Setup Cisco Optical Site Manager

This chapter describes the tasks related to standalone Cisco Optical Site Manager configuration and activating Cisco Optical Site Manager.

Setting up Cisco Optical Site Manager invoves the following tasks:

Enable Netconf

Using the Network Configuration Protocol (NETCONF) over the Secure Shell Version 2 (SSHv2), you can securely configure networks through the Cisco command-line interface (CLI). The NETCONF client, also known as the NETCONF Network Manager, must communicate with the NETCONF server using Secure Shell Version 2 (SSHv2) as the network transport. The NETCONF server allows multiple NETCONF clients to connect to it for network configuration purposes.

To enable netconf, perform these steps:

Procedure

Step 1 **configure terminal**
Enters the configuration mode.

Step 2 **netconf-yang agent ssh**

Example:

```
RP/0/RSP0/CPU0:ios(config)# netconf-yang agent ssh
```

Enables NETCONF agent over SSH connection.

Step 3 **ssh server v2**.

Example:

```
RP/0/RP0/CPU0:ios(config)# ssh server v2
```

If you choose the **ssh server v2** command, only the SSH v2 client connections are accepted.

Step 4 **ssh server rate-limit** *rate-limit*.

Example:

```
RP/0/RP0/CPU0:ios(config)# ssh server rate-limit 600
```

limit the number of incoming SSH connection requests allowed per minute to 600.

Step 5 **ssh server netconf**
Brings up the netconf subsytem support with SSH server.

Step 6 Commit the changes using the **commit** command.

Standalone Cisco Optical Site Manager Configuration

You can also configure Cisco Optical Site Manager in Standalone mode. After configuring the Cisco Optical Site Manager interfaces, you need to set up the Cisco Optical Site Manager admin user ID and password. Additionally, you must configure the management interface of the node on which Cisco Optical Site Manager is installed.

To configure Cisco Optical Site Manager in standalone mode, perform these steps:

Procedure

Step 1 **configure terminal**

Example:

```
RP/0/RP0/CPU0:ios#configure terminal
```

Enters the XR configuration mode.

Step 2 **cosm**

Example:

```
RP/0/RSP0/CPU0:ios(config)# cosm
```

Enters the Cisco Optical Site Manager configuration mode.

Step 3 (Optional) **optical-type olt**.

Example:

```
RP/0/RP0/CPU0:ios(config-cosm)# optical-type olt
```

If optical-type is not specified, it is auto-detected from chassis PID. Available options: *ila*, *olt*, and *txp*.

Step 4 **mgmt-interface-name MgmtEth** *R/S/I/P*.

Example:

```
RP/0/RP0/CPU0:ios(config-cosm)# mgmt-interface-name MgmtEth 0/RP0/CPU0/0
```

Step 5 **user-name** *user name*.

Example:

```
RP/0/RP0/CPU0:ios(config-cosm)# user-name cisco
```

Note For automatic onboarding of peer devices, the configured credentials must match those of all devices on the network.

Step 6 **user-password** *password*.

Example:

```
RP/0/RP0/CPU0:ios(config-cosm)# user-password ***
```

Step 7 (Optional) From R24.3.1, enable auto-onboarding of the Cisco Optical Site Manager host devices.

Example:

```
RP/0/RP0/CPU0:ios(config-cosm)#cosm auto-onboard enable
```

Step 8 Commit the changes using the **commit** command.

Example:

```
RP/0/RP0/CPU0:ios(config-cosm) commit
```

Step 9 Exit the configuration mode.

Example:

```
RP/0/RP0/CPU0:ios(config-cosm) end
```

Step 10 Verify the configuration.

Example:

```
RP/0/RP0/CPU0:ios#show running-config cosm
Fri Oct 18 12:53:47.056 UTC
cosm
 optical-type olt
 auto-onboard enable
 mgmt-interface-name Loopback1
!
```

The configured *user-name* and *user-password* are not displayed in the output of the **show running-config cosm** command.

Activate Cisco Optical Site Manager

Once you have finished configuring the Cisco Optical Site Manager standalone, you need to activate it.

To activate Cisco Optical Site Manager, perform these steps:

Procedure

Step 1 **cosm activate**.

Example:

```
RP/0/RP0/CPU0:ios# cosm activate
```

Activates Cisco Optical Site Manager.

Step 2 **show cosm status**.

Example:

```
RP/0/RP0/CPU0:OLT-2#show cosm status
Fri Oct 18 13:06:09.862 UTC
COSM state: APP_ACTIVATED
AppMgr app state: ACTIVATED
AppMgr container state: RUNNING
Container status: Up 3 weeks
Last error: No error
COSM version: 24.3.1.D0186
```

Note It may a few minutes to activate Cisco Optical Site Manager. After activating, wait a few minutes before logging into the Cisco Optical Site Manager GUI.

Enable or Disable Cisco Optical Site Manager Interfaces

Cisco Optical Site Manager provides three control interfaces: NETCONF, RESTCONF, and an interactive Web-UI. By default, all these interfaces are enabled. If required, individual interfaces can be disabled and the NETCONF port can be changed. Ensure that you make these changes before activating Cisco Optical Site Manager.

To enable or disable Cisco Optical Site Manager interfaces, perform these steps:

Procedure

Step 1 **configure terminal**

Example:

```
RP/0/RP0/CPU0:ios#configure terminal
```

Enters the XR configuration mode.

Step 2 **cosm**

Example:

```
RP/0/RSP0/CPU0:ios(config)# cosm
```

Enters the Cisco Optical Site Manager configuration mode.

Step 3 (Optional) Configure the NETCONF port if you want to use a port other than 2022.

Example:

```
RP/0/RP0/CPU0:ios(config-cosm)#netconf port 2021
```

Configures the specified port for the NETCONF SSH server. If no port is specified, port 2022 is used by default.

Step 4 Enable the Cisco Optical Site Manager interface.

Example:

```
RP/0/RP0/CPU0:ios(config-cosm)# netconf enable
RP/0/RP0/CPU0:ios(config-cosm)# restconf disable
RP/0/RP0/CPU0:ios(config-cosm)# webui enable
```

Enables or disables the specified Cisco Optical Site Manager interfaces.

Step 5 Commit the changes using the **commit** command.