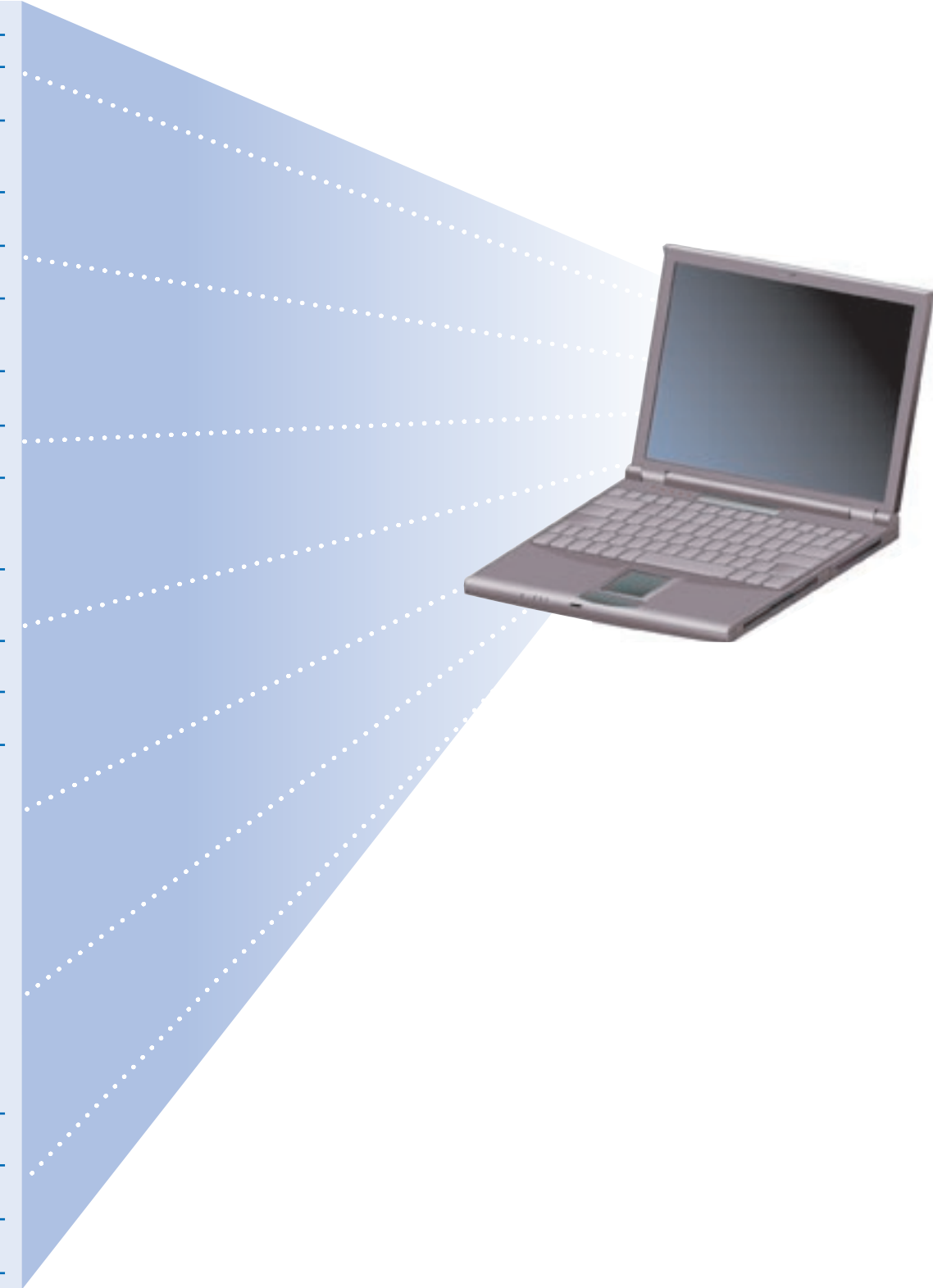


### Perform Initial Software Configuration

1. Turn on the power to the management device connected to the router.
2. Press the power switches on all power supplies to the **ON** position.
3. On the management device, monitor the startup process to verify that the router boots properly.
4. Configure the router as shown in the following table. Text you enter literally is shown in **bold**, and variables for which you substitute specific values are shown in *italics*.

Step	CLI
1. Log in as "root" user. There is no password.	root# <b>cli</b> root@>
2. Start the CLI.	
3. Enter configuration mode.	cli > <b>configure</b> [edit] root@#
4. Configure the name of the router. If the name includes spaces, enclose the entire name in quotation marks (" ").	[edit] root@# <b>set system host-name</b> <i>host-name</i>
5. Configure the router's domain name.	[edit] root@# <b>set system domain-name</b> <i>domain-name</i>
6. Configure the IP address and prefix length for the router's Ethernet management interface.	[edit] root@# <b>set interfaces fxp0 unit 0 family inet address</b> <i>address/prefix-length</i>
7. Configure the IP address of a backup router, which is used only while the routing protocol process is not running.	[edit] root@# <b>set system backup-router</b> <i>address</i>
8. Configure the IP address of a DNS server.	[edit] root@# <b>set system name-server</b> <i>address</i>
9. Set the root authentication password by entering either a clear-text password, an encrypted password, or an ssh public key string (DSA or RSA).	[edit] root@# <b>set system root-authentication plain-text-password</b> New password: <i>password</i> Retype new password: <i>password</i> [edit] root@# <b>set system root-authentication encrypted-password</b> <i>"encrypted-password"</i> [edit] root@# <b>set system root-authentication ssh-dsa</b> <i>"public-key"</i> [edit] root@# <b>set system root-authentication ssh-rsa</b> <i>"public-key"</i>
10. Optionally, display the configuration statements to verify that the configuration is correct.	[edit] root@# <b>show</b> system { host-name <i>host-name</i> ; domain-name <i>domain-name</i> ; backup-router <i>address</i> ; name-server { <i>address</i> ; } interfaces { fxp0 { unit 0 { family inet { <i>address address</i> ; } } } } }
11. Commit the configuration. This activates the configuration on the router.	[edit] root@# <b>commit</b>
12. Configure additional properties by adding the necessary configuration statements, then commit the changes to activate them on the router.	[edit] root@host-name# <b>commit</b>
13. When you have finished configuring the router, exit configuration mode.	[edit] root@host-name# <b>exit</b>





### Safety Warnings

This is a summary of safety warnings. For a complete list of warnings for this router, including translations, see the *M5 and M10 Internet Routers Hardware Guide* at [www.juniper.net/techpubs/hardware/](http://www.juniper.net/techpubs/hardware/).

- Only trained and qualified personnel should install or replace the router.
- Perform only the procedures illustrated on this poster or described in the *M5 and M10 Internet Routers Hardware Installation Guide*. Other services should be performed by authorized service personnel only.
- Read the installation instructions before you connect the router to a power source.
- Before installing the router, read the guidelines in the "Prepare the Site" section of the *M5 and M10 Internet Routers Hardware Installation Guide* to make sure that the site meets power, environmental, and clearance requirements for the router.
- When installing the router, do not use a ramp inclined at more than 10 degrees.
- Manually installing the router requires two people to lift and a third person to secure the mounting screws. Before lifting the chassis, remove components and attach the installation lifting handle as described in the *M5 and M10 Internet Routers Hardware Installation Guide*. To prevent injury, keep your back straight and lift with your legs, not your back. Do not attempt to lift the chassis by the handles on the power supplies.
- When mounting the router in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.

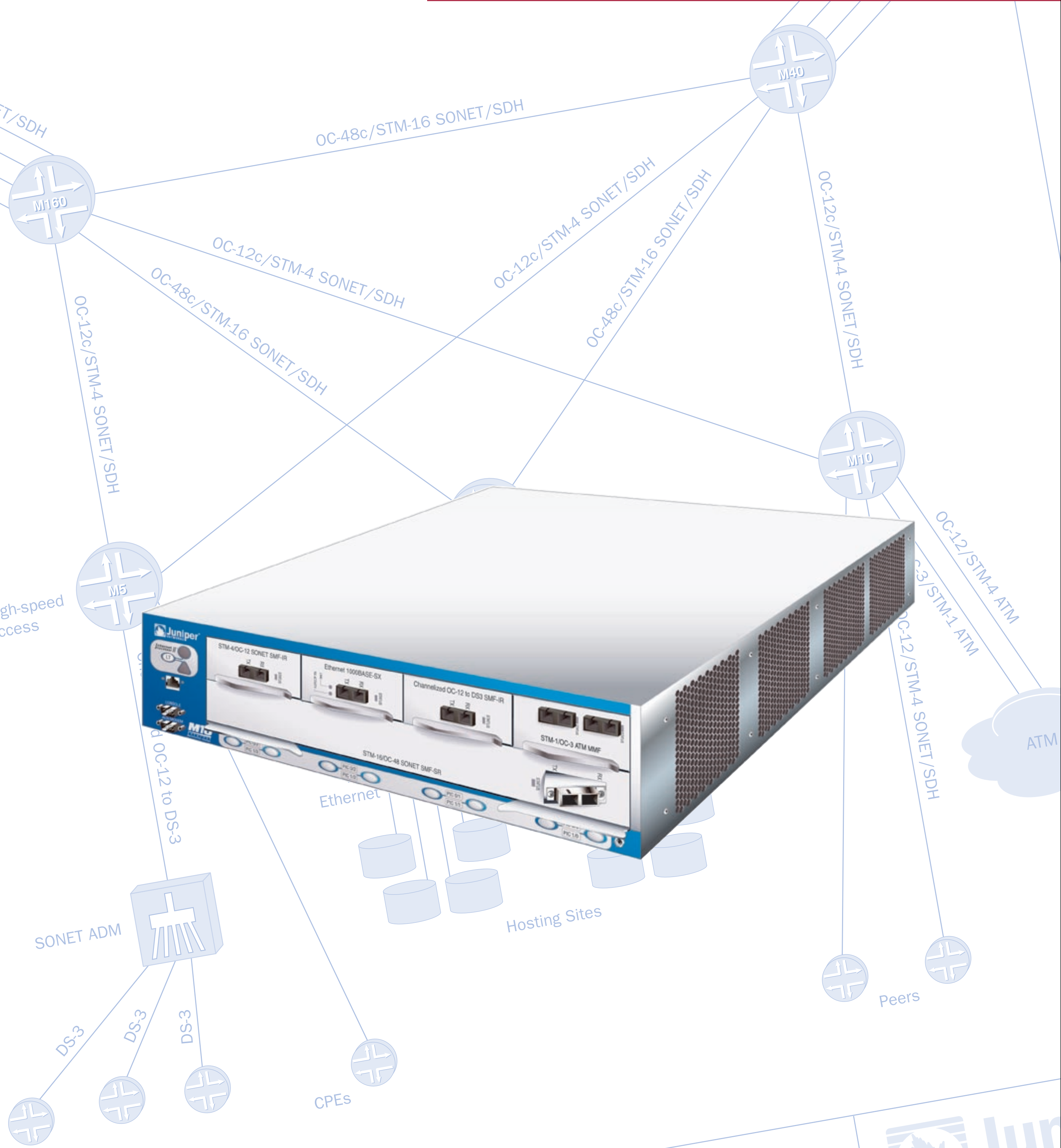
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the router in the rack.
- When installing the router, the ground connection must always be made first and disconnected last.
- Be sure to halt the system using the CLI before powering down the router. Failure to do so might cause unpredictable effects on the system software.
- When removing or installing an electrical component always place it component-side up on a flat antistatic surface, or in an electrostatic bag.
- Use copper conductors only.
- Wire the DC power supply using the appropriate lugs. When connecting power, the proper wiring sequence is ground to ground, +RTN to +RTN, then -48 V to -48 V. When disconnecting power, the proper wiring sequence is -48 V to -48 V, +RTN to +RTN, then ground to ground. Note that the ground wire should always be connected first and disconnected last.
- Do not work on the system or connect or disconnect cables during electrical storms.
- Before working on equipment that is connected to power lines, remove jewelry, including rings, necklaces, and watches. Metal objects heat up when connected to power and ground and can cause serious burns or become welded to the terminals.
- Failure to observe these safety warnings could result in serious physical injury.

[www.juniper.net](http://www.juniper.net)

For support issues, contact the Juniper Technical Assistance Center (JTAC) at 1-888-314-JTAC (within the United States) or 408-745-9500 (from outside the United States). For other contact information, refer to [www.juniper.net/contactus.html](http://www.juniper.net/contactus.html).

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Tools You Need to Install the Router

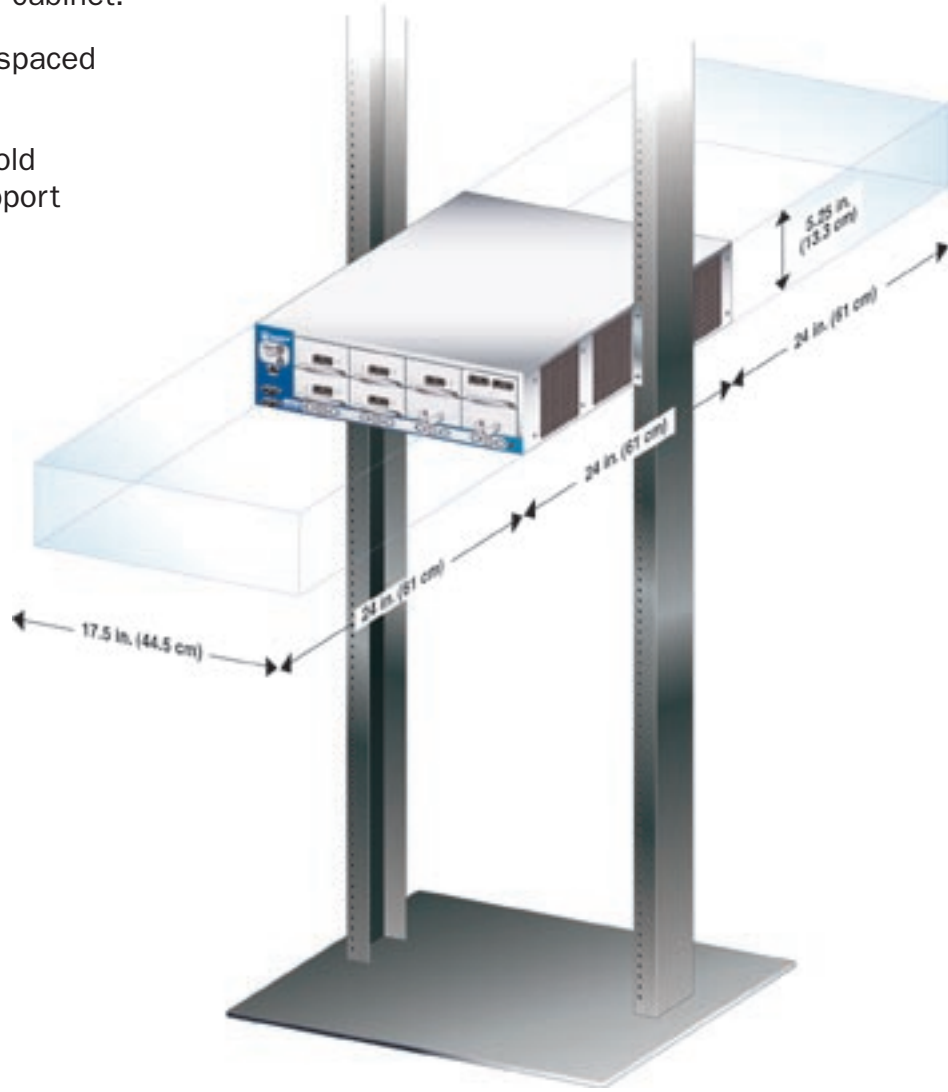
- Phillips screwdrivers, numbers 1 and 2
  - Electrostatic discharge wrist strap
- Open-end or socket wrench, 9/16-in. (if you are front-mounting the router)
  - Wire cutters
- Pliers
  - Antistatic mat

M5 and M10 Internet Routers

Complete documentation available at [www.juniper.net/techpubs/](http://www.juniper.net/techpubs/)

Rack Space Requirements

- You can install the router into a center-mount, front-mount, or telco (4-post) rack or cabinet.
- The holes in the mounting ears are spaced at 2 U (3.5 in./8.89 cm).
- The rack must be large enough to hold the router and strong enough to support its weight (up to 65 lb/29.5 kg).



Install the Router into the Rack

Lifting the chassis and mounting it into the rack requires two people to lift and a third person to secure the mounting screws. The chassis weighs up to 65 lbs/29.5 kg.

- Make sure the rack is properly secured to the building in its permanent location.
- Determine the type of rack (center-mount, front-mount, or four-post) into which the router will be installed.
- If you are mounting the router into a front-mount or four-post rack:
  - Move the rack-mounting ears from the center to the front of the chassis, securing them to the chassis with the screws.
  - Install the mounting shelf as specified in Step 3b. (for front-mount racks) or Step 3c. (for four-post cabinets) below.
- One person at each side of the chassis grasps the front and side of the chassis under the card cage. Lift the chassis and position it in the rack.
- Starting at the bottom of the rack, align one of the mounting holes in the rack with the bottom mounting hole in the chassis rack-mounting ear.
- Level the chassis so that the same mounting hole on the other rack-mounting ear is aligned with a hole on the opposite post of the rack.
- From the front of the rack, install a mounting screw into each of the two aligned holes.
- Moving up the rack-mounting ears, install screws in each mounting hole on the ear until you reach the top.

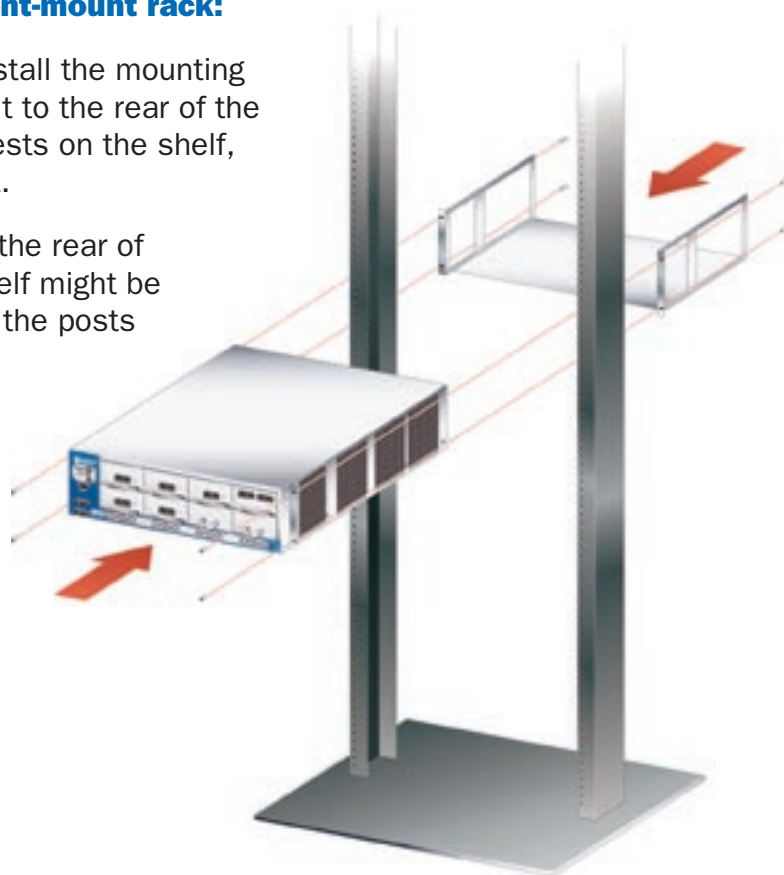


3a. Install the router into a center-mount rack:



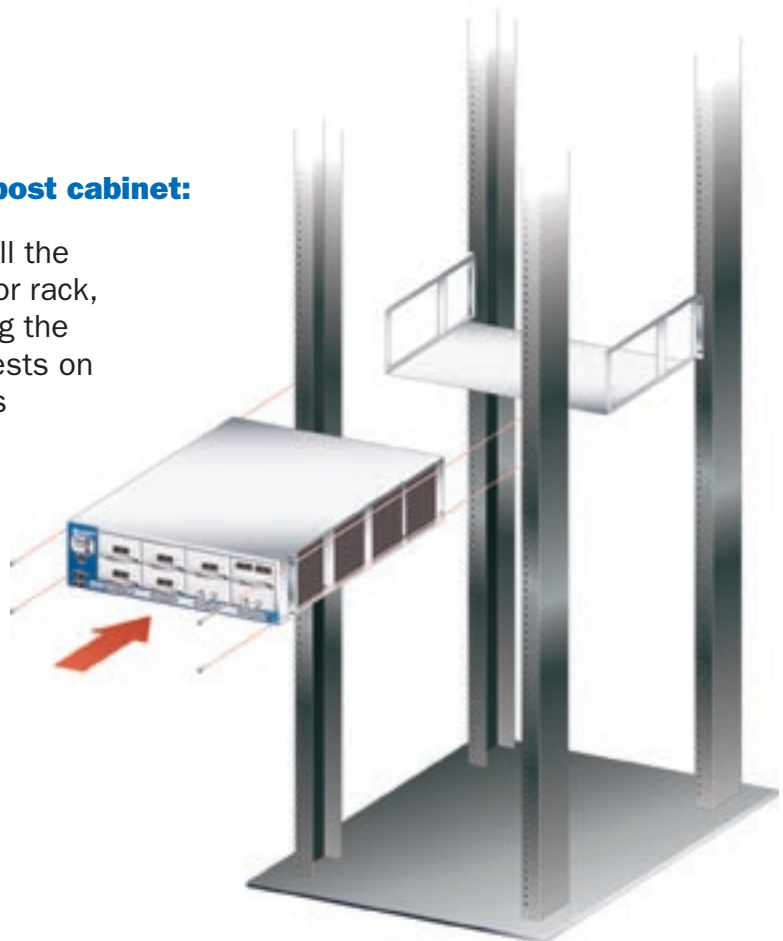
3b. Install the router into a front-mount rack:

- Before installing the router, install the mounting shelf onto the rack, attaching it to the rear of the front-mount post. The router rests on the shelf, which helps support its weight.
- Be sure to attach the shelf to the rear of the post, not the front. The shelf might be wider than the space between the posts of the rack.



3c. Install the router into a four-post cabinet:

- Before installing the router, install the mounting shelf onto the cabinet or rack, attaching it to the rear post facing the front of the cabinet. The router rests on the shelf, which helps support its weight.



Connect External Devices and PIC Cables

Connect to a network for out-of-band management:

- Plug one end of the provided Ethernet cable into the MGMT port on the craft interface.
- Plug the other end into the networking device.

Connect a management console:

- Turn off the power to the management console.
- Plug the provided RS-232 (EIA-232) serial cable into the CONSOLE port on the craft interface.
- Tighten the screws on the connector.



Connect the PIC cables:

**Warning** Do not look directly into the cable connector ports on a PIC or into the ends of fiber-optic cables. Fiber-optic cables emit laser light that can damage your eyes.

- Locate the appropriate cable to be connected to each PIC.
- Insert the cable connector into the cable connector port on the PIC.
- Arrange the cables in the cable management system to protect them from dislodging or bending past their recommended bend radius.

Connect Ground and Power Cables

Connect AC power cords:

**Note** The figure shows a DC-powered router only.

- Verify that the switch on the power supply faceplate is in the OFF position.
- Locate the AC power cord provided, which should have a plug appropriate for your location.
- Insert the appliance coupler on the power cord into the faceplate and insert the plug into a power source receptacle.
- Repeat Steps 1 through 3 for the second power supply.



Connect DC power supplies:

- Ensure that the voltage across the DC power source cables is 0 V and that the cable leads will not become active during installation.
- Attach the grounding lug to the screw on the back of the chassis, next to the ground symbol. Be sure to attach the ground before connecting the power cables.
- Verify that the switch on the power supply is in the OFF position.
- If necessary, strip the input and return ends of the power cables.
- Thread the power cables through the cable holder on the right side of the power supply faceplate.
- Push the exposed ends of the power cables straight into the quick connect terminals on the power supply:
  - Connect the positive (+) cable lugs to the RTN (return) terminals.
  - Connect the negative (-) cable lugs to the -48 V (input) terminals.
- Tighten the screws directly above the attached power cables to secure the cables.
- Repeat Steps 3 through 7 for the second power supply.
- Verify that the power and ground cabling are correct.

See back cover for safety warnings.