OpenManage Integration for VMware vCenter Version 5.0

Release Notes

DELLEMC

Anmerkungen, Vorsichtshinweise und Warnungen

(i) **ANMERKUNG: Eine ANMERKUNG macht auf wichtige Informationen aufmerksam, mit denen Sie Ihr Produkt besser einsetzen können.**

△ **VORSICHT: Ein VORSICHTSHINWEIS warnt vor möglichen Beschädigungen der Hardware oder vor Datenverlust und zeigt, wie diese vermieden werden können.**

⚠ **WARNUNG: Mit WARNUNG wird auf eine potenziell gefährliche Situation hingewiesen, die zu Sachschäden, Verletzungen oder zum Tod führen kann.**

Contents

Release summary

The OMIVV 5.0 release provides HTML-5 Client support, new vSphere version support, dual network adapter support, MX chassis firmware update, enhancement in the system profile, deployment, and cluster profile flow. For more information, see New and enhanced features.

Version

5.0

Release date

September 2019

Priority and recommendations

Recommended: Dell EMC recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that help keep your system software current and compatible with other system modules (firmware, BIOS, drivers, and software).

Compatibility

Supported devices and platforms

For more information about supported devices and platforms, see the **Hardware Requirements** section in the *OpenManage Integration for VMware vCenter Version 5.0 Installation Guide*.

Supported operating system

ESXi

Supported web browsers

·   Google Chrome
·   Mozilla Firefox

Supported software

For more information about supported software, see the **Software Requirements** section in *OpenManage Integration for VMware vCenter Version 5.0 Installation Guide*.

New and enhanced features

- Support for HTML-5 Client
- 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

Fixes

- Invalid data is displayed for physical disks and virtual disks at datacenter and cluster inventory intermittently.
- 111835—The deployment job fails when a server is in the UEFI mode and Secure boot feature in BIOS is enabled.
- 110847—OMIVV inventory, driver update and drift detection jobs fails intermittently after restarting OMIVV or vCenter.
- 114551—Servers excluded from Proactive HA, events that are related to Proactive HA components are not handled properly.
- 114703—The Restore Default Certificate is not getting replaced to default.
- 117856—The clusters that are removed from the data center are still associated with the cluster profile.
- 120100—In PSC environment, after editing cluster profile, cluster selection from individual vCenter is not appended instead overwritten.
- 121789—When host is managed using chassis, firmware update is not allowed for components which are failed because of invalid or corrupt DUP.

Important notes

1. From OMIVV 5.0 onwards, only VMware vSphere Client (HTML-5) is supported and the vSphere Web Client (FLEX) is not supported.
2. For using the DNS server, the recommended practices are:
   a. OMIVV supports only IPv4 IP addresses. Although both static IP assignment and DHCP assignment are supported, Dell recommends you to assign a static IP address. Assign a static IP address and hostname 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.
   b. Ensure that OMIVV hostname entries are present in both forward and reverse lookup zones in your DNS server.
3. For the OMIVV appliance mode, ensure that you deploy OMIVV in the appropriate mode based on your virtualization environment. For more information, see the **System requirements for deployment modes** topic in *OpenManage Integration for VMware vCenter Version 5.0 Installation Guide*.
4. Configure your network to match the port requirements. For more information, see the **Port information** topic in *OpenManage Integration for VMware vCenter Version 5.0 Installation Guide*.
5. For 14th generation PowerEdge servers, iDRAC mounts the NFS through TCP on port 2049.
6. When restoring the OMIVV data, ensure that you end all the vCenter sessions.

Known issues

Known issues and resolutions

- **Issue 1**: iDRAC might not send an event when your system reboots.

  Description: Sometimes, the iDRAC might not send an event when your system reboots. In this case, OMIVV sends latest health update notification by polling mechanism and you receive the latest health update within an hour.

  Version affected: 4.0 and later
- **Issue 2**: iDRAC license type and description are displayed incorrectly for non-compliant vSphere hosts.

  Description: If a host is noncomplaint when CSIOR is disabled or has not been run, the iDRAC license information is displayed incorrectly although valid iDRAC license is available. Hence, you can view the host in vSphere hosts list, but when you click the host for details, the information in **iDRAC License Type** is displayed as empty and **iDRAC License Description** is displayed as "Your license needs to be upgraded."

  Version affected: 4.0 and later

  Resolution/Workaround: Perform any one of the following:

  1. Fix CSIOR compliance and run the inventory.
  2. Log in to iDRAC to get the license information.
- **Issue 3**: Although deployment job fails due to inaccessible file share, the status is displayed as "Cancel."

  Description: When you create an ISO profile with invalid credentials such as, invalid credentials for CIFS share, and select the same ISO profile for deployment, the deployment task fails. However, the status displayed in the **Jobs** page as **Cancel** instead of **Failed**.

  Version affected: 3.0 and later

  Resolution/Workaround: None
- **Issue 4**: Dell EMC icon is not displayed after unregistering vCenter from an earlier OMIVV version and then registering same vCenter with a later OMIVV version.

  Description: If you unregister an earlier OMIVV version with vCenter server, and then register a later OMIVV version with the same vCenter server, there is an entry in the vSphere-client-serenity folder, which is old data from the earlier OMIVV version. Hence, the Dell EMC icon is not displayed after registering the later OMIVV version as old data specific to the earlier OMIVV version exists in the vSphere-client-serenity folder of the vCenter appliance.

  Version affected: All

  Resolution/Workaround: Perform the following steps:

  1. Restart vSphere Client on the vCenter server.
  2. If the issue persists:

     - For VMware vCenter, 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 deleted the folder corresponding to the earlier OMIVV version
     - Restart vSphere Client services for vSphere Client (HTML-5).
- **Issue 5**: The **OpenManage Integration** icon is not displayed after backup and restore from an earlier OMIVV version to a later OMIVV version.

  Description: The OpenManage Integration icon is not displayed after restoring an earlier OMIVV version appliance database to a later OMIVV version appliance.

  Version affected: 3.0 and later

  Resolution/Workaround: The IP address of the later OMIVV version appliance must be the same as the earlier OMIVV version appliance for the plug-in to work correctly after restore.
- **Issue 6**: Storage overview returning incorrect number of hard drives for inventory

Description: Systems with software RAID show incorrect number of hard drives on the storage overview page.

Version affected: All

Resolution/Workaround: None. The ESXi does not support software RAID. If the system has software RAID, it shows incorrect disks.

- **Issue 7**: System Event Logs are not showing in OpenManage Integration for VMware vCenter when power supply redundancy is lost.

  Description: When the power redundancy is lost on the PowerEdge modular servers, the system logs get cleared.

  Version affected: 3.0 and later

  Resolution/Workaround: None

- **Issue 8**: Chassis and server health is displayed as warning on the **Chassis Summary** page when server becomes critical.

  Description: When a critical entry is made to SEL logs, the health of the server (modular) changes to critical. This is correctly reflected on the **Host Summary** page. However, this is not reflected on the **Chassis Summary** page. The server health is displayed as warning. If the chassis was normal earlier, the health of the chassis also changes to warning.

  Version affected: 3.0 and later

  Resolution/Workaround: None. This is a known defect in the RACADM. The defect will be fixed in the next release of RACADM for chassis.

- **Issue 9**: The hard drive name is not displayed at data center and cluster level inventory in some situations.

  Description: Although the hard drive name is displayed when you view the inventory at the host level, the hard drive name is displayed empty when you view the inventory of the host at the data center and cluster level.

  Version affected: 3.0 and later

  Resolution/Workaround: This issue does not affect the functionality of the features, and you can view the inventory at the host level to see the hard drive name.

- **Issue 10**: Hard disk option is not disabled in the Deployment wizard for all the servers that do not contain hard disk drives.

  Description: While navigating through the Deployment wizard, if the bare-metal servers do not have any hard disk drive, and then the hard disk option should be disabled on the **Select Deployment Options** page. However, the option is available for selection.

  Version affected: 2.0 and later

  Resolution/Workaround: None

- **Issue 11**: Using OpenManage Integration to update an Intel Network card with the firmware version of 13.5.2 is not supported.

  Description: There is a known issue with Dell EMC PowerEdge 12th generation servers and some Intel network cards with the firmware version of 13.5.2. Updating some models of the Intel network cards at this version of firmware fails when the firmware update is applied using the iDRAC with Lifecycle Controller.

  Version affected: All

  Resolution/Workaround: Update the network driver software using an operating system. If the Intel network card has a version of firmware other than 13.5.2, you can update using OpenManage Integration.

  > (i) **NOTE:**
  >
  > **When using the one-to-many firmware update, avoid selecting Intel network adapters that are at version 13.5.2, as this fails and stops the update task from updating remaining servers.**

- **Issue 12**: Firmware upgrade or downgrade of Broadcom NetXtreme II 10-Gigabit Ethernet adapter (BCM57712) from firmware version of 6.2.x or earlier is not supported.

  Description: Using the OpenManage Integration to upgrade a Broadcom NetXtreme II 10-Gigabit Ethernet adapter (BCM57712) from firmware version of 6.2.x or earlier, or downgrade to a firmware version of 6.2.x or earlier is not supported.

  Version affected: All

  Resolution/Workaround: There is a known issue with the Broadcom NetXtreme II 10-Gigabit Ethernet adapter (BCM57712) where updating the adapter from firmware version of 6.2.x or earlier, or downgrade to a firmware version of 6.2.x or earlier fails when the update is applied using the iDRAC with Lifecycle Controller.

  When attempting to perform this update using the OpenManage Integration, the update may incorrectly show that it completed successfully. However, the firmware update has failed and remains at the previous level. One way to successfully update the adapter software for the Broadcom NetXtreme II 10-Gigabit Ethernet adapter (BCM57712) is to update the adapter firmware from an operating system.

- **Issue 13**: Associated host credential profile is not displayed on the management compliance page when inventory is not able to get iDRAC IP for the host.

  Description: If the iDRAC IP is not retrieved because of non-responsive iDRAC, the inventory fails and host to be associated with the host credential profile is not displayed on the management compliance page.

Version affected: 1.6 and later

Resolution/Workaround: Reset the iDRAC to fix the issue of iDRAC not being responsive, and then rerun the inventory. If the inventory can get the iDRAC IP, then the host is associated with the correct host credential profile.

- **Issue 14**: Unable to boot to service partition while deploying OS ISO.

   Description: OS deployment is failing on 12th generation PowerEdge servers with the following error on the screen during POST: "Warning: Unable to boot to Service Partition." There is a BIOS issue to identify the network ISO when there is a local USB CD-ROM installed on the system and that USB CD- ROM is the only USB mass storage device plugged into the system.

   Version affected: 1.5.1 and later

   Resolution/Workaround: Remove the local USB CD-ROM (not all local CD-ROM would expose this issue), or plug in extra USB floppy or USB drive on the system, or attach the virtual media (virtual floppy and virtual CD) from the iDRAC.

- **Issue 15**: A firmware update fails with an error message saying that USC is in use and it must be retried after 30 seconds.

   Description: During a firmware update, the update fails with the error message: If USC is in use, wait until USC has exited and retry the action. Otherwise retry after 30 seconds to check if network connectivity caused this error.

   Version affected:1.5.1 and later

   Resolution/Workaround: To fix this issue, reset iDRAC and wait until iDRAC boots properly and try the firmware update again.

- **Issue 16**: Events from different vCenter are posted to another vCenter from a shared OpenManage Integration appliance.

   Description: This situation can occur when a bare-metal server that was deployed in one vCenter is rediscovered again as bare-metal server but then selected for an OS deployed in another vCenter. This situation occurs if the host that was already on one of the registered vCenter was added to another registered vCenter. In this case, the host on first vCenter opens as disconnected.

   Version affected: All

   Resolution/Workaround: Remove the host from the first vCenter where it is now showing as disconnected.

- **Issue 17**: OS installation fails.

   Description: OS installation fails with the error message: **Mount network share failed – incorrect IP address or share name**.

   Version affected: 1.5 and later

   Resolution/Workaround: Restart the appliance.

- **Issue 18**: Health Status is showing Warning for chassis when one or more power supplies is critical.

   Description: The overall health information is displayed warning on summary page for VRTX chassis that has power supply in critical state.

   Version affected: All

   Resolution/Workaround: Each power supply status is shown correctly as critical.

- **Issue 19**: Health Status is showing as Healthy for chassis while Storage status is Warning.

   Description: The overall health information is displayed Healthy on summary page for VRTX chassis that has a storage component as Warning.

   Version affected: VRTX firmware version 2.0

   Resolution/Workaround: Each power supply unit health status correctly shown as critical at OMIVV.

- **Issue 20**: Blower information is showing as N/A for a chassis when a Blower is removed.

   Description: Blower inventory information is displayed as N/A on the **Hardware** page for VRTX chassis when a Blower is removed from a slot.

   Version affected: 2.0 and later

   Resolution/Workaround: You can see the correct status in the CMC console.

- **Issue 21**: I see a web communication error in the vSphere Client after changing the DNS settings in OpenManage Integration for VMware vCenter.

   Description: If you see any kind of web communication error in the vSphere Client while doing any OMIVV-related tasks after changing the DNS settings, clear the browser cache or log out and log in from the vSphere Client.

   Version affected: 2.x and later

   Resolution/Workaround: Clear the browser cache or log out and log in from the vSphere Client.

- **Issue 22**: OMIVV RPM Upgrade fails when Proxy is configured with Domain user authentication.

   Description: If OMIVV appliance is configured with proxy to reach the Internet and proxy is authenticated using NTLM authentication, then the RPM update fails due to the issues in the underlying yum tool.

   Version Affected: OMIVV 4.0 and later

Resolution/Workaround: Do back up and restore to update the OMIVV appliance.

- **Issue 23**: Unable to apply system profile that has PCIe card in the FX chassis.

  Description: The OS deployment fails on a target server if the source server has PCIe card information when using an FX chassis. The System profiles on the source server have different `fc.chassislot ID` than the one on the target server. OMIVV tries to deploy the same `fc.chassislot ID` on the target server but fails. The System profiles searches for exact instance(FQDD) while applying the profile, which works successfully on rack servers (identical), but may have few restrictions in modular servers. For example, in FC640, the System profiles that are created from one modular server cannot be applied on other modular servers in the same FX chassis because of NIC level restrictions.

  Version Affected: OMIVV 4.1 and later

  Resolution/Workaround: System profile that is taken from an FC640 server in slot 1 of a FX2s chassis can only be applied on another FC640 server residing in the slot 1 of another FX2s chassis.

- **Issue 24**: The first inventory (immediately after creating a host credential profile) may fail in ESXi 6.5 and later version where the WBEM enablement is necessary.

  Resolution: Trigger the inventory again from Jobs.

- **Issue 25**: After backup and restore from an earlier OMIVV version to a later OMIVV version, the following issues may be observed:

  - The Dell EMC logo is not displayed at vCenter.
  - The 2000000 error
  - The 3001 error

    Resolution:

    - Restart vSphere Web Client on the vCenter server.
    - If the issue persists:

      - For VMware vCenter, 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 deleted the folder corresponding to the earlier OMIVV version

- **Issue 26**: Proactive HA-related features are not functioning as expected after modifying the vCenter credentials.

  Description: If the vCenter credentials are modified by using the OMIVV portal after registering the OMIVV to a vCenter, the Proactive HA-related features will not function as expected.

  Resolution: If you are using the Proactive HA feature along with OMIVV, do not modify the registered user credentials. If the credentials require modification, unregister and register OMIVV appliance to vCenter with new username.

  Version Affected: 4.3 and later

- **Issue 27**: When upgrading or downgrading some iDRAC firmware versions using OMIVV, even when the firmware update is successful, OMIVV may indicate that the job is failed.

  Description: During firmware update, when you downgrade or upgrade the iDRAC versions such as 3.20.20.20, 3.21.21.21, and 3.21.21.22, the job status is indicated as failed even when the job was successfully run.

  Resolution: Refresh the inventory after the job failure and rerun the job for other components.

  Version Affected: 4.3 and later

- **Issue 28**: Configuring the System Lockdown mode at a cluster level sometimes displays a message "No hosts under the cluster has successful inventory."

  Description: Configuring the System Lockdown mode at a cluster level sometimes displays a message "No hosts under the cluster has successful inventory." This message is displayed even when the cluster has successfully inventoried the 14G hosts that are managed by OMIVV.

  Resolution: Reboot the vCenter.

  To reboot the vCenter, do the following:

  1. Log in to the vSphere Client with a vCenter Single Sign-on Administrator account.
  2. Go to **Administration** > **Deployment** > **Deployment** > **System Configuration**.
  3. Click **Nodes**, select the vCenter Server Appliance node, and click the **Related Objects** tab.
  4. Reboot the vCenter node.

  Version Affected: 4.3 and later

- **Issue 29**: Sometimes post RPM upgrade of OMIVV appliance, multiple entries in the logs are seen in vCenter Recent Tasks.

  Description: Sometimes, after RPM upgrade, multiple entries are displayed in logs when viewed on vCenter Recent Tasks.

Resolution: Restart the vCenter services.

Version Affected: 4.3 and later

- **Issue 30**: Sometimes, the storage inventory data is not displayed for the host managed using chassis credential profile and present in member chassis.

  Description: The storage data may not be displayed for an MX host managed using the chassis credential profile and for a host present in the member chassis. Though the inventory data of other components is displayed, only the storage-related data is not displayed

  Resolution: Do one of the following:

  1. Update the MX7000 chassis firmware version to 1.00.10.
  2. Manage the host using iDRAC.
  3. Reinstall the host in another slot of the same MX7000 chassis and retry the operation.

  Version Affected: 4.3 and later.

- **Issue 31–146440**: Chassis firmware update fails on small deployment mode.

  Resolution: Chassis firmware update is supported only on medium, large, and extra large mode.

  Version Affected: 5.0

- **Issue 32–147664**: Guest OS details of OMIVV appliance are incorrectly displayed in ESXi.

  Resolution: This is a known issue with open-vm-tools 10.2.5 which is bundled with CentOS 7.6. OMIVV 5.0 appliance runs on CentOS 7.6.1810 (64-bit).

- **Issue 33–147679**: Inventory or warranty job fails to trigger after backup and restore.

  Description: Before taking the backup from 4.x, if you clear the inventory or warranty schedule days, and disable the inventory or warranty schedule, and then restore this backup to 5.x, inventory or warranty job fails to trigger.

  Resolution: Contact Dell EMC technical support for further assistance.

  Version Affected: 5.0

- **Issue 34–148132**: For a non-administrator user, inventory fails indicating that the enabling WBEM service is failed on host.

  Resolution: For more information about the required privilege for non-administrator user, see the OMIVV 5.0 User's Guide. Assign the required privilege to user and run the inventory again.

  Version Affected: 5.0

- **Issue 35–144171**:Chassis inventory fails in OMIVV after promoting backup lead as a lead.

  When the lead chassis of the MCM group is powered off or not functional, the backup lead gets promoted as the lead chassis. In this case, inventory of the lead and member chassis fails in OMIVV.

  Resolution: Perform the following:

  1. Make the previous lead chassis active and run the inventory from OMIVV.
  2. Delete the chassis credential profile and all the chassis present in the group from OMIVV.
  3. Add the new lead chassis to rediscover the group.

  Version Affected: 5.0

- **Issue 36–147023**: Host firmware update fails, if a canceled firmware update job of related chassis is present.

  If you cancel the firmware update job of a PowerEdge MX chassis, subsequent host firmware update job for hosts present in the same chassis is blocked.

  Resolution: Purge the canceled chassis firmware update job to release the lock on the related hosts.

  Version Affected: 5.0

- **Issue 37–143173**: OMIVV page displays invalid session, or time out exception, or two million errors in Firefox browser.

  If the OMIVV page is idle for some time (5–10 minutes), the invalid session, or time out exception, or two million errors is displayed.

  Resolution: Refresh the browser. If the issue persists, log out and log in from vCenter.

  To see the correct data in OMIVV, ensure that you complete the task listed in resolution.

  Version Affected: 5.0

- **Issue 38–135743**: Time shown for Power Monitoring inventory of the hosts is incorrect when viewed from datacenter and cluster level.

  Resolution: See the host level inventory for correct details.

  Version Affected: 5.0

Features and fixes in previous releases

Version

4.3.1

Release Date

May 2019

Features and enhancements

The OMIVV 4.3.1 is a defect fix release.

Fixed issues

This release includes the following bug fixes:

- Fix to the following iDRAC Settings issues in Hardware Profile for 14G servers with iDRAC version 3.30.30.30 and later
  - Few attributes are not captured.
  - Failed to set password for iDRAC users.
- Fix to hypervisor profile deployment failure in ESXi 6.5 U2 P3.
- Correction on reporting of memory health status to re†ect updates in latest iDRAC8 and iDRAC9 firmware.

Version

4.3

Release Date

October 2018

Features and enhancements

The release highlights of OpenManage Integration for VMware vCenter Version 4.3 are:

- Support for the following:
  - PowerEdge MX7000 modular infrastructure
    - PowerEdge MX740c and PowerEdge MX840c servers.
    - Chassis and Servers management using unified Chassis Management IP
    - Standalone and Multi-Chassis Configuration deployment modes of PowerEdge MX7000 chassis.
    - PowerEdge R940XA
- Enhancement in Chassis Profile test connection flow to make it automated.
- Support for OEM servers for OMIVV workflows.
- Support for vSphere 6.7U1 and vSphere 6.5U2.
- The following enhancements in the Firmware Update workflow:
  - Support to perform Clear Job Queue and reset iDRAC while creating a Firmware Update job.
  - Support to provide Custom Online Catalog location for a firmware update.

- Support for HTTPS as default communication with Dell.com domains.
- Enhanced support in the OS deployment workflow:

  - OS deployment management network on PCI NICs.
  - OS deployment on the BOSS disk.
- Support to report Remaining Rated Write Endurance metrics for SSD in OMIVV.

Fixed issues

- Security fixes for known vulnerabilities in components consumed in OMIVV appliance:

  - Fixed BEAST (CVE-2011-3389) vulnerability issue in OMIVV appliance.
  - Fixed NFS Shares World readable and - NFS Exported Share Information Disclosure (CVE-1999-0170, CVE-1999-0211, CVE-1999-0554)
  - CentOS 6 : kernel (CESA-2018:2390) (Foreshadow)
  - CentOS 6 : kernel (CESA-2018:1854) (Spectre)
  - Oracle Java SE Multiple Vulnerabilities (July 2018 CPU) (Unix)
- Fix to report NVMe disks present in the host in OMIVV.
- Fix to support special characters in CIFS share password.
- Fix to show BOSS related RAID attributes in System Profile.

Limitations

The following are the limitations for this release of OMIVV:

- If the Dell Cloud server model C6320 contains H730 controller and micro SD card in the riser, the micro SD card might not be detected in some situations. This limits the OS deployment on the SD card.
- In the Dell Cloud server model C6320, deployment through LSI 2008 is not supported.
- OMIVV cannot access files from SMB version 3 based CIFS.

Instructions for installing

Downloading the software package

For more information about downloading OMIVV, see the **Download OpenManage Integration for VMware vCenter** topic in the *OpenManage Integration for VMware vCenter Version 4.3 Installation Guide* at **www.dell.com/support**.

Installation prerequisites

For the installation prerequisites, see the **Prerequisite checklist** topic in the *OpenManage Integration for VMware vCenter Version 5.0 Installation Guide* at **www.dell.com/support**.

Installation process

For more information about installation process, see the **Install and Configure OMIVV** section in *OpenManage Integration for VMware vCenter Version 5.0 Installation Guide*.

Upgrade prerequisites

For more information, see the **Update OMIVV appliance and repository location** topic in *OpenManage Integration for VMware vCenter Version 5.0 User's Guide*.

Upgrade process

For more information about upgrade process, see the **Upgrade OMIVV appliance using RPM** and **Upgrade OMIVV appliance using backup and restore** topics in *OpenManage Integration for VMware vCenter Version 5.0 User's Guide*.

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Contacting Dell EMC

Dell EMC provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell EMC for sales, technical support, or customer service issues, see .

If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or the product catalog.