

Day One+

MX150

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Step 1: Begin

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Meet the MX150

The Juniper Networks® MX150 Universal Routing Platform is a compact, high-performance edge router that is ideally suited for lower-bandwidth service provider applications and distributed service architectures, and for enterprise WAN. With support for an outstanding mix of 10/100/1000BASE-T and 10GbE interfaces, all in a single rack unit (1 U), the MX150 helps conserve precious space resources and contain costs associated with power and cooling.



The MX150 has eight 1GbE RJ-45 network ports, two 1GbE RJ-45 access or uplink ports, two 1GbE SFP ports, and two 10GbE SFP+ ports. You can manage the router through an 1GbE RJ-45 management port, mini-USB console port, and an RJ-45 console (**CON**) port. The MX150 is shipped with a built-in AC power supply, and fans with front-to-back airflow.

Install the MX150

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You can install the MX150 on a desktop, in a two-post or four-post rack, or on a wall. The MX150 comes with the mounting brackets you need to install it in a two-post rack. You'll need to order a separate rack mount kit if you want to install it in a four-post rack. Likewise, you'll need to order a separate wall mount kit if you want to install the MX150 on a wall.

What's in the Box?

- MX150 router
- AC power cord appropriate for your geographic location
- AC power cord retainer clip
- RJ-45 Ethernet cable
- RJ-45 to DB-9 serial port adapter
- Accessory kit

The accessory kit contains four rubber feet (for desktop installations), one pair of mounting brackets, and eight Phillips mounting screws.

What Else Do I Need?

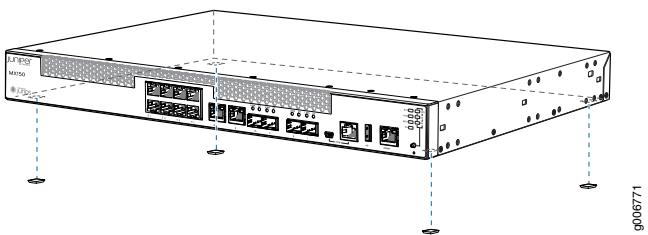
You'll also need:

- Someone to help you secure the router to the rack
- A number 2 Phillips (+) screwdriver
- Four rack mount screws
- Cage nuts and washers, if your rack requires them

- An electrostatic discharge (ESD) grounding strap
- Grounding cable (optional)
- A management host, such as a laptop or PC with a serial port
- Serial-to-USB adapter (if your laptop or PC doesn't have a serial port)

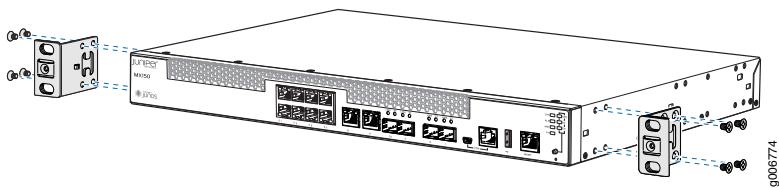
Install the MX150 on a Desk

To install the MX150 on a desk or other flat surface, simply attach the four rubber feet (included in the accessory kit) to the bottom of the chassis. Place the chassis on a desk or level surface.

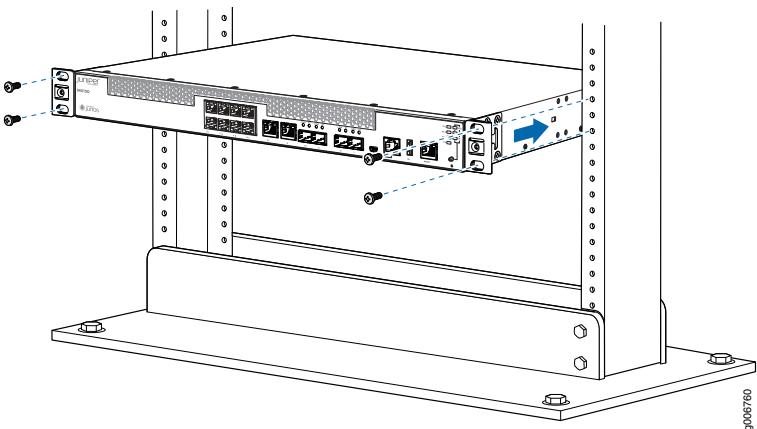


Install the MX150 in a Two-Post Rack

1. Review [General Safety Guidelines and Warnings](#).
2. Depending on how you want the MX150 to sit in the rack, secure the mounting brackets to the front, center, or rear mounting holes on the side panels. Use the supplied mounting screws.



3. Lift the MX150 and position it in the rack. Line up the bottom hole in each mounting bracket with a hole in each rack rail, making sure the MX150 is level.



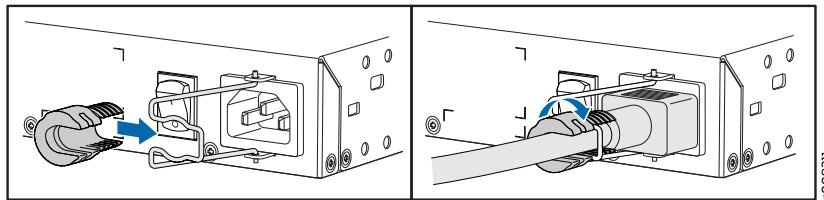
4. While you're holding the MX150 in place, have a second person insert and tighten the rack mount screws to secure the mounting brackets to the rack rails. Make sure they tighten the screws in the two bottom holes first, and then tighten the screws in the two top holes.
5. Check that the mounting brackets on each side of the rack are level.

Power On

1. Wrap the ESD grounding strap around your bare wrist and ground yourself to an ESD point or to the rack.
2. Attach a grounding cable to earth ground and then attach it to the grounding point on the rear panel of the MX150.

NOTE: Earth grounding is recommended, but optional for the MX150. The chassis meets electromagnetic compatibility (EMC) and ESD requirements, allowing the MX150 to function normally without earth grounding. The MX150 gets additional grounding when you plug the AC power cord into a grounded AC power outlet.

3. Attach the power cord retainer clip:
 - a. Squeeze the two sides of the power cord retainer clip.
 - b. Insert the L-shaped ends of the wire clip into the holes in the bracket on each side of the AC power socket on the rear panel. The power cord retainer clip extends out of the chassis by three inches.
4. Insert the AC power cord firmly into the AC power socket.
5. Push the power cord into the slot in the adjustment nut of the power cord retainer clip. Turn the nut until it's tight against the base of the coupler and the slot in the nut is turned 90° from the top of the MX150.



6. If the AC power source outlet has a power switch, turn it off.
7. Plug in the AC power cord to the AC power source outlet.
8. If the AC power source outlet has a power switch, turn it on.

The MX150 powers on as soon as it receives power.

9. Verify that the power LED on the front panel is steady green.

Step 2: Up and Running

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Now that the MX150 is powered on, let's do some initial configuration to get it up and running on the network. The MX150 already has factory-default settings configured right out of the box. These settings load as soon as you power it on. You can easily customize the default configuration with just a few CLI commands. We walk you how to do that here.

The MX150 also supports zero-touch provisioning (ZTP), which autoinstalls a software image and device-specific configuration file when you connect the MX150 and other devices on your network. To use ZTP, you'll need to configure settings on a DHCP server. For more information, see [Zero Touch Provisioning Using DHCP Options](#).

Connect and Configure

Before you begin connecting and configuring your MX150, verify that your laptop or PC is set to these defaults:

- Baud Rate—9600
- Flow Control—None
- Data—8
- Parity—None
- Stop Bits—1
- DCD State—Disregard

If ZTP is not enabled, the MX150 boots with the preinstalled factory-default configuration. You'll need to change a few settings through the CLI to get the MX150 up and running on your network. Here's how:

1. Connect the RJ-45 console port (labeled **CON** on the front panel) to a laptop or PC using the supplied RJ-45 cable and RJ-45 to DB-9 adapter. The CLI displays a login prompt.

NOTE: Alternately, you can use a USB cable to connect to the mini-USB console port on the front panel. To use the mini-USB console port, you'll need to set it as the active console port. See *Configuring the Console Port Type (CLI Procedure)*.

2. Log in as **root**. You don't need to enter a password. If the software boots before you connect the cable to the console port, you might need to press the Enter key for the prompt to appear.

```
login: root
```

3. Start the CLI.

```
root% cli
```

4. Enter configuration mode.

```
root> configure
```

5. Add a password to the root administration user account. Enter a plain-text password.

```
[edit]
root# set system root-authentication plain-text-password
New password: password
Retype new password: password
```

6. Delete the DHCP configuration so that you can configure the IP address and prefix length for the management interface.

```
[edit]
root# delete interfaces fxp0 unit 0 family inet dhcp
```

7. Configure the IPv4 or IPv6 IP address and prefix length for the management interface.

For IPv4:

```
[edit]
root# set interfaces fxp0 unit 0 family inet address address/prefix-length
fxp0 is the management interface.
```

NOTE: **fxp0** is on the front panel of the MX150.

For IPv6:

```
[edit]
root# set interface fxp0 family inet6 address address v6_address
fxp0 is the management interface.
```

NOTE: fxp0 is on the front panel of the MX150.

8. Configure the default gateway.

```
[edit]
root# set routing-options static route default next-hop address
```

9. Enable SSH service for the root user.

```
[edit]
root# set system services ssh root-login allow
```

10. Commit the configuration.

```
[edit]
root# commit
```

Step 3: Keep Going

Congratulations! Your MX150 is ready to go. Here are some things you can do next:

If you want to	Then
Download, activate, and manage your software licenses to unlock additional features for your MX150 router	See Activate Junos OS Licenses in the Juniper Licensing Guide
See all documentation available for the MX150	Visit the MX150 Documentation page in the Juniper TechLibrary
Find more in-depth information about installing the MX150	See the MX150 Universal Routing Platform Hardware Guide
Find more in-depth information about configuring the MX150	Check out the System Admin Guides in the Juniper TechLibrary
Manage software upgrades on your MX150	See Software Installation and Upgrade Guide

If you want to	Then
Stay up-to-date about new and changed features and known and resolved issues	See the Junos OS Release Notes
See, automate, and protect your network with Juniper Security	Visit the Security Design Center