JUNIPER NETWORKS | Engineering Simplicity

Quick Start

Cloud-Ready SSR Devices

IN THIS GUIDE

Step 1: Begin

IN THIS SECTION

In this guide, we provide a simple, three-step path, to quickly get the Juniper Networks® SSR100 Series devices (SSR120 and SSR130), SSR400 Series (SSR400, SSR400-C, SSR440, SSR440-2AC, SSR440-C, and SSR440-C-2AC), 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:

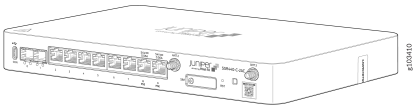
SSR120—Small branch deployments		The SSR120 features four 1-GbE ports and two 1-GbE RJ-45/SFP combo ports.
SSR130—Medium branch deployments		The SSR130 features six 1-GbE ports and two 1-GbE RJ-45/SFP combo ports.

The two fixed configuration 1 U SSR400 Series devices:

SSR400—Small branch and retail locations		The SSR400 has two 1-GbE SFP+ ports (port **0** and **1**), eight 1-GbE ports (ports **8** and **9** support PoE), and one HA port. 8GB of memory
SSR400-C—Small branch and retail locations		The SSR400-C has two 1-GbE SFP+ ports (port **0** and **1**), eight 1-GbE ports (ports **8** and **9** support PoE), and one HA port. 8GB of memory 5G/LTE/UMTS built-in worldwide modem and antennas.

The four fixed configuration 1 U SSR440 devices:

SSR440—Large branch and small data center or campus deployments		The SSR440 has two 1-GbE SFP+ ports (port **0** and **1**), eight 1-GbE ports (ports **8** and **9** support PoE), and one HA port. 8GB of memory
SSR440-2AC—Medium data center or campus deployments		The SSR440-2AC has two 1-GbE SFP+ ports (port **0** and **1**), eight 1-GbE ports (ports **8** and **9** support PoE), and one HA port. 8GB of memory Two AC power adapters

SSR440-C—Large data center or campus deployments		The SSR440-C has two 1-GbE SFP+ ports (port **0** and **1**), eight 1-GbE ports (ports **8** and **9** support PoE), and one HA port. 8GB of memory 5G/LTE/UMTS built-in worldwide modem and antennas.
SSR440-C-2AC—Very large data center or campus deployments		The SSR440-C-2AC has two 1-GbE SFP+ ports (port **0** and **1**), eight 1-GbE ports (ports **8** and **9** support PoE), and one HA port. 8GB of memory Two AC power adapters 5G/LTE/UMTS built-in worldwide modem and antennas.

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

IN THIS SECTION

SSR Series devices are cloud-ready devices; you can manage them using the Juniper Mist™ Cloud portal. To manage the SSR device using 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" on page 5.
- Manually enter the claim code in Mist. See "Enter the Mist Activation Code or Claim Code" on page 6.

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 SSR400 Series and 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 K6TAACRTCJWQ8GQ.

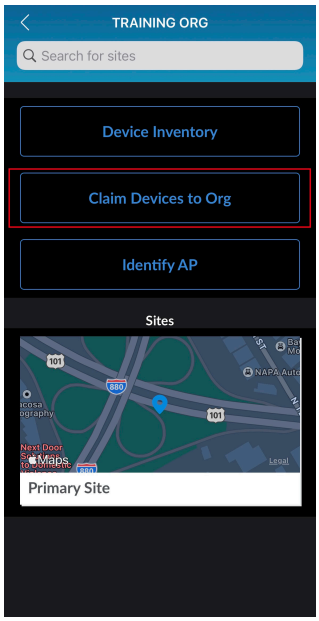
SSR120 	SSR130 

SSR1200 	SSR1300 
SSR1400 	SSR1500 

Use Mist AI App QR Scan

You can download the Mist AI App from the Mac App Store or from 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 into your organization's inventory.

5. On the Organization screen, tap **Device Inventory → Routers → Unassigned**.

   Review the MAC address.

Onboarding Complete!

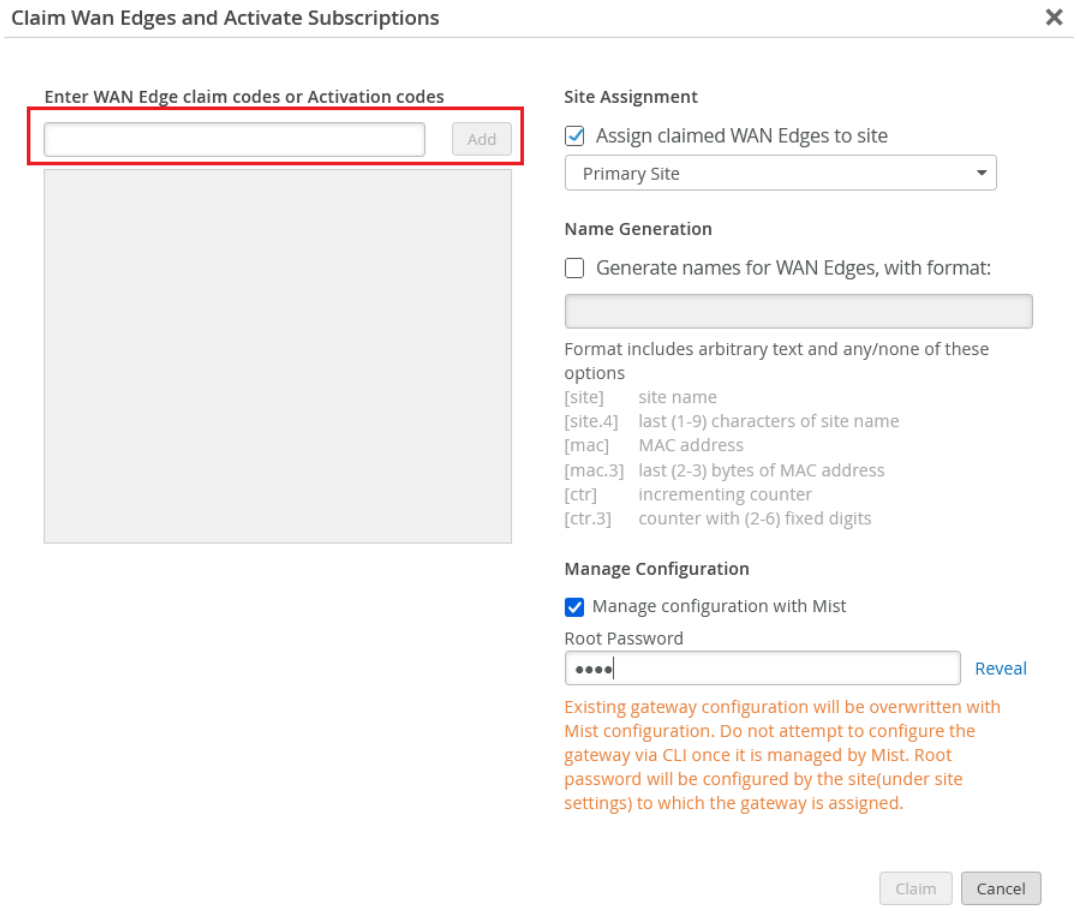
Fantastic, the SSR device is in your inventory! To provision the SSR device, see "Step 2: Up and Running" on page 7.

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**.



5. Clear the **Assign claimed WAN Edges to site** check box.
6. Click the **Claim** button to claim the SSR device into 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" on page 7.

Step 2: 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

IN THIS SECTION

SSR device is made simple through the use of the SSR WAN Edge Templates.

Create a WAN Edge Template

IN THIS SECTION

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

Great job! You now have a working WAN Edge template you can apply to many sites and devices across your organization.

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 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

SSR100 Series and SSR1000 Series devices use the port labelled **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) for a LAN network.

SSR400 Series routers do not have a dedicated out-of-band management network port. You can use the port labelled **0**(ge-0-0), **1**(ge-0-1), and **2** (ge-0-2) to contact Mist for zero-touch provisioning (ZTP) and for Conductor remote management. You can set-up any port labelled **3** (ge-0-3) to **9** (ge-0-9) for LAN network.

1. For SSR100 Series and SSR1000 Series routers connect the **MGMT** port and for SSR400 Series devices connect the port labelled **2** (ge-0-2) 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, connect the SSR100 Series and SSR1000 Series devices 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.

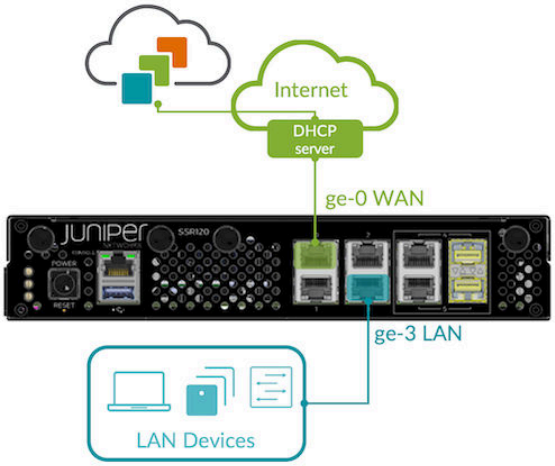
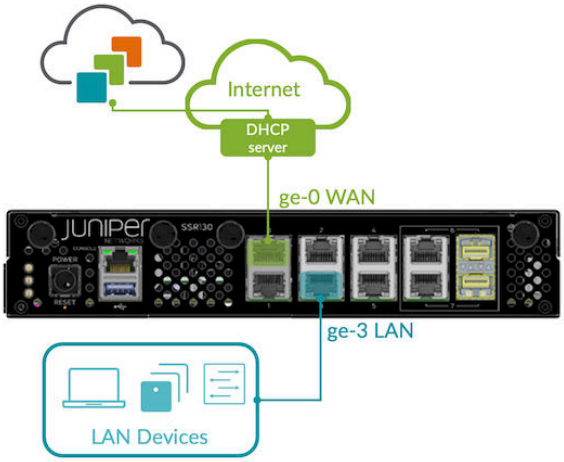
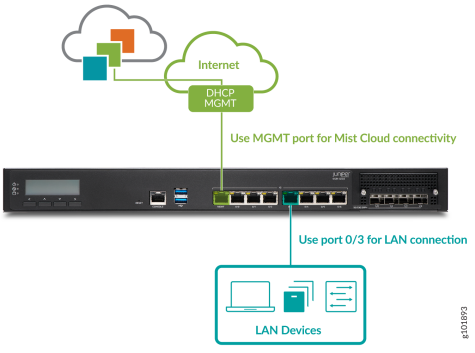
   Do not change the Mist management port once your device is powered on and connected to the Mist Cloud instance.

   NOTE: For management, connect the SSR400 Series devices to Mist using the port **2** (ge-0-2). You can also connect to Mist from one of the WAN ports (**0** (ge-0-0) and **1** (ge-0-1) only when the **2** (ge-0-2) port is disconnected, or does not have a valid DHCP leased address and default route.

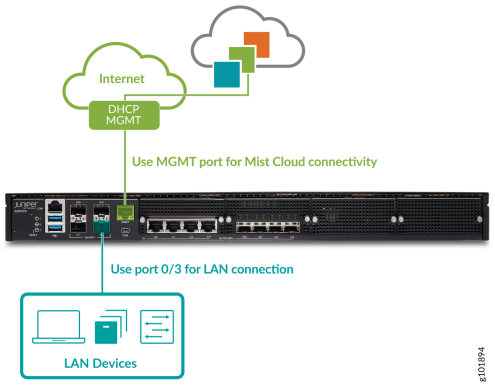
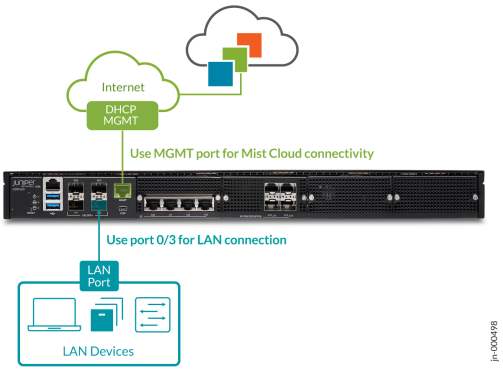
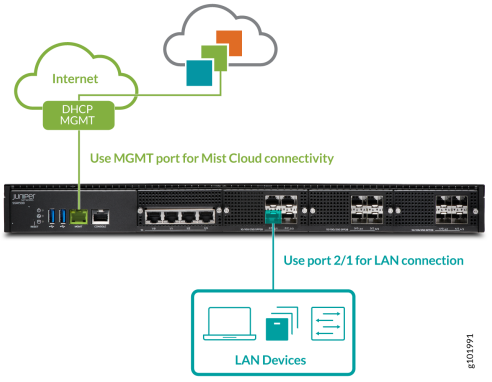
   Do not change the Mist management port once your device is powered on and connected to the Mist Cloud instance.

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)	
SSR130	**3** (ge-0-3)	
SSR1200	**0/3** (ge-0/0/3)	

(Continued)

SSR Device Model,	LAN Port	Illustration
SSR1300	**0/3** (xe-0/0/3)	
SSR1400	**0/3** (xe-0/0/3)	
SSR1500	**2/1** (xe-0/2/1)	
SSR400 and SSR440	Any port from port **3** (ge-0-3) to port **9** (ge-0-9)	

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.

Step 3: 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:

IN THIS SECTION

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

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 and concise 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