

# OpenManage Integration for VMware vCenter Version 5.0

## Compatibility Matrix

## 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.

<b>Chapter 1: Overview</b> .....	<b>4</b>
Default virtual appliance configuration .....	4
<b>Chapter 2: Supported resources</b> .....	<b>6</b>
Browser requirements.....	6
BIOS and iDRAC with Lifecycle Controller versions .....	6
Port information.....	8
OpenManage Integration for VMware vCenter requirements.....	10
Supported ESXi versions on managed hosts.....	10
Supported features on PowerEdge chassis .....	11
Supported features on PowerEdge servers.....	11
<b>Chapter 3: Important notes</b> .....	<b>13</b>
<b>Chapter 4: Other documents you may need</b> .....	<b>14</b>

# Overview

This document contains updated information about OpenManage Integration for VMware vCenter(OMIVV) and any other Technical Documentation included with the OMIVV software.

The OpenManage Integration for VMware vCenter 5.0 provides the following features:

- Support for HTML-5 Client
- Support for PowerEdge R6515 and PowerEdge R7515 servers
- Enhancement in the system profile to support the following:
  - System profile types—Basic and Advanced
  - System profile edit
  - 12G and 13G PowerEdge servers
- Added support for vSphere 6.7 U3, vSphere 6.7 U2, and vSphere 6.5 U3
- Enhancement in the deployment to support the following:
  - System profile baselining based on the associated cluster profile for cluster
  - System Profile Configuration Preview
- Enhancement in the configuration compliance:
  - Support for firmware and hardware baselining for vSphere clusters
  - Cluster level view of drift details with vCenter context
- Support for context-sensitive help
- Enhancement in the repository profile to support online repositories—Dell EMC Default Catalog and Validated MX Stack Catalog
- Support for MX chassis management module firmware update
- Enhancement in admin console to support reset backup settings
- Enhancement in deployment mode to support for 2000 hosts with extra large mode
- Support for dual network adapter for OMIVV
- Dashboard to monitor host and chassis

**NOTE:** Dell EMC recommends using Dell EMC OpenManage Enterprise-Modular Edition Version 1.00.01 and later with OMIVV 5.0.

**NOTE:** From OMIVV 5.0 onwards, only VMware vSphere Client (HTML-5) is supported and the vSphere Web Client (FLEX) is not supported.

## Topics:

- [Default virtual appliance configuration](#)

## Default virtual appliance configuration

**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	95 GB
Medium	up to 500	4	16	95 GB
Large	up to 1000	8	32	95 GB
X large	up to 2000	12	32	95 GB

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

 **NOTE:** MX chassis firmware update feature is supported only on medium, large, and extra large deployment modes.

## Supported resources

This chapter contains sections that provides information about the resources that support OpenManage Integration for VMware vCenter.

### Topics:

- [Browser requirements](#)
- [BIOS and iDRAC with Lifecycle Controller versions](#)
- [Port information](#)
- [OpenManage Integration for VMware vCenter requirements](#)
- [Supported features on PowerEdge chassis](#)
- [Supported features on PowerEdge servers](#)

## Browser requirements

To display OpenManage Integration for VMware vCenter, a system must have a minimum 1024 x 768 screen resolution and a web browser that meets minimum requirements based on the operating system.

**NOTE:** The browser requirements are as per the VMware guidelines for OpenManage Integration for VMware vCenter. The supported browsers are the Microsoft Internet Explorer, Google Chrome, and Mozilla Firefox. Dell EMC recommends using Google Chrome to access the OMIVV features.

**NOTE:** It is recommended to use the latest version of the supported browsers. For specific browser versions, see the VMware Documentation for the vCenter version that you are using.

## BIOS and iDRAC with Lifecycle Controller versions

The BIOS and iDRAC with Lifecycle Controller versions that are required to enable the features of OpenManage Integration for VMware vCenter.

Dell EMC recommends you to 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:

**Table 2. Supported BIOS version for PowerEdge 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

**Table 2. Supported BIOS version for PowerEdge servers**

<b>Server</b>	<b>Minimum version</b>
R620	1.2.6 or later
R720	1.2.6 or later
R720xd	1.2.6 or later
R820	1.7.2 or later
R920	1.1.0 or later
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
R240	1.0.0 or later
R340	1.0.0 or later
R940	1.0.0 or later
R940xa	1.0.0 or later
R740	1.0.0 or later
R740xd	1.0.0 or later
R740xd2	1.0.0 or later
R640	1.0.0 or later
R840	1.0.0 or later
R440	1.0.0 or later
M640	1.0.0 or later
T140	1.0.0 or later
T340	1.0.0 or later
T640	1.0.0 or later

**Table 2. Supported BIOS version for PowerEdge servers**

Server	Minimum version
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
R7415	1.0.0 or later
MX740C	1.0.0 or later
MX840C	1.0.0 or later
R6515	1.0.3 or later
R7515	1.0.3 or later
R6525	1.0.0 or later

**Table 3. Supported iDRAC and Lifecycle Controller for deployment**

Generation	iDRAC with Lifecycle Controller
PowerEdge 12th generation servers	2.50.50.50 or later
PowerEdge 13th generation servers	2.50.50.50 or later
PowerEdge 14th generation servers	3.00.00.00 and later

**Table 4. BIOS and iDRAC requirements for cloud server**

Model	BIOS	iDRAC with Lifecycle Controller
C6320	1.0.2	2.50.50.50 or later
C4130	1.0.2	2.50.50.50 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
C6525	1.0.0 or later	3.42.42.42 or later

## Port information

This section lists all the port requirements to configure your virtual appliance and managed nodes.

**Table 5. Virtual appliance (continued)**

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.
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

**Table 5. Virtual appliance**

Port Number	Protocols	Port Type	Maximum Encryption Level	Direction	Destination	Usage	Description
							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 vSphere Client and Dell Admin portal.
443	WSMAN	TCP	128-bit	In/Out	OMIVV appliance to or from iDRAC	iDRAC communication	iDRAC and CMC or OME-Modular 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 and CMC or OME-Modular 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 6. 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 that are sent from ESXi. This port have to open from ESXi.
443	WSMAN	TCP	128-bit	In	OMIVV appliance to ESXi	iDRAC 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.

**Table 7. Managed nodes (iDRAC or CMC or OME-Modular)**

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 OME-Modular	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 OME-Modular.
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.

## 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 8. Supported ESXi versions**

ESXi Version	Server Generation		
	12G	13G	14G
6.0 U3	Y	Y	N
6.5	Y	Y	N
6.5 U1	Y	Y	Y
6.5 U2	Y	Y	Y
6.5 U3	Y	Y	Y
6.7	N	Y	Y
6.7 U1	N	Y	Y

**Table 8. Supported ESXi versions**

ESXi Version	Server Generation		
6.7 U2	N	Y	Y
6.7 U3	N	Y	Y

**NOTE:** The PowerEdge 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 9. Supported vCenter server versions**

vCenter version	Client support
6.5 U2	Y
6.5 U3	Y
6.7	Y
6.7 U1	Y
6.7 U2	Y
6.7 U3	Y

The OpenManage Integration for VMware vCenter version 5.0 supports VMware vRealize Operations Manager (vROPS) version 2.0.

The OMIVV 5.0 appliance supports CentOS 7.6.1810.

## Supported features on PowerEdge chassis

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

**Table 10. 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
Firmware Update	N	N	N	Y

## Supported features on PowerEdge servers

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

**Table 11. Supported features on PowerEdge servers**

**Table 11. Supported features on PowerEdge servers**

Features	Platform	
	12G and 13G	14G
Hardware Inventory	Y	Y
Events and Alarms	Y (SNMP v1 and v2)	Y (SNMP v1 and v2)
Component wise Health Monitoring*	Y	Y
BIOS/Firmware Updates#	Y	Y
Proactive HA\$	Y	Y
Warranty Information	Y	Y
Management Compliance	Y	Y
Configuration Compliance	Y	Y
Auto/Manual discovery of bare-metal server	Y	Y
Bare-Metal compliance	Y	Y
Hardware Configuration	Y	Y
OS Deployment	Y	Y
Blink Server LED	Y	Y
View/Clear SEL logs	Y	Y
Link and Launch iDRAC	Y	Y
iDRAC reset	Y	Y
System Lockdown Mode	N	Y
System Profile	Y	Y
Cluster Profile	Y	Y
Host management using unified chassis IP	N	Y@
Support for OEM server	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.

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

~ Supported only for Rack servers.

## Important notes

This section provides important information that you must consider when you are working on OpenManage Integration for VMware vCenter.

- OMIVV currently supports only the community named "Public" or "public". The SNMP community name is not configurable. If another community name is used, the events are not received by OMIVV and the events are not displayed in the VMware vCenter.
- A system profile created using a reference server with a certain BIOS version can cause deployment to fail. Some BIOS versions do not provide accurate information for certain BIOS settings, such as the Embedded NIC1 and NIC2 settings. When a server with the minimum BIOS version is used as a reference server in a system profile, the fields are ignored by both the UI and deployment. An issue may occur, however, if the settings in question are required to have a certain value for deployment to complete successfully. The solution to this issue is to use a server with up-to-date BIOS as a reference server for a system profile.
- OMIVV registered with the VMware vCenter by using Fully Qualified Domain Name (FQDN) is highly recommended. For FQDN-based registrations, the host name of the vCenter should be properly resolvable by the DNS server.
- For more information about the DNS requirements for vSphere, see the following links:
  - [DNS requirements for vSphere 6.5 and Platform Services Controller appliance](#)
  - [DNS requirements for vSphere 6.7 and Platform Services Controller on Windows](#)
- For cloud server, iDRAC Enterprise license is required.
- OMIVV supports only Server Message Block (SMB) version 1.0 and SMB version 2.0 based CIFS shares.

## Other documents you may need

The following documents are available at [www.dell.com/support](http://www.dell.com/support):

- *OpenManage Integration for VMware vCenter Version 5.0 User's Guide*
- *OpenManage Integration for VMware vCenter Version 5.0 Installation Guide*
- *OpenManage Integration for VMware vCenter Version 5.0 Release Notes*