

Quick Start Guide

Performance Routing Upgrade Installation

Performance Routing Engine
1-slot module that performs
over 3 packet routing and
Parallel eXpress Forwarding

Upgrading to a PRE3

could be performed by a
person who is familiar with the
console interface.

Only trained and qualified
personnel are allowed to install,
replace, or service this
equipment.

Considerations Before Upgrading

This hardware upgrade has an impact on user traffic. The router is not available for user traffic during the upgrade, and traffic cannot resume until the upgrade is complete.



Caution

PRE1s and PRE3s cannot operate in the same chassis.

- All new PRE3s are shipped with a helper image stored in boot flash memory, and without any configuration.
- Make sure you save your configuration information to a TFTP server before removing the old PRE from the chassis.



Caution

You cannot save the configuration information to a PRE2 media card to use in a PRE3. When you remove the former PRE from the chassis local configuration information is lost.

Saving the Startup and Running Configuration Information

Use the following procedure to save the configuration information to a TFTP server.

- Step 1** Connect the console to the primary PRE.
- Step 2** Save the startup configuration and running configuration to the TFTP server.

Tools

Use the following tools to perform the upgrade:

- Phillips-head screwdriver
- ESD grounding wrist strap



Caution

Always wear a grounding wrist strap to prevent ESD damage to the module.

Removing the PRE Module

Use the following procedure to remove the existing PRE module from the chassis.

- Step 1** Attach the ESD wrist strap to the chassis to ensure you are properly grounded.
- Step 2** Power off the router.



Caution

Although PRE modules can be hot-swapped, removing a module terminates all traffic. We recommend that you power off the router to ensure a successful installation.

- Step 3** Disconnect all cables from the PRE.
- Step 4** Loosen the top and bottom captive screws.
- Step 5** Pivot both ejector levers simultaneously to disengage the module from the backplane.
- Step 6** Remove the PRE from the chassis and place it on an antistatic surface or in an antistatic bag.
- Step 7** If you are replacing a redundant PRE, repeat steps 3 through 6.

Installing the PRE3 Module

Use the following procedure to install the module.



Caution

To ensure proper installation, you must first install the primary PRE in slot A. After you install a redundant PRE in slot B, wait until the primary PRE is fully booted and configured in slot A before installing the redundant PRE3 in slot B.

- Step 1** Attach the ESD wrist strap to the chassis to ensure you are properly grounded.
- Step 2** Inspect the backplane of the chassis to make sure the captive screws are properly seated in the pins.
- Step 3** Slide the module into the chassis until you feel it seat into the backplane (see Figure 2).

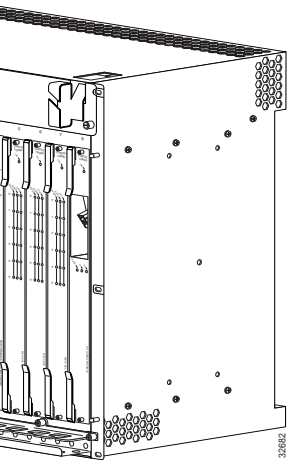
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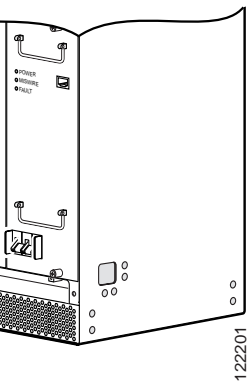
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- If you need to access the TFTP server to obtain the full image or the saved configuration files, enter the configuration dialog and enter the information to access the TFTP server.
 - If you booted the full image, restore the startup and running configuration information, and set the variable for the new image. The upgrade is now complete.
 - If you booted from the helper image:
 - Download the full image.
 - Restore the startup and running configuration information.
 - Set the boot variable to the new image.
 - Reload the router.
- The upgrade is now complete.



Installing a Redundant PRE3

Use the following procedure to install a redundant PRE3.

- Step 1** Repeat Step 1 through Step 8 for slot B (see Installing the PRE3 Module).
- Step 2** Set the configuration to boot the full image and reload from the console ROMMON prompt.

2 Troubleshooting

The PRE3 displays the following sequence of events when booted:

- The FAIL LED lights briefly, followed by a flashing STATUS LED, and progress messages appear on the PRE3 display.
- IOS RUN appears after a successful boot.
- The STATUS LED remains on (green).

If this sequence does not occur, check the following:

- Check to see if the LEDs on the other modules are operating. If not, check for a problem in the power subsystem.
- Remove the PRE3 and check for bent or broken pins on the backplane connectors.
- Verify the status of the PRE3s internal Ethernet interface (ethernet 0/0/0). If this interface is down it could indicate that the PRE3 is not fully seated in the slot, or that a hardware failure occurred.



Note

Do not confuse the PRE3 internal Ethernet interface (ethernet 0/0/0) with the module's external Fast Ethernet interface (fastethernet 0/0/0) which is used for network management or remote access.

- Refer to Table 1 for LED and switch descriptions.

Table 1 LED and Switch Descriptions

LED/Switch	Description
ACTIVITY	<ul style="list-style-type: none"> • Packets are being transmitted and received. • No packet activity.
LINK	<ul style="list-style-type: none"> • Carrier detected and passing traffic. • No carrier detected and not passing traffic.
CRITICAL MAJOR MINOR	<ul style="list-style-type: none"> • No alarm. • Alarm condition is present.

LED/Switch	Description
STATUS	<ul style="list-style-type: none"> • On (green) • Off
FAIL	<ul style="list-style-type: none"> • Off • On (yellow)
ACO ¹ switch	Disarm alarm

1. Alarm cutoff

3 Technical Specifications

The following table provides technical specifications.

Description	Part Number
PRE3	ESR10012-3
PRE3 spare	ESR10012-3S
Weight	9 lb
Power consumption per PRE3 module	145W non-idle, 200W max

4 Related Documents

The release notes, regulatory information, and user guides for these products are available online.