CHAPTER 2

Getting Started

This chapter describes how to upgrade the Cisco Network Building Mediator (Mediator) and perform preliminary tasks, such as configuring network settings and modifying user accounts.

This chapter includes the following sections:

Note Before you install, operate, or service the system, read the *Regulatory Compliance and Safety Information for the Cisco Network Building Mediator* document for important safety information.

Prerequisites

This section includes the following topics:

Power Supply Requirements

You need a 24 VAC/VDC Power Supply to power on the Mediator.

Caution Use a UL/CSA/IEC 60950 Limited Power Source (LPS) or Class 2 certified approved power supply.

Warning **The plug-socket combination must be accessible at all times because it serves as the main disconnecting device.**

Hardware Requirements

- 600 MHz Intel Pentium III processor (or equivalent)
- Windows 2000 SP2 or Windows XP
- 256 MB RAM (512 MB recommended)
- 800 MB available disk space
- Serial console cable (to connect between the PC Com1 port and the Mediator console port)

Other Requirements

Before you initiate the installation process, you must ensure the following:

- You have access to a third-party terminal communications utility such as HyperTerminal or PuTTy.

  When you connect to the Mediator using a third-party utility, use the following baud rates:
  - For Cisco Network Building Mediator 2400 and 4800, the baud rate is 38400 per second.
  - For Cisco Network Building Mediator 2500 and 5000, the baud rate is 115200 per second.
- You have access to the latest image file available on Cisco.com.
- Internet Explorer 7.0 and 8.0, or Mozilla Firefox 3.5 and later.

Caution Do not open or remove the chassis cover or operate the unit without the cover installed.
Do not remove or reapply the thermal conductive pad that connects the heat sink to the CPU. Improper thermal pad contact can cause the CPU to overheat and produce intermittent failure. Removal of the thermal pad can cause the CPU to shut down.

Note If you are unable to resolve a problem with the product, contact the Cisco Technical Assistance Center (TAC) for assistance and further instructions.

Setting Up the Mediator

This section includes the following topics:

Connecting Power to the Mediator

The Mediator operates on 24 VAC or 24 VDC power and is shipped with a 24 VDC power supply (100 VDC-240 VDC input).

This section describes how you must connect the Mediator to the DC and AC power and includes the following topics:

Connecting to DC Power

This section includes the following topics:

Mediator 2400 and 4800

The 24 VDC power supply is connected to the uppermost screw terminal and the GND terminal using 18-24 AWG wire. The positive (+) transformer wire should be connected to the uppermost terminal, and the negative (-) wire should be connected to the GND terminal. The Mediator is shipped with the leads of the power supply screwed on to the terminal block. To power on the Mediator, plug the terminal block into the Mediator socket.

Mediator 2500 and 5000

The power supply uses a plug type connector instead of a terminal block. To power on the Mediator, connect the power supply to the power jack on the Mediator.

Connecting to AC Power

This section includes the following topics:

Mediator 2400 and 4800

The AC leads of a 24 VAC class 2 transformer (minimum 40 VA) are connected to the two uppermost screw terminals using 18 - 24 AWG wire. If the transformer has a ground lead, then it is connected to the GND terminal.

Mediator 2500 and 5000

The AC leads of a 24 VAC class 2 transformer (minimum 40 VA) are connected to the two AC screw terminals using 18 - 24 AWG wire.

Tighten the screws using the following terminal torque specifications:

- (N-m) 0.3 – 0.5
- (in-lbs.) 2.7 – 4.4

Monitoring the Mediator

This section includes the following topics:

LED Codes for the Mediator 2400 and 4800

Table 2-1 provides a description of the LED codes used by Mediator 2400 and 4800.

Table 2-1 LED Codes for Mediator 2400 and 4800

LED Code	Status	Description
Power LED		
None	Power off Initializing the rebooting	The Mediator is not powered on. The Mediator is initializing. The Mediator is rebooting.
Green flash	Power on	The Mediator is powered on.
Status LED		
One long flash followed by a pause.	Idle	The Mediator is booted up and running, but the framework is not running.
Two short flashes followed by a pause.	Installing	The Mediator Framework is starting for the first time and is installing itself.
Three long flashes followed by a pause.	Running	The Mediator Framework is running normally.
Four short flashes followed by a pause.	Error	The Mediator Framework is running, but errors are present. Check the Message Log for details.
Three short flashes followed by three long flashes, followed by three short flashes, followed by a pause.	Emergency	The Mediator Framework has stopped running for at least two minutes.

LED Codes for the Mediator 2500 and 5000

Table 2-2 provides a description of the LED codes used by the Mediator 2500 and 5000.

Table 2-2 LED Codes for Mediator 2500 and 5000

LED Code	Status	Description
Power LED		
None	Power off	The Mediator is not powered on.
Solid Yellow	Power on	The Mediator is powered on.

Table 2-2 LED Codes for Mediator 2500 and 5000 (continued)

LED Code	Status	Description
Status LED		
White flashes	Idle	The Mediator is booted up and running, but the framework is not running.
Continuous green flashes	Installing	The Mediator Framework is being installed.
Short blue flashes	Configuring	The Mediator Framework is being configured.
Blue flashes	Initiating	The Mediator Framework is starting for the first time.
Continuous short and long green flashes	Running	The Mediator Framework is running.
Continuous red flashes	Error	The processors are not communicating with one another.
None	Off	The co-processor firmware is not loaded.
Sequential red, green, and blue flashes	Installing	The co-processor firmware is being loaded.

Configuring the Mediator

While the initial login to the Mediator must be done through the Mediator console port, you can also configure the Mediator remotely. To configure the Mediator remotely, you can use any third-party terminal communication utility.

Note For Mediator 2500 and 5000, both the initial login and the configuration, can be done remotely.

Table 2-3 lists the utilities that you can use to configure the Mediator remotely.

Table 2-3 Options to configure the Mediator

Configuration Method	Type of Utility
Console port	HyperTerminal (allows you to log in to the Mediator Linux command line when you connect the PC to the Mediator console port using the null modem cable supplied with each Mediator).
Remote	PuTTY or any SSH Client (allows you to log in to the Mediator Linux command line by connecting with a Mediator over the Internet).

The first time you log in to the Mediator 2400 and 4800, you could be forced to change the default administrator password. This does not occur when you log in to the Mediator 2500 and Mediator 5000 for the first time.

You can also configure the network settings when you log in to the Mediator for the first time.

To configure the Mediator using HyperTerminal, perform the following steps:

Step 1 Connect a PC to the console port of the Mediator using a null modem cable.

Step 2 Launch HyperTerminal.

A New Connection - HyperTerminal window appears with the Connection Description dialog box.

Step 3 In the Name text box, enter a name for the new connection, and click **OK**.

The Connect To dialog box appears.

Step 4 From the Connect using drop-down list, choose the COM port used to connect to the Mediator.

The COM Properties dialog box appears.

Step 5 Click **Restore Defaults**. The default values for the text boxes in the COM properties dialog box are as follows:

- Bits per second - 38400

Note For Cisco Network Building Mediator 2500 and 5000, the default value is 115200 bits per second.

- Data bits - 8
- Parity - None
- Stop bits - 1
- Flow control - None

Step 6 Click **Apply**, and then click **OK**.

Step 7 Choose **File > Save As**, and save the HyperTerminal session to the desktop.

You can now launch HyperTerminal from the desktop.

Step 8 Press **Enter** twice.

The Mediator system login prompt appears.

Step 9 Enter **mpxadmin** and press **Enter** when prompted for the username and password.

Note For Mediator 2500 and 5000, prior to using the mpxconfig utility, perform the following steps:

a. Enter **./firstboot** (wait for command prompt to return).

b. Enter the **reboot** command.

After the Mediator reboots, log in to the Mediator and continue to Step 10.

Step 10 Enter **mpxconfig** and press **Enter**.

Tip We recomend you enter *export TERM=vt100* on bash before you use the mpxconfig utility.

Step 11 When the mpxconfig utility launches. By default, the Global settings are highlighted.

The mpxconfig utility allows you to configure the network settings and set the date and time.

Step 12 Press **Enter**.

The Global settings text boxes appear.

Step 13 In the Global settings text boxes, enter the hostname, domain, gateway, name server, proxy server, and location.

By default, the IP forwarding status is disabled. Press **Spacebar** to enable the IP forwarding status.

Step 14 Press **Enter** to save changes in the global settings and return to the main menu.

Step 15 Press **ESC** to cancel the changes.

Step 16 Navigate to Ethernet port 0, and press **Enter**.

The Ethernet port selection option appears.

Step 17 Press **Spacebar** to enable or disable DHCP.

Step 18 Scroll down to change the IP address and Net mask.

You can also press **Tab** to move the cursor between text boxes.

Step 19 To return to the main menu, press **Enter**.

Step 20 Repeat Step 16 to Step 19 to configure Ethernet port 1.

Step 21 Scroll down to System Date and Time and press **Enter**.

The System Date and Time settings option appears.

Step 22 Press **Spacebar** to select the appropriate time zone.

Step 23 Scroll down to set the date and time

Step 24 To return to the main menu, press **Enter**.

Step 25 Press **Esc** to exit.

The mpxconfig window appears.

Step 26 Press **Enter** to save the changes or press **ESC** to discard the changes.

Step 27 Type **R** to reboot the system or press any other key to exit.

Note Changes to the network settings are not effective until you reboot the Mediator.

Upgrading the Mediator

This section describes the procedures for upgrading the Mediator Operating Environment (MOE) and the Mediator Framework.

Note This section is not necessary if the Mediator is already running the latest MOE and Mediator Framework. To verify the MOE and Mediator Framework, see the "Verifying the Mediator Framework and MOE" section on page 2-15.

This section includes the following topics:

Downloading the Image File

Before you begin the upgrade process, you must download the latest image file from Cisco.com.

To download the image file, perform the following steps:

Step 1 Log in to Cisco.com to download the image file.

If you are not a registered user of Cisco.com, obtain your Cisco.com user ID from the following website: http://tools.cisco.com/RPF/register/register.do

Step 2 Download the image file to a folder location on your local system.

Extracting the Image File Contents

After you download the image file on to your local system, you must extract the image file contents using any Zip file utility such as WinZip. You cannot copy the image file to the Mediator until you extract the image file contents.

Table 2-4 lists the details on the extracted image file contents.

Table 2-4 CCO Distribution Matrix

Hardware/Tools	Software Version	File Category	File Name	Contents
5000	3.1.3-1	Installation Software	NBM5000-SW-3.1.3-1-K9.iso	• MANIFEST • cisco.nbm-5000-moe-1.21-fw-3.1.3-1 • cisco.nbm-5000-moe-1.21-fw-3.1.3-1.md5
5000	3.1.2-6	Installation Software	NBM5000-SW-3.1.2-6v2-K9.iso	• MANIFEST • cisco.nbm-5000-moe-1.21-fw-3.1.2-6 • cisco.nbm-5000-moe-1.21-fw-3.1.2-6.md5

Table 2-4 CCO Distribution Matrix (continued)

Hardware/Tools	Software Version	File Category	File Name	Contents
4800	3.1.3-1	Installation Software	NBM4800-SW-3.1.3-1-K9.iso	• NBM4800-SW-3.1.3-1-K9.tx • cisco.nbm-4800.Release3.1.3-1.tgz • moe-3.0.4to3.0.9-upgrade.tgz • moe-3.0.9.tgz • netinstall-1.0.1.tgz • version.txt
4800	3.1.2-6	Installation Software	NBM4800-SW-3.1.2-6v2-K9.iso	• NBM4800-SW-3.1.2-6-K9.txt • cisco.nbm-4800.Release3.1.2-6.tgz • moe-2.5.1to3.0.8-upgrade.tgz • moe-3.0.4to3.0.8-upgrade.tgz • moe-3.0.8.tgz • netinstall-1.0.1.tgz • version.txt
2500	3.1.3-1	Installation Software	NBM2500-SW-3.1.3-1-K9.iso	• MANIFEST • cisco.nbm-2500-moe-1.21-fw-3.1.3-1 • cisco.nbm-2500-moe-1.21-fw-3.1.3-1.md5
2500	3.1.2-6	Installation Software	NBM2500-SW-3.1.2-6v2-K9.iso	• MANIFEST • cisco.nbm-2500-moe-1.21-fw-3.1.2-6 • cisco.nbm-2500-moe-1.21-fw-3.1.2-6.md5
2400	3.1.3-1	Installation Software	NBM2400-SW-3.1.3-1-K9.iso	• NBM2400-SW-3.1.3-1-K9.tx • cisco.nbm-2400.Release3.1.3-1.tgz • moe-3.0.4to3.0.9-upgrade.tgz • moe-3.0.9.tgz • netinstall-1.0.1.tgz • version.txt

Table 2-4 CCO Distribution Matrix (continued)

Hardware/Tools	Software Version	File Category	File Name	Contents
2400	3.1.2-6	Installation Software	NBM2400-SW-3.1.2-6v2-K9.iso	• NBM2400-SW-3.1.2-6-K9.txt • cisco.nbm-2400.Release3.1.2-6.tgz • moe-2.5.1to3.0.8-upgrade.tgz • moe-3.0.4to3.0.8-upgrade.tgz • moe-3.0.8.tgz • netinstall-1.0.1.tgz • version.txt
configTOOL	3.1.2-2	Configuration Software	configtool_install_3_1_2-2.exe	NA
perfectHost	8.00.03	Programming Software	phwsetup.exe	NA

Copying the Image File to the Mediator

Table 2-5 describes the different methods you can use to copy the image file to the Mediator.

Table 2-5 Copying Image Files to the Mediator

Mediator Model	Method	Instructions
Mediator 2400/4800	SFTP or SCP File Transfer Client	Follow these steps: **a.** Open the SFTP or SCP File Transfer Client and enter the IP address of the Mediator in the Host Name text box. **b.** Enter **mpxadmin** in the Username and Password text boxes, and click **Login**. **c.** To copy a file from your PC to the Mediator, select the file from the left pane and place it in the appropriate directory in the right pane. **d.** Use the following directories: – Use the /usr/lib directory for the Mediator Framework upgrade file. – Use the **/** directory for the MOE upgrade file.
Mediator 2500/5000	SFTP or SCP File Transfer Client	Follow these steps: **a.** Open the SFTP or SCP File Transfer Client and enter the IP address of the Mediator in the Host Name text box. **b.** Enter **mpxadmin** in the Username and Password text boxes, and click **Login**. **c.** To copy a file from your PC to the Mediator, select the file from the left pane and place it in the /home/mpxadmin directory in the right pane.

Table 2-5 Copying Image Files to the Mediator (continued)

Mediator Model	Method	Instructions
Mediator 2500/5000	Universal Serial Bus (USB) Flash Drive	Follow these steps: **a.** Plug the USB Flash Drive into a USB socket on the Mediator. **b.** Connect to the Mediator using any third-party terminal communications utility or an SSH client. **c.** Enter **mpxadmin** in the Username and Password text boxes, and click **Login**. **d.** Enter **mount /dev/sdb1 /mnt** to mount the file system of the USB Flash device. **e.** Enter **cp /mnt/***install image* **/home/mpxadmin** to copy the new image file to the /home/mpxadmin directory.
Mediator 2500/5000	wget	Follow these steps: **a.** Connect to the Mediator using any third-party terminal communications utility or an SSH client. **b.** Enter **mpxadmin** in the Username and Password text boxes, and click **Login**. **c.** Enter **wget *http*** *server URL* ***image file name***.

Upgrading the Mediator 2400 and 4800

You can upgrade either the Mediator Framework or the Mediator Operating Environment (MOE) and the Mediator Framework.

Caution All image files are saved under the /var/mpx/www/http/images directory. Before you begin with the upgrade procedure, you must back up the entire folder. It is important that after you complete the upgrade procedure, you must restore the folder under the /usr/lib/broadway/opt/rz/omega/html/images directory to save all the customized images.

This section describes the procedure you can use to install or upgrade the Mediator Framework or the MOE and includes the following topics:

Mediator Framework

Before you begin with the upgrade procedure, verify that the Mediator is running a MOE that is compatible with the Mediator Framework that you want to upgrade.

For details on the MOE compatibility, see the Software Compatibility Matrix that is available in *Release Notes for the Cisco Network Building Mediator*.

To upgrade the Mediator Framework perform the following steps:

Step 1 Connect to the Mediator using an SCP and SSH client such as WinSCP and PuTTY.

Both the username and the password are mpxadmin.

Step 2 Copy the cisco.nbm-3.x.tgz file to the /usr/lib directory on the Mediator.

Step 3 Enter **init 2** to shut down the Mediator Framework.

Step 4 Enter the **cd /var/mpx/config** command.

Step 5 Enter the **mv broadway.xml broadway.orig.xml** command.

Step 6 Enter the **cd /usr/lib** command.

Step 7 Enter **ls** to view the list of files in the current working folder.

Step 8 Enter **rm -rf broadway** to remove the existing broadway folder.

Step 9 Enter **tar -xzvf cisco.nbm-3.x.tgz** to unzip the file and recreate the broadway folder.

Step 10 Enter **cd broadway** to navigate to the new broadway folder.

Step 11 Enter the **./install cisco.nbm** command.

Step 12 (Optional) Enter **./install -d cisco.nbm** to view the installation steps.

Upon the completion of installation process, you are prompted to enter the next command.

Step 13 Enter the **cd /var/mpx/config** command.

Step 14 Enter the **mv broadway.orig.xml broadway.xml** command.

Step 15 Enter **init 3** to restart the Mediator Framework.

Step 16 Enter **msglog_viewer -f** to watch the message logs.

Step 17 To verify that the appropriate Mediator Framework has been installed, see the "Verifying the Mediator Framework and MOE" section on page 2-15.

MOE and Mediator Framework

Before you begin with the upgrade procedure, check the MOE version that is currently running on the Mediator to determine which MOE upgrade file you must use.

For example, if the Mediator is running a MOE version 2.5.1, then use the moe-2.5.1 to 3.0.9-upgrade.tgz file or if the Mediator is running a MOE version 3.0.4, then use the moe-3.0.4to3.0.9-upgrade.tgz file.

To check the MOE version, log in to the Mediator Web Client and browse to the System page.

To upgrade the MOE and the Mediator Framework, perform the following steps:

Step 1 Connect to the Mediator using an SCP and SSH client such as WinSCP and PuTTY.

Both the username and the password are **mpxadmin**.

Step 2 Copy the **c**isco.nbm-3.x.tgz file to the /usr/lib directory on the Mediator.

Step 3 Copy the moe-*version*to3.0.9-upgrade.tgz file to the / directory on the Mediator.

Step 4 Enter **init 2** to shut down the Mediator Framework.

Step 5 Enter the **cd /var/mpx/config** command.

Step 6 Enter the **mv broadway.xml broadway.orig.xml** command.

Step 7 Enter the **cd /** command.

Step 8 Enter the **tar -xzvf moe-*version*to3.0.9-upgrade.tgz** command.

Step 9 Enter the **cd /usr/lib** command.

Step 10 Enter **rm -rf broadway** to remove the existing broadway folder.

Step 11 Enter **tar -xzvf cisco.nbm-3.x.tgz** to unzip the file and recreate the broadway folder

Step 12 Enter **cd broadway** to navigate to the new broadway folder.

Step 13 Enter the **./install cisco.nbm** command.

Step 14 (Optional) Enter **./install -d cisco.nbm** to view the installation steps.

Upon the completion of installation process, you are prompted to enter the next command.

Step 15 Enter the **cd /var/mpx/config** command.

Step 16 Enter the **mv broadway.orig.xml broadway.xml** command.

Step 17 Enter **reboot** to reboot the system.

Step 18 Re-connect to the Mediator using an SSH client.

Step 19 Enter **mpxadmin** for both, the username and the password.

Step 20 Enter **msglog_viewer -f** to watch the message log.

Step 21 To verify that the appropriate Mediator Framework and MOE have been installed, see the "Verifying the Mediator Framework and MOE" section on page 2-15.

Upgrading Mediator 2500 and 5000

Cisco Network Building Mediator 2500 and Cisco Network Building Mediator 5000 includes an **nbm_install** command that installs or upgrades the Mediator Operating Environment (MOE) and Mediator Framework.

To use the **nbm_install** command, the Mediator must download the image file from Cisco.com.

Caution The **nbm_install** command backs up certain configuration data such as the location, hostname, and the domain name, which gets restored after the install process. We recommend that the configuration data is manually backed up before the installation and restored later. To back up and restore the data manually, see the "Backing Up the Mediator" section on page 2-16 and the "Restoring the Mediator" section on page 2-16.

This section describes the procedure you use to install or upgrade the Mediator Operating Environment and the Mediator Framework.

To install the new operating system and the Mediator Framework, follow these steps:

Step 1 Connect to the Mediator using an SCP and SSH client such as WinSCP and PuTTY.

Both the username and the password are mpxadmin.

Step 2 Copy the new image to the /home/mpxadmin directory. Verify that the correct image has been transferred to this directory.

Step 3 Enter the **cd /home/mpxadmin** command.

Step 4 Enter **ls** to view the list of files in the current working directory. This helps to ensure that the transferred file is available in the /home/mpxadmin directory.

Step 5 Enter the **nbm_install** *image file name* command to install the new MOE and Mediator Framework.

The installation process causes the Mediator to enter a state which will terminate your current SSH session. Wait approximately 15 minutes for the installation to complete and re-establish the SSH connection.

Note Ensure that the power supply to the Mediator is not interrupted during the upgrade process.

Step 6 Enter **mpxadmin** for both the username and password.

Step 7 Enter the **./firstboot** command.

Step 8 Enter the **reboot** command.

Step 9 Re-connect to the Mediator using an SSH client.

Step 10 Enter **mpxadmin** for both, the username and the password.

Step 11 Enter **msglog_viewer -f** to watch the message log.

Step 12 To verify that the appropriate Mediator Framework and MOE has been installed, see the "Verifying the Mediator Framework and MOE" section on page 2-15.

Verifying the Mediator Framework and MOE

To verify the Mediator Framework and MOE, perform the following steps:

Step 1 Open a web browser on your PC and enter the URL for the Mediator. Be sure to include the "s" in https:// to connect your browser to the secure URL.

Step 2 Enter the default username and password in the Username and Password text boxes.

Both the default username and password are mpxadmin.

Step 3 Click **System**. On the Status tab, the Framework version text box displays the new image number that you have installed. If you have upgraded the MOE, then verify the correct version of the MOE.

Backing Up and Restoring the Mediator

This section includes the following topics:

Backing Up the Mediator

The backup function saves all of your applications, HTTP files, schedules, trends, and persistent data in a compressed archive file (.tgz), which is stored locally on the hard disk of your PC.

To back up a Mediator, perform the following steps:

Step 1 In the Mediator web client homepage, click **System**.

Step 2 Click the **Backup/Restore** tab.

The Backup/Restore tab appears.

Step 3 Click **Backup**.

The file download dialog box appears prompting you to open or save the backup file, mediator_backup.tgz.

Step 4 Click **Save**.

The file is saved on your local drive.

Restoring the Mediator

You can reverse the backup operation by using the restore function of the Mediator. The restore function takes the compressed archive file (.tgz) from the hard drive of your PC and restores the data to the Mediator.

If you modify the compressed archive file (.tgz) name on the hard drive of your PC, the restore function does not restore the data back to the Mediator.

Note We recommend that you restart the Mediator Framework to view the restored data on the web client. If you do not restart the Mediator Framework, the restored data will not appear on the web client, although it is restored to the Mediator.

To restore the Mediator, perform the following steps:

Step 1 In the Mediator web client homepage, click **System**.

Step 2 Click the **Backup/Restore** tab.

The Backup/Restore tab appears.

Step 3 Click **Browse** and navigate to the folder on your PC where the backup file is stored.

Step 4 Click **Restore**.

The files are restored to the Mediator and a message indicating the operation is successful is displayed.

Step 5 Launch PuTTY from your PC.

Step 6 In the PuTTY configuration window that appears, enter the Mediator IP address in the Host Name text box. The Username and Password text boxes appear.

Step 7 Enter **mpxadmin** in both, the Username and Password text boxes.

Step 8 Enter **init 2**, and press **Enter**.

Step 9 Enter **init 3**, and press **Enter**.

Step 10 The backup of the Mediator is restored.

Restoring a Single File

While you can back up and restore the Mediator files, you are also allowed to restore a single file. To restore a specific file from the Mediator backup files, ensure that you know the appropriate Persistant Data Object (PDO) file name.

Tip From the Mediator web client, navigate to the specific node on the node browser to check the appropriate PDO file name.

To restore the single file, perform the following steps:

Step 1 Perform step1 to step 7 of the "Restoring the Mediator" section on page 2-16.

Step 2 Enter **tar -xzf backupFilename.tgz pdoFilename.dat.1** to extract the specific file.

Step 3 Enter **init 2** to shutdown the Mediator Framework.

Step 4 Enter **pdoFilename.dat.1 to /var/mpx/config/persistent/** to copy the file to the Mediator.

Step 5 Enter **init 3** to restart the Mediator Framework.

The file is restored.

Configuring the Mediator Settings

You can use the Mediator web client to view and modify the Mediator network settings.

To customize the Mediator network settings, perform the following steps:

Step 1 In the Mediator web client, click **System**.

Step 2 Click the **Status** tab.

The Status tab appears. This tab displays the Mediator information.

Note Text that appears in a grey color is auto generated and cannot be modified.

Step 3 On the Status tab, perform the following steps:

a. The Model text box displays the platform version of the Mediator.

b. The MOE Version text box displays the MOE version of the Mediator.

c. The Framework Version text box displays the Mediator Framework version.

d. In the Location text box, enter the location of your Mediator.

e. In the Hostname text box, enter the name of the host Mediator.

f. In the Domain Name text box, enter the name of the domain.

g. In the Gateway text box, enter the gateway IP address.

h. In the Name Server, enter the IP address of the server.

i. In the Proxy Server text box, enter the name of the proxy server.

j. In the License Status text box, the status of the license is displayed. This text box displays Enabled if a license is uploaded. Otherwise the text box is disabled and displays Disabled.

k. The Intermediate Protocols text box displays Supported if protocols were supported. Otherwise the text box is disabled and displays Unsupported. The intermediate protocols are loaded into your Mediator when you procure the license with intermediate protocols.

l. The Advanced Protocols text box displays Supported if advanced protocols are supported. Otherwise the text box is disabled and displays Unsupported. The advanced protocols are loaded into your Mediator when you procure the license with advanced protocols.

m. The Point Limit text box displays the maximum number of points that are available to you for configuration. By default the text box is disabled and displays 0. You obtain the points limit when you procure the license.

n. The Points Available text box displays the remaining number of points that are available to you. The number of points available decreases as you configure the points.

o. In the Upload License text box, click **Browse** to upload the license.

p. Set the text box options in the Ethernet columns as follows:

- MAC Address: Enter the Ethernet MAC address.
- DHCP: Displays the status of the Ethernet Dynamic Host Configuration Protocol (DHCP). Choose from the drop-down list to enable or disable the DHCP.
- IP Address: Enter the IP address of the Mediator.
- IP Netmask: Enter the IP Netmask address of the Mediator.

q. Click **Save** to save the changes you made.

r. Click **Reboot** to reboot the Mediator.

s. (Optional) Click **Save/Reboot** to save and reboot the Mediator.

Modifying User Accounts

The tasks described in this section enable you to create passwords and modify the profile of an existing user. These tasks are restricted to privileged users as determined by your administrator.

This section includes the following topics:

Username Guidelines

You need to configure a username with strong characteristics. To configure a username with strong characteristics, you must know the defined username security guidelines.

The username should have strong characteristics, such as the following:

- At least eight characters.
- Not more than eighty characters.
- Contain both upper and lowercase characters (Aa - Zz).
- Contain numbers (0- 9).
- Not contain printable or non-printable characters (such as [!"#$%&'()*+,\-./:;<=>?@[\]^_`{|}~\\].

Note Usernames such as “Cisco” and “mpxadmin” are not allowed and are rejected if you try to configure these usernames.

Password Guidelines

You need to configure a password with strong characteristics. To configure a password with strong characteristics, you must know the defined password security guidelines.

The password should have strong characteristics, such as the following:

- Contain characters from at least three of the four character groups that are uppercase (A-Z), lowercase (a-z), number (0-9), and punctuation characters ([!"#$%&'()*+,\-./:;<=>?@[\]^_`{|}~\\]).

Note Other characters than those mentioned in this section will not be accepted/configured.

- Contain characters that are repeated not more than twice.

  For example: If the password is bangalore, it is approved because the character b is not repeated twice. But if the password is pppusrpasswd, it is rejected because the character p is repeated more than twice.
- Should not be any variation of Cisco or mpxadmin. For example: C!sco, cisc0.
- Should not be a repeat of your username. For example: a testuser user cannot have testuser as the password.
- Should not be the reverse of a username.

Recovering the Mediator Password

If the administration credentials are lost, you can reset the default password. This section describes the procedures to recover the default password of the Mediators, and includes the following topics:

Note See the "Username Guidelines" section on page 2-19 and the "Password Guidelines" section on page 2-19, when you create a new username and password.

Mediator 2400 and 4800 Password Recovery

To recover the Mediator 2400 and 4800 password, perform the following steps:

Step 1 Perform Step 1 to Step 8 described in the "Configuring the Mediator" section on page 2-5.

Step 2 Power on the Mediator.

Step 3 Press **Enter** twice.

The Mediator system login prompt appears.

Step 4 To enter the menu, press **ESC**.

The prompt appears; press **ESC** again.

Step 5 Press the **e** key.

Step 6 Scroll down to choose the kernel line.

You can also press **Tab** to move the cursor between text boxes.

Step 7 Press the **e** key.

Step 8 Enter the word **single** at the end of the kernel line.

Step 9 Press **Enter**.

Step 10 Press the **b** key.

The Mediator device should start up in single-user mode without having to re-enter a password.

Step 11 Enter the **cd /usr/lib/broadway/tools** command.

Step 12 Enter **passwd**, and press **Enter**.

You are prompted to change the default username and password.

Step 13 Enter **y** to proceed.

Step 14 Enter the new username and password in the appropriate text boxes.

Mediator 2500 and 5000 Password Recovery

To recover the Mediator 2500 and 5000 password, you must be connected to the Mediator through the console port.

To recover the password, perform the following steps:

Step 1 Perform Step 1 to Step 8 described in the "Configuring the Mediator" section on page 2-5.

Step 2 Power cycle the Mediator.

Step 3 Press **Enter** during the 5 second boot loader countdown so that the boot loader remains active.

Step 4 Enter the **setenv autoexec password_rese**t command.

Step 5 Enter the **saveenv** command.

Step 6 Enter the **run ramboot** command.

The Mediator system should start up in ramdisk mode.

Step 7 Log in using **root** as the username and no password.

Step 8 Enter **password_reset** to reset the password.

Step 9 Enter the **reboot** command.

The Mediator system reboots and the password is reset to the default password.