

## Chapter 23

# Adding VPNs from JUNOS Routing Platforms with the SRC CLI

This chapter describes how to represent virtual private networks (VPNs) in an SRC configuration, and how to view and update extranet configuration through the SRC CLI. Topics include:

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### Before You Add a JUNOS VPN to the SRC Configuration

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Before you can add a VPN to an SRC configuration, you must configure the VPN. Before you configure the VPN, make sure that in the routing scheme in the VPN:

- All members in the VPN can reach other.
- No changes are needed as members are added to and removed from the VPN.

If a VPN is used as an intranet, you can ensure that the routing scheme meets these requirements by configuring either:

- Static routes in the VPN
- Appropriate routing protocols

If the VPN is exported as an extranet, some members of the VPN may use private or conflicting address schemes. In addition, if the VPN has a large number of potential members, configuring static routing or routing protocols for all potential members may not be a manageable proposition. In these last two cases, we recommend that you use public addresses in the VPN and have VPN members implement Network Address translation (NAT) for traffic destined for the VPN.

VPNs use private IP addresses. If, however, enterprises that you administer export VPNs to extranet clients, you must ensure that the extranet clients can reach the IP addresses that the VPNs use. To implement an address scheme that allows all subscribers who have access to a VPN, we recommend that you implement NAT on the JUNOS routing platform. IT managers in the retailers and enterprises who own the VPNs can then map private IP addresses in the VPNs to public IP addresses, which extranet clients can reach.

For information about configuring NAT, see *Chapter 30, Using NAT Address Management Portal*.

Before you can reference a JUNOS VPN from the SRC configuration:

1. Create one routing instance in each router where VPN members access the VPN.
2. Make sure that each routing instance in the VPN has the same name as the VPN. The VPN represents the collection of the routing instances, the VPN members, and the connections between those routing instances within the VPN. All routing instances share a VPN ID, which you use to add VPNs to an SRC configuration.
3. Connect the VPN through a tunnel such as an MPLS label-switched path or IP Security tunnel.

## Configuring VPNs to Integrate into an SRC Network

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For SRC configurations that support JUNOS routers, you can add VPNs and extranets for retailers and enterprises.

For C-series platforms, you add VPNs through the CLI and can manage the VPNs through an enterprise portal that runs on another system.

See *Chapter 29, Managing Services with Enterprise Manager Portal* and *Chapter 31, Using the Sample Enterprise Service Portal*.

## Configuration Statements for Adding VPNs and Extranet Clients

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Use the following configuration statements to add VPNs and extranet clients at the [edit] hierarchy level.

```
subscribers retailer name vpn vpn-id {
  description description;
  display-name display-name;
  extranet-client [extranet-client ...];
  imported-extranet [imported-extranet...];
}
```

```

subscribers retailer name subscriber-folder folder-name enterprise name vpn vpn-id {
  description description;
  display-name display-name;
  extranet-client [extranet-client ...];
  imported-extranet [imported-extranet...];
}

```

For detailed information about each configuration statement, see the *SRC-PE CLI Command Reference*.

## Adding VPNs for Retailers and Enterprises

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When you add a VPN to the SRC configuration, you are creating a VPN configuration object that represents a VPN that is already configured in the network. You can add a VPN for a retailer or for an enterprise.

Before you add a VPN to the configuration, obtain the identifier for the VPN. This identifier is the name of the routing instances on a JUNOS routing platform that implements the VPN.

To add a VPN to subscriber configuration for a retailer or an enterprise:

1. From configuration mode, access the configuration statement that configures the VPN.

```

[edit]
user@host# edit subscribers retailer name vpn vpn-id

```

or

```

[edit]
user@host# edit subscribers retailer name subscriber-folder folder-name
enterprise name vpn vpn-id

```

where *vpn-id* is the name of the routing instances on a JUNOS routing platform that implements the VPN.

2. (Optional) Provide a name to identify the VPN as it appears in other SRC components, such as the Enterprise Manager Portal or other login pages.

```

[edit subscribers retailer name vpn vpn-id]
user@host# edit display-name display-name

```

For example, to label the VPN as one used for video conferences with corporate partners:

```

[edit subscribers retailer name vpn vpn-id]
user@host# edit display-name "Partner Video Conference"

```

3. (Optional) Add a description of the VPN.

```
[edit subscribers retailer name vpn vpn-id]
user@host# edit description description
```

For example:

```
[edit subscribers retailer name vpn vpn-id]
user@host# edit description "VPN for video conference with partners"
```

4. Verify that the configuration is correct. For example:

```
[edit subscribers retailer Acme vpn 1234]
user@host# show
display-name "Partner Video Conference";
description "VPN for video conference with partners.";
```

## Verifying and Updating Configuration of Extranets for VPNs

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From the SRC CLI, you can correct errors in extranet configuration when these errors result from directory or portal errors. In the extranet configuration, an extranet client of an object must be imported by that object.

In the SRC configuration for a subscriber that is the client of an extranet client, you specify a VPN for the imported extranet client. Typically, you add the extranet client and specify the imported extranet from the Enterprise Manager Portal. You can use the SRC CLI to verify the configuration and to make updates to the existing configuration.

To view information about extranet configuration and update it:

1. From configuration mode, access the configuration statement that represents the configuration for the VPN.

```
[edit]
user@host# edit subscribers retailer name vpn vpn-id
```

or

```
[edit]
user@host# edit subscribers retailer name subscriber-folder folder-name
enterprise name vpn vpn-id
```

where *vpn-id* is the name of the routing instances on a JUNOS routing platform that implements the VPN.

2. View the configuration for the VPN. For example:

```
[edit subscribers retailer Acme vpn 1234]
user@host# show
extranet-client [ "enterpriseName=Acme, ou=local, retailername=default,
o=Users,
o=umc" "enterpriseName=WidgetCo, ou=local, retailername=default, o=Users,
o=UMC "];
```

3. (Optional) Change or add the distinguished name (DN) of a retailer or an enterprise that is an extranet client of this VPN.

```
[edit subscribers retailer name vpn vpn-id]
user@host# set extranet-client extranet-client
```

For example:

```
[edit subscribers retailer name vpn vpn-id]
user@host# set extranet-client
enterpriseName=Acme2,ou=local,retailername=default, o=Users, o=umc
```

4. (Optional) Change or add extranets to be imported by specifying the DN of the extranet.

```
[edit subscribers retailer name vpn vpn-id]
user@host# set imported-extranets imported-extranets
```

You can specify one or more extranets.

5. Verify that the updated configuration is correct.

```
[edit subscribers retailer name vpn vpn-id]
user@host# show
[edit subscribers retailer Acme vpn 1234]
user@host# show
extranet-client [ "enterpriseName=Acme, ou=local, retailername=default,
o=Users,
  o=umc" "enterpriseName=Acme2, ou=local, retailername=default, o=Users,
  o=umc""enterpriseName=WidgetCo, ou=local, retailername=default, o=Users,
o=UMC "];
```

