



Upgrade Software

This chapter describes the software upgrade in Cisco NCS 2000 SVO and its related tasks. This chapter applies to the NCS 2000 node that is already migrated to SVO with release greater than R12.x

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SVO Software Package

The software package is distributed as a single file that is downloaded to the local file system of SVO and it contains all the required packages for upgrading the system. The single file image is different depending on the SVO installation type: SVO line card (ISO image file) or SVO external server (TAR image file). The package can be downloaded by any active SVO ROADM instance running on the line card or external server.

External server TAR image consists of the following:

- NCS 2000 software packages
- SVO software package
- Admin plane package

ISO line card image consists of the following:

- NCS 2000 software packages
- SVO software package
- Admin plane package
- SVO line card operating system
- Additional packages for specific line card management



Note You must download the software only from the ROADM SVO instance and not from the OLA, DGE or TXP SVO instances.

Workflow for Software Upgrade

The **Software Manager** page has four tabs which are used for upgrading the device software.



Note The following sequence is mandatory for software upgrade.

1. Use the **Download** tab to download the necessary packages. The relevant procedure is discussed at [Download Software Package, on page 2](#). The downloaded packages appear in the **Software Packages** tab.
2. Use the **SVO Software** tab to activate the SVO package. It lists the active software versions. The relevant procedure is discussed at [Activate SVO Software , on page 3](#).
3. Use the **Device Software** tab to download the NCS 2000 device software packages. The relevant procedure is discussed at [Download Device Software , on page 4](#).
4. Use the **Device Software** tab to activate or revert the NCS 2000 device software packages. The relevant procedure is discussed at [Activate Device Software, on page 5](#).

Download Software Package

Use this task to download the software package on the SVO card.

Before you begin

[Log into the SVO Web Interface](#)

Procedure

- Step 1** Click the hamburger icon at the top-left of the page, and select **Software Manager**.
- Step 2** Click the **Download** tab.
- Step 3** From the **Protocol** drop-down list, choose SFTP.
- Step 4** Enter the remote file path of the software package 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 on the SVO card.

When the software package is successfully downloaded, the **Status** is updated to **Download of package completed on <time and date>**.

Step 7 After the download, click the **Refresh** icon on the **Software Packages** tab.

The **Software Packages** tab displays the list of software packages that are downloaded. The **Software Packages** tab lists the NCS2K, SVO, operating system, and Admin Plane packages.

The following details are displayed for the downloaded packages:

- **Software Package ID**—Displays the package ID of the ISO or TAR file.
- **Software Image ID**—Displays the name of the individual component that is part of the ISO or TAR file.
- **File Name**—Displays the filename of the software package.
- **Version**—Displays the version of the software package.
- **CRC Valid**—Cyclical Redundancy Check (CRC) to perform package integrity and ensure that the package content is valid.
- **Size (in bytes)**—Displays the size of the software package.

Note The **Software Packages** tab displays up to three software packages. If the fourth software package is downloaded, it automatically overwrites the oldest package that is not in use.

Activate SVO Software

Use this task to activate the SVO software package on the SVO card.

Before you begin

[Log into the SVO Web Interface](#)

Procedure

Step 1 Click the hamburger icon at the top-left of the page, and select **Software Manager**.

Step 2 Click the **SVO Software** tab.

The following details of the SVO software are displayed:

- —Displays the name of the SVO software that is active.
- **SW Version**—Displays the SVO software version that is active.

Step 3 Click **Activate**.

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

Step 4 From the drop-down list, choose the software image to activate.

- Step 5** Click **Activate**.
A confirmation message appears.
- Step 6** Click **Yes**.
The SVO software activation takes around 4 minutes to complete.
After the activation is complete, your session ends and the login page appears.
- Step 7** Log in using your credentials and check for the updated version of the SVO software in the **SW version** column.
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Download Device Software

Use this task to download the device software package from the SVO card to NCS 2000 device. In R12.x, you can download the device software package to only one NCS 2000 device for each SVO instance.

Before you begin

- [Log into the SVO Web Interface](#)
- [Activate SVO Software](#) , on page 3

Procedure

- Step 1** Click the hamburger icon at the top-left of the page, and select **Software Manager**.
- Step 2** Click the **Device Software** tab.
The following details of the software packages are displayed:
- **Device Name**—Displays the name of the device where the software package is downloaded.
 - **Platform**—Displays the component name.
 - **Working SW Version**—Displays the package version that is active.
 - **Protect SW Version**—Displays the backup package version.
 - **Status**—Displays the progress of package download.
- Step 3** Check the checkbox against the **Device Name** to download the new software.
- Note** The **Device Software** tab lists the NCS2K, svo-primary, and svo-secondary devices. Only the NCS 2000 device software package can be downloaded in R12.x.
- Step 4** Click **Download**.
The **Select Software Image** dialog box appears.
- Step 5** From the **Software Image** drop-down list, select the software package.
- Step 6** Click **Download**.

The **Status** field displays the progress (%) of package download. After the download, the downloaded package is indicated in the Protect SW Version column.

Note If you choose to download the TNC or TNCE card for the NCS 2000 device package, the **Status** column displays the download progress (%) of the active card only and not the standby card. The **Status** field changes to downloaded only after the standby card is downloaded.

After the device software is downloaded, the *USB-sync* alarm is raised. The *USB-sync* alarm clears after 6 minutes. Click the **Bell** icon to see the *USB-sync* alarm in the **Alarms** tab.

Use the **Abort Download** option to terminate the software downloading on the selected device.

Note We recommend that you limit the number of simultaneous software downloads to eight nodes.

Activate Device Software

Use this task to activate the NCS 2000 device software package in R12.x.



Note After you have downloaded the device software, wait for the USB-sync alarm to clear. If the alarm is not cleared, the activation of the NCS 2000 device software package fails.

Before you begin

- [Log into the SVO Web Interface](#)
- [Activate SVO Software , on page 3](#)
- [Download Device Software , on page 4](#)

Procedure

- Step 1** Click the hamburger icon at the top-left of the page, and select **Software Manager**.
- Step 2** Click the **Device Software** tab.
- Step 3** Choose the NCS 2000 device, and click **Activate** to activate the device software package on NCS 2000 device.

The downloaded package that is available in the Protect SW Version is activated to the Working SW Version.

Note If you choose to activate the TNC or TNCE card for the NCS 2000 device package, the **Status** field displays the activation progress (%) of only the active card and not the standby card.

Note Use the **Revert** option to revert the version of the selected device to its previous software version. The **Revert** option is available only for the NCS 2000 package.
