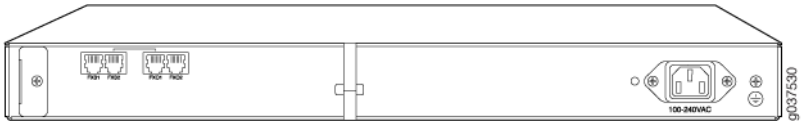
SRX240 Services Gateway

Use the instructions in this guide to help you connect the SRX240 Services Gateway to your network. For details, see the *SRX240 Services Gateway Hardware Guide* at http://www.juniper.net/techpubs/a058.html.

SRX240 Services Gateway (Low Memory and High Memory)

SRX240 Services Gateway with Power over Ethernet and with Integrated Convergence Services



SRX240 Services Gateway with Integrated Convergence Services (Back Panel)

The following four types of SRX240 Services Gateways are available:

Devices	DDR Memory	PoE	Voice Support
SRX240B	512 MB	No	No
SRX240H	1 GB	No	No
SRX240H-POE	1 GB	Yes	No
SRX240-P-MGW	1 GB	Yes	Yes

Note: *On the SRX240H-PoE and SRX240-P-MGW models, Power over Ethernet (PoE) of 150 watts is supported across all 16 ports (ge-0/0/0 to ge-0/0/15).*

PART 1 - CONNECTING AND CONFIGURING THE DEVICE

Use the instructions below to connect and set up the SRX210 Services Gateway to protect your network. Refer to the LEDs on the front panel of the device to help you determine the status of the device.

Step 1

Connect the power cable to the device and a power source. We recommend using a surge protector. Note the following indications:

- Power LED (solid green): The device is receiving power.
- Status LED (solid green): The device is operating normally.

Note: *You must allow the services gateway between five and seven minutes to boot up after you have powered it on. Wait until the Status LED is solid green before proceeding to the next step.*

Step 2

Connect the management device to the services gateway using either of the following methods:

- Connect an Ethernet cable from any one port between **ge-0/0/1** and **ge-0/0/15** to the Ethernet port on the management device (workstation or laptop).
  We recommend this connection method. If you are using this method to connect, proceed with Step 3.
- Connect an RJ-45 cable from the console port to the supplied DB-9 adapter, which then connects to the serial port on the management device. (Serial port settings: **9600 8-N-1-N**).
  If you are using this method to connect, proceed with the CLI configuration instructions available in the *Quickstart Guide for Branch SRX Series Services Gateways* at http://www.juniper.net/us/en/local/pdf/app-notes/3500153-en.pdf.

Step 3

Ensure that the management device acquires an IP address on the **192.168.1/24** subnetwork (other than **192.168.1.1**) from the device.

The interfaces have the following factory-default settings:

Interface	Security Zone	DHCP State	IP Address
ge-0/0/0	untrust	client	unassigned
ge-0/0/1 to **ge-0/0/15**	trust	server	192.168.1.1/24

Note:

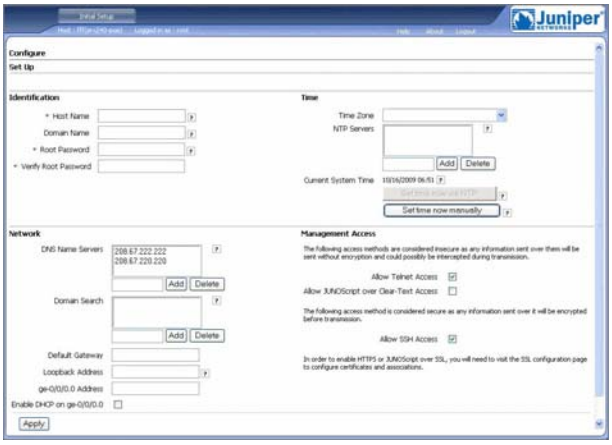
- *The services gateway functions as a DHCP server and will assign an IP address to the management device.*
- *If an IP address is not assigned to the management device, manually configure an IP address in the **192.168.1.0/24** subnetwork. Do not assign the **192.168.1.1** IP address to the management device, as this IP address is assigned to the device. By default, the DHCP server is enabled on the L3 VLAN interface, (IRB) vlan.0 (ports **ge-0/0/1** to **ge-0/0/15**), which is configured with an IP address of **192.168.1.1/24**.*
- *When an SRX240 Series Services Gateway is powered on for the first time, it boots using the factory default configuration.*

Step 4

Access the J-Web interface:

1. Launch a Web browser from the management device.
2. Enter **192.168.1.1** in the URL address field.
3. Specify the default username as **root**. Do not enter any value in the Password field.

4. Press **Enter**. The J-Web Initial Setup page is displayed.



Step 5

Configure the basic settings, such as Host Name, Domain Name, and Root Password for your services gateway.

Important: *Ensure that you have configured the root password before you apply the configuration.*

Note: *All fields marked with an asterisk (*) are mandatory.*

Step 6

Click **Apply** to apply the configuration.

Step 7

Configure an interface as follows:

1. In the J-Web interface, select the Configure tab.
2. Under the Interface Name column, click on the interface you want to configure.
3. Click the existing logical interface.
4. Make sure that **Enable Ethernet Switching** is unchecked.
5. Under **IPv4 Addresses and Prefixes**, click **Add**.
6. In the IPv4 Address and Prefix fields, enter an IP address and a subnet mask.

Note: *You can either configure an IPV4 address to a physical interface or you can make it part of the L2 VLAN. By default, all ports except the* ***ge-0/0/0*** *port are in the L2 VLAN.*

Note: *Before configuring the IPV4 address, the interface should be removed from the VLAN.*

Note: *To remove the interface from the VLAN:*

a. In the J-Web interface, under the Configure tab, navigate to ***Switching > VLAN****.*

b. Under the VLAN name, select the VLAN and click ***Edit*** *to select and remove the interface from the VLAN.*

Note: *By default, Ethernet switching is enabled on the* ***ge-0/0/1*** *to* ***ge-0/0/15*** *ports.*

7. Click **OK** to save the changes and click **Commit** to apply the changes. The configured IP address is included in the Address Prefix column.

Step 8

Security policies have the following factory-default settings:

Source Zone	Destination Zone	Policy Action
trust	untrust	permit
untrust	trust	deny

Note: *By default, the security policy is Deny-all.*

The NAT rule has the following factory-default setting:

Source Zone	Destination Zone	Policy Action
trust	untrust	Source NAT to untrust zone interface IP address

Note: *By default,* ***ge-0/0/1*** *to* ***ge-0/0/15*** *are in the trust zone and* ***ge-0/0/0*** *is in the untrust zone.*

To add an interface to a specific, preconfigured zone:

1. In the J-Web interface, under the Configure tab, navigate to **Security > Zones**.
2. Under Zones Lists, click **Add** and enter a name for the zone in the Zone Name field
3. Under Interfaces In This Zone, add an interface to a specific zone.
4. Click **OK** to save the changes and click **Commit** to apply the changes.

Step 9

Modify the security policy as follows:

1. In the J-Web interface, under the Configure tab, navigate to **Security > Policy**.
2. Select the zone directions. For more information on configuring zones, see the *JUNOS Security Configuration Guide.*

PART 2 - CONNECTING AND CONFIGURING THE MEDIA GATEWAY

Use the instructions below to configure voice support on the services gateway and get started using your device to place and receive calls.

Step	Task	Step	Task	Step	Task
1	Connect the FXO and FXS ports.	5	Configure the analog station.	9	Create the dial plan.
2	Access the J-Web Interface.	6	Configure the peer call server.	10	Configure the media gateway.
3	Configure the class of restriction.	7	Configure a trunk.	11	Configure the survivable call server.
4	Configure the SIP station.	8	Configure trunk groups.		

Step 1

Connect the FXO and FXS ports:

1. Connect an FXS port (**FXS1** or **FXS2)** on the device to an analog device such as a telephone, fax, or modem through an RJ-11 cable.
2. Connect an FXO port (**FXO1** or **FXO2**) on the device to the central office (CO) switches or to a station port on a PSTN through an RJ-11 cable.
3. Connect an Ethernet cable from any of the PoE ports (**ge-0/0/0** through **ge-0/0/15**) to the VoIP phone.

Step 2

Access the J-Web interface:

1. Launch a Web browser from the management device.
2. Log on using the credentials you set during the initial configuration described in Part 1.
3. The J-Web Dashboard page is displayed.

Step 3

Configure the class of restriction to define the policy dedicated for specifying call type permissions:

1. Select **Configure > Convergence Services > Station > Class of Restriction.** The Class of Restriction Configuration page is displayed.
2. Click **Add** to create a new class of restriction. The New Class of Restriction page is displayed.
3. Enter the name in the Class of Restriction field.
4. Click **Add** to add a new policy to the class of restriction you are creating. The New Policy Configuration page is displayed.
5. Perform the following actions:

Field	Action
Policy Name	Specify a name for the policy.
Available Call Types	Select the call types applicable to your setup.
Permissions	Set permissions (allow or deny) on the selected call types.

Note: *By default, only intra-branch calls and emergency calls are allowed.*

Step 4

Configure the SIP station:

Note: *For initial configuration of the device, you do not need to configure the station templates. You can use the default values.*

1. Select **Configure > Convergence Services > Station**. The Station Configuration page is displayed.
2. Click **Add** to add the new station.
3. Perform the following mandatory basic actions:

Field	Action
Name	Specify a name for the station.
Extension	Enter the extension number of the station.
Class of Restriction	Select the already configured class of restriction.
Template Name	Select the already defined station template.

You can configure the analog templates to be similar so that they can share a common configuration.

Step 5

Configure the analog station:

1. Select **Configure > Convergence Services > Station**. The Station Configuration page is displayed.
2. Click **Add** to add the new station.
3. Perform the following mandatory basic actions:

Field	Action
Name	Specify a name for the station.
Extension	Enter the extension number of the station.
Class of restriction	Select the already configured class of restriction.
Template Name	Select the already defined station template.
TDM Interface	Specify the type of TDM interface to be configured (FXO, FXS, or T1).

Note: *You can configure the individual SIP stations similarly so that they can share a common configuration.*

Step 6

Configure the peer call server that provides call routing and call handling services for the device:

1. Select **Configure > Convergence Services > Call Server**. The Peer Call Server Configuration page is displayed.
2. Perform the following mandatory basic actions:

Field	Action
Name	Specify a name for the peer call server.
PSTN Access Number	Specify an external PSTN number for the survivable call server to use if it must contact the PSTN directly.
Address Type	Select the address type as **fqdn** or **ipv4-address**.
FQDN	Enter the fully qualified domain name.
IP Address	Enter the IP address of the peer call server.

Note: *For the device to authenticate itself to the peer call server, you might need to provide the device user ID and password details as provided by the peer call server's administrator.*

Note: *You can accept the default values in the Port (5060) and Transport (UDP) fields.*

Note: *For initial configuration of the device, you do not need to specify the codec. The default set of codecs is used. By default, codecs are specified in the following order:*
711-μ, G711-A, G729AB

Step 7

Configure a trunk for a PSTN time-division multiplexing (TDM) interface to be used by the device or the survivable call server to route calls to the destination.

1. Select **Configure > Convergence Services > Gateway > Trunks**. The New Trunk Configuration page is displayed.
2. Perform the following actions:

Field	Action
Trunk Name	Enter a name for the trunk.
Trunk Type	Select the trunk type (FXO, FXS, or T1).
TDM Interface	Select the type of TDM interface to be configured (FXO, FXS, or T1) to route certain types of calls.

Step 8

Configure the trunk groups. A trunk group comprises multiple trunks specified in the order of precedence in which they must be selected to route a call.

1. Select **Configure > Convergence Services > Gateway > Trunk Groups**. The Trunk Group Configuration page is displayed.
2. Click **Add** to create a new trunk group.
3. Perform the following mandatory actions:

Field	Action
Name	Specify a name for the trunk group.
Available Trunks	Select the trunks applicable to your setup.

Step 9

Create the dial plan to enable the peer call server to route outbound calls placed from SIP telephones / analog stations at the branch to its PSTN:

1. Select **Configure > Convergence Services > Dial Plan > Dial Plan**. The Dial Plan Configuration page is displayed.
2. Click **Add** to create a new dial plan. The New Dial Plan Configuration page is displayed.
3. Enter a name in the Dial Plan Name field and click **Add**. The New Route Pattern Configuration page opens.
4. Perform the following mandatory basic actions:

Field	Action
Route Pattern	Specify the route pattern name.
Call type	Select the call type. The default is trunk-call.
Trunk-groups	Select the preconfigured trunk groups to include in the route pattern.

Note: *You can accept the default values for the Preference and Digit Manipulation fields.*

Step 10

Configure the media gateway to enable users to place calls within the branch and externally when the peer call server is accessible to provide call routing and other call handling services:

1. Select **Configure > Convergence Services > Media Gateway > Gateway**.
   The Media Gateway Configuration page is displayed.
2. Click **Add** and enter the following mandatory settings:

Field	Action
Media Gateway	Specify the device name.
Call Server	Select a peer call server to associate with.
Dial Plan	Select a preconfigured dial plan.
Zone	Specify the service point for the device's zone to enable the media gateway and survivable call server services for the specified zone.

Note: *You can accept the default values in the Port (5060) and Transport (UDP) fields.*

Step 11

Configure the survivable call server. This server assumes the responsibilities of the peer call server when the peer call server is unreachable.

1. Select **Configure > Convergence Services > Call Service**.
   The Survivable Call Service Configuration page is displayed.
2. Click **Add** to create a new call service and perform the following mandatory basic actions:

Field	Action
Call Service Name	Specify a name for the call service.
Call Server	Select the peer call server name.
Dial Plan	Select the preconfigured dial plan to be used for the survivable call server.
Zone	Specify the name of the zone.

Note: *All other parameters required to configure the call service are optional and you can accept the default values set for these parameters.*

PART 3 - POWERING OFF THE DEVICE

You can power off the device in one of the following ways:

- **Graceful shutdown**—Press and immediately release the Power button. The device begins gracefully shutting down the operating system.
- **Immediate shutdown**—Press the Power button and hold it for 10 seconds. The device immediately shuts down. Press the Power button again to power on the device.

  Note: *You can reboot or halt the system in the J-Web interface by selecting* ***Maintain > Reboot****.*

For additional configuration information, see the *Quickstart Guide for Branch SRX Series Services Gateways* at http://www.juniper.net/us/en/local/pdf/app-notes/3500153-en.pdf.

For detailed software configuration information, see the software documentation available at http://www.juniper.net/techpubs/software/junos-srx/index.html.

P/N 530-031223 Rev. 01