



Cisco Nexus 1000 Virtual Edge for VMware vSphere Release Notes, Release 5.2(1)SV5(1.1)

First Published: 2018-07-11

Last Updated: 2018-08-06

This document describes the features, limitations, and bugs for Cisco Nexus 1000 Virtual Edge for VMware vSphere (Cisco Nexus 1000VE) Release 5.2(1)SV5(1.1).

Use this document in combination with documents listed in the [Related Documentation](#) section.

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Introduction

The Cisco Nexus 1000VE for VMware provides a distributed, virtual switch that extends across multiple virtualized hosts. The Cisco Nexus 1000VE manages a data center defined by the vCenter Server. Each server in the data center is represented as a line card in Cisco Nexus 1000VE and can be managed similar to a line card in a physical Cisco switch.

The Cisco Nexus 1000VE consists of the following components:

- Virtual Supervisor Module (VSM), which contains the Cisco CLI, configuration, and high-level features.
- Virtual Service Engine (VSE), which acts as a line card and runs in each virtualized server to handle packet forwarding and other localized functions.

Software Compatibility

The servers that run the Cisco Nexus 1000VE VSM and VSE must be in the VMware Hardware Compatibility list.

Cisco Nexus 1000VE Release 5.2(1)SV5(1.1) supports vSphere 6.0 and later release trains. Cisco Nexus 1000VE supports all virtual machine network adapter types that VMware vSphere supports.

Refer to the VMware documentation when choosing a network adapter. For more information, see the VMware Knowledge Base article #1001805.

[Table 1](#) lists the minimum software versions compatibility between Cisco VSG, Cisco PNSC, and Cisco Nexus 1000VE.

Table 1 **Software Compatibility**

Cisco Nexus 1000VE Version	Cisco VSG Version	Cisco PNSC Version	VMware vCenter Version
5.2(1)SV5(1.1)	<ul style="list-style-type: none"> • VSG 2.2.1 • VSG 2.2.2 	<ul style="list-style-type: none"> • PNSC 3.4.2b • PNSC 3.4.2c 	<ul style="list-style-type: none"> • For a Windows appliance, version 6.0U3 and above. • For a VC Linux appliance, version 6.0 and above.



Note

Migration to Cisco Nexus 1000VE is supported only from Cisco Nexus 1000V, Release 5.2(1)SV3(3.1) and later.

Configuration Scale Limits

The following topics provide configuration scale limit information:

- [Cisco Nexus 1000VE Configuration Scale Limits, page 3](#)
- [Cisco VSG Configuration Scale Limits, page 3](#)

Cisco Nexus 1000VE Configuration Scale Limits

Table 2 lists the configuration scale limits supported in Cisco Nexus 1000VE, Release 5.2(1)SV5(1.1). Features that do not apply are marked as N/A.

Table 2 Cisco Nexus 1000VE Configuration Scale Limits

Features	Cisco Nexus 1000VE	
	VSE	vDS
Host/DVS	N/A	64
Total vEth Ports	300	4000
vEthernet interfaces per port profile	300	N/A
Port Profile	N/A	2000
VLANs	4094	4094
ACLs	64	64
MAC address per vSE	32000	32000
ACEs per ACL	128	128
PVLAN	N/A	123
SPAN/ERSPAN Sessions	16	16
Cisco Trustsec	<ul style="list-style-type: none"> • 4K IPSGT Mappings (2000 CLI + 2000 SXP) • 1K SUBNET-SGT Mappings (512 CLI + 512 SXP) • 32 SGACLs • 32 ACE's in 3 SGACL's • 8 SXP Peers. • 1K SGT policies. • 300 Device Tracking entries. 	<ul style="list-style-type: none"> • 4K IPSGT Mappings (2000 CLI + 2000 SXP) • 1K SUBNET-SGT Mappings (512 CLI + 512 SXP) • 32 SGACLs • 32 ACE's in 3 SGACL's • 8 SXP Peers. • 1K SGT policies. • 300 Device Tracking entries.

Cisco VSG Configuration Scale Limits

Table 3 lists the configuration scale limits that apply and supersede the scale numbers shown in Cisco Nexus 1000V Configuration Scale Limits section for Cisco VSG.

Table 3 Cisco VSG Configuration Scale Limits

Feature	VSE	vDS
VSG	150 protected by VSG	2400 ports protected by VSG

Important Notes and Limitations

This section lists important notes and limitations for Cisco Nexus 1000VE:

- vMotion service gets enabled for VMkernel adapter automatically that causes migration of unwanted VMKernel adapters to outside trunk vDS which eventually affect some services supported on those VMKernel ports. Please refer VMWare documentation or online public forum discussions for more information.
- The command **switchport private-vlan trunk allowed vlan add <>** is not automatically migrated from Classic Nexus 1000 V to Cisco Nexus 1000 VE. After the migration, you need to explicitly configure the command on Cisco Nexus 1000 VE.
- The non-participating vEthernet ports on Cisco Nexus 1000 VE VSMs are deleted periodically every 30 minutes.
- We recommend you to use Cisco Nexus 1000VE Manager vCenter Plugin to deploy or migrate N1KVE. For detailed information, see: [VSE Deployment Using Cisco Nexus 1000VE Manager vCenter Plugin](#).
- We recommend you to use vmk0 IP address for adding the host to the vCenter. VSE module attach might fail if ESXi host is added using IP address of another vmk.
- We recommend you not to use **write erase** and **reload vsm** commands because they erase entire startup configuration including default port-profiles. Otherwise you need to manually move the ports to respective port-profiles, after the reload.
- Virtual Ethernet port are dynamically assigned and are not fixed for Virtual Machines.
- There is some traffic loss after a Virtual Machine (vMotion) is migrated from one host to another.
- Cisco Nexus 1000VE supports installation of VSM on VMware vSphere ESXi, CSP 2100, and N1100.



Note Cisco Nexus 1000VE supports only ISO file installation. OVA file is not supported.

- Bulk migration of all the Virtual machine adapters attached to a port group configured in Nexus 1000VE VSM to any other destination network is not supported.
- Bulk migration of Virtual Network Adapters to Cisco Nexus 1000VE vDS should be limited to batches of 50 ports, with a delay of 30 seconds between batches.
- If Cisco Nexus 1000VE VSE Management port-group is part of Virtual Standard Switch, make sure that the same port-group is replicated in all the ESXi Hosts intended to be migrated.
- Ensure that the management port-group is unique across all the vDS in the Datacenter.
- Only one uplink port-profile is supported on Cisco Nexus 1000VE per ESXi Host. If an ESXi Host in Cisco Nexus 1000V utilizes multiple uplink port-profiles, then consolidate to a single uplink port-profile before migration.
- Only Hosts using common uplink Ethernet port profile can be migrated as a batch.
- Only the supported configurations are migrated from Cisco Nexus 1000V VSM to Cisco Nexus 1000VE VSM. The Cisco Nexus 1000VE Manager migration plugin tool filters out the unsupported configurations.
- Ensure that you have configured different vmknics for Cisco Nexus 1000V specific services (for example, ERSPAN/VSG) and VMware specific services (for example, vMotion) before the migration.

- Migration from Cisco Nexus 1000V to Cisco Nexus 1000VE could result in packet drops during the migration.
- If the ERSPAN source and destination are in different subnets, and if the ERSPAN source is an L3 control VM kernel NIC attached to a Cisco Nexus 1000VE VSE, you must enable proxy-ARP on the upstream switch. If you do not enable proxy-ARP on the upstream switch (or router, if there is no default gateway), ERSPAN packets are not sent to the destination.
- DHCP is not supported for VSM management IP. The management IP must be configured statically.
- When a VSE communicates with the Cisco VSG in Layer 3 mode, an additional header with 94 bytes is added to the original packet. You must set the MTU to a minimum of 1594 bytes to accommodate this extra header for any network interface through which the traffic passes between the VSE and Cisco VSG. These interfaces can include the uplink port profile, the proxy ARP router, or a virtual switch.
- To upload VSE OVF file to the content library in VMware vCenter version 6.0, the URL option should be used. You cannot upload VSE from the local machine.

Using the Bug Search Tool

Use the Bug Search tool to search for a specific bug or to search for all bugs in a release.

Step 1 Go to <http://tools.cisco.com/bugsearch>.

Step 2 At the Log In screen, enter your registered Cisco.com username and password; then, click **Log In**. The Bug Search page opens.



Note If you do not have a Cisco.com username and password, you can register for them at <http://tools.cisco.com/RPF/register/register.do>.

Step 3 To search for a specific bug, enter the bug ID in the Search For field and press **Return**.

Step 4 To search for bugs in the current release:

- In the Search For field, enter **Cisco Nexus 1000VE** and press **Return**. (Leave the other fields empty.)
- When the search results are displayed, use the filter tools to find the types of bugs you are looking for. You can search for bugs by modified date, status, severity, and so forth.

To export the results to a spreadsheet, click the **Export Results to Excel** link.

Open Bugs

The following table lists the open bugs in Cisco Nexus 1000VE Release 5.2(1)SV5(1.1). The IDs are linked to the Cisco Bug Search tool.

Table 4 *Open Bugs in Cisco Nexus 1000VE for VMware vSphere Release 5.2(1)SV5(1.1)*

Bug ID	Description
CSCvi90489	Virtual Ethernet (vEth) ports get deactivated after ESXi Host reboot.
CSCvj90840	Post vMotion, VMs are not getting detached from the source VSE and attached to the destination VSE.
CSCvg05219	Handle VSE VM CPU alert in vCenter.
CSCvh03591	Veths don't get detached after VM name change in vCenter.
CSCvh07390	OVA deployments in vCenter fails if all the 4000 IPGs are created.
CSCvh82274	CTS propage-sgt not functioning as expected.
CSCvi55165	vEth port is getting automatically deleted if it is attached to Nexus 1000VE port-profile.
CSCvi59871	SVS connection flaps even after no vmware dvs command is used.
CSCvi71780	CLI override and removal of SGT mappings doesn't bring back SXP configured mappings
CSCvj04672	VMS crashes if a host in VC is in disconnected state or is unreachable.
CSCvj08242	VSE Module fails to attach if the ESXi host is added to vDS using IP address other than vmk0 IP address.
CSCvj32124	Few vEth ports that are part of an offline host are getting deleted from VSM and are reassigned to new ports.
CSCvj36811	After a VM migration, initially 10 to 15% traffic drop is observed.
CSCvj19058	Documentation missing for write erase functionality limitation in Cisco Nexus 1000VE.
CSCvj98532	Missing CTS configuration is a part of the config migration.
CSCvk10170	Configuration migration fails on the ethernet pp config changes to NG vsm.
CSCvj62324	VSE Network Adapter 1 Display Issue on VC with VSE installed on 6.0 Esxi Host.
CSCvg49436	IPG relocation issue post host moved to a valid cluster.
CSCvi50143	Support for Cross Cluster Vmotion Release-not
CSCvj55504	DNS FQDN support for VSM in N1KVE Plugin Install UI.
CSCvj55400	Select vDS should show only N1KVE NG vDS in the drop down list.
CSCvj62326	Cannot differentiate similar port-group names as a part of different virtual switches.
CSCvj64773	The uplink port-profile drop-down list displays port-profile as not a part of the VSM configured ones.
CSCvk05281	The scroll bar is not available for the "custom" datastore.

MIB Support

The Cisco Management Information Base (MIB) list includes Cisco proprietary MIBs and many other Internet Engineering Task Force (IETF) standard MIBs. These standard MIBs are defined in Requests for Comments (RFCs). To find specific MIB information, you must examine the Cisco proprietary MIB structure and related IETF-standard MIBs supported by the Cisco Nexus 1000VE.

The MIB Support List is available at the following FTP site:

<ftp://ftp.cisco.com/pub/mibs/supportlists/nexus1000v/Nexus1000VMIBSupportList.html>

Documentation Feedback

To provide technical feedback on this document or report an error or omission, send your comments to nexus1k-docfeedback@cisco.com.

We appreciate your feedback.

Related Documentation

This section lists the documents used with the Cisco Nexus 1000VE and available on Cisco.com at the following URL:

<https://www.cisco.com/c/en/us/support/switches/nexus-1000ve/tsd-products-support-series-home.html>

General Information

Cisco Nexus 1000VE Release Notes

Install and Upgrade

Cisco Nexus 1000VE Installation, Migration, and Upgrade Guide

Cisco VSG for VMware vSphere, Release 5.2(1)VSG2(2.2) and Cisco Prime NSC, Release 3.5.1a Installation and Upgrade Guide

Configuration Guides

Cisco Nexus 1000VE Layer 2 Switching Configuration Guide

Cisco Nexus 1000VE Security Configuration Guide

Cisco Nexus 1000VE System Management Configuration Guide

Troubleshooting, Password Recovery, System Messages Guides

Cisco Nexus 1000VE Troubleshooting Guide

Cisco Nexus 1000V Switch for VMware vSphere

[Cisco Nexus 1000V Switch for VMware vSphere Documentation](#)

Cisco Cloud Services Platform 2100

[Cisco Cloud Services Platform 2100 Documentation](#)

Virtual Security Gateway

[Cisco Virtual Security Gateway Documentation](#)

Cisco Prime Network Services Controller

[Cisco Prime Network Services Controller Documentation](#)

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.

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