

Upgrade Software

This chapter describes the software upgrade in Cisco Optical Site Manager and its related tasks.

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Cisco Optical Site Manager software packages

Table 1: Feature History

Feature Name	Release Information	Description
SSH Upgrade	Cisco IOS XR Release 25.1.1	The Cisco Optical Site Manager software package now includes integrated SSH libraries. When you upgrade to Release 25.1.1, these libraries are automatically incorporated into the NCS 2000 Cisco Optical Site Manager software package. This upgrade provides new packages for these SSH libraries, enhancing security and addressing additional vulnerabilities.

In Cisco Optical Site Manager, software package distribution is:

- Distributed as a single file containing all necessary components for system upgrades.
- Format of the file depends on the Cisco Optical Site Manager installation type.
- For line card installations, the package is provided as an ISO image file.

Workflow for Software Upgrade

You can upgrade NCS 1000 device and Cisco Optical Site Manager application software using the Software Manager.

Important Downgrading Cisco Optical Site Manager software is not supported and should not be used as a recovery method following an upgrade.

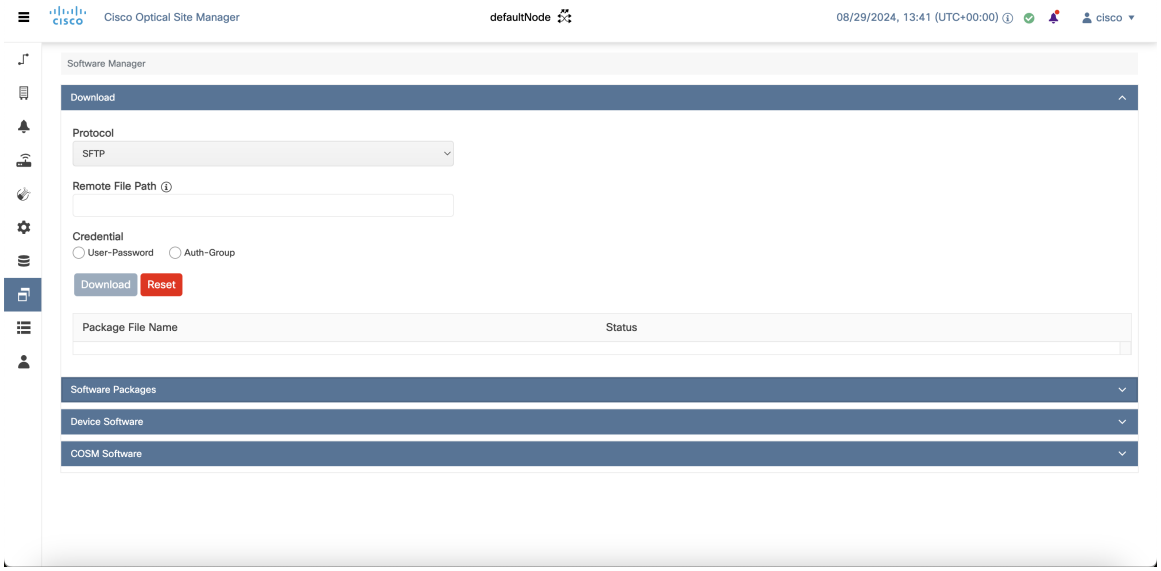
Important If you manually revert IOS XR after upgrading Cisco Optical Site Manager, remove the `migration-done` file at the `/misc/disk1/data/software` location before reinstalling Cisco Optical Site Manager. Otherwise, the subsequent Cisco Optical Site Manager upgrade might not complete correctly.

Perform these tasks to upgrade software NCS 1000 device and Cisco Optical Site Manager application software.

1. **Download Software Package** : Download the necessary packages from the Cisco repository to the Cisco Optical Site Manager. For more details, see Download GISO image, on page 3. The downloaded packages appear in the **Software Packages** tab.
2. **Download Software Package to Device**: Download the software package from Cisco Optical Site Manager to the NCS 1000 device. For more details, see Download Software Package on Device, on page 4.
3. **Activate Device Software**: Activate the device software. For more details, see Activate NCS 1000 and NCS 2000 device software, on page 5.

Note If the software reports an internal error during software download or activation without identifying the cause or failure stage, collect diagnostic logs to determine the root cause.

Figure 1: Software Upgrade



Note When Cisco Optical Site Manager is upgraded from R25.1.1 to R25.4.1, trust must be re-established. See Establish Trust.

Download GISO image

Before

Download the necessary GISO image from the Cisco repository to the Cisco Optical Site Manager.

Note For R25.3.1, when performing a software download on the Cisco NCS 1004 device, use a Golden ISO (GISO) image that excludes the Cisco Optical Site Manager rpm file. Including the Cisco Optical Site Manager rpm file increases the GISO size, which may exceed the available disk space and cause the software upgrade to fail.

Follow these steps to download the GISO image.

Before you begin

Log into Cisco Optical Site Manager

Procedure

Step 1 Click **Software Manager** from the left panel.

Step 2 Click the **Download** tab.

Step 3 Select SFTP from the **Protocol** drop-down list.

Step 4 Enter the path of the software package file in the **Remote File Path** field.

Step 5 Choose to enter the credentials either through **User-Password** or **Auth-Group**.

- If you choose **User-Password**, enter the **Username** and **Password** in the given fields.
- If you choose **Auth-Group**, choose the authentication group from the **Auth Group** drop-down list.

Step 6 Click **Download** to download the software package.

The download status is displayed in the **Status** column.

Step 7 Click the **Refresh** icon in the **Software Packages** section.
The downloaded software package ID is displayed in the **Software Packages** list in the increasing order of their release.

The software package is downloaded and listed in the **Software Packages** section.

Download Software Package on Device

Use this task to download the software package from the Cisco Optical Site Manager to NCS 1000 device.

Note When you perform the download action targeting a device that hosts the Cisco Optical Site Manager application, you may see a message indicating that the software image is already present on the device. This is expected because the package is stored in the device's local Cisco Optical Site Manager software repository. The download operation completes successfully without copying the package again.

Before you begin

- Download GISO image, on page 3

Procedure

Step 1 Click **Software Manager** from the left panel.

Step 2 Click the **Device Software** section.
The following describes the fields displayed in the on the **Device Software** section:

Table 2: Device Software Fields

Field	Description
Name	Displays the IP address of the device.
Component	Displays the platform component name.

Field	Description
App Status	Displays the status of the Cisco Optical Site Manager application on the device. • *Active*: Cisco Optical Site Manager is currently active on the device. • *Standby*: Cisco Optical Site Manager is in standby mode on the device. If the *Active* application fails, this application takes over.
Working SW Version	Displays the currently active software version on the device.
Status	Displays the progress of the download.

Step 3 Select the check boxes for one or more devices to download the new software.



Note The **Device Software** tab lists the NCS 1000, cosm-primary, and cosm-secondary devices. Only the NCS 1000 IOS XR software package can be downloaded.

Step 4 Click **Download**.

The **Select Software Image** dialog box appears.

Step 5 Select the software package from the **Software Image** drop-down list.

Step 6 Click **Download**.

The **Status** column displays the download progress.

Step 7 (Optional) Click the **Terminate Download** button to terminate the software downloading on the selected device.



Note When upgrading the software for the Cisco Optical Site Manager High Availability devices , select and upgrade all devices listed under **Device Software**.

What to do next

Activate NCS 1000 and NCS 2000 device software, on page 5

Activate NCS 1000 and NCS 2000 device software

Activate the Cisco Optical Site Manager software immediately after downloading it to ensure proper operation.

To activate software on the Cisco NCS 1004 device, utilize a Golden ISO (GISO) image that does not include the Cisco Optical Site Manager rpm file. Including this file can increase the GISO size, potentially exceeding available disk space and leading to a software upgrade failure.

Warning

- Do not activate a base IOS XR GISO on a device that is running Cisco Optical Site Manager, as this action will remove the application.
- Do not activate a target IOS XR GISO that does not include the Cisco Optical Site Manager RPM on a device where Cisco Optical Site Manager is already installed. The target GISO must contain the Cisco Optical Site Manager, RPM; otherwise, the existing Cisco Optical Site Manager, application will be removed.

Before you begin

- Log into Cisco Optical Site Manager

Follow these steps to activate the NCS 1000 or NCS 2000 device software package.

Procedure

Step 1 Click **Software Manager**.

Step 2 Click the **Device Software** section.

Step 3 Select the NCS 1000 or NCS 2000 device for which you want to activate the software, then click **Activate**.

Step 4 For the NCS 1000 device, select the ISO to be activated.

Note If the device hosting the Cisco Optical Site Manager application is activated, manageability is temporarily lost while the new device image is loaded and the updated Cisco Optical Site Manager application restarts.

Caution Do not install a base ISO without Cisco Optical Site Manager component on the device that already has Cisco Optical Site Manager. This will remove the Cisco Optical Site Manager application and leave the device in an inconsistent state.

The selected software is activated.

Activate Cisco Optical Site Manager and Admin Plane Image for the SVO-LC

Use this task to upgrade OS, activate Cisco Optical Site Manager and Admin Plane image for the SVO-LC.

Before you begin

- Download Software Package on Device, on page 4

Procedure

Step 1 Click **Software Manager** from the left panel.

Step 2 Click the **Device Software** section.

Step 3 Select the **CardController** or **OS** component to be activated, and click **Activate**.

Note The activation for the **CardController** and **OS** components is only applicable to SVO-LC. If both SVO-LC cards are present (local HA configuration), you must update the **OS** component on both cards. An error occurs if you select only the **Active** card for the update.

Caution As the SVO-LC host multiple Cisco Optical Site Manager applications, the OS upgrade affects all active instances on the card being upgraded, temporarily resulting in a loss of manageability.

Step 4 To activate the Cisco Optical Site Manager and Cisco Optical Site Manager Admin Plane instance, perform these steps in the **Software** and **Admin Plane Software** sections.

a) Click the **Activate** button.
The **Software Image Activation** dialog box is displayed.

b) Select the software image you want to activate from the drop-down list and click **Activate**.

Note It is recommended to activate the **Administrative Plane Software** first, before activating other components in the system.

Delete software package

Log into Cisco Optical Site Manager

Follow these steps to delete the software package on the Cisco Optical Site Manager card or application.

Procedure

Step 1 Click **Software Manager** from the left panel.

Step 2 Click to expand the **Software Packages** section.

A list of package names and their corresponding software versions is displayed.

Step 3 Select the checkbox corresponding to the *SW Package ID* of the Cisco Optical Site Manager package you want to delete.

Step 4 Click **Delete**.

A confirmation message appears.

Step 5 Click **Ok**.

The selected software package is deleted.