Dell EMC Ready Solution for VMware vCloud NFV 3.1 OpenStack Edition Platform

Automation Deployment Release Notes for VMware NFV 3.1 with VMware Integrated OpenStack 5.1 with Kubernetes

Dell Engineering
May 2019
Revisions

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
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<tbody>
<tr>
<td>May 2019</td>
<td>Initial release for Deployment Automation framework SW v3.1.1.1</td>
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Overview

This guide captures the release notes for the deployment and configuration of the Dell EMC PowerEdge 14G server with VMware vCloud NFV 3.1 Ready Bundle. For additional information, see the following documents:


The information in this guide includes recommendations, known issues that VMware reports, software limitations, and addresses issues filed during the deployment and validation of the VMware vCloud Ready Bundle.
1 Recommendations

- Use direct attach copper cables to resolve unexpected link flapping. Link flapping occurs when optical cabling is used to connect Dell EMC servers to the switches.
- Verify that the UTC time zone setting is assigned to the vCloud NFV.
## VMware reported issues

<table>
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<th>Issue</th>
<th>Tracking number</th>
<th>Workaround</th>
<th>Root Cause</th>
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<tbody>
<tr>
<td>vCloud NFV 3.1 VIO 5.1: vROPS integration with vRLI failing on test connection API, enable launch in context button</td>
<td>VCLOUDNFV-297</td>
<td>1. Login to vRLI server and click Menu next to admin user. 2. Navigate to: Integration &gt; vRealize Operations 3. Check the Enable Launch in Context box and click Test Connection. 4. Click Save.</td>
<td>Current API does not support this feature</td>
</tr>
<tr>
<td>vCloud NFV 3.1 VIO 5.1: VSAN Health Have warnings may occur.</td>
<td>VCLOUDNFV-343</td>
<td><strong>For Hardware Compatibility - Controller firmware is VMware certified:</strong> 1. Download the required files from the below link: <a href="https://downloads.dell.com/FOLDER05281643M/1/perccli_vmware_KFT4T_A07_7.529.00.zip">https://downloads.dell.com/FOLDER05281643M/1/perccli_vmware_KFT4T_A07_7.529.00.zip</a> 2. Extract the VIB file and upload it to vsanDatastore through vCenter. 3. Use a remote session of ESXi and navigate to vsanDatastore path where VIB file is located. For e.g: <code>/vmfs/volumes/vsanDatastore/ef29b95c-e474-39de-d658-246e96d00180/vmware-esx-perccli-007.0529.0000.0000.vib</code> 4. Enter the following command to install the VIB file on the ESXi: <code>esxcli software vib install -v &quot;/vmfs/volumes/vsanDatastore/ef29b95c-e474-39de-d658-246e96d00180/vmware-esx-perccli-007.0529.0000.0000.vib&quot;</code> 5. Repeat step 3 and 4 for all hosts in cluster. The vSAN warnings will disappeared now.</td>
<td>vSAN release catalog provides critical information to vSAN build recommendation engine. It will be updated when there are new releases or critical patches. It is important to keep the local copy up-to-date. This check is to ensure that the local copy of vSAN release catalog is up-to-date. For more information, see <a href="https://kb.vmware.com/solution/58891">VMware KB 58891</a>.</td>
</tr>
</tbody>
</table>
For vSAN release catalog up-to-date/vSAN HCL DB up-to-date issue:
1. Download the JSON from the below link: [JSON File](#).
2. Rename the downloaded JSON file to `results.json`.
3. Login to the vcenter using `vSphere Web Client`.
4. Select your vSAN cluster.
5. Go to `Monitor > vSAN/Health`.
6. Select the `vSAN release catalog up-to-date" sub check under "vSAN build recommendation`.
7. Click the link `Update from File` and browse and select the downloaded json file.
8. The local copy gets updated and "vSAN build recommendation" is set to green.
9. In the Configure tab, under vSAN section click `Health and Performance` then click `Update from file` button to upload it to vCenter Server.
For more information, see [VMware KB 58891](#) and [VMware 591431](#).

| VM-NFV3.1-VIO5.1: POST-deployment: VAPI Endpoint Alarm in both clusters | VCLUDNFV-366 | 1. Login into VCSA VM console.
2. Enter the command to stop VAPI endpoint services:
   ```
   root@vcsa101 [ /etc/vmware-content-library/config ]# service-control --stop vmware-vapi-endpoint
   ```
3. Once the vAPIs are stopped, enter the following command to start vAPI endpoint services:
   ```
   root@vcsa101 [ /etc/vmware-content-library/config ]# service-control --start vmware-vapi-endpoint
   ```
   Check the vCenter logs to verify that vAPI is started.
For more information, see [VMware KB](#) for the same.

This warning occurs when the vAPI reconfigure itself. It reconfigures itself every 4 minutes to adapt any changes happened in the vCenter.
<p>| vCloud NFV 3.1 VIO 5.1: Error message on ESXi's “This host is potentially vulnerable to issues described in CVE-2018-3646” | VCloudNFV-368 | To enable the ESXi Side-Channel-Aware Scheduler using the vSphere Web Client or vSphere Client: 1. Connect to the vCenter Server using either the vSphere Web or vSphere Client. 2. Select an ESXi host in the inventory. 3. Click the <strong>Configure (6.5/6.7)</strong> tab. 4. Under the System heading, click <strong>Advanced System Settings</strong>. 5. In the Filter box and search VMkernel.Boot.hyperthreadingMitigation 6. Select the <strong>setting by name</strong> and click the <strong>pencil</strong> icon to edit. 7. Change the configuration option to true by enabling (default: false). 8. Click <strong>OK</strong>. 9. Reboot the ESXi host for the configuration change to go into effect. For more information, see <a href="https://kb.vmware.com/s/article/55806">VMware KB 55806</a>. |
| VM-NFV3.1-VIO5.1: Post-deployment vCenter fails to export VM | VCloudNFV-374 | 1. Power off the VM which is going to exported. 2. Open terminal on the Deployment VM. 3. Execute the following command:<code># ovftool vi://&lt;IP_Address_ESXI&gt;/ &lt;VM NAME&gt; &quot;LOCATION WHERE YOU WANTED TO DOWNLOAD THE OVF TEMPLATE&quot;</code> example: <code>#ovftool.exe vi://192.168.200.10/Test-VM-1 ~/Desktop</code> <strong>NOTE:</strong> Make sure space is available on the Deployment VM or else it will fail to export. 4. After the download is completed it creates a folder with the exported VM name containing .mf, .ovf, .vmdk and .nvram files in it. 5. While deploying the OVF template select all the files (.mf, .ovf, .vmdk and .nvram). | Existing vSphere 6.7 issue that is being reviewed by VMware |</p>
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<tr>
<th>Issue Description</th>
<th>VCloud Reference</th>
<th>Notes</th>
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| VM-NFV3.1-VIO5.1: Post-Deployment test: K8s-master has high memory usage alarm   | VCloudNFV-381    | This is a Kubernetes known issue, refer the following links for more information:  
1. Kubernetes Issues 43916  
2. Kubernetes Issues 1529  
3. Kubernetes Issues 17888  
4. Kubernetes issues 1356  

vROPS shows 90% memory utilization for master node. However, on master node it does not show the memory utilization- 90%. It keeps most of the memory in buffer/cache. Similarly, in the Kubernetes dashboard, it does not show memory utilization- 90% for the master nodes. |
| VM-NFV3.1-VIO5.1: OpenStack dashboard does not show NSX networking information  | VCloudNFV-396    | N/A                                                                 |
|                                                                                   |                  | It is expected behavior as the names are not passed to the OMS API in the json.  
For more information, see KB 65144. |
| VM-NFV3.1-VIO5.1: On VIO after installing a Windows instance from a Windows ISO the VM fails to install OS because there is not driver for the Hard disk | VCloudNFV-397    | It is recommended to use a customized OVA to avoid driver compatibility issues.  
This is a common OpenStack issue due to customize ISO files. |
| VM-NFV3.1-VIO5.1: Post-Deployment failed for Keystone endpoint is in error         | VCloudNFV-398    | 1. Login to the vCenter, then go to Administration and click OpenStack in the navigation pane.  
2. Click the keystone then click Edit. It will display an Update Endpoint form.  
3. Enter the VIO management server password then click the Update button. The follow message display: ‘Configuration Ok’.  

The endpoint data is fetched from VIO management server internally. The error is because the endpoint does not get required password. There is no method through the API to resolve it. |
| VM-NFV3.1-VIO5.1: failed to upload file on vSAN datastore.                        | VCloudNFV-399    | Open the URL of the same ESXi in new browser tab and accept the certificate, then retry the operation.  
For more information, see VMware KB 2147256.  

This typically occurs due certificates that the browser does not trust. If you are using self-signed or custom certificates. |
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<th>Reference ID</th>
<th>Solution</th>
<th>Additional Information</th>
</tr>
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| VM-NFV3.1-VIO5.1: Post-Deployment test: Kubernetes missing on VROPs dashboard     | VCLOUDNFV-400  | 1. Login to VROPS GUI.  
2. Click the Dashboards tab, and click All Dashboards drop down.  
3. Check the Kubernetes Environment checkbox. | No common API available to pre-check different features available on the vROPS dashboard. |
| VM-NFV3.1-VIO5.1: Post-Deployment test: VROPs missing on VROPs dashboard          | VCLOUDNFV-401  | 1. Login to VROPS GUI.  
2. Click the Dashboards tab, and click All Dashboards drop down.  
3. Check the vRealize Operations checkbox. | No common API available to pre-check different features available on the vROPS dashboard. |
| VM-NFV3.1-VIO5.1: Post-Deployment test: other metrics missing on VROPs dashboard  | VCLOUDNFV-402  | 1. Login to VROPS GUI.  
2. Click the Dashboards tab, and click All Dashboards drop down.  
3. Check the checkbox of the required metric. | No common API available to pre-check different features available on the vROPS dashboard. |
| vCloud NFV 3.1 VIO 5.1: All disk claimed warning showing for resource vSAN        | VCLOUDNFV-407  | User can either suppressed this warning either remove the extra disks from the servers.     | VMware vSAN supports maximum 8 disk but currently, there are 9 disks on each ESXi servers. Which cause this warning. For more information, see [https://configmax.vmware.com/guest?vmwareproduct=vSphere&release=vSphere%206.7&categories=7-0](https://configmax.vmware.com/guest?vmwareproduct=vSphere&release=vSphere%206.7&categories=7-0) |
## Documentation Bugs

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| vCloud NFV 3.1 VIO 5.1: vCenter not connecting to VIO management server | VCLOUDNFV-344   | 1. Login into vCenter server  
2. Go to VIO plug-in. Go to Summary tab.  
3. Clicks connect to vCenter Server. | N/A                                                            |
| vCloud NFV 3.1 VIO 5.1: Cleanup failed: Error: Failed to remove SSD from esxi host | VCLOUDNFV-345   | Run the cleanup script again, if again the vSAN disk is locked, then follow the below steps:  
1. Login to ESXi host.  
2. On the navigation pane, click Storage > Devices > select the SD card and clear the partition table from the Action menu.  
3. Repeat the above step for all the management and resource ESXi.  
4. Run the ESXi workflow using deployment VM.  
5. Once the ESXi workflow is complete, run the cleanup command. | N/A                                                            |
| VM-NFV3.1-VIO5.1: VIO connection failed with vcenter server.         | VCLOUDNFV-365   | Restart the OpenStack management server VM.  
For more information, see [VMware KB](#). | Connection is failed between OpenStack management server and the vCenter server. Also not showing any VM's in OpenStack deployments. |
| vCloud NFV 3.1 VIO 5.1:(Intermittent) Red alerts on ESXi's after deployment is completed. | VCLOUDNFV-367   | Follow the below steps to manually reset the alarm:  
1. Login to vCenter server.  
2. Select the each ESXi, then go to Summary page.  
3. Click Reset To Green.  
For more information, see [VMware KB](#). | N/A                                                            |
| VM-NFV3.1-VIO5.1: There was an error on vsan cluster "Disks usage on storage controller" | VCLOUDNFV-369   | Migrate that VM to vSAN-datastore.  
As per NFV pre-requisite there should be no existing datastore on the servers. If datastore is present, delete it manually before running the deployment.  
For more information, refer to [VMware KB](#). | Due to existing non-vsandatastore one of the VM got deployed on it |
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<td>vCloud NFV 3.1 VIO 5.1: Some HDDs not showing in the Disk group &amp; VSAN datastore[scalability].</td>
<td>VCLOSEDNFV-377</td>
<td>Cleared the disk partition of both the HDD’s manually, follow the below steps to do manual clean up: 1. Login to ESXI. 2. Click on Storage tab. 3. Go to Devices tab. 4. Click on the hard disk which needs to be clean up. 5. Go to actions. 6. Click on clear partition table. 7. Click Yes to clean up.</td>
<td>It is observed that new servers have default partitions from the factory</td>
</tr>
<tr>
<td>vCloud NFV 3.1 VIO 5.1: Error message on Google Chrome use of unsupported Web Browsers to connect to vSphere Web Client results in error message that prompts you to use unsupported versions of Web browsers</td>
<td>VCLOSEDNFV-378</td>
<td>Update the browser version.</td>
<td>Your browser-OS combination is not supported. Some features might not work correctly. A minimum of IE10, Firefox 30, or Chrome 35 are required for Windows.</td>
</tr>
<tr>
<td>VM-NFV3.1-VIO5.1: Loadbalancer showing down in NSX</td>
<td>VCLOSEDNFV-379</td>
<td>This is also normal process for Neutron load balancers. When using the vmware_nsx plugin this results in a logical port on the internal network that stays down, since when associated floating IP to that port the corresponding listener has been implemented on the Load Balancing Service attached to the router. Therefore, seeing that operation status DOWN might be expected.</td>
<td>While creating neutron loadbalancer on an internal network and then expose it via a floating IP</td>
</tr>
<tr>
<td>VM-NFV3.1-VIO5.1: Warning message in deployment VM</td>
<td>VCLOSEDNFV-380</td>
<td>This is a CentOS bug and we are using latest CentOS version 7.6 Follow the below link for CentOS bug: Bug ID 13602.</td>
<td>N/A</td>
</tr>
<tr>
<td>VM-NFV3.1-VIO5.1: vRLI not showing info for vROPs in dashboard and Data Analytics tab</td>
<td>VCLOSEDNFV-403</td>
<td>Follow the below steps to forward the vROPs logs to vRLI: 1. Login into vROPs master VM. 2. Go to Administrator and select Management tab 3. Click Log forwarding. 4. Select the box: “output logs to external log server”.</td>
<td>There is currently no API for this task</td>
</tr>
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<tr>
<td>VM-NFV3.1-VIO5.1: vRLI not showing info for BCF in dashboard and Data Analytics tab</td>
<td>VCloudNFV-404</td>
<td>Follow the below steps to forward logs from BCF GUI manually 1. Login into BCF GUI. 2. Go to Setting, then click <strong>logging</strong> 3. Click the <strong>Remote logging and put Switch remote to Yes</strong> 4. Click + to add syslog server  - Give the hostname: vrli123.dellnfv.com  - port no. 514  - Log level: warning</td>
<td>Since the configurations are required on BCF GUI, it is not covered in automation.</td>
</tr>
<tr>
<td>VM-NFV3.1-VIO5.1: Post-Deployment when using Firefox browser unable to make changes in dialog box</td>
<td>VCloudNFV-405</td>
<td>Use Google Chrome browser</td>
<td>N/A</td>
</tr>
<tr>
<td>VM-NFV3.1-VIO5.1: Log file time changes during NFV deployment</td>
<td>VCloudNFV-406</td>
<td>N/A</td>
<td>As designed, the Automation VM synchronizes time with the deployed AD/NTP server. Automation VM time was running late than deployed AD time. So, Automation VM time was updated after it got synched with deployed AD/NTP server.</td>
</tr>
</tbody>
</table>