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**SSR1
Series
Cloud
Ready SSR
Devices**



Juniper NETWORKS SSR1 Series Cloud Ready SSR Devices User Guide

[Home](#) » [JUNIPER NETWORKS](#) » Juniper NETWORKS SSR1 Series Cloud Ready SSR Devices User Guide 

Contents

- [1 Juniper NETWORKS SSR1 Series Cloud Ready SSR Devices](#)
- [2 Product Usage Instructions](#)
- [3 Begin](#)
- [4 Meet the Cloud-Ready SSR Series Devices](#)
- [5 Claim Your Device](#)
 - [5.1 Use Mist AI App QR Scan](#)
 - [5.2 Enter the Mist Activation Code or Claim Code](#)
- [6 Up and Running](#)
 - [6.1 Create a WAN Edge Template](#)
 - [6.2 Assign the Template to a Site](#)
 - [6.3 Assign the SSR Device to a Site](#)
 - [6.4 Install the SSR Device in a Rack](#)
 - [6.5 Connect Your SSR Device to the Mist Cloud](#)
- [7 What's Next](#)
- [8 General Information](#)
- [9 Learn with Videos](#)
- [10 Documents / Resources](#)
 - [10.1 References](#)

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Juniper NETWORKS SSR1 Series Cloud Ready SSR Devices



Specifications:

- **SSR120:** Four 1-GbE ports, two 1-GbE RJ-45/SFP combo ports
- **SSR130:** Six 1-GbE ports, two 1-GbE RJ-45/SFP combo ports
- **SSR1200:** Seven 1-GbE ports, four 1-GbE/10-GbE SFP+ ports, management port, 64 GB memory, 256 GB SSD
- **SSR1300:** Four 1-GbE ports, four 1-GbE/10-GbE SFP+ ports, four 10-GbE SFP+ ports, management port, 128-GB memory, 256-GB SSD
- **SSR1400:** Four 1-GbE ports, four 1-GbE/10-GbE/25-GbE SFP28 ports, four 10-GbE SFP+ ports, management port, 256-GB memory, 512-GB SSD
- **SSR1500:** Four 1-GbE ports, twelve 1-GbE/10-GbE/25-GbE SFP28 ports, management port, 512-GB memory, 1 TB SSD

Product Usage Instructions

Step 1: Begin

Meet the Cloud-Ready SSR Series Devices

The Cloud-Ready SSR Series Devices include SSR120 for small branch deployments, SSR130 for medium branch deployments, SSR1200 for large branch and small data center or campus deployments, SSR1300 for medium data center or campus deployments, SSR1400 for large data center or campus deployments, and SSR1500 for very large data center or campus deployments.

Claim Your Device

To claim your device, use the Mist AI App QR Scan feature.

Follow these steps:

1. Download the Mist AI App from the Mac App Store or Google Play Store.
2. Open the Mist AI app and log in using your account credentials.
3. Select your organization.
4. Tap “Claim Devices to Org.”
5. Scan the QR code on the device to add it to your organization’s inventory.

Step 2: Up and Running

After claiming your device, proceed with provisioning it by following the instructions in the manual.

Step 3: Keep Going

Ensure to refer to the Mist Activation Code or Claim Code section for further details on managing your device using the Juniper Mist Cloud portal.

FAQ:

- **Q: How do I add my SSR device to the WAN edge inventory?**

A: You can add your SSR device to the WAN edge inventory by using the QR code or Claim Code located on the device chassis. Follow the instructions provided in the manual.

- **Q: What are the different models available in the SSR Series?**

A: The SSR Series includes SSR120, SSR130, SSR1200, SSR1300, SSR1400, and SSR1500 with varying configurations suitable for different deployment scenarios.

Begin


In this guide, we provide a simple, three-step path, to quickly get the Juniper Networks® SSR100 Series devices (SSR120 and SSR130) and SSR1000 Series devices (SSR1200, SSR1300, SSR1400, and SSR1500) up and running on Juniper Mist™ cloud. You can on-board a single SSR device using your mobile phone, or one or more devices using your computer. Once on board, we'll walk you through the steps to create a basic configuration. You'll need your Juniper Mist WAN Assurance subscription and your login credentials for the Juniper Mist portal.

NOTE:





Before you begin, you must set up your organization and sites, and activate your subscriptions in Mist. For more information, see [Quick Start: Mist](#).

Meet the Cloud-Ready SSR Series Devices

The two fixed configuration 1 U SSR100 Series devices:

SSR120—Small branch deployments		The SSR120 features four 1-GbE ports and two 1-GbE RJ-45/SFP combo ports.
SSR130—Medium branch deployments		The SSR130 features six 1-GbE ports and two 1-GbE RJ-45/SFP combo ports.

The four fixed configuration 1 U SSR1000 Series devices:

SSR1200—Large branch and small data center or campus deployments		The SSR1200 has seven 1-GbE ports, four 1-GbE/10-GbE SFP+ ports, a management port (for Mist operations), 64 GB of memory, and a 256-GB enterprise-grade solid-state drive (SSD) for storage.
SSR1300—Medium data center or campus deployments		The SSR1300 has four 1-GbE ports, four 1-GbE/10-GbE SFP+ ports, four 10-GbE SFP+ ports, a management port (for Mist operations), 128-GB of memory, and a 256-GB enterprise-grade solid-state drive (SSD) for storage.
SSR1400—Large data center or campus deployments		The SSR1400 has four 1-GbE ports, four 1-GbE/10-GbE/25-GbE SFP28 ports, four 10-GbE SFP+ ports, a management port (for Mist operations), 256-GB of memory, and a 512-GB enterprise-grade solid-state drive (SSD) for storage.
SSR1500—Very large data center or campus deployments		The SSR1500 has four 1-GbE ports, twelve 1-GbE/10-GbE/25-GbE SFP28 ports, a management port (for Mist operations), 512 GB of memory, and a 1 TB enterprise-grade solid-state drive (SSD) for storage.

Claim Your Device

SSR Series devices are cloud-ready devices; you can manage them using the [Juniper Mist™ Cloud](#) portal. To manage the SSR device using the Juniper Mist cloud portal, you need to add your SSR devices to your organization's WAN edge inventory.

To add the SSR device to the WAN edge inventory, do one of the following:

- Scan the QR code with the Mist AI mobile application. See “Use Mist AI App QR Scan”.
- Manually enter the claim code in Mist. See “Enter the Mist Activation Code or Claim Code”.

The QR code and the Claim Code are located on the rear panel of the chassis in SSR100 Series devices and on the front panel of the chassis in SSR1000 Series devices. The claim code is the number above the QR code. For example, The claim code on the SSR1200 chassis shown in the picture below is K6TACRTCJWQ8GQ.

SSR120



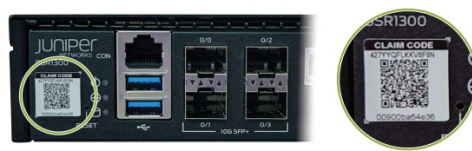
SSR130



SSR1200



SSR1300



SSR1400



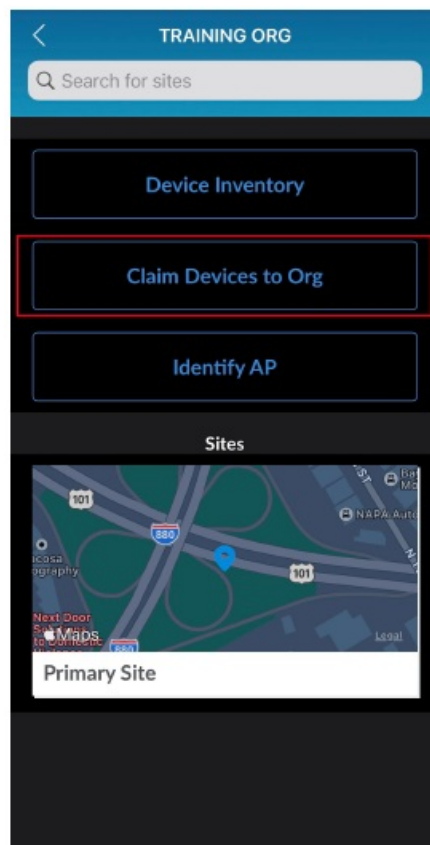
SSR1500



Use Mist AI App QR Scan

You can download the Mist AI App from the [Mac App Store](#) or [Google Play Store](#).

1. Open the Mist AI app and log in using your account credentials. If you do not have an account, see [Create a Mist Account and Organization](#).
2. Select your organization.
3. Tap Claim Devices to Org.



4. Scan the QR code. The app automatically claims the device and adds it to your organization's inventory.
5. On the Organization screen, tap Device Inventory → Routers → Unassigned. Review the MAC address.

Onboarding Complete!

Fantastic, the SSR device is in your inventory! To provision the SSR device, see “Step 2: Up and Running”.

Enter the Mist Activation Code or Claim Code

Claiming multiple devices—When you purchase multiple devices, we provide you with an activation code along with your PO information. Make a note of this code. Claiming a single device—Locate the QR code on your device and make a note of the alphanumeric claim code directly above it.

1. Open the [Juniper Mist™ Cloud](#) portal and log in to your account. If you do not have an account, see [Create a Mist Account and Organization](#).
2. Select Organization > Inventory from the menu on the left, then select the WAN Edges tab at the top.
3. Click Claim WAN Edges in the upper right portion of the inventory screen.
4. Enter the SSR device Activation code or claim code and click Add.

Enter WAN Edge claim codes or Activation codes

Add

Site Assignment

☒ Assign claimed WAN Edges to site

Primary Site

Name Generation

☐ Generate names for WAN Edges, with format:

Format includes arbitrary text and any/none of these options

[site]

 site name

[site.4]

 last (1-9) characters of site name

[mac]

 MAC address

[mac.3]

 last (2-3) bytes of MAC address

[ctr]

 incrementing counter

[ctr.3]

 counter with (2-6) fixed digits

Manage Configuration

☒ Manage configuration with Mist

Root Password

Reveal

Existing gateway configuration will be overwritten with Mist configuration. Do not attempt to configure the gateway via CLI once it is managed by Mist. Root password will be configured by the site(under site settings) to which the gateway is assigned.

Claim Cancel

5. Clear the Assign claimed WAN Edges to the site check box.
6. Click the Claim button to claim the SSR device in your inventory.

Video: [Add the Claim Information in Mist.](#)

Onboarding Complete!

Fantastic, the SSR device is in your inventory! To provision the SSR device, see “Step 2: Up and Running”.

Up and Running

SUMMARY

The SSR device is onboarded to the [Juniper Mist™ Cloud](#). To provision the SSR device with ZTP, log in to your Mist portal and begin the WAN configuration. Configuring your SSR device is made simple through the use of the SSR WAN Edge Templates.

Create a WAN Edge Template

The WAN Edge Templates provide you with the basic network configuration in a single step and allow for re-usable and consistent configuration for every SSR device you deploy. The template provides device-specific, preconfigured WAN interfaces, LAN interfaces, a traffic steering policy, and an application policy.

Create a Template

To create a Template:

1. Select Organization > WAN Edge Templates from the menu on the left.
2. Click Create Template in the upper-right corner of the WAN Edge Templates page.
3. Enter a name for the template.
4. Select Create from Device Model.
5. Select your SSR device from the Model drop-down.
6. Click Create. Your SSR device template is displayed.
7. Scroll down through the template to see the preconfigured WAN interfaces, LAN interfaces, TRAFFIC STEERING, and APPLICATION POLICIES.

Video: [Create a Template.](#)

Assign the Template to a Site

Now that you have set up the template, you need to assign it to the site where your SSR device will be deployed.

1. Click the Assign to Site button, and select the site to which you want to apply the template configuration.
2. Click Apply.

Great work! All that remains is to associate the SSR device with a site.

Assign the SSR Device to a Site

Now, assign the SSR device to a site so that you can begin to manage the configuration and gather data in the Mist cloud.

1. Select Organization > Inventory. The status of the SSR device is shown as Unassigned.
2. Select the SSR device and from the More drop-down list, select Assign to Site.
3. Select the site from the Site list.

NOTE: Under Manage Configuration, do not check the Manage Configuration with Mist checkbox for the SSR device if it is using Session Smart Router software version 5.4.4. This allows the SSR device to reach out to the conductor IP address specified when the site was created to receive configuration information.

If you are onboarding a Mist-managed device using Session Smart Router software version 6.0, select Manage Configuration with Mist. If you do not select Manage Configuration with Mist, the SSR device will not be managed by Mist.

4. Click Assign to Site.

Video: [Assign the SSR1200 to a Site.](#)

The site assignment takes a few minutes. After the site is fully onboarded, use the Mist WAN Edge – Device View to access the SSR device, and the Insights view to view events and activity.

Install the SSR Device in a Rack

Install the SSR device in a rack and connect it to power. For instructions see the hardware guide on the [Juniper Mist Supported Hardware](#) page.

Connect Your SSR Device to the Mist Cloud

Your SSR device uses the port labeled MGMT (mgmt-0/0/0) as the default port to contact Mist for zero-touch provisioning (ZTP). You will also be setting up port 0/3 (ge-0/0/3 or xe-0/0/3 depending on the SSR device) with a LAN network.

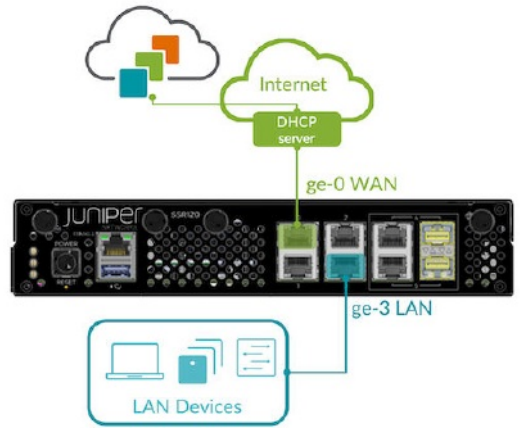
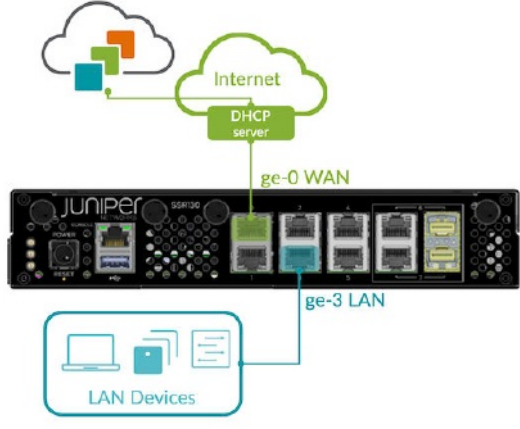
1. Connect the MGMT port to an Ethernet link that can assign a DHCP address to the SSR device and provide connectivity to the Internet and Mist.

NOTE: For management, you can connect the SSR device to Mist using the MGMT port. You can also connect to Mist from one of the WAN ports only when the MGMT port is disconnected or does not have a valid DHCP leased address and default route.

Do not change the Mist management port once your device is powered on and connected to the Mist Cloud instance.

2. Use the LAN port on your SSR device listed in the following table to connect your SSR device to the LAN devices such as:

- Mist-managed Juniper EX switches
- Mist APs
- User devices

SSR Device Model,	LAN Port	Illustration
SSR120	3 (ge-0-3)	 <p>The diagram shows a Juniper SSR120 device. A green cloud labeled 'Internet' contains a 'DHCP server'. A green line labeled 'ge-0 WAN' connects the DHCP server to the WAN port of the SSR120. A blue line labeled 'ge-3 LAN' connects the LAN port of the SSR120 to a box labeled 'LAN Devices' containing icons for a laptop, a server, and a document.</p>
SSR130	3 (ge-0-3)	 <p>The diagram shows a Juniper SSR130 device. A green cloud labeled 'Internet' contains a 'DHCP server'. A green line labeled 'ge-0 WAN' connects the DHCP server to the WAN port of the SSR130. A blue line labeled 'ge-3 LAN' connects the LAN port of the SSR130 to a box labeled 'LAN Devices' containing icons for a laptop, a server, and a document.</p>

SSR1200	0/3 (ge-0/0/3)	 <p>Diagram illustrating the connection for the SSR1200 device. The device is connected to the Internet (Mist Cloud) via the MGMT port (labeled 'Use MGMT port for Mist Cloud connectivity'). The device is also connected to LAN Devices via port 0/3 (labeled 'Use port 0/3 for LAN connection').</p>
SSR1300	0/3 (xe-0/0/3)	 <p>Diagram illustrating the connection for the SSR1300 device. The device is connected to the Internet (Mist Cloud) via the MGMT port (labeled 'Use MGMT port for Mist Cloud connectivity'). The device is also connected to LAN Devices via port 0/3 (labeled 'Use port 0/3 for LAN connection').</p>
SSR1400	0/3 (xe-0/0/3)	 <p>Diagram illustrating the connection for the SSR1400 device. The device is connected to the Internet (Mist Cloud) via the MGMT port (labeled 'Use MGMT port for Mist Cloud connectivity'). The device is also connected to LAN Devices via port 0/3 (labeled 'Use port 0/3 for LAN connection').</p>
SSR1500	2/1 (xe-0/2/1)	 <p>Diagram illustrating the connection for the SSR1500 device. The device is connected to the Internet (Mist Cloud) via the MGMT port (labeled 'Use MGMT port for Mist Cloud connectivity'). The device is also connected to LAN Devices via port 2/1 (labeled 'Use port 2/1 for LAN connection').</p>

3. Power on the SSR device.

Great job! Your SSR device is now connected to the Mist cloud! In just a few minutes, Mist will send the template-driven configuration down to your device. Once the configuration has been applied, it will begin forwarding sessions from LAN to WAN as described by your policy.

- Go to the WAN Edges menu on the Mist sidebar, select your device, and watch events as the device completes

ZTP.

- As your client devices connected to the LAN are assigned addresses from the WAN Edge DHCP server and begin sending sessions, telemetry will populate the insights page, and Marvis will start analyzing it on your behalf.

Keep Going

SUMMARY

Congratulations!

Now that you've done the initial configuration, your SSR device is ready to use. Here are some things you can do next:

What's Next

If you want to	Then
Get an overview of Configuration and Configuration Management on the SSR device	See the WAN Assurance Configuration Overview section of the Juniper Mist WAN Assurance Configuration Guide in the Juniper Networks TechLibrary
Configure essential user access and authentication features	See Access Management
Upgrade the software	See Upgrading the SSR Networking Platform

General Information

If you want to	Then
See all documentation available for the SSR devices	See the Juniper Mist Supported Hardware in the Juniper Networks TechLibrary
See all documentation available for SSR software	Visit Session Smart Router

Stay up-to-date with new and changed features and known and resolved issues	See the SSR Release Notes
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Learn with Videos

Here are some great video and training resources that will help you expand your knowledge of SSR Software.

If you want to	Then
Get short tips and instructions that provide quick answers, clarity, and insight into specific features and functions of Juniper technologies	See Learning with Videos on 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

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Documents / Resources

	Juniper NETWORKS SSR1 Series Cloud Ready SSR Devices [pdf] User Guide SSR120, SSR130, SSR1200, SSR1300, SSR1400, SSR1500, SSR1 Series Cloud Ready SSR Devices, SSR1 Series, Cloud Ready SSR Devices, SSR Devices, Devices
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References

- [Mist Systems](#)
- [Session Smart Router Software Documentation | Juniper Networks](#)
- [Mist | Quick Start | Step 1: Begin | Juniper Networks](#)
- [WAN Assurance Configuration Overview | Mist | Juniper Networks](#)
- [Access Management on the SSR | SSN Docs](#)
- [Upgrade Overview | SSN Docs](#)
- [Session Smart Routers Archives | Juniper Networks](#)
- [User Manual](#)

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