# Release Notes for Cisco Enterprise Network Function Virtualization Infrastructure Software, Release 4.18.x

Cisco Enterprise NFVIS, Release 4.18.1 ..... 3
New software features ..... 3
New hardware features ..... 4
Changes in behavior ..... 4
Resolved issues ..... 5
Open issues ..... 6
Scalability ..... 7
Supported hardware ..... 8
Supported software packages ..... 10
Related resources ..... 13
Legal information ..... 13

© 2025 Cisco and/or its affiliates. All rights reserved.

## Cisco Enterprise NFVIS, Release 4.18.1

This release introduces new network modules and software RAID support for the C8300-UCPE platform, adds English and Japanese language options to the NFVIS portal, extends NFVIS software support to collab derived UCS C-Series M5 and M7 Rack Servers, and enables new Day-N CD-ROM management and VM graceful shutdown features for improved maintenance and reliability.

**Note:** Rebranding: To achieve simplification and consistency, the Cisco SD-WAN solution has been rebranded as Cisco Catalyst SD-WAN. In addition, from Cisco IOS XE SD-WAN Release 17.12.1a and Cisco Catalyst SD-WAN Release 20.12.1, the following component changes are applicable: Cisco vManage to Cisco Catalyst SD-WAN Manager, Cisco vAnalytics to Cisco Catalyst SD-WAN Analytics, Cisco vBond to Cisco Catalyst SD-WAN Validator, Cisco vSmart to Cisco Catalyst SD-WAN Controller, and Cisco Controllers to Cisco Catalyst SD-WAN Control Components.

See the latest Release Notes for a comprehensive list of all the component brand name changes. While we transition to the new names, some inconsistencies might be present in the documentation set because of a phased approach to the user interface updates of the software product.

## New software features

Cisco is constantly enhancing the Cisco Enterprise Network Function Virtualization Infrastructure Software with every release, and we try and keep the content in line with the latest enhancements. The following table lists new and modified features we documented in the Configuration, Command Reference, and Hardware Installation guide.

### What's new for Cisco Enterprise NFVIS Release 4.18.1

**Table 1.** New software features for Cisco Enterprise NFVIS Release 4.18.1

| Product Impact | Feature | Description |
|---|---|---|
| **Cisco Enterprise NFVIS** | | |
| Ease of use | NFVIS Portal Language Preferences | The NFVIS portal now supports both English and Japanese languages. Administrators can set the preferred language for new user accounts, ensuring the portal displays in that language upon first login. Existing users can also change their interface language via user settings. |
| Upgrade | Cisco NFVIS Support For Cisco UCS C-Series M5 and M7 Rack Servers | Starting from Cisco NFVIS Release 4.18.1, Cisco NFVIS software is supported on Cisco UCS C-Series M5 and M7 Rack Servers with a term-based license. Order the Cisco NFVIS software smart license along with the Cisco UCS C-Series M5 and M7 Rack Servers product purchase. |
| Ease of use | Virtual Machine CDROM Attachment and Detachment | The Day N CDROM Attachment and Detachment feature introduces new actions for virtual machines, enabling you to attach and detach ISO images. This functionality allows you to utilize an ISO image to troubleshoot, repair, or restore a VM's operating system. |

© 2025 Cisco and/or its affiliates. All rights reserved.

| Product Impact | Feature | Description |
|---|---|---|
| API experience | Graceful VM Stop | The Graceful Stop feature provides an enhanced method for terminating virtual machine operations. Unlike forceful stop, this option sends a signal to the VM, allowing its services to shut down gracefully. The Graceful stop checkbox is enabled by default for VMs deployed as OTHER type when initiating a VM shutdown. |

## New hardware features

This section provides a brief description of the new hardware features introduced in this release.

**Table 2.** New hardware features for Cisco Enterprise NFVIS Release 4.18.1

| Product Impact | Feature | Description |
|---|---|---|
| **Cisco Enterprise NFVIS** | | |
| Hardware Reliability | C-NIM-8T and C-NIM-4X Network Interface Modules (NIMs) | The C8300-UCPE platform now supports these new NIMs, expanding network connectivity options with additional ports for flexible deployment. |
| Hardware Reliability | Software RAID Support for U.2 NVMe drives | The platform introduces support for a software RAID controller, allowing users to create RAID1 or RAID0 arrays using two identical U.2 NVMe drives for improved data redundancy or performance. |

## Changes in behavior

The following notes highlight critical changes, requirements, and limitations introduced in Cisco NFVIS releases. Please review these carefully before proceeding with installation, upgrades, or configuration.

Starting from Cisco NFVIS Release 4.18.1, install Cisco NFVIS using a smart license on Cisco UCS C M5 and M7 Rack Servers.

- Starting from Cisco NFVIS Release 4.13.1, install Cisco NFVIS using a smart license on Cisco UCS C M6 Rack Servers.
- Starting from Cisco NFVIS Release 4.10.1, the guest VNF settings are automatically preserved from the previous release version, when you upgrade to a newer release version. You don't have to reinstall NFVIS to update the guest VNF settings. For more information see, Upgrade Cisco NFVIS.
- Starting from Cisco NFVIS Release 4.10.1, Cisco NFVIS is based on open source AlmaLinux distribution. In Cisco NFVIS Release 4.9.x and earlier releases, Cisco NFVIS was based on CentOS Linux distribution which is now end-of-life. The support for CentOS Linux distribution is discontinued since June 2024.
- If you are using I-350 based Network Interface Cards (NICs) that use IGB drivers, the Virtual Router Redundancy Protocol (VRRP) is not supported due to a limitation of MAC addresses that can be used in your network.

© 2025 Cisco and/or its affiliates. All rights reserved.

## Resolved issues

This table lists the resolved issues in this specific software release.

**Note:** This software release may contain bug fixes first introduced in other releases. To see additional information, click the bug ID to access the Cisco Bug Tool.

### Resolved issues for 4.18.1

**Table 3.** Resolved issues for Cisco Enterprise NFVIS 4.18.1

| Bug ID | Description |
|---|---|
| CSCwo72198 | Add support for Globalization on NFVIS Portal |
| CSCwp37824 | Implement the functionality to support for normal and graceful shutdown of VM |
| CSCwq15743 | UCSC-C220-M6S-WMP2721000Q : configStatusMessage(UCSC-C220-M6S-WMP2721000Q)-Sync Pending and config Pull failed |
| CSCwp67773 | Day-N CD-ROM support on NFVIS portal |
| CSCwp29367 | Add support to upload files through Datastore Page in NFV<E2><80><A6> |
| CSCwp04419 | ISO Day0 Support from NFVIS Portal from Deploy Page |
| CSCwj81271 | Enable UCSE-M6(orion) NFVIS support |
| CSCwp25909 | hugepages lost after Upgrading from 4.9 to 4.12 |
| CSCwo83758 | Evaluation of Enterprise NFV Infrastructure Software (NFVIS) for Erlang-OTP SSH vulnerability |

### Resolved issues for 4.18.2

**Table 4.** Resolved issues for Cisco Enterprise NFVIS 4.18.2

| Bug ID | Description |
|---|---|
| CSCwr77187 | NFVIS: Issues with system_disk impact ability to access filesystem |
| CSCwq74496 | NFVIS Memory leak with libvirtd 8.0.0 |
| CSCwr29515 | PNic does not change from autonegotiate in NFVIS |
| CSCws39193 | NFVIS Mount Point Conflict Causes VM Startup Failures After Datastore Addition |

### Resolved issues for 4.18.3

**Table 5.** Resolved issues for Cisco Enterprise NFVIS 4.18.3

© 2025 Cisco and/or its affiliates. All rights reserved.

| Bug ID | Description |
|---|---|
| CSCws39193 | NFVIS Mount Point Conflict Causes VM Startup Failures After Datastore Addition. |
| CSCwr20907 | Fix VLAN trunk propagation issue - data type conversion after upgrade. |
| CSCws69338 | NFVIS-1197 Configuration \| Tooltip Content is not hidden from screen readers |

## Resolved issues for 4.18.4

**Table 6.** Resolved issues for Cisco Enterprise NFVIS 4.18.4

| Bug ID | Description |
|---|---|
| CSCwu78430 | WebUI not loading due to session limits reached on ConfD. |
| CSCwv02302 | Unable to disable FIPS on NFVIS. |

## Resolved issues for 4.18.5

**Table 7.** Resolved issues for Cisco Enterprise NFVIS 4.18.5

| Bug ID | Description |
|---|---|
| CSCwv43221 | NFVIS-for-UC: " factory-default-reset all" errors out due to " Image cannot be deleted" . |
| CSCwv02182 | Not able to set up NFVIS web interface idle timeout larger than 5 min. |
| CSCwv61274 | NFVIS: Factory Default Reset All does NOT Erase All Datastore Contents. |
| CSCwv61512 | NFVIS-for-UC: Incorrect/Inconsistent VM Types when Registering Images from Datastore Uploads. |
| CSCwv84977 | CPU Allocation page does not show physical-core capacity for low-latency VM placement |
| CSCwv52836 | NFVIS: Hide Factory Default Reset Options that are not Available |

# Open issues

This table lists the open issues in this specific software release.

This software release may contain open bugs first identified in other releases. To see additional information, click the bug ID to access the Cisco Bug Tool.

### Open issues for 4.18.1

**Table 8.** Open issues for Cisco Enterprise NFVIS 4.18.1

© 2025 Cisco and/or its affiliates. All rights reserved.

| Bug ID | Description |
| --- | --- |
| CSCwq69586 | uCPE8300-1n20 Error=nfvis_101 snmp_ifmib_walk Caught Exception NFVIS 4.18.1 |

### Open issues for 4.18.2

There are no open defects captured in this release.

### Open issues for 4.18.3

There are no open defects captured in this release.

### Open issues for 4.18.4

There are no open defects captured in this release.

### Open issues for 4.18.5

There are no open defects captured in this release.

## Scalability

The following resources are required for a standalone Cisco Enterprise NFVIS:

- For a system that has 16 or less CPU cores, one CPU core is reserved for NFVIS. For a system that has more than 16 CPU cores, 2 CPU cores are reserved for NFVIS except C8300-UCPE. C8300-UCPE-1N20 (20 cores system) will reserve 1 CPU core for NFVIS.
- NFVIS needs 5GB of system memory.
- 20 GB storage.
- For NFVIS portal, the minimum supported version of browsers are:
  - Mozilla Firefox 66
  - Google Chrome 71
  - Windows 10 Edge
  - MacOS 10.15 Safari
- Starting from Cisco NFVIS Release 4.14.1, the following are the system requirements for Cisco NFVIS devices that have more than 128 GB RAM:
  - For a Cisco Catalyst Edge uCPE 8300 on numa node 0, 16 GB is reserved. A total of 16 GB is reserved .
- Starting from Cisco NFVIS Release 4.14.1, the following are the system requirements for Cisco NFVIS devices that have more than 64 GB RAM:
  - For a Cisco Catalyst Edge uCPE 8300 on numa node 0, 13 GB is reserved. A total of 13 GB is reserved .
  - For a UCS M6, numa node 0 reserves 11 GB and numa node 1 reserves 2 GB, totaling 13 GB. For other NFVIS devices, 11 GB is reserved on numa node 0, totaling 11 GB.
- Starting from Cisco NFVIS Release 4.14.1, the following are the system requirements for Cisco NFVIS devices that have more than 32 GB RAM:

© 2025 Cisco and/or its affiliates. All rights reserved.

- For a Cisco Catalyst Edge uCPE 8300 on numa node 0, 8 GB is reserved. A total of 8 GB is reserved .
- For a Cisco UCS C M6 Rack servers on numa node 0, 11 GB is reserved and 1 GB is reserved on the numa node 1. A total of 12 GB is reserved.
- For other Cisco NFVIS devices on numa node 0, 5 GB is reserved and 1 GB on the numa node 1 is reserved (if applicable).

- Starting from Cisco NFVIS Release 4.14.1, the following are the system requirements for Cisco NFVIS devices that have less than 32 GB RAM:
  - For a Cisco Catalyst Edge uCPE 8300, 8 GB on numa node 0 is reserved. A total of 8 GB is reserved .
  - For a Cisco UCS C M6 Rack servers, 7 GB is reserved on numa node 0 and 1 GB is reserved on the numa node 1. A total of 8 GB is reserved.
  - For other Cisco NFVIS devices on numa node 0, 5 GB is reserved and 1 GB on the numa node 1 is reserved (if applicable).
- Starting from Cisco NFVIS Release 4.14.1, the following are the system requirements for Cisco NFVIS devices that have less than 16 GB RAM:
  - For a Cisco Catalyst Edge uCPE 8300, 8 GB on numa node 0 is reserved and 1 GB is reserved on the numa node 1. A total of 9 GB is reserved .
  - For other Cisco NFVIS devices on numa node 0, 5 GB is reserved and 1 GB on the numa node 1 is reserved (if applicable).
- Starting from Cisco NFVIS Release 4.14.1, the following are the system requirements for Cisco NFVIS devices that have 8 GB RAM:
  - 3 GB is reserved for the Cisco NFVIS devices.

**Note:** More memory and disk space are required to be added to the system, depending on VM deployments.

# Supported hardware

## Supported platforms

The following table lists the only supported platforms and firmware for Cisco ENFV.

**Table 9.** Cisco ENFV

| Platform | Firmware | Minimum Supported Version |
|---|---|---|
| C8200-UCPE-1N8 | BIOS | C8200-UCPE_1.04.103020201614 |
| | MCU | 240.52 |
| C8300-UCPE-1N20 | BIOS | C83uCPE_BIOS_1.05.SPA |
| | CIMC | CIMC_4.15.0.2R.bin |
| UCS C-Series 240 M6 Rack Servers | BIOS | C240M6.4.3.2c.0.0726232000 |
| | CIMC | HUU version 4.3(2.230207) |

© 2025 Cisco and/or its affiliates. All rights reserved.

| Platform | Firmware | Minimum Supported Version |
|---|---|---|
| UCS C-Series 220 M7 Rack Servers<br>• BE6K-M7-K9<br>• BE6K-M7-XU<br>• BE7M-M7-K9<br>• BE7M-M7-XU<br>• BE7H-M7-K9<br>• BE7H-M7-XU<br>• CE1400V-M7-K9 | BIOS | C220M7.4.3.5a.0.0905240935 |
| | CIMC | HUU version 4.3(5.240021) |
| UCS C-Series 220 M6 Rack Servers | BIOS | C220M6.4.3.2c.0.0726232000 |
| | CIMC | HUU version 4.3(2.230207) |
| UCS C-Series 240 M7 Rack Servers<br>• BE6K-M7-K9<br>• BE6K-M7-XU<br>• BE7M-M7-K9<br>• BE7M-M7-XU<br>• BE7H-M7-K9<br>• BE7H-M7-XU<br>• CE1400V-M7-K9 | BIOS | C240M7.4.3.5a.0.0905240935 |
| | CIMC | HUU version 4.3(5.240021) |
| UCS C-Series 220 M5 Rack Servers<br>• BE6M-M5-K9<br>• BE6M-M5-XU<br>• BE6H-M5-K9<br>• BE6H-M5-XU<br>• BE7M-M5-K9<br>• BE7M-M5-XU<br>• BE7H-M5-K9<br>• BE7H-M5-XU | BIOS | C220M5.4.1.3i.0.0713210713 |
| | CIMC | HUU version 4.1(3d) |
| UCS C-Series 240 M5 Rack Servers<br>• BE6M-M5-K9<br>• BE6M-M5-XU<br>• BE6H-M5-K9<br>• BE6H-M5-XU<br>• BE7M-M5-K9<br>• BE7M-M5-XU<br>• BE7H-M5-K9<br>• BE7H-M5-XU | BIOS | C240M5.4.1.3i.0.0713210713 |
| | CIMC | HUU version 4.1(3d) |
| UCS E-Series double-wide server module [UCS-E1100D-M6] | NA | NA |

**Note:** The last supported software release for ENCS5400 will be NFVIS 4.15 and Cisco IOS XE Catalyst SD-WAN Release 17.15.1a. For more information, see, ENCS 5400 EOL.

© 2025 Cisco and/or its affiliates. All rights reserved.

**Table 10.** Third party

| Platform | Platform Description |
|---|---|
| M3X-APP | Cubic Expeditionary Networking and Compute Platform |

## Supported software packages

This section provides information about the release packages associated with Cisco Enterprise NFVIS.

### NFVIS Software Upgrade Image Details

The Cisco Enterprise NFVIS upgrade image is available as *.iso* file. Currently, downgrades are not supported.

For more details on the software upgrade, see the Upgrading Cisco Enterprise NFVIS section in the Cisco Network Function Virtualization Infrastructure Software Getting Started Guide.

### Supported programs

The Cisco Meraki vMX solution is supported on Cisco's Enterprise NFV Infrastructure Software (NFVIS). For more information see, vMX Setup Guide for NFVIS.

### Guest VNFs

This section provides support statements for different guest Virtual Network Functions (VNFs) that you can run on Cisco Routing virtual platforms that are enabled by the Cisco NFVIS Release 4.18.1.

#### Cisco Router VNFs

**Note:**

- Cisco provides deployment and configuration support for the VNF versions listed below, when these VNFs are deployed on Cisco Routing virtual platforms that are enabled by Cisco NFVIS Release 4.16.1.
- Cisco provides support on a case-by-case basis for unlisted combinations of Cisco NFVIS releases and VNF version combinations.

**Table 11.** Software Download Links

© 2025 Cisco and/or its affiliates. All rights reserved.

| Product Homepage | Software Download |
|---|---|
| Cisco Catalyst 8000V Edge Software | 17.18.5<br>17.18.4<br>17.18.3<br>17.18.2<br>17.18.1<br>17.16.1<br>17.15.1<br>17.12.4<br>17.12.3<br>17.12.2<br>17.12.1<br>17.11.1<br>17.10.1<br>17.9.3<br>17.9.1 |
| Cisco vEdge | 20.9.1<br>20.9.3<br>20.6.5<br>20.3.7<br>20.8.1<br>20.7.1 |

**Table 12.** Guest VM Compatibility matrix with NFVIS

| Platform | NIC Type | VM OS Kernel Driver Version | VM OS DPDK Version |
|---|---|---|---|
| Cisco Catalyst 8200 Series Edge uCPE | 2.3.9.6 or higher (igbvf) | 2.3.9.6 or higher (igbvf) | DPDK 19.11 or higher |
| | Intel-I X553 1GbE for GEO-0 and GEO-1 | 4.9.3 or higher version (ixgbevf) | DPDK 19.11 or higher |
| Cisco Catalyst 8300 Series Edge uCPE | Intel E810 GEO-0 to GEO-6 | iavf 4.18.7 or Higher | DPDK 21.11.2 or higher |
| Cisco UCS C M5 and M6 Rack Servers | Intel X550 LOM | 4.9.3 or higher version (ixgbevf) | DPDK 19.11 or higher |
| Cisco UCS C M6 Rack Servers | UCSE-PCIE-1D 10GF (Intel X710-DA4 Quad port 10 GB) | iavf 4.5.3 or higher | DPDK 19.11 or higher |
| Cisco UCS C M6 Rack Servers | Intel i350 Quad Port 1 GB Adapter | 2.3.9.6 or higher (igbuf) | DPDK 19.11 or higher |

© 2025 Cisco and/or its affiliates. All rights reserved.

| Platform | NIC Type | VM OS Kernel Driver Version | VM OS DPDK Version |
|---|---|---|---|
| Cisco UCS C M5 Rack Servers | Intel i350-mLOM 1Gbps Network Controller | 4.18.0 or higher (igbvf) | DPDK 19.11 or higher |
| Cisco UCS C M7 Rack Servers | Cisco X710T2LG 2x10 GbE RJ45 OCP 3.0 NIC | 4.18.0 or higher (igbvf) | DPDK 19.11 or higher |

**Note:** The last supported software release for ENCS5400 will be NFVIS 4.15 and Cisco IOS XE Catalyst SD-WAN Release 17.15.1a. For more information, see, ENCS 5400 EOL

### Other Cisco Owned VNFs

**Note:**

- Limited testing is done to ensure you can create a guest VM instance using the software download image for these versions, as posted on Cisco Software download page.
- For full-support statement see the individual product release documentation.

The following section provides information about generic Linux Distro Images (Ubuntu 22.10 & Alma 8.6 or similar) that can be deployed on Cisco NFVIS Release 4.13.1. See the above table for details on the SRIOV driver that is required on the guest Linux VM based on the platform.

**Table 13.** Software Download Links

| Product Homepage | Software Download |
|---|---|
| **Security VNFs** | |
| Cisco NGFW (FTDv) | 6.6.1-91<br>6.6.0-90 |
| Cisco ASAv | 9.14.2<br>9.14.1 |
| **WAN Optimization VNFs** | |
| Cisco vWAAS | 6.4.5a-b-50<br>6.4.5-b-75<br>6.4.3c-b-42 |

### Non-Cisco Vendor Owned VNFs

You can run VNFs owned by various vendors on Cisco's NFV platforms enabled by NFVIS . Formal support for these VNFs requires a joint effort between Cisco and the VNF vendor.

Cisco offers VNF vendors a "for-fee" NFVIS 3rd-party certification program to test and certify their VNFs on Cisco's virtualized platforms. After testing and certification is complete, the results are published on this page-

For more specific support details about VNF versions and test compatibility matrix with NFVIS releases, see the VNF release documentation on the vendor support site.

© 2025 Cisco and/or its affiliates. All rights reserved.

As a NFVIS customer, if you need a unique combination of NFVIS release and a specific VNF version, you may submit your certification request to Cisco at nfv-ecosystem@cisco.com or reach out to the VNF vendor support team asking them to initiate a certification on the Cisco platform.

## Related resources

### User documentation

- Cisco Network Function Virtualization Infrastructure Software Getting Started Guide
- Cisco Enterprise Network Function Virtualization Infrastructure Software Configuration Guide, Release 4.x
- Cisco Enterprise Network Function Virtualization Infrastructure Software Command Reference
- Design and Deployment Guide of Cisco NFVIS SD-Branch using Cisco SD-WAN Manager
- Configuration Guide for Cisco Network Plug and Play on Cisco APIC-EM, Release 1.5.x

### Hardware documentation

- Cisco Catalyst 8200 Series Edge uCPE Data Sheet
- Cisco Cloud Services Platform 5000 Series Data Sheet
- Cisco 5400 Enterprise Network Compute System Hardware Installation Guide
- Cisco 5400 Enterprise Network Compute System Data Sheet

### Release and compatibility information

Upgrade Matrix for Upgrading Cisco NFVIS

### API documentation

- For information on NFVIS API documentation (NFVIS API release 4.14.1 and later), see NFVIS API
- For information on NFVIS API documentation (NFVIS API releases earlier than 4.14.1), see API Reference for Cisco Enterprise Network Function Virtualization Infrastructure Software

## Legal information

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: https://www.cisco.com/c/en/us/about/legal/trademarks.html. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1721R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© 2025 Cisco Systems, Inc. All rights reserved.