



# Setup Cisco Optical Site Manager

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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 involves the following tasks:

- [Enable Netconf, on page 1](#)
- [Standalone Cisco Optical Site Manager Configuration, on page 2](#)
- [Activate Cisco Optical Site Manager, on page 3](#)
- [Deactivate Cisco Optical Site Manager, on page 4](#)
- [Enable or Disable Cisco Optical Site Manager Interfaces, on page 5](#)

## 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

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**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 subsystem 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/RP0/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.

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## 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

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**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**

The configuration of interfaces used by Cisco Optical Site Manager should not be changed after activation.

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

## Deactivate Cisco Optical Site Manager

Deactivating Cisco Optical Site Manager should be performed only when:

- A change in the IP address of the Cisco Optical Site Manager instance is required.
- The deployment is transitioning from a standalone setup to a high availability (HA) configuration.
- The device hosting Cisco Optical Site Manager is being decommissioned and needs to be relocated to another device within the same aggregation site.
- The Cisco Optical Site Manager installation is incomplete or corrupted, and requires removal and reinstallation.



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**Note**    Deactivating Cisco Optical Site Manager for general debugging or troubleshooting is not recommended.

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Follow these steps to deactivate Cisco Optical Site Manager:

**Before you begin**

Before deactivating Cisco Optical Site Manager:

- Create a backup of Cisco Optical Site Manager database. For more details, see [Backup and Download Database](#).
- Download the current diagnostic logs in case required for troubleshooting. For more details, see [View Cisco Optical Site Manager Diagnostics](#).

## Procedure

**Step 1** Deactivate Cisco Optical Site Manager.

**cosm deactivate**

**Example:**

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

**Step 2** Verify the status of the Cisco Optical Site Manager instance.

**show cosm status.**

**Example:**

```
RP/0/RP0/CPU0: ios#show cosm status
COSM state: APP DEACTIVATED
AppMgr app state: DEACTIVATED
AppMgr container state: UNKNOWN
Container status: Not present
Last error: No error
COSM version: 24.3.1.D0186
```

# 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/RP0/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.

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