



## Troubleshooting Licensing Issues

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This chapter describes how to troubleshoot issues that are related to firewall licensing on the Virtual Supervisor Module (VSM).

This chapter includes the following sections:

- [Information About Licensing, page 4-1](#)
- [Troubleshooting License Installation Issues, page 4-1](#)
- [Determining Cisco VSG License Usage, page 4-2](#)
- [Viewing Installed License Information, page 4-2](#)

### Information About Licensing

CISCO VSG follows universal licensing mode in which if VEM licenses are there, two VSG licenses are given.

A module is licensed or unlicensed according to the following definitions:

- **Firewalled module**—A VEM is considered to be firewalled if it can acquire licenses for all of its CPU sockets.
- **Nonfirewalled module**—A VEM is considered to be nonfirewalled if it cannot acquire licenses for any, or a subset of, its CPU sockets.

If a VEM is nonfirewalled, all the virtual Ethernet ports on the VEM that correspond to the virtual machines (VMs) are kept in pass-through mode, so that these virtual machines are not firewalled.

By default, VSG allocate 2 licenses for each VEM.

For additional information about licensing, see the *Cisco Nexus 1000V for VMware vSphere License Configuration Guide*.

### Troubleshooting License Installation Issues

This section describes how to troubleshoot Cisco VSG license installation issues.



**Note**

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This section assumes that you have a valid Cisco VSG license file.

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For additional information about licensing, see the *Cisco Nexus 1000V for VMware vSphere License Configuration Guide*.

This section includes the following topics:

- [License Troubleshooting Checklist, page 4-2](#)
- [Removing an Evaluation License File, page 4-2](#)
- [Removing an Evaluation License File, page 4-2](#)

## License Troubleshooting Checklist

Before you start the troubleshooting process, follow these requirements:

- Make sure that the name of the license file is less than 32 characters.
- Make sure that no other license file with the same name is installed on the VSM. If there is a license file with the same name, rename your new license file to something else.
- Do not edit the contents of the license file. If you have already done so, contact your Cisco Technical Assistance Center (TAC) Team.
- Make sure that the host ID in the license file is the same as the host ID on the switch.

## Removing an Evaluation License File

If an evaluation license file is already installed on the VSM, you must remove it from the VSM before installing a permanent license file. For more information, see the *Cisco Nexus 1000V for VMware vSphere License Configuration Guide* for your release number.

## Determining Cisco VSG License Usage

You can view the Cisco VSG license state of the VEMs on your VSM and the number of CPU sockets per VEM by entering the **module vem 3 execute vemcmd show vsm config** command.

This example shows how to confirm the Cisco VSG license state:

```
vsm# module vem 3 execute vemcmd show vsm config
VNS Enabled | VNS Licenses Available 2
VSN#  VLAN          IP          STATIC-MAC          LEARNED-MAC  LTLs
  1   754          200.1.1.10  00:00:00:00:00:00  00:50:56:83:00:01  0
```

In this command output, VEM 3 is licensed. It has two CPU sockets and it currently uses two firewall licenses.

## Viewing Installed License Information

You can view the installed license count by entering the **show license usage** command.

This example shows how to display the installed licenses count:

```
VSM-(config)# show license usage
Feature                               Ver Ins Lic  Status Expiry Date Comments
                                      Count
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```

NEXUS1000V_STINGRAY_PKG	1.0	No	0	Unused	-
NEXUS1000V_LAN_SERVICES_PKG	3.0	No	1024	In use	04 Oct 2014 -
NEXUS_ASA1000V_SERVICES_PKG	1.0	No	512	Unused	04 Oct 2014 -
NEXUS1000V_INTERCLOUD_VM_PKG	1.0	No	16	Unused	04 Oct 2014 -

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Note: Licenses are not required for Essential Edition  
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■ Viewing Installed License Information