

NFVIS upgrade

Objective

Upgrade Cisco NFVIS to a newer version to ensure the NFVIS platform is running the desired software version and includes any new features or fixes.

NFVIS release types and version numbering

NFVIS Release Types

NFVIS release numbering is X.Y.Z, where

- X is major feature release
- Y is minor feature release within the major
- Z is maintenance release with the major/minor release train.

- NFVIS upgrade images, on page 1
- NFVIS supported upgrade paths, on page 2
- NFVIS pre-Upgrade checklist, on page 2
- Upgrade NFVIS, on page 3

NFVIS upgrade images

Objective

Upgrade images can be found in the same place as installation images: software.cisco.com, Enterprise NFV Infrastructure Software.

NFVIS upgrade image details

The Cisco NFVIS upgrade image is available as a .iso file. The upgrade image is digitally signed to ensure cryptographic integrity and authenticity. In addition, all software packages in the image are verified during the upgrade.

NFVIS supported upgrade paths

Objective

This matrix shows the supported upgrade paths from older Cisco NFVIS versions to 26.2 versions in this guide, including the required image types for each upgrade scenario.

NFVIS upgrade matrix

Table 1: Upgrade matrix for upgrading Cisco NFVIS

Running Version	Supported Upgrade Version	Supported Upgrade Image Type(s)
4.18.2a and subsequent 4.18.z	26.2.1	iso

Cisco NFVIS supports version upgrades from version X to versions X+1, X+2 and X+3.

- Version downgrades using an .ISO file are not supported.
- Version upgrades from 4.18 to 26.1 using an .ISO file are not supported.

In case of an error while upgrading, Cisco NFVIS reverts to the source version.

NFVIS pre-Upgrade checklist

1. Plan for a maintenance outage. You should only upgrade NFVIS during a maintenance window as downtime is required.
   - The upgrade process typically takes approximately 20-30 minutes to complete.
   - During the upgrade process, the NFVIS software is not available for use, and all VMs in a running state will be powered off automatically gracefully.
   - While the NFVIS upgrade is in progress, ensure that the system is not powered off. If the system is powered off during the NFVIS upgrade process, the system may become inoperable, and you may need to reinstall the system.
   - After the upgrade completes, the NFVIS software will be accessible, and all VMs will be restored to state prior to upgrade.

1. Determine your desired destination NFVIS version and verify its compatibility with your hardware and application VMs.
2. Take a fresh backup of the NFVIS software
3. Take a fresh backup of all your applications (see each application's technical documentation for supported methods).
4. Verify NFVIS has enough free disk space to upload the NFVIS upgrade image and complete the upgrade.
5. Locate the NFVIS upgrade image for your desired destination release.

Upgrade NFVIS

Objective

This reference groups information about Upgrade NFVIS, including Using Portal, Using CLI.

Upgrade NFVIS using the portal

Complete the NFVIS pre-Upgrade checklist before you begin.

Use the NFVIS portal to upload an upgrade image from your local computer or a remote SCP server.

Procedure

Step 1 From the NFVIS portal, click **Operations** > **Upgrade**.

The **System Upgrade** section has **LOCAL** and **REMOTE** tabs. The **Upgrade Image** section lists registered upgrade images.

Step 2 Choose how to upload the upgrade image.

- To upload an image from the computer that runs your web browser, select the **LOCAL** tab. Click **Select File (.iso)** and browse to the upgrade image.
- To upload an image from a remote SCP server, select the **REMOTE** tab. For the required fields, see Table 1.

Step 3 For a remote upload, enter the server and image details, then click **Submit**.

Table 2: Upload an upgrade image from a remote server

Field	Description
Image Name	Enter a descriptive name for the upgrade image.
Protocol	Select **HTTP** from the drop-down list. Remote registration currently supports only HTTP.
IP Address	Enter the SCP server IP address.
Port	Enter the port number. This field is optional and defaults to 80.
Image File Path	Enter the path to the upgrade image on the SCP server.
Image Checksum	Enter the SHA512 checksum value.

Step 4 Wait for NFVIS to upload and register the upgrade image.

For remote uploads, a progress bar is not available. The upload and registration process runs in the background.

When the process completes, the image appears in the **Upgrade Image List** with a status of Valid.

Step 5 Verify that the upgrade image is registered.

In the **Upgrade Image List**, verify that the image shows:

- **Status**: Valid
- **Version**: The correct upgrade version
- **Upload Date**: The registration timestamp

Step 6 Schedule the upgrade.

a) In the **Upgrade Image** section, click the **+** icon.
b) Select the registered upgrade image from the list.
c) Choose when to run the upgrade.

To upgrade now, set the schedule time to 0 hours. To upgrade later, specify the number of hours from now when the upgrade should begin.

d) Click **Submit**.

The **Status** column shows the upgrade status.

Step 7 After the upgrade completes, verify the NFVIS version and VM operation.

a) From the NFVIS portal, click **Platform** > **About Platform** and verify the new version.
b) Verify that all VMs are powered on and operational.

NFVIS is upgraded to the selected version, and the VMs are powered on and operational.

Upgrade NFVIS using the CLI

Complete the NFVIS pre-Upgrade checklist before you begin.

Use this procedure to transfer the upgrade image from an external SCP server to the NFVIS internal datastore and upgrade NFVIS from the CLI.

Procedure

Step 1 Copy the NFVIS upgrade image from the external SCP server to the NFVIS internal datastore.

Use this command syntax:

scp *source-path destination-path*

Specify the source path as the exact path of the image on the external SCP server in the format *user@remotehostip:file*. Specify the destination as **intdatastore**:*image-filename*.

For example:

```
nfvis# scp admin@192.0.2.9:/NFS/2022-01-23/13/nfvis/iso/Cisco_NFVIS-4.8.0-13-20220123_020232.iso
intdatastore:Cisco_NFVIS-4.8.0-13-20220123_020232.iso
```

NFVIS uploads the upgrade image.

Step 2 Register the upgrade image.

a) Enter configuration mode using **config terminal**.
b) Register the image using **system upgrade image-name** *image-filename* **location** *image-path*.

   Set *image-path* to the full path in the internal datastore, for example, */data/intdatastore/uploads/Cisco_NFVIS-4.8.0-13-20220123_020232.iso*.

c) Commit the configuration using **commit**.

Step 3 Verify that the upgrade image is registered.

Run either **show system upgrade** or **show system upgrade reg-info**. Verify that the output shows:

- `STATUS`: Valid
- `PACKAGE VERSION`: The correct upgrade version
- `UPLOAD DATE`: The registration timestamp

Step 4 Schedule the upgrade using **system upgrade apply-image**.

To upgrade now, set the schedule time to 0 hours. To upgrade later, specify the number of hours from now when the upgrade should begin.

After scheduling the upgrade, run **show system upgrade** and verify that the status is SCHEDULED.

Step 5 Verify the upgrade and check that the VMs are operational.

a) After the upgrade completes, run **show system upgrade apply-image** and verify that the status is success.
b) Verify that all VMs are powered on and operational.

NFVIS is upgraded to the selected version, and all VMs are powered on and operational.