address with a first octet of "0" (0.nnn.nnn.nnn) • any IP address with a first octet of "127" (127.nnn.nnn.nnn) • • any IP address with a first octet of "10" and a second octet of "0" • (10.0.nnn.nnn) • • any IP address with a first octet of "224 or greater" (224.n.n.n, 225.n.n.n, etc.)
Shelf type	This field indicates the type of the shelf. ***Note:*** An OFA shelf can function as a network GNE when used in conjunction with an OSC.	OADM, OFA, terminal, or Mixed

Table 3-5 (continued)
Commissioning Shelf wizard - Shelf Communications window parameters

Parameter	Definition	Value/range
Ethernet hubbing group	At a site, shelves connected together (either through an Ethernet hub using their 10Base-T 2X ports, or directly together using their 10Base-T 2X ports), must have the same Ethernet hubbing group value. Each site within the system must have a unique Ethernet hubbing group value. For sites with one shelf, a unique Ethernet hubbing group value must be provisioned. It is recommended that you assign a value to the Ethernet hubbing group that matches the Site Identifier value.	Number between 1 and 64
Advanced	This field enables you to configure the Advanced Communications Settings, such as OSPF routing control information.	This button is not enabled on the Commissioning Wizard.
Port control	This field allows you to enable or disable the ports on the maintenance panel. If you disable all the ports on a shelf you cannot use the System Manager to access the shelf locally. You must access the shelf from another shelf in the network with the same band to enable the ports. If you disable all the ports on all the shelves in a network you must contact Nortel Networks Technical Support to reestablish a network surveillance connection. **Note:** Port control changes take effect immediately. No restart is required.	This button is not enabled on the Commissioning Wizard.

Note 1: A shelf with a proxy ARP server activated responds to ARP requests with the IP address of other shelves in the Optical Metro 5100/5200 ring that are on the LAN and connected to the 10Base-T 1X port. If you have not configured the System Manager computer on the LAN connected to the proxy ARP server shelf to send an ARP request for other shelves in the Optical Metro 5100/5200 ring, you must add a static route from the System Manager computer to the other shelves in the ring. Use the "route add" command on the computer to add the required static route. Refer to your computer help topics for more information about the route add command.

Note 2: For more information, refer to the "Data communications in the Optical Metro 5100/5200 network" chapter of *Network Planning and Link Engineering,* 323-1701-110.

Table 3-6
OSPF Settings window parameters

Parameter	Definition	Value/range
External Area ID	This field defines the OSPF area used for the customer DCN router interface. In this release, only OSPF backbone routers can be connected to the GNEs. This field is currently grayed out for future use.	Default: 0.0.0.0
Cost	This field indicates the cost of sending a data packet on the interface.	A number from 1 to 200. The default is 10.
Password Enabled	This field indicates if there is a password assigned to the OSPF backbone. The password is for "simple password authentication".	Enabled If there is more than one GNE shelf in the network, you must choose Enabled in all GNE shelves.
Password	This field allows the authentication procedure to generate (or check) the incoming and outgoing OSPF packets.	Character string: 1 to 8 characters. If there is more than one GNE shelf in the network, you must assign the same password to all the GNE shelves on the same subnet.
Transit Delay	This field indicates the number of seconds to transmit a link state update packet over the 10Base-T 1X port.	A number from 1 to 100. Default: 1 second.
Retransmit Interval	This field indicates the number of seconds between link state advertisement retransmission.	A number from 1 to 100. Default: 5 seconds.
Hello Interval	This field indicates the number of seconds between Hello packets that the router sends on the interface.	A number from 1 to 1800. Default: 10 seconds. *Note:* All routers attached to the same subnet must have the same value.
Router Dead Interval	This field indicates the number of seconds before the router's neighbors determine that it is out-of-service (when they stop receiving the Hello packet from the router).	A number from 1 to 3600. Default: 40 seconds. *Note:* All routers attached to the same subnet must have the same value.

Table 3-7
BGP Settings window parameters

Parameter	Definition	Value/range
Local AS Number	The Autonomous System Number assigned to the Optical Metro 5100/5200 System	0 to 65535
Local AS Weight	Indicates the AS weight assigned to an AS in a path. AS weights provide a way either to prefer or to avoid routes that pass through certain AS(s). The path with the smallest total weight is the preferred path.	0 to 65535
Peer 1 IP Address	IP address of the peering router	The IP address has to be in the same subnet as the shelf IP address (Ethernet port 1).
Peer 1 AS Number	The Autonomous System Number assigned to the AS where the customer router is located	0 to 65535
Peer 2 IP Address	IP address of the peering router	The IP address has to be in the same subnet as the shelf IP address (Ethernet port 1).
Peer 2 AS Number	The Autonomous System Number assigned to the AS where the customer router is located	0 to 65535
Retry Interval	Retry interval for establishing peer-to-peer session	0 to 65535
Holddown Time	The amount of time either peer will wait for a keepalive or update message before declaring the connection down	0 to 65535

Table 3-8
Commissioning Shelf Wizard - Shelf TID window parameters

Parameter	Definition	Value/range
Shelf Name	User-defined name of the site	The Shelf Name you provisioned in the Shelf Commissioning-Shelf Naming window is displayed. You cannot edit the Shelf Name in the Shelf TID window. See Table 3-4 on page 3-15.
TID	This field indicates the Target Identifier (TID) of the shelf. The TID is a non-confidential code used to identify the network element being addressed	TID values must be between 1 and 20 alphanumeric characters. The first character must be a letter. The remaining characters can be any combination of letters, numbers and hyphens (-). The TID is not case sensitive. Unsupported characters include semicolon (;), underscore (_), period (.), colon (:), ampersand (&), greater than (>), less than (<), backslash (\), comma (,), spaces, and control characters.
Set TID to Shelf Name	If this box is selected, the Shelf Name field is enabled and the TID field is disabled. The TID value is automatically set to the current Shelf Name and any changes to the Shelf Name modify the current TID value. The TID value field is not provisionable in this case. *Note:* For the TID value to be set to the Shelf Name, the Shelf Name must comply with the TID format otherwise the setting is rejected. If this box is not selected, the Shelf Name field is disabled and the TID field is enabled. You can modify the TID value manually.	• Selected • Unselected
TID required for all TL1 commands	If this box is selected, all TL1 commands must include the TID parameter. If this box is selected, a TL1 command executed with no TID is treated as a TL1 command with an invalid TID. If this box is not selected, it is not required to specify a TID parameter in TL1 commands.	• Selected • Unselected

Table 3-9
Other commissioning data

Parameter	Definition	Value/range
Shelf audible alarm	When enabled, the shelf audible alarm sounds whenever a Major or Critical alarm is raised by the shelf.	• Enable • Disable
OSPF Area ID	This field defines the OSPF area used for internal Optical Metro 5100/5200 communication. ***Note:*** Before changing the Primary Shelf Address in any of the shelves of an in-service Optical Metro 5100/5200 network, make sure that the "OSPF Area ID" is set to a value other than 0.0.0.0. Failure to do so results in a loss of IP routing capability between some of the shelves, which in turn results in a loss of contact with those shelves. Refer to the "Primary Shelf Address" parameter description in Table 3-5.	All shelves within an Optical Metro 5100/5200 network must have the same internal OSPF Area ID. When the External Routing Mode is not OSPF, then any value can be chosen for the internal OSPF Area ID since this parameter is only used internally. When the External Routing Mode is OSPF, then the internal OSPF Area ID must be chosen to ensure uniqueness within your overall network. If you are managing multiple Optical Metro 5100/5200 networks, each Optical Metro 5100/5200 network must have a unique internal OSPF Area ID. Nortel Networks recommends setting the internal OSPF Area ID to match the primary shelf IP address since this is often an easy way to ensure uniqueness. If you use the default value (0.0.0.0), the address of the primary shelf is used as the internal OSPF Area ID. However, if the primary shelf IP address is changed at a later date, then you can experience loss of contact between some of the shelves unless you follow the instructions in the Note: in the Description column.

Procedure 3-3
Commissioning the shelf from a backup file

Follow this procedure to commission the shelf from an existing backup file.

Requirements

Make sure that you have

- followed the procedures for installing and configuring the System Manager on your PC by following the procedures provided in the "Installing the System Manager" chapter, in this book.

- followed the procedure for powering up the shelf. That is, either Procedure 2-1 "Powering up an Optical Metro 5200 shelf", or Procedure 2-2 "Powering up an Optical Metro 5100 shelf".

- logged into the uncommissioned shelf. See Procedure 3-1 "Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)".

Action

Step	Action
1	In the Restore panel of the Shelf Commissioning wizard - Shelf Naming window, click on the **Restore** button. *The Restore window opens.*
2	In the Restore window, select which aspects of the data file you want to load to the shelf. If you do not select any items, System Manager defaults to the basic shelf configuration. Table 3-10 describes the data associated with each selection item.

Table 3-10
Restore panel fields

Field name	Definition
User Profile	Includes, but is not limited to, user names, passwords and privileges
Commissioning Data	Includes, but is not limited to, network name, shelf site name, shelf name, shelf description, node type, shelf number, site identifier, shelf identifier, primary node address, hubbing group, IP address, subnet mask, DHCP address, gateway IP address

—**continued**—

Procedure 3-3 (continued)
Commissioning the shelf from a backup file

Step	Action
3	In the Restore window, click the **Transfer** button.
	The Choose Restore File dialog box opens.
4	Browse through the file system and select the correct file to restore the shelf. Click the **Open** button.
	The Confirm Transfer dialog box opens.
5	Click the **Yes** button.
	When the process is complete, the restore file resides on the SP circuit pack of the target shelf.
6	Click the **Load** button.
	The Confirm Load dialog box opens.
7	Click the **Yes** button.
	A Warning message indicates the status of the load.
8	Click the **Close** button.
9	Click the **Commit** button.
	The Confirm Commit dialog box opens.
10	Click the **Yes** button.
	A message indicates the status of the restore process, which can take up to 40 seconds. Once complete, the Restore Status dialog displays. If the load is successful, a shelf level restart is triggered, which shuts down System Manager.
11	Click the **Close** button.
12	Wait for the green status LED to turn ON green on the SP circuit pack before proceeding with the next step.

—**continued**—

Procedure 3-3 (continued)
Commissioning the shelf from a backup file

Step	Action
13	Perform the following:
	a. From the Windows Start menu, select Run...
	b. In the Open field, type:
	`cmd ↵`
	A DOS prompt window appears.
	c. Type:
	`ipconfig /release ↵`
14	Disconnect the straight-through Ethernet cable from the 10Base-T 1X port on the shelf maintenance panel.
15	Reconnect the straight-through Ethernet cable to the 10Base-T 2X port on the shelf maintenance panel.
16	In the DOS window, type:
	`ipconfig /renew ↵`
17	Wait until an IP address is provided before proceeding with the next step.
18	Close the DOS window.
19	In the Web browser, enter the Shelf IP address in the address field.
	The Optical Metro window opens in the Web browser.
20	Click **Start the System Manager**.
	The Optical Metro - System Manager Web page opens and the system checks for the required security certificate. The System Manager Login window opens.

—**continued**—

Procedure 3-3 (continued)
Commissioning the shelf from a backup file

Step	Action

21   In the System Manager Login window:

  a.   Enter the admin user ID in the "User name" field

  b.   Enter the default password in the "Password" field

  c.   Click the **OK** button

  The Warning Notice window opens.

  Note 1: The System Manager password is case sensitive.

  Note 2: If you click **Cancel** or if the number of login failures equal the provisioned Failed Login Attempt Threshold, the System Manager Login dialog box and the System Manager automatically close.

  A Warning Notice dialog box appears if Local authentication mode is provisioned, if Centralized authentication mode is provisioned and the Radius server is reachable or if Centralized authentication mode is provisioned, the Radius server is not reachable, the alternate login method is set to Local User and the User name and password is provisioned at the network element as a Local user.

  The Challenge Response dialog is displayed if Centralized authentication mode is provisioned, the Radius server is not reachable and the alternate login method is set to Challenge Response.

  The Login failed dialog with message "Centralized authentication is unavailable, please use local user authentication" is displayed if Centralized authentication mode is provisioned, the Radius server is not reachable, the alternate login method is set to Local User and the User name and password is not provisioned at the network element as a Local user.

22

If	**Then** go to
the Warning Notice dialog appears	step 29
the Challenge Response dialog appears	step 25
the Login failed dialog with message "Centralized authentication is unavailable, please use local user authentication" appears	step 23

23   In the Login failed dialog, click **Close**.

  The System Manager Login dialog box appears.

24   Go back to step 21 and enter a User name and password that is provisioned as a local user at the network element.

  —continued—

Procedure 3-3 (continued)
Commissioning the shelf from a backup file

Step	Action
25	Obtain the Challenge Response code. Contact your administrator to obtain the Challenge Response code. The Challenge Reponse code can be obtained using the Challenge Response Tool.
	The Challenge Response Tool is available as part of the Optical Manager Element Adaptor or as a standalone application, which can be installed and executed on a computer. For more information, refer to the *Challenge Response Tool User Guide* (NT0H7212).
26	Enter the Challenge Response code in the "Response" field of the Challenge Response dialog and then click **OK**.
	A Warning Notice dialog box appears.
27	In the Warning Notice dialog box, click **OK**.
	The main window of the System Manager appears.
28	Go to step 36.
29	In the Warning Notice dialog box, click **OK**.
	The main window of the System Manager appears. The Login Information dialog can appear, the Password Expiry Warning dialog can appear or the Login Warning dialog can appear. The Login Information dialog appears if Centralized authentication mode is provisioned and the Radius server is reachable. The Login Warning dialog appears if Centralized authentication mode is provisioned, the Radius server is not reachable and the alternate login method is set to Local User.

30	**If**	**Then** go to
	the Password Expiry Warning dialog appears	step 31
	the Login Warning dialog appears	step 33
	the Login Information dialog appears	step 35
	otherwise	step 36

31	In the Password Expiry Warning dialog, click **Close**.
	The Login Information dialog appears.
32	Go to step 35.
33	In the Login Warning dialog, click **Close**.
34	Go to step 36.
35	In the Login Information dialog, click **Close**.
	The main window of the System Manager appears.

—**continued**—

Procedure 3-3 (continued)
Commissioning the shelf from a backup file

Step	Action

| **36** | In the System Manager main window |

a. click the maximize button

b. click on the **Selected Shelves** drop-down list to display the network tree

Note 1: On Optical Metro 5200 shelves, the "Database Redundancy Unavailable" alarm and OCM-related alarms can be active. These alarms clear when you install the second OCM (see Procedure 3-5 "Engaging the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)").

Note 2: On Optical Metro 5100 shelves, the Loss of Signal alarm can be active on OCLD, OTR or OSC circuit packs.

37	**If**	**Then** go to
	you want to enable the Audible Alarm	step 38
	Note: When enabled, the shelf audible alarm sounds whenever a Major or Critical alarm is raised by the shelf.	
	otherwise	step 41

| **38** | In the Optical Metro System Manager window: |

a. click on the **Configuration** tab

b. click on the **Surveillance** tab

The Surveillance window opens.

| **39** | In the Audible Alarm area, click the **Enable** button. |

A confirmation dialog opens.

| **40** | In the dialog, click on the **Yes** button. |

The dialog closes.

—**continued**—

Procedure 3-3 (continued)
Commissioning the shelf from a backup file

Step	Action	
41	**If** the shelf you are connected to is an	**Then** go to
	Optical Metro 5200 shelf	Procedure 3-5 "Engaging the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)"
	Optical Metro 5100 shelf	Procedure 3-6 "Engaging the remaining circuit packs into the backplane (for Optical Metro 5100 shelf)"

—**end**—

Procedure 3-4
Ensuring all circuit packs are running Release 8.0

This procedure is only required if it has been determined (in Procedure 3-1, "Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)" on page 3-4) that the circuit packs equipped in the shelf are not running Release 8.0.

Use this procedure to determine the software version running on the newly commissioned shelf, and to ensure that all circuit packs run the Release 8.0 software version by upgrading or downgrading these circuit packs to Release 8.0.

Before the shelf can be upgraded or downgraded to Release 8.0 it must first be commissioned. This procedure enters temporary commissioning data to allow this to occur. Once the shelf has been upgraded or downgraded to Release 8.0, this procedure then clears all the temporary commissioning data. Valid Release 8.0 commissioning data can then be entered.

Requirements

Ensure that you

- have followed the procedures for installing and configuring the System Manager on your PC by following the procedures provided in the chapter "Installing the System Manager", in this book.

- know whether the Optical Metro 5100/5200 software was transferred to the C: or D: drive of your PC when you completed Procedure 1-1 "Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)" and the version of the Release 8.0 software load. If you are not sure, complete Procedure 3-7 "Determining software load location on your PC".

- followed the procedure for powering up the shelf. That is, either Procedure 2-1 "Powering up an Optical Metro 5200 shelf", or Procedure 2-2 "Powering up an Optical Metro 5100 shelf".

- have started the procedure for connecting to the shelf (see Procedure 3-1 "Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)")

Expected results

When you complete this procedure, all circuit packs equipped in the shelf are running Release 8.0.

Procedure 3-4 (continued)
Ensuring all circuit packs are running Release 8.0

Action

Step	Action
1	In the OPTera Metro window, click the **Start the System Manager** button.
	The System Manager web page opens and the system checks for the required security certificate.

2	**If**	**Then** go to
	the System Manager Login dialog opens	step 4
	the Warning - Security dialog opens	step 3

3	Click on the **Always** button to indicate that you trust the signed applet.
	The System Manager Login window opens.

4	In the System Manager Login window:
	a. Enter the admin user ID (admin) in the "User name" field
	b. Enter the default password (opterasm) in the "Password" field
	c. Click the **OK** button
	The Warning Notice window opens or the Shelf Commissioning wizard - Shelf Naming window opens.
	Note 1: The System Manager password is case sensitive.
	Note 2: If the Login Failed message appears, reseat the SP and wait for the green Status LED to turn ON green. In the WEB browser, enter the default shelf IP address (10.1.254.1) in the address field and then go to step 1.

5	**If**	**Then** go to
	the Warning Notice window opens	step 6
	the Shelf Commissioning wizard - Shelf Naming window opens	step 7

6	In the Warning Notice window, click on the **OK** button.
	The Shelf Commissioning wizard - Shelf Naming window opens.

7	Enter the following temporary data in the Shelf Commissioning wizard - Shelf Naming window:
	• Network Name: Site A
	• Site Name: Site A
	• Shelf Name: Site A
	• Shelf Description: Site A
	• Site Identifier: 1
	• Shelf Identifier: 1

—**continued**—

Procedure 3-4 (continued)
Ensuring all circuit packs are running Release 8.0

Step	Action
8	Click the **Next** button.
	The Shelf Commissioning wizard - Shelf Communication window opens.
9	Enter the following temporary data in the Shelf Commissioning wizard - Shelf Communications window:
	• Shelf Address: 10.5.1.1
	• Primary Shelf Address: 10.5.1.1
	• Subnet Mask: 255.255.255.255
	• DHCP Address: 0.0.0.0
	• Default Gateway Address: 0.0.0.0
	• Shelf Type: OADM
	• Ethernet Hubbing Group: 1
10	Click the **Next** button.
	The Shelf Commissioning wizard - Shelf Surveillance window opens or the Shelf Commissioning wizard - Shelf Date and Time window opens.

11	**If**	**Then** go to
	the Shelf Commissioning wizard - Shelf Surveillance window opens	step 12
	the Shelf Commissioning wizard - Shelf Date and Time window opens	step 13

Step	Action
12	Click the **Next** button.
	The Shelf Commissioning wizard - Shelf Date and Time window opens.
13	Click the **Next** button.
	The Shelf Commissioning wizard - Shelf Data File opens.
14	Click on the **Finished** button.
	The Shelf Commissioned window opens with the following message:
	`The shelf will now restart. The System Manager will shut down.`
15	Click on the **Close** button.
	The System Manager closes.
16	Wait for the green status LED to turn ON green on the SP circuit pack before proceeding with the next step.
	—continued—

Procedure 3-4 (continued)
Ensuring all circuit packs are running Release 8.0

Step	Action
17	Perform the following:

    a. From the Windows Start menu, select Run...

    b. In the Open field, type:

       `cmd ↵`

       A DOS prompt window appears.

    c. Type:

       `ipconfig /release ↵`

18 In the DOS window, type:

    `ipconfig /renew ↵`

19 Wait until an IP address is provided before proceeding with the next step.

20 Close the DOS window.

21 In the Web browser, enter 10.5.1.1 in the address field.

    The OPTera Metro window opens in the Web browser.

22 Note the System Manager running version in the Release field.

23 Click **Start the System Manager**.

    The OPTera Metro - System Manager Web page opens and the system checks for the required security certificate. The System Manager Login window opens.

24 In the System Manager Login window:

    a. Enter the admin user ID (admin) in the "User name" field

    b. Enter the default password (opterasm) in the "Password" field

    c. Click the **OK** button

    Note 1: The System Manager password is case sensitive.

    Note 2: Alarms can be active. Take no action.

    The OPTera Metro System Manager window opens or a Warning Notice window opens.

25

If	**Then** go to
the Warning Notice window opens	step 26
the OPTera Metro System Manager window opens	step 27

26 In the Warning Notice window, click the **OK** button.

    The OPTera Metro System Manager opens.

<div align="center">

—continued—

</div>

Procedure 3-4 (continued)
Ensuring all circuit packs are running Release 8.0

Step	Action
27	In the OPTera Metro System Manager window:
	a. click on the **Admin** tab
	b. click on the **Software Upgrade** tab
28	Note the software version running on the shelf.
29	Close the System Manager and any open Web browsers.
30	**If** the Release 8.0 software load is installed on your PC's **Then** go to

C: drive	step 31
D: drive	step 35

Step	Action
31	On the PC, start **Windows Explorer**.
32	In Windows Explorer:
	a. select the **C:** drive
	b. double-click on the **NortelNetworks** directory
	c. double-click on the **OPTeraMetro** directory
	d. double-click on the **Library** directory
	e. double-click on the <**8.0.xy.z**> directory where <8.0.xy.z> is the Release 8.0 software load version
	f. double-click on the **smi.bat** file
	After a short delay (up to 30 seconds), the Shelf IP Address dialog opens.
33	In the dialog:
	a. enter 10.5.1.1 in the IP Address box
	b. click on the **OK** button
	The System Manager Login dialog opens.
34	Go to step 38.
35	On the PC, start **Windows Explorer**.
36	In Windows Explorer:
	a. select the **D:** drive
	b. double-click on the **NortelNetworks** directory
	c. double-click on the **OPTeraMetro** directory
	d. double-click on the **Library** directory
	e. double-click on the <**8.0.xy.z**> directory where <8.0.xy.z> is the Release 8.0 software load version
	f. double-click on the **smi.bat** file
	After a short delay (up to 30 seconds), the Shelf IP Address dialog opens.

—**continued**—

Procedure 3-4 (continued)
Ensuring all circuit packs are running Release 8.0

Step	Action
37	In the dialog:
	a. enter 10.5.1.1 in the IP Address box
	b. click on the **OK** button
	The System Manager Login dialog opens.
38	In the System Manager Login dialog:
	a. enter your admin-group user ID into the **User name** field
	b. enter your admin-group password into the **Password** field
	c. click on the **OK** button
	The Optical Metro System Manager windows opens or a Warning Notice window opens.

39	If	**Then** go to
	the Warning Notice window opens	
	the Optical Metro System Manager window opens	

Step	Action
40	In the Warning Notice window, click on the **OK** button.
	The Optical Metro System Manager window opens.
41	In the Optical Metro System Manager window:
	a. click on the **Admin** tab
	b. click on the **Software Upgrade** tab
	A Warning message appears.
42	In the Warning message, click **Close**.
	The Optical Metro System Manager window opens.
43	In the Shelf Name list, right-click on the shelf.
	A drop-down menu appears.
44	In the drop-down menu, select **Backup Original Load**.
	A Question dialog opens.
45	In the Question dialog, click on the **No** button.
	The Choose a Directory to Save the Load dialog opens.
46	In the Choose a Directory to Save the Load dialog, click on the **Save** button
	The Confirm Load Directory dialog opens.

—continued—

Procedure 3-4 (continued)
Ensuring all circuit packs are running Release 8.0

Step	Action
47	In the Confirm Load Directory dialog, click on the **Yes** button.
	The Confirm Load Directory dialog closes.
	The State field shows backupOriginalLoadInProgress.
	After up to 15 minutes, the State field shows backupOriginalLoadDone.
48	In the Shelf Name list, right-click on the shelf.
	A drop-down menu appears.
49	In the drop-down menu, select **Transfer**.
	The Choose Load Library dialog opens or the Library Location Selection dialog opens.

50	**If**	**Then** go to
	the Choose Load Library dialog opens	step 52
	the Library Location Selection dialog opens	step 51

Step	Action
51	In the Library Location Selection dialog, select Work Station and then click on the **OK** button.
	The Choose Load Library dialog opens.

52	**If** the Release 8.0 software load is installed on your PC's	**Then** go to
	C: drive	step 53
	D: drive	step 55

Step	Action
53	In the Choose Load Library dialog, select the following directory: C:\NortelNetworks\OPTeraMetro\Library\8.0.xy.z where 8.0.xy.z is the Release 8.0 software load version
54	Go to step 56.
55	In the Choose Load Library dialog, select the following directory: D:\NortelNetworks\OPTeraMetro\Library\8.0.xy.z where 8.0.xy.z is the Release 80 software load version
56	Select the **8.0.xy.z_release.catalog** file and click on the **Open** button.
	The Choose Load Library dialog closes.
	The State field shows transferInProgress.
	The Software Upgrade in Progress warning, NSA alarm is raised.
	After up to 15 minutes, the State field shows transferDone.
	Load 8.0.xy.z appears in the 2nd Load field.

—**continued**—

Procedure 3-4 (continued)
Ensuring all circuit packs are running Release 8.0

Step	Action
57	In the Shelf Name list, right-click on the shelf.
	A drop-down menu appears.
58	In the drop-down menu, select **Distribute Load**.
	The State field shows distributingShelfLoad.
	After up to 5 minutes, the State field shows shelfDistributionComplete.
59	In the Shelf Name list, right-click on the shelf.
	A drop-down menu appears.
60	In the drop-down menu, select **Restart**.
	The Confirm Restart dialog opens.
61	In the Confirm Restart dialog, click on the **Yes** button.
	The Confirm Restart dialog closes.
	The system logs you out of the Optical Metro System Manager.
62	Wait for the SP Status LED to turn ON green, then go to step 63.
	When the shelf completes the restart, the Software Upgrade in Progress warning, NSA alarm is raised.
63	Open a web browser.
64	In the URL field of the web browser, enter 10.5.1.1.
	The Optical Metro Nortel Networks site opens.
65	Click on the **Start the System Manager** button.
	The System Manager Login dialog opens.
66	In the System Manager Login dialog:
	a. enter your admin-group user ID into the **User name** field
	b. enter your admin-group password into the **Password** field
	c. click on the **OK** button
	The Warning Notice window opens.
67	In the Warning Notice window, click on the **OK** button.
	The Optical Metro System Manager window opens.

—**continued**—

Procedure 3-4 (continued)
Ensuring all circuit packs are running Release 8.0

Step	Action
68	In the Optical Metro System Manager window:
	a. click on the **Admin** tab
	b. click on the **Software Upgrade** tab
	The Software Upgrade view appears.
	Load 8.0.xy.z appears in the Version field.
	The State field shows uncommitted.
69	In the Shelf Name list, right-click on the shelf.
	A drop-down menu appears.
70	In the drop-down menu, select **Commit**.
	The Confirm Commit dialog opens.
71	In the Confirm Commit dialog, click on the **Yes** button.
	The Confirm Commit dialog closes.
	The State field shows commitInProgress.
	After up to 5 minutes, the State field shows committed.
	The Version field shows 8.0.xy.z
	The 2nd Load field clears.
	The Software Upgrade in Progress alarm clears.
72	In the Optical Metro System Manager window:
	a. click on the **Admin** tab
	b. click on the **NE Admin** tab
73	In the Shelf Name list, right-click on the shelf.
	A drop-down menu appears.
74	In the drop-down menu, select **Decommission**.
	The Confirm Shelf Decommission dialog opens.
75	In the Confirm Shelf Decommission dialog, click on the **Yes** button.
	The Decommissioned Shelf dialog opens.
76	In the Decommissioned Shelf dialog, click on the **Close** button.
	The System Manager closes.
77	Close the Web browser.
78	Wait for the SP Status LED to turn ON green before proceeding with the next step.
79	Valid Release 8.0 commissioning data can now be provisioned. Go to Procedure 3-1, "Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)" on page 3-4.

—**end**—

Procedure 3-5
Engaging the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)

Follow this procedure to seat and autoprovision circuit packs in the commissioned Optical Metro 5200 shelf.

Requirements

Make sure that you have:

- followed the procedures for installing and configuring the System Manager on your PC by following the procedures provided in the "Installing the System Manager" chapter, in this book.

- followed the procedure for powering up the shelf. See Procedure 2-1 "Powering up an Optical Metro 5200 shelf".

- followed the procedure for connecting to the shelf. See Procedure 3-1 "Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)".

- followed the procedure for commissioning the shelf. See Procedure 3-2 "Commissioning the shelf using the Shelf Commissioning Wizard" or Procedure 3-3 "Commissioning the shelf from a backup file".

Precautions

> **CAUTION**
> **Risk of provisioning failure**
> Autoprovision the circuit packs one at a time. Insert a circuit pack and wait until it comes online, then insert the next circuit pack. Autoprovisioning takes approximately two minutes to complete. If you do not wait for the first circuit pack to come online before seating the next one, provisioning failure may occur.

> **CAUTION**
> **Risk of seating OTR 10 Gbit/s or OTR 10 Gbit/s Enhanced circuit pack incorrectly**
> The OTR 10 Gbit/s and OTR 10 Gbit/s Enhanced is a two-slot wide circuit pack that consists of a mother board and a daughterboard. The motherboard on the left side of the circuit pack connects to the shelf, but the daughterboard has no contact with the card guides or the backplane. The motherboard (left side) can be placed in any slot except slots 8 and 18, 9 and 10 (OCM), 19 (SP), and 20 (OSC).

Procedure 3-5 (continued)
Engaging the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)

CAUTION
Risk of seating APBE circuit pack incorrectly
The APBE is a two-slot wide circuit pack that consists of a mother board and a daughter board. The mother board on the right side of the circuit pack connects to the backplane, but the daughter board on the left has no contact with the card guides or the backplane. The mother board (right side) must be seated in even-numbered slots (except slots 10 and 20).

CAUTION
Risk of seating APBE incorrectly
If you want to put an APBE in slots 1-4, 5-8, 11-14, or 15-18 in an OFA shelf, before seating the APBE circuit pack, make sure that no OFA circuit pack is provisioned in slot 4, 8, 14, or 18. If an OFA circuit pack was physically pulled out but the System Manager provisioning data remains for slot 4, 8, 14, or 18, manually delete the provisioning data before you seat the APBE.

CAUTION
Risk of seating the Muxponder (MOTR) circuit pack incorrectly
The Muxponder circuit pack is a two-slot wide circuit pack that consists of a motherboard and a daughterboard. The motherboard on the left side of the circuit pack connects to the shelf; the daughterboard has no contact with the backplane. You can place the motherboard (left side) in any slot of the Optical Metro 5200 shelf except slots 8 and 18, 9 and 10 (OCM), 19 (SP), and 20 (OSC).

—continued—

Procedure 3-5 (continued)
Engaging the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)

Expected results

After successful autoprovisioning, seated circuit packs are listed in an in-service state in the Inventory window of System Manager. Circuit pack facilities are listed in the Facilities window in the following states:

- OCLD facilities are IS

- OCI/SRM facilities are OOS

- OCI GFSRM aggregate facility is OOS, and client-side facilities are OOS

- OTR Line facility is IS, and the Client facility is OOS

- OFA facilities are OOS

- APBE facilities are OOS

- OSC east and west facilities are IS, WSC east and west facilities are OOS

- Muxponder line facility is IS, and client facilities are OOS

  Note: The Muxponder SFP (MOTRSFP in SMI) equipment is IS for each SFP installed in the Muxponder circuit pack. The corresponding client facilities are OOS.

If the circuit packs do not display correctly in the System Manager, delete incorrect entries from the Facilities and Inventory windows (in that order). Place any incorrect in-service facilities and inventory out-of-service before you delete the entry. Remove and insert the circuit packs again, or manually provision the circuit packs, as outlined in Procedure 3-2 "Manually provisioning a circuit pack or SFP" in *Provisioning and Operating Procedures,* 323-1701-310.

Procedure 3-5 (continued)
Engaging the remaining circuit packs into the backplane (for Optical Metro 5200 shelf)

Action

Step	Action
1	Remove the shelf cover by opening the latches on each side of the cover.

> ⚠ **DANGER**
> **Risk of personal injury or equipment damage**
> Do not let go of the shelf cover when you open it.
> The shelf cover is not permanently attached to the shelf and you must remove the door completely. If you let go of the door when you open it, you can cause personal injury, damage to the equipment, or both.

Step	Action
2	Lift the lock latches away from the circuit pack faceplate and slide the OCM circuit pack in slot 10 to the back of the shelf and push the ends of the lock latches against the faceplate of the circuit pack to lock the circuit pack in position, as shown in Figure 3-3 on page 3-47.

The top and bottom latches lock to the circuit pack cage.

Note: Wait for the circuit pack to autoprovision. Autoprovisioning takes approximately two minutes to complete. Do not proceed to the next step until the circuit pack is online. The Status LED should be green when complete.

Step	Action
3	Repeat step 2 to seat all circuit packs in the shelf.

Note 1: For each circuit pack, wait until the autoprovisioning process is complete before seating the next circuit pack.

Note 2: OCLDs, OTRs and OSCs can raise the Loss of Signal alarm.

Note 3: OFAs and APBEs can raise the Incomplete Provisioning alarm.

Step	Action
4	Make sure there are no empty slots in the cardcage when you have finished locking all the circuit packs. Fill empty slots with filler cards if you are not using circuit packs.
5	Follow Procedure 1-39 "Performing a health check" in *Provisioning and Operating Procedures*, 323-1701-310, to run a health check on the shelf and verify that all circuit packs meet the hardware baseline.

Note: Optical system identifiers are unassigned (blank) when you seat line-facing circuit packs. If your network consists of multiple independent or bridged systems, you must manually provision the optical system identifiers for all line-facing equipment in each system. Follow Procedure 3-36 "Provisioning the optical system identifier (OSID)" in *Provisioning and Operating Procedures*, 323-1701-310.

—end—

Figure 3-3
Seating the circuit packs in the shelf
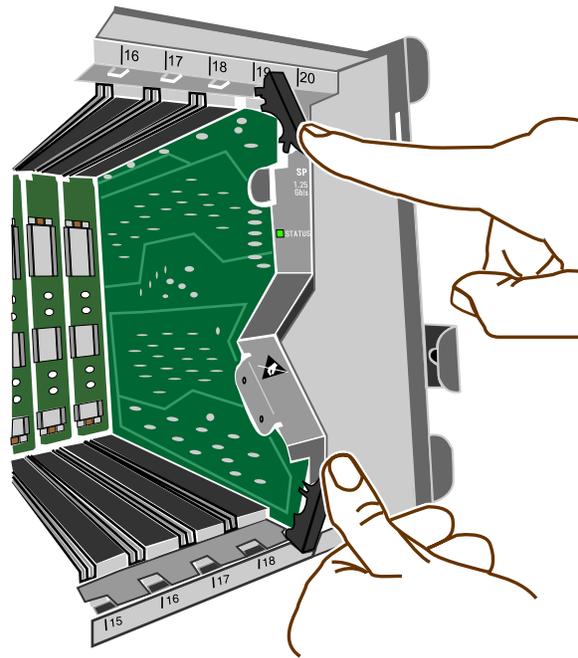
OM0144t

Procedure 3-6
Engaging the remaining circuit packs into the backplane (for Optical Metro 5100 shelf)

Follow this procedure to seat and autoprovision circuit packs in the commissioned Optical Metro 5100 shelf.

Requirements

Make sure that you have:

- followed the procedures for installing and configuring the System Manager on your PC by following the procedures provided in the "Installing the System Manager" chapter, in this book.

- followed the procedure for powering up the shelf. See Procedure 2-2 "Powering up an Optical Metro 5100 shelf".

- followed the procedure for connecting to the shelf. See Procedure 3-1 "Connecting locally to an uncommissioned shelf and configuring DHCP (Windows 2000/NT/XP)".

- followed the procedure for commissioning the shelf. See Procedure 3-2 "Commissioning the shelf using the Shelf Commissioning Wizard" or Procedure 3-3 "Commissioning the shelf from a backup file".

Procedure 3-6 (continued)
Engaging the remaining circuit packs into the backplane (for Optical Metro 5100 shelf)

Precautions

> **CAUTION**
> **Risk of provisioning failure**
> Autoprovision the circuit packs one at a time. Insert a circuit pack and wait until it comes online, then insert the next circuit pack. Autoprovisioning takes approximately two minutes to complete. If you do not wait for the first circuit pack to come online before seating the next one, provisioning failure may occur.

> **CAUTION**
> **Seat circuit packs correctly**
> Seat circuit packs in the Optical Metro 5100 shelf horizontally, so that the LED lamps are to the left.

> **CAUTION**
> **Risk of seating OTR 10 Gbit/s Enhanced circuit pack incorrectly**
> The OTR 10 Gbit/s is a two-slot wide circuit pack that consists of a mother board and a daughter board. The mother board on the left side of the circuit pack connects to the shelf, but the daughter board has no contact with the card guides or the backplane. The mother board (left side) can be placed in slot 1 or 3.

> **CAUTION**
> **Risk of seating the Muxponder (MOTR) circuit pack incorrectly**
> The Muxponder circuit pack is a two-slot wide circuit pack that consists of a motherboard and a daughterboard. The motherboard on the left side of the circuit pack connects to the shelf; the daughterboard has no contact with the backplane. You can place the motherboard (left side) into slots 1, 2, or 3 of the Optical Metro 5100 shelf. You cannot place the Muxponder circuit pack in slot 5 (SP) or slot 6 (OSC).

—**continued**—

Procedure 3-6 (continued)
Engaging the remaining circuit packs into the backplane (for Optical Metro 5100 shelf)

Expected results

After successful autoprovisioning, seated circuit packs are listed in an in-service state in the Inventory window of System Manager. Circuit pack facilities are listed in the Facilities window in the following states:

- OCLD facilities are IS
- OTR Line facility is IS, and the Client facility is OOS
- OCI/SRM facilities are OOS
- OCI GFSRM aggregate facility is OOS, and client-side facilities are OOS
- OSC east and west facilities are IS, WSC east and west facilities are OOS
- Muxponder line facility is IS, and client facilities are OOS

    Note: The Muxponder SFP (MOTRSFP in SMI) equipment is IS for each SFP installed in the Muxponder circuit pack. The corresponding client facilities are OOS.

If the circuit packs do not display correctly in the System Manager, delete incorrect entries from the Facilities and Inventory windows (in that order). Place any incorrect in-service facilities and inventory out-of-service before you delete the entry. Remove and insert the circuit packs again, or manually provision the circuit packs, as outlined in Procedure 3-2 "Manually provisioning a circuit pack or SFP" in *Provisioning and Operating Procedures,* 323-1701-310.

Action

Step	Action
1	Remove the shelf cover by opening the latches on each side of the cover.

> ⚠ **DANGER**
> **Risk of personal injury or equipment damage**
> Do not let go of the shelf cover when you open it.
> The shelf cover is not permanently attached to the shelf and you must remove the door completely. If you let go of the door when you open it, you can cause personal injury, damage to the equipment, or both.

—continued—

Procedure 3-6 (continued)
Engaging the remaining circuit packs into the backplane (for Optical Metro 5100 shelf)

Step	Action
2	Seat a circuit pack. Lift the lock latches away from the circuit pack faceplate and slide the desired circuit pack in the desired slot to the back of the shelf and push the ends of the lock latches against the faceplate of the circuit pack to lock the circuit pack in position.
	The top and bottom latches lock to the circuit pack cage.
	Note 1: Wait for the circuit pack to autoprovision. Autoprovisioning takes approximately two minutes to complete. Do not proceed to the next step until the circuit pack is online. The Status LED should be green when complete.
	Note 2: When you insert a standby database-carrying circuit pack into an Optical Metro 5100 shelf, the status LED on the active database-carrying circuit pack toggles on and off for the duration of the database maintenance operation. This process can take up to five minutes.
	Note 3: As of Release 6.1, an Optical Metro 5100 shelf can be equipped with only one database-carrying circuit pack and a Shelf Processor circuit pack. However, it is still recommended that two database-carrying circuit packs be equipped in the Optical Metro 5100 shelf for database redundancy.
3	Repeat step 2 to seat all circuit packs in the shelf.
	Note 1: For each circuit pack, wait until the autoprovisioning process is complete before seating the next circuit pack.
	Note 2: OCLD, OTR, OSC, and Muxponder circuit packs can each raise the "Loss of Signal" alarm.
4	Make sure that there are no empty slots in the cardcage when you have finished locking all the circuit packs. Fill empty slots with filler cards if you are not using circuit packs.
5	Follow Procedure 1-39 "Performing a health check" in *Provisioning and Operating Procedures*, 323-1701-310, to run a health check on the shelf and verify that all circuit packs meet the hardware baseline.
	Note: Optical system identifiers are unassigned (blank) when you seat line-facing circuit packs. If your network consists of multiple independent or bridged systems, you must manually provision the optical system identifier for all line-facing equipment in each ring. Follow Procedure 3-36 "Provisioning the optical system identifier (OSID)" in *Provisioning and Operating Procedures*, 323-1701-310.

—**end**—

Figure 3-4
Seating the circuit packs in the Optical Metro 5100 shelf

OM1006t
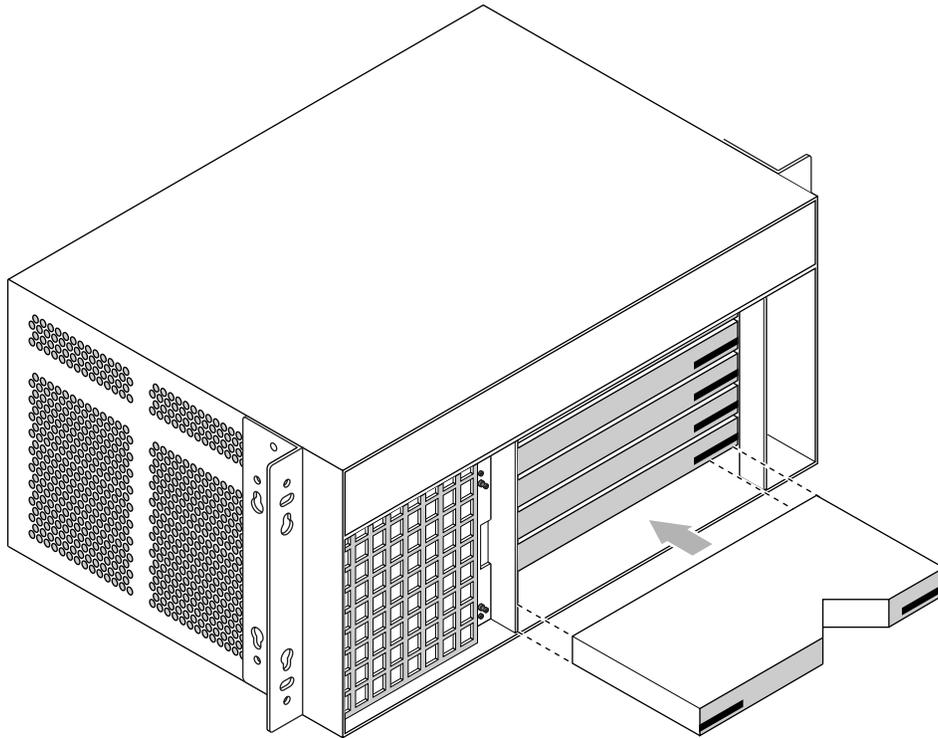
Procedure 3-7
Determining software load location on your PC

Use this procedure to determine whether the Optical Metro 5100/5200 software was transferred to the C: or D: drive of your PC when you completed Procedure 1-1 "Transferring software from the CD to the System Manager computer (Windows 2000/NT/XP)" and the version of the Release 8.0 software load.

Requirements

Ensure that you have followed the procedures for installing and configuring the System Manager on your PC by following the procedures provided in the "Installing the System Manager" chapter, in this book.

Action

Step	Action
1	On your PC, start **Windows Explorer**.
2	In Windows Explorer, select the **C:\NortelNetworks\OPTeraMetro\Library\8.0.xy.z** directory path. where **x, y and z** can be any number

3	**If** in step 2, the **C:\NortelNetworks\OPTeraMetro\Library\ 8.0.xy.z** directory path	**Then** go to
	does not exist	step 6
	exists	step 4

Step	Action
4	This indicates that the Optical Metro 5100/5200 software was transferred to the C: drive. The Release 8.0 software load version is indicated by 8.0.xy.z.
5	You have completed this procedure.
6	In Windows Explorer, select the **D:\NortelNetworks\OPTeraMetro\Library\8.0.xy.z** directory path. where **x, y and z** can be any number
7	This indicates that the Optical Metro 5100/5200 software was transferred to the D: drive. The Release 8.0 software load version is indicated by 8.0.xy.z.

—end—

Commissioning the Enhanced Trunk Switch

Use the procedure in this chapter to commission the Enhanced Trunk Switch (ETS) for your network.

The Enhanced Trunk Switch (ETS) is a standalone component that provides line-side fiber protection for multi-channel links on single-mode fiber. The ETS is supported in unamplified point-to-point configurations and in amplified point-to-point configurations that contain a single pre-amplifier in the link.

The ETS consists of the following three components:

- ETS Shelf
- ETS Switch module
- ETS Comms module

Commissioning of the ETS is performed on the ETS Comms module.

For more information on the Enhanced Trunk Switch, see "Enhanced Trunk Switch" in *Hardware Description*, 323-1701-102.

Before you begin

Before you begin the procedures in this chapter, make sure that you have:

- completed the procedures for installing and connecting power to the Enhanced Trunk Switch assembly in the *Installing Optical Metro 5200 Shelves and Components*, 323-1701-201 or *Installing Optical Metro 5100 Shelves and Components*, 323-1701-210
    - Procedure 4-13, "Installing an Enhanced Trunk Switch shelf"
    - Procedure 5-5, "Connecting power leads and grounding the ETS shelf"
    - Procedure 7-2, "Installing an ETS Comms module in an ETS shelf"
    - Procedure 7-3, "Installing an ETS Switch module in an ETS shelf"

    or

Precautions

CAUTION
Risk of shelf malfunction
Nortel Networks recommends that you do not use cellular phones at any Optical Metro 5100/5200 site. The use of cellular phones in proximity to Optical Metro equipment can cause shelf malfunction.

CAUTION
Risk of equipment damage
Electrostatic discharge (ESD) can damage the Enhanced Trunk Switch. Always follow these guidelines to avoid ESD:

• Wear ESD-conductive foot straps and always wear an ESD-conductive wrist strap connected to the ESD plug on the front of the Enhanced Trunk Switch shelf, whenever you perform installation or maintenance procedures on the modules or shelf.

• Do not remove an ESD-sensitive Enhanced Trunk Switch from the package until you are ready to install Enhanced Trunk Switch into a mounting solution.

• Do not pass an ESD-sensitive Enhanced Trunk Switch to another person.

• Do not walk around carrying an ESD-sensitive Enhanced Trunk Switch unless it is in an antistatic container or bag.

• Avoid touching any circuitry in the Enhanced Trunk Switch.

Procedures list

Table 4-1 lists the procedures in this chapter.

Table 4-1
Commissioning the Enhanced Trunk Switch

Procedure	Page	Comments
4-1 Logging in to an uncommissioned ETS Comms module	4-6	Required to log in to an uncommissioned ETS Comms module. Refer to Procedure 4-6 to log in to a commissioned ETS Comms module.
4-2 Changing the password on the ETS Comms module	4-8	Required.
4-3 Configuring the Ethernet port on the ETS Comms module	4-11	Optional. This procedure is only required if you want to connect to the ETS Comms module through the Ethernet connector on the back panel of the ETS shelf.
4-4 Setting the target identifier (TID) on the ETS Comms module	4-13	Required.
4-5 Reinitializing the ETS Comms module	4-14	Required if you performed Procedure 4-2, Procedure 4-3, and Procedure 4-4.
4-6 Logging in to a commissioned ETS Comms module	4-15	Required to log in to a commissioned ETS Comms module.
4-7 Setting the date and time	4-17	Required.
4-8 Logging out of the Enhanced Trunk Switch Comms module	4-19	Required to log out of the ETS Comms module.
Note: Procedure 4-1 to Procedure 4-8 must be performed locally through a connection with the RS-232 port on the Enhanced Trunk Switch.		

Sequence for commissioning the Enhanced Trunk Switch

The ETS Comms module initializes automatically when it is mounted in the ETS Shelf if the ETS Shelf power leads are connected to the power supply and if the unit is grounded correctly. The ETS Comms module performs a system test and checks for internal hardware errors during initialization.

If there is power to the shelf, the ETS Comms module is initialized with the following information:

- Default Date and Time—00-00-01 00:00:00 (format is YY-MM-DD HH:MM:SS)

- Default accounts with default user identification and password (TL1 parameter <uid> is SUPERUSER and TL1 parameter <pid> is Sup%9User or <uid> ADMINUSER and <pid> is Admin%9).

TCP/IP communication with the ETS Comms module is disabled until the ETS Comms module is configured with an IP address, a gateway address, and a subnet mask.

Unless otherwise configured, the TL1 <aid> defaults to the slot in which the unit is mounted.

The ETS Switch module mounted in the same shelf automatically updates its date and time from the ETS Comms module date and time.

If a reset occurs as a result of electrical power failure, the ETS Comms module recovers with its current configuration information intact when it resumes operation.

Note: The date and time must be reset after a reset occurs.

To commission and configure a newly installed ETS Comms module, you must perform the tasks listed in Table 4-2 in the order shown.

Note: You must perform tasks 1 to 8 locally by connecting the serial cable from the craft terminal to the RS-232 port on the front panel of the ETS Comms module.

Table 4-2
Commissioning the Enhanced Trunk Switch

Task	Follow these procedures as applicable in
1 Logging in to an uncommissioned ETS Comms module	Procedure 4-1
2 Changing the password on the ETS Comms module	Procedure 4-2
3 Configuring the Ethernet port on the ETS Comms module *Note:* This task is optional. It is only required if you want to connect to the ETS Comms module through the Ethernet connector on the back panel of the ETS shelf.	Procedure 4-3
4 Setting the target identifier (TID) on the ETS Comms module	Procedure 4-4

Table 4-2 (continued)
Commissioning the Enhanced Trunk Switch

Task	Follow these procedures as applicable in
5 Reinitializing the ETS Comms module *Note:* This action results in a warm restart.	Procedure 4-5
6 Logging in to a commissioned ETS Comms module	Procedure 4-6
7 Setting the date and time	Procedure 4-7
8 Logging out of the Enhanced Trunk Switch Comms module	Procedure 4-8

Procedure 4-1
Logging in to an uncommissioned ETS Comms module

Use this procedure to establish a local connection to an uncommissioned ETS Comms module by connecting a serial cable from the craft terminal to the RS-232 port on the front panel of the ETS Comms module.

When the connection is established and the craft terminal emulation software is configured, you can log in to the uncommissioned ETS Comms module.

This procedure is required when the ETS Comms module is first installed and has not yet been commissioned. This procedure is not required if the ETS Comms module is already commissioned.

Note: To log in to a commissioned ETS Comms module, refer to Procedure 4-7 "Logging in to a commissioned ETS Comms module"

Requirements

Before you start this procedure, you must have an RS-232 serial cable to connect the craft terminal to the ETS Comms module.

Action

Step	Action

Establishing a local connection

1 Connect the RS-232 serial cable from the craft terminal to the DB-9 RS-232 connector port on the front panel of the ETS Comms module. Table 4-3 lists the DB-9 RS-232 pin assignment.

Table 4-3
DB-9 RS-232 pin assignment

Pin	Function
2	RD (Receive data)
3	TD (Transmit data)
5	Ground

—continued—

Procedure 4-1 (continued)
Logging in to an uncommissioned ETS Comms module

Step	Action
2	Configure the terminal emulation software (hyperterminal) as follows: • Terminal emulation = vt100 • Bits per second = 9600 • Parity = None • Stop BITS = 1 • Flow control = None
3	Press ; (semi colon). *An angle bracket prompt (>) appears.*

Logging in for the first time

Step	Action
4	Activate a user session and log in to the ETS Comms module by typing `ACT-USER:[<tid>]:<uid>:<ctag>::<pid>;`

where

<tid>	is the target identifier (the tid value is optional)
SUPERUSER	is the default user identifier (UID)
<ctag>	is the correlation tag
Sup%9User	is the default password (PID)

or

where

<tid>	is the target identifier (the tid value is optinal)
ADMINUSER	is the default user identifier (UID)
<ctag>	is the correlation tag
Admin%9	is the default password (PID)

—**end**—

Procedure 4-2
Changing the password on the ETS Comms module

Use this procedure to change the password on an uncommissioned ETS Comms module.

Requirements

Before you start this procedure, you must be aware of the following rules when you define the new password.

PID naming rules

Password identifiers are between 6 and 10 characters in length, and are composed of a combination of alphanumeric (letters A through Z; numbers 0 through 9) and special characters.

The password must contain at least one alphabetic character, one numeric, and one special character.

The following special characters **are supported** for the password: **. # % + _ -**

The following characters **are not supported** for the password:

- semicolon (;)
- colon (:)
- ampersand (&)
- comma (,)
- question mark (?)
- and all control characters

    Note: Blank passwords (no characters) are not acceptable.

—continued—

Procedure 4-2 (continued)
Changing the password on the ETS Comms module

Action

Step	Action
1	Log in to the uncommissioned shelf using the **SUPERUSER** default user identifier and the SUPERUSER default password (**Sup%9User**). Refer to Procedure 4-1 "Logging in to an uncommissioned ETS Comms module".
2	Edit the SUPERUSER password by typing

`ED-PID:[<tid>]:<uid>:<ctag>::<old pid>,<new pid>;`

where

<tid>	is the target identifier
SUPERUSER	is the default user identifier (UID)
<ctag>	is the correlation tag
Sup%9User	is the old password (old PID)
<new pid>	is the new password that you set

Note 1: The change takes effect after you initialize the ETS Comms module in Procedure 4-5.

Note 2: When you edit the passwords on the ETS Comms module, passwords are displayed when typed from the TL1 interface.

Step	Action
3	Log out of the ETS Comms module using Procedure 4-8 "Logging out of the Enhanced Trunk Switch Comms module". Then go to step 4.
4	Log in to the ETS Comms module using the **ADMINUSER** default user identifier and the ADMINUSER default password (**Admin%9**). If required, refer to Procedure 4-1 "Logging in to an uncommissioned ETS Comms module".
5	Edit the ADMINUSER password by typing

`ED-PID:[<tid>]:<uid>:<ctag>::<old pid>,<new pid>;`

where

<tid>	is the target identifier
ADMINUSER	is the default user identifier (UID)
<ctag>	is the correlation tag
Admin%9	is the old password (old PID)
<new pid>	is the new password that you set

Note: The change takes effect after you initialize the ETS in Procedure 4-5.

—**continued**—

Procedure 4-2 (continued)
Changing the password on the ETS Comms module

Step	Action	
6	**If** you	**Then** go to
	want to provision the Ethernet port	Procedure 4-3 "Configuring the Ethernet port on the ETS Comms module"
	do not want to provision the Ethernet port	Procedure 4-4 "Setting the target identifier (TID) on the ETS Comms module"

—end—

Procedure 4-3
Configuring the Ethernet port on the ETS Comms module

Use this procedure to configure the Ethernet port on an ETS Comms module. This procedure is only required if you want to connect to the ETS Comms module through the Ethernet connector on the back panel of the ETS Shelf. In such a case, you must assign an IP address, a gateway address, and a subnet mask to the module.

Requirements

Before you start this procedure, you must

- have completed Procedure 4-1 "Logging in to an uncommissioned ETS Comms module"
- know the IP address, the gateway address, and the subnet mask that you must assign to the ETS Comms module

Action

Step	Action
1	Edit the equipment parameters, as required, by typing

```
ED-EQPT::1-c:ctag:::
IPADDR=<ipaddr>,GTWYADDR=<gtwyaddr>,
SUBNETMASK=<subnetmask>;
```

where

1-c	is the access identifier (AID) of the ETS Comms module
<ipaddr>	is the IP address
<gtwyaddr>	is the gateway address
<subnetmask>	is the subnet mask

Note 1: For a description of the parameters, see Table 4-4.

Note 2: The change takes effect after you initialize the ETS in Procedure 4-5.

—end—

Table 4-4
Ethernet port configuration

Parameter	Description
IPADDR	IP address for the Ethernet management interface. (Default is 10.0.0.2)
	Only applicable to an ETS Comms module.
	This parameter consists of four bytes converted into decimal numbers. Each number is separated by a decimal point (".") and has an integer value from 0 through 255, inclusive.
	The change takes effect after the module is reset.
	Note: 0.0.0.0 is not a valid address.
GTWYADDR	Gateway Internet Protocol (IP) Address. (Default is 0.0.0.0)
	Only applicable to an ETS Comms module.
	This parameter consists of four bytes converted into decimal numbers. Each number is separated by a decimal point (".") and has an integer value from 0 through 255, inclusive.
	The change takes effect after the module is reset.
	Note: 0.0.0.0 is not a valid address.
SUBNETMASK	Subnet Internet Protocol (IP) Address Mask. (Default is 255.255.255.0)
	Only applicable to an ETS Comms module.
	This parameter consists of four bytes converted into decimal numbers. Each number is separated by a decimal point ("."). The first threes numbers have an integer value from 0 through 255 (inclusive), and the last number must be less than 255.
	Note: If successfully entered, the changed value takes effect after the module is reset.

Procedure 4-4
Setting the target identifier (TID) on the ETS Comms module

Use this procedure to assign a target identifier to the ETS Comms module.

The TID is a non-confidential code that identifies the ETS Comms module being addressed. TIDs must be between 1 and 20 alphanumeric characters in length. Alphanumeric characters can be any combination of letters, numbers, and hyphens (-). The TID is case sensitive on the Enhanced Trunk Switch. Unsupported characters include backslash (\) and double quotes (").

Requirements

Before you start this procedure, you must have completed Procedure 4-1 "Logging in to an uncommissioned ETS Comms module".

Action

Step	Action
1	Set the source identifier (SID) to assign a target identifier (TID) to the ETS Comms module by typing

```
SET-SID:[<tid>]::<ctag>::<new tid>;
```

where

<**tid**>	is the existing (old) target identifier
<ctag>	is the correlation tag
<**new tid**>	is the new target identifier to assign to the ETS Comms module

Note: The change takes effect after you initialize the system in Procedure 4-5.

| 2 | Go to Procedure 4-5 "Reinitializing the ETS Comms module" |

—**end**—

Procedure 4-5
Reinitializing the ETS Comms module

Use this procedure to initiate a reset on the ETS Comms module. You must reinitialize the ETS Comms module for password changes, Ethernet port configuration changes or target identifier (TID) changes to take effect.

Requirements

Before you start this procedure, you must have completed Procedure 4-1 "Logging in to an uncommissioned ETS Comms module".

Action

Step	Action
1	Reinitialize the system to restart the ETS Comms module by typing

```
INIT-SYS:[<tid>]:1-c:<ctag>::<ph>;
```

where

<tid>	is the target identifier
1-c	is the access identifier (AID) of the ETS Comms module
<ctag>	is the correlation tag
<ph>	is 0 (a warm restart)

The TL1 session is dropped.

Step	Action
2	Press the INIT button on the ETS Comms module.
3	Wait at least one minute for the ETS Comms module to reinitialize before continuing to the next step.
4	You have completed this procedure. To log back into the ETS Comms module, go to Procedure 4-6.

—end—

Procedure 4-6
Logging in to a commissioned ETS Comms module

Use this procedure to establish a local connection to a commissioned ETS Comms module by connecting a serial cable from the craft terminal to the RS-232 port on the front panel of the ETS Comms module. When the connection is established and the craft terminal emulation software is configured, you can log in to the commissioned ETS Comms module.

Requirements

Before you start this procedure, you must have an RS-232 serial cable to connect the craft terminal to the ETS Comms module.

Action

Step	Action

Establishing a local connection

1   Connect the RS-232 serial cable from the craft terminal to the DB-9 RS-232 connector port on the front panel of the ETS Comms module. Table 4-5 lists the DB-9 RS-232 pin assignment.

Table 4-5
DB-9 RS-232 pin assignment

Pin	Function
2	RD (Receive data)
3	TD (Transmit data)
5	Ground

2   Wait one minute.

3   Configure the terminal emulation software (hyperterminal) as follows:

- Terminal emulation = vt100
- Bits per second = 9600
- Parity = None
- Stop BITS = 1
- Flow control = None

4   Press ; (semi colon).

An angle bracket prompt (>) appears.

<center>—**continued**—</center>

Procedure 4-6 (continued)
Logging in to a commissioned ETS Comms module

Step	Action

Logging in to the ETS Comms module

5   Activate a user session and log in to the ETS Comms module by typing

`ACT-USER:[<tid>]:<uid>:<ctag>::<password>;`

where

<**tid**>	is the target identifier
<**uid**>	is the user identifier (the user name of the user who is logging in)
<ctag>	is the correlation tag
<**password**>	is the password

—**end**—

Procedure 4-7
Setting the date and time

The ETS Comms module is first initialized with a default date and time of 00-00-01 00:00:00 (format is YY-MM-DD HH:MM:SS). Use this procedure to set the date and time on the ETS Comms module. The ETS Switch module mounted in the same shelf automatically updates its date and time from the ETS Comms module's date and time.

Note: The date and time settings are lost after the ETS Comms module resets. If the ETS Comms module resets, you must perform this procedure again to reset the date and time parameters.

Requirements

Before you start this procedure, you must have completed Procedure 4-6 "Logging in to a commissioned ETS Comms module".

Action

Step	Action
1	Edit the date and time stored in the ETS Comms module by typing

`ED-DAT:[<tid>]::<ctag>::yy-mm-dd,hh-mm-ss;`

where

<tid>	is the target identifier
<ctag>	is the correlation tag
yy-mm-dd	is the year, month, and date
hh-mm-ss	is the hour, minutes, and seconds

Note: You must always express values for years, months, days, hours, minutes, and seconds as two-digit numbers based on the format defined in Table 4-6.

All components installed in the same shelf automatically update their date and time from the ETS Comms module.

—**end**—

Table 4-6
Date and time format

Parameter	Format
Date	yy: 70-99 = 1970-1999 or 00-69 = 2000-2069 mm: 01-12 dd: 01-31
Time	hh: 00-23 mm: 00-59 ss: 00-59

Procedure 4-8
Logging out of the Enhanced Trunk Switch Comms module

Use this procedure to log out of an ETS Comms module.

Requirements

Before you start this procedure, you must have completed Procedure 4-6
"Logging in to a commissioned ETS Comms module" or Procedure 4-1
"Logging in to an uncommissioned ETS Comms module".

Action

Step	Action
1	Cancel the user session and log out by typing

`CANC-USER:[<tid>]:<uid>:<ctag>;`

where

\<tid\>	is the target identifier
\<uid\>	is the user identifier (the user name of the user who is logging out)
\<ctag\>	is the correlation tag

—end—

Configuring a remote connection to the System Manager

Use the procedures in this chapter to connect to the System Manager from a remote location.

Before you begin

Before you begin the procedures in this chapter, make sure that the System Manager has been installed correctly, according to the procedures in the "Installing the System Manager" chapter in this book.

Requirements

If your System Manager computer is installed on a Solaris operating system, you must connect to the Optical Metro 5100/5200 network through a DCN. You must commission the shelves before you can connect through a DCN.

Note: You cannot commission an Optical Metro 5100/5200 shelf through a modem, or using Solaris. You can manage a shelf from Solaris after commissioning is complete.

Table 5-1 lists the tools and materials required to connect the System Manager computer to an Optical Metro 5100/5200 shelf from a remote location.

Table 5-1
Tools and materials required to connect the System Manager computer from a remote location

Item	Quantity	Supplied
USRobotics 56K external fax modem, or another original equipment manufacturer's (OEM) modem ***Note 1:*** This item is only required if you plan to connect the System Manager to the shelf using a modem. ***Note 2:*** Two modems are required if your System Manager computer does not have an internal modem.	1 (or 2)	no
Standard phone cable (RJ-11) ***Note:*** This item is only required if you plan to connect the System Manager to the shelf using a modem.	2	no
RS-232 serial cable ***Note 1:*** This item is only required if you plan to connect the System Manager to the shelf using a modem. ***Note 2:*** Two cables are required if your System Manager computer does not have an internal modem.	1 (or 2)	no
Ethernet cable ***Note:*** This item is required if you plan to connect the System Manager to the shelf using a DCN.	1	no

Procedure list

Table 5-2 lists the procedures in this chapter.

Table 5-2
Remote connection procedures

Procedure	Page	Comments
5-1 Connecting a remote System Manager computer to the Optical Metro 5100/5200 network	5-3	Required if the System Manager computer will normally connect from a remote location to the Optical Metro 5100/5200 network.
5-2 Configuring an external modem for Optical Metro 5100/5200	5-6	Required if you are using a modem to connect to the Optical Metro 5100/5200 shelves.
5-3 Configuring a dial-up connection on the System Manager computer (Windows 2000/NT/XP)	5-12	Required if you are using a modem to connect to the Optical Metro 5100/5200 shelves.

Procedure 5-1
Connecting a remote System Manager computer to the Optical Metro 5100/5200 network

Follow this procedure to connect a remote System Manager computer to the Optical Metro 5100/5200 network.

If you are connecting using a DCN, the network is accessible to the System Manager computer through the GNE shelf in the Optical Metro 5100/5200 network. If you are connecting using a modem, the network is accessible to the System Manager computer through any shelf in the Optical Metro 5100/5200 network.

There are two ways to connect remotely to a shelf through a TCP/IP network:

- a 10Base-T Ethernet interface, through a DCN

- a modem dial-up connection, using a RS232/V24 1 (DTE) interface to the Optical Metro 5100/5200 shelf

Requirements

For an Ethernet 10Base-T connection through a DCN, you usually require a cross-over Ethernet cable. In some cases, you may need to use a straight-through Ethernet cable. Consult with your LAN or DCN Administrator before performing this procedure.

For a remote connection with a modem, you require an RS232 serial cable and a standard phone cable (RJ-11) at the site of the shelf you want to connect to. You also need this at the site of the System Manager computer you will use to connect to the remote shelf (the RS232 serial cable is not required if the computer has a built in modem).

If you are connecting with a modem, you must perform Procedure 5-2 "Configuring an external modem for Optical Metro 5100/5200" and Procedure 5-3 "Configuring a dial-up connection on the System Manager computer (Windows 2000/NT/XP)" before beginning this procedure.

If the System Manager is installed on a Solaris computer, you must connect to the Optical Metro 5100/5200 network through a DCN.

Expected results

When you complete this procedure the System Manager is physically connected to a shelf in the Optical Metro 5100/5200 network.

—continued—

Procedure 5-1 (continued)
Connecting a remote System Manager computer to the Optical Metro 5100/5200 network

Action

Step	Action	
1	**If** you are connecting remotely by	**Then** go to
	modem	step 2
	Ethernet connection through a DCN	step 6

2   Connect one end of an RS232 serial cable to the RS232/V24 1 (DTE) port on the maintenance panel of a shelf. See Figure 5-1 for the Optical Metro 5200 Maintenance Panel, and Figure 5-2 for the Optical Metro 5100 Maintenance Panel.
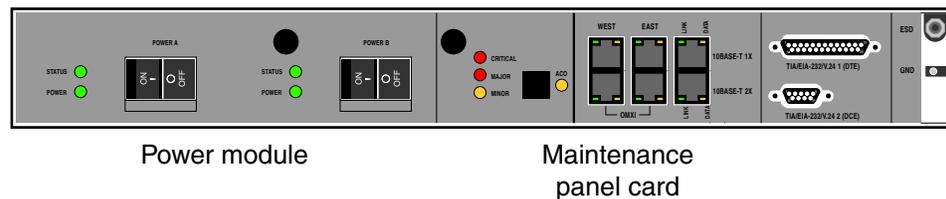
Figure 5-1
Optical Metro 5200 Maintenance Panel

OM0147p
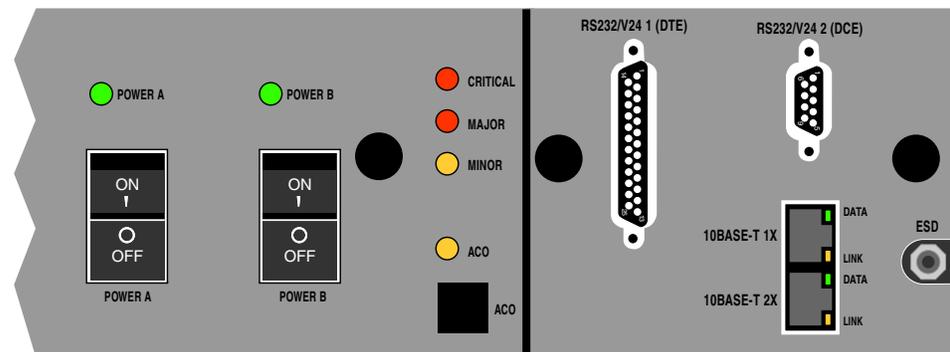
Figure 5-2
Optical Metro 5100 Maintenance Panel

OM0975t

Power module   Maintenance
panel card

—**continued**—

Procedure 5-1 (continued)
Connecting a remote System Manager computer to the Optical Metro 5100/5200 network

Step	Action
3	Connect the other end of the serial cable to a modem that has been configured according to Procedure 5-2 "Configuring an external modem for Optical Metro 5100/5200".
4	Connect a standard phone cable (RJ-11) from the modem in step 3 to a phone line that can be accessed by the System Manager computer. ***Note:*** Nortel Networks recommends that you make this phone line accessible to an outside line for diagnostic purposes.
5	From the System Manager computer, dial the remote modem and check connectivity between the shelf and the computer by logging in to the shelf using the System Manager. You have completed this procedure.
6	Connect one end of an Ethernet cable to the 10Base-T 1X port on the maintenance panel of a shelf.
7	Connect the other end of the cable to the device that your DCN Administrator has specified for providing access to the DCN. The Link LED on the GNE shelf should turn on in less than five seconds.
8	If the Link LED does not turn on after five seconds, repeat step 6 and step 7 with a straight-through Ethernet cable.
9	From the System Manager computer, check connectivity between the GNE shelf and the computer by logging in to the shelf using the System Manager through the DCN. —**end**—

Procedure 5-2
Configuring an external modem for Optical Metro 5100/5200

Follow this procedure to configure a modem for the System Manager computer and the Optical Metro 5100/5200 shelf.

A modem connection to Optical Metro 5100/5200 shelves is slower than an Ethernet connection. The screens of the System Manager update faster if you view a limited number of shelves at a time.

Requirements

When you use a dial-up connection to connect the System Manager with an Optical Metro 5100/5200 network, you must use two modems. Connect one modem to the Optical Metro 5100/5200 shelf. If the System Manager computer does not have an internal modem, connect the other modem to the System Manager computer.

Table 5-3 lists the tools and materials required to configure a modem.

Table 5-3
Tools and materials required to configure a modem

Item	Quantity	Supplied
USRobotics 56K external fax modem, or another original equipment manufacturer's (OEM) modem	1 (or 2)	no
Straight-through RS-232 cable	1	no

Table 5-4 on page 5-10 lists the modem configuration requirements for a USRobotics 56K external fax modem.

Modem configuration requirements may vary for other OEM modems.

Precautions

This procedure is designed for the recommended USRobotics 56K external fax modem. If you use another modem, you can follow this procedure, but refer to the configuration requirements listed in Table 5-4 on page 5-10.

Procedure 5-2 (continued)
Configuring an external modem for Optical Metro 5100/5200

Expected results

When you complete this procedure the modem(s) you are using are correctly configured for connection between the System Manager and the Optical Metro 5100/5200 network

Action

Step	Action

1   Before you connect the modem to your PC, configure the DIP switches as follows.

DIP switch	Setting
normal DTR operations	switch 1 to OFF (default)
verbal word results	switch 2 to OFF (default)
display result codes	switch 3 to ON (default)
display keyboard commands	switch 4 to OFF (non-default)
answer on first ring	switch 5 to OFF (non-default)
send CD on connect/drop on disconnect	switch 6 to OFF (non-default)
boot from NVRAM	switch 7 to OFF (non-default)
AT command recognition	switch 8 to ON (default)

> **Note:** A DIP switch is ON when down, OFF when up (see Table 5-4).

2   Use a straight-through cable (25-pin to 9-pin) to connect the 25-pin DTE port of the modem to your PC at COM1 or COM2. Do not use a null modem cable.

3   Connect the modem to the appropriate power source and set the modem power switch to ON.

4   Launch the HyperTerminal application on your computer.

> **Note:** You do not have to use the HyperTerminal application. You can use any other suitable VT100 compatible program.

The connection description window opens.

5   Enter a name for the connection, select an icon, and click **OK**.

The phone number window opens.

—**continued**—

Procedure 5-2 (continued)
Configuring an external modem for Optical Metro 5100/5200

Step	Action

6   In the Connect using field select COM1 (or COM2) and click the **OK** button.

The COM1 (or COM2) properties window opens with the Port Settings tab selected. A dialog box similar to Figure 5-3 appears.

Figure 5-3
COM Port Settings

OM0226
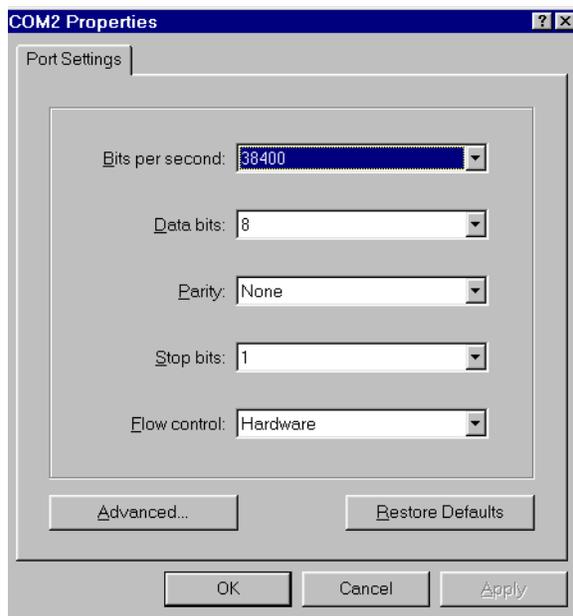
7   Make the following selections (as shown in Figure 5-3).

- Bits per second - 38,400
- Data bits - 8
- Parity - none
- Stop bits - 1
- Flow control - hardware

Click the **OK** button.

The cursor appears in the upper left corner of the Hyperterminal window.

—**continued**—

Procedure 5-2 (continued)
Configuring an external modem for Optical Metro 5100/5200

Step	Action
8	Type the following Hayes AT commands and press Enter to configure NVRAM position 0 to load the hardware flow control template (F1) from ROM: `at↵` (exercises Hayes command set) `at&F0↵` (loads standard factory configuration) `at&F1↵` (loads factory configuration 1) `at&W0↵` (stores this configuration in NVRAM–0) *Note:* You receive the response "OK" after you enter a command.
9	Exit from the HyperTerminal session.
10	Disconnect the modem from the computer.

—**end**—

Table 5-4
Modem configuration requirements for the Optical Metro 5100/5200 shelf

Modem set up options	Optical Metro 5100/5200 requirements for USRobotics Modem (See Note 1)
Factory ROM Configurations	
factory configuration 0 (**F0**) = generic template factory configuration 1 (F1) = hardware flow control factory configuration 2 (F2) = software flow control (See Note 2)	F1
DIP Switch Configurations	
DIP-1 – Data Terminal Ready (DTR) Override • **OFF** = normal DTR • ON = ignore DTR	**OFF** (up) normal DTR
DIP-2 – Verbal/Numeric Result Codes • **OFF** = verbal results • ON = numeric results	**OFF** (up) verbal results
DIP-3 – Result Code Display • OFF = suppress result codes • **ON** = enable result codes	**ON** (down) enable result codes
DIP-4 – Command Mode Local Echo Suppression • OFF = echo keyboard commands • **ON** = suppress echo	OFF (up) echo keyboard commands
DIP-5 – Auto Answer Suppression • OFF = answer on first ring (or as setup by NVRAM) • **ON** = disable auto answer	OFF (up) answer on first ring
DIP-6 – Carrier Detect (CD) Override • OFF = end on connect/drop on disconnect • **ON** = always on	OFF (up) send on connect/drop on disconnect

Table 5-4 (continued)
Modem configuration requirements for the Optical Metro 5100/5200 shelf

Modem set up options	Optical Metro 5100/5200 requirements for USRobotics Modem (See Note 1)
DIP-7 – Power On and ATZ Reset Software Defaults • OFF = load NVRAM position 0 (NVRAM–0) contents • **ON** = load factory configuration 0 from ROM (See Note 3)	OFF (up) load NVRAM–0 **[1]**
DIP-8 – AT Command Set Recognition • OFF = disable recognition (dumb mode) • **ON** = enable recognition (smart mode)	**ON** (down) enable recognition
Note 1: The default settings for USRobotics 56K external fax modem are in bold. *Note 2:* The hardware flow control template must include fixed serial port rate. *Note 3:* You must reset NVRAM–0 to contain F1 instead of F0, as described in step 8 of this procedure.	

Procedure 5-3
Configuring a dial-up connection on the System Manager computer (Windows 2000/NT/XP)

Follow this procedure to configure a dial-up connection on the System Manager computer running Windows 2000/NT/XP.

Expected results

When you complete this procedure, the correct dial-up configuration is provisioned on the System Manager computer.

Action

Step	Action
1	If the computer does not have an internal modem, connect an external modem to the serial port on the System Manager computer.
	Note: Use Procedure 5-2 "Configuring an external modem for Optical Metro 5100/5200" to configure an external modem for the Optical Metro 5200 shelf dial-up requirements.

2	**If** the System Manager computer is running	**Then** go to
	Windows 2000	step 3
	Windows XP	step 19
	Windows NT	step 35

Step	Action
3	On the System Manager computer, right-click on My Network Places.
4	Select Properties.
	The Network and Dial-up Connections window opens.
5	Double-click Make New Connection.
	The Network Connection Wizard opens.
6	Click the **Next** button.
	The Network Connection Type dialog opens.
7	Select the Network Connection Type - "Dial-up to private network" then click the **Next** button.
	The Phone number to Dial dialog opens.

—continued—

Procedure 5-3 (continued)
Configuring a dial-up connection on the System Manager computer (Windows 2000/NT/XP)

Step	Action
8	Input the phone number for the modem connected to the Optical Metro 5100/5200 shelf then click the **Next** button. *The Connection Availability dialog or the Completing the Network Connection Wizard dialog opens.*

9	If	**Then** go to
	the Connection Availability dialog opens	step 10
	the Completing the Network Connection Wizard dialog opens	step 11

Step	Action
10	In the Connection Availability dialog, select either "For all users" or "Only for myself", then click the **Next** button. *The Completing the Network Connection Wizard dialog opens.*
11	In the Completing the Network Connection Wizard, enter a name for the connection then click Finish. *The Connect dialog opens.*
12	Select Properties.
13	Select the Networking tab, and select the Internet Protocol (TCP/IP) in the list.
14	Click Properties. *The Internet Protocol (TCP/IP) Properties window opens.*
15	Make sure that the following are selected: **a.** Obtain an IP address automatically **b.** Obtain DNS server address automatically
16	Click **OK** to close the Properties dialog box.
17	Click **OK** in the Networking dialog.
18	You have completed this procedure.
19	On the System Manager computer, click the **Start** button on the Taskbar.
20	Select Control Panel from the Start menu.
21	Double-click on the Network Connections icon. *The Network Connections window opens.*
22	Select New Connection from the File menu. *The New Connection Wizard opens.*
23	Click the **Next** button.
24	Select the Network Connection Type - "Connect to the network at my workplace". Click the **Next** button.

—**continued**—

Procedure 5-3 (continued)
Configuring a dial-up connection on the System Manager computer (Windows 2000/NT/XP)

Step	Action
25	Select the Network Connection - "Dial-up connection". Click **Next**.
26	Enter a name for the connection. Click the **Next** button.
27	Input the phone number for the modem connected to the Optical Metro 5100/5200 shelf. Click the **Next** button.
28	Click the **Finish** button.
29	Right-click on the connection that you created and select Properties.
30	Select the Networking tab, and select the Internet Protocol (TCP/IP) option in the list.
31	Click Properties. *The Internet Protocol (TCP/IP) Properties window opens.*
32	Make sure that the following are selected: **a.** Obtain an IP address automatically **b.** Obtain DNS server address automatically
33	Perform the following actions: **a.** Click **OK** to close the Internet Protocol (TCP/IP) Properties dialog box. **b.** Click **OK** to close the Properties dialog box.
34	You have completed this procedure.
35	On the System Manager computer, double-click My Computer on the desktop window.
36	Select Dial-Up Networking. *The Dial-Up Networking window opens or the phonebook is empty.*
37	**If** the phonebook **Then** is empty — Click **OK** to open the add an entry dialog. Then go to step 38. is not empty — go to step 40
38	Click the **OK** button. *The New Phonebook Entry wizard opens.*
39	Go to step 41.
40	Click the **New** button. *The New Phonebook Entry wizard opens.*

—continued—

Procedure 5-3 (continued)
Configuring a dial-up connection on the System Manager computer (Windows 2000/NT/XP)

Step	Action
41	Enter the name you want to assign to this connection in the text field provided.
	Note 1: Nortel Networks recommends that you name the new connection Optical Metro Networking.
	Note 2: Make sure that no check mark appears in the check box underneath the text field.
42	Click the **Next** button.
	The Server window opens.
43	Place a check mark in the "Send my plain text password if that is the only way to connect" check box.
44	Make sure that no check marks appear in the check boxes for the other two options.
45	Click the **Next** button.
	The Phone Number window opens.
46	Enter the phone number for modem connected to the Optical Metro 5100/5200 shelf.
47	Make sure that no check mark appears in the Telephony dialing properties check box.
48	Click the **Next** button and then click the **Finish** button to exit the wizard.
	The Dial-up Networking window opens.
49	From the More drop-down menu, select Edit entry and modem properties.
	The Edit Phonebook Entry window opens. This window contains tabs for the pages Basic, Server, Script, Security, and X25.
	Note: The settings that appear on the Basic page depend on the entry name and phone number you entered in step 41 and step 46. You do not need to edit this page.
50	Select the Server tab.
	The Server page opens.
51	Confirm the following selections:
	• Dial-up server type – PPP: Windows NT, Windows 98, Windows 2000, Internet
	• Network protocols – TCP/IP
	• Enable software compression
	• Enable PPP LCP extensions

<div align="center">—continued—</div>

Procedure 5-3 (continued)
Configuring a dial-up connection on the System Manager computer (Windows 2000/NT/XP)

Step	Action
52	Click the TCP/IP Settings button and confirm the following selections:
	a. Server assigned IP address
	b. Server assigned name server addresses
	c. Use IP header compression
	d. Use default gateway on remote network
53	Click the **OK button**.
54	Select the Script tab.
	The Script page opens.
55	Click the **None** button.
56	Select the Security tab.
	The Security page opens.
57	Select the Accept any authentication including clear text option box.
58	Select the X.25 tab.
	The X.25 page opens.
59	From the Network drop-down menu, select (none).
	Note: Make sure that all other fields are blank.
60	Click the **OK** button and then the **Close** button to complete the configuration process.

—**end**—

Nortel

Optical Metro 5100/5200
Commissioning Procedures

N⊘RTEL