Chapter 6
Adding Objects for CMTS Devices with the SRC CLI

This chapter describes how to add objects for cable modem termination system (CMTS) devices with the SRC CLI.

You can also use the following to add objects for CMTS devices:

- To use the C-Web interface, see *SRC-PE C-Web Interface Configuration Guide, Chapter 19, Adding Objects for CMTS Devices with the C-Web Interface*.

- To use SDX Admin, see *Chapter 7, Adding Objects for CMTS Devices to the Directory with SDX Admin*.

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Adding Objects for CMTS Devices with the SRC CLI

To manage CMTS devices, the SAE creates and manages pseudointerfaces that it associates with a virtual router object. Each CMTS device in the SRC network must appear in the configuration as a router object, and it must be associated with a virtual router object called default. The router and virtual router are not actually configured on the CMTS device; the router and virtual router provide a way for the SAE to manage the CMTS device by using the SAE's embedded policy server.

Use the following configuration statements to add a router object:

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

To add a router:

1. From configuration mode, access the configuration statements that configure network devices. In this sample procedure, pcmm_dtr is the name of the object.

   user@host# **edit shared network device pcmm_dtr**

2. (Optional) Add a description for the CMTS device.

   [edit shared network device pcmm_dtr]
   user@host# **set description** *description*

3. Add the IP address of the CMTS device.

   [edit shared network device pcmm_dtr]
   user@host# **set management-address** *management-address*

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

   [edit shared network device pcmm_dtr]
   user@host# **set device-type pcmm**

5. (Optional) Verify your configuration.

   ```
   [edit shared network device pcmm_dtr]
   user@host# show
   description "CMTS device";
   management-address 192.168.3.5;
   device-type pcmm;
   interface-classifier {
     rule rule-0 {
       script #;
     }
   }
   ```

Creating Virtual Routers for the CMTS Device with the SRC CLI

You need to add a virtual router object called default to the CMTS device. 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. In this sample procedure, pcmm_dtr s the name of the router and default as the name of the virtual router.

   user@host# **edit shared network device pcmm_dtr virtual-router default**

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 pcmm_dtr virtual-router default]
   user@host# **set sae-connection** [*sae-connection*...]

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

   [edit shared network device pcmm_dtr virtual-router default]
   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 pcmm_dtr virtual-router default]
   user@host# **set snmp-write-community** *snmp-write-community*

5. (Optional) Specify service scopes assigned to this virtual router.

   See *SRC-PE Services and Policies Guide, Chapter 1, Managing Services with the SRC CLI*.

   [edit shared network device pcmm_dtr virtual-router default]
   user@host# **set scope** [*scope*...]

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

   If you are using assigned IP subscribers along with the network information collector (NIC), you need to configure either a local or static address pool so that the NIC can resolve the IP-to-SAE mapping.

   [edit shared network device pcmm_dtr virtual-router default]
   user@host# **set local-address-pools** *local-address-pools*

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

   If you are using assigned IP subscribers along with the NIC, you need to configure either a local or static address pool so that the NIC can resolve the IP-to-SAE mapping.

   [edit shared network device pcmm_dtr virtual-router default]
   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 pcmm_dtr virtual-router default]
user@host# **tracking-plug-in** [*tracking-plug-in*...]

9. (Optional) Verify your configuration.

```
[edit shared network device pcmm_dtr virtual-router default]
user@host# show
sae-connection [ 10.14.39.2 10.10.5.30 ];
snmp-read-community ********;
snmp-write-community ********;
scope POP-Westford;
local-address-pools "10.25.8.0 10.25.20.255";
tracking-plug-in rksPlugin;
```