



# Cisco Optical Site Manager 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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## High Availability (HA)

To ensure operational continuity, Cisco Optical Site Manager High Availability (HA) allows you to designate a backup manager for devices. The system supports Active/Standby roles. One application operates actively, managing the devices, while the standby application remains inactive until needed.

This setup allows the standby Cisco Optical Site Manager to take over if the active application fails. The active unit replicates data for both applications and shares information with the standby application as required.

### Cisco Optical Site Manager HA Deployment for NCS 1000

Cisco Optical Site Manager HA can be deployed on a network using these device combinations:

- 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, using the loopback interface as the Cisco Optical Site Manager interface.

*Figure 1: Cisco Optical Site Manager HA Deployment for NCS 1000 Devices*

# Configure High Availability on NCS 1000

To configure Cisco Optical Site Manager HA on a NCS 1010 or NCS 1014 device, perform these steps:

## Before you begin

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

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

## Procedure

**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 peer device running the Cisco Optical Site Manager HA instance.

**Example:**

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

For releases 24.3.x and 25.x.x, the *redundancy interface-name* ip address and *redundancy peer-ip* address are not substrings of each other. For example, using 10.0.2.1 as the *redundancy interface-name* and 10.0.2.2 as the *redundancy peer-ip* may cause Cisco Optical Site Manager HA to fail during startup.

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

This is the interface of the device running the Cisco Optical Site Manager 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 check the device status on both host devices.

**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 Cisco Optical Site Manager 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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