

# How To Install and Uninstall a Nexus 1000V License



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## Introduction

This document describes these license operations:

- Install
- Uninstall
- Transfer
- Verify
- Troubleshoot

This document also contains information on changes in licenses between releases and links to configuration guides.

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

This document is not restricted to specific software and hardware versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

## Conventions

Refer to the Cisco Technical Tips Conventions for more information on document conventions.

## Install

In this section, you are presented with the information to install a Nexus 1000V license.

This video describes how to install the Nexus 1000V license.

In order to install a Nexus 1000V license, enter these commands:

```
n1000v#install license bootflash:license_file.lic
Installing license ..done
n1000v#show license file license_file.lic
SERVER this_host ANY
VENDOR cisco
INCREMENT NEXUS1000V_LAN_SERVICES_PKG cisco 1.0 permanent 10 \
    HOSTID=VDH=1575337335122974806 \
    NOTICE="<LicFileID>license_file.lic</LicFileID><LicLineID>0</LicLineID> \
    <PAK>PAK12345678</PAK>" SIGN=3AF5C2D26E1A
n1000v#show license usage NEXUS1000V_LAN_SERVICES_PKG
-----
Feature Usage Info
-----
Installed Licenses : 10
Default Eval Licenses : 0
Max Overdraft Licenses : 16
Installed Licenses in Use : 4
Overdraft Licenses in Use : 0
Default Eval Lic in Use : 0
Default Eval days left : 0
Licenses Available : 22
Shortest Expiry : Never
-----
Application
-----
VEM 3 - Socket 1
VEM 4 - Socket 1
VEM 4 - Socket 2
VEM 5 - Socket 1
-----
```

## Uninstall

In order to uninstall a Nexus 1000V license, enter these commands:

```
n1000v#show license brief
Enterprise.lic
n1000v#show license usage NEXUS1000V_LAN_SERVICES_PKG
-----
Feature Usage Info
-----
    Installed Licenses : 29
    Default Eval Licenses : 0
    Max Overdraft Licenses : 16
    Installed Licenses in Use : 2
    Overdraft Licenses in Use : 0
    Default Eval Lic in Use : 0
    Default Eval days left : 0
    Licenses Available : 43
```

Shortest Expiry : 01 Jul 2011

-----  
Application  
-----

VEM 5 - Socket 1  
VEM 5 - Socket 2  
-----

```
n1000v#svs license transfer src-vem 3 license_pool
n1000v#clear license Enterprise.lic
Clearing license Enterprise.lic:
SERVER this_host ANY
VENDOR cisco
Do you want to continue? (y/n) y
Clearing license ..done
n1000v(config)#copy running-config startup-config
```

## Transfer

Licenses can also be transferred. Refer to these documents for more information:

- Transfer Licenses between VEMs
- Transfer Licenses to the License Pool
- Transfer Licenses from the License Pool to VEMs

## Verify

Use this section to confirm that your configuration works properly.

The Output Interpreter Tool (registered customers only) (OIT) supports certain **show** commands. Use the OIT to view an analysis of **show** command output.

In order to verify a license, enter these commands:

```
n1000v#show license file eval.lic
SERVER this_host ANY
VENDOR cisco
INCREMENT NEXUS1000V_LAN_SERVICES_PKG cisco 1.0 1-dec-2010 16 \
    HOSTID=VDH=0871396331270074457 \
    NOTICE="<LicFileID>eval.lic</LicFileID><LicLineID>0</LicLineID> \
    <PAK>dummyPak</PAK>" SIGN=E08A38544DBE
n1000v#show license file Enterprise.lic
SERVER this_host ANY
VENDOR cisco
INCREMENT NEXUS1000V_LAN_SERVICES_PKG cisco 1.0 permanent 16 \
    HOSTID=VDH=0871396331270074457 \
    NOTICE="<LicFileID>Enterprise.lic</LicFileID><LicLineID>0</LicLineID> \
    <PAK>dummyPak</PAK>" SIGN=E08A38544DBE
n1000v#show license usage
Feature                               Ins Lic      Status   Expiry Date   Comments
                                   Count
-----
NEXUS_VSN_SERVICES_PKG                No    0    Unused   -              -
NEXUS1000V_LAN_SERVICES_PKG           No    1    In use   None          -
-----
n1000v#show license usage NEXUS1000V_LAN_SERVICES_PKG
-----
Feature Usage Info
-----
Installed Licenses : 29
Default Eval Licenses : 0
Max Overdraft Licenses : 16
```

```

Installed Licenses in Use : 2
Overdraft Licenses in Use : 0
Default Eval Lic in Use : 0
Default Eval days left : 0
Licenses Available : 43
Shortest Expiry : 01 Jul 2011

```

```
-----
Application
-----
```

```
VEM 5 - Socket 1
VEM 5 - Socket 2
-----
```

```
n1000v#show module vem license-info
```

```
Licenses are Sticky
```

Mod	Socket	Count	License Usage	Count	License Version	License Status
3	2	2			1.0	licensed
4	2	2			1.0	licensed

```
n1000v#show module vem 3 license-info
```

```
Licenses are Sticky
```

Mod	Socket	Count	License Usage	Count	License Version	License Status
3	2	2			1.0	licensed

## Troubleshoot

Use this section to troubleshoot your configuration.

## Troubleshooting Commands

The Output Interpreter Tool (registered customers only) (OIT) supports certain **show** commands. Use the OIT to view an analysis of **show** command output.

**Note:** Refer to Important Information on Debug Commands before you use **debug** commands.

```
n1000v#show module
```

Mod	Ports	Module-Type	Model	Status
1	0	Virtual Supervisor Module	Nexus1000V	active *
5	248	Virtual Ethernet Module	NA	unlicensed

```
Mod Sw Hw
-----
```

```
1 4.0(4)SV1(1) 0.0
5 4.0(4)SV1(1) 0.4
```

```
Mod MAC-Address(es) Serial-Num
-----
```

```
1 00-19-07-6c-5a-a8 to 00-19-07-6c-62-a8 NA
5 02-00-0c-00-05-00 to 02-00-0c-00-05-80 NA
```

```
Mod Server-IP Server-UUID Server-Name
-----
```

```
1 172.23.232.140 NA NA
5 172.23.233.100 33393935-3234-5553-4539-30364e345630 172.23.233.100
```

```
n1000v#show module vem license-info
```

```
Licenses are Sticky
```

Mod	Socket	Count	License Usage	Count	License Version	License Status
3	2	-			-	unlicensed

```
n1000v# show license usage
```

Feature	Ins	Lic	Status	Expiry Date	Comments
		Count			

```
-----
NEXUS_VSG_SERVICES_PKG No 0 Unused -
```

```
NEXUS1000V_LAN_SERVICES_PKG   Yes   16   In use   Never   -
```

```
n1000v#show license usage NEXUS1000V_LAN_SERVICES_PKG
```

```
-----  
Feature Usage Info  
-----
```

```
    Installed Licenses :    10  
      Eval Licenses :      0  
    Max Overdraft Licenses :  16  
Installed Licenses in Use :    4  
Overdraft Licenses in Use :    0  
      Eval Licenses in Use :    0  
    Licenses Available :   22  
-----
```

```
Application  
-----
```

```
VEM 3 - Socket 1  
VEM 3 - Socket 2  
VEM 4 - Socket 1  
VEM 4 - Socket 2  
-----
```

```
n1000v#show int veth1
```

```
Vethernet1 is down (VEM Unlicensed)  
  Port description is VM-Pri, Network Adapter 1  
  Hardware is Virtual, address is 0050.56b7.1c7b  
  Owner is VM "VM-Pri", adapter is Network Adapter 1  
  Active on module 5  
  VMware DVS port 32  
  Port-Profile is dhcp-profile  
  Port mode is access  
  Rx  
  5002 Input Packets 4008 Unicast Packets  
  85 Multicast Packets 909 Broadcast Packets  
  846478 Bytes  
  Tx  
  608046 Output Packets 17129 Unicast Packets  
  502543 Multicast Packets 88374 Broadcast Packets 0 Flood Packets  
  38144480 Bytes  
  20 Input Packet Drops 0 Output Packet Drops
```

```
n1000v#show license host-id
```

```
License hostid: VDH=8449368321243879080
```

```
n1000v#show license file sample.lic
```

```
sample.lic:  
SERVER this_host ANY  
VENDOR cisco  
INCREMENT NEXUS1000V_LAN_SERVICES_PKG cisco 1.0 permanent 16 \  
  HOSTID=VDH=8449368321243879080 \  
  NOTICE="<LicFileID>sample.lic</LicFileID><LicLineID>0</LicLineID> \  
  <PAK>dummyPak</PAK>" SIGN=34FCB2B24AE8
```

```
n1000v#show license brief
```

```
license_file.lic
```

## Changes in Licenses Between Releases

### New and Changed Information in Release 4.2(1)SV1(5.1)

No new information was added to the Cisco Nexus 1000V License Configuration Guide 4.2(1)SV1(5.1).

### New and Changed Information in Release 4.2(1)SV1(4a)

- vEthernet interfaces vEthernet interfaces are no longer brought down immediately when their licenses expire.

- Monitor license usage A system message is generated every hour that lists the modules that are unlicensed.

#### **New and Changed Information in Release 4.2(1)SV1(4)**

- Monitor license usage A system message is generated when more licenses are used than are installed.
- Transfer licenses from the license pool to VEMs Added the **svs license transfer license\_pool dst–vem module** command. This command transfers licenses from the license pool to the VEMs.
- Display license information The **show module vem module license–info** command was added. This command displays the license mode and the usage of licenses by each module.

#### **New and Changed Information in Release 4.0(4)SV1(3)**

- Evaluation licenses A total of 16 evaluation licenses are included in the software image. Additional evaluation licenses can be downloaded from Cisco.com and installed separately. The evaluation licenses in the Cisco Nexus 1000V software are good for 60 days. Evaluation licenses downloaded from Cisco.com can be of varied duration.
- #Display license expiration The **show license usage package\_name** command output is updated to show the date of the nearest license expiration.

#### **New and Changed Information in Release 4.0(4)SV1(2)**

- Evaluation licenses Evaluation licenses are available as part of the software installation or upgrade. A separate evaluation license file no longer needs to be installed.
- #License statistics The **show license usage package\_name** command output is updated to show the number of evaluation and permanent licenses that are available, installed, and in use on the VSM.

## **Related Information**

- [Cisco Nexus 1000V License Configuration Guide, Release 4.2\(1\)SV2\(1.1\)](#)
- [Cisco Nexus 1000V License Configuration Guide, Release 4.2\(1\)SV1\(5.1\)](#)
- [Cisco Nexus 1000V License Configuration Guide, Release 4.2\(1\) SV1\(4a\)](#)
- [Cisco Nexus 1000V License Configuration Guide, Release 4.2\(1\) SV1\(4\)](#)
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