

OpenManage Enterprise integration with OpenManage Mobile

Monitor and Manage devices in OpenManage Enterprise from anywhere using OpenManage Mobile

Abstract

OpenManage Mobile(OMM) is a systems management application that enables you to monitor your data center from an Android/iOS mobile device. The data center devices (servers and chassis) can be accessed directly, or through an OpenManage Enterprise or OpenManage Essentials console. OMM enables you to view the inventory and health of your data center devices, send OpenManage Enterprise alerts to your mobile device, and perform basic tasks such as power control functions. In addition, OMM enables you to troubleshoot your hardware in case of emergencies and view or send Support Assist report to the Dell support Team. This document provides an overview of the complete integration of OpenManage Enterprise with OMM.

March 2019

Revisions

Date	Description
March 2019	Initial release

Acknowledgements

This paper was produced by the following members of the Dell EMC OpenManage Mobile(OMM) Team

Author: Preethi Shetty, Sabarish P, Chetan Annayappa

Support: Ashish Suyal

Other: Manoj Malhotra

The information in this publication is provided "as is." Dell Inc. makes no representations or warranties of any kind with respect to the information in this publication, and specifically disclaims implied warranties of merchantability or fitness for a particular purpose.

Use, copying, and distribution of any software described in this publication requires an applicable software license.

© 2019 Dell Inc. or its subsidiaries. All Rights Reserved. Dell, EMC, Dell EMC and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

Dell believes the information in this document is accurate as of its publication date. The information is subject to change without notice.

Table of Contents

1	System requirements	5
2	Holistic view of Data Center and Real-Time Health Monitoring	6
2.1	Adding an OpenManage Enterprise console to OMM	7
2.2	Viewing OpenManage Enterprise dashboard	7
2.2.1	Viewing devices on OpenManage Enterprise discovered in OMM	8
2.2.2	Viewing alerts on OpenManage Enterprise discovered in OMM	11
3	Real Time Monitoring of Data Center Failures and Remediation	12
3.1	Setup	12
3.1.1	Setup in OpenManage Enterprise	12
3.1.2	Creation of custom alert policies in OpenManage Enterprise	13
3.1.3	Setting up push notifications for OpenManage enterprise alerts in OMM	13
3.2	Receiving Push Notifications in OMM	14
3.3	Remediation	15
3.3.1	Power operations	15
3.3.2	Remote RACADM commands	16
3.3.3	Launching iDRAC GUI from the iDRAC Device details page	18
4	Support Assist for devices added in OpenManage Enterprise	20
4.1	Download Support Assist Report	20
4.2	View, Refresh, Delete and Upload SupportAssist report	20
5	Troubleshooting	22
5.1	Unable to add OpenManage Enterprise in OMM	22
5.2	Unable to receive Push Notifications in OMM	22
5.3	Remote tasks on OpenManage Enterprise devices failing in OMM	22

Executive summary

With Dell EMC OpenManage Enterprise 3.0 release, the next generation console-based system management interface was added to Dell EMC server system management portfolio. OpenManage Mobile (OMM), which is an Android or iOS app was also supported with this release. OMM helps customers to monitor and manage servers, chassis discovered in OpenManage Enterprise console. It provides overview of data center, device inventory, which includes SE logs and health status, Support Assist report collection, proactive monitoring of devices with push notifications, and so on.



- **Alerts via OpenManage Enterprise**
- **Server Inventory**
- **Logs: System Event**
- **Health Status**

- **Reboot Server**
- **Access iDRAC GUI**
- **Support Assist**

1 System requirements

The following are the pre-requisites to add OpenManage Enterprise in OMM:

- Ensure that the mobile platform version is at least the minimum version supported by OMM.
- Ensure that you have installed the latest OMM version available on the app store.
- Ensure that you have installed the latest OpenManage Enterprise version.
- Ensure that you have access to system management network (which has OpenManage Enterprise console), either directly or through VPN.


2 Holistic view of Data Center and Real-Time Health Monitoring

OpenManage Mobile(OMM) provides access to key features available under the OpenManage Enterprise. OpenManage Enterprise integration with OMM is a solution which is mobile, flexible, and provides a meaningful insight into the real-time monitoring and remediation of servers and chassis supported under the purview of OpenManage Enterprise. This section explains about viewing of data center inventory and health in OMM.

Pre-requisites required to view inventory of devices discovered under OpenManage Enterprise:

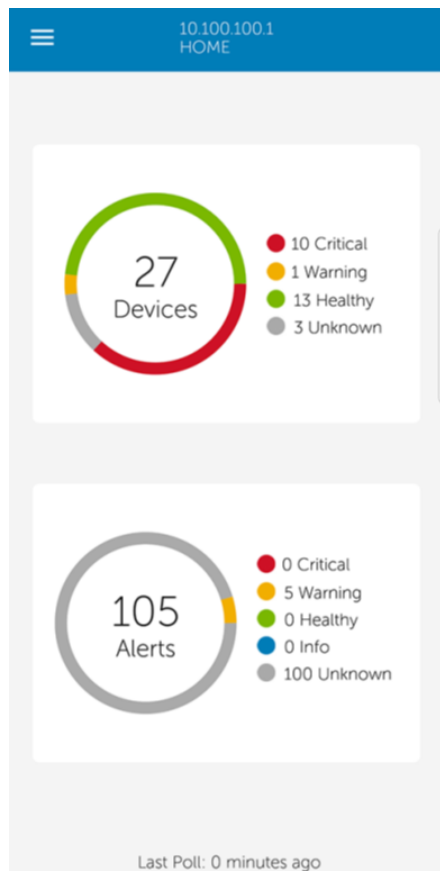
- The devices present in the data center must be discovered in OpenManage Enterprise prior to viewing it in OMM.
- You must ensure that the mobile device is connected to the systems management network directly or via VPN.






2.1 Adding an OpenManage Enterprise console to OMM

- Start OMM.
- If applicable, type the OMM password and tap Login.
The OMM home page is displayed.
- On the OMM home page, tap  on the upper right corner.
The Add options are displayed.
- Tap OpenManage Enterprise and tap Next.
- Type the Hostname or IP, Username, Password, Domain (if applicable), and Description (optional) of the OpenManage Enterprise console.
- To save the connection details, tap Add OME.
- The OpenManage Enterprise SSL certificate is displayed.
- Tap Yes to accept the certificate and save the OpenManage Enterprise console.
- On the next page, select the appropriate alert filter for push notifications.
- The added OpenManage Enterprise console dashboard is displayed.

2.2 Viewing OpenManage Enterprise dashboard

- On the OMM home page, tap the appropriate OpenManage Enterprise console. The appropriate OpenManage Enterprise dashboard is displayed.

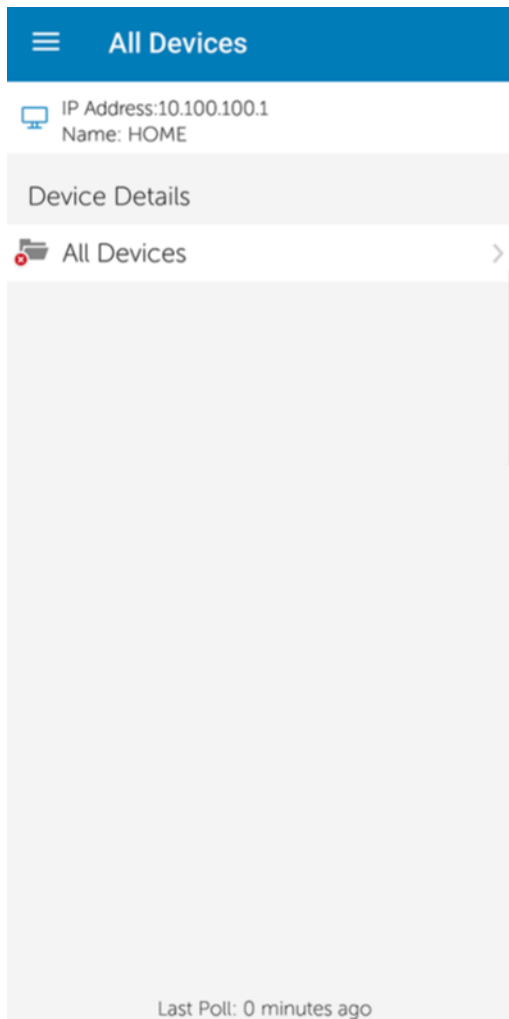


-  —indicates the number of devices or alerts that are critical.
-  —indicates the number of devices or alerts that are with warning status.
-  —indicates the number of devices or alerts that are healthy.
-  —indicates the number of devices or alerts that are unknown.
-  —indicates the available information about the devices or alerts.

2.2.1 Viewing devices on OpenManage Enterprise discovered in OMM

To view the devices by health of an OpenManage Enterprise console in OMM:

- On the OMM home page, tap the appropriate OpenManage Enterprise console entry.
- In the OpenManage Enterprise dashboard, tap Devices. The All Devices page is displayed.



- Tap the appropriate device category (for example, RAC), and then tap to select the device you want to view.

☰ All Devices ☰

IP Address: 10.100.100.1
Name: HOME



Health Status ✔ **Healthy**
 Power State ● **On**
 Service Tag JMMR0M2
 Device Type Server
 Model PowerEdge C6420
 CPU 2 X Intel(R) Xeon(R) Bronze 3106 CPU @ 1.70GHz (8 Cores)
 Memory 64 GB
 OS Not Available
 Hostname iDRAC-JMMR0M2
 IP Address 10.36.0.169
 Asset Tag Not Available

📄 Software Details

🌐 Network Details

📄 Hardware Inventory

📄 Health Status
Last Poll: 0 minutes ago

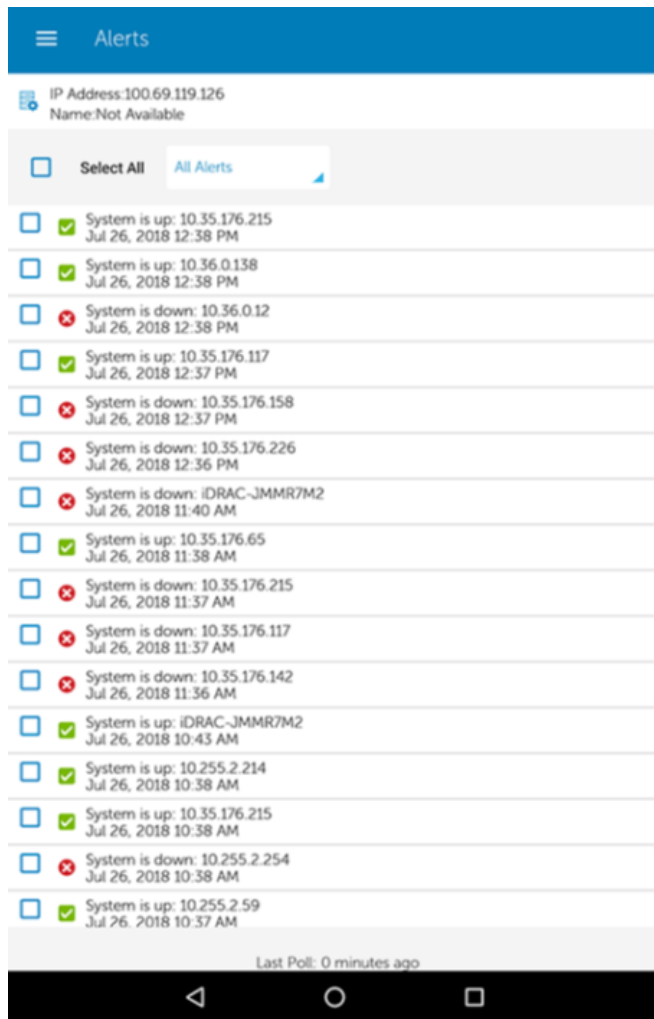
- You can view the following options:
 1. Software Details- View the software details of the device.
 2. Hardware Log- View the hardware logs.
 3. Alerts- View the alerts.
 4. Warranty- View warranty information of the device.
 5. Health Status- View the health status.
 6. Hardware Inventory- View the Hardware Inventory.
 7. Network Details- View the network details.
 8. Location- View the Data Center, Room, Aisle, Rack, and Slot.

You can click on “report” option on the toolbar of every device to download all the above mentioned details at once. After the report is created, you can share it to a concerned person via different sharing apps installed on the phone using the share option. In case you need to spot a server in the data center, you may use the “Blink LED” option in the toolbar of the server. You can also visit dell support site for a particular device by clicking on “Support” in the toolbar of a specific device.

2.2.2 Viewing alerts on OpenManage Enterprise discovered in OMM

To view the alerts of OpenManage Enterprise in OMM:

1. On the OMM home page, tap the OpenManage Enterprise console for which you want to view alerts.
2. Tap Alerts. The alerts that are associated with the selected OpenManage Enterprise are displayed.
3. Tap the alert for which you want to view details.
4. The Alert Details page is displayed.



You can view the alert and acknowledge it directly from OMM after selecting an alert. You can also forward it to the concerned person using any sharing application that is installed on your phone.

3 Real Time Monitoring of Data Center Failures and Remediation

When there is any failure in any device in an OpenManage Enterprise console that is added in OMM, then OpenManage Mobile(OMM) sends push notifications to the phone it is installed. The notification is displayed in notification bar of your mobile device like any other notifications, which are received on the phone even when the phone is outside the systems management network.

The following section describes how to set your app to receive push notifications and the remediation tasks you can perform directly from OMM.

3.1 Setup

3.1.1 Setup in OpenManage Enterprise

1. Configure proxy settings in OpenManage Enterprise

OME->Application settings->Network->Proxy configuration

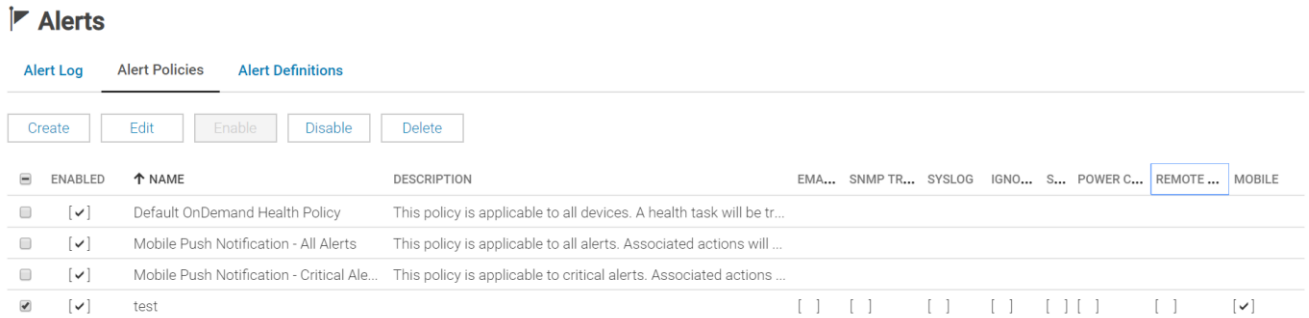
The screenshot shows the 'Application Settings' page in OpenManage Enterprise. The 'Proxy Configuration' section is expanded, showing the following settings:

- Enable HTTP Proxy Settings:
- Proxy Address: 10.143.242.126
- Port number: 80
- Enable Proxy Authentication:
- Username: americas/chetan_annayappa
- Password: *****

Buttons for 'Apply' and 'Discard' are visible at the bottom of the configuration area.

3.1.2 Creation of custom alert policies in OpenManage Enterprise

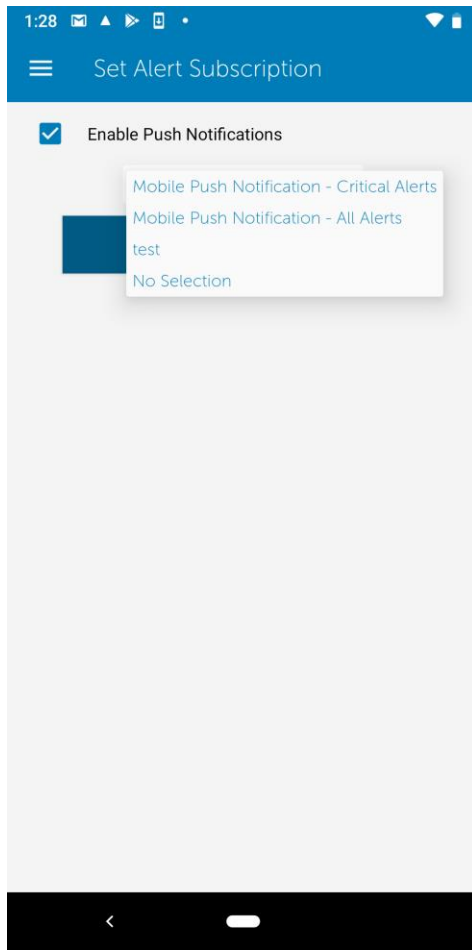
You can choose the category of alerts for which you want to receive push notifications. For example, you may want to receive notifications for all the alerts or for alerts which are critical, warning, or normal alerts. This can be controlled by alert policies defined in OpenManage Enterprise Console. The console has 2 default alert policies defined - one for 'All Alerts' and another for 'Critical Alerts'. If you wish to receive push notifications for a different category of alerts, you must create a custom alert policy in the OpenManage Enterprise Console. The screenshot below shows the alert policy page in OpenManage Enterprise Console where you can create, edit, enable, disable, and delete alert policies. At the time of subscribing to OpenManage Enterprise alert notifications, the user will be able to subscribe to the default as well as custom alert policies created in the OpenManage Enterprise console.



3.1.3 Setting up push notifications for OpenManage enterprise alerts in OMM

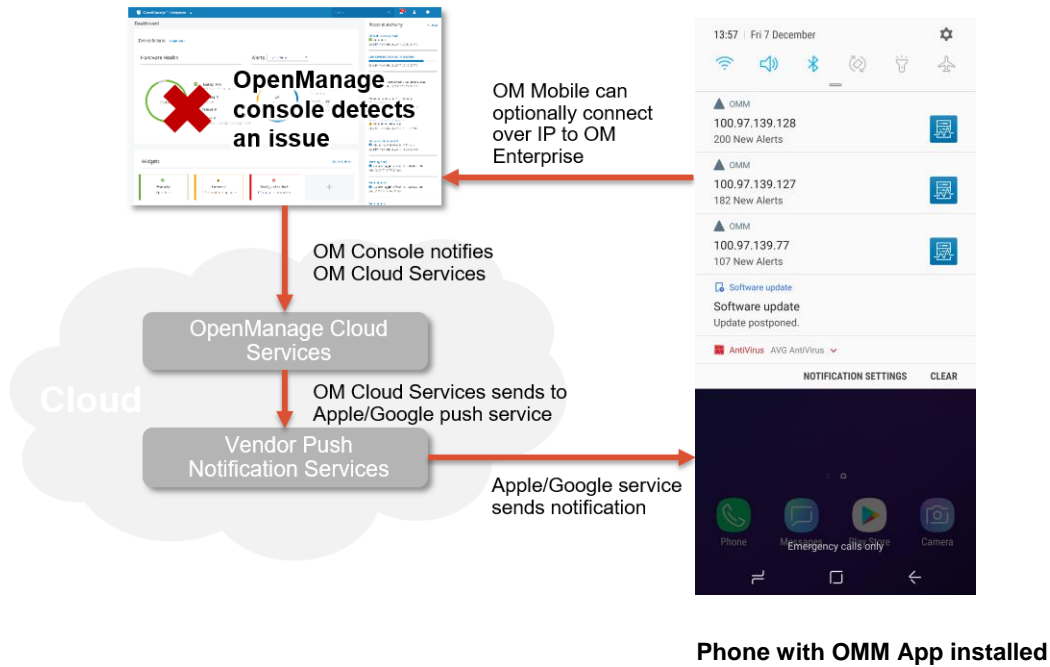
Add OpenManage Enterprise and enable push notifications in OMM.

OMM allows you to configure the type of alerts for which you want to receive push notifications.



3.2 Receiving Push Notifications in OMM

Once OMM is registered for push notifications from OpenManage Enterprise, and an alert is received in OpenManage Enterprise, which matches the alert filter chosen in OMM, then a notification is received on your phone. Your phone must be connected to internet. The diagram below depicts the flow of the push notification reception over google or apple cloud services.



3.3 Remediation

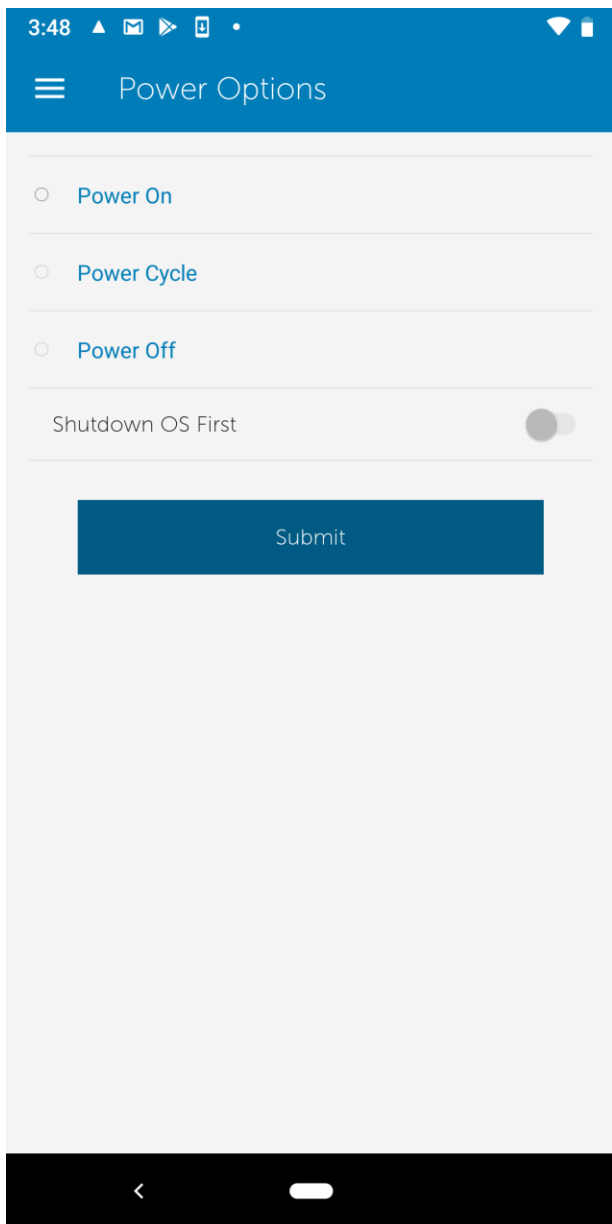
When a critical alert is received in OMM, there are several remote tasks that can be performed to remediate the issue.

3.3.1 Power operations

For devices managed by OpenManage Enterprise, power control operations are supported (only on iDRACs and servers).

To perform a power control operation:

1. On the OMM home page, tap the appropriate OpenManage Enterprise console.
2. In the OpenManage Enterprise dashboard, tap Devices. The All Devices page is displayed.
3. Tap the appropriate device category (for example, RAC), and then tap to select the device you want to perform power control operation on. The Device Details page is displayed.
4. Tap and then tap Reboot. The supported power control operations are displayed.



5. Tap Submit. OMM performs the power control operation.

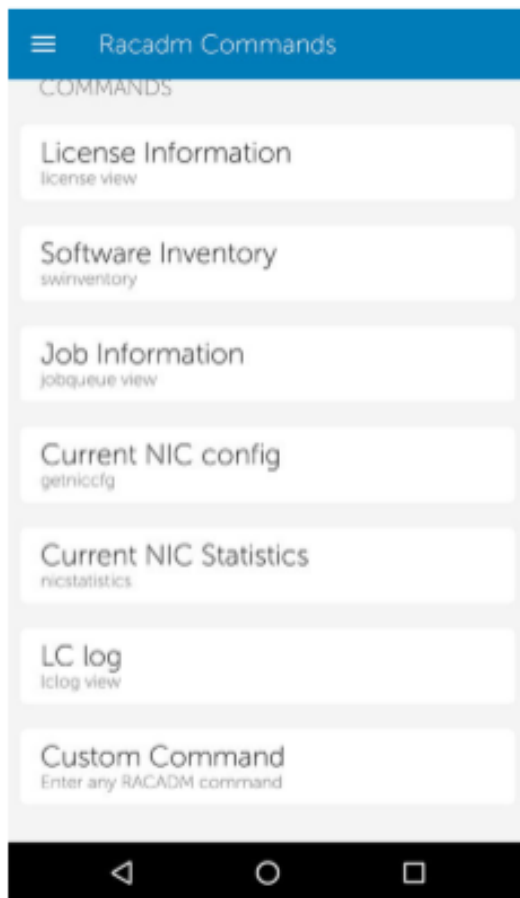
3.3.2 Remote RACADM commands

OMM allows you to run RACADM commands on the servers added in OpenManage Enterprise. It provides a set of pre-defined commands, which are used to obtain key information about a server. OMM also provides an option for custom commands which you can use to type in and execute any RACADM command. The following are the steps to run RACADM commands:

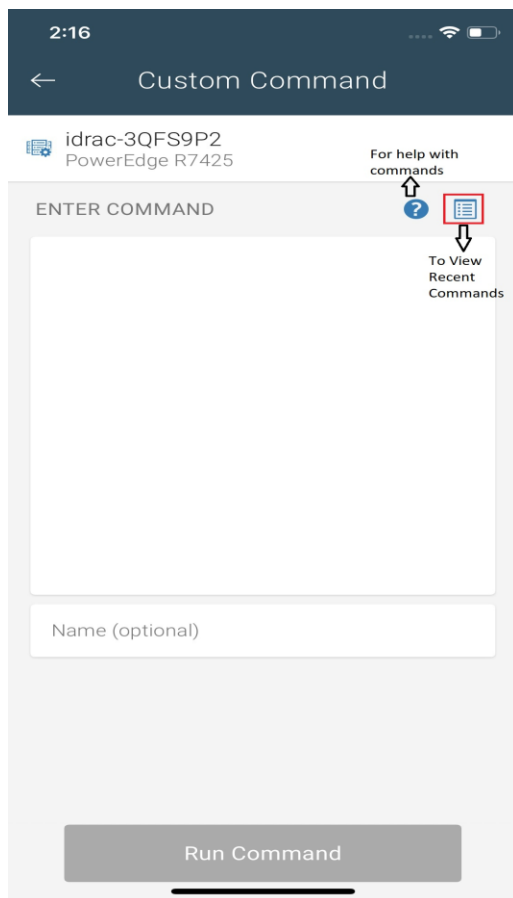
1. On the OMM home page, tap the appropriate OpenManage Enterprise console.
2. In the OpenManage Enterprise dashboard, tap Devices. The 'All Devices' page is displayed.

3. Tap the appropriate device category (for example, RAC), and then tap to select the device on which you want to run RACADM command. The Device Details page is displayed.
4. Tap 'Run RACADM command' option in the toolbar. The RACADM commands page is displayed. You may click on any of the commands pre-defined in the page or click on 'Custom Command' if you wish to run any other command not mentioned in the pre-defined list.

Below is the screenshot of the RACADM commands page.



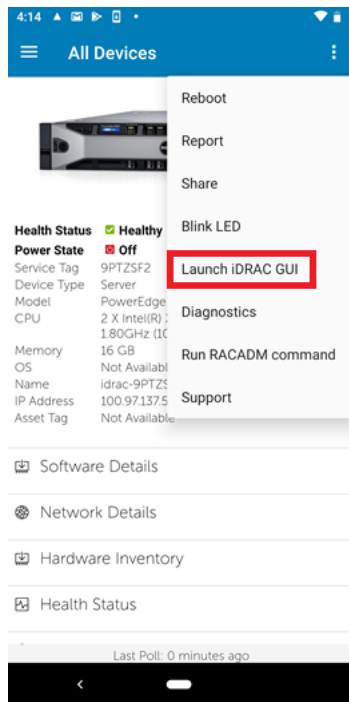
Also, the last 10 custom commands used are stored for quick access. OMM enables you to quickly access the most commonly used RACADM commands. Below screenshot shows the 'Recent Commands' and 'Help' option in the custom command page.



3.3.3 Launching iDRAC GUI from the iDRAC Device details page

The launch iDRAC GUI feature can be used to quickly access the iDRAC GUI of a device to monitor as well as remediate failures from the iDRAC GUI. The iDRAC GUI can be launched using the below steps:

1. On the OMM home page, tap the appropriate OpenManage Enterprise console.
2. In the OpenManage Enterprise dashboard, tap Devices. The 'All Devices' page is displayed.
3. Tap the appropriate device category (for example, RAC), and then tap to select the device you want to launch iDRAC GUI for. The Device Details page is displayed.
4. Tap the 'Launch iDRAC GUI' option. Login page of the iDRAC is displayed. Enter credentials and click 'Login'.



4 Support Assist for devices added in OpenManage Enterprise

If there is a failure in any server, you can collect the information from the device directly in OMM and upload it to the Dell Support Assist portal.

NOTE: *This feature is only supported on 14G servers and above.*

4.1 Download Support Assist Report

- On the OMM home page, tap the appropriate OpenManage Enterprise console.
- In the OpenManage Enterprise dashboard, tap Devices. The All Devices page is displayed.
- Tap the appropriate device category (for example, RAC), and then tap to select the device you want to perform RACADM command operation on. The Device Details page is displayed.
- Tap Support Assist Collection.
- Tap Support Assist Report.
- Select the appropriate options and tap Generate. The report is downloaded and can be shared via email.

4.2 View, Refresh, Delete and Upload SupportAssist report

- After the support assist report is downloaded. Tap SupportAssist Collection. The following options are displayed:
 1. **View**—you can view the SAC report on your mobile device. The view option can be used by support technicians for prompt critical debugging.
 2. **Refresh**—you can generate the report again to refresh the data that has changed from the time the report was last downloaded.
 3. **Delete**—you can delete the report that has been downloaded.
 4. **Upload to Dell EMC SupportAssist**—you can upload the SupportAssist report to Dell EMC support. Once the task is successful, the file token is displayed. This helps in quick reporting of SupportAssist logs to the SupportAssist technicians.

Service Tag: 73XD129
Model: PowerEdge R740xd2



Size: 2019KB

Created on: Dec 5, 2018 10:16:16 AM CST

View
See and share contents of SA collection

Refresh
Generate a new SA Collection file

Delete
Removes last SA collection file from OMM

Upload to Dell EMC SupportAssist
Send collection to support team for analysis



5 Troubleshooting

5.1 Unable to add OpenManage Enterprise in OMM

If you are unable to add an OpenManage Essentials to OpenManage Mobile(OMM), do the following:

Verify network configuration: To add an OpenManage Enterprise to OMM, the firewall security must be disabled. You must ensure that VPN and/or wireless network is connected, enabled, and configured. You must verify if you are able to connect to the OpenManage enterprise from your device using a web browser.

Verify credentials: Ensure that the user name and password are correct to log in to the remote system. If you are using domain credentials, ensure that the domain name is entered in the right format supported by your directory server (such as CompanyName or CompanyName.com).

5.2 Unable to receive Push Notifications in OMM

If you are unable to receive push notifications in OMM, do the following:

Verify phone network: You must verify that the phone is connected to the internet.

Verify settings in OpenManage Enterprise: In OpenManage Enterprise console, under application settings→Network, verify if the proxy has been configured for internet access by the console.

Verify app notifications are enabled on phone: You must make sure that the notifications are allowed for OMM under app settings of the phone.

5.3 Remote tasks on OpenManage Enterprise devices failing in OMM

If remote tasks like RACADM/Power Tasks/Support Assist are failing in OMM, you do the following:

Verify phone network: You must verify that the phone is connected to the data center network directly or via VPN.

Verify status of the task in OpenManage Enterprise console: You can view the remote tasks created by OMM in the OpenManage Enterprise console under Monitor->Jobs. You can view details of the error in the console to understand the issue.

Verify connectivity of the device from OpenManage Enterprise console: You can verify that the device is reachable from OpenManage Enterprise Console. If required, re-discover the device in OpenManage Enterprise.

A Technical support and resources

OMM WIKI - Dell Tech center: www.DellTechCenter.com/OMM

OMM User Guide 3.1 (Android / iOS): <https://www.dell.com/support/home/us/en/04/product-support/product/openmanage-mobile-v3.1/manuals>

OMM overview on Dell.com: <https://www.dellemc.com/en-us/solutions/openmanage/mobile.htm>

OMM 3.1 Download (Android): <https://play.google.com/store/apps/details?id=com.dell.omm>

OMM 3.1 Download (iOS): <https://itunes.apple.com/us/app/openmanage-mobile/id949941153?mt=8>

OpenManage Enterprise Overview: <https://www.dellemc.com/en-us/solutions/openmanage/enterprise.htm>

OpenManage Enterprise Download: <https://marketing.dell.com/en/OpenManageEnterprise>

OpenManage Enterprise 3.1 User Guide and help documents:

<https://www.dell.com/support/home/us/en/04/product-support/product/dell-openmanage-enterprise-v3.1/manuals>