

# Installing Nexus 1000VE (Virtual Edge)

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## Introduction

The Cisco Nexus 1000VE is a distributed virtual switch solution that is fully integrated within the VMware virtual infrastructure, including VMware vCenter, for the virtualization administrator. This solution offloads the configuration of the virtual switch and port groups to the network administrator to enforce a consistent data center network policy.

[VMware Hardware Compatibility List](#)

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## Prerequisites

### Pre-Requisites for Installing Nexus 1000 Virtual Edge (VE)

Cisco Nexus 1000 Virtual Edge installation has the following prerequisites:

- You have downloaded the Cisco Nexus 1000VE VSM and VSE images.
- You should have the VMware vCenter details and the administrator credentials.
- You have an ESXi host to deploy the Cisco Nexus 1000VE VSM.
- At least one ESXi host is available to deploy VSE for Cisco Nexus 1000VE.

- You have at least two IP addresses available for VSM and VSE (Virtual Services Engine).
- You have (N+1) IP addresses, where N is the number of ESXi hosts on which a VSE is deployed.

## ESXi Host Prerequisites

ESX or ESXi hosts have the following prerequisites:

- You have already installed and prepared vCenter Server for host management using the instructions from VMware.
- You have already installed the VMware Enterprise Plus license on the hosts.
- All VSE hosts must be running ESXi 6.0 U3 or later releases.
- You have two physical NICs on each host for redundancy. Deployment is also possible with one physical NIC.
- If you are using a set of switches, make sure that the interswitch trunk links carry all relevant VLANs. The uplink should be a trunk port that carries all VLANs that are configured on the host.
- You must configure control and management VLANs on the host to be used for the VSM VM.
- Make sure that the VM to be used for the VSM meets the minimum requirements listed in the following table.
- All the vmnics should have the same configuration upstream.

### Caution

- VSM hardware version 11 is not supported. See table below for supported versions.
- The VSM VM might fail to boot if RAM and CPU are not properly allocated. This document includes procedures for allocating RAM and setting the CPU speed.

This table lists the minimum requirements for hosting a VSM.

Table 1. Minimum Requirements for a VM Hosting a VSM

VSM VM Component	Minimum Requirement
VSM Hardware Version	7 N o VSM hardware versions 7, 8, 9, and 10 are supported. VSM hardware version 11 is not supported. e
Platform Type	64 bit Other 64-bit Linux (recommended)
Processor	2
RAM (configured and reserved)	4 GB <sup>1</sup>
NIC	3
SCSI Hard Disk	3 GB with LSI Logic Parallel adapter
CPU speed	2048 MHz <sup>2</sup>

<sup>1</sup>[Deploying Virtual Supervisor Module](#) <sup>2</sup>[Deploying Virtual Supervisor Module](#)

## VSM Prerequisites

The Cisco Nexus 1000VE VSM software has the following prerequisites:

- You have the VSM IP address.
- You have installed the appropriate VMware vCenter Server.
- If you are installing redundant VSMs, make sure that you first install and set up the software on the primary VSM before installing and setting up the software on the secondary VSM.
- If you are using the OVA file for installation, make sure that the CPU speed is 2048 MHz or greater. If the CPU speed is less than 2048 MHz, then use ISO image for installation.
- You have already identified the HA role for this VSM from the list in the following table.

Table 2. HA Roles

HA Role	Single Supervisor System	Dual Supervisor System
Standalone (test environment only)	X	
HA		X

**N**

**O**

**t** A standalone VSM is not supported in a production environment.

**e**

- You are familiar with the Cisco Nexus 1000VE topology diagram that is shown in [Topology for Layer 3 Control Mode](#).

## VSE Prerequisites

The Cisco Nexus 1000VE VSE software has the following prerequisites:

- If the hosts are in ESXi stateless mode, enable the PXE booted ESXi host settings under Home>Update Manager>Configuration>ESXi host/cluster.
- You have a copy of your VMware documentation available for installing software on a host.
- You have already obtained a copy of the VSE software file.
- The ESXi server is capable of hosting a VSE that reserves two vCPUs and 8 GB of memory.

## Upstream Switch Prerequisites

The upstream switch from the Cisco Nexus 1000VE has the following prerequisites:

- If you are using a set of switches, make sure that the interswitch trunk links carry all relevant VLANs. The uplink must be a trunk port that carries all the VLANs that are configured on the host.
- The following spanning tree prerequisites apply to the upstream switch from the Cisco Nexus 1000VE on the ports that are connected to the VSE. On upstream switches, the following configuration is mandatory: On your Catalyst series switches with Cisco IOS software, enter the spanning-tree portfast trunk spanning-tree portfast edge trunk command. On upstream switches we highly recommend that you enable Global BPDU Filtering and Global BPDU Guard globally. On upstream switches, where you cannot globally enable BPDU Filtering and BPDU Guard, we highly recommend that you enter the spanning-tree bpduguard spanning-tree bpduguard commands. For more information about spanning tree and its supporting commands, see the documentation for your upstream switch.
- Enter the following commands on the upstream switch:

```
show running interface interface number interface GigabitEthernet interface number
description description of interface switchport switchport trunk encapsulation dot1q
switchport trunk native VLAN native VLAN switchport trunk allowed vlan list of VLANs
switchport mode trunk end
```

## Requirements

Before installing the software, make topology decisions and gather any necessary information, as follows:

- Decide whether to deploy the VSM as a VM on a vSphere host, cluster, or on a CSP.
- Decide whether the management and Layer 3 control ports will be unified or separate.
- Determine the domain ID.
- Determine the management, subnet, and gateway IP addresses for the VSM.
- Determine the administrative password for the VSM and VSEs.

## Cisco Nexus 1000VE Manager vCenter Plugin

### Cisco Nexus 1000VE Manager VCenter Plugin Software requirements

Platform Series	Recommended Release
	<ul style="list-style-type: none"><li>• 6.0 Linux Appliance</li><li>• 6.5 Linux Appliance</li></ul>
vCenter	<ul style="list-style-type: none"><li>• 6.0 U3 Windows Server</li><li>• 6.5 Windows Server</li></ul>
Cisco Nexus 1000VE VSM 5.2(1)SV5(1.1)	

## Installing the Cisco Nexus 1000VE Manager VCenter Plugin

This section describes how to install the Cisco Nexus 1000VE vCenter Plugin. You must have working HTTPS traffic between your vCenter and Cisco Nexus 1000VE VSM, as vCenter will be downloading the plugin directly from the VSM.

If you cannot enable HTTPS traffic between your vCenter and Cisco Nexus 1000VE VSM, and you wish to use your own web server to host the Cisco Nexus 1000VE vCenter Plugin zip file, then download the Plugin Zip from Cisco Nexus 1000VE VSM by going to <https://<N1KVE-VSM-IP>/vcplugin/>.

Place the .Zip file in your preferred Web server path accessible over HTTPS from vCenter.

Follow the below steps to proceed with vCenter plugin installation.

### Download Python script

- Deploy VSM.
- Browse to VSM using HTTPS://<VSM ip>.
- Download “deploy\_n1kve\_plugin.py” python script to Python environment.
- Python environment should be able to reach the vCenter Server.
- Place the deploy\_n1kve\_plugin.py python script in a Python environment where the pyvmomi package is installed. Python version 2.7.9 or greater is mandatory.

## Installing with Python 7.2.9+ in Windows

Commands you run are bold.

Download and install python 2.7.9+ to an easy to find folder such as c:\python27

C:\Python27\Scripts>easy\_install-2.7.exe -U requests

Searching for requests

Reading <https://pypi.python.org/simple/requests/>

Best match: requests 2.21.0

Downloading

<https://files.pythonhosted.org/packages/52/2c/514e4ac25da2b08ca5a464c50463682126385c4272c18193876e91f4bc38/requests-2.21.0.tar.gz#sha256=502a824f31acdab3a35b6690b5fbf0bc41d63a24a45c4004352b0242707598e>

Processing requests-2.21.0.tar.gz

Writing c:\users\admini~1\appdata\local\temp\2\easy\_install-zmetvu\requests-2.21.0\setup.cfg

Running requests-2.21.0\setup.py -q bdist\_egg --dist-dir

c:\users\admini~1\appdata\local\temp\2\easy\_install-zmetvu\requests-2.21.0\egg-dist-tmp-ylyskc

C:\Python27\lib\distutils\dist.py:267: UserWarning: Unknown distribution option: 'python\_requires'

warnings.warn(msg)

C:\Python27\lib\distutils\dist.py:267: UserWarning: Unknown distribution option: 'long\_description\_content\_type'

warnings.warn(msg)

warning: no files found matching 'NOTICE'

warning: no files found matching 'requirements.txt'

Adding requests 2.21.0 to easy-install.pth file

Installed c:\python27\lib\site-packages\requests-2.21.0-py2.7.egg

Processing dependencies for requests

Finished processing dependencies for requests

C:\Python27\Scripts>cd ..

Download the get-pip.py script from <https://bootstrap.pypa.io/get-pip.py>

If it doesn't get downloaded as a file, copy the entire content and paste it in notepad and name it <file>.py and then execute the below command

C:\Python27>python get-pip.py

```
Collecting pip
Downloading
https://files.pythonhosted.org/packages/0f/74/e935244ca6165187ae8be876b6316ae201b365cbebc6a8974d1cd045ab4/pip-10.0.1-py2.py3-none-any.whl (1.3MB)
100% |#####| 1.3MB 2.5MB/s
Collecting wheel
Downloading
https://files.pythonhosted.org/packages/81/30/e935244ca6165187ae8be876b6316ae201b71485538ffac1d718843025a9/wheel-0.31.1-py2.py3-none-any.whl (41kB)
100% |#####| 51kB 1.2MB/s
Installing collected packages: pip, wheel
Found existing installation: pip 7.0.1
Uninstalling pip-7.0.1:
Successfully uninstalled pip-7.0.1
The script wheel.exe is installed in 'C:\Python27\Scripts' which is not on PATH.
Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
Successfully installed pip-10.0.1 wheel-0.31.1
```

C:\Python27>cd Scripts

```
C:\Python27\Scripts>pip install pyvmomi
Collecting pyvmomi
Downloading
https://files.pythonhosted.org/packages/ba/45/d6e4a87004f1c87bdee2942a8896289684e660dbd76e868047d3319b245f/pyvmomi-6.7.0-py2.py3-none-any.whl (249kB)
100% |#####| 256kB 3.3MB/s
Collecting requests>=2.3.0 (from pyvmomi)
Downloading
https://files.pythonhosted.org/packages/65/47/7e02164a2a3db50ed6d8a6ab1d6d60b69c4c3fdf57a284257925dfc12bda/requests-2.19.1-py2.py3-none-any.whl (91kB)
100% |#####| 92kB 2.8MB/s
Collecting six>=1.7.3 (from pyvmomi)
Downloading
https://files.pythonhosted.org/packages/67/4b/141a581104b1f6397bfa78ac9d43d8ad29a7ca43ea90a2d863fe3056e86a/six-1.11.0-py2.py3-none-any.whl
Collecting chardet<3.1.0,>=3.0.2 (from requests>=2.3.0->pyvmomi)
Downloading
https://files.pythonhosted.org/packages/bc/a9/01ffebfb562e4274b6487b4bb1ddec7ca55ec7510b22e4c51f14098443b8/chardet-3.0.4-py2.py3-none-any.whl (133kB)
100% |#####| 143kB 3.0MB/s
Collecting urllib3<1.24,>=1.21.1 (from requests>=2.3.0->pyvmomi)
Downloading
https://files.pythonhosted.org/packages/bd/c9/6fdd990019071a4a32a5e7cb78a1d92c53851ef4f56f62a3486e6a7d8ffb/urllib3-1.23-py2.py3-none-any.whl (133kB)
100% |#####| 143kB 3.7MB/s
Collecting certifi>=2017.4.17 (from requests>=2.3.0->pyvmomi)
Downloading
https://files.pythonhosted.org/packages/7c/e6/92ad559b7192d846975fc916b65f667c7b8c
```

[3a32bea7372340bfe9a15fa5/certifi-2018.4.16-py2.py3-none-any.whl](https://files.pythonhosted.org/packages/3a/32/3a32bea7372340bfe9a15fa5/certifi-2018.4.16-py2.py3-none-any.whl) (150kB)

100% |#####| 153kB 3.7MB/s

Collecting idna<2.8,>=2.5 (from requests>=2.3.0->pyvmomi)

Downloading

<https://files.pythonhosted.org/packages/4b/2a/0276479a4b3caeb8a8c1af2f8e4355746a97fab05a372e4a2c6a6b876165/idna-2.7-py2.py3-none-any.whl> (58kB)

100% |#####| 61kB 1.2MB/s

Installing collected packages: chardet, urllib3, certifi, idna, requests, six, pyvmomi

The script chardetect.exe is installed in 'c:\python27\Scripts' which is not on PATH.

Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.

Successfully installed certifi-2018.4.16 chardet-3.0.4 idna-2.7 pyvmomi-6.7.0 requests-2.19.1 six-1.11.0 urllib3-1.23

C:\Python27\Scripts>cd ..

C:\Python27>python.exe deploy\_n1kve\_plugin.py

Running deploy\_n1kve\_plugin.py Script

```
=====  
.:|:|:|. Cisco Systems Inc
```

```
=====  
N1KVE Plugin for the vSphere Web Client deployment tool  
-----
```

In order to install the N1KVE Plugin for the vSphere Web Client, the following wizard will prompt you the following information:

- vCenter IP : The IP address of the vCenter where the plugin needs to be installed.
- vCenter Username / password : The login information of a user with root privileges
- Plugin version number : The version of the plugin to deploy
- Plugin zip file URL : The URL where the vCenter will be able to download the N1KVE Plugin zip archive (HTTP or HTTPS).
- Https server Thumbprint: The SHA thumbprint of the HTTPS server where the zip archive is located

vCenter IP: <Enter\_IP\_Address>

vCenter Username: administrator@vsphere.local

Password:

Plugin zip file URL: [https://<IP\\_Address>/vcplugin/n1kve-vcenter-plugin-1.0.1.zip](https://<IP_Address>/vcplugin/n1kve-vcenter-plugin-1.0.1.zip) <----- We recommended using HTTPS for this as vCenter does not allow http connections by default. See troubleshooting section if customer used HTTP.

Https server Thumbprint: 02:B5:C2:6A:37:00:3D:76:1D:F1:EA:79:71:55:B1:F5:35:BE:FE:E5 <-----

--- You need the : every 2 digits. Some browsers do not add this by default so you may need to add it to the thumbprint before pasting.

Connecting to the vCenter ...

Fetching service instance content ...

Checking the API version ...

Installing the plugin ...

The plugin information was successfully installed on the vCenter <IP\_Address>

--- Please Read ---

The information provided was successfully pushed to the vCenter, but plugin installation is not over.

You need to login into the vSphere Web Client and check for the Cisco N1KVE Plugin icon to ensure that the installation is successful

If the plugin does not appear in the UI, check the vSphere Web Client log file to see what went wrong

<https://<N1KVE-VSM-IP>/vcplugin/n1kve-vcenter-plugin-1.0.1.zip>

OR

- If the Zip file is placed in any other webserver, then provide the URL for the same

<https://<WEB-SERVER-IP>/<Relative-path-if-any-to-Zip-file>/n1kve-vcenter-plugin-1.0.1.zip>

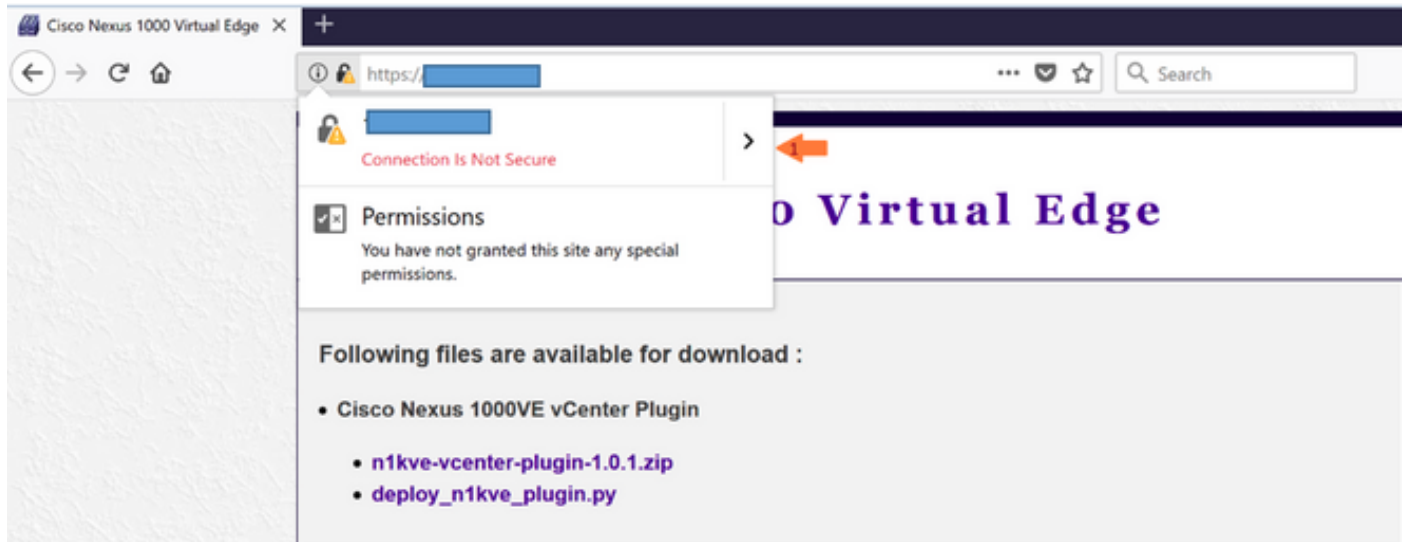
Note: Ensure you have not renamed the .zip file.

- In the Https server thumbprint field, leave this empty, if you are using HTTP. Otherwise, enter the SHA1 Thumbprint of the Web server used. The fields are separated with colons. For example:

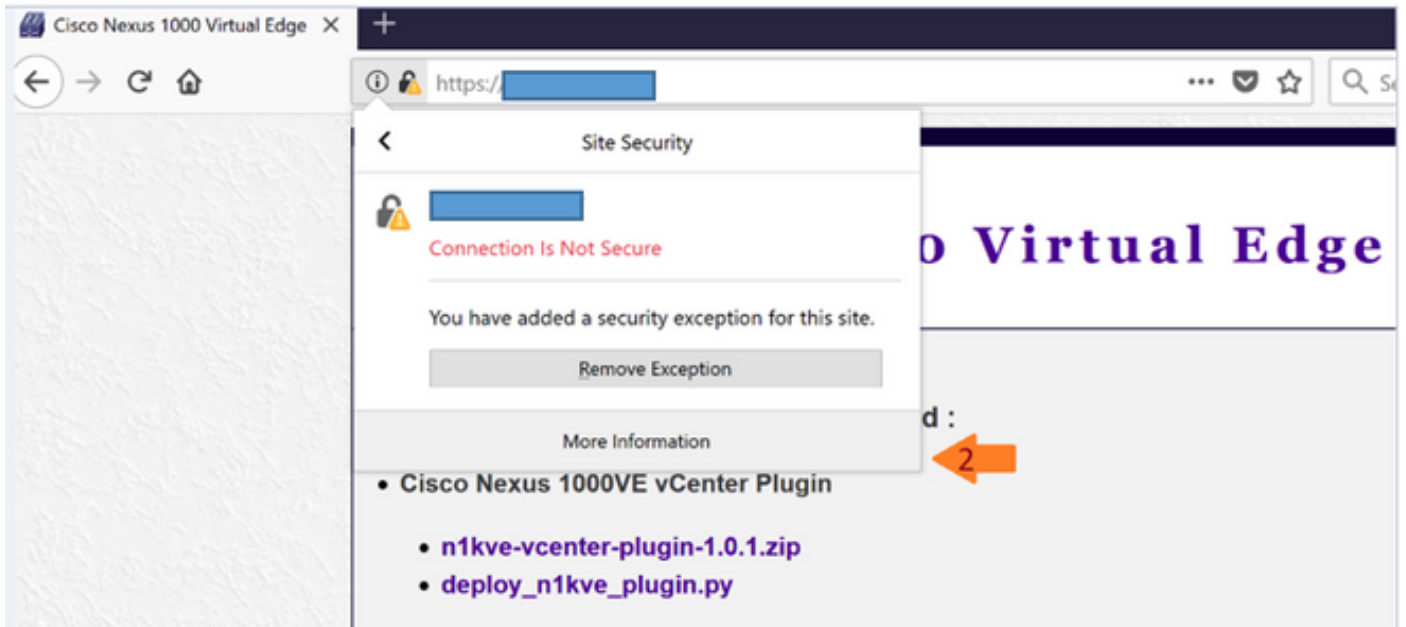
D7:9F:07:61:10:B3:92:93:E3:49:AC:89:84:5B:03:80:C1:9E:2F:8B

## Retrieving HTTPS SHA1 Thumbprint

To retrieve the HTTPS SHA1 Thumbprint used by the web server hosting the zip file.







Website Identity

Website: [Redacted]

Owner: **This website does not supply ownership information.**

Verified by: **Cisco Systems Inc**

Expires on: **Monday, July 8, 2019**

3 View Certificate

### Issued To

Common Name (CN) [www.cisco.com/go/1000v](http://www.cisco.com/go/1000v)

Organization (O) Cisco Systems Inc

Organizational Unit (OU) Datacenter group

Serial Number 00:FB:2A:AA:E6:0D:43:7E:1D

### Issued By

Common Name (CN) [www.cisco.com/go/1000v](http://www.cisco.com/go/1000v)

Organization (O) Cisco Systems Inc

Organizational Unit (OU) Datacenter group

### Period of Validity

Begins On Sunday, July 8, 2018

Expires On Monday, July 8, 2019

### Fingerprints

SHA-256 Fingerprint E4:A1:5B:87:14:D8:24:DF:8C:5C:D8:C3:11:2D:96:5E:31:5E:6A:1A:D9:06:8B:61:77:15:40:2A:2B:3F:24:DE

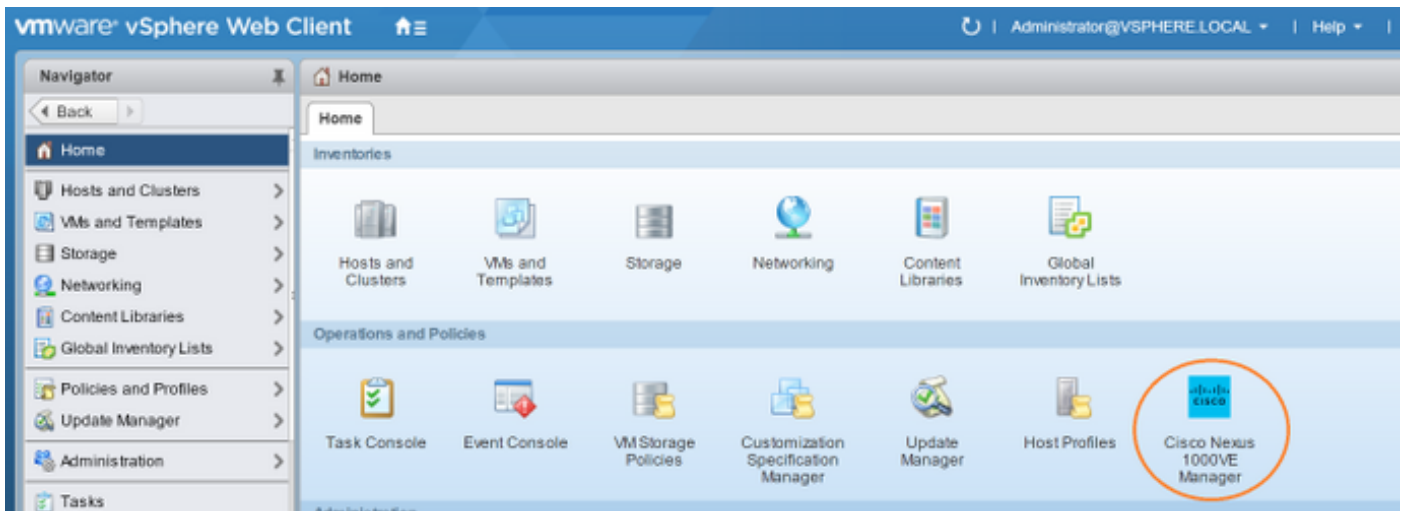
SHA1 Fingerprint 02:B5:C2:6A:37:00:3D:76:1D:F1:EA:79:71:55:B1:F5:35:BE:FE:E5 ←

### Step 3 :

- Log into the vSphere Web Client once the registration is completed.

Note: First login may take longer, as the vCenter will be downloading and deploying the plugin from the Web server.

Once the VMware vSphere Web Client loads, you will see the Cisco Nexus 1000VE Manager icon under Home > Operations and Policies. This allows you to manage your Nexus 1000VE.



```
N1KV-NG(config)# svcs connection vCenter
```

```
N1KV-NG(config-svs-conn)# remote ip address <vCenter_IP_Address>
```

```
N1KV-NG(config-svs-conn)# vmware dv
```

```
dvs dvs-version
```

```
N1KV-NG(config-svs-conn)# vmware dvs datacenter-name Datacenter
```

```
N1KV-NG(config-svs-conn)# protocol vmware-vim
```

```
N1KV-NG(config-svs-conn)# register-plugin remote username administrator@vsphere.local
```

```
password password
```

```
N1KV-NG(config-svs-conn)# connect
```

```
Warning: Connection successful.ipg creation in progress.Check 'show ipg-info' for status
```

```
N1KV-NG(config-svs-conn)# show svcs connections
```

```
connection vCenter:
```

```
hostname: -
```

```
ip address: 10.10.0.11
```

```
ipv6 address: -
```

```
remote port: 80
```

```
transport type: ipv4
```

```
vrf: management
```

```
protocol: vmware-vim https
```

```
certificate: default
```

```
datacenter name: Datacenter
```

```
admin:
```

```
max-ports: 12000
```

```
extension key: Cisco_Nexus_1000V_196637146
```

```
DVS uuid: 50 2e dd 5a 90 2f 08 ac-0e 71 40 6e 0d d4 f4 d9
```

```
dvs version: 5.0.0
```

```
config status: Enabled
```

operational status: Connected  
sync status: Complete  
version: VMware vCenter Server 6.5.0 build-7070488  
vc-uuid: bfb1259b-5967-470d-a9c2-b5af1bf78cc8  
ssl-cert: self-signed or not authenticated

## VSE Deployment Using Cisco Nexus 1000VE Manager vCenter Plugin

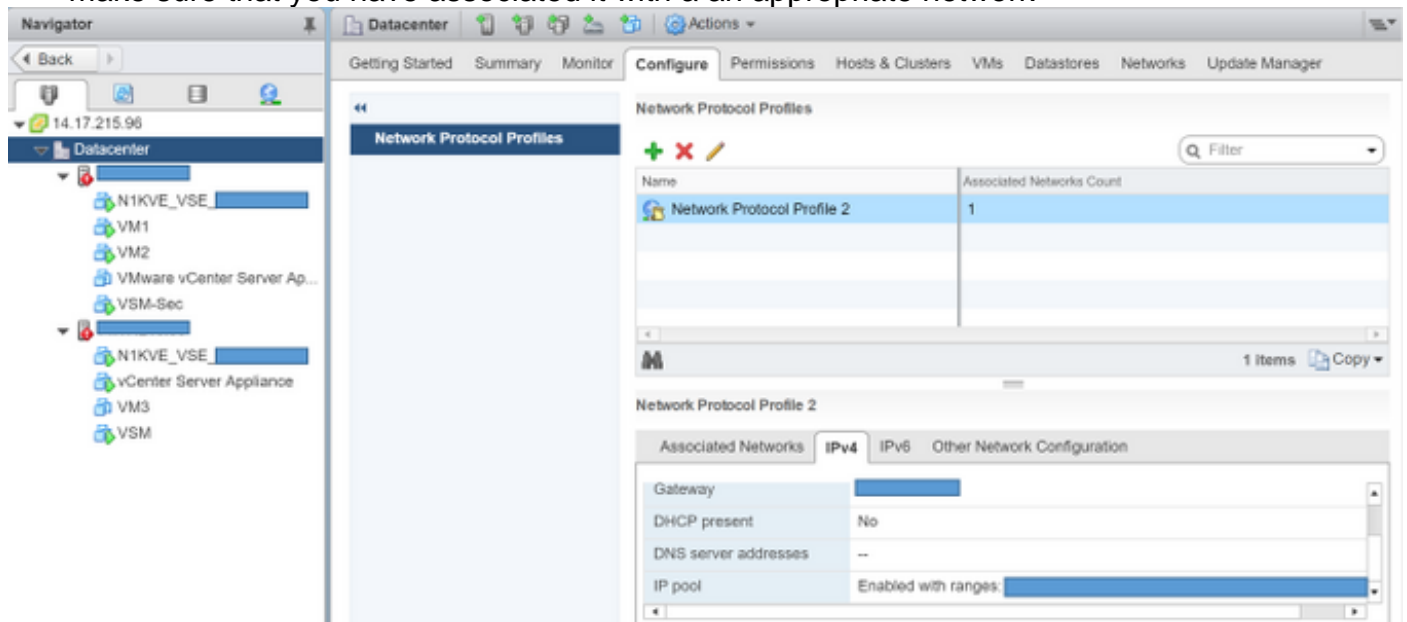
### Cisco Nexus 1000VE Manager vCenter Plugin Software Requirements

#### Platform Recommended Release

- 6.0 Linux Appliance
- 6.5 Linux Appliance
- VMware vCenter
  - 6.0 U3 Windows
  - 6.5 Windows

Cisco Nexus 1000VE VSM 5.2(1)SV5(1.1)

- Ensure that you have configured a static IP pool or DHCP server in VMware vCenter. Also, make sure that you have associated it with an appropriate network



- Ensure that the VSM is already deployed.

On the Navigator Pane, click Content Libraries to open the Content Libraries page.

On the Getting Started tab, click Create new content library.


**Navigator** Content Libraries 0

**Content Libraries**

**Getting Started** Objects

### What is a Content Library?

A content library is a repository for VM templates, vApps and other files such as ISO images, scripts, etc. A template is a copy of a VM and can include a guest operating system, applications, and data. You can also store vApps in a content library to use for deployment purposes. A vApp can contain one or more virtual machines. Content libraries are entities that can be administered from a single vCenter Server instance, but can be shared across multiple vCenter Servers.



The diagram illustrates a content library structure. On the left, a blue 3D bookshelf represents the content library. An arrow points from the bookshelf to a central server icon. To the right of the central server are three more server icons, each with a green plus sign, representing vCenter Server instances. Below the servers are several blue folder icons, representing the content stored within the libraries.

You can create three types of libraries:

- Local content library, which contains files you make available to this vCenter Server instance only
- Published content library, which contains files you make available to this vCenter Server and to other vCenter Server instances.
- Subscribed content library, which displays the files of a published content library, and you can use them in this vCenter Server instance.

Published and subscribed content libraries can be password protected or not.

---

**Basic Tasks**

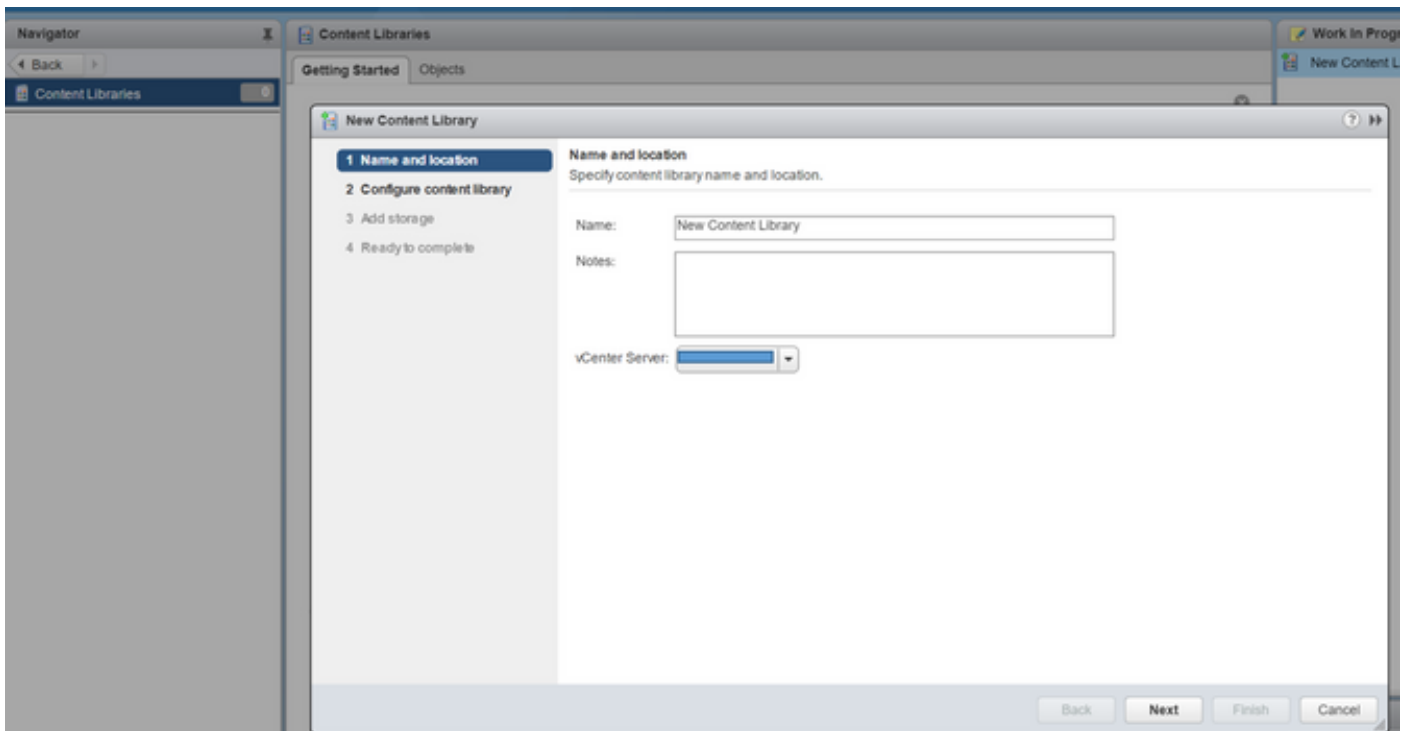
- [Create new content library](#)
- [Import item](#)

**Explore Further**

- [Learn more about content libraries](#)
- [Learn more about VM and vApp templates](#)

On the Name and Location page, enter the content library name in the Name text field and select the vCenter Server IP address from the vCenter Server drop-down list.

Click Next.

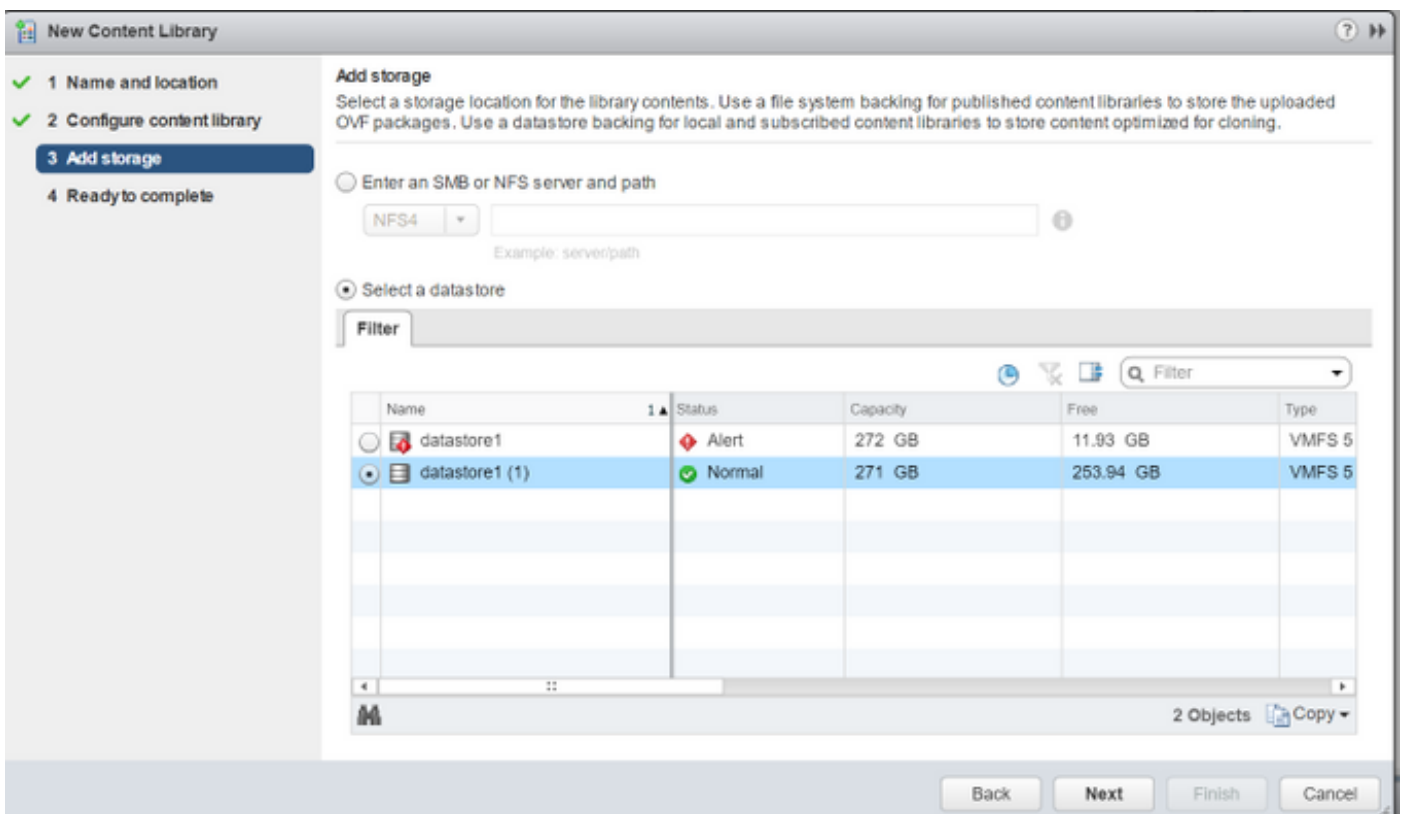


On the Configure content library page, verify that the default option, Local content library, is selected.

Click Next.

On the Add Storage page, choose the Select a datastore option and from the Filter tab, select a storage location.

Click Next.



On the Navigator tab, select the new content library that you just created.

On the Getting Started tab, under Basic Tasks section, click Import Item to open New Content Library – Import Library Item dialog box.

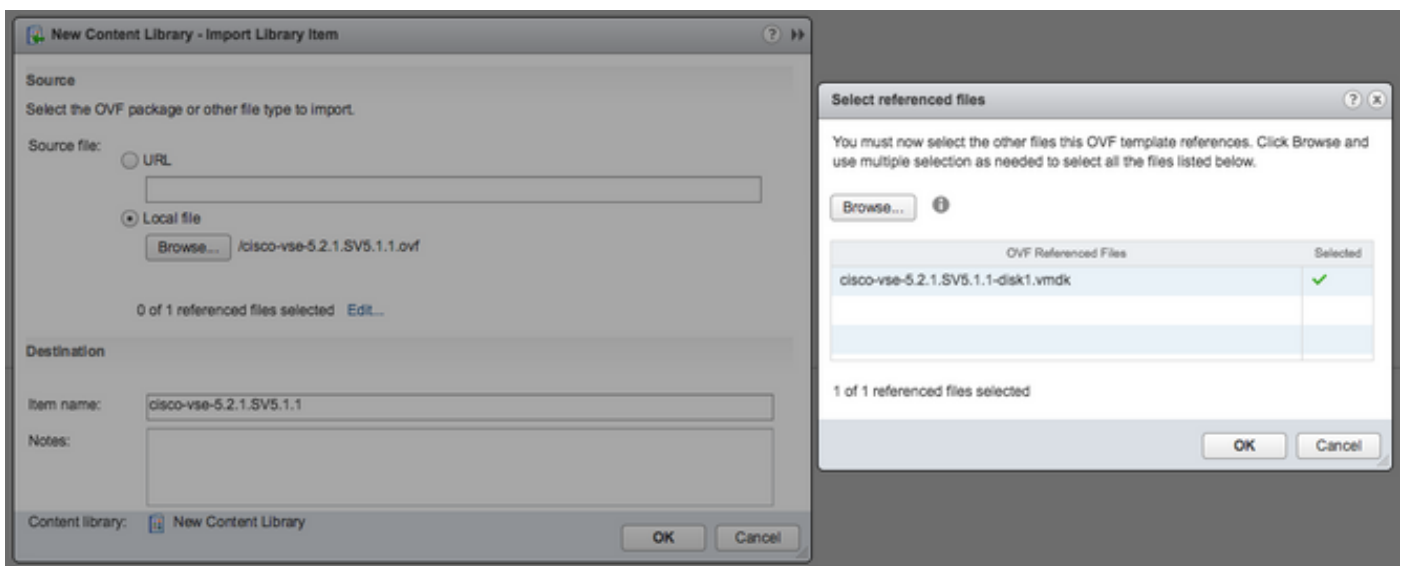
Choose Local file option and click Browse and navigate to the location of the VSE OVF file. Select the VSE OVF file and click Open.

In the Select referenced files dialog box, select the OVF referenced files and click Open.

On the Select referenced files dialog box, click OK.

On the New Content Library – Import Library Item dialog-box, click OK.

On the Homepage, click Recent Taskstab at the bottom to check VSE file upload progress.



Navigate to Home tab on the VMware vSphere Web Client.

Click N1KVE Manager, and enter the VMware vCenter password and click Login. The N1KVE Manager page opens.

On the Installation tab, select a data center from the Select a DC drop-down list.



Select a vDS from the Select a VDS drop-down list to list the available Hosts.

Cisco Nexus 1000VE Manager

Installation Migration

Select a DC: Datacenter

Select a VDS: N1KV-NG

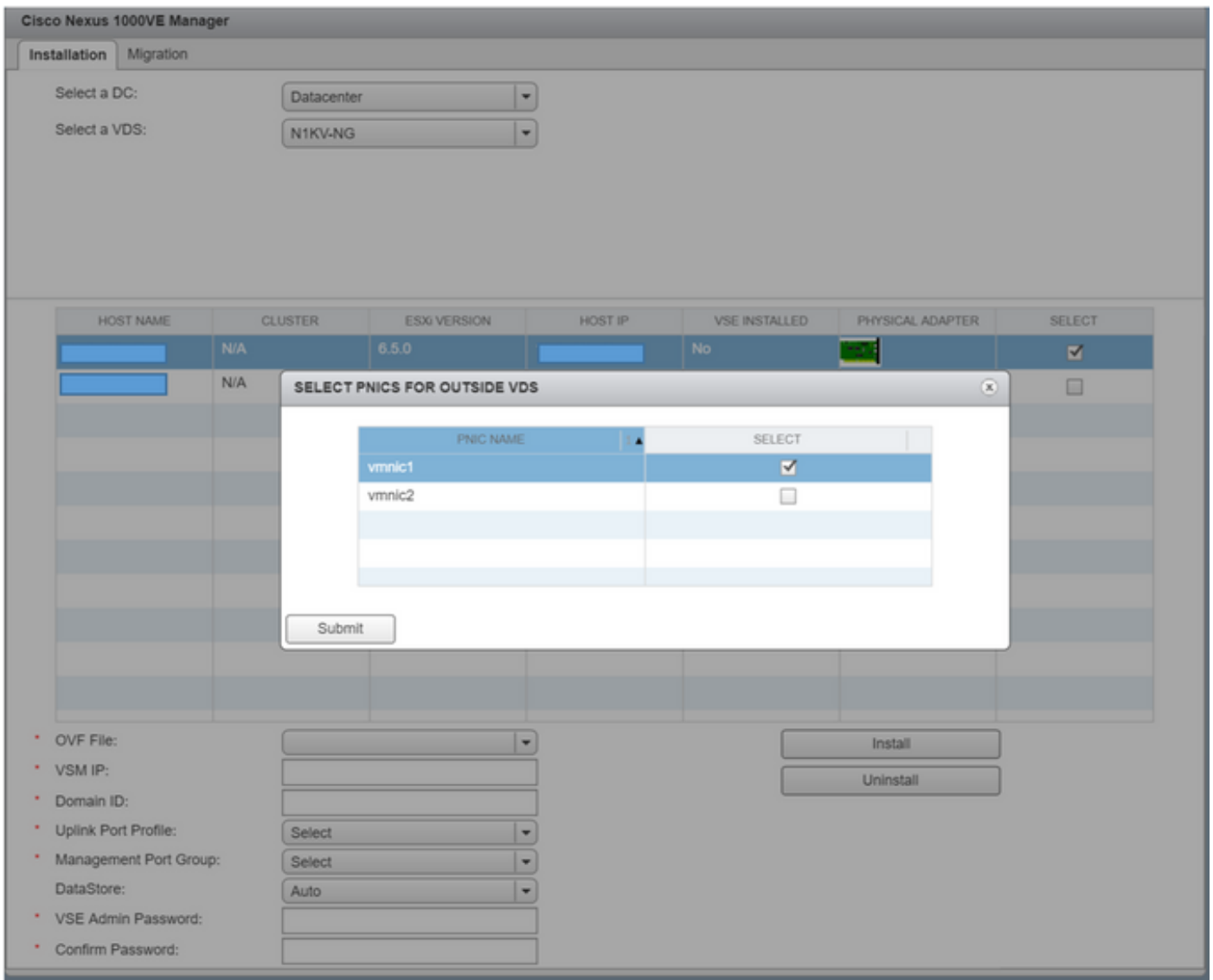
HOST NAME	CLUSTER	ESXI VERSION	HOST IP	VSE INSTALLED	PHYSICAL ADAPTER	SELECT
14.17.215.95	N/A	6.5.0		No		<input checked="" type="checkbox"/>
14.17.215.94	N/A	6.5.0		No		<input type="checkbox"/>

\* OVF File: cisco-vse-5.2.1.SV5.1.1.ovf  
 \* VSM IP:   
 \* Domain ID: 18  
 \* Uplink Port Profile: outside-trunk  
 \* Management Port Group: VM Network  
 DataStore: Auto  
 \* VSE Admin Password: \*\*\*\*\*  
 \* Confirm Password: \*\*\*\*\*

Install Uninstall

Select the check-box for a Host from the list of Hosts and click the Physical Adapter icon to open Select PNICS for Outside VDS dialog-box.

In the Select PNICSs for Outside VDS dialog box, select a physical adapter and click Submit.



Select an OVF file from the OVF File drop-down list.

Enter the VSM IP address for the VSM IP text field.

Enter the Domain ID for the Domain ID text field.

Select an Uplink Port Profile from the Uplink Port Profile drop-down list.

Select a Management Port Group from the Management Port Group drop-down list.

Select Auto for Datastore drop-down list.

Enter the VSE administrator password in the VSE Admin Password text-field.

Confirm the password in the Confirm Password text field.

Click Install.



Cisco Nexus 1000VE Manager

Installation Migration

Select a DC: Datacenter

Select a VDS: N1KV-NG

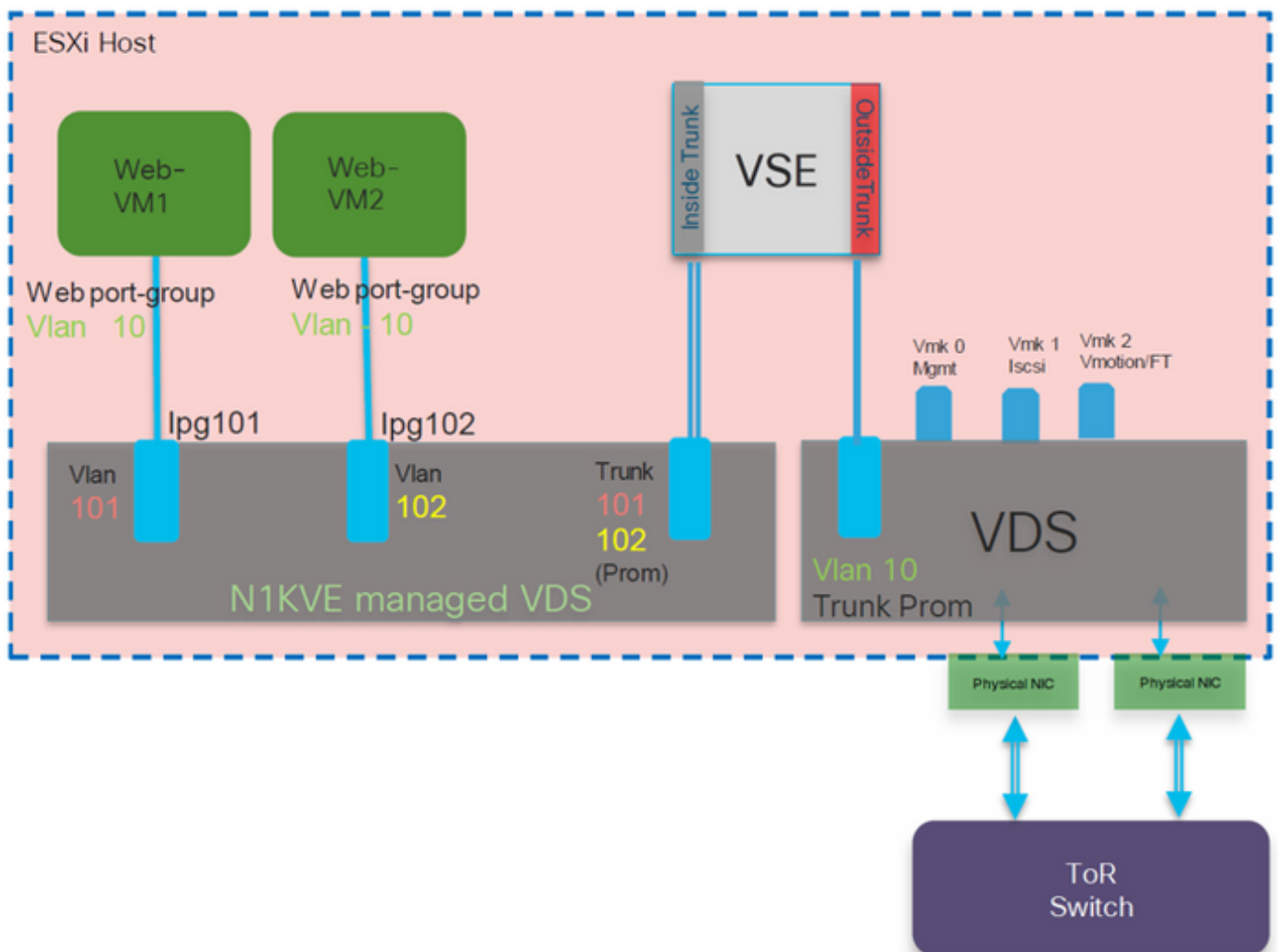
HOST NAME	CLUSTER	ESXI VERSION	HOST IP	VSE INSTALLED	PHYSICAL ADAPTER	SELECT
	N/A	6.5.0		No		<input checked="" type="checkbox"/>
	N/A	6.5.0		No		<input type="checkbox"/>

OVF File: cisco-vse-5.2.1.SV5.1.1.ovf  
 VSM IP:   
 Domain ID: 18  
 Uplink Port Profile: outside-trunk  
 Management Port Group: VM Network  
 DataStore: Auto  
 VSE Admin Password:   
 Confirm Password:

Install Uninstall

Confirm that you are adding the physical adapters to the VMware DVS and not the Nexus 1000VE DVS.

If you add the adapter to the N1KVE managed DVS then the traffic won't be switched by the VSE.



# Verify

The module(s) should show up like so:

```
N1KV-NG# show module
Mod  Ports  Module-Type          Model          Status
-----
1    0      Virtual Supervisor Module  Nexus1000V    active *
2    0      Virtual Supervisor Module  Nexus1000V    ha-standby
3    1022   Virtual Service Engine    NA            ok

Mod  Sw          Hw
-----
1    5.2 (1) SV5 (1.1)  0.0
2    5.2 (1) SV5 (1.1)  0.0
3    5.2 (1) SV5 (1.1)  NA

Mod  Server-IP      Server-UUID          Server-Name
-----
1    [REDACTED]    NA                   NA
2    [REDACTED]    NA                   NA
3    [REDACTED]    422EE245-B089-FD0E-7332-0306149785DA  localhost.localdomain

Mod  VSE-IP      Host-IP
-----
3    [REDACTED]  [REDACTED]
```

## Troubleshoot

1. Unable to see Nexus 1000VE plugin in vCenter

If you are not able to see the Nexus 1000VE plugin in vCenter, check the following file in the vSphere Web Client:

```
vi /var/log/vmware/vsphere-client/logs/vsphere_client_virgo.log
```

If you encounter an error like so:

```
[ERROR] c-extensionmanager-pool-1841 70000645 100035 200016
com.vmware.vise.vim.extension.VcExtensionManager . The plugin package download was
blocked because the URL is not secure. To allow http URLs add allowHttp=true to
webclient.properties
```

Add **allowHttp=true** to webclient.properties:

```
/etc/vmware/vsphere-ui/webclient.properties
```

Note: The location could be different based on the OS

2. Unable to see VSE as a module after deploying it

Make sure you created the IP Pool in vCenter before the VSE was created, If not the VSE will not show up as a module.

You will have to assign ip address to it statically. Please open a case with Cisco TAC, in order to address this.

```

cisco-vse: # ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: ens160: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 00:50:56:ae:93:d9 brd ff:ff:ff:ff:ff:ff
cisco-vse: # ip addr add [REDACTED] dev ens160
cisco-vse: #
cisco-vse: #
cisco-vse: # ip link set ens160 up

```

```

cisco-vse: # ip addr add [REDACTED] dev ens160
cisco-vse: # ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: ens160: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 00:50:56:ae:93:d9 brd ff:ff:ff:ff:ff:ff
    inet [REDACTED] scope global ens160
        valid_lft forever preferred_lft forever
    inet6 fe80::250:56ff:feae:93d9/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
cisco-vse: # ip addr del [REDACTED] dev ens160

```

Use the ip addr del <IP\_Address/Subnet mask> <Interface> to delete an entry.