

Adding JUNOSe Routers and Virtual Routers with the CLI

The SAE uses router and virtual router objects to manage interfaces on JUNOSe virtual routers. Each JUNOSe router in the SRC network and its virtual routers (VRs) must have a configuration.

There are two ways to add routers:

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Adding Operative JUNOSe Routers and Virtual Routers

To add routers and JUNOSe VRs that are currently operative and have an operating SNMP agent:

- In operational mode, enter the following command:

```
user@host> request network discovery network network <community  
community>
```

where:

- *network* —Address (with or without mask) of the network to discover
- *community* —Name of the SNMP community to which the devices belong

If you add a router using the discover network feature, the software adds the IP address of the first SNMP agent on the router to respond to the discover request.

After you add routers and JUNOSe VRs through network discovery, configure the virtual router's managing SAE address.

Adding Routers Individually

Use the following configuration statements to add a router:

```
shared network device name {  
  description description ;  
  management-address management-address ;  
  device-type (junose| junos| pcmm| third-party);  
  qos-profile [ qos-profile ...];  
}
```

To add a router:

1. From configuration mode, access the configuration statements that configure network devices. You must specify the name of a device with lowercase characters. This procedure uses `junose_boston` as the name of the router.

```
user@host# edit shared network device junose_boston
```

The same procedure can be used for JUNOS routers.

2. (Optional) Add a description for the router.

```
[edit shared network device junose_boston]
user@host# set description description
```

3. (Optional) Add the IP address of the router.

```
[edit shared network device junose_boston]
user@host# set management-address management-address
```

4. (Optional) Specify the type of device that you are adding.

```
[edit shared network device junose_boston]
user@host# set device-type junose
```

5. (Optional) Specify quality of service (QoS) profiles that are configured on the router.

```
[edit shared network device junose_boston]
user@host# set qos-profile [ qos-profile ...]
```

6. (Optional) Verify your configuration.

```
[edit shared network device junose_boston]
user@host# show
description "Juniper Networks E320";
management-address 10.10.8.27;
device-type junose;
qos-profile dhcp-default;
interface-classifier {
  rule rule-0 {
    script #;
  }
}
```

Adding Virtual Routers Individually

Use the following configuration statements to add a virtual router:

```
shared network device name virtual-router name {
  sae-connection [ sae-connection ...];
  snmp-read-community snmp-read-community ;
  snmp-write-community snmp-write-community ;
  scope [ scope ...];
  local-address-pools local-address-pools ;
  static-address-pools static-address-pools ;
  tracking-plug-in [ tracking-plug-in ...];
}
```

To add a virtual router:

1. From configuration mode, access the configuration statements for virtual routers. You must specify the name of a device with lowercase characters. This procedure uses `junose_Boston` as the name of the router and `vr1` as the name of the virtual router.

```
user@host# edit shared network device junose_boston virtual-router vr1
```

2. Specify the addresses of SAEs that can manage this router. This step is required for the SAE to work with the router.

```
[edit shared network device junose_boston virtual-router vr1]  
user@host# set sae-connection [ sae-connection ...]
```

To specify the active SAE and the redundant SAE, enter an exclamation point (!) after the hostname or IP address of the connected SAE. For example:

```
[edit shared network device junose_boston virtual-router vr1]  
user@host# set sae-connection [sae1! sae2!]
```

3. (Optional) Specify an SNMP community name for SNMP read-only operations for this VR.

```
[edit shared network device junose_boston virtual-router vr1]  
user@host# set snmp-read-community snmp-read-community
```

4. (Optional) Specify an SNMP community name for SNMP write operations for this virtual router.

```
[edit shared network device junose_boston virtual-router vr1]  
user@host# set snmp-write-community snmp-write-community
```

5. (Optional) Specify service scopes assigned to this virtual router. The scopes are available for subscribers connected to this virtual router for selecting customized versions of services.

```
[edit shared network device junose_boston virtual-router vr1]  
user@host# set scope [ scope ...]
```

6. (Optional) Specify the list of IP address pools that a JUNOS virtual router currently manages and stores.

```
[edit shared network device junose_boston virtual-router vr1]  
user@host# set local-address-pools local-address-pools
```

7. (Optional) Specify the list of IP address pools that a JUNOS VR manages but does not store.

```
[edit shared network device junose_boston virtual-router vr1]  
user@host# set static-address-pools static-address-pools
```

8. (Optional) Specify the plug-ins that track interfaces that the SAE manages on this virtual router.

```
[edit shared network device junose_boston virtual-router vr1]
user@host# tracking-plugin [ tracking-plugin ...]
```

9. (Optional) Verify your configuration.

```
[edit shared network device junose_boston virtual-router vr1]
user@host# show
sae-connection 192.168.10.25;
  snmp-read-community *****;
  snmp-write-community *****;
  scope POP-Boston;
local-address-pools "(10.25.8.0 10.25.20.255)";
static-address-pools "({10.30.30.0/24,10.30.30.0,10.30.30.255})";
tracking-plugin flexRadius;
```