

JUNIPER NETWORKS SRX300 Services Gateway User Guide

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JUNIPER NETWORKS SRX300 Services Gateway



Product Information

Specifications

• Model: SRX300

• Publication Date: 2023-10-29

Product Usage Instructions

Step 1: Begin

In this guide, we provide a simple, three-step path to quickly get you up and running with your new SRX300. We've simplified and shortened the installation and configuration steps and included how-to videos. You'll learn how to install the SRX300 in a rack, power it up, and deploy it on your network.

Meet the SRX300

The SRX300 is a versatile device that can be installed on a desktop, wall, or rack. It offers advanced security features for your network.

Install the SRX300 in a Rack

To install the SRX300 in a rack, follow these steps:

- 1. Review General Safety Guidelines and Warnings.
- 2. Wrap and fasten one end of the electrostatic discharge (ESD) grounding strap around your bare wrist and connect the other end to a site ESD point.
- 3. Attach the mounting bracket and power supply adapter tray to the sides of the SRX300 using the screws that came with the rack mount kit and a number two Phillips (+) screwdriver.
- 4. Place the power supply adapter in the tray.
- 5. Lift the SRX300 and position it in the rack. Line up the bottom hole in the mounting brackets with a hole in each rack rail, making sure the SRX300 is level.
- 6. While holding the SRX300 in place, have a second person insert and tighten the rack mount screws to secure the adapter tray and mounting brackets to the rack rails. Make sure to tighten the screws in the two bottom holes first and then tighten the screws in the two top holes.
- 7. Check that the mounting brackets on each side of the rack are level.

Power On

Now that you've installed your SRX300 in the rack, you're ready to connect it to power. Follow these steps:

- 1. Wrap and fasten one end of the electrostatic discharge (ESD) grounding strap around your bare wrist and connect the other end to a site ESD point.
- 2. Plug the DC connector end of the power cable into the power connector at the back of the SRX300.

- 3. Plug the AC adapter end of the power cable into the power supply adapter.
- 4. If the AC power source outlet has a power switch, turn it off.
- 5. Plug in the power cord to the AC power outlet.
- 6. If the AC power outlet has a power switch, turn it on.

Step 2: Up and Running

Once you have installed and powered on your SRX300, you can proceed with the initial configuration. There are multiple provisioning options available, but for this guide, we will focus on using the CLI (Command Line Interface) for initial configuration. Follow these steps:

- Connect to the Serial Console Port on your SRX300.
- 2. Perform the initial configuration using the CLI.

Step 3: Keep Going

After completing the initial configuration, you can explore further options and learn more about the SRX300. Refer to the General Information section for additional resources. You can also find instructional videos to enhance your learning experience.

What's Next?

Continue exploring the features and capabilities of the SRX300 to optimize its usage for your network requirements.

FAQ

Q: Where can I find additional resources for the SRX300?

A: You can find additional resources, including videos and documentation, on Juniper Networks Virtual Labs and the Junos Day One Experience sandbox.

Q: How can I secure and validate my branch location with the SRX300?

A: Check out our Guided Setup: SRX300 Line Firewalls for step-by-step instructions on securing and validating your branch location.

Introduction

In this guide, we provide a simple, three-step path, to quickly get you up and running with your new SRX300. We've simplified and shortened the installation and configuration steps, and included how-to videos. You'll learn how to install the SRX300 in a rack, power it up, and deploy it on your network.

NOTE:

We think you'll want to check out our Guided Setup: SRX300 Line Firewalls. Our Guided Setup picks up where this Day One+ ends, providing step-by-step instructions on how to easily secure and validate your branch location.

Are you interested in getting hands-on experience with the topics and operations covered in this guide? Visit Juniper Networks Virtual Labs and reserve your free sandbox today! You'll find the Junos Day One Experience sandbox in the stand-alone category.

Meet the SRX300

The Juniper Networks® SRX300 Firewall provides next-generation security, routing, switching, and WAN connectivity in a small desktop device. The SRX300 features eight 1GbE ports, including six RJ-45 network ports, and two small form-factor pluggable (SFP) transceiver ports. It also has a USB 3.0 port (type A), and a console



Install the SRX300 in a Rack

You can install the SRX300 on a desktop, on a wall, or in a rack. This procedure shows you how to install it in a rack.

What's in the Box

- SRX300 Firewall
- · A power cord appropriate for your geographic location
- · A USB cable

What Else Do I Need

DB-9 to RJ-45 cable or a DB-9 to RJ-45 adapter with a CAT5E copper cable—We no longer include a DB-9 to RJ-45 cable or a DB-9 to RJ-45 adapter with a CAT5E copper cable as part of the device package. If you require a console cable, you can order it separately with the part number JNP-CBL-RJ45-DB9 (DB-9 to RJ-45 adapter with a CAT5E copper cable). To mount the SRX300 in a rack, you'll need to order a rack mount kit appropriate for your installation. If you don't have a power supply adapter tray, order the SRX300-RMK0 rack mount kit. If you already have a power supply adapter tray, order the SRX300-RMK1 rack mount kit.

The SRX300-RMK0 rack mount kit has:

- Twelve flat-head M3x5mm Phillips mounting screws
- · One mounting bracket
- · Power supply adapter tray and two adapter stopper brackets

The SRX300-RMK1 rack mount kit has:

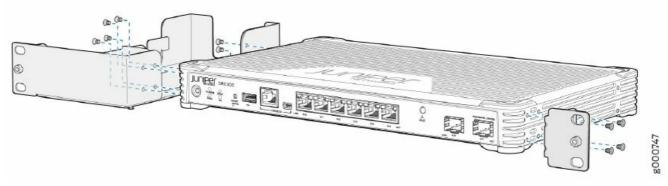
- Eight flat-head M3x5mm Phillips mounting screws
- · Two mounting brackets

You'll also need:

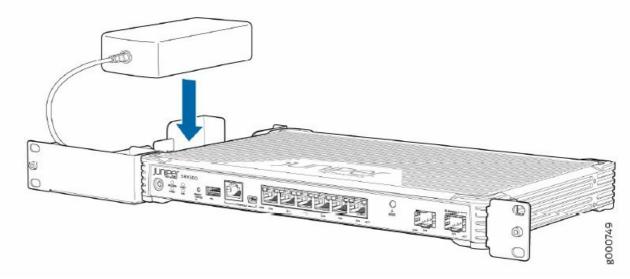
- Someone to help you do the installation
- Rack mount screws appropriate for your rack
- A number two Phillips (+) screwdriver

Rack It

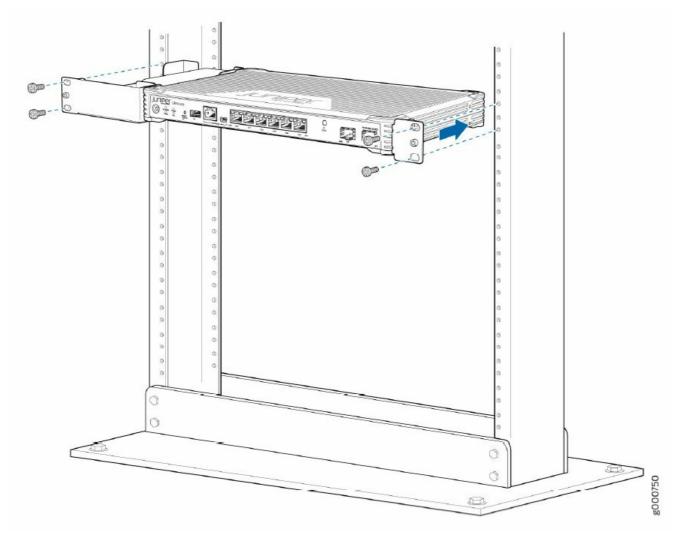
- 1. Review General Safety Guidelines and Warnings.
- 2. Wrap and fasten one end of the electrostatic discharge (ESD) grounding strap around your bare wrist, and connect the other end to a site ESD point.
- 3. Attach the mounting bracket and power supply adapter tray to the sides of the SRX300 using the screws that came with the rack mount kit and the number two Phillips (+) screwdriver.



4. Place the power supply adapter in the tray.



5. Lift the SRX300 and position it in the rack. Line up the bottom hole in the mounting brackets with a hole in each rack rail, making sure the SRX300 is level.

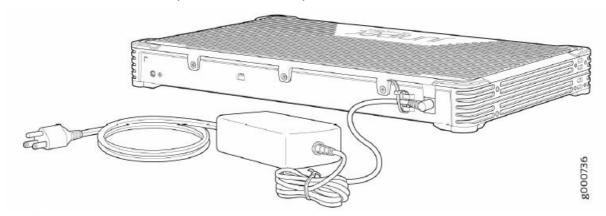


- 6. While you're holding the SRX300 in place, have a second person insert and tighten the rack mount screws to secure the adapter tray and mounting brackets to the rack rails. Make sure to tighten the screws in the two bottom holes first and then tighten the screws in the two top holes.
- 7. Check that the mounting brackets on each side of the rack are level.

Power On

Now that you've installed your SRX300 in the rack, you're ready to connect it to power.

- 1. Wrap and fasten one end of the electrostatic discharge (ESD) grounding strap around your bare wrist, and connect the other end to a site ESD point.
- 2. Plug the DC connector end of the power cable into the power connector at the back of the SRX300.



- 3. Plug the AC adapter end of the power cable into the power supply adapter.
- 4. If the AC power source outlet has a power switch, turn it off.

- 5. Plug in the power cord to the AC power outlet.
- 6. If the AC power outlet has a power switch, turn it on.

The SRX300 powers up as soon as you connect it to power. When the STAT LED on the front panel is lit solid green, the SRX300 is ready to use.

Up and Running

Now that the SRX300 is powered on, let's do some initial configuration to get it up and running on the network.

NOTE:

Be sure to check out our Guided Setup: SRX300 Line Firewalls. Our Guided Setup picks up where this Day One+leaves off, providing step-by-step instructions on how to easily secure and validate your branch location.

SRX300 Provisioning Options

It's simple to provision and manage the SRX300 and other devices on your network. Choose the configuration tool that's right for you:

- Junos CLI commands. In this guide we show you how to configure the SRX300 with CLI commands that leverage the plug-and-play factory defaults.
- J-Web, Juniper Networks GUI that is preinstalled on the SRX300. For information on performing initial
 configuration using the J-Web setup wizard see Configure SRX Devices Using the J-Web Setup Wizard in the
 J-Web User Guide for SRX Series Devices.
- Juniper Sky™ Enterprise, Juniper Networks-hosted public cloud-based Software as a Service (SaaS) solution.
 You'll need to have a Juniper Sky Enterprise subscription service before you can use it to configure the SRX300. For more information, check out the Juniper Sky Enterprise Getting Started Guide.
- Contrail Service Orchestration (CSO). If you are using Junos OS Release 19.2 or earlier, you can use Juniper Networks Network Service Controller to configure the SRX300 with ZTP. Network Service Controller is a component of CSO. See Configure the Device Using ZTP with Juniper Networks Network Service Controller.
- To use CSO, you'll need an authentication code. See the Contrail Service Orchestration (CSO) Deployment Guide.

Initial Configuration Using the CLI

- You can use the console port on the SRX to do the initial configuration. This section assumes you start from a
 factory default configuration. See SRX300 Firewall Hardware Guide for details on the SRX300 factory default
 configuration.
- After you configure the SRX300, you can log in on a local LAN port, or remotely over the WAN interface, to manage and configure the SRX using the CLI or J-Web.
- We recommend that you use the ge-0/0/0 interface for WAN connectivity on the SRX300. By default, this interface is set to receive its Internet access configuration from the service provider.

NOTE:

This examples assumes you are using DHCP to configure the WAN interface. If the WAN provider does not support DHCP, you'll need to manually configure the WAN interface and related static routing. See Junos Initial Configuration.

Have this information handy before you begin the initial configuration:

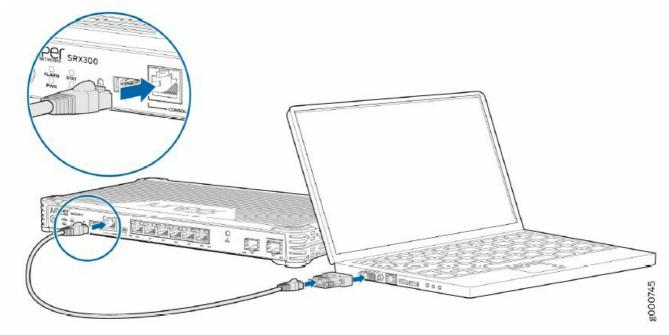
- · Root password
- Hostname

Connect to the Serial Console Port

1. Plug one end of the Ethernet cable into the RJ-45 to DB-9 serial port adapter for your SRX300.

NOTE: We no longer include a DB-9 to RJ-45 cable or a DB-9 to RJ-45 adapter with a CAT5E copper cable as part of the device package. If you require a console cable, you can order it separately with the part number JNP-CBL-RJ45-DB9 (DB-9 to RJ-45 adapter with a CAT5E copper cable).

- 2. Plug the RJ-45 to DB-9 serial port adapter into the serial port on the management device.
- 3. Connect the other end of the Ethernet cable to the serial console port on the SRX300.



- 4. Start your asynchronous terminal emulation application (such as Microsoft Windows HyperTerminal) and select the appropriate COM port to use (for example, COM1).
- 5. Verify that the serial port settings are set to the default:
 - Baud rate-9600
 - Parity-N
 - Data bits—8
 - Stop bits—1
 - Flow control-none

NOTE:

You can also connect to the SRX300 using a mini-USB console port. See the SRX300 Hardware Guide.

Perform Initial Configuration

- 1. Login as the root user and start the CLI. You don't need a password if you're running the factory default.
 - login: root
 - root@%cli
 - root>

NOTE: You can view the factory-default settings with the show configuration operational mode command.

- 2. Enter configuration mode.
 - root> configure
 - [edit]
 - root#
- 3. Since you're doing the initial configuration manually, you'll need to remove ZTP from the configuration. This stops the periodic log messages that report on ZTP status. Set the root authentication password and commit the change to deactivate ZTP.

```
[edit]
root# delete chassis auto-image-upgrade
root# delete system phone-home
root# set system root-authentication plain-text-password
New password: password
Retype new password: password
```

Issue the commit command to activate the candidate configuration that disables ZTP:

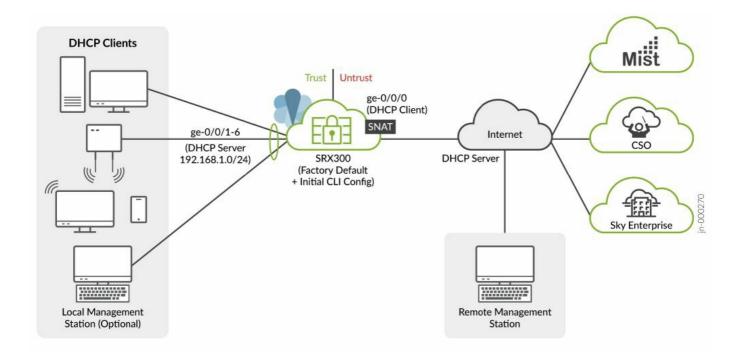
- [edit]
- · root# commit
- 4. Enable root login over SSH, and allow SSH access over the WAN interface (ge-0/0/0).

```
[edit]
root# set system services ssh root-login allow
root# set security zones security-zone untrust interfaces ge-0/0/0.0 host-inbound-traffic
system-services ssh
```

- 5. Configure the hostname.
 - [edit]
 - root# set system host-name host name
- 6. That's it! The initial configuration is complete. Commit the configuration to activate the changes on the SRX.
 - [edit]
 - · root# commit

Congratulations Your SRX is Up and Running

Your SRX300 is now online and providing secure Internet access to devices attached to the LAN ports. You can manage the device locally and remotely, using the Junos CLI, J-Web, or a cloud based provisioning service. Here's what your network looks like:



A few things to keep in mind about your new SRX300 branch network:

- You access the SRX CLI or J-Web user interface locally using the 192.168.1.1 address. To access the SRX remotely, specify the IP address assigned by the WAN provider. Simply issue a show interfaces ge-0/0/0 terse CLI command to confirm the address in use by the WAN interface.
- Devices attached to the LAN ports are configured to use DHCP. They receive their network configuration from the SRX. These devices obtain an IP address from the 192.168.1.0/24 address pool and use the SRX as their default gateway.
- All LAN ports are in the same subnet with Layer 2 connectivity. All traffic is permitted between trust zone
 interfaces.
- All traffic originating in the trust zone is permitted in the untrust zone. Matching response traffic is allowed back from the untrust to the trust zone. Traffic that originates from the untrust zone is blocked from the trust zone.
- The SRX performs source NAT (S-NAT) using the WAN interface's IP for traffic sent to the WAN that originated from the trust zone.
- Traffic associated with specific system services (HTTPS, DHCP, TFTP, and SSH) is permitted from the untrust zone to the local host. All local host services and protocols are allowed for traffic that originates from the trust zone.

If you'd like to quickly configure and validate a secure branch office, be sure to check out our Guided Setup: SRX300 Line Firewalls.

Keep Going

Congratulations! Your SRX300 is configured and ready to go. Here are some things you can do next.

What's Next

NOTE:

Quickly configure and validate a secure branch office in a few simple steps with our Guided Setup: SRX300 Line Firewalls. Our Guided Setup picks up where this Day One+ guide ends and is designed to quickly get your branch

location online and secured.

If you want to	Do this
Change configuration settings, get another device up and running, or both	Log in to J-Web and use the wizard. Alternatively, you can use the more advanced configuration features offered by Juniper Contrail S ervice Orchestration (CSO) and Juniper Sky Enterprise. To use these services, you'll need an account and activation code. Check o ut the Contrail Service Orchestration (CSO) Deployment Guide and the Juniper Sky Enterprise Getting Started Guide.
Set up your SRX300 with advanced secur ity measures to protect and defend your n etwork	Visit Day One: SRX Series Up and Running With Advanced Sec urity Services
Manage software upgrades on your SRX300	See Installing Software on SRX Series Devices

See, automate, and protect your network with Juniper Security	Visit the <u>Security Design Center</u>
Get hands-on experience with the proced ures covered in this guide	Visit Juniper Networks Virtual Labs and reserve your free sandbo x. You'll find the Junos Day One Experience sandbox in the stand-a lone category.

General Information

If you want to	Do this
Download, activate, and manage your software licenses t o unlock additional features for your SRX Firewall	See <u>Activate Junos OS Licenses</u> in the <u>Juniper Licensing Guide</u>
See all documentation available for the SRX300	Visit the SRX300 Documentation page in the Junip er TechLibrary
Configure the SRX300 with the Junos OS CLI	Start with the Day One+ for Junos OS guide
Configure the SRX300 using J-Web	See J-Web for SRX Series Documentation
Stay up-to-date on new and changed features and known and resolved issues.	See <u>Junos OS Release Notes</u>

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 SRX300 and describes how to install and configure it	SRX300 and SRX320 Firewalls Overview and Deplo yment (WBT)
Get short and concise tips and instructions that provide quick answers, clarity, and insight into specific features and functions of Juniper technologies	See <u>Learning with Juniper</u> on Juniper Networks main YouTube page
View a list of the many free technical trainings we offer at Juniper	Visit the <u>Getting Started</u> page on the Juniper Learning Portal

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Documents / Resources



JUNIPER NETWORKS SRX300 Services Gateway [pdf] User Guide SRX300 Services Gateway, SRX300, Services Gateway, Gateway

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- Uniper SRX300 Line Firewalls: A Guided Setup | Juniper Networks
- J The J-Web Setup Wizard | J-Web for SRX Series 21.4 | Juniper Networks
- User Manual

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