OpenManage Integration for VMware vCenter Version 4.3

Web Client Installation Guide

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DELL EMC

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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Introduction

This guide provides step-by-step instructions for installing and configuring OpenManage Integration for VMware vCenter (OMIVV) for use with PowerEdge servers. After the OMIVV installation, for information about all aspects of administration including—inventory management, monitoring and alerting, firmware updates, and warranty management; see *OpenManage Integration for VMware vCenter User's Guide* available at `Dell.com/support/manuals`.

Topics:

OpenManage Integration for VMware vCenter licensing

The OpenManage Integration for VMware vCenter has two types of licenses:

- Evaluation license—when the OMIVV appliance is powered on for the first time, an evaluation license is automatically installed. The trial version contains an evaluation license for five hosts (servers) managed by the OpenManage Integration for VMware vCenter. This 90-day trial version is the default license that is supplied when shipped.
- Standard license—the full product version contains a standard license for up to 10 vCenter servers and you can purchase any number of host connections that are managed by OMIVV.

When you upgrade from an evaluation license to a full standard license, you receive an email about the order confirmation, and you can download the license file from the Dell Digital Locker. Save the license .XML file to your local system and upload the new license file using the **Administration Console**.

Licensing presents the following information:

- Maximum vCenter Connection Licenses—up to 10 registered and in-use vCenter connections are enabled.
- Maximum Host Connection Licenses—the number of host connections that were purchased.
- In Use—the number of vCenter connection or host connection licenses in use. For host connection, this number represents the number of hosts (or servers) that have been discovered and inventoried.
- Available—the number of vCenter connections or host connection licenses available for future use.

NOTE: The standard license period is for three or five years only, and the additional licenses are appended to the existing license and not over written.

When you purchase a license, the .XML file (license key) is available for download through the Dell Digital Locker at Dell Digital Locker. If you are unable to download your license key(s), contact Dell Support by going to Order Support to locate the regional Dell Support phone number for your product.

License requirements for hosts and vCenter servers

The following are the licensing requirements for hosts and vCenter:

- You can purchase a license to support the quantity of Dell EMC servers to be managed by OMIVV. A license is used only after a host is added to a connection profile. License is not associated with a particular server.
- One instance of OMIVV supports up to 10 instances of vCenter servers. There is no separate license for the number of vCenter servers.

Buying and uploading software license

You are running a trial license until you upgrade to a full product version. Use the **Buy License** link from the product to navigate to the Dell website and buy a license. After you buy it, upload it using the **Administration Console**.

NOTE: The **Buy License** option is displayed only if you are using a trial license.

1. In the OpenManage Integration for VMware vCenter, perform one of the following tasks:
   - In the **Licensing** tab, next to **Software License**, click **Buy License**.
   - In the **Getting Started** tab, under **Basic Tasks**, click **Buy License**.
2. Save the license file to a known location that you had downloaded from the Dell Digital Locker.
3. In a web browser, type the Administration Console URL.
   Use the format: `https://<ApplianceIPAddress>`
4. In the **Administration Console** login window, type the password and click **Login**.
5. Click **Upload license**.
6. In the **Upload License** window, to navigate to the license file, click **Browse**.
7. Select the license file, and then click **Upload**.

NOTE: The license file might be packaged inside a .zip file. Ensure that you unzip the .zip file and upload only the license .xml file. The license file is likely to be named based on your order number, such as 123456789.xml.

Options after uploading licenses

License file for new purchases

When you place an order for purchasing a new license, an email is sent from Dell about the order confirmation, and you can download the new license file from the Dell Digital Locker at Dell Digital Locker. The license is in an .xml format. If the license is in a .zip format, extract the license .xml file from the .zip file before uploading.

Stacking licenses

Starting from the OMIVV version 2.1, OMIVV can stack multiple standard licenses to increase the number of supported hosts to the sum of the hosts in the uploaded licenses. An evaluation license cannot be stacked. The number of supported vCenter servers cannot be increased by stacking and requires the use of multiple appliances.

There are some restrictions around the functionality of stacking licenses. If a new standard license is uploaded before the existing standard license expires, the licenses stack. Otherwise, if the license expires and a new license is uploaded, only the number of hosts from the new license is supported. If there are already multiple licenses uploaded, the number of supported hosts are the sum of the hosts in the nonexpired licenses at the time the last license was uploaded.

Expired licenses

Licenses that are past their support duration, typically three or five years from the date of purchase are blocked from being uploaded. If licenses have expired after being uploaded, functionality for existing hosts continues; however, upgrades to new versions of the OMIVV are blocked.

Replacement of licenses

If there is a problem with your order and you receive a replacement license from Dell, the replacement license contains the same entitlement ID of the previous license. When you upload a replacement license, the license is replaced if a license was already uploaded with the same entitlement ID.

Enforcement

Appliance updates

The appliance does not allow updates to newer versions when all licenses are expired. Obtain and upload a new license before attempting to upgrade the appliance.

Evaluation License

When an evaluation license expires, several key areas cease to work, and an error message is displayed.

Adding hosts to connection profiles

When you attempt to add a host to a connection profile, if the number of licensed 11th Generation or newer hosts exceeds beyond the number of licenses, adding extra hosts is prevented.

Important notes for reference

- From OMIVV 4.0 onwards, only VMware vSphere Web client is supported, and the vSphere Desktop client is not supported.
- For vCenter 6.5 and later, the OMIVV appliance is only available for the flash version. The OMIVV appliance is not available for the HTML5 version.
- For using the DNS server, the recommended practices are:
  - OMIVV supports only IPv4 IP addresses. Although both static IP assignment and DHCP assignment are supported, it is recommended that you assign a static IP address. Assign a static IP address and host name when you deploy an OMIVV appliance with a valid DNS registration. A static IP address ensures that during the system restart, the IP address of the OMIVV appliance remains same.
  - Ensure that OMIVV host name entries are present in both forward and reverse lookup zones in your DNS server.

  For more information about the DNS requirements for vSphere, see the following VMware links:

  - DNS requirments for vSphere 5.5
  - DNS requirements for vSphere 6.0
  - DNS requirements for vSphere 6.5 and Platform Services Controller appliance
- For the OMIVV appliance mode, ensure that you deploy OMIVV in the appropriate mode based on your virtualization environment. For more information, see Configuring deployment mode on page 8.
- Configure your network to match the port requirements. For more information, see Port information on page 14.

Hardware requirements

OMIVV provides full support for several generations of the Dell EMC servers with full feature support for servers with iDRAC Express or Enterprise. Extensive information about the platform requirements is available in *OpenManage Integration for VMware vCenter Release Notes* available at `Dell.com/support/manuals`. To verify that your host servers are eligible, see information about the following in the subsequent subsections:

- Supported server and minimum BIOS
- iDRAC supported versions (both deployment and management)
- OMSA support for 11th Gen and older servers, and the ESXi version support (both deployment and management)
- Supported memory and space for OMIVV

OMIVV requires LAN on motherboard/Network daughter card that can access both iDRAC and CMC or Management Module systems management network and the vCenter management network.

Configuring deployment mode

Ensure that the following system requirements for the desired deployment modes are met:

Table 1. System requirements for deployment modes

Deployment modes	Number of hosts	Number of CPUs	Memory—in GB	Minimum Storage
Small	Up to 250	2	8	44 GB
Medium	Up to 500	4	16	44 GB
Large	Up to 1000	8	32	44 GB

NOTE: For any of the mentioned deployment modes, ensure that you reserve sufficient amount of memory resources to the OMIVV virtual appliance using reservations. See vSphere documentation for steps about reserving memory resources.

You can select an appropriate deployment mode to scale OMIVV to match the number of nodes in your environment.

1. In the **APPLIANCE MANAGEMENT** page, scroll down to **Deployment Mode**.
   The configuration values of the deployment mode such as **Small**, **Medium**, or **Large** is displayed and by default, the deployment mode is set to **Small**.
2. Click **Edit** if you want to update the deployment mode based on the environment.
3. In the **Edit** mode, select the desired deployment mode after ensuring that the prerequisites are met.
4. Click **Apply**.
   The allocated CPU and memory are verified against the required CPU and memory for the set deployment mode and either of the following situations happen:
   - If the verification fails, an error message is displayed.
   - If the verification is successful, the OMIVV appliance restarts and the deployment mode are changed after you confirm the change.
   - If the required deployment mode is already set, a message is displayed.
5. If the deployment mode is changed, confirm the changes, and then proceed with rebooting the OMIVV appliance to allow the deployment mode to be updated.

NOTE: During the OMIVV appliance boot up, the allocated system resource is verified against the set deployment mode. If the allocated system resources are less than the set deployment mode, the OMIVV appliance does not boot up to the login screen. To boot up the OMIVV appliance, shut down the OMIVV appliance, update the system resources to the existing set deployment mode, and follow the downgrade deployment mode task.

Downgrading deployment mode

1. Log in to the Administration Console.
2. Change the deployment mode to the desired level.
3. Shut down the OMIVV appliance and change the system resources to the desired level.
4. Turn-on the OMIVV appliance.

BIOS, iDRAC, Lifecycle Controller versions

The BIOS, iDRAC, and the Lifecycle Controller versions required to enable the features of OpenManage Integration for VMware vCenter are listed in this section.

It is recommended that you use the Bootable ISO created by using Repository Manager, or Lifecycle Controller's Platform to update your servers to one of the following base versions before using OMIVV:

NOTE: It is recommended to use Dell EMC OpenManage Enterprise-Modular Edition Version 1.00.01 with OMIVV 4.3.

Table 2. BIOS for PowerEdge 11th generation servers

Server	Minimum version
PowerEdge R210	1.8.2 or later

Table 2. BIOS for PowerEdge 11th generation servers

Server	Minimum version
PowerEdge R210II	1.3.1 or later
PowerEdge R310	1.8.2 or later
PowerEdge R410	1.9.0 or later
PowerEdge R415	1.8.6 or later
PowerEdge R510	1.9.0 or later
PowerEdge R515	1.8.6 or later
PowerEdge R610	6.1.0 or later
PowerEdge R710	6.1.0 or later
PowerEdge R710	6.1.0 or later
PowerEdge R715	3.0.0 or later
PowerEdge R810	2.5.0 or later
PowerEdge R815	3.0.0 or later
PowerEdge R910	2.5.0 or later
PowerEdge M610	6.1.0 or later
PowerEdge M610x	6.1.0 or later
PowerEdge M710HD	5.0.1 or later
PowerEdge M910	2.5.0 or later
PowerEdge M915	2.6.0 or later
PowerEdge T110 II	1.8.2 or later
PowerEdge T310	1.8.2 or later
PowerEdge T410	1.9.0 or later
PowerEdge T610	6.1.0 or later
PowerEdge T710	6.1.0 or later

Table 3. BIOS for PowerEdge 12th generation servers

Server	Minimum version
T320	1.0.1 or later
T420	1.0.1 or later
T620	1.2.6 or later
M420	1.2.4 or later
M520	1.2.6 or later
M620	1.2.6 or later
M820	1.2.6 or later
R220	1.0.3 or later
R320	1.2.4 or later
R420	1.2.4 or later
R520	1.2.4 or later
R620	1.2.6 or later

Table 3. BIOS for PowerEdge 12th generation servers

Server	Minimum version
R720	1.2.6 or later
R720xd	1.2.6 or later
R820	1.7.2 or later
R920	1.1.0 or later

Table 4. BIOS for PowerEdge 13th generation servers

Server	Minimum version
R630	1.0.4 or later
R730	1.0.4 or later
R730xd	1.0.4 or later
R430	1.0.4 or later
R530	1.0.2 or later
R830	1.0.2 or later
R930	1.0.2 or later
R230	1.0.2 or later
R330	1.0.2 or later
T630	1.0.2 or later
T130	1.0.2 or later
T330	1.0.2 or later
T430	1.0.2 or later
M630	1.0.0 or later
M830	1.0.0 or later
FC430	1.0.0 or later
FC630	1.0.0 or later
FC830	1.0.0 or later

Table 5. BIOS for PowerEdge 14th generation servers

Server	Minimum Version
R940	1.0.0 or later
R740	1.0.0 or later
R740xd	1.0.0 or later
R640	1.0.0 or later
M640	1.0.0 or later
T640	1.0.0 or later
T440	1.0.0 or later
R540	1.0.0 or later
FC640	1.0.0 or later
R6415	1.0.0 or later
R7425	1.0.0 or later

Table 5. BIOS for PowerEdge 14th generation servers

Server	Minimum Version
R7415	1.0.0 or later
MX740C	1.0.0 or later
MX840C	1.0.0 or later

Table 6. iDRAC and Lifecycle Controller for deployment

Generation	Version	
	iDRAC	Lifecycle Controller
PowerEdge 11th generation servers	3.35 for Modular, 1.85 for Rack or Tower	1.5.2 or later
PowerEdge 12th generation servers	2.30.30.30 or later	2.30.30.30 or later
PowerEdge 13th generation servers	2.30.30.30 or later	2.30.30.30 or later
PowerEdge 14th generation servers	3.00.00.00 and later	3.00.00.00 and later

Table 7. BIOS and iDRAC requirements for cloud server

Model	BIOS	iDRAC with Lifecycle Controller
C6320	1.0.2	2.30.30.30 or later
C4130	1.0.2	2.30.30.30 or later
C6420	1.0.0 or later	3.00.00.00 or later
C4140	1.0.0 or later	3.00.00.00 or later

Supported features on PowerEdge servers

The following features are supported on the hosts managed by OpenManage Integration for VMware vCenter:

Table 8. Supported features on PowerEdge servers

Features	Platform		
	11th	12th and 13th	14th
Hardware Inventory	Y	Y	Y
Events and Alarms	Y (SNMP v1 only)	Y (SNMP v1 and v2)	Y (SNMP v1 and v2)
Component wise Health Monitoring*	Y	Y	Y
BIOS/Firmware Updates#	Y	Y	Y
Proactive HA$	N	Y	Y
Warranty Information	Y	Y	Y
Host Compliance	Y	Y	Y
Auto/Manual discovery of bare-metal server	Y	Y	Y
Bare-Metal compliance	Y	Y	Y
Hardware Configuration	Y	Y	Y
Bare-Metal Hypervisor Deployment	Y	Y	Y
Blink Server LED	Y	Y	Y

Table 8. Supported features on PowerEdge servers

Features	Platform		
	11th	12th and 13th	14th
View/Clear SEL logs	Y	Y	Y
Link and Launch iDRAC	Y	Y	Y
iDRAC reset	Y	Y	Y
System Lockdown Mode	N	N	Y
System Profile	N	N	Y
Cluster Profile	N	Y ^	Y
Host management using unified chassis IP	N	N	Y@
Support for OEM server	N	Y~	Y

* In Cloud with model number C6320, health monitoring is not supported for the mezzanine cards.

In Cloud with model number C6320, firmware updates are not supported for the mezzanine cards.

$ Proactive HA feature is only applicable on vCenter 6.5 or later that has ESXi 6.0 or later. Also, Proactive HA feature is not supported on servers with embedded PSU and cloud server models.

^ In cluster profile, configuration drift is not supported.

@ Applicable only for an MX chassis host. Inventory, monitoring, Proactive HA, and firmware update features are supported.

~ Supported only for 13th generation servers.

Supported features on PowerEdge chassis

This topic provides information about the supported features on the PowerEdge chassis.

Table 9. Supported features on modular infrastructure

Features	M1000e	VRTX	FX2s	MX
SNMP Alerts	Y	Y	Y	Y
Hardware Inventory	Y	Y	Y	Y
Link and Launch CMC or Management Module	Y	Y	Y	Y
License Information	N/A	Y	Y	Y
Warranty Information	Y	Y	Y	Y
Health Reporting	Y	Y	Y	Y
Multi-chassis management group relationship information	N	N	N	Y

Space required for provisioned storage

The OMIVV virtual appliance requires at least 44 GB of disk space for provisioned storage.

Default virtual appliance configuration

The OMIVV virtual appliance is provisioned with 8 GB of RAM and 2 virtual CPU (Small Deployment Mode).

Software requirements

Ensure that the vSphere environment fulfills virtual appliance, port access, and listening port requirements.

Requirements for VMware vSphere web client

- Supports vCenter 6.0 and later
- Requires web client services from vCenter (vSphere Desktop client is not supported)

For specific software requirements, you can also see *OpenManage Integration for VMware vCenter Compatibility Matrix* available at `Dell.com/support/manuals`.

OpenManage Integration for VMware vCenter requirements

Supported ESXi versions on managed hosts

The following table provides information about the supported ESXi versions on managed hosts:

Table 10. Supported ESXi versions

ESXi version support	Server generation			
	11G	12G	13G	14G
v5.1	Y	Y	N	N
v5.1 U1	Y	Y	N	N
v5.1 U2	Y	Y	Y	N
v5.1 U3	Y	Y	Y (except M830, FC830, and FC430)	N
v5.5	Y	Y	N	N
v5.5 U1	Y	Y	N	N
v5.5 U2	Y	Y	Y	N
v5.5 U3	Y	Y	Y	N
v6.0	Y	Y	Y	N
v6.0 U1	Y	Y	Y	N
v6.0 U2	Y	Y	Y	N
v6.0 U3	Y	Y	Y	Y
v6.5	N	Y	Y	N
v6.5 U1	N	Y	Y	Y
v6.5 U2	N	Y	Y	Y
v6.7	N	Y	Y	Y
v6.7 U1	N	Y	Y	Y

NOTE: An MX host is supported only when used with ESXi 6.5 U2 and later.

The OpenManage Integration for VMware vCenter supports any of the following vCenter server versions:

Table 11. Supported vCenter server versions

vCenter version	Web client support
v6.0 U2	Y
v6.0 U3	Y
v6.5	Y
v6.5 U1	Y
v6.5 U2	Y
v6.7	Y
v6.7 U1	Y

NOTE: For more information about registering a vCenter server, see *OpenManage Integration for VMware vCenter Version 4.3 Web Client Install Guide* available at `Dell.com/support/manuals`.

The OpenManage Integration for VMware vCenter version 4.3 supports VMware vRealize Operations Manager (vROPS) version 1.1 and 1.2.

Port information

Virtual appliance and managed nodes

In OMIVV, when you deploy the OMSA agent by using the *Fix non-compliance hosts* link available in the **Fix Non-compliant vSphere Hosts** wizard, OMIVV performs the following action:

- Starts the HTTP Client service
- Enables port 8080
- Makes the port available for ESXi 5.0 or later to download and install OMSA VIB

After the OMSA VIB installation is complete, the service automatically stops and the port is closed.

Table 12. Virtual appliance

Port Number	Protocols	Port Type	Maximum Encryption Level	Direction	Destination	Usage	Description
53	DNS	TCP	None	Out	OMIVV appliance to DNS server	DNS client	Connectivity to the DNS server or resolving the host names.
69	TFTP	UDP	None	Out	OMIVV appliance to TFTP server	TFTP Client	Used for firmware update on 11G servers with old firmware.
80/443	HTTP/ HTTPS	TCP	None	Out	OMIVV appliance to internet	Dell Online Data Access	Connectivity to the online (Internet) warranty, firmware, and latest RPM information.
80	HTTP	TCP	None	In	ESXi server to OMIVV appliance	HTTP server	Used in operating system deployment flow for post installation scripts to communicate with the OMIVV appliance.
162	SNMP Agent	UDP	None	In	iDRAC/ESXi to OMIVV appliance	SNMP Agent (server)	To receive SNMP traps from managed nodes.
443	HTTPS	TCP	128-bit	In	OMIVV UI to OMIVV appliance	HTTPS server	Web services offered by OMIVV. These Web services are consumed by vCenter Web Client and Dell Admin portal.

Table 12. Virtual appliance

Port Number	Protocols	Port Type	Maximum Encryption Level	Direction	Destination	Usage	Description
443	WSMAN	TCP	128-bit	In/Out	OMIVV appliance to/ from iDRAC/ OMSA	iDRAC/OMSA communication	iDRAC, OMSA, and CMC or Management Module communication, used to manage and monitor the managed nodes.
445	SMB	TCP	128-bit	Out	OMIVV appliance to CIFS	CIFS communication	To communicate with Windows share.
4433	HTTPS	TCP	128-bit	In	iDRAC to OMIVV appliance	Auto Discovery	Provisioning server that is used for auto discovering managed nodes.
2049	NFS	UDP/ TCP	None	In/Out	OMIVV appliance to NFS	Public Share	NFS public share that is exposed by OMIVV appliance to the managed nodes and used in firmware update and operating system deployment flows.
4001 to 4004	NFS	UDP/ TCP	None	In/Out	OMIVV appliance to NFS	Public Share	These ports must be kept open to run the statd, quotd, lockd, and mountd services by the V2 and V3 protocols of the NFS server.
11620	SNMP Agent	UDP	None	In	iDRAC to OMIVV appliance	SNMP Agent (server)	Port used to receive the standard SNMP alerts by using UDP: 162. Data from iDRAC, OMSA, and CMC or Management Module are received to manage and monitor the managed nodes.
User-defined	Any	UDP/ TCP	None	Out	OMIVV appliance to proxy server	Proxy	To communicate with the proxy server.

Table 13. Managed nodes (ESXi)

Port Number	Protocols	Port Type	Maximum Encryption Level	Direction	Destination	Usage	Description
162, 11620	SNMP	UDP	None	Out	ESXi to OMIVV appliance	Hardware Events	Asynchronous SNMP traps sent from ESXi.This port have to open from ESXi.
443	WSMAN	TCP	128-bit	In	OMIVV appliance to ESXi(OMSA)	iDRAC/OMSA communication	Used to provide information to the management station. This port has to open from ESXi.
443	HTTPS	TCP	128-bit	In	OMIVV appliance to ESXi	HTTPS server	Used to provide information to the management station. This port has to open from ESXi.
8080	HTTP	TCP	128-bit	Out	ESXi to OMIVV appliance	HTTP server; downloads the OMSA VIB and fixes noncompliant vSphere hosts.	Helps ESXi to download the OMSA/ driver VIB.

Table 14. Managed nodes (iDRAC or CMC or Management Module)

Table 14. Managed nodes (iDRAC or CMC or Management Module)

Port Number	Protocols	Port Type	Maximum Encryption Level	Direction	Destination	Usage	Description
443	WSMAN /HTTPS, REST/ HTTPS	TCP	128-bit	In	OMIVV appliance to iDRAC or CMC or Management Module	iDRAC communication	Used to provide information to the management station and communicate to MX chassis by using REST or HTTPS protocols. This port has to open from iDRAC and CMC or Management Module.
4433	HTTPS	TCP	128-bit	Out	iDRAC to OMIVV appliance	Auto Discovery	For auto discovering iDRAC (managed nodes) in the management station.
2049	NFS	UDP	None	In/Out	iDRAC to/ from OMIVV	Public Share	For iDRAC to access NFS public share that is exposed by OMIVV appliance. That is used for operating system deployment and firmware update. To access the iDRAC configurations from the OMIVV. Used in deployment flow.
4001 to 4004	NFS	UDP	None	In/Out	iDRAC to/ from OMIVV	Public Share	For iDRAC to access NFS public share that is exposed by OMIVV appliance. This is used for operating system deployment and firmware update. To access the iDRAC configurations from the OMIVV. Used in deployment flow.
69	TFTP	UDP	128-bit	In/Out	iDRAC to/ from OMIVV	Trivial File Transfer	Used for managing the iDRAC successfully from the management station.

Prerequisite checklist

Checklist before you start the product installation:

- Verify that you have user name and password for OMIVV to access the vCenter server. The user may have an administrator role that has all necessary permissions or a non-administrator user with the necessary privileges. For more information about the list of privileges required for OMIVV to operate, see Required privileges for non-administrator users.
- Check that you have the root password for the ESXi host systems, or the Active Directory credentials that has administrative rights on the host.
- Check whether you have the user name and password associated with iDRAC Express or Enterprise which have administrative rights on the iDRAC.
- Check if the vCenter server is running.
- Determine the location of the OMIVV installation directory.
- Check to ensure that VMware vSphere environment meet virtual appliance, port access, and listening port requirements. Also, install Adobe Flash Player on a client system, if necessary. For more information on the supported Flash Player version, see *OpenManage Integration for VMware vCenter Compatibility Matrix*.

NOTE: The virtual appliance functions as a regular virtual machine; any interruptions or shut downs impact overall functionality of the virtual appliance.

NOTE: The OMIVV shows the VMware tools as, Running (Out-of-date) when deployed on ESXi 5.5 and later. You can upgrade the VMware tools after a successful deployment of the OMIVV appliance or anytime later, if necessary.

NOTE: It is recommended that OMIVV and vCenter server are on the same network.

NOTE: The OMIVV appliance network should have access to iDRAC, host, and vCenter.

Installing, configuring, and upgrading OMIVV

Ensure that the hardware requirements are met and you are running the required VMware vCenter software.

The following high-level steps outline the overall installation and configuration procedure for OMIVV:

1. Download the *DellEMC_OpenManage_Integration_<version number>.<build number>.zip* file from the Dell support website at `Dell.com/support`. For more information about downloading OMIVV, see Downloading OpenManage Integration for VMware vCenter on page 17.
2. Navigate to the location where you have downloaded the file and extract its contents.
3. Deploy the Open Virtualization Format (OVF) file that contains the OMIVV appliance by using the vSphere web client. See Deploying the OMIVV OVF.
4. Upload the license file. For more information about licensing, see Uploading license.
5. Register the OMIVV appliance with the vCenter server by using Administration Console. See Registering OMIVV and importing the license file.
6. To configure the appliance, complete the **Initial Configuration Wizard**. See the Configuration tasks through the configuration wizard.

Downloading OpenManage Integration for VMware vCenter

Do keep the Service Tag of your Dell EMC PowerEdge server handy. It is recommended that you use the Service Tag to access all support on the Dell Support Website. This ensures that you download the appropriate version of the software for your platform.

To download OMIVV:

1. Go to https://www.dell.com/support.
2. Perform one of the following actions:
   - Enter the Service Tag of your Dell EMC PowerEdge server, and then select search.
   - Select **Browse all products** > **Servers** > **PowerEdge**.
3. Select the appropriate model of your PowerEdge server.
4. On the support page of your server, select **Drivers & downloads**.
5. From the **Operating System** list, select the appropriate version of VMware ESXi.
6. From the **Category** list, select **Systems Management**.
   The supported version of OMIVV is displayed.
7. Click **Download** or select the check box to add the software to your download list.

Deploying OMIVV OVF using vSphere web client

Ensure that you have downloaded and extracted the product .zip file, *Dell_OpenManage_Integration_<version number>.<build number>.zip* from the Dell website.

1. Locate the OMIVV virtual disk that you downloaded and extracted, and run **Dell_OpenManage_Integration.exe**.
   The supported client OS version for extracting and running the exe is Windows 7 SP1 and later.

   The supported server OS version for extracting and running the exe is Windows 2008 R2 and later.
2. Accept **EULA**, and save the .OVF file.
3. Copy or move the .OVF file to a location accessible to the VMware vSphere host to which you upload the appliance.
4. Start the **VMware vSphere Web Client**.
5. From the **VMware vSphere Web Client**, select a host, and in the main menu click **Actions** > **Deploy OVF Template**.
   You can also right-click **Host** and select **Deploy OVF Template.**

   The **Deploy OVF Template** wizard is displayed.

6. In the **Select Source** window, perform the following subtasks:
   a. Select **URL** if you want to download the OVF package from Internet.
   b. Select the **Local file** and click **Browse** if you want to select the OVF package from your local system.

   NOTE: The installation process can take between 10-30 minutes if the OVF package resides on a network share. For a quick installation, it is recommended that you host the OVF on a local drive.

7. Click **Next**.
   The **Review Details** window is displayed with the following information:
   - **Product**—The OVF template name is displayed.
   - **Version**—The version of the OVF template is displayed.
   - **Vendor**—The vendor name is displayed.
   - **Publisher**—The publisher details are displayed.
   - **Download Size**—The actual size of the OVF template in gigabytes is displayed.
   - **Size on Disk**—Details of thick and thin provisioned details are displayed.
   - **Description**—The comments are displayed here.
8. Click **Next**.
   The **Select Name and Folder** window is displayed.
9. In the **Select Name and Folder** window, perform the following substeps:
   a. In **Name**, enter the name of the template. The name can include up to 80 characters.
   b. In the **Select a folder or datacenter** list, select a location for deploying the template.
10. Click **Next**.
    The **Select Storage** window is displayed.
11. In the **Select Storage** window, perform the following substeps:
    a. In the **Select Virtual Disk Format** drop-down list, select either of the following formats:
       - `Thick Provision (lazy Zeroed)`
       - `Thick Provision (Eager zeroed`
       - `Thin Provision`

       It is recommended that you select, Thick Provision (Eager Zeroed).

    b. In the **VM Storage Policy** drop-down list, select a policy.
12. Click **Next**.
    The **Setup Networks** window is displayed that includes details about the source and destination networks.
13. In the **Setup Networks** window, click **Next**.

    NOTE: It is recommended that the OMIVV appliance and the vCenter server are located in the same network.

14. In the **Ready to Complete** window, review the selected options for the OVF deployment task and click **Finish**.
    The deployment job runs and provides a completion status window where you can track the job progress.

Generating Certificate Signing Request

Ensure that you upload the certificate before registering OMIVV with the vCenter.

Generating a new Certificate Signing Request (CSR) prevents certificates that were created with the previously generated CSR from being uploaded to the appliance. To generate a CSR, do the following:

1. In the **APPLIANCE MANAGEMENT** page, click **Generate Certificate Signing Request** in the **HTTPS CERTIFICATES** area.
   A message is displayed stating that if a new request is generated, certificates created using the previous CSR can no longer be uploaded to the appliance. To continue with the request, click **Continue**, or to cancel, click **Cancel**.
2. If you continue with the request, in the **GENERATE CERTIFICATE SIGNING REQUEST** dialog box, enter the **Common Name**, **Organizational Name**, **Organizational Unit**, **Locality**, **State Name**, **Country**, and **Email** for the request. Click **Continue**.
3. Click **Download**, and then save the resulting certificate request to an accessible location.

Uploading HTTPS certificate

Ensure that the certificate uses PEM format.

You can use the HTTPS certificates for secure communication between the virtual appliance and host systems. To set up this type of secure communication, a CSR must be sent to a certificate authority and then the resulting certificate is uploaded using the Administration Console. There is also a default certificate that is self-signed and can be used for secure communication; this certificate is unique to every installation.

NOTE: You can use the Microsoft internet explorer, Firefox, Chrome to upload certificates.

1. In the **APPLIANCE MANAGEMENT** page, click **Upload Certificate** in the **HTTPS CERTIFICATES** area.
2. Click **OK** in the **UPLOAD CERTIFICATE** dialog box.
3. To select the certificate to be uploaded, click **Browse**, and then click **Upload**.
4. If you want to cancel the upload, click **Cancel**.

   NOTE: If you want to upload a custom certificate for the appliance, ensure that you upload the new certificate prior to vCenter registration. If you upload the new custom certificate after vCenter registration, communication errors are displayed in the web client. To fix this issue, unregister, and re-register the appliance with the vCenter.

Restoring default HTTPS certificate

1. In the **APPLIANCE MANAGEMENT** page, click **Restore Default Certificate** in the **HTTPS CERTIFICATES** area.
2. In the **RESTORE DEFAULT CERTIFICATE** dialog box, click **Apply**.

Registering vCenter Server by non-administrator user

You can register vCenter servers for the OMIVV appliance with vCenter administrator credentials or a non-administrator user with the Dell privileges.

To enable a non-administrator user with the required privileges to register a vCenter Server, perform the following steps:

1. To change the privileges selected for a role, add the role and select the required privileges for the role or modify an existing role.

   See VMware vSphere documentation for the steps required to create or modify a role and select privileges in the vSphere Web Client. To select all the required privileges for the role, see the Required privileges for non-administrator users.

   NOTE: The vCenter administrator should add or modify a role.

2. Assign a user to the newly created role after you define a role and select privileges for the role.

   See VMware vSphere documentation for more information about assigning permissions in the vSphere Web Client.

   NOTE: The vCenter administrator should assign permissions in the vSphere Client.

   A vCenter Server non-administrator user with the required privileges can now register and/or unregister vCenter, modify credentials, or update the certificate.
3. Register a vCenter Server using a non-administrator user with the required privileges.
4. Assign the Dell privileges to the role created or modified in step 1. See Assigning Dell privileges to the role in vSphere Web Client.

A non-administrator user with the required privileges can now use the OMIVV features with the Dell EMC hosts.

Required privileges for non-administrator users

To register OMIVV with vCenter, a non-administrator user requires the following privileges:

NOTE: While registering a vCenter server with OMIVV by a non-administrator user, an error message is displayed if the following privileges are not assigned:

- Alarms
  - Create alarm

- Modify alarm
- Remove alarm

- Extension
  - Register extension
  - Unregister extension
  - Update extension
- Global
  - Cancel task
  - Log event
  - Settings

  NOTE: Assign the following health update privileges, if you are using VMware vCenter 6.5 or upgrading to vCenter 6.5 or later:
- Health Update Provider
  - Register
  - Unregister
  - Update
- Host
  - CIM
    - CIM Interaction
  - Configuration
    - Advanced settings
    - Connection
    - Maintenance
    - Network configuration
    - Query patch
    - Security profile and firewall

    NOTE: Assign the following privileges, if you are using VMware vCenter 6.5 or upgrading to vCenter 6.5 or later:
    - Host.Config
      - Advanced settings
      - Connection
      - Maintenance
      - Network configuration
      - Query patch
      - Security profile and firewall
  - Inventory
    - Add host to cluster
    - Add standalone host
    - Modify cluster

      NOTE: Ensure that you assign the modify cluster privilege, if you are using vCenter 6.5 or upgrading to vCenter 6.5 or later.
- Host profile
  - Edit
  - View
- Permissions
  - Modify permission
  - Modify role
- Sessions
  - Validate session
- Task
  - Create task
  - Update task

NOTE: If a non-administrator user is trying to register vCenter server, it is mandatory to add Dell privileges to the existing role. For more information about assigning Dell privileges, see Assigning Dell privileges to existing role on page 21.

Registering vCenter server by non-administrator user with required privileges

You can register a vCenter server for the OMIVV appliance by using a non-administrator user with the required privileges. See step 5 to step 9 of **Registering OpenManage Integration for VMware vCenter and importing license file** topic. for information about registering a vCenter server through a non-administrator user or as an administrator.

Assigning Dell privileges to existing role

You can edit an existing role to assign the Dell privileges.

NOTE: Ensure that you are logged in as a user with Administrator privileges.

1. Log in to the vSphere web client with administrative rights.
2. In the left pane, click **Administration → Roles** in the vSphere web client.
3. Select a vCenter server system from the **Roles provider** drop-down list.
4. Select the role from the **Roles** list, and click .
5. Click **Privileges**, expand **Dell**, and then select the following Dell privileges for the selected role and click **OK**:
   - Dell.Configuration
   - Dell.Deploy-Provisioning
   - Dell.Inventory
   - Dell.Monitoring
   - Dell.Reporting

   See Security roles and permissions in *OpenManage Integration for VMware vCenter User's Guide* available at `Dell.com/support/manuals` for more information about the available OMIVV roles within vCenter.

The changes to permissions and roles take effect immediately. The user with necessary privileges can now perform the OpenManage Integration for VMware vCenter operations.

NOTE: For all vCenter operations, OMIVV uses the privileges of the registered user and not the privileges of the logged-in user.

NOTE: If specific pages of OMIVV are accessed with no Dell privileges assigned to the logged-in user, the 2000000 error is displayed.

Registering OpenManage Integration for VMware vCenter and importing license file

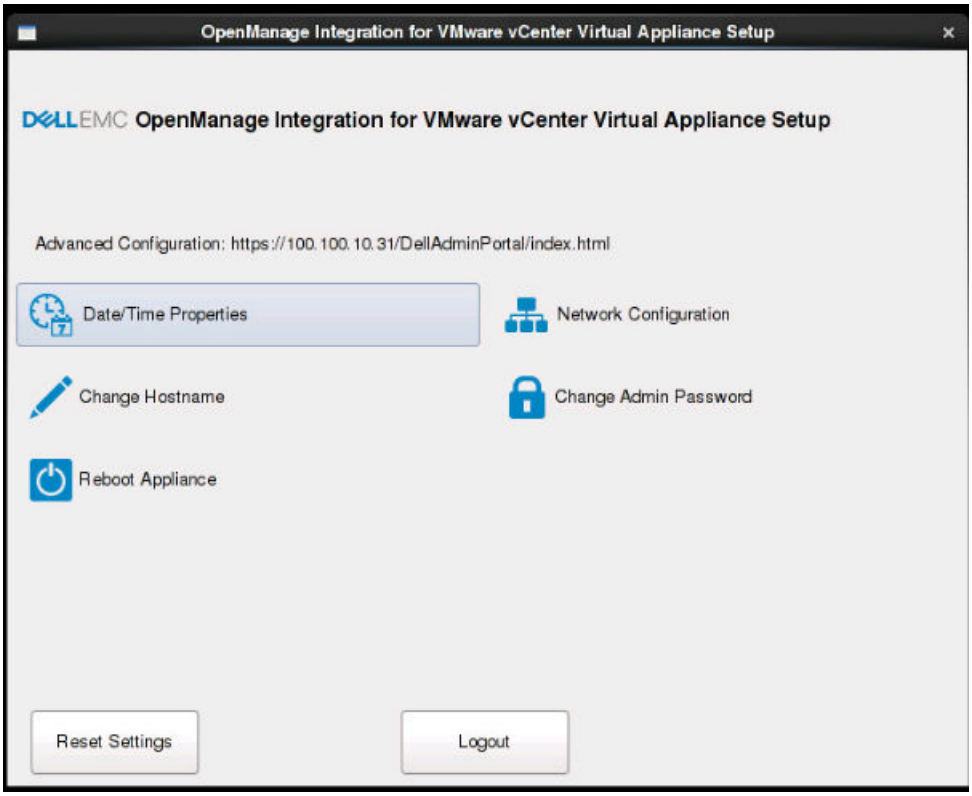
Ensure that your licenses are ready for download at Dell Digital Locker. If you have ordered more than one license, they might be shipped separately at different times. You can check the status of other license items at Order Status. The license file is available as an .XML format.

NOTE: If you want to upload a custom certificate for your appliance, ensure that you upload the new certificate before vCenter registration. If you upload the new custom certificate after vCenter registration, communication errors are displayed in the web client. To fix this issue, unregister, and re-register the appliance with vCenter.

1. From the vSphere web client, click **Home** > **Hosts and Clusters**, then in the left panel, locate OMIVV that you had deployed, and click **Power on the virtual machine**.

   During deployment, if you select **Power on after Deployment**, the VM is powered on automatically after deployment is complete.
2. To run the **Administration Console**, click the **Console** tab in the main **VMware vCenter** window.
3. Allow OMIVV to complete booting up, and then enter the user name as, **Admin** (the default is Admin), and press **Enter**.
4. Enter a new admin password. Ensure that the admin password complies with the password complexity rules displayed in the interface. Press **Enter**.
5. Reenter the password that was provided earlier and press **Enter**.
   To configure the network and time zone information in the OMIVV appliance, press **Enter**.
6. To configure the OMIVV time zone information, click **Date/Time Properties**.

Figure 1. Console tab



7. In the **Date and Time** tab, select the **Synchronize date and time over the network**.
   The **NTP Servers** box is displayed.
8. Add valid NTP server details to which your vCenter is synchronized with.
9. Click **Time Zone** and select the applicable time zone, and click **OK**.
10. To configure static IP to the OMIVV appliance, click **Network Configuration**, or skip to step 17.
11. Select **Auto eth0**, and then click **Edit**.
12. Select the **IPV4 Settings** tab, and select **Manual** in the **Method** drop-down.
13. Click **Add**, and then add a valid IP, Netmask, and Gateway information.
14. In the **DNS Servers** field, provide the DNS server detail.
15. Click **Apply**.
16. To change the host name of the OMIVV appliance, click **Change Hostname**.
17. Enter a valid host name, and click the **Update hostname**.

    NOTE: After host name and NTP are changed, ensure that the system is rebooted.

    NOTE: If any vCenter servers are registered with the OMIVV appliance, unregister and re-register all the vCenter instances.

    Before opening the administration console, ensure that you manually update all references to the appliance such as, provisioning server in iDRAC, DRM.

18. Open **Administration Console** from a supported browser.

    To open **Administration Console**, in the **Help and Support** tab of OpenManage Integration for VMware vCenter, click the link under **Administration Console** or start a web browser and provide the `https://<ApplianceIP or Appliance hostname>` url.

    The IP address is the IP address of the appliance VM and not the ESXi host IP address. The Administration Console can be accessed by using the URL mentioned at the top of the console.
    For example: `Https://10.210.126.120` or `Https://myesxihost`
    The URL is not case-sensitive.

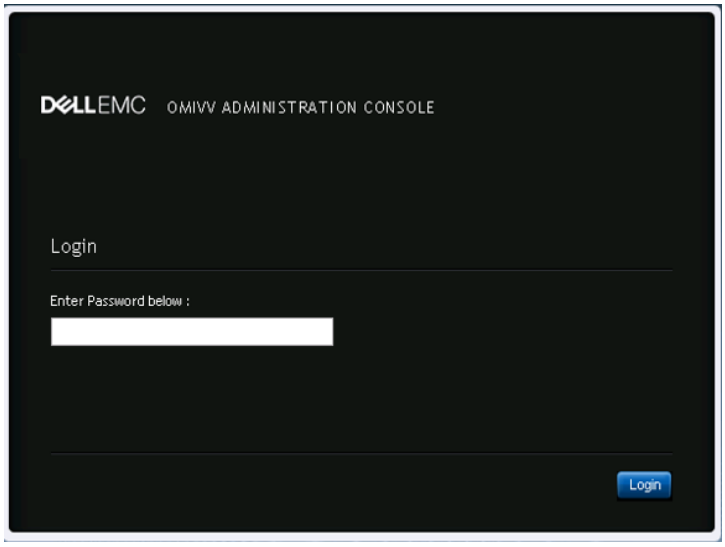


Figure 2. Administration Console

19. In the **Administration Console** login window, enter the password, and then click **Login**.

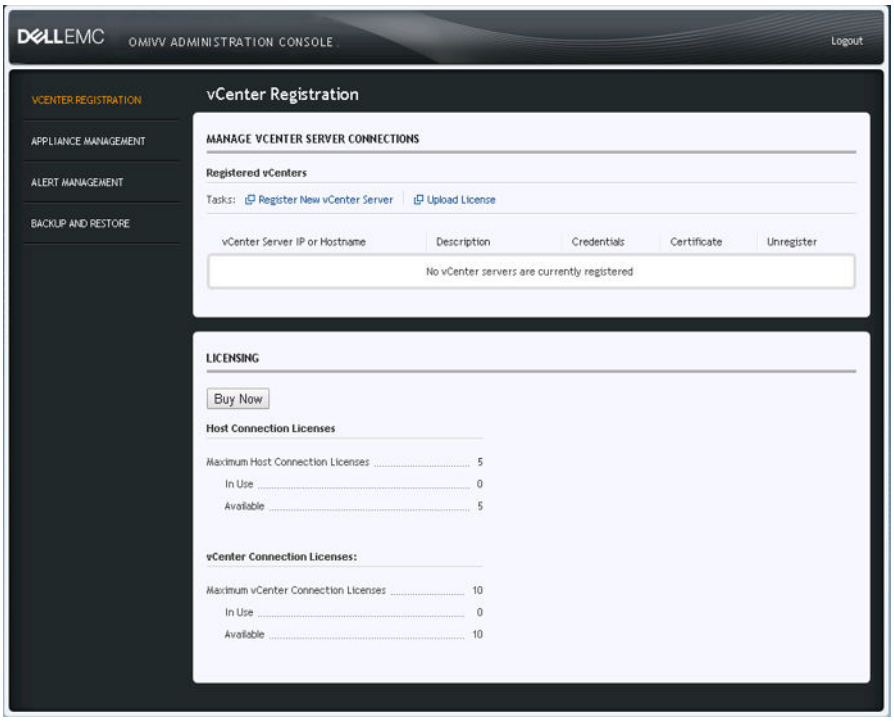


Figure 3. vCenter registration window from Administration Console

20. In the **vCenter Registration** window, click **Register a New vCenter Server**.
21. In the **Register a New vCenter Server** window, perform the following substeps:
    a. Under **vCenter Name**, in the **vCenter Server IP or Hostname** text box, enter the server IP or host name, and then in the **Description** text box, enter a description.

    The description is optional.

    NOTE: It is recommended that register OpenManage Integration for VMware vCenter with the VMware vCenter by using Fully Qualified Domain Name (FQDN). Ensure that the host name of the vCenter is properly resolvable by the DNS server for FQDN-based registrations.

    b. Under **vCenter User Account**, in **vCenter User Name**, enter the Admin user name or the user name with necessary privileges.

Enter the **username** as `domain\user` or `domain/user` or `user@domain`. OMIVV uses the Admin user account or the user with necessary privileges for vCenter administration.

c. In **Password**, enter the password.

d. In **Verify Password**, enter the password again.

22. Click **Register**.

NOTE: OpenManage Integration for VMware vCenter currently supports up to 1000 hosts for large deployment mode with a single vCenter instance or multiple vCenter servers by using the linked mode.

23. Perform one of the following actions:

- If you are using the OMIVV trial version, you can view the OMIVV icon.
- If you are using the full product version, the license file can be downloaded from the Dell Digital Locker at Dell Digital Locker, and you can import this license to your virtual appliance. To import the license file, click **Upload License**.

24. In the **Upload License** window, click **Browse** to navigate to the license file, and then click **Upload** to import the license file.

NOTE: If you modify or edit the license file, the license file (.XML file) does not work and you can download the .XML file (license key) through the Dell Digital Locker. If you are unable to download your license key(s), contact Dell Support by going to Contact Technical Support to locate the regional Dell Support phone number for your product.

After OMIVV is registered, the OMIVV icon is displayed under the **Administration** category of the web client home page.

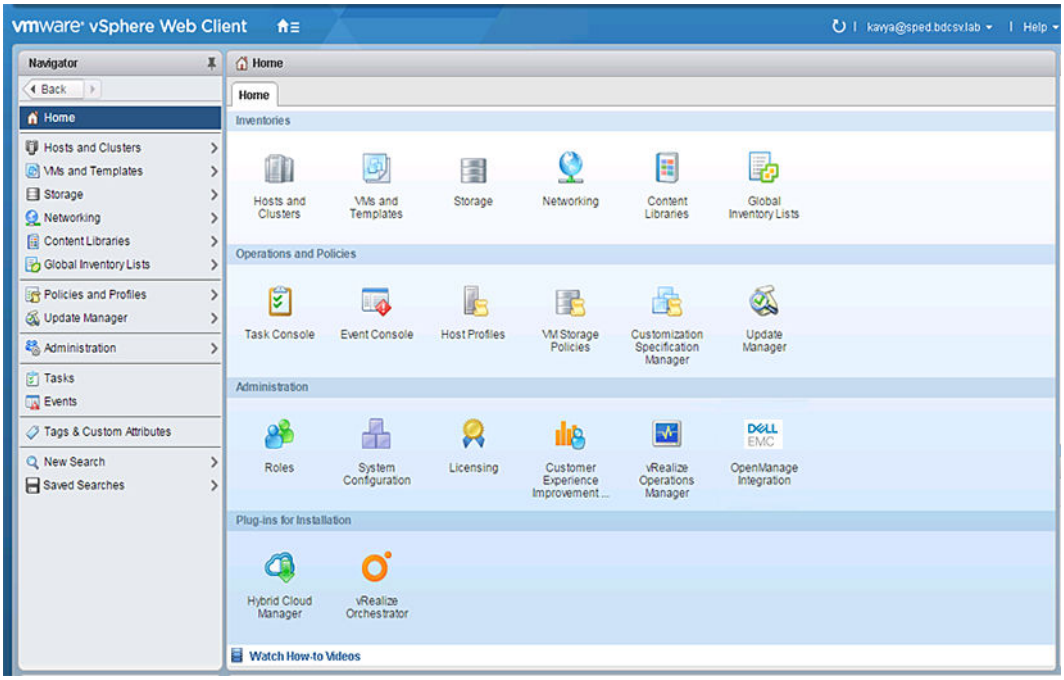


Figure 4. OpenManage Integration for VMware vCenter successfully added to vCenter

For all vCenter operations, OMIVV uses the privileges of a registered user and not the privileges of a logged-in user.

For example: User X with the necessary privileges registers OMIVV with vCenter, and user Y has only Dell privileges. User Y can now log in to the vCenter and can trigger a firmware update task from OMIVV. While performing the firmware update task, OMIVV uses the privileges of user X to put the machine into maintenance mode or reboot the host.

Upgrading registered vCenter

After upgrading a registered vCenter, perform the following tasks:

- For non-administrator users:
  1. Assign extra privileges to non-administrator users, if necessary. See Required privileges for non-administrator users on page 19.

     For example, when you upgrade from vCenter 6.0 to vCenter 6.5, assign the extra privileges.

2. Reboot the registered OMIVV appliance.

- For administrator users:
  1. Reboot the registered OMIVV appliance.

Verifying installation

The following steps verify that the OMIVV installation is successful:

1. Close any vSphere client windows, and start a new vSphere web client.
2. Confirm that the OMIVV icon appears inside vSphere web client.
3. Ensure that vCenter can communicate with OMIVV by attempting a PING command from the vCenter server to the virtual appliance IP address or host name.
4. In vSphere Web Client, click **Home** > **Administration** > **Solutions**, and click **Plug-In Management** (in older vCenter versions) or **Client Plug-Ins** (in newer versions).

   For more information about the access restrictions for **Plug-In Management** or **Client Plug-Ins** page, see VMware documentation.
5. In the **Plug-In Management** or **Client Plug-Ins** window, verify if OMIVV is installed and enabled.

Updating virtual appliance repository location and virtual appliance

To ensure that all data is protected, perform a backup of the OMIVV database prior to an update of the virtual appliance. See **Managing backup and restore** topic in User's Guide .

1. In the **APPLIANCE UPDATE** section of the **APPLIANCE MANAGEMENT** page, verify the current and available version.

   NOTE: The OMIVV appliance requires internet connectivity to display available upgrade mechanisms and perform the RPM upgrade. Ensure that the OMIVV appliance has internet connectivity. Depending on the network settings, enable proxy and provide proxy settings, if the network needs proxy. See **Setting up HTTP proxy** topic in *User's Guide*.

   NOTE: Ensure that the **Update Repository Path** is valid.

   For the available virtual appliance version, the applicable RPM and OVF virtual appliance upgrade mechanisms are displayed with a tick symbol. The following are the possible upgrade mechanism options, and you can perform either of the tasks for the upgrade mechanism:

   - If a tick symbol is displayed against RPM, you can do an RPM upgrade from the existing version to the latest available version. See Upgrading from an existing version to the latest version.
   - If a tick symbol is displayed against OVF, you can take a back up of the OMIVV database from the existing version, and restore it in the latest available appliance version. See Updating the appliance through back up, and restore.
   - If a tick symbol is displayed against both RPM and OVF, you can perform either of the mentioned options to upgrade your appliance. In this scenario, the recommended option is RPM upgrade.
2. To update the virtual appliance, perform the mentioned tasks for the upgrade mechanisms as applicable from the version of OMIVV.

   NOTE: Ensure that you log out from all web client sessions to the registered vCenter servers.

   NOTE: Ensure that you update all appliances simultaneously under the same Platform Service Controller (PSC) before logging in to any of the registered vCenter servers. Else, you may see inconsistent information across OMIVV instances.
3. Click **APPLIANCE MANAGEMENT**, and verify the upgrade mechanisms.

Upgrading OMIVV from existing version to current version

1. In the **APPLIANCE MANAGEMENT** page, depending on your network settings, enable proxy and provide proxy settings if your network needs proxy. See **Setting up HTTP proxy** topic in *User's Guide*.
2. To upgrade the OpenManage Integration plug in from an existing version to the current version, perform one of the following steps:
   - To upgrade using RPM that is available in **Update Repository Path**, ensure that **Update Repository Path** is set to the path: https://linux.dell.com/repo/hardware/vcenter-plugin-x64/latest/.

If the path is different, in the **Appliance Management** window, in the **APPLIANCE UPDATE** area, click **Edit** to update the path to https://linux.dell.com/repo/hardware/vcenter-plugin-x64/latest/ in the **Update Repository Path** text box, and click **Apply**.

- To upgrade using the latest downloaded RPM folders or files if there is no internet connectivity, download all the files and folders from the https://linux.dell.com/repo/hardware/vcenter-plugin-x64/latest/ path and copy them to an HTTP share.

  In the **Appliance Management** window, in the **APPLIANCE UPDATE** section, click **Edit**, and then in the **Update Repository Path** text box, include the path to the offline HTTP share, and click **Apply**.

3. Compare the available virtual appliance version and current virtual appliance version and ensure that the available virtual appliance version is greater than the current virtual appliance version.
4. To apply the update to the virtual appliance, under **Appliance Settings**, click **Update Virtual Appliance**.
5. In the **UPDATE APPLIANCE** dialog box, click **Update**.
   After you click **Update**, you are logged off from the **ADMINISTRATION CONSOLE** window.
6. Close the web browser.

NOTE: During the upgrade process, the appliance restarts once or twice.

NOTE: Once the appliance is RPM upgraded, ensure that you do the following:

- Clear the browser cache before logging in to the Dell admin portal.
- Reinstall the VMware tools.

  To reinstall the VMware tools:

  1. Right-click the OMIVV appliance.
  2. Hover over **Guest**, and then click **Install/Upgrade VMware Tools**.
  3. On the **Install/Upgrade VMware Tools** dialog box, click **Automatic Tools Upgrade**, and then click **OK**.

     You can view the installation status in the **Recent Tasks**.

NOTE: After the RPM upgrade is complete, you can view the login screen in the OMIVV console. Open a browser, provide the *https:\\<ApplianceIP|hostname>* link, and navigate to the **APPLIANCE UPDATE** area. You can verify that the available and current virtual appliance versions are same. If you have enabled Proactive HA on clusters, OMIVV unregisters the Dell Inc provider for those clusters and re-registers the Dell Inc provider after upgrade. Hence, health updates for the Dell EMC hosts are not available until upgrade is complete.

Updating appliance through backup and restore

To update the OMIVV appliance from an older version to current version, perform the following steps:

1. Take a backup of the database for the older release.
2. Turn off the older OMIVV appliance from vCenter.

   NOTE: Do not unregister the OMIVV plug-in from vCenter. Unregistering the plug-in from vCenter removes all the alarms that are registered on vCenter by the OMIVV plug-in and all the customization that is performed on the alarms, such as actions, and so on.

3. Deploy the new OpenManage Integration appliance OVF.
4. Power on the OpenManage Integration new appliance.
5. Set up the network, time zone, and so on, for the new appliance.

   NOTE: Ensure that the new OpenManage Integration appliance has the same IP address as the old appliance.

   NOTE: The OMIVV plug-in might not work properly if the IP address for the new appliance is different from the IP address of the older appliance. In such a scenario, unregister and re-register all the vCenter instances.

6. The OMIVV appliance comes with default certificate. If you want to have a custom certificate for your appliance, update the same. See Generating Certificate Signing Request on page 18 and Uploading HTTPS certificate on page 19. Else, skip this step.

7. Restore the database to the new OMIVV appliance. See **Restoring the OMIVV database from a backup** topic in *User's Guide*.
8. Verify the appliance. See the Installation verification in *OpenManage Integration for VMware vCenter Installation Guide* available at Dell.com/support/manuals.
9. Run the **Inventory** on all the registered vCenter servers.

NOTE: Dell EMC recommends that after the upgrade, you run the inventory again on all the hosts that the plug-in manages. To run the inventory on demand, see the Scheduling inventory jobs.

NOTE: If the IP address of the new OMIVV version y is changed from the OMIVV version x, configure the trap destination for the SNMP traps to hover over the new appliance. For 12th and later Gen servers, the IP change is fixed by running the inventory on these hosts. While running the inventory on 12th Gen hosts, if SNMP traps do not hover over the new IP, those hosts are listed as noncomplaint. For hosts earlier than 12th Gen that were compliant with earlier versions, the IP change is displayed as noncompliant and requires you to configure Dell EMC OpenManage Server Administrator (OMSA). To fix vSphere host compliance issues, see **Running the fix noncompliant vSphere hosts wizard** topic in *User's Guide* .

NOTE: After backup and restore from an earlier OMIVV version to a later OMIVV version, if you observe 2 Million error or Dell EMC logo is not displayed at vCenter, do the following:

- Restart vSphere Web Client on the vCenter server.
- If the issue persists:
  - For VMware vCenter Server Appliance, go to `/etc/vmware/vsphere-client/vc-packages/vsphere-client-serenity` and for Windows vCenter, go to `C:\ProgramData\VMware\vCenterServer\cfg\vsphere-client\vc-packages\vsphere-client-serenity` folder in the vCenter appliance and see if the old data exists, such as: com.dell.plugin.OpenManage_Integration_for_VMware_vCenter_WebClient-X.0.0.XXX.
  - Manually delete the folder corresponding to the earlier OMIVV version.

Recovering OMIVV after unregistering earlier version of OMIVV

If you have unregistered the OMIVV plug-in after taking backup of the database of the earlier version, perform the following steps before proceeding with the migration:

NOTE: Unregistering the plug-in removes all the customization that was implemented on the registered alarms by the plug-in. The following steps do not restore the customization. However, it re-registers the alarms in their default state.

1. Perform step 3 through step 5 in Updating appliance through backup and restore on page 26.
2. Register the plug-in to the same vCenter that you had registered in the earlier plug-in.
3. To complete the migration, perform step 6 through step 9 in Updating appliance through backup and restore on page 26.

2

Appliance configuration for VMware vCenter

After you complete the basic installation of OMIVV and registration of the vCenters, the **Initial Configuration Wizard** is displayed when you click the OMIVV icon. You can proceed to configure the appliance by using one of the following methods:

- Configuring the appliance through the **Initial Configuration Wizard**.
- Configuring the appliance through the **Settings** tab in OMIVV.

You can use the **Initial Configuration Wizard** to configure the OMIVV appliance settings on first launch. For subsequent instances, use the **Settings** tab.

NOTE: The user interface in both the methods is similar.

Topics:

Configuration tasks through configuration wizard

NOTE: If you view a web communication error while performing OMIVV-related tasks after changing the DNS settings; clear the browser cache, and log out from the web client and then log in again.

using the configuration wizard, you can view and perform the following tasks:

- View configuration wizard welcome page
- Select vCenters. See Selecting vCenters.
- Create a connection profile. See Creating a connection profile.
- Create a chassis profile. The hosts present in an MX chassis with an iDRAC IPv4 disabled has to be managed using a chassis profile. See Creating chassis profile on page 37.
- Configure events and alarms. See the Configuring events and alarms.
- Schedule inventory jobs. See the Scheduling inventory jobs.
- Run a warranty retrieval job. See Running a warranty retrieval job.

Viewing configuration wizard welcome dialog box

To configure OMIVV after installing and registering with the vCenter, perform the following steps to view the **Initial Configuration Wizard**:

1. In vSphere web client, click **Home**, and then click the **OpenManage Integration** icon.

   You can perform any one of the following options to access the initial configuration wizard:

   - The first time you click the **OpenManage Integration** icon, **Initial Configuration Wizard** is displayed automatically.
   - From **OpenManage Integration** > **Getting Started**, click **Start Initial Configuration Wizard**.
2. In the **Welcome** dialog box, review the steps, and then click **Next**.

Selecting vCenters

In the **vCenter Selection** dialog box, you can configure the following vCenters:

- A specific vCenter
- All registered vCenters

To access the **vCenter Selection** dialog box:

1. In the **Initial Configuration Wizard**, in the **Welcome** dialog box, click **Next**.

2. Select one vCenter or all registered vCenters from the **vCenters** drop-down list.

   Select a vCenter that is not configured yet or if you have added a vCenter to your environment. The vCenter selection page allows you to select one or more vCenters to configure settings.
3. To proceed with the **Connection Profile Description** dialog box, click **Next**.

   NOTE: If you have multiple vCenter servers that are part of the same single sign-on (SSO) registered with the same OMIVV appliance, and if you choose to configure a single vCenter server, repeat steps 1 through 3 until you configure each vCenter.

Creating connection profile

Before using the Active Directory credentials with a connection profile, ensure that:

- The Active Directory user's account exist in Active Directory.
- The iDRAC and host are configured for Active Directory based authentication.

A connection profile stores the iDRAC and host credentials that OMIVV uses to communicate with the Dell EMC servers. Each Dell EMC server must be associated with a connection profile to be managed by OMIVV. You might assign multiple servers to a single connection profile. You can create a connection profile using the configuration wizard or from the **OpenManage Integration for VMware vCenter** > **Settings** tab. You can log in to iDRAC and the host using the Active Directory credentials.

NOTE: The Active Directory credential can be either same or separate for both iDRAC and the host.

NOTE: You cannot create a connection profile if the number of added hosts exceeds the license limit for creating a connection profile.

NOTE: An MX chassis host can be managed using a single unified chassis management IP. To manage an MX chassis using a chassis profile, see Creating chassis profile. Dell EMC recommends managing an MX chassis hosts with an iDRAC IP to get complete OMIVV functions.

1. In the **Connection Profile Description** dialog box, click **Next**.
2. In the **Connection Profile Name and Credentials** dialog box, enter the connection **Profile Name** and connection profile **Description**, which is optional.
3. In the **Connection Profile Name and Credentials** dialog box, under **iDRAC Credentials**, do either of the following actions, depending on configuring iDRAC with or without Active Directory:

   NOTE: The iDRAC account requires administrative privileges for updating firmware, applying hardware profiles, applying system profiles in 14th Gen servers, and deploying hypervisor.

   - The iDRAC IPs that are already configured and enabled for Active Directory on which you want to use Active Directory, select **Use Active Directory**; otherwise scroll down to configure the iDRAC credentials.
     a. In Active Directory **User Name**, type the username. Type the username in one of these formats: `domain\username` or username@domain. The username is limited to 256.
     b. In Active Directory **Password**, type the password. The password is limited to 127 characters.
     c. In **Verify Password**, type the password again.
     d. Depending on your requirement, perform one of the following actions:
        - To download and store the iDRAC certificate and validate it during all future connections, select **Enable Certificate Check**.
        - To not store and perform the iDRAC certificate check during all future connections, clear **Enable Certificate Check**.
   - To configure the iDRAC credentials without Active Directory, perform the following tasks:
     a. In **User Name**, type the username. The username is limited to 16 characters. See the iDRAC Documentation for information about username restrictions for the version of iDRAC that you are using.
     b. In **Password**, type the password. The password is limited to 20 characters.
     c. In **Verify Password**, type the password again.
     d. Perform one of the following actions:
        - To download and store the iDRAC certificate, and validate it during all future connections, select **Enable Certificate Check**.
        - To not store and perform the iDRAC certificate check during all future connections, clear **Enable Certificate Check**.
4. In **Host Root**, perform one of the following steps:

- The hosts that are already configured and enabled for Active Directory on which you want to use Active Directory, select **Use Active Directory**, and perform the following steps; otherwise configure your host credentials:
  a. In Active Directory **User Name**, type the username. Type the username in one of these formats: `domain\username` or username@domain. The username is limited to 256 characters.

     NOTE: For host username and domain restrictions, see the following:

     Host username requirements:

     - Between 1 and 64 characters long
     - No nonprintable characters

     Host domain requirements:

     - Between 1 and 64 characters long
     - First character must be alphabetical.
     - Cannot contain a space.

  b. In Active Directory **Password**, type the password. The password is limited to 127 characters.
  c. In **Verify Password**, type the password again.
  d. Perform one of the following actions:
     - To download and store the host certificate, and validate it during all future connections, select **Enable Certificate Check**.
     - To not store and perform the iDRAC certificate check during all future connections, clear **Enable Certificate Check**.
- To configure host credentials without Active Directory, perform the following tasks:
  a. In **User Name**, the username is **`root`**, which is the default username and you cannot change the username. However, if the Active Directory is set, you can choose any Active Directory user and not root.
  b. In **Password**, type the password. The password is limited to 127 characters.

     NOTE: The OMSA credentials are the same credentials that are used for the ESXi hosts.

  c. In **Verify Password**, type the password again.
  d. Perform one of the following actions:
     - To download and store the host certificate, and validate it during all future connections, select **Enable Certificate Check**.
     - To not store and perform the host certificate check during all future connections, clear **Enable Certificate Check**.

5. Click **Next**.
6. In the **Connection Profile Associated Hosts** dialog box, select the hosts for the connection profile and click **OK**.

   NOTE: If the OEM hosts are not displayed on the Select Hosts window, add the OEM hosts using the Add OEM Hosts wizard, see **Adding OEM Hosts** topic in *User's Guide*.

7. To test the connection profile, select one or more hosts and click **Test Connection**.

   NOTE: This step is optional and checks the host and iDRAC credentials. Although this step is optional, Dell EMC recommends that you test the connection profile.

   NOTE: If the WBEM service is disabled for all hosts running ESXi 6.5 or later, WBEM is automatically enabled when you perform the test connection and inventory on those hosts.

   NOTE: If you select **All Registered vCenter** while creating the connection profile, test connection fails for all hosts running ESXi 6.5 or later that has the WBEM service disabled. In such case, it is recommended to complete the connection profile wizard actions, run the inventory on hosts, and then test the connection profile again.

   NOTE: You may see that test connection is failing for the host and indicating that invalid credentials are entered, even after entering valid credentials. It may happen because the ESXi is blocking the access. Wait for 15 minutes and retry the test connection.

8. To complete the creation of profile, click **Next**.
   After you click next, all details that you provide in this wizard is saved and you cannot modify the details from the wizard. You can modify or create more connection profiles for this vCenter detail from the **Manage** > **Profiles Connection Profiles** page after completing the configuration from the configuration wizard. See **Modifying connection profile** in *OpenManage Integration for VMware vCenter User's Guide* available at `Dell.com/support/manuals.`.

NOTE: The servers that do not have either an iDRAC Express or Enterprise card, the iDRAC test connection result is not applicable for this system.

After hosts are added to connection profile, the IP address of OMIVV is automatically set to SNMP trap destination of host's iDRAC, and OMIVV automatically enables the Web-Based Enterprise Management (WBEM) service for hosts running ESXi 6.5 and later. OMIVV uses the WBEM service to properly synchronize the ESXi host and the iDRAC relationships. If configuring the SNMP trap destination fails for particular hosts, and/or enabling the WBEM service fails for particular hosts, those hosts are listed as noncomplaint. To view the noncomplaint hosts that require SNMP trap destination to be reconfigured and/or WBEM services to be enabled, see **Reporting and fixing compliance for vSphere hosts** topic in *OpenManage Integration for VMware vCenter User's Guide* available at `Dell.com/support/manuals.`.

Scheduling inventory jobs

You can configure inventory schedule by using the configuration wizard or OpenManage Integration under the **OpenManage Integration** > **Manage** > **Settings** tab.

NOTE: To ensure that OMIVV continues to display updated information, it is recommended that you schedule a periodic inventory job. The inventory job consumes minimal resources and does not degrade host performance.

NOTE: The chassis gets discovered automatically after the inventory for all hosts is run. If the chassis is added to a chassis profile, the chassis inventory automatically runs. In an SSO environment with multiple vCenter servers, the chassis inventory runs automatically with every vCenter when the inventory for any vCenter is run at a scheduled time.

NOTE: The settings in this page are reset to default each time the configuration wizard is invoked. If you have previously configured a schedule for inventory, ensure that you replicate the previous schedule in this page before completing the wizard functions so that the previous schedule is not overridden by the default settings.

1. In the **Initial Configuration Wizard**, from the **Inventory Schedule** dialog box, select **Enable Inventory Data Retrieval**, if it is not enabled. By default, **Enable Inventory Data Retrieval** is enabled.
2. Under **Inventory Data Retrieval Schedule**, perform the following steps:
   a. Select the check box next to each day of the week that you want to run the inventory.
   By default, **all the days** are selected.
   b. In **Data Retrieval Time**, enter the time in HH:MM format.

      The time you enter is your local time. Therefore, if you want to run the inventory at the virtual appliance time zone, calculate the time difference between your local and virtual appliance time zone, and then enter the time appropriately.
   c. To apply the changes and continue, click **Next**.

   Once you click next, all details that you provide in this wizard is saved and you cannot modify the details from this wizard. You can modify inventory schedule details of the hosts from the **Manage** > **Settings** tab after completing the configuration from the configuration wizard. See **Modifying inventory job schedules** in the *OpenManage Integration for VMware vCenter User's Guide* at `Dell.com/support/manuals`.

Running warranty retrieval jobs

The warranty retrieval job configuration is available from the Settings tab in OMIVV. In addition, you can also run or schedule warranty retrieval job from **Job Queue** > **Warranty**. The scheduled jobs are listed in the job queue. In an SSO environment with multiple vCenter servers, the chassis warranty runs automatically with every vCenter when the warranty for any vCenter is run. However, warranty does not automatically run if it is not added to chassis profile.

NOTE: The settings in this page are reset to default each time the configuration wizard is invoked. If you have previously configured a warranty retrieval job, ensure that you replicate that schedule warranty retrieval job in this page before completing the wizard functions so that the previous warranty retrieval is not overridden by the default settings.

1. In the **Warranty Schedule** dialog box, select **Enable Warranty Data Retrieval**.
2. In **Warranty Data Retrieval Schedule**, do the following:
   a. Select the check box next to each day of the week that you want to run the warranty.
   b. Enter the time in HH:MM format.

      The time you enter is your local time. Therefore, if you want to run the inventory at the virtual appliance time zone, calculate the time difference between your local and virtual appliance time zone, and then enter the time appropriately.
3. To apply the changes and continue, click **Next**, and then proceed with the **Event and Alarm** settings.

Once you click next, all details that you provide in this wizard is saved and you cannot modify the details from the wizard. You can modify warranty job schedules from the **Settings** tab after completing the configuration from the configuration wizard. See **Modifying warranty job schedules** in the *OpenManage Integration for VMware vCenter User's Guide* at `Dell.com/support/manuals`.

Configuring events and alarms

You can configure events and alarms by using the **Initial Configuration Wizard** or from the **Settings** tab for events and alarms. To receive events from the servers, OMIVV is configured as trap destination. For 12th generation hosts and later, ensure that the SNMP trap destination is set in iDRAC. For hosts earlier than 12th generation, ensure that the trap destination is set in OMSA.

NOTE: OMIVV supports SNMP v1 and v2 alerts for 12th generation hosts and later and supports only SNMP v1 alerts for hosts earlier than 12th generation.

1. In the **Initial Configuration Wizard**, under **Event Posting Levels**, select one of the following:
   - Do not post any events—block hardware events
   - Post all events—post all hardware events
   - Post only Critical and Warning events—post only critical or warning level hardware events
   - Post only Virtualization-Related Critical and Warning Events—post only virtualization-related critical and warning event, which is the default event posting level
2. To enable all hardware alarms and events, select **Enable Alarms for all Dell EMC Hosts**.

   NOTE: The Dell EMC hosts that have alarms enabled respond to some specific critical events by entering in to maintenance mode and you can modify the alarm, when required.

   The **Enabling Dell EMC Alarm Warning** dialog box is displayed.
3. To accept the change, click **Continue**, or to cancel the change, click **Cancel**.

   NOTE: Ensure that you complete this step only if you select **Enable Alarms for all Dell EMC Hosts**.
4. To restore the default vCenter alarm settings for all managed Dell EMC servers, click **Restore Default Alarms**.
   It might take up to a minute before the change takes effect.

   NOTE: After restoring the appliance, the events and alarms settings are not enabled even if the GUI shows as enabled. You can enable the **Events and Alarms** settings again from the **Settings** tab.

   NOTE: BMC Traps do not have Message IDs, so alerts will not have these details in OMIVV.
5. Click **Apply**.

Configuring SNMP trap community string

1. On the **OpenManage Integration for VMware vCenter** page, on the **Manage** > **Settings** tab, under **Appliance Settings**, click  against the **OMSA SNMP Trap Community String**.
   The **OMSA SNMP Trap Community String Settings** dialog box is displayed. By default, **public** is displayed in the SNMP trap community string.
2. Customize the **public** text to any string, and click **Apply**.

   NOTE: The SNMP trap community string configuration for 11th generation of PowerEdge servers is set while installing or upgrading OMSA through OMIVV.

Configuration tasks through settings tab

By using the settings tab, you can view and perform the following configuration tasks:

- Enable the OMSA link. See Enabling OMSA link.
- Configure warranty expiration notification settings. See the Configuring warranty expiration notification settings.
- Set up the firmware update repository. See Setting up the firmware update repository.

- Configure the latest appliance version notification. See Configuring the latest appliance version notification.
- Configure and view events and alarms. See the Configuring events and alarms.
- View data retrieval schedules for inventory and warranty. See the Viewing data retrieval schedules for inventory and warranty.

Appliance settings

In this section, configure the following for the OMIVV appliance:

- Warranty expiration notification
- Firmware update repository
- Latest appliance version notification
- Deployment credentials

Configuring warranty expiration notification settings

1. In OpenManage Integration for VMware vCenter, on the **Manage** > **Settings** tab, under **Appliance Settings**, click **Warranty Expiration Notification**.
2. Expand **Warranty Expiration Notification** to view the following:
   - **Warranty Expiration Notification**—whether the setting is enabled or disabled
   - **Warning**—number of days for the first warning setting
   - **Critical**—number of days for the critical warning setting
3. To configure warranty expiration thresholds for warning about warranty expiration, click the icon at the right side of **Warranty Expiration Notification**.
4. In the **Warranty Expiration Notification** dialog box, do the following:
   a. If you want to enable this setting, select the **Enable warranty expiration notification for hosts**. Selecting the check box enables warranty expiration notification.
   b. Under **Minimum Days Threshold Alert**, do the following:
      i. In the **Warning** drop-down list, select the number of days before you want to be warned of the warranty expiration.
      ii. In the **Critical** drop-down list, select the number of days before you want to be warned of the warranty expiration.
5. Click **Apply**.

Setting up firmware update repository

You can set up the firmware update repository on the OMIVV **Settings** tab.

NOTE: You can update firmware for only non-vSAN host and clusters using this repository.

1. In OpenManage Integration for VMware vCenter, on the **Manage** > **Settings** tab, under **Appliance Settings** on the right side of **Firmware Update Repository**, click the icon.
2. In the **Firmware Update Repository** dialog box, select one of the following:
   - **Dell Online**—the firmware updates default repository is set to Dell Online (`https://downloads.dell.com`). The OMIVV downloads selected firmware update from the Dell repository and updates the managed hosts.
   - **Dell Custom Online**—the OMIVV downloads the selected firmware updates from the Dell Custom Online, and applies to the managed hosts as necessary.

     NOTE: Based on the network settings, enable proxy settings if the network needs a proxy.
   - **Shared Network Folder**—you can have a local repository of the firmware in a CIFS-based or NFS-based network share. This repository can either be a dump of Server Update Utility (SUU) that Dell releases periodically or a custom repository created using DRM. This network share should be accessible by OMIVV.

     NOTE: If you are using CIFS share, the repository passwords cannot exceed 31 characters.

     NOTE: Ensure that you use the latest Dell EMC Repository Manager(DRM) version (3.0) and later.

   a. If you select **Dell Custom Online**, enter the **Catalog Online Path** in the following format:
      - `http://share/filename.xml.gz`
      - `http://share/filename.gz`

- `https://share/filename.xml.gz`
- `https://share/filename.gz`

b. If you select **Shared Network Folder**, enter the **Catalog File Location** in the following format:
   - NFS share for .XML file—`host:/share/filename.xml`
   - NFS share for .gz file—`host:/share/filename.gz`
   - CIFS share for .XML file—`\\host\share\filename.xml`
   - CIFS share for .gz file—`\\host\share\filename.gz`

   NOTE: OMIVV supports only Server Message Block(SMB) version 1.0 and SMB version 2.0 based CIFS shares. Dell EMC recommends using SMB version 2.0 based CIFS shares.

   NOTE: If you are using CIFS share, OMIVV prompts you to enter the username and password.

c. To validate the given catalog file location, click **Begin Test**. This validation is mandatory to continue further.

—Indicates that the test connection is successful.

—Indicates that the test connection is failed.

3. Click **Apply**.

NOTE: It might take up to 10 minutes to read the catalog from the source and update the OMIVV database.

Creating catalog in DRM using OMIVV

This section describes the process to create a catalog in DRM version 3.0 and later.

1. On the Home page, click **Add New Repository**.
   The **Add Repository** window is displayed.
2. In the **Add Repository** window, do the following:
   a. Enter **Repository Name** and **Description**.
   b. From the **Base Catalog** drop-down menu, select a catalog.
   c. From the **Integration Type** drop-down menu, select **OpenManage Integration for VMware vCenter**.
3. In the **OpenManage Integration for VMware vCenter** window, enter **Virtual Appliance IP**, **vCenter Server IP**, **Username**, and **Password**, and click **Connect**.
   The created catalog is displayed on the home page.
4. To export the catalog, select a catalog and click **Export**.

Configuring latest appliance version notification

To receive periodic notification about the availability of latest version (RPM, OVF, RPM/OVF) of OMIVV, perform the following steps to configure the latest version notification:

1. In the OpenManage Integration for VMware vCenter, on the **Manage → Settings tab**, under **Appliance Settings**, at the right side of **Latest Version Notification**, click the  icon.
   By default, the latest version notification is disabled.
2. In the **Latest Version Notification and Retrieval Schedule** dialog box, perform the following actions:
   a. If you want to enable latest version notification, select the **Enable Latest Version notification** check box.
   b. Under **Latest Version Retrieval Schedule**, select the days of the week for this job.
   c. In **Latest Version Retrieval Time**, specify the required local time.
   The time you provide is your local time. Ensure that you calculate any time difference for running this task at a proper time on the OMIVV appliance.
3. To save the settings, click **Apply**, to reset the settings, click **Clear**, and to abort the operation, click **Cancel**.

Configuring deployment credentials

The deployment credentials allow you to set up credentials to communicate securely with a bare-metal system that is discovered using auto discovery until the OS deployment is complete. For secure communication with iDRAC, OMIVV uses deployment credentials from initial discovery until the end of the deployment process. Once the OS deployment process is successfully complete, OMIVV changes the iDRAC credentials as provided in the connection profile. If you change the deployment credentials, all newly discovered systems from that point onwards are provisioned with the new credentials. However, the credentials on servers that are discovered prior to the change of deployment credentials are not affected by this change.

NOTE: OMIVV acts as a provisioning server. The deployment credentials allow you to communicate with iDRAC that uses the OMIVV plug-in as a provisioning server in the auto discovery process.

1. In OpenManage Integration for VMware vCenter, on the **Manage** > **Settings** tab, under **Appliance Settings**, at the right side of **Deployment Credentials**, click the icon.
2. In **Credentials for Bare Metal Server Deployment**, under **Credentials**, enter the values for the following:
   - In the **User Name** text box, enter the user name.

     The user name should be 16 characters or less (only ASCII printable characters).
   - In the **Password** text box, enter the password.

     The password should be 20 characters or less (only ASCII printable characters).
   - In the **Verify Password** text box, enter the password again.

     Ensure that the passwords match.
3. To save the specified credentials, click **Apply**.

vCenter settings

In this section, configure the following vCenter settings:

- Enable the OMSA link. See Enabling the OMSA link.
- Configure events and alarms. See the Configuring events and alarms.
- Configure the data retrieval schedules for inventory and warranty. See the Viewing data retrieval schedules for inventory and warranty.

Enabling OMSA link

Install and configure an OMSA web server before enabling the OMSA link. See the *OpenManage Server Administrator Installation Guide* for the version of OMSA in use and for instructions on how to install and configure the OMSA web server.

NOTE: OMSA is only required on PowerEdge 11th generation servers.

1. In the OpenManage Integration for VMware vCenter, on the **Manage** > **Settings** tab, under **vCenter Settings** and at the right side of the OMSA web server URL, click the icon.
2. In the **OMSA Web Server URL** dialog box, type the URL.
   Ensure that you include the complete URL, along with the HTTPS and port number 1311.
   https://<OMSA server IP or fqdn>:1311
3. To apply the OMSA URL to all vCenter servers, select **Apply these settings to all vCenters**.

   NOTE: If you do not select the check box, the OMSA URL is applied only to one vCenter.
4. To verify that the OMSA URL link that you provided works, navigate to the **Summary** tab of the host and check that the OMSA console link is live within the **OMIVV Host Information** section.

Configuring events and alarms

The **Events and Alarms** dialog box enables or disables all hardware alarms. The current alert status is displayed on the vCenter alarms tab. A critical event indicates actual or imminent data loss or system malfunction. A warning event is not necessarily significant, but can indicate a possible future problem.

The events and alarms can also be enabled using the VMware Alarm Manager. The events are displayed on the vCenter tasks and events tab in the hosts and clusters view. To receive the events from the servers, OMIVV is configured as the SNMP trap destination. For 12th generation hosts and later, the SNMP trap destination is set in iDRAC. For hosts earlier than 12th generation, trap destination is set in OMSA. You can configure events and alarms using the OpenManage Integration for VMware vCenter from the **Management** > **Settings** tab. Under vCenter **Settings**, expand the **Events and Alarms** heading to display the vCenter alarms for Dell EMC Hosts (Enabled or Disabled), and the event posting level.

NOTE: OMIVV supports SNMP v1 and v2 alerts for 12th generation hosts and later. For hosts earlier than 12th generation, OMIVV supports SNMP v1 alerts.

NOTE: To receive the Dell events, enable both alarms and events.

1. In the OpenManage Integration for VMware vCenter, on the **Manage** > **Settings** tab, under **vCenter settings**, expand **Events and Alarms**.
   The current **vCenter Alarms for Dell EMC Hosts** (Enabled or Disabled) or all vCenter alarms, and **Event Posting Level** are displayed.
2. Click the icon at the right side of **Events and Alarms**.
3. To enable all hardware alarms and events, select **Enable Alarms for all Dell EMC Hosts**.

   NOTE: The Dell EMC hosts that have alarms enabled respond to critical events by entering into maintenance mode and you can modify the alarm, as needed.
4. To restore the default vCenter alarm settings for all managed Dell servers, click **Restore Default Alarms**.
   This step can take up to a minute before the change takes effect and is available only if **Enable Alarms For Dell EMC Hosts** is selected.
5. In **Event Posting Level**, select either “Do not post any events”, “Post All Events”, “Post only Critical and Warning Events”, or “Post only Virtualization-Related Critical and Warning Events”. For more information, see the **Events, alarms, and health monitoring** section in *OpenManage Integration for VMware vCenter User's Guide*.
6. If you want to apply these settings to all vCenters, select **Apply these settings to all vCenters**.

   NOTE: Selecting the option overrides the existing settings for all vCenters.

   NOTE: The option is not available, if you have already selected **All Registered vCenters** from the drop-down list on the **Settings** tab.
7. To save, click **Apply**.

Viewing data retrieval schedules for inventory and warranty

1. In the OpenManage Integration for VMware vCenter, on the **Manage** > **Settings** tab, under **vCenter Settings**, click **Data Retrieval Schedule**.
   On clicking, data retrieval schedule expands to expose the edit options for inventory and warranty.
2. Click the icon against **Inventory Retrieval** or **Warranty Retrieval**.
   In the **Inventory/Warranty Data Retrieval** dialog box, you can view the following information for inventory or warranty retrieval:
   - Whether the inventory and/or warranty retrieval option is enabled or disabled?
   - The weekdays for which it is enabled.
   - The time of day it is enabled.
3. To edit the data retrieval schedules, perform the following steps:
   a. Under **Inventory/Warranty Data**, select the **Enable Inventory/Warranty Data Retrieval** check box.
   b. Under **Inventory/Warranty Data Retrieval Schedule**, select the days of the week for your job.
   c. In the **Inventory/Warranty Data Retrieval Time** text box, type the local time for this job.
      You might need to consider the time difference between job configuration and job implementation.
   d. To save the settings, click **Apply**, to reset the settings, click **Clear**, and to abort the operation, click **Cancel**.

4. Click **Data Retrieval Schedule** again to contract the inventory and warranty schedules and display a single line.

Creating chassis profile

A chassis profile is required to monitor the chassis. A chassis credential profile can be created and associated with single or multiple chassis.

You can log in to iDRAC and the host using Active Directory credentials.

1. In OpenManage Integration for VMware vCenter, click **Manage**.
2. Click **Profiles**, and then click **Credential Profiles**.
3. Expand **Credential Profiles**, and click the **Chassis Profiles** tab.
4. In the **Chassis Profiles** page, click the + icon to create a **New Chassis Profile**.
5. In the **Chassis Profile Wizard** page, do the following:

   In the **Name and Credentials** section, under **Chassis Profile**:

   a. In the **Profile Name** text box, enter the profile name.
   b. In the **Description** text box, enter description, which is optional.

   Under **the Credentials** section:

   a. In the **User Name** text box, type the user name with administrative rights, which is typically used to log in to the Chassis Management Controller.
   b. In the **Password** text box, type the password for the corresponding user name.
   c. In the **Verify Password** text box, enter the same password you have entered in the **Password** text box. The passwords must match.

   NOTE: The credentials can be a local or the Active Directory credentials. Before using the Active Directory credentials with a Chassis Profile, the Active Directory user's account must exist in Active Directory and the Chassis Management Controller must be configured for Active Directory based authentication.

6. Click + to associate the chassis with the chassis profile.

   NOTE: The chassis which are discovered, available, and manually added using **Add MX Chassis** is associated with the chassis profile only after the successful inventory run of any modular host present under that chassis.

7. To select either an individual chassis or multiple chassis, select the corresponding check boxes next to the **IP/Host Name** column.

   If the selected chassis is already a part of another profile, and then a warning message is displayed, stating that the selected chassis is associated with a profile.

   For example, you have a profile **Test** associated with Chassis A. If you create another profile **Test 1** and try to associate Chassis A to **Test 1**, a warning message is displayed.
8. Click **OK**.

   The **Associated Chassis** page is displayed.
9. Test connection is mandatory and runs automatically for the selected chassis.

   Test connection runs automatically:

   - For the first time after the chassis is selected
   - When you change the credentials
   - If the chassis is newly selected

   NOTE: For an MX chassis configured with an MCM group, Dell EMC recommends managing all the lead and member chassis using the lead chassis. The member chassis test connection operation will fail and test result status that is indicated as **Fail**. Click the lead chassis IP link to discover the complete MCM group.

   The test result is displayed in the **Test Result** column as **Pass** or **Fail**. To test the chassis connectivity manually, select the chassis and click .

   NOTE: If there are no hosts present in the registered vCenters which are associated to the added MX chassis, the respective chassis test connection fails.

   NOTE: Only successfully validated chassis is associated with a chassis profile.
10. To complete the profile, click **Finish**.

NOTE: Ensure that you have at least one successfully validated chassis to complete the wizard.

To add an MX chassis management module IP, see **Adding MX Chassis IP or FQDN** topic in *User's Guide*.

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Accessing documents from the Dell EMC support site

You can access the required documents using the following links:

- For Dell EMC Enterprise Systems Management documents — www.dell.com/SoftwareSecurityManuals
- For Dell EMC OpenManage documents — www.dell.com/OpenManageManuals
- For Dell EMC Remote Enterprise Systems Management documents — www.dell.com/esmmanuals
- For iDRAC and Dell EMC Lifecycle Controller documents — www.dell.com/idracmanuals
- For Dell EMC OpenManage Connections Enterprise Systems Management documents — www.dell.com/OMConnectionsEnterpriseSystemsManagement
- For Dell EMC Serviceability Tools documents — www.dell.com/ServiceabilityTools
- 1. Go to www.dell.com/Support/Home.

  2. Click **Choose from all products**.

  3. From **All products** section, click **Software & Security**, and then click the required link from the following:
     - **Enterprise Systems Management**
     - **Remote Enterprise Systems Management**
     - **Serviceability Tools**
     - **Dell Client Command Suite**
     - **Connections Client Systems Management**

  4. To view a document, click the required product version.

- Using search engines:
  - Type the name and version of the document in the search box.

4

Related Documentation

In addition to this guide, you can access the other guides available at `Dell.com/support`. Click **Choose from all products**, then click **Software and Security** > **Virtualization Solutions**. Click **OpenManage Integration for VMware vCenter 4.3** to access the following documents:

- *OpenManage Integration for VMware vCenter Version 4.3 Web Client User's Guide*
- *OpenManage Integration for VMware vCenter Version 4.3 Release Notes*
- *OpenManage Integration for VMware vCenter Version 4.3 Compatibility Matrix*

You can find the technical artifacts including white papers at https://www.dell.com/support.