



## Configure High Availability

This chapter describes how to configure Cisco Optical Site Manager in High Availability (HA).

**Table 1: Feature History**

Feature Name	Release Information	Description
Cisco Optical Site Manager High Availability	Cisco IOS XR Release 24.3.1	You can now configure Cisco Optical Site Manager with High Availability (HA). In this setup, if the primary device hosting Cisco Optical Site Manager fails, another device configured with HA will take over immediately, minimizing downtime and maintaining operational continuity.

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## Cisco Optical Site Manager High Availability

To ensure operational continuity, the Cisco Optical Site Manager High Availability (HA) feature allows you to designate a backup Cisco Optical Site Manager to manage devices. With HA, the system supports Active/Standby roles: one application operates as the active application managing the devices, while the standby application remains inactive in device management.

This setup enables the standby Cisco Optical Site Manager to take over the active application's role in case of a failure. The active unit replicates data for both applications and shares information with the standby application as required.

Cisco Optical Site Manager HA can be deployed on a network having:

- two host devices and Cisco Optical Site Manager in the same subnet.
- two host devices in the same subnet, with Cisco Optical Site Manager on another subnet.
- two host devices in different subnets.

- two host devices in the same subnet, and using the loopback interface as the Cisco Optical Site Manager interface.

## Configure High Availability

To configure Cisco Optical Site Manager HA, perform these steps:

### Before you begin

Before activating Cisco Optical Site Manager in HA configuration, verify that these parameter values are the same on both host devices.

- *optical-type*
- *auto-onboard*
- *netconf*
- *restconf*
- *webui*
- *user-name*
- *user-password*

### Procedure

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**Step 1** Enter into the IOS XR and Cisco Optical Site Manager configuration modes.

**Example:**

```
RP/0/RP0/CPU0:ios#configure terminal
RP/0/RP0/CPU0:ios(config)# cosm
```

**Step 2** Configure the gateway IP address.

This IP address is used by HA to verify connectivity of the HA device with the Active device.

**Example:**

```
RP/0/RP0/CPU0:ios(config-cosm)# redundancy gateway-ip 10.0.2.1
```

**Step 3** Configure the peer IP address.

This is the IP address of the device running the COSM HA instance.

**Example:**

```
RP/0/RP0/CPU0:ios(config-cosm)# redundancy peer-ip 10.0.1.12
```

**Step 4** Configure the HA interface name.

This is the interface of the device running the COSM HA instance, which is used for all HA traffic.

**Example:**

```
RP/0/RP0/CPU0:ios(config-cosm)# redundancy interface-name MgmtEth 0/RP0/CPU0/2
```

**Step 5** Commit the changes and exit all configuration modes.

**Example:**

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

**Step 6** Activate the HA application.

**Example:**

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

**Step 7** Verify the HA configuration and device status.

**Example:**

The entry highlighted in bold show the status of the active and standby device.

```
//Check status on active device//
RP/0/RP0/CPU0:ios#show cosm status

COSM state: APP_ACTIVATED
AppMgr app state: ACTIVATED
AppMgr container state: RUNNING
Container status: Up 4 days
Last error: No error
COSM version: 24.3.1.D0151
Redundancy role: ACTIVE (connected standby 10.0.123.123-COSM)

//Check status on standby device//
RP/0/RP0/CPU0:ios#show cosm status

COSM state: APP_ACTIVATED
AppMgr app state: ACTIVATED
AppMgr container state: RUNNING
Container status: Up 4 days
Last error: No error
COSM version: 24.3.1.D0151
Redundancy role: STANDBY (connected active 10.11.111.111-COSM)
```

**Note** After reloading the standby device, the status of both COSM host devices is displayed as *ACTIVE* for 1 minute 15 seconds.

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You can view the active and standby application status in the **Device Software** section of the **Software Manager** menu.




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**Note** If the HA node is on loopback, the MAC address of the HA device is displayed as **N/A** in the **Devices** section of the **Device Configuration** page.

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