How to Set Up Your SRX320 Services Gateway

The SRX320 Services Gateway consolidates security, routing, switching, and WAN interfaces for small distributed enterprises. With advanced threat mitigation capabilities, the services gateway provides cost-effective and secure connectivity across distributed enterprises.

With a desktop form-factor chassis, the SRX320 Services Gateway has six 1-Gigabit Ethernet ports, two 1-Gigabit Ethernet SFP ports, 4 GB of DRAM memory, and 8 GB of flash memory. The SRX320 Services Gateway is available with or without Power over Ethernet (PoE) capability. In the PoE model, the six Ethernet ports are PoE capable.

Package Contents
Verify that you have the following parts available:
• SRX320 Services Gateway
• RJ-45 cable with DB-9 adapter
• USB cable
• Power supply adapter
• Power cable
• Warranty and registration information
• End User License Agreement
• Quick Start Guide

NOTE: Check the parts in the shipment against the items on the packing list. If anything is missing or damaged, contact your Juniper Networks customer service representative.

<table>
<thead>
<tr>
<th>Specification</th>
<th>SRX320</th>
<th>SRX320-PoE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (D x W x H)</td>
<td>7.52 in. x 11.81 in. x 1.73 in. (19.10 cm x 29.99 cm x 4.39 cm)</td>
<td>7.52 in. x 11.81 in. x 1.73 in. (19.10 cm x 29.99 cm x 4.39 cm)</td>
</tr>
<tr>
<td>Chassis weight</td>
<td>3.28 lb (1.49 kg)</td>
<td>3.4 lb (1.54 kg)</td>
</tr>
<tr>
<td>Average power consumption</td>
<td>46 W</td>
<td>221 W</td>
</tr>
<tr>
<td>Average heat dissipation</td>
<td>157 BTU/hr</td>
<td>755 BTU/hr</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>5% to 90%, noncondensing</td>
<td>5% to 90%, noncondensing</td>
</tr>
</tbody>
</table>
Factory-Default Settings

Security Policies

<table>
<thead>
<tr>
<th>Source Zone</th>
<th>Destination Zone</th>
<th>Policy Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>trust</td>
<td>untrust</td>
<td>permit</td>
</tr>
<tr>
<td>trust</td>
<td>trust</td>
<td>permit</td>
</tr>
</tbody>
</table>

NAT Rules

<table>
<thead>
<tr>
<th>Source Zone</th>
<th>Destination Zone</th>
<th>Policy Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>trust</td>
<td>untrust</td>
<td>Source NAT to untrusted zone interface</td>
</tr>
</tbody>
</table>

Interfaces

<table>
<thead>
<tr>
<th>Port Label</th>
<th>Interface</th>
<th>Security Zone</th>
<th>DHCP State</th>
<th>IP Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/0 and 0/7</td>
<td>ge-0/0/0 and ge-0/0/7</td>
<td>untrust</td>
<td>Client</td>
<td>Unassigned</td>
</tr>
<tr>
<td>0/1 to 0/6</td>
<td>VLAN Interface rb.0 (ge-0/0/1 to ge-0/0/6)</td>
<td>trust</td>
<td>Server</td>
<td>192.168.1.1/24</td>
</tr>
<tr>
<td></td>
<td>cl-1/0/0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>di0</td>
<td>untrust</td>
<td></td>
<td>ISP assigned*</td>
</tr>
</tbody>
</table>

* Only if the LTE Mini-PIM is present

Services

<table>
<thead>
<tr>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSH</td>
</tr>
<tr>
<td>HTTPS</td>
</tr>
<tr>
<td>NETCONF over SSH</td>
</tr>
</tbody>
</table>

Protocols

<table>
<thead>
<tr>
<th>Protocols</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSTP (all interfaces)</td>
</tr>
</tbody>
</table>

Screens

<table>
<thead>
<tr>
<th>Screens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic set of screens are enabled on the untrusted zone</td>
</tr>
</tbody>
</table>

Device Startup Mode

Initial Configuration Process

- Install Device in a Rack
- Connect the Grounding Cable
- Power On the Device
- Verify the Settings
- Configure Using ZTP/J-Web
- Connect to Management Device


Install the Device in a Rack

1. Position a mounting bracket on each side of the chassis. Use a number-1 Phillips screwdriver to install the screws that secure the mounting brackets and power supply adapter tray to the chassis.

For 75 W power supply adapter:

For 280 W power supply adapter:
2. Place the power supply adapter in the tray.

3. Have one person grasp the sides of the device, lift it, and position it in the rack. Align the bottom hole in each mounting bracket with a hole in each rack rail, making sure that the chassis is level.

4. Have a second person install a mounting screw into each of the two aligned holes. Use a number-3 Phillips screwdriver to tighten the mounting screws.

5. Install the second screw in each mounting bracket.

6. Verify that the mounting screws on one side of the rack are aligned with the mounting screws on the opposite side and that the device is level.

The SRX320 Services Gateway can also be mounted on a desk or a wall. For details, see the SRX320 Services Gateway Hardware Guide.

**NOTE:** The mounting kits are not shipped with the device and must be ordered separately.

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**Connect the Grounding Cable (Optional)**

1. Attach an ESD strap to an ESD point and place the other end of the strap around your bare wrist.

2. Connect the grounding cable to a proper earth ground.

3. Place the grounding cable lug over the grounding point on the rear of the chassis.

4. Secure the grounding cable lug to the grounding point with the screw.

**NOTE:** A licensed electrician must attach a cable lug to the grounding cable. A cable with an incorrectly attached lug can damage the device.
Power On the Device

**NOTE:** Before connecting the device to the power supply, attach an ESD strap to an ESD point and place the other end of the strap around your bare wrist.

1. Plug the DC connector end of the power cable into the power connector on the rear of the device.
2. Plug the AC adapter end of the power cable into an AC power outlet.
3. Turn on the power to the AC power receptacle.
4. Note the following LED indications. Wait until the STATUS LED is solid green before proceeding to the next step.

<table>
<thead>
<tr>
<th>LED</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALARM</td>
<td>• Solid amber (noncritical alarm).</td>
</tr>
<tr>
<td></td>
<td>• Solid red (critical alarm).</td>
</tr>
<tr>
<td></td>
<td>• Off (no alarms).</td>
</tr>
<tr>
<td>STAT</td>
<td>• Solid green (operating normally).</td>
</tr>
<tr>
<td></td>
<td>• Solid red (error detected).</td>
</tr>
<tr>
<td>PWR</td>
<td>• Solid green (receiving power).</td>
</tr>
<tr>
<td></td>
<td>• Solid red (power failure).</td>
</tr>
<tr>
<td></td>
<td>• Off (no power).</td>
</tr>
<tr>
<td>HA</td>
<td>• Solid green (all HA links are available).</td>
</tr>
<tr>
<td></td>
<td>• Solid amber (some HA links are unavailable).</td>
</tr>
<tr>
<td></td>
<td>• Solid red (HA links are not functional).</td>
</tr>
<tr>
<td></td>
<td>• Off (HA is disabled).</td>
</tr>
<tr>
<td>mPIM1, mPIM2</td>
<td>• Green (mini-PIM is present and detected by the device).</td>
</tr>
<tr>
<td></td>
<td>• Off (mini-PIM is not present or not detected by the device).</td>
</tr>
</tbody>
</table>

Connect the Management Device

1. To configure the device using J-Web (recommended), connect any of the network ports numbered 0/1 through 0/6 to the Ethernet port on the management device, using an RJ-45 cable.
NOTE: The ge-0/0/0 and ge-0/0/7 interfaces (ports 0/0 and 0/7) are WAN interfaces. Do not use these ports for the initial configuration procedure.

2. The services gateway functions as a DHCP server and automatically assigns an IP address to the management device. Ensure that the management device acquires an IP address on the 192.168.1.0/24 network from the device.

   If an IP address is not assigned to the management device, manually configure an IP address in the 192.168.1.0/24 network. Do not assign the 192.168.1.1 IP address to the management device, as this IP address is assigned to the services gateway. By default, the DHCP server is enabled on the L3 VLAN interface, irb.0 (interface ge-0/0/1 to ge-0/0/6), which is configured with an IP address of 192.168.1.1/24.

3. Connect port 0/0 or 0/7 to the ISP device to obtain a dynamic IP address.

4. Access the J-Web interface (https://192.168.1.1). The recommended browser is Internet Explorer version 10 or 11, Mozilla Firefox version 46 (or later), or Google Chrome 55 (or later).

   To configure the device using Zero Touch Provisioning, follow the procedure in the “Configure the Device Using ZTP with Juniper Networks Network Service Controller” section.

   To configure the device using J-Web, click Skip to J-Web and follow the procedure in the “Configure the Device Using J-Web” section.

Configure the Device Using ZTP with Juniper Networks Network Service Controller

Zero Touch Provisioning (ZTP) enables you to complete the initial configuration of the SRX320 Services Gateway in your network automatically, with minimum intervention.

Network Service Controller is a component of the Juniper Networks Contrail Service Orchestration platform that simplifies and automates the design and implementation of custom network services that use an open framework.


To configure the device automatically using ZTP:

NOTE: To complete the ZTP process, ensure that the services gateway is connected to the Internet. See the “Connect the Management Device” section.

- If you already have the authentication code, enter the code in the webpage displayed.

On successful authentication, the initial configuration is applied and committed on the services gateway. Optionally, the latest Junos OS image is installed on the device before the initial configuration is applied.

- If you do not have the authentication code, you can use the J-Web setup wizard to configure the services gateway. Click Skip to J-Web and follow the procedure in the “Configure the Device Using J-Web” section.
Configure the Device Using J-Web

To configure the device using J-Web, follow the steps in this section.

1. Enter the root authentication password.
2. Select one of the following setup modes:

   - Guided Setup (uses a dynamic IP address)—Allows you to set up the device in a custom security configuration. You can select either the Basic or the Expert option.
   - Default Setup (uses a dynamic IP address)—Allows you to quickly set up the device with the default configuration. Any additional configuration can be done after the wizard setup is completed.
   - High Availability—Allows you to set up a chassis cluster with a default basic configuration.

   **NOTE:** The initial configuration requires that you specify the device name and root password. You can skip all the other steps and go directly to the Confirm & Apply page to apply the configuration.

Configure the Device Using the Guided Setup Mode

1. Select the expertise level as Basic or Expert.

The following table compares the Basic and Expert levels:

<table>
<thead>
<tr>
<th>Options</th>
<th>Basic</th>
<th>Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of internal zones allowed</td>
<td>3</td>
<td>≥ 3</td>
</tr>
<tr>
<td>Internet zone configuration options</td>
<td>Static IP</td>
<td>Static IP</td>
</tr>
<tr>
<td></td>
<td>Dynamic IP</td>
<td>Static pool</td>
</tr>
<tr>
<td>Internal zone service configuration</td>
<td>Allowed</td>
<td>Allowed</td>
</tr>
<tr>
<td>Internal destination NAT configuration</td>
<td>Not allowed</td>
<td>Allowed</td>
</tr>
</tbody>
</table>
2. Configure the basic settings:
   a. Device name
   b. Password for the root account (Use the password that you entered in Step 1 of the “Configure the Device Using J-Web” section.)
   c. Time
3. Configure the security topology:
   a. Internet zone (Untrust)
   b. Internal zones (Trust)
   c. DMZ
4. Configure the security policy:
   a. Licenses (Security services)
   b. DMZ policy
   c. Internet and internal policies
   d. Remote VPN
5. Configure Network Address Translation:
   a. Internal Source NAT
   b. Internal Destination NAT
   c. DMZ Destination NAT
6. Review the settings and click **Apply Settings**.

   ![Setup Wizard](image)

   **Commit Configuration**

   ![Commit Configuration](image)

   **NOTE:** Check the connectivity from the management device to the SRX Series device. You might lose connectivity to the SRX Series device if you have changed the internal zone IP. Click the URL for reconnection instructions on the Confirm & Apply page to reconnect, if required.

7. Click **Done** to complete the setup.
Configure the Device Using the Default Setup Mode

1. Configure the basic settings – device name, root account information, and system time.

2. Configure the security policy – licenses.

3. Review the settings and click **Apply Settings**. Click **Done** to complete the setup.

You can also configure the services gateway using the CLI, by connecting to the Console port. For details, see the **SRX320 Services Gateway Hardware Guide**.

Verify the Settings

Access [http://www.juniper.net](http://www.juniper.net) to ensure that you are connected to the Internet. This connectivity ensures that you can pass traffic through the services gateway.

If the page does not load, perform the following checks to see if you can identify the problem:

- Verify your configuration settings, and ensure that you have applied the configuration.
- Check if the ISP-supplied device connecting your SRX Series device to the Internet is turned on and working properly. Try turning it off and on again.

After you complete these steps, the SRX Series device can pass traffic from any trust port to the untrust port.

**NOTE:** With this step, you have successfully completed the initial configuration, and your SRX320 Services Gateway is ready for use.

Change the Configuration Settings (Optional)

After you complete the initial setup configuration, you can access the J-Web setup wizard by clicking **Configure > Device Setup > Set Up**. You can either edit the existing settings or create a new configuration. If you choose to create a new configuration, then all the current configuration in the services gateway will be deleted.
Power Off the Device
You can power off the device in one of the following ways:

- **Graceful shutdown**—Press and immediately release the Power button.
- **Forced shutdown**—Press the Power button, and hold it for 10 seconds.

After powering off a power supply, wait at least 60 seconds before turning it back on.

Reset the Configuration
Use the **RESET CONFIG** button to restore the device to the factory-default configuration or to a rescue configuration. To press the **RESET CONFIG** button, insert a small probe (such as a straightened paper clip) into the pinhole on the front panel.

Pressing and quickly releasing the **RESET CONFIG** button loads and commits the rescue configuration. The rescue configuration is a previously committed, valid configuration set through J-Web or the CLI. The STATUS LED is solid amber during this time.

Pressing and holding the **RESET CONFIG** button for 15 seconds or more, until the STATUS LED is solid amber, deletes all configurations (backup configurations and rescue configuration), and loads and commits the factory configuration.

**NOTE:** After resetting the device, check the device status by viewing the LEDs on the front panel. For information on the LED states, see the “Power On the Device” section.

Next Steps
For information on configuring features on your services gateway, refer to the following:

- Junos OS Documentation/Feature Configuration
- Getting Started Knowledge Base Article
  https://kb.juniper.net/InfoCenter/index?page=content&id=KB15694

Reference
Technical Support
http://www.juniper.net/support/requesting-support.html

SRX320 Services Gateway Hardware Guide

Supported Transceivers
https://pathfinder.juniper.net/hct/product/#prd=SRX320