The SRX345 Services Gateway consolidates security, routing, switching, and WAN interfaces for midsize distributed enterprises. With advanced threat mitigation capabilities, the services gateway provides cost-effective and secure connectivity across distributed enterprises.

The SRX345 Services Gateway has a capacity of 5 gigabits per second (Gbps) and is 1 rack unit (U) tall. The services gateway has eight 1-Gigabit Ethernet RJ-45 ports, eight 1-Gigabit Ethernet SFP ports, one management port, 4 GB of DRAM memory, 8 GB of flash memory, and four Mini-Physical Interface Module (Mini-PIM) slots.

The SRX345 Services Gateway is available in both AC and DC models. The AC models are available with either a single AC power supply or dual AC power supplies. The DC models have a single power supply.

**Package Contents**

Verify that you have the following parts available:

- SRX345 Services Gateway (with either a single AC or DC power supply, or dual AC power supplies)
- RJ-45 cable with DB-9 adapter
- Power cable for AC models only (1 for single power supply; 2 for dual power supplies)
- Mounting brackets and screws
- USB cable
- Warranty and registration information
- End User License Agreement
- Quick Start Guide
How to Set Up Your SRX345 Services Gateway

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Single AC or DC Power Supply</th>
<th>Dual AC Power Supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (D x W x H)</td>
<td>14.57 in. x 17.36 in. x 1.72 in. (37.01 cm x 44.09 cm x 4.37 cm)</td>
<td>18.70 in. x 17.36 in. x 1.72 in. (47.49 cm x 44.09 cm x 4.37 cm)</td>
</tr>
<tr>
<td>Chassis weight</td>
<td>AC - 10.80 lb (4.89 kg)</td>
<td>14.33 lb (6.50 kg)</td>
</tr>
<tr>
<td></td>
<td>DC - 11.02 lb (5 kg)</td>
<td></td>
</tr>
<tr>
<td>Average power consumption</td>
<td>122 W</td>
<td>122 W</td>
</tr>
<tr>
<td>Average heat dissipation</td>
<td>420 BTU/hour</td>
<td>420 BTU/hour</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 untrust 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 0/15</td>
<td>ge-0/0/0 and ge-0/0/15</td>
<td>untrust</td>
<td>Client</td>
<td>Dynamically assigned</td>
</tr>
<tr>
<td>0/1 to 0/14</td>
<td>VLAN interface irb.0 (ge-0/0/1 to ge-0/0/14)</td>
<td>trust</td>
<td>Server</td>
<td>192.168.2.1/24</td>
</tr>
<tr>
<td>MGMT</td>
<td>fxp0</td>
<td>Server</td>
<td>192.168.1.1/24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cl-1/0/0</td>
<td>Server</td>
<td>192.168.11/24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dl0</td>
<td>untrust</td>
<td>ISP assigned*</td>
<td></td>
</tr>
</tbody>
</table>

* Only if the LTE Mini-PIM is present

Services

<table>
<thead>
<tr>
<th>Services</th>
<th>Protocols</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSH</td>
<td>RSTP (all interfaces)</td>
</tr>
<tr>
<td>HTTPS</td>
<td></td>
</tr>
<tr>
<td>NETCONF over SSH</td>
<td></td>
</tr>
</tbody>
</table>

Protocols

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

Screens

Basic set of screens are enabled on the untrust zone

Device Startup Mode

Switching

Initial Configuration Process

1. Install Device in a Rack
2. Connect the Grounding Cable
3. Power On the Device
4. Verify the Settings
5. Configure Using ZTP/J-Web
6. Connect to Management Device

**Install the Device in a Rack**

1. Position a mounting bracket on each side of the chassis. Use a Phillips (+) screwdriver, number 2 to install the screws that secure the mounting brackets to the chassis. Use either the front or center mount position.

2. 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.

3. Have a second person install a mounting screw into each of the two aligned holes. Use a number-2 Phillips screwdriver to tighten the mounting screws.

4. Install the second screw in each mounting bracket.

5. 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.

---

**Connect the Grounding Cable**

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 side of the chassis.

**NOTE:** The device should be permanently connected to ground during normal operation. A licensed electrician must attach a cable lug to the grounding cable. A cable with an incorrectly attached lug can damage the device.

4. Secure the grounding cable lug to the grounding point with the screws.
How to Set Up Your SRX345 Services Gateway

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. If you are using the AC model, perform the following steps:
   a. Insert the appliance coupler end of the power cord into the appliance inlet on the power supply faceplate.
   b. Insert the power cord plug into an external AC power source receptacle.
   c. Turn on the power to the AC power receptacle.

**NOTE:** If you are using a SRX345 Services Gateway with dual AC power supplies, then repeat Step 1 through Step 3 for the second power supply.

2. If you are using the DC model, perform the following steps:

**WARNING:** Before performing the following procedure, ensure that there is no power in the DC circuit. To ensure that all power is cut off, locate the circuit breaker on the panel board that services the DC circuit, switch the circuit breaker to the off (0) position, and tape the switch handle of the circuit breaker in the off position.

   a. Ensure that the voltage across the DC power source cable leads is 0 V and that the cable leads do not become active while you are connecting DC power.
   b. Verify that the DC power cables are correctly labeled before making connections to the power supply. In a typical power distribution scheme where the return is connected to chassis ground at the battery plant, you can use a multimeter to verify the resistance of the -48V and RTN DC cables to chassis ground:
      - The cable with very high resistance (indicating an open circuit) to chassis ground will be connected to the V- (input) DC power input terminal.
      - The cable with very low resistance (indicating a closed circuit) to chassis ground will be connected to the V+ (return) DC power input terminal.
   c. Remove the clear plastic cover from the terminal studs on the faceplate.
   d. Remove the screws on the terminals by using a Phillips (+) screwdriver, number 2.
   e. Secure the power source cables to the power supplies by screwing the ring lugs attached to the cables to the appropriate terminals by using the screw from the terminals.
      - Secure the positive (+) DC source power cable lug to the + (return) terminal.
      - Secure the negative (–) DC source power cable lug to the - (input) terminal.
   f. Replace the clear plastic cover over the terminal studs on the faceplate.
   g. Remove the tape from the switch handle of the circuit breaker on the panel board that services the DC circuit and switch the circuit breaker to the on (I) position.
3. Note the following LED indications. Wait until the status LED (STAT) 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 amber (power-off triggered).</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, mPIM3, and mPIM4</td>
<td>• Solid green (Mini-PIM is functioning normally).</td>
</tr>
<tr>
<td></td>
<td>• Solid red (Mini-PIM hardware failure).</td>
</tr>
<tr>
<td></td>
<td>• Off (Mini-PIM is not present or Mini-PIM is not detected by the device).</td>
</tr>
</tbody>
</table>

Connect the Management Device

1. To configure the device using J-Web (recommended), connect the management port MGMT to the Ethernet port on the management device, using an RJ-45 cable.

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.

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 fxp0 interface and L3 VLAN interface, irb.0 (interface ge-0/0/1 to ge-0/0/14, which is configured with an IP address of 192.168.2.1/24).

3. Connect port 0/0 or 0/15 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 40 (or later), or Google Chrome 55 (or later).

To configure the device by 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 by using J-Web, click Skip to J-Web and follow the procedure in the “Configure the Device Using J-Web” section.
How to Set Up Your SRX345 Services Gateway

Configure the Device Using ZTP with Juniper Networks Network Service Controller

Zero Touch Provisioning (ZTP) enables you to complete the initial configuration of the SRX345 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:

- 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 by 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)—Enables 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)—Enables 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—Enables 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.
How to Set Up Your SRX345 Services Gateway

Configure the Device Using the Guided Setup Mode

1. Select the expertise level as **Basic** or **Expert**.
   
   ![Setup Wizard](image)

   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>
</tbody>
</table>
   | Internet zone configuration options | • Static IP  
   |                                 | • Dynamic IP   | • Static IP  
   |                                 | • Static pool  | • Static pool   |
   |                                 | • Dynamic IP  |
   | Internal zone service configuration | Allowed   | Allowed |
   | Internal destination NAT configuration | Not allowed | Allowed |

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. Management interface
   d. 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**.

**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 management interface 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, management interface, and system time.

2. Configure the security policy – licenses.

3. Review the settings.

4. Click **Apply Settings**. Click **Done** to complete the setup.

**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 management interface IP. Click the URL for reconnection instructions on the Confirm & Apply page to reconnect, if required.

You can also configure the services gateway using the CLI, by connecting to the console port or the management port. For details, see the SRX345 Services Gateway Hardware Guide.
Verify the Settings

Access 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 SRX345 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 (**STAT**) is solid amber during this time.

Pressing and holding the **RESET CONFIG** button for 15 seconds or more, until the status LED (**STAT**) 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 about 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
- SRX345 Services Gateway Hardware Guide
- Supported Transceivers
  https://pathfinder.juniper.net/hct/product/#prd=SRX345