How to Set Up Your SRX1500 Services Gateway

The SRX1500 Services Gateway is a next generation secure connectivity services gateway for the cloud-enabled distributed enterprise edge and small to medium data centers. Its advanced security and threat mitigation capabilities makes the SRX1500 Services Gateway ideal for small to medium enterprises.

The SRX1500 Services Gateway has a modular 1-U chassis with twelve 1-Gigabit Ethernet ports, four 1-Gigabit Ethernet SFP ports, four 10-Gigabit Ethernet SFP+ ports, and a 120 GB SSD (with 100 GB usable space). The SRX1500 Services Gateway is available in both AC and DC models.

### Package Contents

- **SRX1500**
- **AC or DC power supply**
- **Mounting brackets**
- **AC power cable**
- **Screws**
- **RJ-45 cable**
- **USB cable**
- **DB-9 adapter**
- **End User License Agreement**
- **Safety Guide**
- **Quick Start Guide**
- **Warranty and Registration Information**

### Front Panel

- **1G Ethernet ports**
- **10G SFP+ ports**
- **HA Control port**
- **Serial Console port**
- **MGMT PIM slots**
- **Reset Config button**
- **Power button**
- **LEDs**
- **Mini-USB Console port**
- **USB port**
- **1G SFP ports**
- **WAN Port**
- **PIM slots**
- **ESD point**
- **Control point**
- **Air inlet**

### Back Panel

- **Grounding point**
- **Fans**
- **Power supply slots**

### Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (H x W x D)</td>
<td>17.5 in. x 17.5 in. x 18.2 in. (44.45 cm x 44.45 cm x 46.23 cm)</td>
</tr>
<tr>
<td>Chassis weight</td>
<td>15 lb. (6.8 kg)</td>
</tr>
<tr>
<td>Average power consumption</td>
<td>150 W</td>
</tr>
<tr>
<td>Maximum thermal output</td>
<td>300 BTU/hour</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>5% to 90%, noncondensing</td>
</tr>
<tr>
<td>Noise level</td>
<td>66.5 dBA</td>
</tr>
</tbody>
</table>

### NOTE:

The SRX1500 Services Gateway shipment package contains a packing list. 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.
Factory-Default Settings

### Interfaces

<table>
<thead>
<tr>
<th>Interface</th>
<th>Security Zone</th>
<th>DHCP State</th>
<th>IP Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>fxp0</td>
<td></td>
<td></td>
<td>192.168.1.1/24</td>
</tr>
<tr>
<td>ge-0/0/0</td>
<td>untrust</td>
<td>dynamically assigned</td>
<td>192.168.2.1/24</td>
</tr>
<tr>
<td>ge-0/0/1</td>
<td>trust</td>
<td></td>
<td>192.168.3.1/24</td>
</tr>
<tr>
<td>ge-0/0/2</td>
<td>trust</td>
<td></td>
<td>192.168.4.1/24</td>
</tr>
<tr>
<td>ge-0/0/3</td>
<td>trust</td>
<td></td>
<td>192.168.5.1/24</td>
</tr>
<tr>
<td>xe-0/0/16</td>
<td>trust</td>
<td></td>
<td>192.168.6.1/24</td>
</tr>
</tbody>
</table>

### 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>trust</td>
<td>permit</td>
</tr>
<tr>
<td>trust</td>
<td>untrust</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>

### Services

**Services**
- SSH
- HTTPS
- NETCONF over SSH

**Screens**
- Basic set of screens are enabled on the untrust zone

Initial Configuration Process

1. **Install Device in a Rack**
   - Position a mounting bracket on each side of the chassis. Use a number-2 Phillips screwdriver to install the screws that secure the mounting brackets to the chassis.

2. **Connect the Grounding Cable**
   - 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. **Power On the Device**
   - 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.

**NOTE:** Installing the device in a rack requires two people: one person lifts the device while the other secures it to the rack.

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2
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.

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### Connect the Grounding Cable

1. Attach an electrostatic discharge (ESD) grounding strap to your bare wrist, and connect the strap to the ESD point on the chassis.
2. Connect the grounding cable to a proper earth ground.
3. Place the grounding cable lug over the grounding point on the upper rear of the chassis.

**CAUTION:** 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 screw.
Power On the Device

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 and the power cord plug into an external AC power source receptacle. Use a power cord retainer to hold the power cord in place.
   b. Turn on the power to the AC power receptacle

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 each positive (+) DC source power cable lug to a RTN (return) terminal. Secure each negative (–) DC source power cable lug to a -48V (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 (1) 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>STAT</td>
<td>• Solid green (operating normally)</td>
</tr>
</tbody>
</table>
| ALARM | • Solid amber (noncritical alarm)  
            • Solid red (critical alarm)  
            • Off (no alarms) |
| SSD | • Blinking green (the services gateway is transferring data to or from the SSD storage device)  
            • Off (SSD storage device not present) |
| PWR | • Solid green (receiving power)  
            • Blinking green (receiving power—the services gateway is in the bootup phase before OS initialization)  
            • Solid red (power supply unit failure) |
| HA | • Solid green (all HA links are available)  
            • Solid amber (some HA links are unavailable)  
            • Solid red (device is inoperable because of a monitor failure) |
| RPS | • Solid green (redundant power supply is operating normally)  
            • Solid red (the redundant power supply is not operating normally)  
            • Off (no redundant power supply) |

Connect to the Console Port

1. Attach an ESD grounding strap to your bare wrist, and connect the strap to the ESD point on the chassis.
2. Plug one end of the Ethernet cable into the Console port on your services gateway.
3. Connect the other end of the Ethernet cable to the RJ-45—to—DB-9 serial port adapter supplied with your services gateway.
4. Connect the RJ-45—to—DB-9 serial port adapter into the serial port on the management device. Use the following values to configure the serial port:
   - Baud rate—9600; Parity—N; Data bits—8; Stop bits—1; Flow control—None.

   NOTE: Alternately, you can use the USB cable to connect to the mini-USB console port on the services gateway. To use the mini-USB console port, you must download a USB driver to the management device from the [Silicon Labs page](#).
Configure Root Authentication

Before you can use J-Web to configure your device, you must access the CLI to configure the root authentication and the management interface.

1. Log in to the device as root. When the device is powered on with the factory-default configuration, you do not need to enter a password.

2. At the (%) prompt, type cli to start the CLI and press Enter. The prompt changes to an angle bracket (>) when you enter the CLI operational mode.

   root%cli
   root>

3. At the (>) prompt, type configure and press Enter. The prompt changes from > to # when you enter the configuration mode.

   root> configure
   Entering configuration mode
   [edit]
   root#

4. Set the root authentication password by entering a cleartext password, an encrypted password, or an SSH public key string (DSA or RSA).

   root# set system root-authentication plain-text-password
   New password: password
   Retype new password: password

5. Configure the route for the management interface (optional, required only if you do not connect the MGMT port directly to the management device).

   root# set routing-options static route <destination prefix> next-hop <gateway>

6. Commit the configuration changes.

   root# commit

7. Connect the MGMT port on the device to the Ethernet port on the management device using an RJ-45 cable.

8. Configure an IP address on the 192.168.1.0/24 subnetwork for the management device. By default, the management interface is configured with the 192.168.1.1/24 IP address. If you need to change the IP address, perform the following steps or else proceed to Step 9:

   a. Delete the default management interface IP address:

      root# delete interface fxp0 unit 0 family inet address 192.168.1.1/24

   b. Configure a new IP address for the management interface:

      root# set interfaces fxp0 unit 0 family inet address/prefix-length

   c. Commit the configuration changes.

      root# commit

   d. Configure an IP address for the management device. Ensure that the IP address is on the same subnetwork as the management interface (fxp0).

9. Launch a Web browser from the management device and access the services gateway using the URL https://192.168.1.1. If you changed the management interface IP address in Step 8, then use the URL https://<management IP address> to access the services gateway.

   NOTE: As the system-generated certificate is not trusted by default, an alert is displayed. You can ignore this alert and proceed to access the services gateway.

   The J-Web login page is displayed. This indicates that you have successfully completed the initial configuration and that your SRX1500 Services Gateway is ready for use.

   Juniper Web Device Manager

   SRX1500

   Username
   Password

   Log In
10. Log in as root and proceed with configuring the settings based on your requirements.

Verify Device Operation
1. Connect port 0/0 to the ISP device to obtain a dynamic IP address.
2. Connect a laptop to the ge-0/0/1 port. In default configuration mode, the ge-0/0/1 port acts as a DHCP server and assigns an IP address and configuration settings such as nameserver and gateway IP address to the client (laptop).

Once this process is complete, open a webpage to verify that you can access the Internet. This ensures that you can pass traffic through the services gateway.

Power Off the Device
To power off the device, press the Power button on the front of the device and hold it for 10 seconds.

Reset the Configuration
Pressing and holding the **RESET CONFIG** button for 5 seconds or more deletes all configurations (backup configurations and rescue configuration) on the device, and loads and commits the factory configuration.

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

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

Reference
- Technical Support
  [http://www.juniper.net/support/requesting-support.html](http://www.juniper.net/support/requesting-support.html)
- SRX1500 Services Gateway Hardware Guide
- Supported Transceivers
  [https://pathfinder.juniper.net/hct/product/#prd=SRX1500](https://pathfinder.juniper.net/hct/product/#prd=SRX1500)