

Upgrade Cisco NFVIS Software

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Cisco NFVIS Software Upgrade Workflow

Table 1: Feature History

Feature Name	Release Information	Description
Cisco NFVIS Software Upgrade Workflow	Cisco NFVIS Release 4.8	This feature introduces a guided workflow that enables you to upgrade Cisco NFVIS using the .iso file. You can skip a release and upgrade to two releases after.
Schedule the Software Upgrade Workflow	Cisco NFVIS Release 4.9.1	This feature introduces a scheduler in the software upgrade workflow using which you can schedule the upgrade of the software images on Cisco NFVIS at your convenience.

Support Matrix For Upgrading Cisco NFVIS

Note

- Use the following table to upgrade from your current version of Cisco NFVIS software to the latest supported upgrade versions only. If you upgrade to an unsupported version, the system might crash.
- Since NFVIS version 4.9, the SD-Branch NFVIS ISO upgrade support matrix is the same as that for standalone upgrades. For more information, see the Upgrade Matrix for Upgrading Cisco NFVIS.

Running Version	Supported Upgrade Version	Supported Upgrad
4.13.1	4.14.1 (future release)	iso
4.12.1	4.13.1	iso
4.11.1	4.12.1	iso
4.10.1	4.11.1	iso
4.9.3	4.11.1	iso
4.9.2	4.11.1	iso
	4.10.1	iso
	4.9.3	iso
4.9.1	4.11.1	iso
	4.10.1	iso
	4.9.3	iso
	4.9.2	iso
4.8.1	4.9.3	iso
	4.9.2	iso
	4.9.1	iso
4.7.1	4.8.1	nfvispkg
4.6.3	4.7.1	nfvispkg
4.6.2	4.7.1	nfvispkg
	4.6.3	nfvispkg
4.6.1	4.7.1	nfvispkg
	4.6.3	nfvispkg
	4.6.2	nfvispkg
4.5.1	4.6.1	nfvispkg
4.4.2	4.5.1	nfvispkg

4.4.1	4.5.1	nfvispkg
	4.4.2	nfvispkg

Information about Cisco NFVIS Software Upgrade Workflow

Using this workflow, you can download and upgrade .iso software images on Cisco NFVIS with an option to schedule the upgrade process at your convenience. The workflow also shows you the status of the software upgrade. This workflow provides you with two options to perform the software upgrade and they are: **Download and Upgrade** and **Dowload Only**. You can also skip a software version and upgrade to two release after, using an .iso file.

Note The Cisco NFVIS upgrade image (.nfvispkg) can be hosted on either the Cisco SD-WAN Manager local repository or a remote server.

Prerequisites for Using the Cisco NFVIS Software Upgrade Workflow

- The remote server, either FTP or HTTP, must be set to host the Cisco NFVIS upgrade (.nfvispkg and .iso) image.

Note Performing a software upgrade using the .nfvispkg upgrade image is supported only till Cisco NFVIS Release 4.9. In the upcoming releases, only .iso image will be published for both fresh and existing upgrades of Cisco NFVIS.

- The Cisco NFVIS devices need to run Cisco NFVIS Release 4.8 for using the Software Upgrade Workflow and run Cisco NFVIS Release 4.9 for using the scheduler option.

Timeout settings

Set the download timeout and activate timeout as follows:

1. In Cisco SD-WAN Manager, click **Administration** > **Settings** > **Software Install Timeout**.
2. Click **Edit** and configure the following parameters:
   - Download timeout: 120 minutes
   - Activate timeout: 180 minutes

Note The download timeout setting may vary depending on the actual network bandwidth and quality.

Restrictions for Cisco NFVIS Software Upgrade Workflow

- The .iso upgrade image cannot be hosted on the Cisco SD-WAN Manager repository. It must be hosted on the remote server, either as FTP or HTTP file.

Benefits of NFVIS Software Upgrade Workflow

- The software upgrade workflow helps you prevent various device software upgrade failures by displaying device upgrade status. For example, if the upgrade process fails at any particular stage, the workflow flags it as **failed**.
- With this workflow, you can choose to download and upgrade the NFVIS devices with the new software image.

Benefits of Schedule a Software Upgrade Workflow

The software upgrade workflow scheduler helps you prevent various device downtime occurring due to the software upgrade process. For example, you can schedule the software upgrade workflow during your non-business hours which won't affect your employees or customers.

Upgrade Cisco NFVIS Using the Software Upgrade Workflow

Add the Remote Server



Note Starting from Cisco NFVIS Release 4.9, You can also add a remote server using **Create New** option in the **Select remote server** drop-down in the Software Upgrade Workflow.

1. From the Cisco SD-WAN Manager menu, choose **Maintenance** > **Software Repository** .
2. Click **Add Remote Server**.
3. Enter the **Server Name** and the **Server IP or DNS Name**.
4. From the **Select Protocol** drop-down list, choose either the FTP or HTTP protocol.
5. Enter the **Port** number.
6. (Optional) Enter your **User ID** and **Password**.
7. (Optional) Enter the **Image Location Prefix**.
8. Enter **VPN** as 0.
9. Click **Add**.

Note If the VPN field is left blank or empty, the NFVIS upgrade will fail with an unknown error. Ensure the VPN field is populated.

Add the Upgrade Software Image

1. From the Cisco SD-WAN Manager menu, choose **Maintenance** > **Software Repository** .
2. Click **Software Images**.
3. From the **Add New Software** drop-down list, choose **Remote Server (preferred)**.
4. From the **Remote Server Name** drop-down list, choose the server.
5. Enter the **Image Filename**.
6. Click **Save**.

Note While downloading the upgrade image, the FTP/HTTP path string including the username, password and file name, can only contain these characters: [a-zA-Z0-9_/ ?*.:@+=%-]

Access the NFVIS Software Upgrade Workflow

Before You Begin

Note Only one software upgrade workflow is executed at a time. If you schedule a workflow while another work flow is in progress, the scheduled workflow is only executed after the in-progress workflow is completed.

To check if there is an in-progress software upgrade workflow:

From the Cisco SD-WAN Manager toolbar, click the **Task-list** icon. Cisco SD-WAN Manager displays a list of all running tasks along with the total number of successes and failures.

Access the Software Upgrade Workflow

1. In the Cisco SD-WAN Manager Menu, click **Workflows** > **Workflow Library**

   or

   Starting from Cisco vManage Release 20.9.1, click **Workflows** > **Software Upgrade.**.

Note In the Cisco vManage Release 20.8.1, the **Workflow Library** is titled **Launch Workflows**.

2. Start a new software upgrade workflow: **Workflow Library** > **Software Upgrade**.

OR

Alternatively, resume an in-progress software upgrade workflow: **In-progress** > **Software Upgrade**.

3. Follow the on-screen instructions to schedule a new software upgrade workflow.



Note Click **Exit** to exit from an in-progress software upgrade workflow. You can resume the in-progress workflow at your convenience.

Verify the Status of the Software Upgrade Workflow

To check the software upgrade workflow status:

1. From the Cisco SD-WAN Manager toolbar, click the **Task-list** icon.

   Cisco SD-WAN Manager displays a list of all running tasks along with the total number of successes and failures.

2. Click the + icon to view the details of a task.

   Cisco SD-WAN Manager opens a pane displaying the status of the task and details of the device on which the task was performed.

Delete Downloaded Software Image

To delete downloaded software images from Cisco NFVIS:

1. From the Cisco SD-WAN Manager menu, choose **Maintenance** > **Software Upgrade**.
2. Click **WAN Edge**.
3. Click **Delete Downloaded Images**
4. In the **Delete Downloaded Images** dialogue box, choose the appropriate image or images to delete.
5. Click **Delete**.

Schedule Software Upgrade Workflow

Introduced in the Cisco vManage 20.9.1, you can schedule the software upgrade workflow at your convenience and avoid any downtime due to the software upgrade process. A scheduler enables you to schedule the upgrade workflow for a later time. You can enter the **Start Date**, **Start time**,and **Select Timezone**.

Schedule Software Upgrade Workflow

Use the following steps to schedule a software upgrade workflow:

1. In the Cisco SD-WAN Manager Menu, click **Workflows** > **Workflow Library**

   OR

   Starting from Cisco vManage Release 20.9.1, click **Workflows** > **Popular Workflows** > **Software Upgrade.**.

2. Start a new software upgrade workflow: **Workflow Library** > **Software Upgrade**.

   OR

   Alternatively, resume an in-progress software upgrade workflow: **In-progress** > **Software Upgrade**.

3. In the **Scheduler** section, choose **Later**.



Note Use the **Now** option to perform the software upgrade for the selected devices immediately.

4. Choose the **Start Date**, **Start Time**, and **Select Timezone**.



Note Ensure that the **Start time** is at least two minutes greater than the current time of schedule.

5. Click **Next**.
6. The software upgrade workflow is scheduled.

Cisco NFVIS Software Upgrade Using the CLI

Download the Software Image

Minimum supported releases: Cisco NFVIS Release 4.9, Cisco vManage Release 20.9.1

To download the software image from the remote server, use the following steps:

1. Request to download the software image from the remote server.

   ```
   nfvis# request software download
   ```

2. Enter the file path of the software image.

   ```
   nfvis# request software download <ip-address>/image/<image-name>
   ```

Example:

```
nfvis# request software download
nfvis# request software download
http://172.25.221.219/image/Cisco_NFVIS-4.9.1-72-20220804_032636.iso
```

Download and Activate the Software Image

Minimum supported releases: Cisco NFVIS Release 4.9, Cisco vManage Release 20.9.1

To download and activate the software image from the remote server, use the following steps:

1. Request to download the software image from the remote server.

   ```
   nfvis# request software download <ip-address>/image/<image-name>
   ```

2. Install the software image.

   ```
   nfvis# request software install <image-name>
   ```

3. Activate the software image.

```
nfvis# request software activate <image-name>
```

4. The node reboots with the activated version.

Example:

```
nfvis# request software download
http://172.25.221.219/image/Cisco_NFVIS-4.9.1-72-20220804_032636.iso
nfvis# request software install Cisco_NFVIS-4.9.1-72-20220804_032636.iso
nfvis# request software activate 4.9.1-72-20220804_032636
```

Remove the Software Image

Minimum supported releases: Cisco NFVIS Release 4.9, Cisco vManage Release 20.9.1

To remove the downloaded image, use the following command:

Request to remove the software image from the remote server.

```
nfvis# request software delete-image <image-name>
```

Example:

```
nfvis# request software delete-image Cisco_NFVIS-4.9.1-72-20220804_032636.iso
```

Install the Software Image

Minimum supported releases: Cisco NFVIS Release 4.8, Cisco vManage Release 20.8.1

To install the downloaded image, use the following command:

Request to install the software image from the remote server.

```
nfvis# request software image install <image-name>
```

Example:

```
nfvis# request software image install Cisco_NFVIS-4.8.1-FC4.iso
```

Activate the Software Image

Minimum supported releases: Cisco NFVIS Release 4.8, Cisco vManage Release 20.8.1

To install the downloaded image, use the following command:

Request to activate the software image from the remote server.

```
nfvis# request software activate <image-name>
```

Example:

```
nfvis# request software activate 4.8.1-FC4
```

Install and Activate the Software Image

Minimum supported releases: Cisco NFVIS Release 4.8, Cisco vManage Release 20.8.1

To install and activate the downloaded image, use the following command:

Request to download and activate the software image from the remote server.

```
nfvis# request software image install <image-name> reboot
```

Example:

```
nfvis# request software image install Cisco_NFVIS-4.8.1-FC4.iso reboot
```

Download, Install And Activate the Software Image

Minimum supported releases: Cisco NFVIS Release 4.8, Cisco vManage Release 20.8.1

To download, install and activate the software image from the remote server, use the following command:

Request to download, install and activate the software image from the remote server.

```
nfvis# request software install http://<ip-adress>/path/<image-name> reboot
```

Example:

```
nfvis# request software install http:/10.0.0.1/path/Cisco_NFVIS-4.8.1-FC4.iso reboot
```

Remove the Software Image

Minimum supported releases: Cisco NFVIS Release 4.8, Cisco vManage Release 20.8.1

To remove the downloaded image, use the following command:

Request to remove the software image from the remote server.

```
nfvis# request software image remove <image-name>
```

Example:

```
nfvis# request software image remove Cisco_NFVIS-4.8.1-FC4.iso
```

Verify Software Upgrade Using CLI

The following is a sample output from the **show software** command:

```
nfvis# show software
software 4.9.1-59
active    true
default   true
timestamp 2022-07-23T02:12:15-00:00
software 4.9.1-72-20220804_032636
active   false
default  false
previous false
```

In this output, **software 4.9.1-59** indicates that your device is upgraded with the latest software.