



Migrating Hosts to Cisco Nexus 1000V Using Cisco Virtual Switch Update Manager

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Information About Migrating Hosts to the Cisco Nexus 1000V Switch Using Cisco Virtual Switch Update Manager

You can use the Cisco Virtual Switch Update Manager GUI to migrate hosts from the VMware vSwitch and VMware distributed virtual switch (DVS) to the Cisco Nexus 1000V switch.

Cisco Virtual Switch Update Manager enables you to do the following:

- Add hosts and/or Migrate multiple hosts.
- Migrate each VMware port group or kernel NIC to the correct port profile.
- Migrate each physical NIC from the VMware vSwitch or VMware DVS to the correct uplink on the Cisco Nexus 1000V.
- Migrate VM NICs from the VMware vSwitch or VMware DVS to the corresponding uplink on the Cisco Nexus 1000V.

See the *Cisco Nexus 1000V and VMware Compatibility Information* for more information on the compatibility information for Cisco Nexus 1000V.

Prerequisites for Migrating Hosts to the Cisco Nexus 1000V Using Cisco Virtual Switch Update Manager

The migration of hosts to the Cisco Nexus 1000V using Cisco Virtual Switch Update Manager has the following prerequisites:

- The host must have one or more physical NICs on each VMware vSwitch/VMware DVS in use.
- You must have administrative privileges for vCenter Server.
- You must have the Distributed Switch—Create and Modify privilege permission enabled on the vCentre.

Guidelines and Limitations for Migrating Hosts to the Cisco Nexus 1000V Using Cisco Virtual Switch Update Manager

When you move the ESX/ESXi host that runs the Virtual Supervisor module (VSM) from the VMware vSwitch or VMware DVS to the Cisco Nexus 1000V, the connectivity between the active and standby VSM might get temporarily lost. In that situation, both active and standby VSMs assume the active role.

The reboot of the VSM is based on the following conditions:

1 The number of modules attached to the VSM

- If a VSM has more modules attached than the other VSMs, and there is no virtual channel (VC) connectivity on either VSM, the VSM that has fewer modules is rebooted.
- If modules are attached to both VSMs and one VSM has VC connectivity, the VSM without connectivity is rebooted.

2 VC connectivity



Note

This option is invoked when the previous condition is not met.

- If both VSMs have the same number of modules or no modules, the software makes a selection that is based on the VC connectivity status.

3 Last configuration change



Note

This condition is invoked when the previous two conditions are not met.

- If both VSMs have the same number of modules and no VC connectivity, the VSM with the latest configuration remains active and the other VSM is rebooted.

4 Last active VSM

- If the previous three conditions are not met, the VSM that became active most recently is rebooted.

Migrating Hosts to the Cisco Nexus 1000V Using Cisco Virtual Switch Update Manager

You can install a Cisco Nexus 1000V Virtual Ethernet module (VEM) using Cisco Virtual Switch Update Manager. When the Cisco Virtual Switch Update Manager installs VEMs, it migrates all VM kernels and their corresponding VM NICs across vSwitches to the Cisco Nexus 1000V VEMs.

Before You Begin

Know the following information about the switch:

- vCenter IP address
- vCenter user ID
- vCenter password
- Cisco Nexus 1000V switch username
- Cisco Nexus 1000V switch password

Step 1 Log in to the VMware vSphere Web Client.

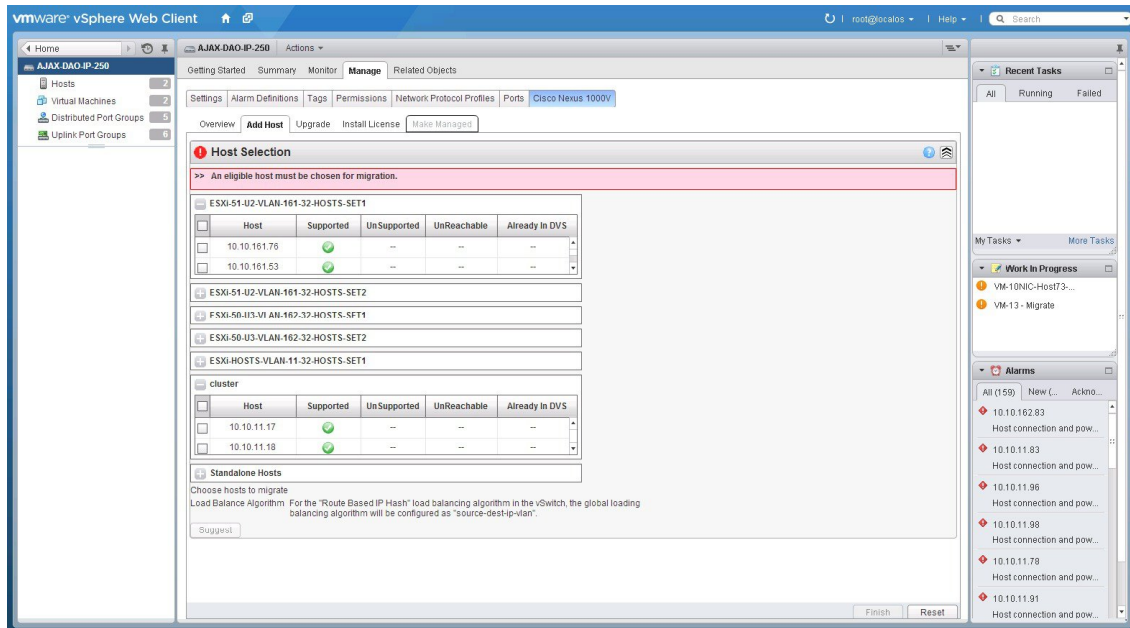
Step 2 In the vSphere Client, choose **Home > Cisco Virtual Switch Update Manager > Nexus 1000V > Configure**.

Step 3 Choose a datacenter and a distributed virtual switch, and then click **Manage**.

Note If the switch is not managed by Cisco Virtual Switch Update Manager, you are prompted to enter the switch credentials in the **Make Managed** window. For more information, see the chapter [Managing and Existing Cisco N1000V Switch](#).

- Step 4** In the switch pane, click **Add Host**.
- Step 5** (Optional) In case of multiple vCenter Servers, choose **Home > Cisco Virtual Switch Update Manager > vCenter Server > Configure**.
- Step 6** (Optional) You can also access the Cisco Virtual Switch Update Manager in the vSphere Client by navigating to **vCenter > Distributed Switches**.
- Step 7** (Optional) In the switch pane, click **Manage > Cisco Nexus 1000V > Add Host**

Figure 1: Cisco Virtual Switch Update Manager—Migrating Hosts



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Step 8 In the **Host Selection** area, review the following fields.

Name	Description
Cluster area	Lists all the hosts that are in an HA pair. Check the checkbox next to the hosts to be migrated.
Standalone Hosts area	Lists the standalone hosts. Check the checkbox next to the hosts to be migrated.
Supported column	If checked, the host can be migrated to the current version of the Cisco Nexus 1000V.

Name	Description
UnSupported column	If checked, the host cannot be migrated to the current version of the Cisco Nexus 1000V. For information on the list of hosts that are not supported, see the Cisco Nexus 1000V and VMware Compatibility Documentation, at: http://www.cisco.com/c/en/us/support/switches/nexus-1000v-switch-vmware-vsphere/products-device-support-tables-list.html .
UnReachable column	If checked, the host is in an unreachable state.
Already in DVS column	If checked, the host is already migrated to the Cisco Nexus 1000V.

Step 9 Click **Suggest**.

Cisco Virtual Switch Update Manager displays the list of existing and proposed port profiles and suggests appropriate port profiles for each VMKNIC, VM NIC, and physical NICs.

Step 10

Review the port profile populated in the **Port Profile Editor** area. You can edit the fields based on your requirements. To edit the fields, you must use the **Port Profile Editor**.

The port profiles that are already available on the VSM are not editable. You can edit only those port profiles that are suggested by the Cisco Virtual Switch Update Manager. Click the **Duplicate** button to create a new port profile from an existing or from a suggested port profile.

Step 11

In the **Port Profile Editor** area, complete the following fields.

Name	Description
Port Profile Editor drop-down list	The list of existing port profiles or new port profiles to be created are displayed. Choose the port profile. <ul style="list-style-type: none"> • In Use—Displays true, when the port profile is in use on the current Add Host screen. Displays False when the port profile is not in use on the current Add Host screen. • Valid—Displays true when all the port profile fields are completed. Displays false when one or more of the port profile fields is incomplete. • Editable—Displays true if the port profile is editable. Displays false if the port profile is not editable. • Profile Name—Displays the name of the port profile.
Uplink check box	If checked, displays the uplink associated with the port profile.
Trunk check box	If checked, displays the trunk associated with the port profile.

Name	Description
L3 Capable check box	If checked, the L3 capability is associated with the port profile.
ISCSI Multipath check box	If checked, the ISCSI Multipath is associated with the port profile.
Neither L3 nor ISCSI check box	If checked, then neither the L3 or the ISCSI is associated with the port profile.
Channel-group auto mode on check box	If checked, the channel group auto mode is associated with the port profile.
Mac-pinning check box	If checked, the channel group auto mode on mac-pining is associated with the port profile.
Name field	The name of the port profile.
VLANs field	Choose the VLAN.
Native VLAN field	The native VLAN associated with the port profile.
Duplicate button	Clones an existing port profile configuration to create a new port profile.

Step 12 Scroll down to view the host profile populated in the **Physical NIC Migration** area.

Step 13 In the **Physical NIC Migration** area, review the following fields.

Name	Description
Physical NIC check box	Review the physical NIC that has been automatically selected by the Cisco Virtual Switch Update Manager. Check/uncheck to select/deselect the VMNICs for the migration. You must ensure that at least one physical NIC is selected for the migration.
Profile drop-down list	Review the port profile associated with the physical NICs. Alternatively, you can choose the required port profile from the profile drop-down list, to associate it with the physical NIC. You must ensure that all the necessary VLANs are allowed in the selected port profile.
Source column	The vSwitch or VDS port group that the PNIC is currently assigned to.
Select All button	Migrates all the physical NICs associated with the host.

Name	Description
Select None button	Deselects all the selected values for the physical NICs associated with the host.

Step 14 Scroll down to view the host profile populated in the **VM Kernel NIC Setup** area.

Step 15 In the **VM Kernel NIC Setup** area, complete the following fields.

Name	Description
VM Kernel NIC check box	<p>If checked, displays the port profile configuration that will be created on Cisco Nexus 1000V and associated with the VMkernel NIC.</p> <p>Review the selected VMkernel NICs. You can also uncheck the VMkernel NIC check boxes if you do not want the VMKs to be migrated to the Cisco Nexus 1000V.</p> <p>You must ensure that at least one VMkernel NIC is selected to migrate to the Cisco Nexus 1000V which will carry the L3 traffic.</p> <p>Note Do not uncheck any of the VMkernel NIC checkboxes, unless and until the required VMkernel NIC is associated with the Layer3 port profile.</p>
L3 Capable column	<p>Displays whether the VMkernel NIC is Layer 3 capable. Only one VMkernel NIC is Layer3 capable. By default, the VMK0 is selected as the Layer3 control.</p> <p>Note To change the VMkernel to Layer3 port profile, do the following:</p> <ul style="list-style-type: none"> • From the Port Profile drop-down list, choose the non Layer3 port profile for VMk0. In absence of non Layer3 veth profile, you can create non Layer3 port profiles as follows: <ul style="list-style-type: none"> ◦ Select the Layer3 port profile and click Duplicate. ◦ Check the Neither L3 nor ISCSI radio button and click OK. You can edit the list of the supported VLANs. • Select the L3 enabled PP for any one VMkernel NICs, which you want to use for the L3 control traffic.
Profile drop-down list	Choose the port profile associated with the VMkernel NIC.

Name	Description
Source Profile column	Displays the vSwitch or VDS port group that the VMkernel NIC is currently assigned to.
Select None button	Deselects all the selected VMkernel NICs associated with the host.
New button	<p>Adds a new VMkernel NIC for Layer 3 control. Enter the IP address and net mask for the new VMkernel NIC and click OK.</p> <p>After the VMKernel NIC is created, select the appropriate port profile for the VMKernel NIC from the port profile drop-down list.</p> <p>Note Ensure that the host is selected before you create the new VMkernel NIC.</p>
Edit button	Edits the IP address and subnet mask for a newly created VMkernel NIC.

Step 16 Scroll down to view the host profile populated in the **VM Migration** area.

Step 17 In the **VM Migration** area, review the following fields.

Area	Action
Virtual Machine NICs check box	If checked, displays the VSMS and the network adapters associated with the VM.
Profile drop-down list	Choose the port profile associated with the Virtual NIC.
Source Profile column	The source associated with the port profile.
Select None button	Deselects all the VMs associated with the host.

Step 18 Click **Finish** to migrate the host from the VMware vSwitch to the Cisco Nexus 1000V switch.

Step 19 Check the status of the installation by completing the following steps:

- Open a new tab in your browser and enter the same vCenter IP address to open the web client again.
 - Log in to the web client and in the navigation pane, click **Tasks**.
The **Task Console** opens in the work pane, displaying a list of tasks with the most recent task at the top.
 - Find the task in the **Task Name** column and then view the status in the **Status** column.
The **Status** column shows whether the task is complete or is in progress. You can click the refresh icon to display new tasks and learn how much of the task is complete in terms of percentage.
- Note** Several tasks might appear above the primary task you just performed. They might be associated with your primary task.

The Nexus 1000V installation is confirmed when the primary task `Add hosts to Cisco DVS` has the status `Completed`. A typical migration of the host takes about 2 minutes.

Feature History for Migrating Hosts to the Cisco Nexus 1000V Using Cisco Virtual Switch Update Manager

This table includes only the updates for those releases that have resulted in additions or changes to the feature.

Feature Name	Releases	Feature Information
Migrating hosts to the Cisco Nexus 1000V using Cisco Virtual Switch Update Manager	Release 1.0	This feature was introduced.
Migrating hosts to the Cisco Nexus 1000V using Cisco Virtual Switch Update Manager	Release 1.1	Users can check status of adding a host with VSUM in the vCenter Task Console.

