

Safety Information: Omni Switch/Router™ hardware installation and maintenance is to be provided by Customer Support personnel, or equivalent, knowledgeable in basic electrical and mechanical safety procedures.

Safety Information for Rack Mounting: Switches should be installed in a maximum 40° C environment. To ensure proper air flow, it is recommended that the switches have at least two inches of clear space on all sides. To ensure stability, precautions should be taken to prevent uneven loading of the rack. Loading of the rack should begin at the bottom. When multiple components are installed, precautions should be taken to prevent overloading of power outlets. The switches should always be properly grounded.

Lithium Batteries Caution: There is a danger of explosion if the Lithium battery in your chassis is incorrectly replaced. Replace the battery only with the same or equivalent type of battery recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. The manufacturer's instructions are as follows:

Return the module with the Lithium battery to Alcatel. The Lithium battery will be replaced at Alcatel's factory.

All-In-OneSM Service Programs: An Alcatel service agreement brings your company the assurance of 7x24 no-excuses technical support. You'll also receive regular software updates to maintain and maximize your Alcatel product's features and functionality and on-site hardware replacement through our global network of highly qualified service delivery partners. Additionally, with 24-hour-a-day access to Alcatel's Service and Support web page, you'll be able to view and update any case (open or closed) that you have reported to Alcatel's technical support, open a new case or access helpful release notes, technical bulletins, and manuals. For more information on Alcatel's Service Programs, see our web page at www.ind.alcatel.com, call us at 1-800-995-2696, or email us at support@ind.alcatel.com.

The features and specifications described in this manual are subject to change without notice.



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Installing Your Switch

This chapter walks you through the initial steps needed to set up Omni Switch/Router™ hardware and software. These steps show you how to:

- Set up and power on your switch
- Connect a network management station
- Verify that the LEDs reflect normal operation
- Configure system software parameters, including an IP address for the switch

By the end of this chapter, you will be ready to use switch software to begin configuring VLANs, routing, and individual switching module parameters. You will also be able to start monitoring a wide array of statistics. Consult your *Omni Switch/Router User Manual* for more advanced configuration and management of your switch.

1. Unpack the Switch

Remove all hardware from the packing boxes and inspect each item to ensure there has been no shipping damage. In addition, ensure the packing boxes contain all the items that you ordered. If you discover or suspect any damage, contact your distributor immediately.

◆ Warning ◆

Do *not* install OmniSwitch modules in an Omni Switch/Router chassis. Only Omni Switch/Router modules should be installed in an Omni Switch/Router chassis. If you install OmniSwitch modules in an Omni Switch/Router chassis, physical damage may result.

2. Re-Seat Switching Modules

Switching modules may become slightly unsettled during shipping. To ensure each module is properly positioned, gently remove and reinsert each module according to the instructions below.

Rack or Wall Mounting Your Switch?

You may want to keep the switching modules that you remove from the switch chassis out until you have completed the mounting procedure. Keeping the modules and power supplies out of the chassis lightens the weight of the chassis for the mounting procedure.

A flat blade screwdriver is required for installing and removing switching modules. In a chassis with horizontal slots, the slots are numbered sequentially with slot 1 being the topmost slot. In a chassis with vertical slots, the slots are numbered sequentially with slot 1 being the leftmost slot.

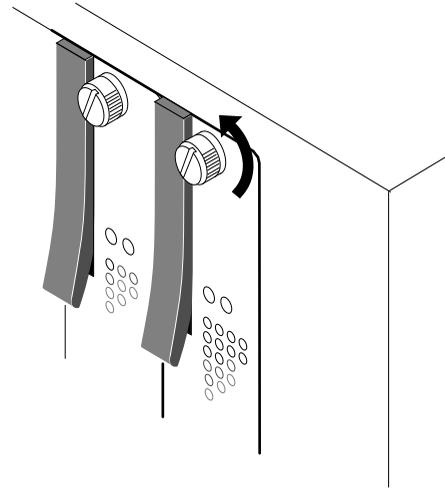
◆ **Anti-Static Warning** ◆

Before handling any module, free your hands of static by wearing a grounding strip or by grounding yourself properly. Static discharge can damage the components on the module.

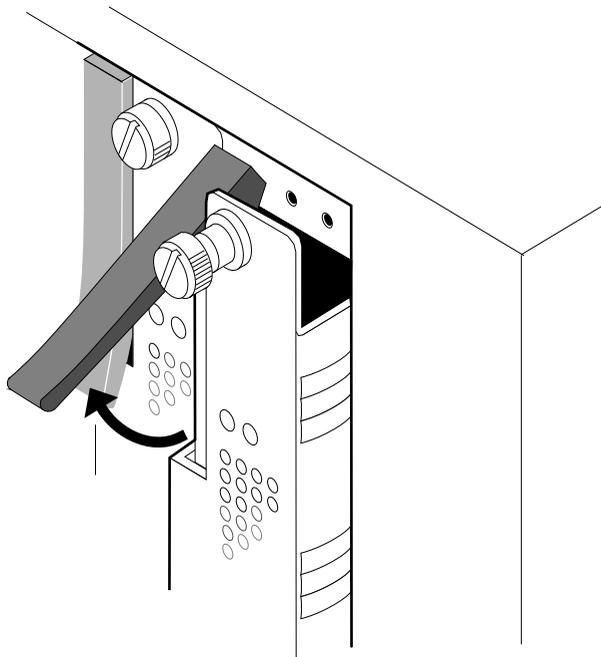
Removing the Modules

To remove a module, follow these instructions:

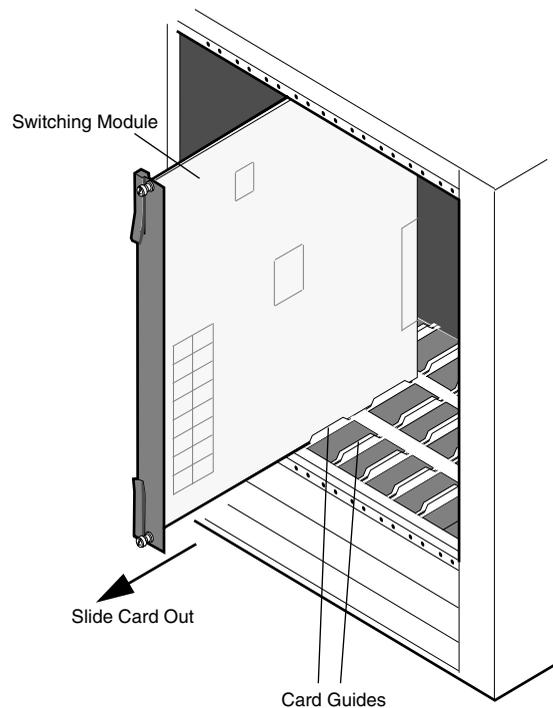
- a. Loosen the screw fasteners at the top and bottom of the module using a flat blade screwdriver.



- b. Gently unlock the two card ejectors (one on each end of the module) by pressing them out and away from the module.



- c. Holding the module firmly in both hands, carefully slide it out of the chassis along the card guide. The module should slide out easily. A large amount of force is not necessary and should not be used.



- d. Repeat the above steps for all switch modules. If you are rack or wall mounting the switch, you should store the removed modules and power supplies in a safe, anti static place and skip to Step 3. If you are not rack or wall mounting the switch, re-install the modules as described in the next section.

Re-Installing the Modules

To re-install modules, follow the instructions below:

- a. Hold the module firmly in both hands, and carefully slide it into the card guide. Make sure the front panel connectors and LEDs face outward. In a switch with vertical slots, the component side of the board should face right. In a switch with horizontal slots, the component side should face up.

The module should slide in easily. A large amount of force is not necessary and should not be used. If any resistance is encountered, ensure the module is aligned properly in the card guide.

- b. Once the module is in the slot, close the two card ejectors (one on top of the module and one on the bottom) by pressing them in toward the module until they snap into place.
- c. Use a flat blade screwdriver to tighten the two screw fasteners to secure the module inside the chassis. The screws should be tight enough that a screwdriver would be necessary to loosen the screws.

3. Find a Safe, Well Ventilated Location

Find a space with adequate power source access and ventilation where you can set up the switch. A standard office AC supply of 90 to 120 volts or 200 to 230 volts is required for normal operation. Be sure that adequate ventilation exists in the vicinity of the unit. Also, be careful not to block the ventilation holes on the sides or back of the unit.

The Omni Switch/Router is designed to operate in an office environment. The enclosure and all modules are safe to handle, and the noise level meets the requirements for an office environment.

4. Mount the Switch (Optional)

All switches are shipped with brackets and bracket screws for rack mounting the chassis. (Rack-mount screws, which attach the brackets to the rack, must be purchased from your rack vendor). You can order wall-mounting brackets for a 3-Slot chassis separately.

◆ Note ◆

A Phillips screwdriver is required for rack or wall mounting procedures, and a drill is required for wall mounting the chassis.

Rack Mounting the Chassis

The following sections provide instructions for rack mounting the switch chassis.

◆ Lighten the Load ◆

Before you mount an Omni Switch/Router chassis, remove the switching modules and power supplies to lighten the weight of the chassis. Refer to *Step 2. Re-Seat Switching Modules* on page 1 for instructions.

To rack mount a switch chassis, the following items are required:

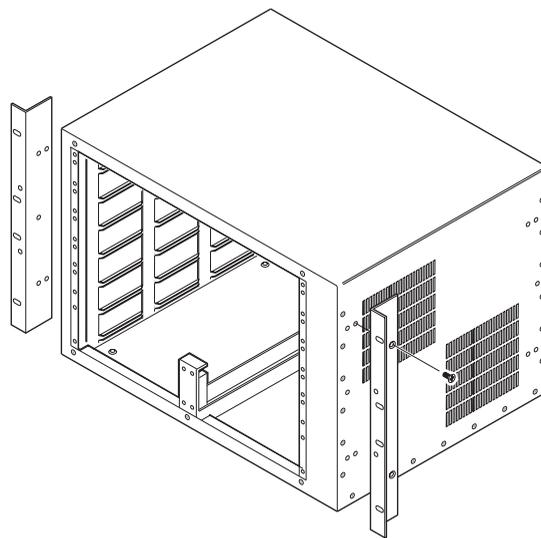
- 2 rack-mounting brackets (included)
- Phillips flat-head 100 degree screws (included)
- Phillips screwdriver (not included)

9-slot Omni Switch/Router in a Rack

If you want to install a 9-slot Omni Switch/Router in a rack, we recommend placing it on a rack shelf in addition to mounting it with brackets and screws.

Follow these steps to mount a switch chassis in a rack:

- a. Select a shelf on the rack that allows easy access to the switching modules and power supplies once the chassis is mounted.
- b. Attach one rack-mounting bracket to the front end of the chassis using the Phillips-head screws that came with the chassis. See the figure below for the positioning and placement of these brackets and screws.



- c. Attach the second bracket to the opposite front end of the chassis using the remaining screws.
- d. Carefully lift the chassis and insert it into the rack.
- e. Attach both brackets to the rack by screwing in the rack screws.

Wall Mounting the Chassis (3-Slot)

To wall mount a 3-slot switch chassis, the following items are required:

- 2 wall-mounting brackets (optional)
- Phillips flat-head 100 degree screws (included)
- Standard, wall-mounting screws (not included)
- Drill (not included)
- Phillips screwdriver (not included)

◆ Note ◆

Only the 3-slot version of the Omni Switch/Router can be wall mounted. The 5-slot and 9-slot models cannot be wall mounted.

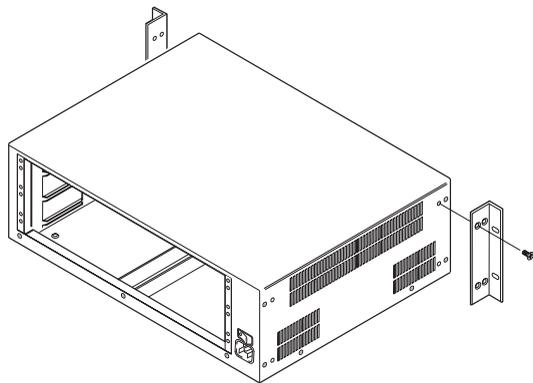
Follow these steps to wall mount a switch chassis:

- a. Locate an area that allows easy access to the switching modules and power supply once the chassis is mounted.

Caution

The weight of a fully-loaded 3-slot chassis is approximately 18 lbs. (8.18 kg.). Be sure to choose a suitable location that can support the weight of the fully-loaded chassis.

- b. Use the holes in the wall-mounting bracket and the chassis as a guide, measure the correct placement for the wall-mounting screws.
- c. Drill holes in the wall for the wall-mounting screws.
- d. Screw the wall-mounting screws into the wall.
- e. Attach one bracket to the back end of the chassis, using the Phillips flat-head screws that came with the chassis.



- f. Attach the second bracket to the opposite back end of the chassis using the remaining screws.
- g. Carefully lift the chassis and hang it on the wall-mounted screws.

5. Connect the Power Supply

Attach a power cord to one or more of the power supplies. The power supplies are located in the bottom bays of the chassis.

When more than one power supply is used, they act as redundant, power-sharing power sources. During normal operation the power supplies share the power load. In the event one power supply fails, the other acts as a back up and picks up the power load from the failed power supply.

◆ Power Cord Safety Precautions ◆

In the event that your power cord is lost or damaged, refer to the *Omni Switch/Router User Manual* for instructions on how to obtain a replacement.

European cords **must** be Harmonized (HAR) type. See the *Omni Switch/Router User Manual* for further information.

6. Connect to the Serial Port

Attach a serial cable to the female serial port connector on the MPX module's front panel. Connect the other end of the serial cable to a workstation equipped with terminal emulation software. You will use this connection to enter initial configuration values for the switch. Later you can use this connection to perform more sophisticated network management tasks, such as configuring VLANs, setting up routing, and monitoring statistics.

The Console Management ports are RS-232 ports used to interface with switch software. One port, called the “modem” port, is a male DTE connector and the other, called the “console” port, is a female DTE connector. They are each 9-pin “D” (DB-9) connectors that conform to the IBM AT serial port specification. If the connecting device does not conform to the IBM AT serial port specification, you may need a special cable or adapter.

7. Power On the Switch

Turn the power supply On/Off switch to the On (I) position.

8. Verify LEDs

Check that LEDs on the front panel of the chassis indicate a normal state of operation. On an MPX, the **PS1** LED should be on steady Green if one power supply is inserted. If two power supplies are installed, both the **PS1** and **PS2** LEDs should be on solid Green.

All modules are subjected to extensive power-on diagnostics during the Power-On Self-Test cycle (POST). For this reason, you should allow the switch several seconds to perform preliminary tests before evaluating the LEDs. While the diagnostics are running, the MPX **OK2** LED will blink Amber. When diagnostics are complete and all modules are operating correctly, the **OK1** LED on all modules should be on solid Green and the **OK2** LED should be blinking Green. The tables below summarize how LEDs should display in normal operation.

Omni Switch/Router MPX

LED	Normal State	Comments
PS1 PS2	Green On Steady	If the corresponding power supply is turned off, the LED will be On Amber Steady.
OK1	Green On Steady	Hardware diagnostics passed.
OK2	Green Blinking	Blinks amber while diagnostics are running.

Omni Switch/Router Switching Modules

LED	Normal State	Comments
OK1	Green On Steady	Hardware diagnostics passed.
OK2	Green Blinking	Blinks amber while diagnostics are running.

9. Log In to the Command Line Interface (CLI)

If you are using one of the MPX's serial ports, use a terminal emulation software package to establish a session with the switch. Configure your terminal emulation software parameters as follows:

- 9600 baud
- 8 data bits
- 1 stop bit
- no parity
- no hardware flow control (Windows 95 or later)

After the system has booted, the Login prompt is displayed:

```
Welcome to the Alcatel Omni Switch/Router!  
Version x.x.x.x  
login :
```

Initially, there are three types of login accounts available on the Omni Switch/Router: **admin**, **diag** and **user**. The **admin** and **diag** accounts allow full access to all functions. The **diag** account additionally supports a set of switching module tests (see the “Running Hardware Diagnostics” chapter in your *Omni Switch/Router User Manual* for details). The **user** account allows read-only privileges. All three accounts use **switch** as the default password.

◆ Important Note ◆

If you have Administrative (WRITE) privileges on the switch, you can create or delete logins and new user accounts with administrative privileges.

◆ Partition Management ◆

Partition Management allows you to restrict access to particular switch features on a per user basis. See the “Switch Security” chapter in your *Omni Switch/Router User Manual* for details.

The following procedure uses the **admin** login account as an example. Complete the following steps to log in to the switch.

◆ Caution ◆

If the system displays the following prompt:

Please Standby, chassis configuration changing (Hit ^C to abort)...

it means you are attempting to access the switch before it has completed initialization or processing a previous command. Wait until the switch displays the login prompt before entering any commands.

- a. Enter **admin** at the login prompt and press **<Enter>**. The following prompt displays:

password:

- b. Enter **switch** at this prompt and press **<Enter>**. When you have successfully logged in, the screen will display similar to the following.

Alcatel Omni Switch/Router
Copyright (c), 1994 - 2002 Alcatel Internetworking, Inc. All rights reserved.
Omni Switch/Router is a trademark of Alcatel Internetworking, Incorporated,
registered in the United States Patent and Trademark Office.
Press ENTER to start

The Omni Switch/Router is factory-configured to boot up in CLI (Command Line Interface) mode. The CLI allows you to enter single-line commands through the local console. (For more information on CLI, see your *Text-Based Configuration Reference Manual*.)

To start the Command Line Interface, press **<Enter>**. The following message and CLI prompt (->) will be displayed, to indicate that you are in CLI mode:

Entering Command Line Interface
->

◆ Configuration Modes ◆

You can also configure your switch through the User Interface (UI). To enter the User Interface, type **ui** at the CLI prompt (->) and press **<Enter>**. The UI prompt (**=>**) will be displayed, indicating that you are in UI mode. From here, you can type **?** and press **<Enter>** to view the Main Menu. (For more information on using the UI, refer to your *Omni Switch/Router User Manual*.)

To return to CLI mode from UI mode, type either **cli** or **exit** at the UI prompt (**=>**) and press **<Enter>**.

10. Set Up a Password

Before you configure the connections for your switch, you should set up a password for the **admin** login account. The **admin** login account provides full access to all switch management functions.

The factory default password for the **admin** account is **switch**. Follow these steps to change the password for the **admin** account:

- a. Type **password admin <old_password> <new_password>** at the CLI prompt and press **<Enter>**. For example, to change the factory default password (**switch**) to a new password (for example, **lahaina**), enter the following:

-> password admin switch lahaina

- b. No confirmation message will appear onscreen. Only the system prompt (->) will appear.

◆ Important Notes ◆

The **admin**, **diag** and **user** accounts use **switch** as the default password. For security purposes, the default password should be changed for these accounts.

To create an all-numeric password (for example, **7654321**), you *must* enter double quotation marks before and after the password **7654321**.

All new passwords take effect at your next login session.

◆ Caution ◆

Your password is stored (encrypted) in the **mpm.cnf** configuration file. If you remove this file and reboot the switch, your login password (as well as all user-configured data) will automatically reset to the factory default. In this event, you must start over from Step **a** (see *column at left*) to change the password.

11. Set the System Time and System Date

Complete the following steps to set the time and date:

- a. To view the system time, type **system time** at the CLI prompt and press **<Enter>**. The system time will be displayed, as shown in the example below:

-> **system time**

10:53:19

- b. To set the system time, type **system time hh:mm:ss** at the CLI prompt and press **<Enter>**. The new system time will be displayed, as shown in the example below:

-> **system time 11:53:19**

New time: 11:53:19

- c. To view the system date, enter **system date** at the CLI prompt and press **<Enter>**. The system date will be displayed, as shown in the example below:

-> **system date**

06/11/02

- d. To change the system date, enter **system date mm/dd/yyyy** at the CLI prompt and press **<Enter>**. The system date will be displayed, as shown in the example below:

-> **system date 06/12/2002**

New date: 06/12/02

12. Enter a System Description (Optional)

You can use the following CLI commands to view or specify a contact person for the switch, a switch name, its location, a description of the switch, and the switch's MAC aging timer value. Although this information is not required, you may find it helpful for managing the switch. Use the following procedure:

- a. To view the department or network administrator for the switch, type **system admin-contact** at the CLI prompt and press **<Enter>**. If no network administrator has been specified, the following will be displayed:

-> **system admin-contact**

Unset

- b. To specify the department or network administrator for the switch, type **system admin-contact** followed by the contact information (*text string*) you want to use at the CLI prompt and press **<Enter>**. For example, to specify **Networking Corp Customer Service (800-555-6000)** as the admin-contact information, type the following at the CLI prompt and press **<Enter>**:

-> **system admin-contact "Networking Corp Customer Service (800-555-6000)"**

◆ Important Notes ◆

To add spaces between words, you *must* include quotation marks (“ ”) around the text string when entering the **admin-contact** information.

No confirmation message will appear onscreen. To verify that the system admin-contact information has been set, type **system admin-contact** at the CLI prompt and press **<Enter>**.

- c. To view the system name, type **system name** at the CLI prompt and press **<Enter>**. If no name has been specified, the following will be displayed:

-> **system name**

Unset

- d. To specify the system name, type **system name** followed by the name (*text string*) you want to use at the CLI prompt and press **<Enter>**. For example, to specify **Sales** as the system name, type the following at the CLI prompt and press **<Enter>**:

-> **system name Sales**

◆ Important Notes ◆

The system name *must* be a single word or hyphenated text string. Do *not* use commas, quotation marks or underscores.

No confirmation message will appear onscreen. To verify that the system name has been set, type **system name** at the CLI prompt and press **<Enter>**.

- e. To view the system location, type **system location** at the CLI prompt and press **<Enter>**. If no location has been specified, the following will be displayed:

-> **system location**

Unset

- f. To specify the system location, type **system location** followed by a text-string name you want to use at the CLI prompt and press **<Enter>**. For example, to specify **Calabaras Test Lab** as the system location, type the following at the CLI prompt and press **<Enter>**:

-> **system location "Calabaras Test Lab"**

◆ Important Notes ◆

Any text-string name that includes spaces must be enclosed in quotes (e.g., **"Test Lab"**).

No confirmation will appear onscreen. To verify that the system location has been set, type **system location** at the CLI prompt and press **<Enter>**.

- g. To view the system description, type **system description** at the CLI prompt and press **<Enter>**. If no description has been specified, an error message will appear, as shown below:

-> **system description**

DESCRIPTION NOT SET.

- h. To specify the system description, type **system description** followed by a text-string you want to use at the CLI prompt and press **<Enter>**. For example, to specify **Engineering #2** as the system description, type the following at the CLI prompt and press **<Enter>**:

-> **system description "Engineering #2"**

◆ Important Notes ◆

To add spaces between words, you *must* include quotation marks (" ") around the text string for **system description**.

No confirmation message will appear onscreen. To verify that the system description has been set, type **system description** at the CLI prompt and press **<Enter>**.

- i. The MAC aging timer indicates how many seconds any duplicate MACs can remain in the switch's CAM (Content Addressable Memory) if there is no traffic from those MACs. After the specified time has expired, inactive MACs age out of the CAM. To view the switch's MAC aging timer value (default=0), type **system dup-mac-timer** at the CLI prompt and press **<Enter>**, as shown in the example below:

```
-> system dup-mac-timer
```

```
0
```

- j. To specify the switch's MAC aging timer value in seconds, type **system dup-mac-timer** followed by a number of seconds (the valid range is **10** through **1000000** seconds) at the CLI prompt and press **<Enter>**. For example, to specify **5000** as the MAC aging timer value, type the following at the CLI prompt and press **<Enter>**:

```
-> system dup-mac-timer 5000
```

◆ Important Notes ◆

Do *not* use commas when specifying a MAC aging timer value. For example, the entry **63,000** will result in an error.

If you want to use the Group aging timer, enter **0** as the value for the MAC aging timer.

No confirmation message will appear onscreen. To verify that the switch's MAC aging timer has been set, type **system dup-mac-timer** at the CLI prompt and press **<Enter>**.

13. Assign an IP Address to the Default Group

All switches are configured with a default Group and VLAN. You can add Groups and VLANs later through the switch software. To get started, you can use the default group and default VLAN to configure the IP address for this switch. (The default IP address is **192.168.10.1**.) To modify Group IP routing parameters, complete the following steps:

- a. To assign or modify the default Group and VLAN Address, type the following at the CLI prompt and press **<Enter>**:

```
-> group 1 router ip < ip-address >
```

where **1** is the default group and VLAN, and **< ip-address >** is the IP Address for a specific virtual router port (for example, **168.23.9.100**).

- b. No confirmation message will appear onscreen. Only the system prompt (->) will appear.

See your switch manual to set other parameters.

You have now set up all of the basic software parameters you need to begin managing your switch. Once your switch is connected to the network, you can use Telnet or FTP to access the switch software through your network.

More Information on Switch Commands?

At this point, you can begin configuring other switch parameters. See your *Omni Switch/Router User Manual* and any manual supplements that came with your Omni Switch/Router for information on all switch commands.

14. Log Out

When you are finished using switch commands through the Command Line Interface, you can exit the switch by entering **logout** or **exit** and pressing **<Enter>**.

15. Connect the Devices

Connect the devices (e.g., computers, printers, servers) to the appropriate Omni Switch/Router ports.

More Information on Switch Hardware?

Your *Omni Switch/Router User Manual* and any manual supplements that may be included with your Omni Switch/Router provide information on all pieces of switch hardware. Refer to those documents for more detailed information.

OmniS/R Basics

This chapter provides basic information on Omni Switch/Router (OmniS/R) chassis types, the Management Processor Module (MPX) and switching modules used in Omni Switch/Router chassis. For more detailed information, refer to the *Omni Switch/Router User Manual*.

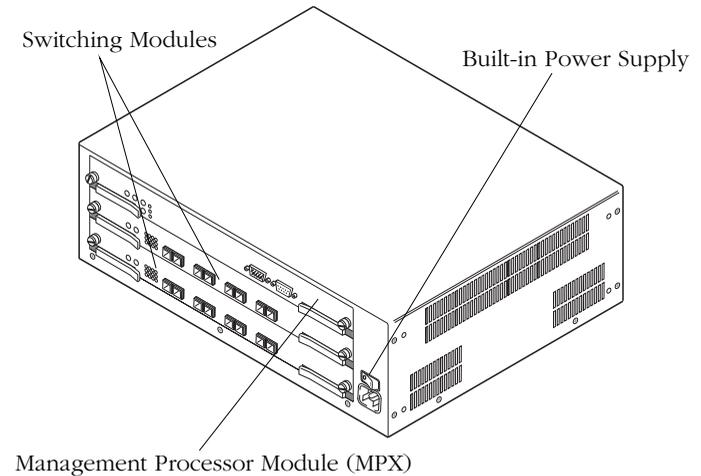
Omni Switch/Router Chassis

The Omni Switch/Router comes in 3-slot, 5-slot and 9-slot chassis types. All chassis support LAN and WAN switching modules, such as Ethernet (ESX-K), Gigabit Ethernet (GSX-K), WAN (WSX), and voice (VSX) modules.

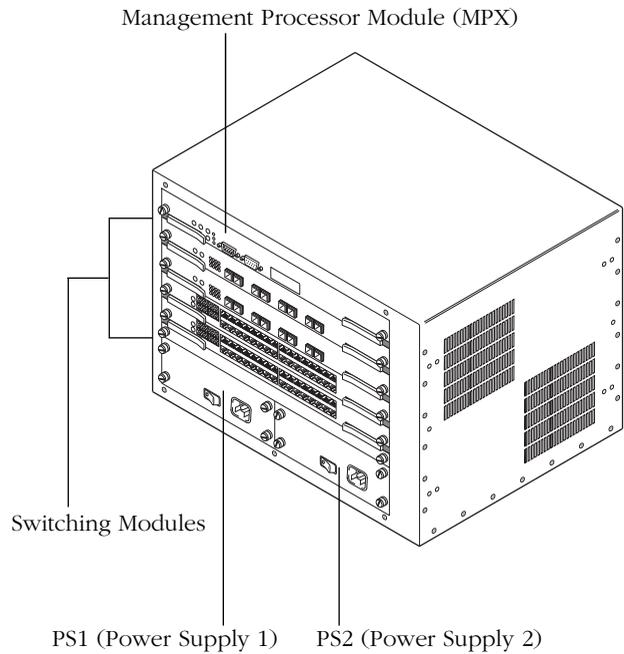
◆ Warning ◆

If you have a five-slot chassis with a single power supply, do *not* remove the cover on the empty power supply slot. In addition, if you have any empty switching module slots in either a three-slot or five-slot Omni Switch/Router chassis, you *must* cover them with blank panels (available from Alcatel) to prevent your chassis from overheating.

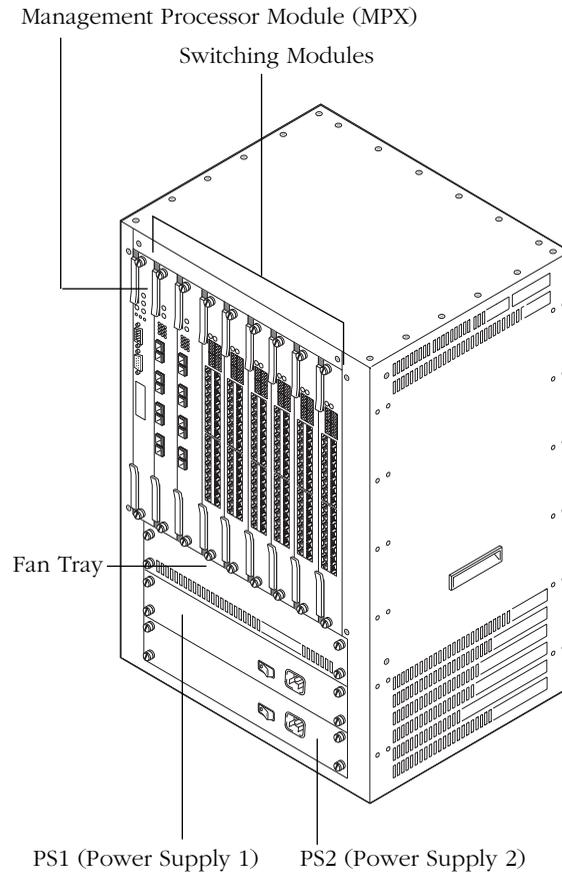
Covering empty slots forces air to flow directly over the power supplies, thereby cooling them. If the power supplies are not properly cooled, they will overheat and shut down.



3-slot Omni Switch/Router



5-slot Omni Switch/Router



9-slot Omni Switch/Router

The Management Processor Module (MPX)

The MPX is the core of Omni Switch/Router's distributed management functionality. It provides system services such as configuration information, bridge management functions, basic routing functions, the SNMP management agent, and access to both the Command Line Interface and User Interface software.

Switching modules are dependent on the MPX for downloading software and receiving initialization and configuration information. In addition, Network Management Software (NMS), such as X-Vision, depends on the MPX to send and receive SNMP messages for managing the switch.

MPX modules support a redundant configuration, so that if one MPX fails, the other MPX automatically assumes all management responsibilities.

The MPX offers the following features:

MPX Features and Options	
Backplane (MVBUS) Speed	Up to 22 Gbps
Standard Flash Memory	8 MB or 16 MB (16 MB required for Release 4.4 and later) (16 MB maximum)
Standard DRAM	32 MB or 64 MB (64 MB required for Release 4.4 and later) (64 MB maximum)
HRE-X Supported?	Yes
Advanced Routing Supported?	Yes

◆ **VBUS Mode 1 & 2 Support** ◆

Certain feature parameters (such as QoS) are supported only when the Omni Switch/Router chassis runs in VBUS Mode 2. For VBUS Mode 2 support, your chassis must have only new generation (Kodiak-based) Ethernet modules and/or WSXs installed.

The Omni Switch/Router runs in VBUS Mode 1 for chassis configurations that use any early generation (non-Kodiak based) Ethernet modules.

OK1 (Hardware Status). This dual-state LED is on Green when the MPX has passed power-on hardware diagnostics successfully. On Amber when the hardware has failed diagnostic tests. If the **OK1** LED is alternating Green and Amber, then file system compaction is in progress.

Caution

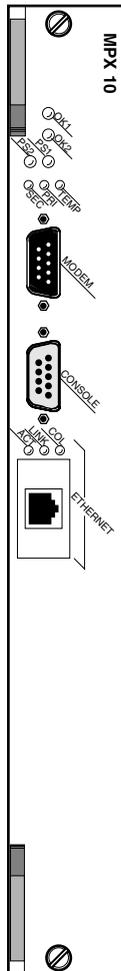
Do not power down the switch or insert any modules while the **OK1** LED is alternating Green and Amber. If you do, file corruption may result and you will not be able to restart the switch.

OK2 (Software Status). Blinking Green when the MPX has successfully loaded software to the switching modules. Blinking Amber when the MPX is in a transitional state, such as when it first boots up. If the **OK2** LED blinks Amber for an extended period of time (i.e., more than a minute), then you should reboot the switch.

Caution

Do not insert or remove any modules while the MPX **OK2** LED is blinking amber. If you do, file corruption may result and you will not be able to restart the switch.

Module Status LEDs



Module Status LEDs

PRI (Primary MPX). On Green when this MPX is the active, or controlling, MPX. It is also on Green when this is the only MPX installed in the switch.

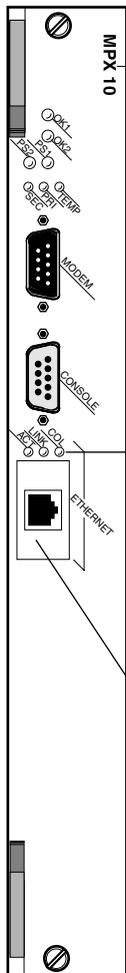
SEC (Secondary MPX). On Green when this MPX is the secondary MPX in a redundant MPX configuration. As the secondary MPX, this module is in hot standby mode.

TEMP (Temperature). On Amber to warn that the internal switch temperature is approaching maximum operating limits. Note that this LED comes on *before* the temperature limit is reached.

PS1 (Power Supply 1 Status). This dual-state LED is on Green when the switch is receiving the proper voltage from Power Supply 1. It is on Amber when Power Supply 1 is on, but not supplying the correct amount of voltage to power the switch, or is installed and turned off. The **PS1** LED is Off when the Power Supply 1 is not present.

PS2 (Power Supply 2 Status). This dual-state LED is on Green when the Omni Switch/Router is receiving the proper voltage from Power Supply 2. It is on Amber when Power Supply 2 is on, but not supplying the correct amount of voltage to power the switch, or is installed and turned off. The **PS2** LED is Off when Power Supply 2 is not present.

The Management Processor Module (MPX) LEDs



Label. This label will indicate the Ethernet management port type. It will read either **MPX 10 mm** (multimode fiber Ethernet port) or **MPX 10** (copper RJ-45 Ethernet port).

The MPX module includes one row of LEDs for the Ethernet management port.

ACT (Activity). On Green when data is transmitted or received on the Ethernet management port.

LINK (Link Status/Disabled). On Green continuously when a good cable connection exists. Off when a good connection does not exist.

COL (Collision). On Yellow when a collision has been detected on the port.

Ethernet Management Port Slot. Copper RJ-45 and fiber Ethernet management ports are available for rapid switch file transfers and network management functions.

Ethernet Management Port LEDs

Flash Memory and Switch Software

Flash memory on the MPX holds the Omni Switch/Router's executable images and configuration data for each image file. When a switching module comes online, the MPX downloads the appropriate image file for that module to that module's memory. Image files (those with the **.img** extension) contain executable code for different switching modules.

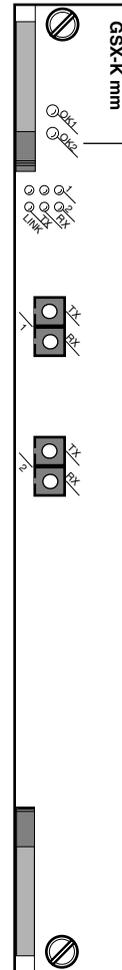
Not all image files loaded in flash memory are required—only those that must be used with the switching modules in your Omni Switch/Router. You can remove any files that are not required for your Omni Switch/Router configuration by using the **rm** command and free up space in flash memory. If you need any switch files at a later date, you can use FTP to back up the files to a PC before you delete them from the switch.

The switch alters flash contents during execution when a software command requests a configuration change, when a remote administrator downloads a new executable image, or when the switch fails and a record of the failure is written to flash memory.

For detailed instructions on these procedures, refer to your *Omni Switch/Router User Manual* and any manual supplements that came with your Omni Switch/Router.

Switching Modules

LEDs on switching modules vary by the network interface type and by a module's application. However, two LEDs are common to all switching modules. These LEDs, **OK1** and **OK2**, provide information on the hardware and software status, respectively, of the module. These two LEDs are located at the top of the modules, as shown in the following figure.



Module LEDs

OK1 (Hardware Status). On Green when the module has passed diagnostic tests successfully. On Amber when the hardware has failed diagnostics or if the corresponding image file for the module is not in flash memory.

OK2 (Software Status). Blinking Green when the module software was downloaded successfully and the module is communicating with the MPX. Blinking Amber when the module is in a transitional state. On solid Amber if the module failed to download software from the MPX.

Switching Module LEDs

The User Manual on CD

The CD that accompanies this Getting Started Guide contains Alcatel user documentation, including the *Omni Switch/Router User Manual*.

Documentation is in Portable Document Format (PDF) and requires the Adobe Acrobat Reader program for viewing. Acrobat Reader with Search is recommended for its global search capabilities, and can be obtained from the Adobe website (www.adobe.com).

To install the CD and navigate through the *Omni Switch/Router User Manual* and other Alcatel documentation, refer to the instructions printed on the CD's packaging.

Notes

