JUNIPER NETWORKS | Engineering Simplicity

Day One+

NFX150

IN THIS GUIDE

Step 1: Begin

IN THIS SECTION

In this guide, we provide a simple, three-step path, to quickly get you up and running with your new NFX150. We've simplified and shortened the installation and configuration steps, and included how-to videos. You'll learn how to install the NFX150 in a rack, power it up, and deploy it on your network using the CLI.

Meet the NFX150

The Juniper Networks® NFX150 Network Services Platform is a software-driven customer premises equipment (CPE) platform that delivers fully automated, secure SD-WAN, secure router, and cloud CPE solutions. Equipped with SRX Series next-generation firewall software and 4G/LTE interface speeds, you can use the NFX150 to manage multiple Juniper and

third-party virtual network functions (VNFs) on a single device. Plus, it's easy to deploy and manage the NFX150 with zero-touch provisioning (ZTP).

NFX150 Models

NFX150-S1 Network Services Platform

NFX150-C-S1 Network Services Platform

The NFX150 comes in a 1-U rack mount model (NFX150-S1) and a compact desktop model (NFX150-S1-C). Both models are available with or without LTE support. For increased capacity, you can install an expansion module in the NFX150-S1 rack mount model.

The NFX150 has:

- Four 10/100/1000BASE-T RJ-45 ports that can be used either as access ports or as uplinks
- Two 1GbE/10GbE SFP+ ports
- One 10/100/1000BASE-T RJ-45 management port
- Two console ports (RJ-45 and mini-USB)
- One USB 3.0 port
- One built-in power supply
- Two built-in fans
- Air-flow out (front-to-back) cooling

Install the NFX150

IN THIS SECTION

You can install the NFX150 on a desktop, in a two-post or four-post rack, or on the wall. The NFX150 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 NFX150 on the wall.

What's in the Box?

- Power cord appropriate for your geographic location
- RJ-45 Ethernet cable
- RJ-45 to DB-9 serial port adapter
- Accessory kit

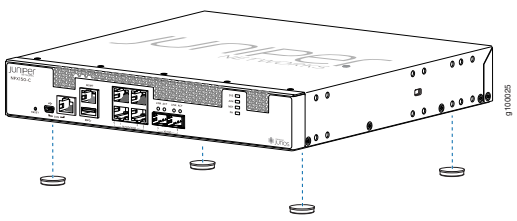
The accessory kit contains four rubber feet (for desktop installations), one pair of mounting blades, and eight Phillips mounting screws.

What Else Do I Need?

- Someone to help you secure the switch 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
- A management host, such as a laptop or desktop PC, with a serial port
- Serial-to-USB adapter (if your laptop or desktop PC doesn't have a serial port)

Install the NFX150-S1-C on a Desk

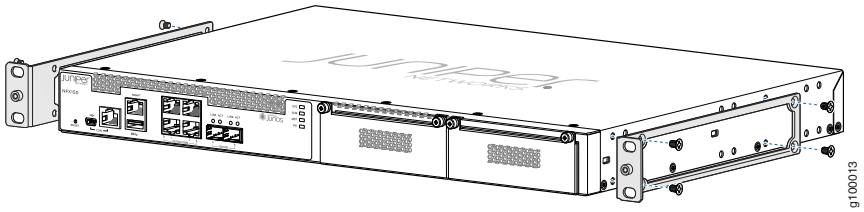
To install the NFX150-S1-C on a desk or flat surface, simply attach the four rubber feet included in the accessory kit to the bottom of the chassis, and then place the chassis on a desk or level surface.



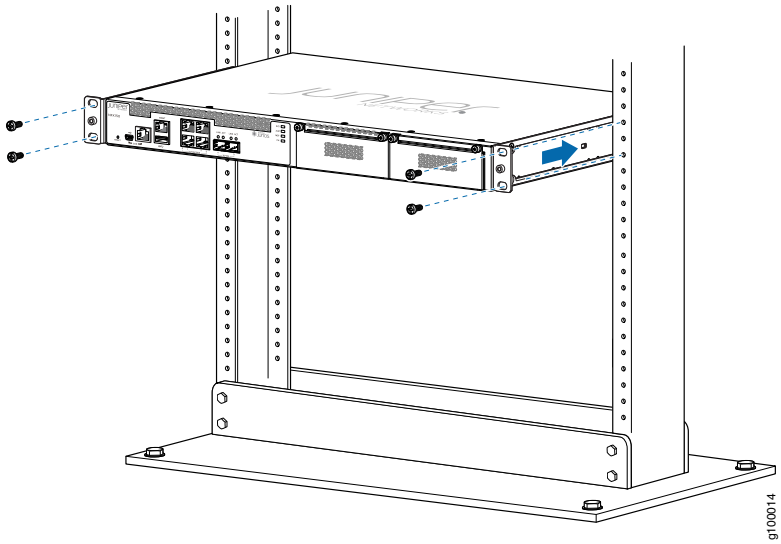
Install the NFX150-S1 in a Two-Post Rack

1. Review General Safety Guidelines and Warnings.

2. Depending on how you want the NFX150 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 NFX150 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 NFX150 is level.



4. While you're holding the NFX150 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.

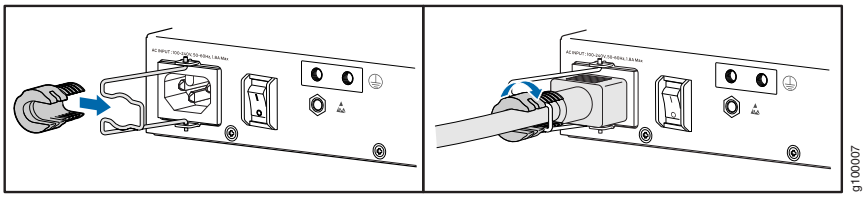
Power On

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 NFX150.

> **NOTE:** The NFX150 gets additional grounding when you plug the AC power cord into a grounded AC power outlet using the AC power cord.

3. Attach the power cord retainer clip:
   a. Squeeze the two sides of the power cord retainer clip.
   b. Insert the L-shaped ends into the holes in the bracket on each side of the AC power cord inlet on the rear panel. The power cord retainer clip extends out of the chassis by three inches.
4. Insert the power cord firmly into the AC power cord inlet.
5. Push the power cord into the slot in the adjustment nut of the power cord retainer clip. Turn the nut until it is tight against the base of the coupler and the slot in the nut is turned 90° from the top of the NFX150.



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

   The NFX150 powers on as soon as it receives power.
9. Verify that the power LED on the front panel of the NFX150 is steady green.

Step 2: Up and Running

IN THIS SECTION

Now that the NFX150 is powered on, let's get it up and running!

Plug and Play

The NFX150 already has factory-default settings configured right out of the box to make it a plug-and-play device. These settings are loaded as soon as you power it on. By default, DHCP, HTTPS, and TFTP services are enabled, and a basic set of screens are configured on the untrust zone. To see other default settings, see "Factory-Default Settings" in Initial Configuration on NFX150 Devices.

You can easily customize the default configuration with just a few commands. You can always revert to the factory-default configuration anytime you want.

Connect and Configure

Before you begin connecting and configuring your NFX150, verify that your laptop or desktop PC is set to these defaults:

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

1. Connect the RJ-45 console port (labeled **CON** on the front panel) to a laptop or desktop 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 device. To use the mini-USB console port, you'll need to download the USB driver from the following page and install it on your laptop or desktop PC:

   https://www.juniper.net/support/downloads/junos.html

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
root@>
```

4. Enter configuration mode.

```
root@> configure
[edit]
root@#
```

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. Enable SSH service for the root user.

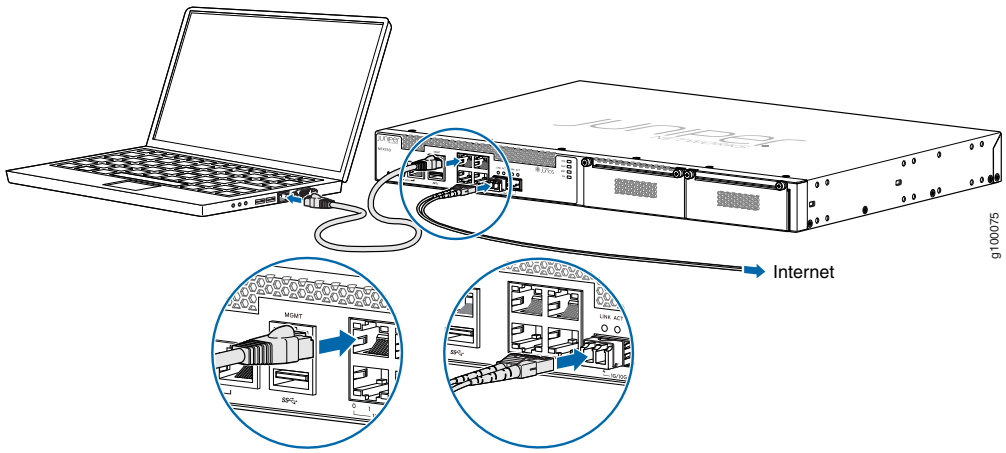
```
[edit]
root@# set system services ssh root-login allow
```

7. Commit the configuration.

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

8. Connect the NFX150 to the Internet (WAN ports 0/4 or 0/5).

   The ISP assigns an IP address to the NFX150 through DHCP.



9. Connect your laptop to a LAN port (ports 0/0 through 0/3).

   The DHCP server running on the NFX150 assigns an IP address to your laptop.

10. Open a browser on your laptop, navigate to https://www.juniper.net, and verify your connectivity.

Step 3: Keep Going

IN THIS SECTION

Congratulations! Your NFX150 is ready to go. Here are some things you can do next.

What's Next?

If you want to	Then
Download, activate, and manage your software licenses to unlock additional features for your NFX series device	See Activate Junos OS Licenses in the Juniper Licensing Guide
Provision the NFX150	See Provisioning an NFX Series Device
Change the default interface mapping	See Mapping Interfaces on NFX150 Devices
Configure IPsec	See IP Security on NFX Devices
Configure network management protocols and technologies	See the Network Management and Monitoring Guide
Install and configure an LTE expansion module	See Installing and Configuring the NFX150 Expansion Modules
Manage software upgrades	See the Junos OS Software Installation and Upgrade Guide

General Information

If you want to	Then
See all documentation available for the NFX150	Visit the NFX150 Documentation page in the Juniper TechLibrary
Find more in-depth information about installing the NFX150	See the NFX150 Network Services Platform Hardware Guide
Find more in-depth information about configuring the NFX150	See How to Configure the NFX150
See, automate, and protect your network with Juniper Security	Visit the Security Design Center

Learn With Videos

Our video library continues to grow! We've created many, many videos that demonstrate how to do everything from install your hardware to configure advanced Junos OS network features. Here are some great video and training resources that will help you expand your knowledge of Junos OS.

If you want to	Then
View a Web-based training video which provides an overview of the NFX150 and describes how to install and configure it	NFX150 Network Services Platform (WBT)
Get short and concise tips and instructions that provide quick answers, clarity, and insight into specific features and functions of Juniper technologies	See Learning with Juniper on the Juniper Networks main YouTube page
View a list of the many free technical trainings we offer at Juniper	Visit the Getting Started page on the Juniper Learning Portal