



# Cisco NFVIS Support For Cisco UCS C-Series M6 Rack Servers

**Table 1: Feature History**

Feature Name	Release Information	Description
Cisco NFVIS Support For Cisco UCS C-Series M6 Rack Servers	Cisco NFVIS Release 4.13.1	Starting from Cisco NFVIS Release 4.13.1, Cisco NFVIS software is supported on Cisco UCS C-Series M6 Rack Servers as a term-based license. Order Cisco NFVIS software smart license along with the Cisco UCS C-Series M6 Rack Servers product purchase.

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## Information About Cisco NFVIS Support

Cisco Smart Licensing is a flexible and unified licensing model that centralizes the management of all Cisco software licenses across organizations. Cisco Smart Licensing enables you to manage all product licenses from one central location. The Cisco NFVIS smart licenses are not node-locked to the device, so they can be used across all devices in your organization. The Smart Licenses can be easily transferred between devices, without hosting or issuing the license again, or going through the Return Material Authorization (RMA), or license re-issuance. For more information on Smart Licenses see, [Cisco Software Licensing Guide](#). Starting from Cisco NFVIS Release 4.13.1, Cisco NFVIS software is supported on Cisco UCS C-Series M6 Rack Servers as a term-based license.

Place an order for Cisco NFVIS Smart License along with Cisco UCS C-Series M6 Rack Server from the CCW page. The purchase of this license is displayed as **Licenses Available to Use** in your Virtual Account on the Cisco Smart Software Manager (CSSM), Cisco's licensing server.

#### Order Cisco NFVIS Smart License

Order Cisco NFVIS software smart license along with the Cisco UCS C-Series M6 Rack Servers Product purchase. The licensing model for Cisco NFVIS is not enforced. This ensures that you retain full functionality of your Cisco NFVIS, even after the license expires.

Cisco NFVIS Smart License is a term-based license. The Cisco NFVIS Smart License is available for the following durations of 3, 5, or 7 years.

## Supported Devices For Cisco NFVIS Support For Cisco UCS M6 Rack Servers



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**Note** Cisco NFVIS Smart Licenses are sold in units that correspond to 32 physical CPU cores, without considering hyper-threaded cores.

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1. Cisco UCS C M6 Rack Server
2. Cisco NFVIS software running Cisco NFVIS Release 4.13.1

The following PIDs of Cisco UCS C-Series M6 Rack Servers are supported by Cisco NFVIS smart licensing:

- UCSC-C220-M6S
- UCSC-C240-M6SX
- UCSC-C240-M6S

## Prerequisites For Cisco NFVIS Support For Cisco UCS C-Series M6 Rack Servers

- You require an active Cisco Smart Account. For more information on Smart Account see, [How to Request a Smart Account](#)
- You need to make a purchase of a Cisco UCS C-Series M6 Rack Server with a Cisco NFVIS Smart licensing software.

# Restrictions For Cisco NFVIS Support For Cisco UCS C-Series M6 Rack Servers

Cisco NFVIS is not engineered to produce any notifications pertaining to the expiration of the Cisco NFVIS license subscription. Inherently, it is not the Cisco NFVIS's role to monitor compliance. The sole responsibility for determining and tracking the expiration of the license subscription lies with the Cisco Smart Software Manager (CSSM).

## Configure Cisco NFVIS Support For Cisco UCS C-Series M6 Rack Servers

The Cisco UCS C-Series M6 Rack Servers with Cisco NFVIS operates on two different modes of operations:

1. Smart Mode
2. CSLU Mode

### Smart Mode

In the smart mode operation, the Cisco UCS C-Series M6 Rack Server has reachability to a Cisco Smart Server Manager (CSSM) server using Cisco NFVIS. The Cisco UCS C-Series M6 Rack Server requires the following inputs to operate in the smart mode:

1. A unique token for customer virtual account on CSSM.



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**Note** Generate a unique token using your Cisco Virtual Account on the Licensing Server (CSSM). For more information, see [How can I create a token to register my device?](#)

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Provide the generated token as the input to the Cisco UCS C-Series M6 Rack Servers. The CSSM token is your password for the user account on CSSM. This input is mandatory for the Smart Mode to function and has no default values.

2. Transport Mode

The Transport Mode specifies the type of connection existing between the device and CSSM (whether the device is directly connected/ Connected through CSLU). For the Smart Mode, the Transport Mode is called as Smart Transport. The default value for the transport mode is CSLU Mode.

3. Transport URL

The Transport URL specifies the URL to reach a CSSM/CSLU server from the device. The default transport URL for Smart Mode is <https://smartreceiver.cisco.com/licservice/license>. The default transport URL for CSLU mode is available on online search engines.

4. Time interval between two licence usage announcements

The Resource Usage Measurement (RUM) is sent periodically from the device to CSSM/CSLU which presents the License Usage pertaining to the NFVIS License Entitlement to the CSSM server. You can specify the periodic time interval as an input. The default value is 30 days.

Use the following methods to provide inputs to the Cisco UCS C-Series M6 Rack Servers using Cisco NFVIS:

- Using the Cisco NFVIS CLI
- Using NETCONF/Rest APIs

When the device is provided with the above listed inputs for the smart mode of operation, the device initiates the Trust Handshake with the CSSM server. Once Trust Handshake is successful, the device starts reporting license usage according to the time interval specified.

### Configure Smart Mode Using the CLI

```
configure terminal
license smart transport smart smart-url
license smart transport smart token
license smart transport smart usage
```

### Verify Smart Mode Using the CLI

Use the `show license opdata` command to verify the success of smart mode.

```
show license opdata
license opdata operational-status OK
license opdata usage-reporting last-ack-received None
license opdata usage-reporting usage-interval 1
license opdata usage-reporting next-ack-deadline "Oct 01 20:32:19 2023 UTC"
license opdata usage-reporting last-report-push None
license opdata usage-reporting next-report-push None
```

## CSLU Mode

In the CSLU mode operation, the Cisco UCS C-Series M6 Rack Server has reachability to a Cisco Smart Licensing Utility (CSLU) application.

- Ensure that you've logged into CSLU using your Cisco Smart Account on the CSSM.
- The license reporting in the CSLU mode happens at an interval of 30 days by default.
- The CSLU is the default Transport Mode and no token is required as an input.
- The default Transport URL for CSLU mode is <http://cslu-local:8182/cslu/v1/pi>
- If you require any change in the inputs other than the defaults, configure the inputs for CSLU mode.
- The CSLU Mode doesn't require any inputs and the CSLU Mode is the default mode of operation for the Cisco NFVIS on Cisco UCS C-Series M6 Rack Servers.

**Note**

- There are no specific operations in terms of Cisco NFVIS Licensing with regards to the device reboot and upgrade. The Cisco NFVIS continues to operate with respect to the interactions established through the modes of operations.
- The licensing configuration and Smart Licensing Database aren't cleared from the device in case of a Factory Default Reset.

License usage reporting to CSSM/CSLU resumes when the device regains network connectivity through a reconfig operation after a Factory Default Reset.

- To initiate an RMA for a device, manually release the licenses associated with the device from the CSSM, or use the Cisco NFVIS action command **license smart release**. The command free sup the license entitlements used by this device on CSSM. If the device continues to operate with Cisco NFVIS even after the license release, it will, after a set time interval, resend the usage report (RUM) to CSSM. This report indicates the correct number of license units consumed, which is reserved again on CSSM.
- While performing a device data backup, Cisco NFVIS backups the config to a file and sends the forced License Usage report to CSSM .

## Monitor Cisco NFVIS Support for Cisco UCS C-Series M6 Rack Server

Here is a list of show commands used to monitor Cisco NFVIS Smart Licensing for Cisco UCS C-Series M6 Rack Servers along with some configuration examples:

- Use the **show running-config license** command in the Cisco NFVIS CLI to view the license information:

```
show running-config license
license smart
transport smart
usage interval 1
token
"$9hXjwR0mU/A2WdHPLwR6wESUMz7hNCRQYnrjbpM830WpjtWngSR21jst649M70GSHF92V8/DBilwCjprQ4Rz570jeawb
NMLNM0pR/+IF\nhNRgo4762u2ob6DjSr2YGcez8s7TMKQfjswUURDXyXn1AG8VgSjs9RfPpFVi4Ly4BUFJg=="
```

- Use the **show license accounts** command in the Cisco NFVIS CLI to view the Cisco smart account information that the device is linked with:

```
show license accounts
license accounts VIRTUAL ACCOUNT:NFVIS-VA-1
SMART ACCOUNT:InternalTestDemoAccount8.cisco.com
```

- Use the **show license license-units-consumed** to view the units of entitlement used by the device on the CSSM:

```
show license license-units-consumed
license license-units-consumed 2
```

- Use the **show license opdata** command to view the licensing operational data:

```

show license opdata
license opdata operational-status OK
license opdata usage-reporting last-ack-received None
license opdata usage-reporting usage-interval 1
license opdata usage-reporting next-ack-deadline "Oct 01 20:32:19 2023 UTC"
license opdata usage-reporting last-report-push None
license opdata usage-reporting next-report-push None

```

- Use the **show license status** command to view the status of your license:

```

show license status
Current tenant: nfvis-single-tenant

Smart Licensing is ENABLED

Smart Licensing Policy:
  Status: ENABLED

Transport:
  Type: SmartTransport
  URL: https://smartreceiver-stage.cisco.com/licservice/license
  Proxy:
    Not configured

Trust Code Installed: Jul 05 06:20:56 2023 UTC
Last Attempt Date: Jul 05 06:19:31 2023 UTC
Last Attempt Status: JobStatus.success
Last Attempt Result: success
Attempt In Progress: False
Next Attempt Date: None

Usage Reporting:
Last ACK received: None
Next ACK deadline: Oct 01 20:32:19 2023 UTC
Reporting push interval: 1
Next ACK push check: None
Next report push: None
Last report push: None
Last report file write: None

Policy:
  Policy in use: None
  Policy name: Default Policy
  Reporting ACK required: yes
  Subscription:
    First report requirement (days): 90
    Ongoing reporting frequency (days): 90
    On change reporting (days): 90
  Perpetual:
    First report requirement (days): 365
    Ongoing reporting frequency (days): None
    On change reporting (days): 90
  Enforced:
    First report requirement (days): None
    Ongoing reporting frequency (days): None
    On change reporting (days): None
  Export:
    First report requirement (days): None

```

Ongoing reporting frequency (days): None  
 On change reporting (days): None

- Use the command **show license summary** to view the summary of your license

**show license summary**

license summary

#### Current tenant: nfvis-single-tenant

Smart Licensing is ENABLED

Smart Licensing Policy:  
 Status: ENABLED

Transport:

Type: SmartTransport

URL: https://smartreceiver-stage.cisco.com/licservice/license

Proxy:

Not configured

Trust Code Installed: Jul 05 06:20:56 2023 UTC

Last Attempt Date: Jul 05 06:19:31 2023 UTC

Last Attempt Status: JobStatus.success

Last Attempt Result: success

Attempt In Progress: False

Next Attempt Date: None

Usage Reporting:

Last ACK received: None

Next ACK deadline: Oct 01 20:32:19 2023 UTC

Reporting push interval: 1

Next ACK push check: None

Next report push: None

Last report push: None

Last report file write: None

Policy:

Policy in use: None

Policy name: Default Policy

Reporting ACK required: yes

Subscription:

First report requirement (days): 90

Ongoing reporting frequency (days): 90

On change reporting (days): 90

Perpetual:

First report requirement (days): 365

Ongoing reporting frequency (days): None

On change reporting (days): 90

Enforced:

First report requirement (days): None

Ongoing reporting frequency (days): None

On change reporting (days): None

Export:

First report requirement (days): None

Ongoing reporting frequency (days): None

On change reporting (days): None

License Usage

=====

Name: None

Short-name-tag: NFVIS\_CORE\_UCSC

Name-tag:

regid.2023-04.com.cisco.NFVIS\_CORE\_UCSC,1.0\_81ac6671-e3e7-489e-ae14-9610ae3ccdaf

```

Description: None
Count: 2
Version: None
Status: IN USE
Enforcement_type: NOT ENFORCED
Feature: None
Feature description: None

```

- Use the **show license usage** command to view your license usage:

```

show license usage
license usage
      License Usage
      =====
      Name: None
      Short-name-tag: NFVIS_CORE_UCSC
      Name-tag:
regid.2023-04.com.cisco.NFVIS_CORE_UCSC,1.0_81ac6671-e3e7-489e-ae14-9610ae3ccdaf
      Description: None
      Count: 2
      Version: None
      Status: IN USE
      Enforcement_type: NOT ENFORCED
      Feature: None
      Feature description: None

```

- The license tech support is a part of Cisco NFVIS tech support.

## Action Commands

Use the following actions commands that can help you release, sync and trust Cisco NFVIS licences:

- **license smart release:** Use this command to send a "License Usage 0" message to CSSM. This action prompts the CSSM to release the license entitlement associated with your Cisco UCS C M6 Rack servers. If the device continues to operate with Cisco NFVIS after the license release, a usage report, also known as RUM, is sent to CSSM after a predetermined time interval. This report will indicate the actual number of license units consumed, which will then be reserved again on CSSM. Following a license release, a notification and system logging warning is issued, urging you to cease using Cisco NFVIS as the license has been released. You receive this notification every 8 hours during the 24 hours after a license release. If you continue to use Cisco NFVIS beyond this 24-hour period, a RUM report will be generated reflecting the appropriate number of license units consumed by Cisco NFVIS. This report is sent to the Licensing server based on the set periodic interval, after which the licensing server will reserve the correct number of license units for the device again.
- **license smart sync:** Report a license usage to CSSM using this action command.
- **license smart trust:** Initiate the establishment of trust between the device and the CSSM. This action can prove beneficial in various scenarios, including but not limited to the following:
  1. If you delete the product instance from CSSM but wish to continue with Cisco NFVIS Licensing.
  2. If you transfer your licenses from one Virtual Account to another.
  3. If there is an asynchrony between the licensing state on CSSM and on the device.
  4. If the licensing certificates on the device reach their expiry date.