



# Installing Cisco Virtual Switch Update Manager

If following the troubleshooting scenarios in this chapter does not resolve your problem, you can access and examine the logs for a possible solution.

This chapter contains the following sections:

- [Problems with Installing the Cisco Virtual Switch Update Manager, page 1](#)
- [Troubleshooting Virtual Switch Update Manager Installation with Logs, page 8](#)

## Problems with Installing the Cisco Virtual Switch Update Manager

This section includes symptoms, possible causes, and solutions for the following problems while you install the Cisco Virtual Switch Update Manager (VSUM).

Symptom	Possible Causes	Verification and Solution
After deploying the Open Virtualization Appliance (OVA) file, the <b>Cisco Virtual Switch Update Manager</b> tab does not appear in the vCenter vSphere Web Client home page.	The OVA file is corrupt.	<ol style="list-style-type: none"><li>1 Copy the OVA file to your local machine.</li><li>2 Verify the file integrity by using the <b>bash\$ls n1kv-manager.ova n1kv-manager.ova.md5 bash\$md5sum n1kv-manager.ova</b> command. The output displays the OVA file contents.</li><li>3 The contents of the OVA file must match the MD5 file contents. to those of the md5 file. If the contents do not match, copy the OVA file once again.</li></ol>

Symptom	Possible Causes	Verification and Solution
<p>After deploying the OVA file, the <b>Cisco Virtual Switch Update Manager</b> tab does not appear in the vCenter vSphere Web Client home page.</p>	<p>Either a wrong IP address or port group has been assigned to the appliance.</p>	<ol style="list-style-type: none"> <li>1 Log in to Cisco Virtual Switch Update Manager using the default credentials.</li> <li>2 View the installation log available at <code>/etc/cisco/app_install/logs/n1kv-manager_install.log</code> to view the NoRouteToHostEx error.</li> <li>3 Ensure that the correct port group is selected for the virtual machine (VM) and ping the default gateway.</li> </ol> <p>To add or edit the IP address of the VM, do the following:</p> <ol style="list-style-type: none"> <li>1 Navigate to <code>/etc/cisco/app_install</code>.</li> <li>2 Copy the <code>cfg</code> template to <code>app.cfg</code> using the <code>cp app.cfg.template app.cfg</code> command.</li> <li>3 Open the <code>cfg</code> template by using the <code>vi app.cfg</code> command.</li> <li>4 Update the IP address and change the <code>vCenterUsernameFormat</code> and <code>vCenterPasswordFormat</code> values from <b>Hex</b> to <b>Plain</b>.</li> <li>5 Enter the administrator credentials in the <code>vCenterUsername</code> and <code>vCenterPassword</code> fields and save this configuration.</li> <li>6 Navigate to <code>/etc/cisco/app_install</code> and run the <code>./config_app.sh -n</code> command to re-register and update the network parameters.</li> </ol>

Symptom	Possible Causes	Verification and Solution
<p>After deploying the OVA file, the <b>Cisco Virtual Switch Update Manager</b> tab does not appear in the vCenter vSphere Web Client home page.</p>	<p>The vCenter vSphere Web Client credentials are incorrect.</p>	<ol style="list-style-type: none"> <li>1 Log in to Cisco Virtual Switch Update Manager using the default credentials.</li> <li>2 View the installation log available at <code>/etc/cisco/app_install/logs/n1kv-manager_install.log</code> to view the InvalidLogin error.</li> <li>3 Ensure that all the networking issues are resolved and redeploy Cisco Virtual Switch Update Manager with the correct credentials.</li> </ol> <p>To add or edit the IP address or the credentials of the VM, do the following:</p> <ol style="list-style-type: none"> <li>1 Navigate to <code>/etc/cisco/app_install</code>.</li> <li>2 Copy the cfg template to <code>app.cfg</code> using the <b><code>cp app.cfg.template app.cfg</code></b> command.</li> <li>3 Open the cfg template by using the <b><code>vi app.cfg</code></b> command.</li> <li>4 Update the IP address and change the <code>vCenterUsernameFormat</code> and <code>vCenterPasswordFormat</code> values from <b>Hex</b> to <b>Plain</b>.</li> <li>5 Enter the administrator credentials in the <code>vCenterUsername</code> and <code>vCenterPassword</code> fields and save this configuration.</li> <li>6 Navigate to <code>/etc/cisco/app_install</code> and run the <b><code>./config_app.sh -r</code></b> command to re-register the Cisco Virtual Switch Update Manager.</li> </ol>

Symptom	Possible Causes	Verification and Solution
<p>After deploying the OVA file, the <b>Cisco Virtual Switch Update Manager</b> tab does not appear in the vCenter vSphere Web Client home page.</p>	<p>An older version of the <code>com.cisco.nlkv</code> is already available on the vCenter vSphere Web Client.</p>	<ol style="list-style-type: none"> <li>1 Enter <code>https://&lt;the assigned vCenter IP address&gt;mob</code> in a web browser.</li> <li>2 Choose <b>Content &gt; Extension Manager</b>.</li> <li>3 Unregister the file with extension <code>cisco.cisco.nlkv</code>.</li> <li>4 Delete the <code>com.cisco.nlkv-1.0</code> folder: <ul style="list-style-type: none"> <li><b>Note</b> <code>com.cisco.nlkv-1.0</code> is the version used for VSUM 1.0. If you are using VSUM 1.1/1.2/1.3/1.x, select the corresponding version folder.</li> <li>• In a Windows server, this folder is available at  <code>C:\ProgramData\VMware\vSphere Web Client\vc-packages\vsphere-client-serenity</code></li> <li>• In a Linux server, this folder for vCenter 5.1 and 5.5 is available at  <pre>"rm -rf /var/lib/vmware/vsphere-client/vc-packages/vsphere-client-serenity/com.cisco.nlkv-1.0/</pre></li> <li>• In a Linux server, this folder for vCenter 6.0 is  <pre>etc/vmware/vsphere-client/vc-packages/vsphere-client-serenity/com.cisco.*</pre></li> </ul> </li> <li>5 Restart vCenter vSphere Web Client: <ul style="list-style-type: none"> <li>• For a Windows server, choose <b>Start &gt; Run &gt; type services.msc &gt; start and stop</b> to restart vCenter vSphere Web Client.</li> <li>• For the Linux server, run the <code>/etc/init.d/vsphere-client restart</code> command.</li> </ul> </li> <li>6 Redeploy the VM to register it.</li> </ol>

Symptom	Possible Causes	Verification and Solution
VSUM is not working after changing vCenter port number.	The new port number may not be open on vCenter, or the new port number is not updated in VSUM.	<p>Ensure that the newly changed port number is configured correctly on vCenter and is listening with new port.</p> <p>You can verify the configuration two different ways:</p> <ul style="list-style-type: none"> <li>• From the vCenter CLI with the command <b>netstat -bano</b>.</li> <li>• In VSUM by performing the following steps: <ol style="list-style-type: none"> <li>1 Navigate to <code>/etc/cisco/app_install</code>.</li> <li>2 Copy the cfg template to <code>app.cfg</code> using the <b>cp app.cfg.template app.cfg</b> command.</li> <li>3 Open the cfg template by using the <b>vi app.cfg</b> command.</li> <li>4 Update vCenter's new port number.</li> <li>5 Change the <code>vCenterUsernameFormat</code> and <code>vCenterPasswordFormat</code> values from Hex to Plain.</li> <li>6 Enter the administrator credentials in the <code>vCenterUsername</code> and <code>vCenterPassword</code> fields and save the configuration.</li> <li>7 Navigate to <code>/etc/cisco/app_install</code> and run the <b>./config_app.sh -r</b> command to reregister.</li> </ol> </li> </ul> <p><b>Note</b> Changing the port number on vCenter requires a reboot of vCenter. Ensure that port 8443 is open. Cisco VSUM uses port 8443 for communication with vCenter.</p>

Symptom	Possible Causes	Verification and Solution
<p>Logs show a problem with VSUM installation. See the section <a href="#">Troubleshooting Virtual Switch Update Manager Installation with Logs</a>.</p>	<p>VSUM did not install correctly.</p>	<p>For vCenter on Windows, do a clean uninstall and reinstall of VSUM by performing the following steps:</p> <ol style="list-style-type: none"> <li>1 Power off the current active VSUM VM and delete it.</li> <li>2 Go to <code>https://VCIP/mob</code> and log in with the default credentials.</li> <li>3 In a web browser, choose <b>Content &gt; Extension Manager</b>.</li> <li>4 Click <b>UnregisterExtension</b>, enter <code>com.cisco.n1kv</code> and then click <b>Invoke method</b>.  If the <code>com.cisco.n1kv</code> extension not available, move to the next step.</li> <li>5 Choose <b>Start</b> and then run <b>services.msc</b>.</li> <li>6 Right-click the VMware vSphere Web Client and click <b>Stop</b>.</li> <li>7 Go to <code>C:\ProgramData\VMware\vsphere</code> and in the <code>Web Client\vc-packages\vsphere-client-serenity</code> directory, delete the entire <code>com.cisco.n1kv</code> folder.</li> <li>8 Choose <b>Start</b> and then run <b>services.msc</b>.</li> <li>9 Right-click the VMware vSphere Web Client and then click <b>Start</b>.</li> <li>10 Check if the web client UI is working after starting the service and logging out.</li> <li>11 Install the new Cisco VSUM using the OVA.  Ensure that all parameters such as port group, IP address, vCenter credentials, and port number are correct during installation.</li> <li>12 After Cisco VSUM is successfully deployed, login to the VMware vSphere Web Client to view the Cisco VSUM plugin.</li> </ol>

Symptom	Possible Causes	Verification and Solution
		<p>For vCenter on Linux, do a clean uninstall and reinstall of VSUM by performing the following steps:</p> <ol style="list-style-type: none"> <li><b>1</b> Power off the current active VSUM VM and delete it.</li> <li><b>2</b> Go to <code>https://VCIP/mob</code> and log in with the default credentials.</li> <li><b>3</b> In a web browser, choose <b>Content &gt; Extension Manager</b>.</li> <li><b>4</b> Click <b>UnregisterExtension</b>, enter <code>com.cisco.n1kv</code> and then click <b>Invoke method</b>. If the <code>com.cisco.n1kv</code> extension not available, move to the next step.</li> <li><b>5</b> Go to the <code>/var/lib/vmware/vsphere-client/vc-packages/vsphere-client-serenity/</code> directory and delete the entire <code>com.cisco.n1kv</code> folder using the <code>rm -rf com.cisco.n1kv*</code> command.</li> <li><b>6</b> Restart VMware vSphere Web Client service using the <code>/etc/init.d/vsphere-client restart</code> command.</li> <li><b>7</b> Check if the web client UI is working after starting the service and logging out.</li> <li><b>8</b> Install new the Cisco VSUM using the OVA. Ensure that all parameters such as port group, IP address, vCenter credentials, and port number are correct during installation.</li> <li><b>9</b> After Cisco VSUM is successfully deployed, login to the VMware vSphere Web Client to view the Cisco VSUM plugin.</li> </ol>

# Troubleshooting Virtual Switch Update Manager Installation with Logs

If you have a problem installing Cisco Virtual Switch Update Manager and cannot solve it by methods listed earlier in this chapter, you can access and view logs in the Cisco Virtual Switch Update Manager for a possible solution.

- 1 Use Secure Shell (SSH) to connect to Cisco Virtual Switch Update Manager. The default username is root and the password is cisco.
- 2 Navigate to `/etc/cisco/app_install/logs/nlkv-manager_install.log` and check for the following log snippets:

```
193 [main] DEBUG com.cisco.vcenter.extension.register.ServiceUtil - host=10.193.216.91,
  clearPort=80, securePort=443, secure=true,
  tunnel=true, vCenterURL=https://10.193.216.91:80 /sdk 345 [main] DEBUG
com.virtuata.security.TunnelFactory - Tryig to read 0 bytes
long response 345 [main] DEBUG com.virtuata.security.TunnelFactory - CONNECT Response
Body: 367 [main]
DEBUG com.virtuata.security.TunnelFactory - VC SSL Tunnel Opened from localhost 51672 to
  10.193.216.91:80 613 [main]
DEBUG com.virtuata.security.TunnelFactory - Tunneled socket opening is complete 613 [main]

DEBUG com.virtuata.security.VirtuataTunneledSSLSocketFactory - Tunneled socket is created
732 [main]
DEBUG com.virtuata.security.VirtuataHostnameVerifier - Returning original verifier of
type
javax.net.ssl.HttpURLConnection.DefaultHostnameVerifier 1212 [main] DEBUG
com.cisco.vcenter.extension.register.ExtensionRegister - Received
version=5.1.0 from vCenter. Parsed it as 5.1.0 (v-j5-n1-u0-l-b-v)

1983 [main] INFO com.cisco.vcenter.extension.register.ExtensionRegister - Examining
extension with key=com.cisco.nlkv
1983 [main] INFO com.cisco.vcenter.extension.register.ExtensionRegister - Ignoring
extension with key=com.cisco.nlkv
1983 [main] INFO com.cisco.vcenter.extension.register.ExtensionRegister - Legacy vcplugin
was not installed. Nothing to remove
1989 [main] DEBUG com.cisco.vcenter.extension.register.KeyValueStore - Using /etc/cisco
as the prefDir, and /etc/cisco/nlkvCfgData.properties as the file, full path is
/etc/cisco/
nlkvCfgData.properties
Using CATALINA_BASE:    /usr/local/tomcat
Using CATALINA_HOME:    /usr/local/tomcat
Using CATALINA_TMPDIR:  /usr/local/tomcat/temp
Using JRE_HOME:         /usr/java/default
Using CLASSPATH:
/usr/local/tomcat/bin/bootstrap.jar:/usr/local/tomcat/bin/tomcat-juli.jar
Using CATALINA_PID:     /usr/local/tomcat/catalina.pid
Registered app with vCenter.
Thu Jul 31 15:21:46 PDT 2014
Finished initial configuration.
Thu Jul 31 15:21:46 PDT 2014
```

- 3 If there are no issues in the above log snippet, check the vCenter Managed Object Browser (MOB) to verify that the Cisco Virtual Switch Update Manager plug-in is registered successfully.
- 4 Verify that the extension is registered successfully:
  - Enter `https://vcenterip/mob` in a web browser and log in with the vCenter credentials.
  - Choose **Content > Extension Manager** and verify that the **com.cisco.nlkv** extension is listed.
  - Choose **cisco.com.nlkv > Server** and verify that the URL value displays the IP address of the Cisco VSUM VM.



If the IP address is displayed, the extension is registered successfully.

- 5 If Cisco Virtual Switch Update Manager is not visible on vCenter vSphere Web Client, collect the vCenter and Cisco VSUM logs and send it to the Cisco Technical Assistance Center.

