

The Dell EMC Devices Supported by Dell EMC OpenManage Essentials (OME)

This Dell EMC technical white paper provides information about the various Dell EMC devices for which discovery, inventory, and classification operations are supported by Dell EMC OpenManage Essentials (OME).

[Abstract](#)

This Dell EMC technical white paper provides information about the various Dell EMC devices for which discovery, inventory, and classification operations are supported by Dell EMC OpenManage Essentials.

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Revisions

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|----------------|-----------------------------------|
| September 2015 | OpenManage Essentials 2.1 release |
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Contents

| | |
|--|----|
| Revisions..... | 2 |
| Acknowledgements..... | 2 |
| 1 Executive summary | 5 |
| 2 Introduction..... | 6 |
| 3 Protocols supported by OpenManage Essentials | 7 |
| 4 Discover, inventory, and classify Dell EMC devices in OpenManage Essentials | 8 |
| 4.1 View Dell EMC MX Chassis data in OpenManage Essentials | 12 |
| 4.2 View VxFlex-ready nodes in OpenManage Essentials | 13 |
| 4.3 View VxRail appliances in OpenManage Essentials | 13 |
| 4.3.1 VxRail appliance with the Application Management URL | 13 |
| 4.3.2 VxRail appliance without the Application Management URL | 15 |
| 4.3.3 VxRail appliance models supported by OpenManage Essentials..... | 15 |
| 4.4 View XC Series appliances in OpenManage Essentials | 16 |
| 4.4.1 XC Series appliance with the Application Management URL | 16 |
| 4.4.2 XC Series Appliance without the Application Management URL | 17 |
| 4.4.3 XC Series models supported by OpenManage Essentials | 17 |
| 4.5 View Disk Backup appliances in OpenManage Essentials | 18 |
| 4.5.1 Disc Backup appliance supported by OpenManage Essentials..... | 18 |
| 4.6 Dell EMC Networking X-Series Smart Managed Switches | 19 |
| 4.6.1 Networking X-Series Smart Managed switch models supported by OpenManage Essentials | 19 |
| 4.7 View Dell EMC EqualLogic groups in OpenManage Essentials | 20 |
| 4.7.1 Group device tables in OpenManage Essentials..... | 20 |
| 4.7.2 Member device tables in OpenManage Essentials | 21 |
| 4.7.3 Supported actions for Dell EqualLogic group in OpenManage Essentials | 23 |
| 4.7.4 Event association for Dell EMC EqualLogic Group | 24 |
| 4.7.5 Recommendations for Dell EMC EqualLogic group discovery | 25 |
| 4.7.6 Dell EMC EqualLogic supported models in OpenManage Essentials..... | 25 |
| 4.8 Dell EMC NAS appliances..... | 25 |
| 4.8.1 View NAS Appliances with FluidFS v1.0 in OpenManage Essentials | 25 |
| 4.8.2 View NAS Appliances with FluidFS v3.0 in OpenManage Essentials | 26 |
| 4.8.3 NAS appliances supported by OpenManage Essentials..... | 27 |
| 4.9 SonicWALL Firewall | 28 |
| 4.10 View PowerConnect W-Series devices in OpenManage Essentials..... | 29 |
| 4.10.1 PowerConnect W-Series models supported in OpenManage Essentials..... | 29 |
| 4.11 View Brocade Fibre Channel devices in OpenManage Essentials | 30 |

| | | |
|--------|---|----|
| 4.11.1 | Brocade Fibre Channel devices supported in OpenManage Essentials..... | 30 |
| 4.12 | View Dell EMC Compellent arrays in OpenManage Essentials | 31 |
| 4.12.1 | Compellent arrays Supported in OpenManage Essentials | 32 |
| 4.13 | View Dell EMC Networking Switches in OpenManage Essentials | 33 |
| 4.13.1 | Networking switches supported in OpenManage Essentials | 33 |
| 4.14 | View KVM devices in OpenManage Essentials..... | 34 |
| 4.14.1 | KVM devices Supported in OpenManage Essentials | 34 |
| 4.15 | View Power Device Units (PDUs) in OpenManage Essentials | 35 |
| 4.15.1 | PDUs supported in OpenManage Essentials..... | 35 |
| 4.16 | View UPS devices in OpenManage Essentials | 36 |
| 4.16.1 | UPS devices supported in OpenManage Essentials | 36 |
| 5 | View device health in OpenManage Essentials | 37 |
| 6 | View Warranty in OpenManage Essentials | 38 |
| 7 | Start device-specific application in OpenManage Enterprise..... | 39 |
| 7.1 | Configure custom URLs | 39 |
| 7.2 | Create a Custom URL | 39 |
| 7.3 | Launch the Custom URL | 40 |
| 8 | Alerts (SNMP Traps) in OpenManage Essentials | 41 |
| 8.1 | Alert type definitions in OpenManage Essentials | 41 |
| 8.2 | View alerts from a device in OpenManage Essentials | 42 |
| 8.3 | View alert categories in OpenManage Essentials | 42 |
| 8.4 | Configure alert actions in OpenManage Essentials | 47 |
| 8.5 | Configure Warranty email notifications..... | 47 |
| 8.6 | Configure warranty scoreboard notifications | 48 |
| 8.7 | Configure warranty notifications in OpenManage Essentials | 49 |
| 8.8 | Configure warranty update settings..... | 50 |
| 9 | Troubleshooting issues in OpenManage Essentials | 52 |
| 9.1 | Dell EMC OpenManage Essentials Troubleshooting Tool | 52 |
| 9.2 | Troubleshoot discovery of a Dell EMC device..... | 52 |
| 10 | Proactive Support with Dell EMC SupportAssist Enterprise | 56 |
| A | Technical support and resources | 57 |

1 Executive summary

OpenManage Essentials (OME) enables the management and monitoring of various discovered Dell devices in a single centralized console.

With OME, you can discover and inventory to manage devices present in your network. The scope of this technical white paper is limited to the complete support of MX Chassis, VxFlex Ready Nodes, Dell EMC EqualLogic Groups, Dell EMC NAS Appliances, Disk Backup Appliances, VxRail Appliances, XC Series Appliances, SonicWALL Firewall, PowerConnect W-Series, Brocade Fibre Channel, Dell EMC Compellent Arrays, Dell EMC Networking Switches, KVM, PDU, and UPS, in addition to the devices supported in the previous versions of OME

2 Introduction

The purpose of this technical white paper is to describe the complete support of Dell devices in OpenManage Essentials (OME). This technical white paper covers the following topics:

- Device discovery, inventory, and classification
- Device health
- Warranty Information
- Start application
- Monitor devices (alerts)
- Troubleshooting

For a complete list of supported device models, see the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* at **dell.com/openmanagemanuals**.

3 Protocols supported by OpenManage Essentials

- OpenManage Essentials (OME) can discover and receive alerts from Dell EMC EqualLogic Groups, Dell EMC NAS Appliances, SonicWALL Firewall, PowerConnect W-Series, Brocade Fibre Channel, Dell EMC Compellent Arrays, Dell EMC Networking Switches, KVM, PDU, and UPS devices by using SNMP protocol.
- VxFlex Ready Nodes, Disk Backup Appliances, VxRail Appliances, and XC Series Appliances can be discovered by using WS-Man protocol and support SNMP alerts.
- MX Chassis can be discovered by using REST protocol and support SNMP alerts.
- SNMP protocol versions V1, V2, and V3 are currently supported.
- You must configure the SNMP protocol on all the target devices and set the management station IP address to the system where OME is installed.
- Although the previously specified settings are not required on all these devices, it is recommended to check for the SNMP configuration before performing discovery or inventory operations.
- Receipt of SNMP traps or alerts is also supported for these devices in OME.
- The [Troubleshooting](#) section provides guidance about ensuring that a target device is configured correctly to be managed by OME.

Following table shows the recommended protocols to discover different types of devices:

Table 1 Recommended protocols for device discovery

| Device Type | Recommended Protocol |
|-------------------------------------|----------------------|
| MX Chassis | REST |
| VxFlex Ready Nodes | WS-Man |
| VxRail Appliances | WS-Man |
| XC Series Appliances | WS-Man |
| Disk Backup Appliances | WS-Man |
| Dell EMC Networking Switches | SNMP |
| Dell EMC EqualLogic Groups | SNMP |
| Dell EMC NAS Appliances | SNMP |
| SonicWALL Firewall | SNMP |
| PowerConnect W-Series | SNMP |
| Brocade Fibre Channel | SNMP |
| Dell EMC Compellent Arrays | SNMP |
| KVM | SNMP |
| PDU | SNMP |
| UPS | SNMP |

4 Discover, inventory, and classify Dell EMC devices in OpenManage Essentials

To discover an MX chassis, VxFlex Ready nodes, Dell EMC EqualLogic groups, Dell EMC NAS appliances, Disk Backup appliances, VxRail appliances, XC Series appliances, SonicWALL firewall, PowerConnect W-Series, Brocade fibre channel, Dell EMC Compellent arrays, Dell EMC networking switches, KVM, PDU, or UPS by using OME, do the following:

1. Start OpenManage Essentials.
2. Navigate to **Manage** → **Discovery and Inventory**.
3. In the left pane, click **Add Discovery Range**.
4. Enter the IP address or host name and subnet mask, and then click **Add**.
5. If you are entering the IP range, select the **Save as Group** check box.
6. Enter the group name in **Group Name**, and then click **Add**.
7. Click **Next**.

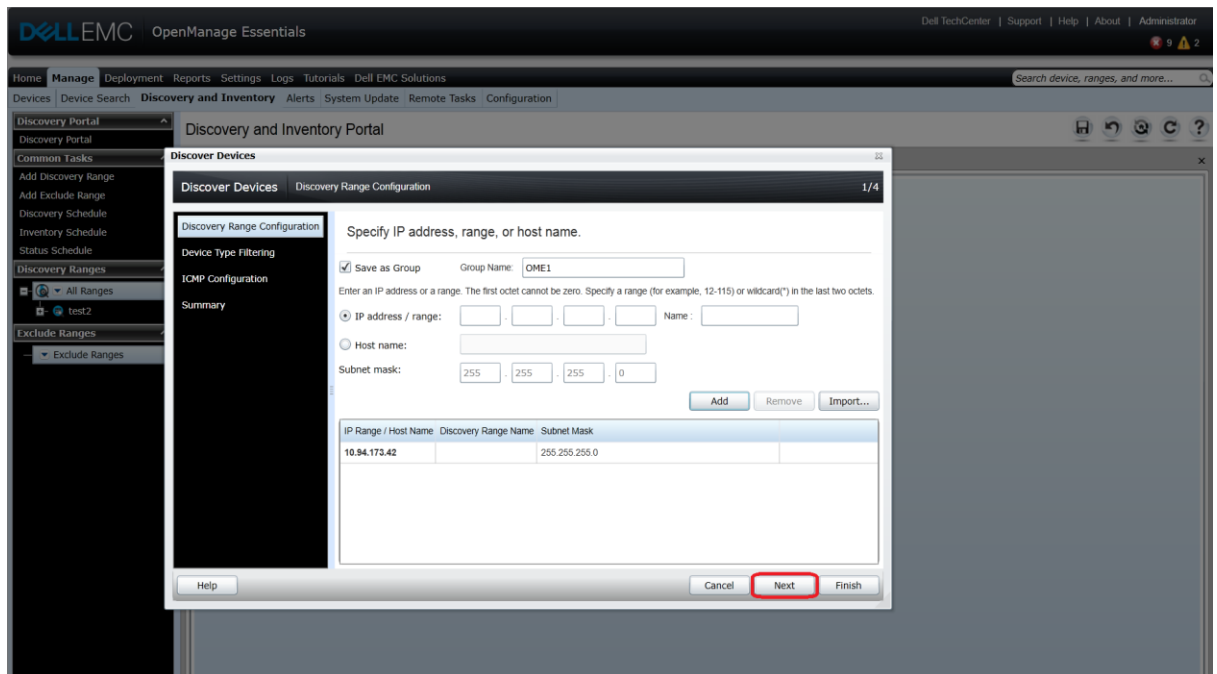


Figure 1 Discovery Range Configuration

- On the **Device Type Filtering** page, select specific device types for guidance in determining which protocols are required to manage them, and then click **Next**.

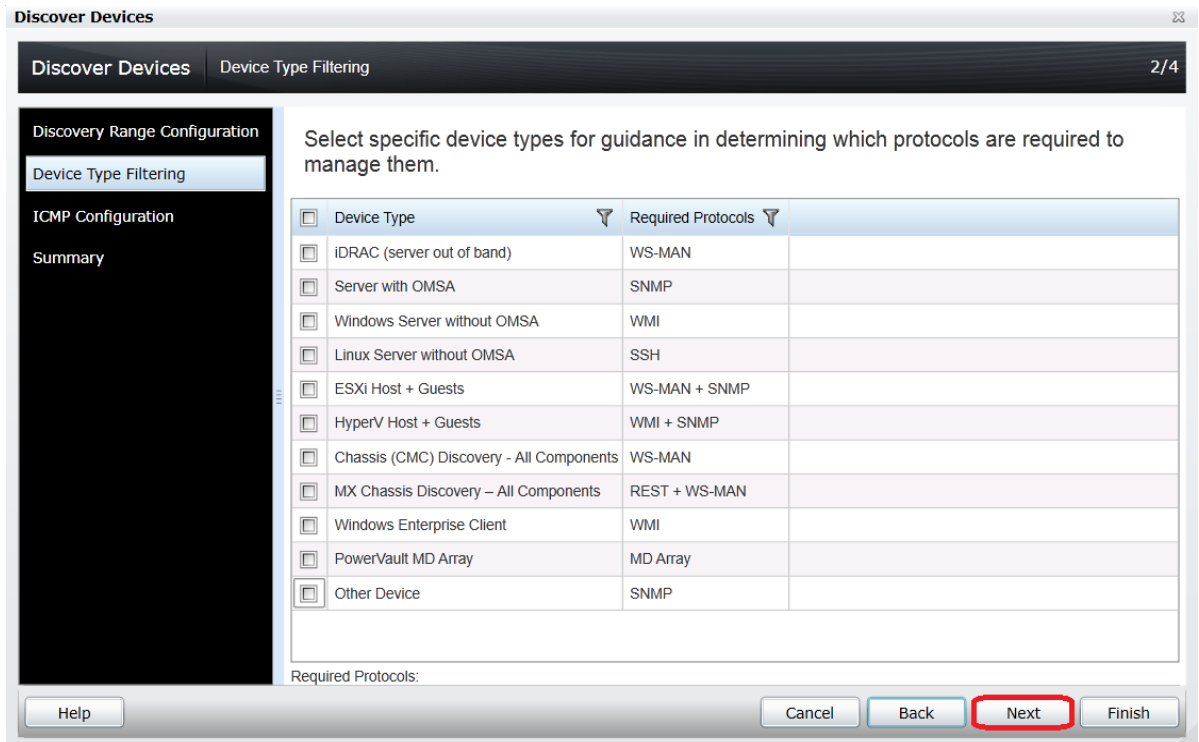


Figure 2 Device Type Filtering page

- On the **ICMP Configuration** page, click **Next**.

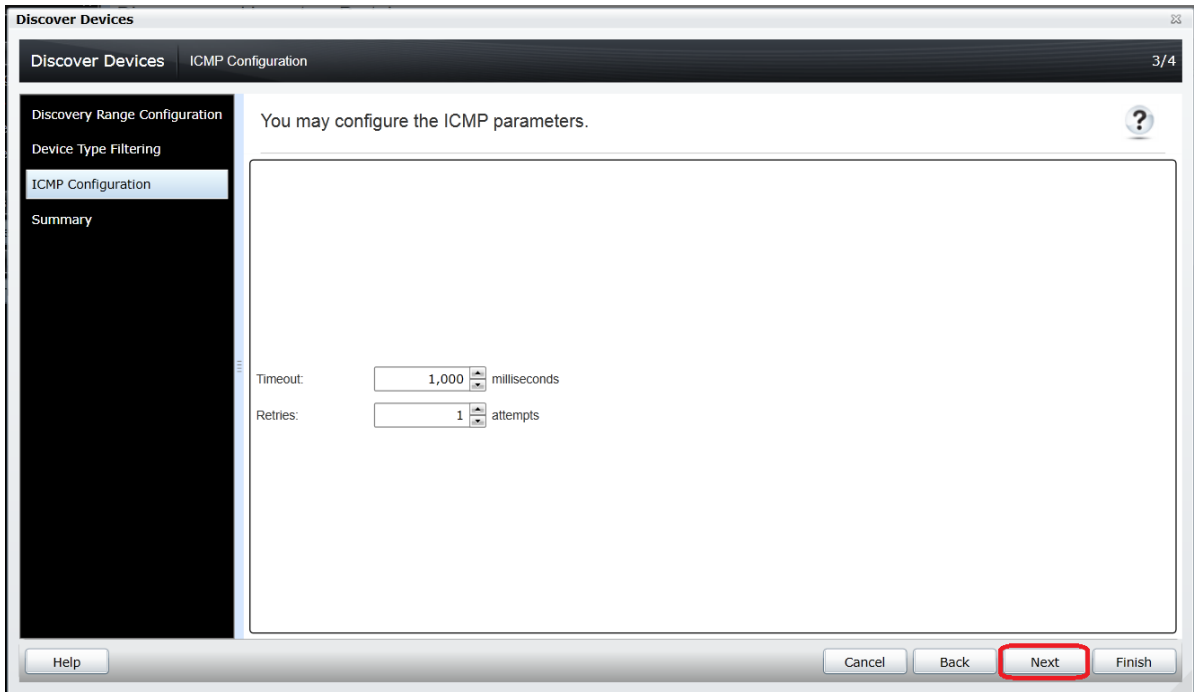


Figure 3 ICMP Configuration page

10. On the **REST Configuration** page, enter the user ID and password, and then click **Next**.

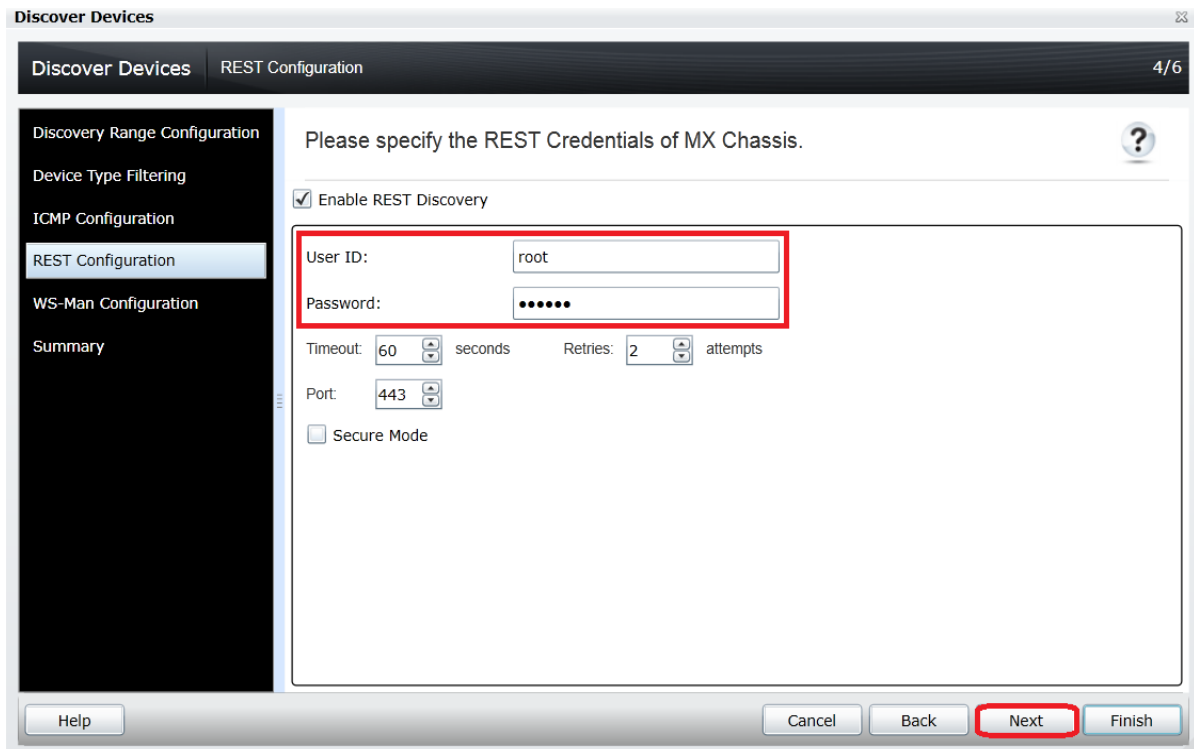


Figure 4 REST Configuration page for MX Chassis

11. On the **WS-Man Configuration** page, enter user ID and password, and then click **Finish**.

Discover Devices

Discover Devices | WS-Man Configuration 5/6

Discovery Range Configuration

Device Type Filtering

ICMP Configuration

REST Configuration

WS-Man Configuration

Summary

Please specify the WS-Man credentials.

Enable WS-Man Discovery

User ID:

Password:

Timeout: seconds Retries: attempts

Port: (Secure)

Secure Mode

Skip Common name check

Trusted Site

Certificate File:

Figure 5 WS-Man Configuration page

12. On the **SNMP Configuration** page, ensure that the **Get community** field has `public` as the attribute, and then click **Finish**.

Discover Devices

Discover Devices | SNMP Configuration 4/5

Discovery Range Configuration

Device Type Filtering

ICMP Configuration

SNMP Configuration

Summary

Specify the SNMP settings for discovery.

Enable SNMP discovery:

Enable SNMP V1/V2C

Get community:

Set community:

Enable SNMP V3

Authentication Protocol:

User Name:

Authentication Password:

Encryption Protocol:

Encryption Password:

Generic Settings Timeout: seconds Retries: attempts

Figure 6 SNMP Configuration page

4.1 View Dell EMC MX Chassis data in OpenManage Essentials

The MX Chassis devices are classified under **All Devices** → **Modular Systems** → **PowerEdge MX7000** in the device tree. You can click the discovered device to see all the inventoried tables as shown in the sample screen shot.

The screenshot shows the OpenManage Essentials interface. On the left is a dark sidebar with a tree view of devices. A red box highlights the path: **All Devices** → **Modular Systems** → **PowerEdge MX7000** → **MX-PT0005H**. The main content area shows details for the selected device, MX-PT0005H. It includes a **Device Summary** table, **Data Sources** table, **NIC Information** table, **Firmware Information** table, and **Power Supply Information** table.

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time | Device Inventory Time | Device Status Time |
|---------------|-------------------|-------------|-------------|------------------|-------------|-----------|----------------------|----------|----------|-----------------------|-----------------------|--------------------|
| On | On | MX-PT0005H | MX Chassis | POWEREDGE MX7000 | PT0005H | null | 56173077701 | N/A | N/A | 8/20/2018 12:13:25 PM | 8/20/2018 12:13:25 PM | N/A |

| Global Status | Name | Version | Description | Manufacturer |
|---------------|-------------------|---------|---|--------------|
| On | Management Module | 1.00 | This system component provides a complete set of remote management functions for MX Chassis | Dell Inc. |

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|---------------|--------------|-------------------|-------------|----------------|-------------|
| 100.96.45.236 | N/A | d0 94 95 0b 51 11 | N/A | N/A | N/A |

| Name | Version | Enclosure ID | Type |
|------|---------|--------------|----------------------------|
| MM1 | 1.00 | 0 | Management Module Firmware |

| Location | Output (Watts) | Type | Power Monitoring Capable |
|------------|----------------|------|--------------------------|
| PSU Slot.1 | 0 | AC | N/A |
| PSU Slot.2 | 3000 | AC | N/A |
| PSU Slot.3 | 3000 | AC | N/A |
| PSU Slot.4 | 0 | AC | N/A |
| PSU Slot.5 | 0 | AC | N/A |
| PSU Slot.6 | 0 | AC | N/A |

Figure 7 MX Chassis Classification and Inventory

Note—OME 2.5 supports only the discovery of stand-alone or lead MX chassis. It does not support member chassis discovery without lead chassis. If member chassis is discovered without lead chassis then application logs will show a log indicating “discover <Lead_Service_Tag>”.

Supported Models

Refer to the Table 6 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

4.2 View VxFlex-ready nodes in OpenManage Essentials

The VxFlex-ready nodes are classified under **All Devices** → **VxFlex Ready Nodes** in the device tree. You can click the discovered device to see all the inventoried tables as shown in the sample screen shot.

The screenshot displays the OpenManage Essentials interface. On the left, the device tree is expanded to show 'VxFlex Ready Nodes', with 'iDRAC-D40J6Q2' selected and highlighted with a red box. The main content area shows the details for this device, including a 'Device Summary' table, 'RAC Device Information', 'Data Sources', and 'NIC Information' tables.

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Node Id | Asset Tag | Express Service Code | System Uptime | Total Installed Memory (MB) | Maximum Memory |
|---------------|-------------------|---------------|-------------|--------------------------|-------------|---------|-----------|----------------------|---------------|-----------------------------|----------------|
| | | iDRAC-D40J6Q2 | Server | VxFlex R740xd Ready Node | D40J6Q2 | D40J6Q2 | N/A | 28540930250 | 6d 20h 31m 6s | 229376 | 3145728 |

| RAC IP Address | RAC Type | RAC DNS Name | RAC Connection Status |
|----------------|--------------------------|--------------|-----------------------|
| 100.96.26.229 | Remote Access Controller | N/A | |

| Global Status | Name | Version | Description | Manufacturer |
|---------------|--|------------|--|--------------|
| | Integrated Dell Remote Access Controller | 3.21.21.21 | This system component provides a complete set of remote management functions for PowerEdge servers | Dell Inc. |

| IPv4 Address | IPv6 Address | MAC Address | Current MAC Address | Description | TOE Capability | TOE Enabled |
|---------------|--------------|-------------------|---------------------|---|----------------|-------------|
| N/A | N/A | 20:04:0F:E8:40:B8 | 20:04:0F:E8:40:B8 | Broadcom Gigabit Ethernet BCM5720 - 20:04:0F:E8:40:B8 | N/A | N/A |
| N/A | N/A | 20:04:0F:E8:40:B9 | 20:04:0F:E8:40:B9 | Broadcom Gigabit Ethernet BCM5720 - 20:04:0F:E8:40:B9 | N/A | N/A |
| N/A | N/A | 20:04:0F:E8:40:BA | 20:04:0F:E8:40:BA | Broadcom Gigabit Ethernet BCM5720 - 20:04:0F:E8:40:BA | N/A | N/A |
| N/A | N/A | 20:04:0F:E8:40:BB | 20:04:0F:E8:40:BB | Broadcom Gigabit Ethernet BCM5720 - 20:04:0F:E8:40:BB | N/A | N/A |
| 100.96.26.229 | N/A | 54:48:10:10:4a:56 | N/A | iDRAC Embedded.1 | N/A | N/A |

Figure 8 VxFlex Ready Nodes Classification and Inventory

4.3 View VxRail appliances in OpenManage Essentials

VxRail appliances are classified under **All Devices** → **Hyper-Converged Infrastructure** → **VxRail** in the device tree. You can click the discovered device to see all the inventoried tables.

4.3.1 VxRail appliance with the Application Management URL

If the virtual application management URL is available on the appliance, a sub-group (ClusterIP) will be created under VxRail and appliances belonging to the same cluster will be grouped together. A new application launch point VxRail Manager will also be available.

Classification and inventory for VxRail Appliance with Application Management URL is shown in the sample screen shot.

The screenshot displays the Dell EMC OpenManage Essentials (OME) interface for a VxRail Appliance (idrac-28YP7C2). The left-hand navigation pane shows a tree structure with 'VxRail' expanded to show 'idrac-28YP7C2'. The main content area features several sections:

- Device Summary Table:**

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Node Id | Asset Tag | Express Service Code | System Uptime | Total Installed Memory (MB) | Maximum Mem |
|---------------|-------------------|---------------|------------------|-----------------------|-------------|---------|-----------|----------------------|---------------|-----------------------------|-------------|
| On | On | idrac-28YP7C2 | VxRail Appliance | Dell EMC VxRail E460F | 28YP7C2 | 28YP7C2 | N/A | 4895576930 | 2d.7h.26m.20s | 65536 | 3145728 |
- Information Section:**
 - Application Launch:** A dropdown menu is open, showing options: RAC Console, RAC Virtual Console, and VxRail Manager (highlighted with a red box).
 - Physical Memory Table:**

| Physical Memory(MB) | OS Locale | OS Revision | Service Pack Version |
|---------------------|-----------|-------------|----------------------|
| N/A | N/A | 6.3 | N/A |
 - Component Table:**

| Global Status | Name | Version | Description | Manufacturer |
|---------------|--|------------|--|--------------|
| On | Integrated Dell Remote Access Controller | 2.41.40.40 | This system component provides a complete set of remote management functions for servers | Dell Inc. |
- NIC Information Table:**

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|-----------------|--------------|-------------------|------------------|----------------|-------------|
| 100.100.240.243 | N/A | F4:8E:38:CB:12:90 | iDRAC.Embedded.1 | N/A | N/A |

Figure 9 VxRail Appliance with Application Management URL Classification and Inventory

4.3.2 VxRail appliance without the Application Management URL

Classification and inventory for VxRail Appliance without Application Management URL is shown in the sample screen shot.

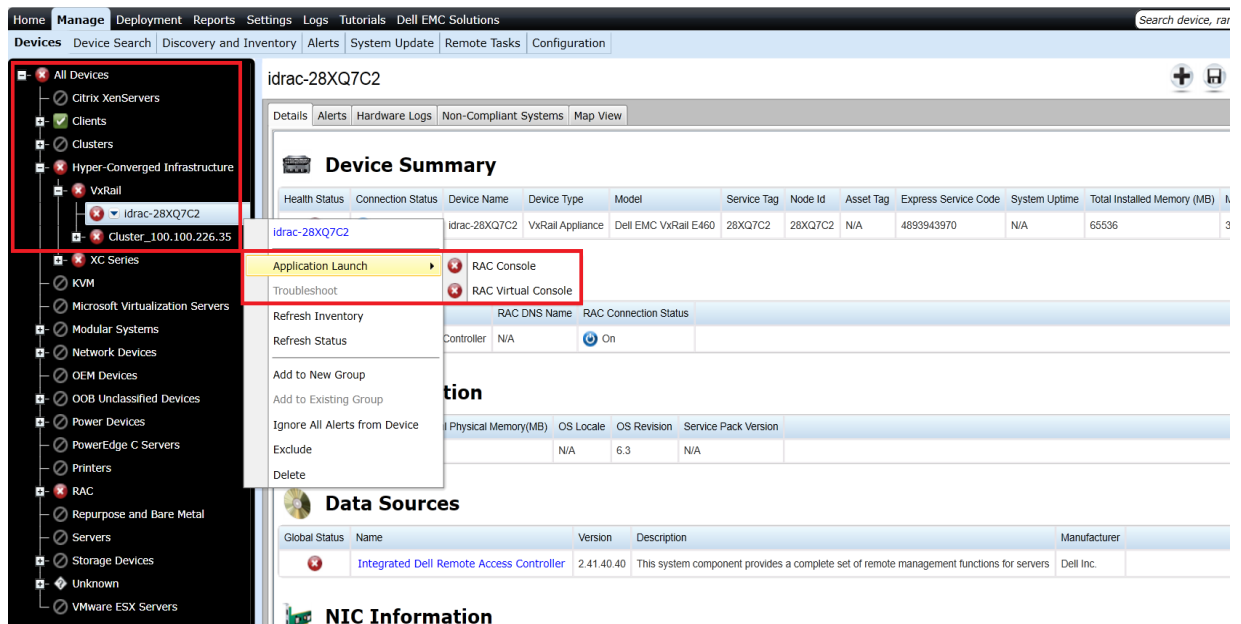


Figure 10 VxRail Appliance without Application Management URL Classification and Inventory

4.3.3 VxRail appliance models supported by OpenManage Essentials

Refer to the Table 4 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

4.4 View XC Series appliances in OpenManage Essentials

The XC series appliances are classified under **All Devices** → **Hyper-Converged Infrastructure** → **XC Series** in the device tree. You can click the discovered device to see all the inventoried tables.

4.4.1 XC Series appliance with the Application Management URL

If virtual application management URL is available on the appliance then a sub-group (**Cluster_IP**) will be created under XC Series and appliances belonging to the same cluster will be grouped together. A new application launch point (**PRISM**) will also be available.

Classification and inventory for XC Series Appliances with Application Management URL is shown in the sample screen shot.

The screenshot displays the Dell OpenManage Essentials interface. On the left, a navigation tree shows the classification path: **All Devices** → **Hyper-Converged Infrastructure** → **XC Series** → **Cluster_100.100.226.34** → **idrac-HD04CD2**. The main content area shows the details for device **idrac-28XQ7C2**. The **Device Summary** table lists the following information:

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Node Id | Asset Tag | Express Service Code | System Uptime | Total Installed Memory (MB) | Maximum |
|---------------|-------------------|---------------|------------------|----------------------|-------------|---------|-----------|----------------------|---------------|-----------------------------|---------|
| | On | idrac-28XQ7C2 | VxRail Appliance | Dell EMC VxRail E460 | 28XQ7C2 | 28XQ7C2 | N/A | 4893943970 | N/A | 65536 | 3145728 |

The **RAC Device Information** section shows the **Application Launch** menu with **PRISM** highlighted. Below it, the **Physical Memory** table is shown:

| Physical Memory(MB) | OS Locale | OS Revision | Service Pack Version |
|---------------------|-----------|-------------|----------------------|
| N/A | 6.3 | N/A | |

The **NIC Information** table lists the **Integrated Dell Remote Access Controller** with version 2.41.40.40 and manufacturer Dell Inc.

Figure 11 XC Series Appliance with Application Management URL Classification and Inventory

4.4.2 XC Series Appliance without the Application Management URL

Classification and inventory for XC Series Appliance without Application Management URL is shown in the sample screen shot.

The screenshot displays the Dell EMC OpenManage Essentials interface. On the left, a navigation tree shows the hierarchy: All Devices > Hyper-Converged Infrastructure > XC Series > idrac-5GFDH32. The main area shows the 'Device Summary' for 'idrac-5GFDH32'. A table lists device details:

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Node Id | Asset Tag | Express Service Code | System Uptime | Total Installed Memory |
|---------------|-------------------|---------------|--------------|--------------|-------------|---------|-----------|----------------------|---------------|------------------------|
| On | On | idrac-5GFDH32 | XC Appliance | Dell XC430-4 | 5GFDH32 | 5GFDH32 | N/A | 11877193406 | 2d 6h:10m:18s | 16384 |

Below the summary, there are sections for 'Application Launch' (with 'RAC Console' and 'RAC Virtual Console' options), 'Refresh Inventory', and 'Refresh Status'. A table lists system components:

| Version | Description | Manufacturer |
|------------|--|--------------|
| 2.41.40.40 | This system component provides a complete set of remote management functions for servers | Dell Inc. |

At the bottom, a table lists network interfaces:

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|--------------|--------------|-------------------|---|----------------|-------------|
| N/A | N/A | B0:83:FE:E7:C6:63 | Broadcom Gigabit Ethernet BCM5720 - B0:83:FE:E7:C6:63 | N/A | N/A |
| N/A | N/A | B0:83:FE:E7:C6:64 | Broadcom Gigabit Ethernet BCM5720 - B0:83:FE:E7:C6:64 | N/A | N/A |
| N/A | N/A | B0:83:FE:E7:C6:65 | Broadcom Gigabit Ethernet BCM5720 - B0:83:FE:E7:C6:65 | N/A | N/A |

Figure 12 XC Series Appliance without Application Management URL Classification and Inventory

4.4.3 XC Series models supported by OpenManage Essentials

Refer to the Table 5 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

4.5 View Disk Backup appliances in OpenManage Essentials

The Disk backup appliances are classified under **All Devices** → **RAC/Server** in the device tree. The device type is Server. Click the discovered device to see all the inventoried tables as shown in the sample screen shot.

The screenshot displays the OpenManage Essentials interface. On the left, a tree view under 'All Devices' shows 'RAC' expanded, with 'AJAYADOM01' selected. The main panel shows the details for 'AJAYADOM01', including a 'Device Summary' table, 'RAC Device Information', 'OS Information', 'Data Sources', and 'NIC Information'.

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Node Id | Asset Tag | Express Service Code | System Uptime | Total Installed Memory (MB) |
|---------------|-------------------|-------------|-------------|-------------|-------------|---------|-----------|----------------------|-----------------|-----------------------------|
| On | On | AJAYADOM01 | Server | Dell DR6300 | 73FVC2S | 73FVC2S | N/A | 15445531108 | 32d:11h:47m:41s | 57344 |

| RAC IP Address | RAC Type | RAC DNS Name | RAC Connection Status |
|----------------|--------------------------|--------------|-----------------------|
| 100.96.25.76 | Remote Access Controller | N/A | On |

| OS Name | OS Total Physical Memory(MB) | OS Locale | OS Revision | Service Pack Version |
|------------------------|------------------------------|-----------|-------------|----------------------|
| Windows Server 2012 R2 | N/A | N/A | 6.3 | N/A |

| Global Status | Name | Version | Description | Manufa |
|---------------|--|------------|---|----------|
| On | Integrated Dell Remote Access Controller | 2.32.31.30 | This system component provides a complete set of remote management functions for Dell PowerEdge servers | Dell Inc |

| IPv4 Address | IPv6 Address | MAC Address | Current MAC Address | Description | TOE Capability | TOE Enabled |
|--------------|--------------|-------------------|---------------------|---|----------------|-------------|
| N/A | N/A | 24:B6:FD:F5:4D:0D | 24:B6:FD:F5:4D:0D | Broadcom Gigabit Ethernet BCM5720 - 24:B6:FD:F5:4D:0D | N/A | N/A |
| N/A | N/A | 24:B6:FD:F5:4D:0E | 24:B6:FD:F5:4D:0E | Broadcom Gigabit Ethernet BCM5720 - 24:B6:FD:F5:4D:0E | N/A | N/A |

Figure 13 Disk Backup Appliance Classification and Inventory

4.5.1 Disc Backup appliance supported by OpenManage Essentials

Refer to the Table 11 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

4.6 Dell EMC Networking X-Series Smart Managed Switches

Dell EMC Networking X-Series Smart Managed devices are classified under **All Devices** → **Network Devices** → **Dell EMC Networking Switches** in the device tree. You can click the discovered device to see all the inventoried tables as shown in the sample screen shot.

The screenshot displays the Dell EMC OpenManage Essentials interface. On the left, a navigation tree shows the classification path: All Devices > Network Devices > Dell EMC Networking Switches > X1008P switch. The main area shows the 'X1008P switch' details page. The 'Device Summary' table includes the following data:

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time |
|---------------|-------------------|---------------|---------------------|--------|-------------|-----------|----------------------|----------|----------|-----------------------|
| | On | X1008P switch | Dell EMC Networking | X1008P | GRPR9T1 | N/A | 365 043 669 49 | N/A | F | 5/10/2017 3:31:34 AM |

The 'Data Sources' table includes the following data:

| Global Status | Name | Version | Description | Manufacturer |
|---------------|--------|----------|---|--------------|
| | X1008P | 3.0.0.64 | Dell EMC Networking X1008P 1Gb PoE Switch | Dell Inc |

The 'NIC Information' table includes the following data:

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|--------------|--------------|-------------------|-------------|----------------|-------------|
| 100.96.7.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 10 | N/A | N/A |
| 100.96.255.4 | N/A | 00:01:e8:8b:7a:74 | Vlan 1000 | N/A | N/A |
| 100.96.7.129 | N/A | 00:01:e8:8b:7a:74 | Vlan 11 | N/A | N/A |
| 100.96.8.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 12 | N/A | N/A |
| 100.96.9.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 13 | N/A | N/A |
| 100.96.10.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 14 | N/A | N/A |
| 100.96.11.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 15 | N/A | N/A |
| 100.96.12.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 16 | N/A | N/A |

Figure 14 Dell EMC Networking X-Series Smart Managed Classification and Inventory

4.6.1 Networking X-Series Smart Managed switch models supported by OpenManage Essentials

Refer to the Table 12 in *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

4.7 View Dell EMC EqualLogic groups in OpenManage Essentials

Dell EMC EqualLogic groups are classified under **All Devices** → **Storage Devices** → **Dell EMC EqualLogic Groups** in the device tree. A discovered Dell EMC EqualLogic Group is represented as shown in the sample screen shot.

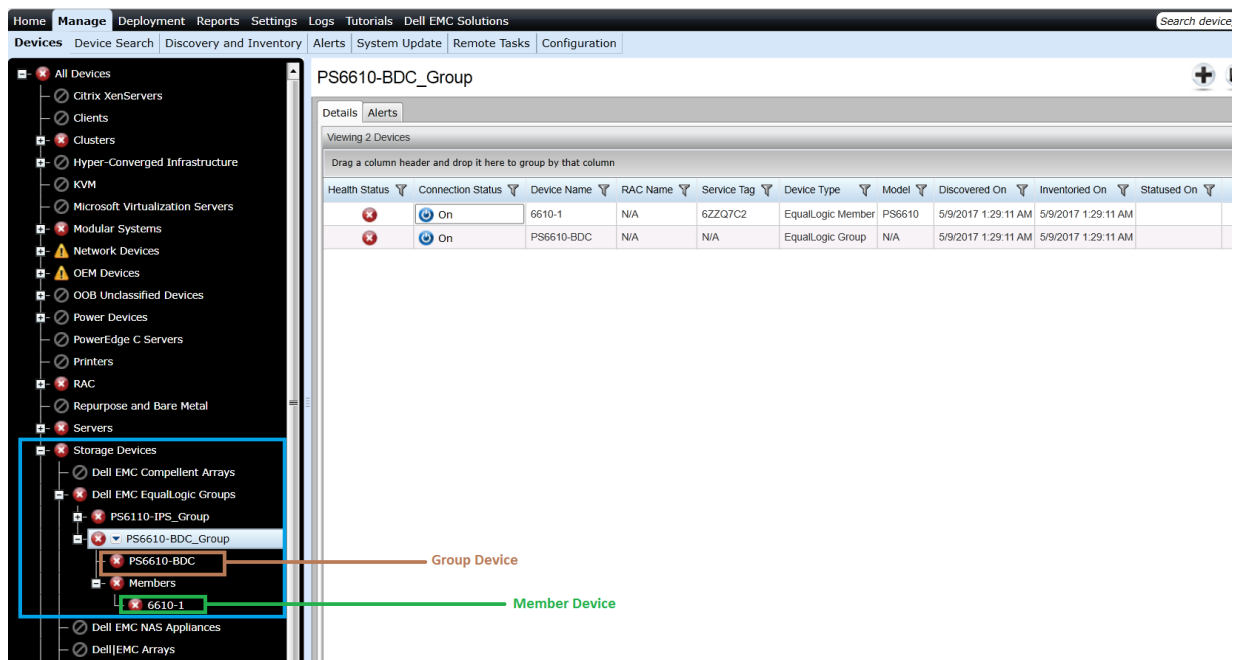


Figure 15 Dell EMC EqualLogic Group Representation

The Dell EMC EqualLogic device is no longer represented as a single device. Instead, it is represented as a group, where:

- The Group Device contains group-level data.
- The Member Device contains member-specific data.

Dell EMC EqualLogic groups are auto-generated during the discovery process. The groups are deleted automatically when either the group device or the corresponding discovery range is deleted. Every discovered EqualLogic group will have one group device and multiple member devices based on the number of enclosures added to the group.

4.7.1 Group device tables in OpenManage Essentials

The following tables are displayed as part of the Inventory Details page for the EqualLogic Group device:

- Device Summary—Model and Service Tag will be displayed as N/A for the EqualLogic Group device.
- Data Sources—Displays the group-level health status and other details.
- NIC Information—Lists only the EqualLogic management and storage group IP addresses.
- Storage Group Information—Displays information about the storage group.
- EqualLogic Volume Information—Lists the volumes created under a group.

The screenshot displays the Dell EMC OpenManage Essentials interface for a PS6610-BDC device. The left sidebar shows a navigation tree with categories like All Devices, Citrix XenServers, Clients, Clusters, Hyper-Converged Infrastructure, KVM, Microsoft Virtualization Servers, Modular Systems, Network Devices, OEM Devices, OOB Unclassified Devices, Power Devices, PowerEdge C Servers, Printers, RAC, Repurpose and Bare Metal, Servers, Storage Devices, Dell EMC Compellent Arrays, Dell EMC EqualLogic Groups, PS6610-IPS_Group, PS6610-BDC_Group, PS6610-BDC, Members, 6610-1, Dell EMC NAS Appliances, Dell EMC Arrays, PowerVault MD Arrays, and Tape Devices. The main content area shows the following tables:

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time |
|---------------|-------------------|-------------|------------------|-------|-------------|-----------|----------------------|----------|----------|-----------------------|
| On | On | PS6610-BDC | EqualLogic Group | N/A | N/A | N/A | N/A | N/A | N/A | 5/9/2017 1:29:11 AM |

| Global Status | Name | Version | Description | Manufacturer |
|---------------|-----------------------|---------|-----------------------|--------------|
| On | EqualLogic SNMP Agent | N/A | EqualLogic SNMP Agent | Dell Inc |

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|---------------|--------------|-------------|--------------------------|----------------|-------------|
| 100.96.13.160 | N/A | N/A | EqualLogic Storage Group | N/A | N/A |

| Name | Lun ID | Host Name |
|------------|--------|-----------|
| PS6610-BDC | 1 | N/A |

| Target ID | Lun ID | Name | Device Name | Size (GB) |
|--|--------|-----------------|-------------|-----------|
| iqn.2001-05.com.equallogic:4-771816-4ca72f444-5950000001258823-v | 1 | vss-control | 972293322 | 0 |
| iqn.2001-05.com.equallogic:4-771816-4ce72f444-7340000001358823-p | 2 | pe-control-vol | 972293322 | 0 |
| iqn.2001-05.com.equallogic:xpr-control-target-d811cbcc-13db-11e7 | 3 | xpr-control-vol | 972293322 | 0 |

Figure 16 Dell EMC EqualLogic Group Device Inventory

4.7.2 Member device tables in OpenManage Essentials

The following tables are displayed as part of the Inventory Details page for the EqualLogic member device:

- Device Summary—Displays the member-specific model and Service Tag.
- Data Sources—Displays the member-specific health status and other details.
- NIC Information—Lists only the member-specific IP addresses.
- Controller Information—Lists the controllers associated to the selected member.
- Enclosure Information—Lists more details about the selected member.
- Physical Disk Information—Lists the disks residing in the selected member enclosure.

The screenshot displays the Dell EMC OpenManage Essentials interface for a specific device (6610-1). The left-hand navigation pane shows a tree view of device categories, with 'Storage Devices' expanded to show 'Dell EMC EqualLogic Groups' and 'Members', where '6610-1' is selected. The main content area is titled '6610-1' and contains several informational sections:

- Device Summary:** A table with columns: Health Status (red icon), Connection Status (On), Device Name (6610-1), Device Type (EqualLogic Member), Model (PS6610), Service Tag (6ZZQ7C2), Asset Tag (N/A), Express Service Code (N/A), Location (N/A), Revision (N/A), and Device Discovery Time (5/9/2017 1:29:11 AM).
- Data Sources:** A table with columns: Global Status (red icon), Name (EqualLogic SNMP Agent), Version (N/A), Description (EqualLogic SNMP Agent), and Manufacturer (Dell Inc).
- NIC Information:** A table with columns: IPv4 Address (100.96.13.161), IPv6 Address (N/A), MAC Address (N/A), Description (eth0), TOE Capability (N/A), and TOE Enabled (N/A).
- Controller Information:** A table with columns: Number, Name, Type, and Firmware Version. It lists two controllers with names like CN-0KPDMMH and firmware version V9.0.5 (R430781).
- Enclosure Information:** A table with columns: Enclosure ID, Service Tag, Name, Product ID, Type, Serial Number, Vendor, and Number Of Controllers. It shows enclosure 972293322 with 2 controllers.

Figure 17 Dell EMC EqualLogic Member Device Inventory I

This screenshot shows the same device (6610-1) in the Dell EMC OpenManage Essentials interface, but with the 'Physical Disk Information' section expanded. The left navigation pane is identical to Figure 17. The main content area displays a table of physical disks:

| Enclosure ID | LUN ID | Size (GB) | Bus Type | Serial Number | Model Number | Revision |
|--------------|--------|-----------|----------|---------------|--------------|----------|
| 972293322 | 0 | 838 | sas | S0N58ED3 | ST900MM0006 | LE0B |
| 972293322 | 1 | 838 | sas | S0N55HEE | ST900MM0006 | LE0B |
| 972293322 | 3 | 838 | sas | S0N55HCS | ST900MM0006 | LE0B |
| 972293322 | 4 | 838 | sas | S0N57P9K | ST900MM0006 | LE0B |
| 972293322 | 5 | 838 | sas | S0N522J9 | ST900MM0006 | LE0B |
| 972293322 | 6 | 838 | sas | S0N52416 | ST900MM0006 | LE0B |
| 972293322 | 7 | 838 | sas | S0N5789R | ST900MM0006 | LE0B |
| 972293322 | 8 | 838 | sas | S0N55JCC | ST900MM0006 | LE0B |
| 972293322 | 9 | 838 | sas | S0N55H57 | ST900MM0006 | LE0B |
| 972293322 | 10 | 838 | sas | S0N525K4 | ST900MM0006 | LE0B |
| 972293322 | 11 | 838 | sas | S0N55GN2 | ST900MM0006 | LE0B |
| 972293322 | 12 | 838 | sas | S0N55J76 | ST900MM0006 | LE0B |
| 972293322 | 13 | 838 | sas | S0N52501 | ST900MM0006 | LE0B |
| 972293322 | 14 | 838 | sas | S0N55GYW | ST900MM0006 | LE0B |
| 972293322 | 15 | 838 | sas | S0N522HB | ST900MM0006 | LE0B |
| 972293322 | 16 | 838 | sas | S0N527ZL | ST900MM0006 | LE0B |
| 972293322 | 17 | 838 | sas | S0N55KV6 | ST900MM0006 | LE0B |
| 972293322 | 18 | 838 | sas | S0N52P6E | ST900MM0006 | LE0B |
| 972293322 | 19 | 838 | sas | S0N55GFV | ST900MM0006 | LE0B |
| 972293322 | 20 | 838 | sas | S0N55H3D | ST900MM0006 | LE0B |
| 972293322 | 21 | 838 | sas | S0N55HHY | ST900MM0006 | LE0B |
| 972293322 | 22 | 838 | sas | S0N526HV | ST900MM0006 | LE0B |

Figure 18 Dell EMC EqualLogic Member Device Inventory II

4.7.3 Supported actions for Dell EqualLogic group in OpenManage Essentials

The following table lists the supported actions and their behavior for Dell EMC EqualLogic groups.

Table 2 Dell EMC EqualLogic Group - Supported Actions

| Action | Group Device | Member Device |
|-------------------------------|---|--|
| Application Launch | Dell EMC EqualLogic console | View and renew warranty |
| Refresh Inventory | Updates inventory for the entire group; re-creates any deleted members. | Updates inventory for the entire group; re-creates any deleted members. |
| Refresh Status | Updates the status of the entire group including all members. | Updates the status of the entire group including all members. |
| Add to New Group | Supported. | Supported. |
| Ignore All Alerts from | Ignores all alerts coming from the EqualLogic Group device only. | Ignores all alerts coming from the selected member only. |
| Exclude | Supported. | Not Supported. |
| Delete | Deletes the entire group including all members. | Deletes only the selected member. |

4.7.4 Event association for Dell EMC EqualLogic Group

Dell EMC EqualLogic member SNMP alerts are associated at member-device level and not at the group-device level. Alerts tab for the EqualLogic member device will list all the alerts received from the selected member as shown in the following sample screen shots:

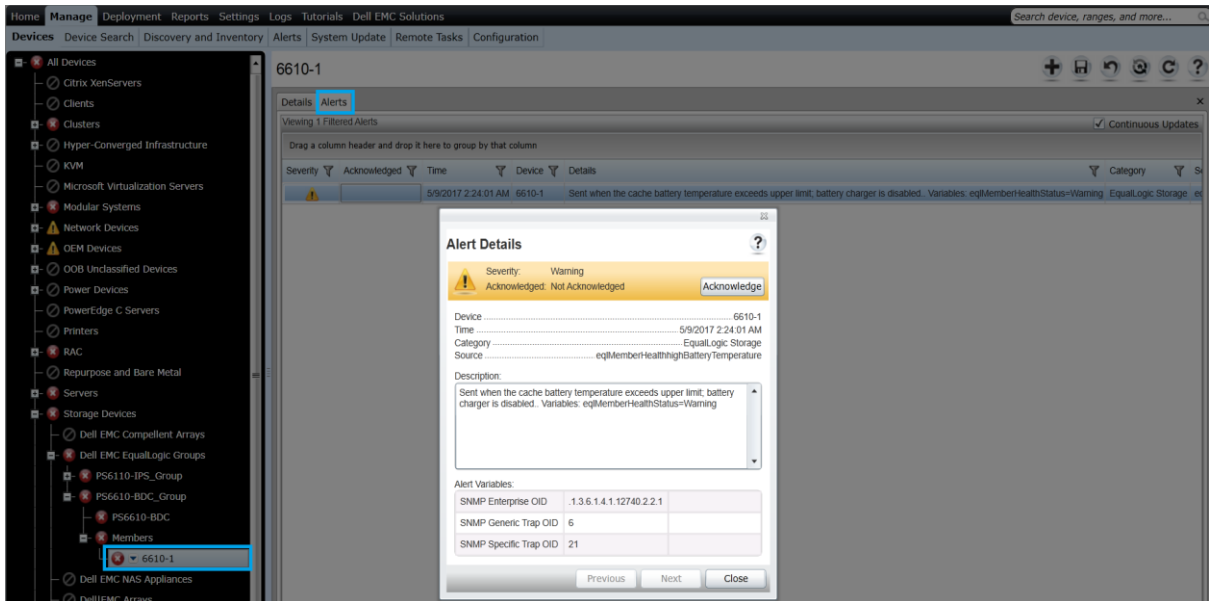


Figure 19 Dell EMC EqualLogic Member Event Association I

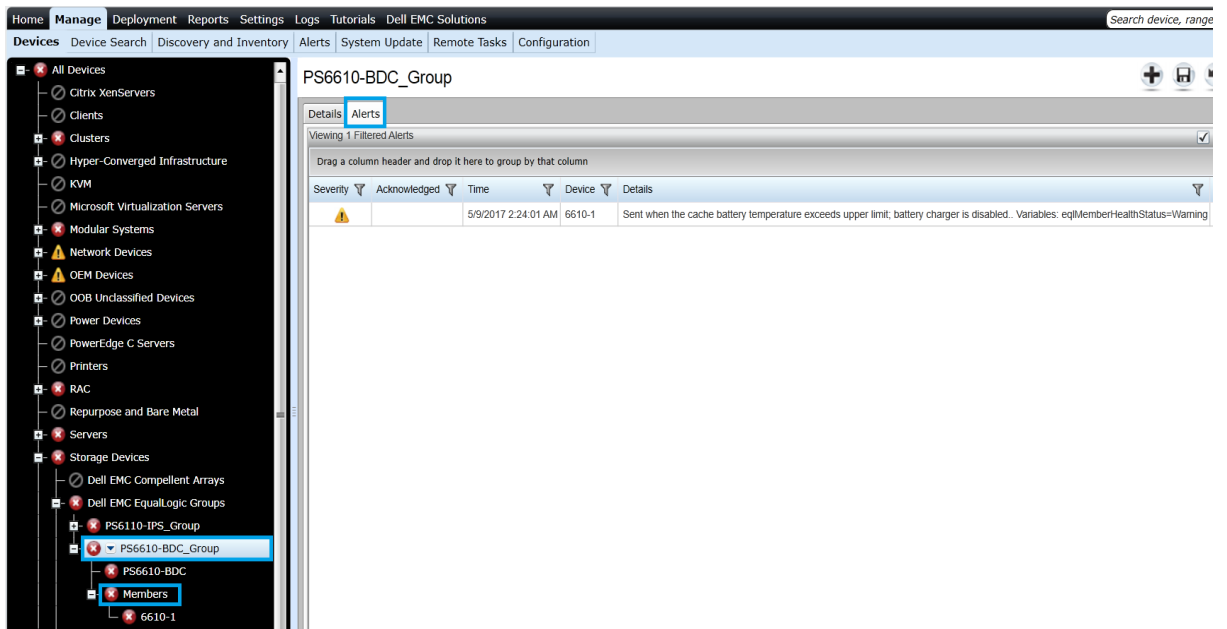


Figure 20 Dell EMC EqualLogic Member Event Association II

4.7.5 Recommendations for Dell EMC EqualLogic group discovery

The following are recommended for proper support of Dell EMC EqualLogic groups in OpenManage Essentials:

- After upgrading from previous versions of OpenManage Essentials, it is mandatory to perform re-discovery of all the discovered Dell EMC EqualLogic devices to ensure proper functionality.
- It is recommended to discover Dell EMC EqualLogic storage arrays by using the group management IP address or storage group IP address only, and not include any of the member IP addresses in the discovery range configuration.

Note—The back-end Dell EMC EqualLogic storage of a FS7500, FS7600, and FS7610 NAS setup is classified as Dell EMC EqualLogic Groups instead of Dell EMC NAS Appliances in OpenManage Essentials.

4.7.6 Dell EMC EqualLogic supported models in OpenManage Essentials

Refer to the Table 7 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

4.8 Dell EMC NAS appliances

The Dell EMC NAS appliances are classified under **All Devices** → **Storage Devices** → **Dell EMC NAS Appliances** in the device tree. You can click the discovered device to see all the inventoried tables.

4.8.1 View NAS Appliances with FluidFS v1.0 in OpenManage Essentials

The classification and inventory for Dell EMC NAS Appliances with FluidFS v1.0 is done as shown in the following sample screen shot.

The screenshot shows the OpenManage Essentials interface. On the left, the device tree is expanded to show 'NASGrp' under 'Dell EMC NAS Appliances'. The main panel displays the following information:

Device Summary

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time | Device Inventory Time | Device Status |
|---------------|-------------------|-------------|---------------|-------------------|-------------|-----------|----------------------|----------|----------|-----------------------|-----------------------|---------------|
| ✓ | On | NASGrp | NAS Appliance | PowerVault NX3500 | AQ2F63 | N/A | 56854239741 | LAB | N/A | 5/10/2017 6:50:02 AM | 5/11/2017 6:24:47 PM | 100% |

Data Sources

| Global Status | Name | Version | Description | Manufacturer |
|---------------|---|---------|--|--------------|
| ✓ | Server Administrator | 7.2.0 | Management software for Dell systems. | Dell Inc. |
| ⚠ | Server Administrator (Storage Management) | 4.2.0 | Configuration and monitoring of disk storage devices. | Dell Inc. |
| ✓ | Inventory Collector Agent | 7.2.0 | Provides information about devices running on the local system. | Dell Inc. |
| ✓ | Extranet SNMP Agent | 1.0 | SNMP Agent to discover Dell NAS Appliances with Fluid File System. | Dell |

NIC Information

| IPV4 Address | IPV6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|--------------|--------------|-------------|------------------|----------------|-------------|
| 100.100.32.9 | N/A | N/A | Host NIC adapter | N/A | N/A |
| 100.100.32.8 | N/A | N/A | Host NIC adapter | N/A | N/A |

Appliance Node Information

| Index | Status | Name | Model | Version | Service Tag | Chassis Service Tag | Vendor |
|-------|--------|------|--------|---------|-------------|---------------------|--------|
| 1 | On | N/A | fs8610 | N/A | 581P5X1 | N/A | Dell |

Figure 21 Dell EMC PowerVault NX3500 Classification and Inventory

Note—For the Dell EMC NAS appliances with FluidFS v1.0, discovery, inventory, and alerts/traps support are provided only for the solutions with Fluid File System (FluidFS) v1.0 that have

OpenManage Server Administrator (OMSA) services running on the nodes. This is the default setting for any node with FluidFS v1.0. The Appliance Node Information table lists the applicable details about the nodes present in the NAS solution. Other inventory details match the standard PowerEdge server inventory in OpenManage Essentials.

4.8.2 View NAS Appliances with FluidFS v3.0 in OpenManage Essentials

The classification and inventory for Dell EMC NAS Appliances with FluidFS v3.0 is shown in the following sample screen shot.

The screenshot shows the OpenManage Essentials interface. On the left, a navigation tree is visible with 'NAS Clusters' and 'FluidFS-581P5X1' highlighted. The main content area displays the 'Device Summary' for 'FluidFS-581P5X1'. Below this, there are sections for 'Data Sources', 'NIC Information', 'Appliance Node Information', 'External Server Information', and 'Storage Subsystem Information'. The 'Appliance Node Information' table is as follows:

| Index | Status | Name | Model | Version | Service Tag | Chassis Service Tag | Vendor |
|-------|--------|------|--------|---------|-------------|---------------------|--------|
| 1 | On | N/A | fs9510 | N/A | 581P5X1 | N/A | Dell |

The 'External Server Information' table is as follows:

| Index | Hostname or IP | Type | State |
|------------|----------------|---------|-----------|
| 1045934304 | 172.29.49.5 | DNS | AVAILABLE |
| 1313264220 | 172.29.86.1 | GATEWAY | AVAILABLE |

Figure 22 Dell EMC NAS Appliance with FluidFS v3.0 Classification and Inventory

A Dell EMC NAS Appliance with FluidFS v3.0 discovered in OpenManage Essentials represents a cluster of nodes. The Appliance Node Information table lists the nodes participating in a particular cluster. It is highly recommended to include all node IP addresses in the discovery range configuration while discovering a NAS cluster with FluidFS v3.0. This enables OpenManage Essentials to properly associate SNMP alerts coming from various participating nodes with the discovered cluster.

The **NAS Clusters** device group will group together Dell EMC NAS appliance and the participating Dell EMC EqualLogic group(s). This grouping is available only for Dell EMC EqualLogic-based Dell EMC NAS appliances that are running with Fluid FS v3.0.

Note—The NAS Clusters device group displays only the Dell EMC NAS Appliance association with the Dell EMC EqualLogic Group device. The Dell EMC EqualLogic member devices will not be displayed in this grouping.

A new device group (Clusters) is created to group together HA Clusters and NAS Clusters as shown in the following sample screen shot:

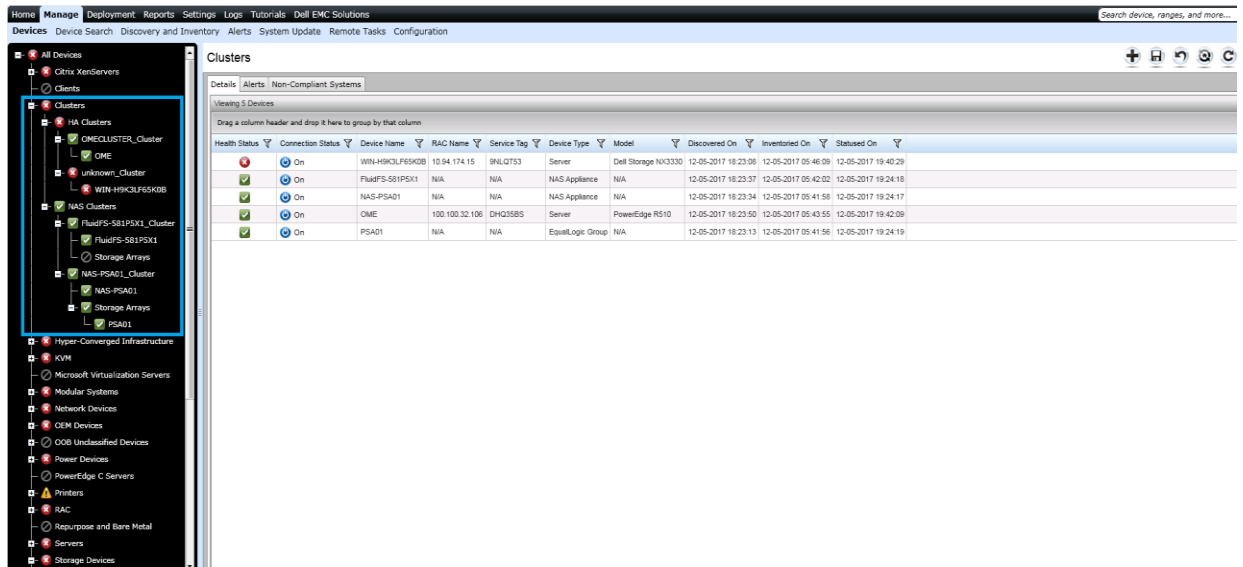


Figure 23 Clusters device group – HA Clusters and NAS Clusters

4.8.3 NAS appliances supported by OpenManage Essentials

OpenManage Essentials currently supports following Dell EMC NAS appliances:

- Appliances with FluidFS v1:
 - Dell PowerVault NX3500 (see the Table 8 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix*)
- Appliances with FluidFS v3:
 - Dell EqualLogic FS7500, FS7600, and FS7610 (see the Table 7 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix*)
 - Dell Compellent FS8600 (see the Table 10 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix*)
- Windows Dell EMC NAS Appliances:
 - Dell PowerVault NX3230 (see the Table 8 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix*)
 - Dell PowerVault NX3330 (see the Table 8 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix*)

4.9 SonicWALL Firewall

The SonicWALL Firewall devices are classified under **All Devices** → **Network Devices** → **Network Appliances** in the device tree. You can click the discovered device to see all the inventoried tables as shown in the following sample screen shot.

The screenshot displays the Dell EMC OpenManage Essentials interface. On the left, a navigation tree under 'All Devices' shows the path: All Devices > Network Devices > Network Appliances > sonicwall-23-23-23. The main content area shows the details for 'sonicwall-23-23-23'. The 'Device Summary' table is as follows:

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time | Device Inventory Time | Device Status Time |
|---------------|-------------------|--------------------|-------------------|-----------|-------------|-----------|----------------------|----------|----------|-----------------------|-----------------------|--------------------|
| On | On | sonicwall-23-23-23 | Network Appliance | NSA 250 M | N/A | 123456 | N/A | bdc | 5.0.5.6 | 5/10/2017 6:53:20 AM | 5/10/2017 6:44:36 PM | 5/11/2017 4:23:38 |

The 'Data Sources' table is as follows:

| Global Status | Name | Version | Description | Manufacturer |
|---------------|----------------------|-------------------------------|--|--------------|
| On | SonicWALL SNMP Agent | SonicOS Enhanced 5.9.0.1-1000 | SNMP Agent to discover Dell SonicWALL Firewall Appliance | Dell |

The 'NIC Information' table is as follows:

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|----------------|--------------|-------------|------------------|----------------|-------------|
| 100.100.32.161 | N/A | N/A | Host NIC adapter | N/A | N/A |

The 'Firmware Information' table is as follows:

| Name | Version | Enclosure ID | Type |
|---------|-------------------------------|--------------|----------|
| SonicOS | SonicOS Enhanced 5.9.0.1-1000 | 0 | Firmware |

The 'Contact Information' table is as follows:

| Name | Description | Contact Information |
|----------|---|---------------------|
| dell.com | SonicWALL NSA 250 M (SonicOS Enhanced 5.9.0.1-1000) | bdc |

Figure 24 SonicWALL Firewall Classification and Inventory

Supported Models

Refer to the Table 13 in *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

Global health status for SonicWALL Firewall devices will always be displayed as 'Unknown' in OpenManage Essentials. This is because the SonicWALL SNMP agent does not report device health through its Management Information Base (MIB). SonicWALL SNMP agent runs on SonicOS, which is also available on the following platforms:

- TZ 100/100W, TZ 105/105W, TZ 200/200W, TZ 210 and TZ210W, and TZ 215 and TZ215W
- NSA 220 NAS 220W, NSA 240, and NSA 250M and NSA 250MW
- NSA 2400 and NSA 2400MX, NSA 3500, NSA 4500, and NSA 5000
- E-Class NSA E5500, E6500, E7500, E8500, and E8510

Because these models run the same firmware, they may also be classified in OME similar to NSA 250M.

4.10 View PowerConnect W-Series devices in OpenManage Essentials

PowerConnect W-Series devices are classified under **All Devices** → **Network Devices** → **Dell EMC Networking Switches** in the device tree. You can click the discovered device to see all the inventoried tables as shown in the following sample screen shot.

The screenshot displays the Dell EMC OpenManage Essentials interface. On the left, a navigation tree under 'All Devices' shows the path: All Devices > Network Devices > Dell EMC Networking Switches > Dell-W-3600. The main panel shows the 'Dell-W-3600' details page with the following sections:

- Device Summary**: A table with columns: Health Status, Connection Status, Device Name, Device Type, Model, Service Tag, Asset Tag, Express Service Code, Location, Revision, Device Discovery Time, Device Inventory Time, Device Status Time. The row shows: On, Dell-W-3600, Dell EMC Networking, W-3600-US, NSW1901, none, N/A, N/A, N/A, 5/10/2017 12:38:55 PM, 5/10/2017 6:40:38 PM, 5/11/2017 4:21:29 AM.
- Data Sources**: A table with columns: Global Status, Name, Version, Description, Manufacturer. The row shows: PowerConnect W, 6.3.0.1, Wireless Access Point, Dell Inc.
- NIC Information**: A table with columns: IPv4 Address, IPv6 Address, MAC Address, Description, TOE Capability, TOE Enabled. The row shows: 100.100.63.135, N/A, N/A, 802.1Q VLAN, N/A, N/A.
- Firmware Information**: A table with columns: Name, Version, Enclosure ID, Type. The row shows: PowerConnect W, 6.3.0.1, 0, Firmware.
- Switch Device Information**: A table with columns: Index, Service Tag, Serial Number, Asset Tag, Switch Role. The row shows: 1, NSW1901, CN0WQWF42829843P003AA00, none, N/A.

Figure 25 PowerConnect W-Series Classification and Inventory

4.10.1 PowerConnect W-Series models supported in OpenManage Essentials

Refer to the Table 12 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

Note—The PowerConnect W-Series devices will report only Normal or Critical (for active or inactive controllers) global health status. It is recommended to have the ArubaOS version 6.3 or later installed on the mobility controllers for proper discovery and classification in OME.

4.11 View Brocade Fibre Channel devices in OpenManage Essentials

The Brocade Fibre Channel devices are classified under **All Devices** → **Network Devices** → **Fibre Channel Switches** in the tree on the left side. You can click the discovered device to see all the inventoried tables as shown in the following sample screen shot.

4.11.1 Brocade Fibre Channel devices supported in OpenManage Essentials

Refer to the Table 14 in *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

The screenshot displays the Dell EMC OpenManage Essentials interface. On the left, a navigation tree under 'All Devices' shows the path: Network Devices > Dell EMC Networking Switches > Fibre Channel Switches > SW6505. The main panel shows the details for device SW6505, including a 'Device Summary' table, 'Data Sources', 'NIC Information', 'Firmware Information', and 'Contact Information' sections.

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time | Device Inventory Time | Device Status |
|--------------------------------------|--|-------------|-------------|-------|-------------|-----------|----------------------|------------------|----------|-----------------------|-----------------------|---------------|
| ✔ | 🔄 On | SW6505 | FC Switch | 650 | 4GQY7P1 | N/A | N/A | End User Premise | N/A | 5/9/2017 1:07:11 AM | 5/9/2017 1:07:11 AM | 5/9/2017 2:24 |

| Global Status | Name | Version | Description | Manufacturer |
|--------------------------------------|---------------|---------|---|--------------|
| ✔ | FC SNMP Agent | N/A | SNMP Agent to discover Fibre Channel Switches | Brocade |

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|---------------|--------------|-------------------|-------------|----------------|-------------|
| 100.96.10.241 | N/A | 50:eb:1a:1c:e9:06 | eth0 | N/A | N/A |

| Name | Version | Enclosure ID | Type |
|-----------|---------|--------------|------------------|
| Fabric-OS | 118.1 | 0 | Hardware version |
| Fabric-OS | v7.2.0a | 0 | FOS version |

| Name | Description | Contact Information |
|---------------|----------------------|---------------------|
| Field Support | Fibre Channel Switch | End User Premise |

Figure 26 Brocade Fiber Channel Classification and Inventory

4.12 View Dell EMC Compellent arrays in OpenManage Essentials

The Dell EMC Compellent devices are classified under **All Devices** → **Storage Devices** → **Dell EMC Compellent Arrays** in the device tree. You can click the discovered device to see all the inventoried tables as shown in the following sample screen shots.

The screenshot displays the Dell EMC OpenManage Essentials interface. On the left, the 'All Devices' tree is shown with 'Storage Devices' expanded to 'Dell EMC Compellent Arrays', where 'Storage Center 71324' is selected. The main panel shows the details for 'Storage Center 71324'.

Device Summary

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time | Device Inventory Time | Device Status |
|---------------|-------------------|----------------------|-------------|--------|-------------|-----------|----------------------|----------|-----------|-----------------------|-----------------------|---------------|
| On | On | Storage Center 71324 | Compellent | SC4020 | 123456789 | N/A | N/A | N/A | 6.5.30.17 | 5/9/2017 3:00:51 AM | 5/9/2017 3:00:51 AM | N/A |

Data Sources

| Global Status | Name | Version | Description | Man |
|---------------|--------------------------------|---------|--|-------|
| On | Dell-Compellent Storage Center | 6.5.30 | The Dell Compellent Storage Center storage area network provides a highly efficient and flexible virtualized storage platform for enterprises and the cloud. | Dell- |

NIC Information

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|---------------|--------------|-------------------|-------------|----------------|-------------|
| 100.96.27.205 | N/A | 00:50:cc:7d:8f:3c | eth0 | N/A | N/A |
| 100.96.27.203 | N/A | 00:50:cc:7d:8f:54 | eth0 | N/A | N/A |
| 100.96.27.201 | N/A | 00:50:cc:7d:8f:3c | eth0 | N/A | N/A |
| 169.254.1.102 | N/A | 00:00:00:01:00:00 | eth1 | N/A | N/A |

Controller Information

| Number | Name | Model | Service Tag | Asset Tag |
|--------|----------|--------|-------------|-----------|
| 1 | SN 71324 | SC4020 | 123456789 | N/A |
| 2 | SN 71325 | SC4020 | F9LVH62 | N/A |

Figure 27 Dell EMC Compellent Arrays Classification

Details Alerts

Device Summary

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time | Device Inventory Time | Device SI |
|---------------|-------------------|----------------------|-------------|--------|-------------|-----------|----------------------|----------|-----------|-----------------------|-----------------------|-----------|
| | On | Storage Center 71324 | Compellent | SC4020 | 123456789 | N/A | N/A | N/A | 6.5.30.17 | 5/9/2017 3:00:51 AM | 5/9/2017 3:00:51 AM | N/A |

Data Sources

| Global Status | Name | Version | Description |
|---------------|--------------------------------|---------|--|
| | Dell-Compellent Storage Center | 6.5.30 | The Dell Compellent Storage Center storage area network provides a highly efficient and flexible virtualized storage platform for enterprises and the cloud. |

NIC Information

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|---------------|--------------|-------------------|-------------|----------------|-------------|
| 100.96.27.205 | N/A | 00:50:cc:7d:8f:3c | eth0 | N/A | N/A |
| 100.96.27.203 | N/A | 00:50:cc:7d:8f:54 | eth0 | N/A | N/A |
| 100.96.27.201 | N/A | 00:50:cc:7d:8f:3c | eth0 | N/A | N/A |
| 169.254.1.102 | N/A | 00:00:00:01:00:00 | eth1 | N/A | N/A |

Controller Information

| Number | Name | Model | Service Tag | Asset Tag |
|--------|----------|--------|-------------|-----------|
| 1 | SN 71324 | SC4020 | 123456789 | N/A |
| 2 | SN 71325 | SC4020 | F9LVH82 | N/A |

Enclosure Information

| Channel Number | Enclosure ID | Service Tag | Name | Product ID | Type | SCSI ID | Asset Name | Asset Tag | Serial Number | Part Number | Backplane Part Number | Vendor | Current Config Mo |
|----------------|--------------|-------------|---------------|------------|-------------|---------|------------|-----------|---------------|-------------|-----------------------|--------|-------------------|
| N/A | 1 | F9LVH82 | Enclosure - 1 | N/A | SAS_EBOD_6G | N/A | N/A | | N/A | EN-SC4020 | N/A | N/A | N/A |

Physical Disk Information

| Enclosure ID | Disk Number | Name | Size (GB) | Serial Number | Model Number | Revision | Vendor |
|--------------|-------------|-------|-----------|---------------|-------------------|----------|--------|
| 1 | 1 | 01-23 | 1800 | S3Z0TPHX | DELL ST1800MM0018 | TE2A | DELL |
| 1 | 2 | 01-13 | 1800 | S3Z0P3QX | DELL ST1800MM0018 | TE2A | DELL |
| 1 | 3 | 01-21 | 1800 | S3Z0S4Z3 | DELL ST1800MM0018 | TE2A | DELL |
| 1 | 4 | 01-06 | 1800 | S3Z0R37K | DELL ST1800MM0018 | TE2A | DELL |

Figure 28 Dell EMC Compellent Array Inventory Details

4.12.1 Compellent arrays Supported in OpenManage Essentials

Refer to the Table 10 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

Note—The Device Summary and Enclosure Information tables display the Service Tag in the Service Tag column only if the Dell EMC Compellent device is running the firmware version 6.4.1 or later. If the firmware version is earlier than 6.4.1, the “Service Tag” column displays “N/A”. The firmware version can be viewed under the “Agent Version” column of the “Data Sources” table as highlighted in Figure 28. It is suggested to update all target devices with the latest available firmware.

4.13 View Dell EMC Networking Switches in OpenManage Essentials

Dell EMC Networking devices are classified under **All Devices** → **Network Devices** → **Dell EMC Networking Switches** in the device tree. You can click the discovered device to see all the inventoried tables as shown in the following sample screen shot.

The screenshot shows the Dell EMC OpenManage Essentials interface. On the left, the device tree is expanded to show 'All Devices' > 'Network Devices' > 'Dell EMC Networking Switches' > 'IPS-Switch'. The main content area displays the details for the selected 'IPS-Switch' device. The 'Device Summary' table shows the device is online and provides various identification details. The 'Data Sources' table lists the installed agents. The 'NIC Information' table provides details for each network interface card, including IP addresses, MAC addresses, and descriptions.

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time | Device Inventory Time | Device St |
|---------------|-------------------|--------------|---------------------|---------------------|-------------|-----------|----------------------|----------|----------|-----------------------|-----------------------|-----------|
| ✓ | On | "IPS-Switch" | Dell EMC Networking | S4810 access switch | GRPR9T1 | N/A | 365 043 669 49 | N/A | F | 5/8/2017 11:36:55 PM | 5/8/2017 11:36:55 PM | N/A |

| Global Status | Name | Version | Description | Manufacturer |
|---------------|-------------------------------------|-------------|--|--------------|
| ✓ | Dell Networking S4810 switch/router | 9.10(0.1P3) | Dell Networking Ethernet Switch / Router | Dell Inc |
| ✓ | Force10 SNMP Agent | 9.10(0.1P3) | SNMP Agent to discover Dell Force10 | Dell |

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|--------------|--------------|-------------------|-------------|----------------|-------------|
| 100.96.7.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 10 | N/A | N/A |
| 100.96.255.4 | N/A | 00:01:e8:8b:7a:74 | Vlan 1000 | N/A | N/A |
| 100.96.7.129 | N/A | 00:01:e8:8b:7a:74 | Vlan 11 | N/A | N/A |
| 100.96.8.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 12 | N/A | N/A |
| 100.96.9.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 13 | N/A | N/A |
| 100.96.10.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 14 | N/A | N/A |
| 100.96.11.1 | N/A | 00:01:e8:8b:7a:74 | Vlan 15 | N/A | N/A |

Figure 29 Dell EMC Networking Switch Classification and Inventory

4.13.1 Networking switches supported in OpenManage Essentials

Refer to the Table 12 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

Note—Device type for the entire portfolio of Dell EMC switches is shown as Dell EMC Networking (this does not include Brocade Fiber Channel switches). This behavior is irrespective of whether or not the firmware on the switch device has been upgraded to the rebranded one.

Note—The “Device Summary” and “Switch Device Information” tables display the Service Tag in the “Service Tag” column only if the Dell EMC Networking device is running with the supported firmware versions or later. See Table 3 for firmware versions supporting Service Tag for corresponding Dell EMC Networking models. If the firmware version is earlier than those listed in Table 3, the “Service Tag” column displays “N/A”. The firmware version can be located in the “Version” column of the “Firmware Information” table.

4.14 View KVM devices in OpenManage Essentials

The KVM devices are classified under **All Devices** → **KVM** in the device tree. You can click the discovered device to see all the inventoried tables as shown in the following sample screen shot.

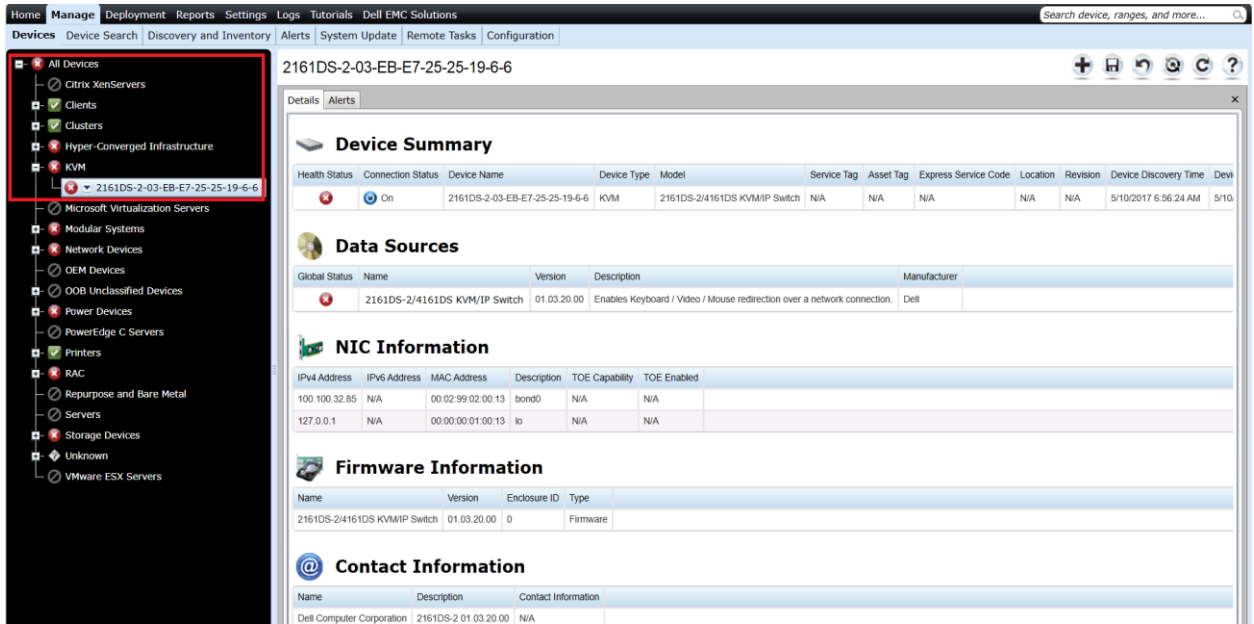


Figure 30 KVM Classification and Inventory

4.14.1 KVM devices Supported in OpenManage Essentials

Refer to the Table 17 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

Note: It is recommended to have latest firmware (version 1.16) installed on the KVM device for proper discovery and classification of the device in OpenManage Essentials.

4.15 View Power Device Units (PDUs) in OpenManage Essentials

The PDU devices are classified under **All Devices** → **Power Devices** → **PDU** in the device tree. You can click the discovered device to see all the inventoried tables as shown in the following sample screen shot.

The screenshot displays the OpenManage Essentials interface. On the left, a navigation tree under 'All Devices' shows 'Power Devices' expanded to 'PDU', with 'SSPDU027' selected. The main panel shows the details for 'SSPDU027'.

Device Summary

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time | Device Inv |
|---------------|-------------------|-------------|-------------|----------|-------------|-----------|----------------------|----------------|-------------------------|-----------------------|------------|
| | | SSPDU027 | PDU | DELL6605 | N/A | N/A | N/A | BDC SysMgt Lab | IN0K538N1874031LR026A01 | 5/9/2017 8:37:56 PM | 5/9/2017 5 |

Data Sources

| Global Status | Name | Version | Description | Manufacturer |
|---------------|---------------------|---------|---------------------------------|--------------|
| | Dell PDU SNMP Agent | N/A | SNMP Agent to discover Dell PDU | Dell |

NIC Information

| IPv4 Address | IPv6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|---------------|--------------|-------------------|-------------|----------------|-------------|
| 100.96.28.180 | N/A | 00:23:ae:e2:c9:7c | lance | N/A | N/A |
| 100.96.28.177 | N/A | 00:c0:b7:89:4a:af | lance | N/A | N/A |

Contact Information

| Name | Description |
|------------------|--|
| OME-OMPC-Sonylal | DELL Web/SNMP Management Card (MB V1.0/ PF v5.1.4 PN dell_hw05_aos_514 bin AF1 v5.1.2 AN1 dell_hw05_ipduc_512 bin MN DELL6605 HR:HW01 SN: IN0K538N1874031LR026A01 MD 01) |

Figure 31 PDU Classification and Inventory

4.15.1 PDUs supported in OpenManage Essentials

Refer to the Table 15 and Table 16 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

4.16 View UPS devices in OpenManage Essentials

The UPS devices are classified under **All Devices** → **Power Devices** → **UPS** in the device tree. You can click the discovered device to see all the inventoried tables as shown in the following sample screen shot.

The screenshot displays the Dell EMC OpenManage Essentials interface. On the left, a navigation tree under 'All Devices' shows the path: All Devices > Power Devices > UPS > UPS-H914N-25-25-19-19-19. The main panel shows the details for this specific UPS device, including a summary table, data sources, NIC information, contact information, and physical battery information.

| Health Status | Connection Status | Device Name | Device Type | Model | Service Tag | Asset Tag | Express Service Code | Location | Revision | Device Discovery Time | Device Inventory Time | Device Status |
|---------------|-------------------|--------------------------|-------------|-------|-------------|-----------|----------------------|----------|----------|-----------------------|-----------------------|---------------|
| On | On | UPS-H914N-25-25-19-19-19 | UPS | 0 | N/A | N/A | N/A | N/A | 0 | 5/10/2017 6:56:02 AM | 5/10/2017 6:44:12 PM | 5/11/2017 4:2 |

| Global Status | Name | Version | Description | Manufacturer |
|---------------|---------------------|---------|---------------------------------|--------------|
| 0 | Dell UPS SNMP Agent | 0 | SNMP Agent to discover Dell UPS | Dell |

| IPV4 Address | IPV6 Address | MAC Address | Description | TOE Capability | TOE Enabled |
|---------------|--------------|-------------|------------------|----------------|-------------|
| 100.100.32.99 | N/A | N/A | Host NIC adapter | N/A | N/A |

| Name | Description | Contact Information |
|-----------------------|-------------|---------------------|
| Computer Room Manager | UPS | Computer Room |

| ABM Status | Test Status | Seconds Remaining |
|------------|-------------|-------------------|
| 0 | 0 | 0 |

Figure 32 UPS Classification and Inventory





4.16.1 UPS devices supported in OpenManage Essentials

Refer to the Table 18 in the *Dell EMC OpenManage Essentials Version 2.5 Support Matrix* which is available in [Introduction](#).

5 View device health in OpenManage Essentials

The device health status reflects the overall health of the device contributed by their SNMP agent. The health status can be Critical, Warning, Normal, or Unknown.

Table 3 Device health status symbols in OpenManage Essentials

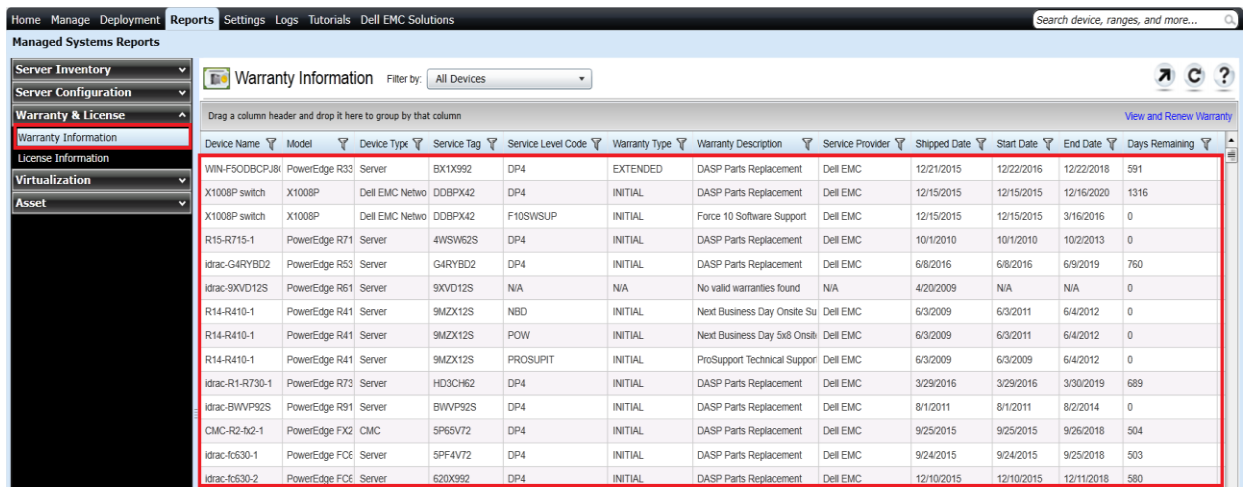
| Symbol | Description |
|---|--|
|  | Indicates that the device is critical and requires attention. This information is rolled up to the parent device type. For example if a PDU is in a critical state and requires attention the same symbol is assigned to the parent device type, for example, power devices. The critical health state is given the highest priority. That is, in a group, if different devices are in different states, and if one device is in a critical state, then the state of the parent device type is set to |
|  | Indicates that there is a deviation from the expected behavior, but the device is still manageable. |
|  | Indicates that the device is working as expected. |
|  | Indicates the device does not have proper instrumentation or the proper protocol was not used to discover the device. |

6 View Warranty in OpenManage Essentials

OpenManage Essentials supports device warranty information through the Warranty Information report. You can view and renew warranty on the Warranty Information report page. This warranty information is collected at the run time from the Dell Support website by providing corresponding Service Tag of the hardware.

The Warranty information is based on the Service Tag and is available for Dell EMC EqualLogic Groups, PowerVault NX3500, Brocade Fibre Channel, Dell EMC Compellent Arrays, Hyper-Converged Infrastructure, and Dell EMC Networking switches. Warranty information is not available for SonicWALL Firewall, PowerConnect W-Series, KVM, PDU, and UPS devices.

The warranty report can be viewed by clicking **Reports** → **Warranty & License** → **Warranty Information** as shown in following sample screen shot.



The screenshot shows the OpenManage Essentials interface with the 'Warranty Information' report selected. The report displays a table of device warranties with the following columns: Device Name, Model, Device Type, Service Tag, Service Level Code, Warranty Type, Warranty Description, Service Provider, Shipped Date, Start Date, End Date, and Days Remaining. The table contains 15 rows of data, including various server and switch models with their respective warranty details.

| Device Name | Model | Device Type | Service Tag | Service Level Code | Warranty Type | Warranty Description | Service Provider | Shipped Date | Start Date | End Date | Days Remaining |
|-----------------|---------------|----------------|-------------|--------------------|---------------|------------------------------|------------------|--------------|------------|------------|----------------|
| WIN-F50DBCPJ8I | PowerEdge R33 | Server | BX1X992 | DP4 | EXTENDED | DASP Parts Replacement | Dell EMC | 12/21/2015 | 12/22/2016 | 12/22/2018 | 591 |
| X1008P switch | X1008P | Dell EMC Netwo | DDBPX42 | DP4 | INITIAL | DASP Parts Replacement | Dell EMC | 12/15/2015 | 12/15/2015 | 12/16/2020 | 1316 |
| X1008P switch | X1008P | Dell EMC Netwo | DDBPX42 | F10SWSUP | INITIAL | Force 10 Software Support | Dell EMC | 12/15/2015 | 12/15/2015 | 3/16/2016 | 0 |
| R15-R715-1 | PowerEdge R71 | Server | 4WSW62S | DP4 | INITIAL | DASP Parts Replacement | Dell EMC | 10/1/2010 | 10/1/2010 | 10/2/2013 | 0 |
| idrac-G4RY8D2 | PowerEdge R53 | Server | G4RY8D2 | DP4 | INITIAL | DASP Parts Replacement | Dell EMC | 6/8/2016 | 6/8/2016 | 6/9/2019 | 760 |
| idrac-9XVD12S | PowerEdge R61 | Server | 9XVD12S | N/A | N/A | No valid warranties found | N/A | 4/20/2009 | N/A | N/A | 0 |
| R14-R410-1 | PowerEdge R41 | Server | 9MZ12S | NBD | INITIAL | Next Business Day Onsite Su | Dell EMC | 6/3/2009 | 6/3/2011 | 6/4/2012 | 0 |
| R14-R410-1 | PowerEdge R41 | Server | 9MZ12S | POW | INITIAL | Next Business Day 5x8 Onst | Dell EMC | 6/3/2009 | 6/3/2011 | 6/4/2012 | 0 |
| R14-R410-1 | PowerEdge R41 | Server | 9MZ12S | PROSUPIT | INITIAL | ProSupport Technical Support | Dell EMC | 6/3/2009 | 6/3/2009 | 6/4/2012 | 0 |
| idrac-R1-R730-1 | PowerEdge R73 | Server | HD3CH62 | DP4 | INITIAL | DASP Parts Replacement | Dell EMC | 3/29/2016 | 3/29/2016 | 3/30/2019 | 689 |
| idrac-BWVP92S | PowerEdge R91 | Server | BWVP92S | DP4 | INITIAL | DASP Parts Replacement | Dell EMC | 8/1/2011 | 8/1/2011 | 8/2/2014 | 0 |
| CMC-R2-62-1 | PowerEdge FX2 | CMC | 5P6SV72 | DP4 | INITIAL | DASP Parts Replacement | Dell EMC | 9/25/2015 | 9/25/2015 | 9/26/2018 | 504 |
| idrac-fc530-1 | PowerEdge F0C | Server | 5PF4V72 | DP4 | INITIAL | DASP Parts Replacement | Dell EMC | 9/24/2015 | 9/24/2015 | 9/25/2018 | 503 |
| idrac-fc530-2 | PowerEdge F0C | Server | 620X992 | DP4 | INITIAL | DASP Parts Replacement | Dell EMC | 12/10/2015 | 12/10/2015 | 12/11/2018 | 580 |

Figure 33 OpenManage Essentials Warranty information

7 Start device-specific application in OpenManage Enterprise

The Application Launch feature provides a right-click action menu item on the discovered device to launch 1x1 console or application. OpenManage Essentials provides the capability to launch and navigate to the device-specific console for Dell EMC EqualLogic Groups, Dell EMC NAS Appliances, SonicWALL Firewall, PowerConnect W-Series, Brocade Fibre Channel, Dell EMC Compellent Arrays, Disk Backup Appliances, VxRail Appliances, XC Series Appliances, KVM, PDU, and UPS. The application launch action can be performed as shown in the following sample screen shot.

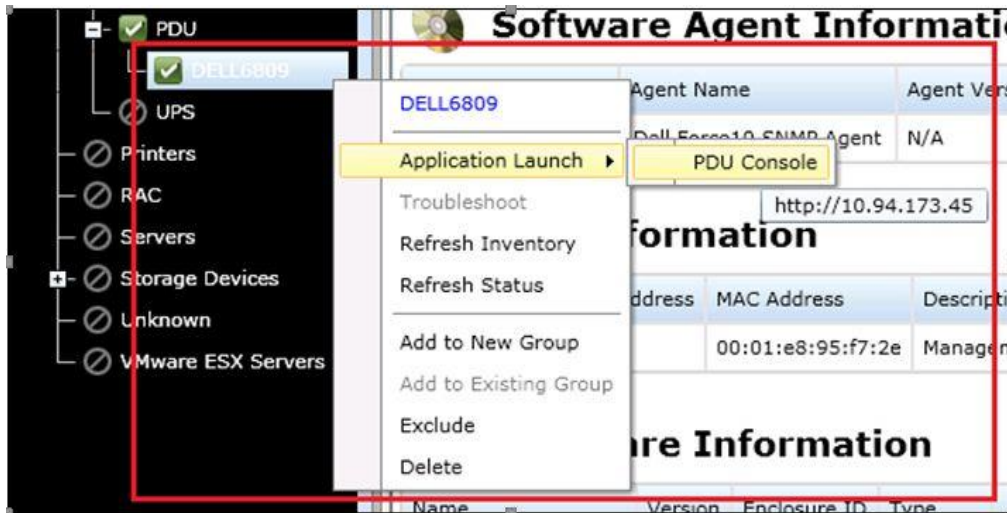



Figure 34 Application Launch for Dell PDU

7.1 Configure custom URLs

OpenManage Essentials supports creating and starting custom URLs on all device groups. This feature is useful when you want to visit the same URL for a group of devices. When created, any device classified under the group is added with the custom URL launch.

7.2 Create a Custom URL

To create a custom:

1. Click **Settings** → **Settings**.
2. In the left pane, click **Custom URL Settings**.
3. In the working pane, click .
4. Enter the name, URL, description, and then select the device type from the drop-down menu.
5. Enter the URL, click the **Test URL** button to test the custom URL.
6. Click **Ok**.

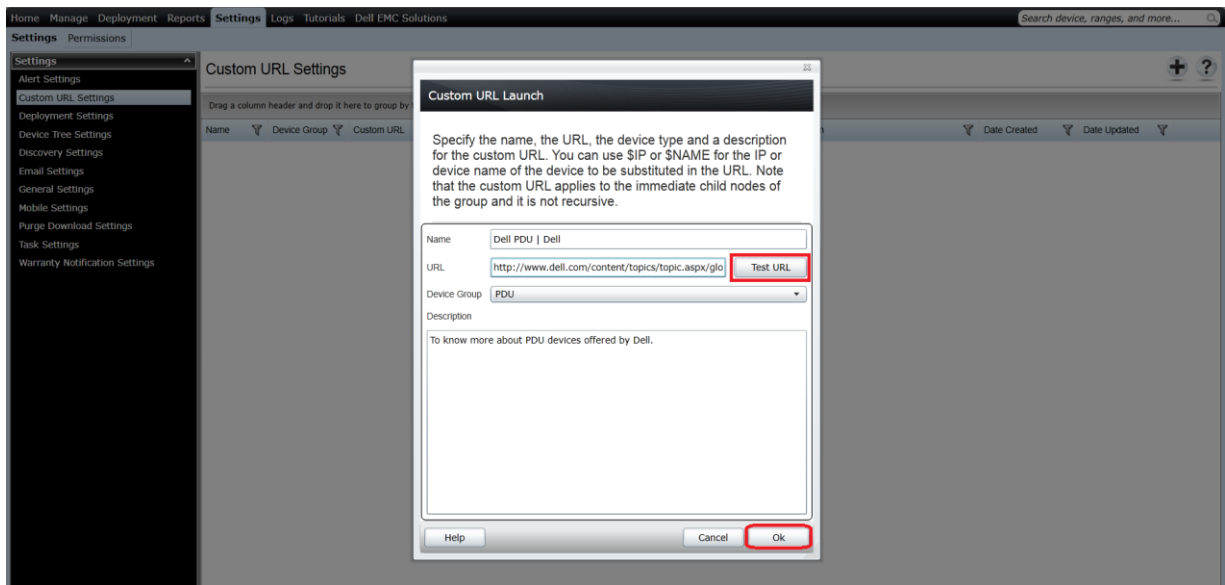


Figure 35 Creating a Custom URL

7.3 Launch the Custom URL

1. Click **Manage** → **Devices**.
2. Right-click the device in the device tree and select **Application Launch**.

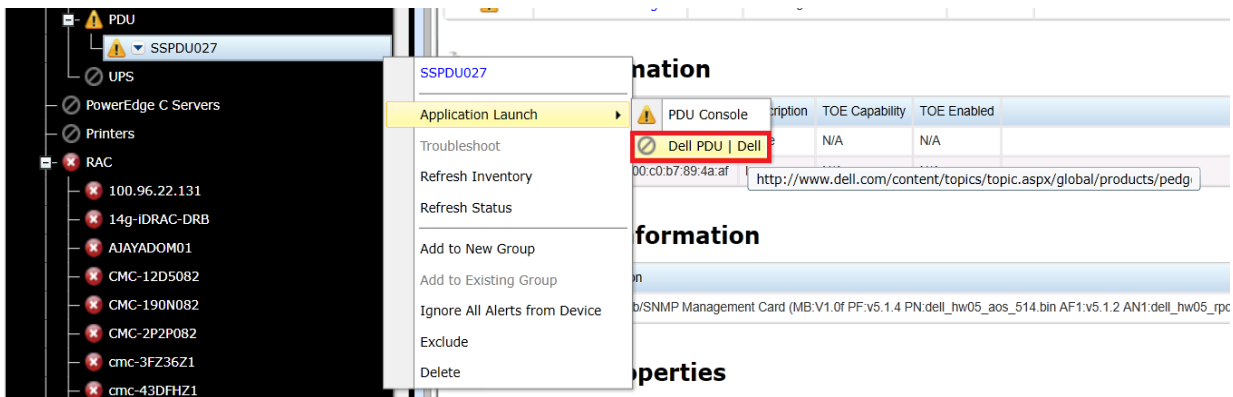







Figure 36 Launching the Custom URL

8 Alerts (SNMP Traps) in OpenManage Essentials

The SNMP alerts received from discovered Dell EMC devices are displayed under the Alerts tab of the respective device. OpenManage Essentials currently supports SNMP V1, V2, and V3 alerts. The status of the device is polled every time an SNMP trap is received from that device. For example, if a trap with critical severity is received from a device, status of that device is set to Critical.

8.1 Alert type definitions in OpenManage Essentials

Table 4 Alert types in OpenManage Essentials

| Icon | Alert | Description |
|---|---------------------------|--|
|  | Normal alerts | An event from a device that describes the successful operation of a unit, such as a power supply turning on. |
|  | Warning alerts | An event that is not necessarily significant, but may indicate a possible future problem, such as crossing a warning threshold. |
|  | Critical alerts | A significant event that indicates actual or imminent loss of data or loss of function, such as crossing a failure threshold or a hardware failure. |
|  | Unknown Alerts | An event has occurred but there is insufficient information to classify the event. |
|  | Information Alerts | Provides information only. |

8.2 View alerts from a device in OpenManage Essentials

To view alerts from a device, click the device in the device tree and navigate to the **Alerts** tab as shown in the following sample screen shot.

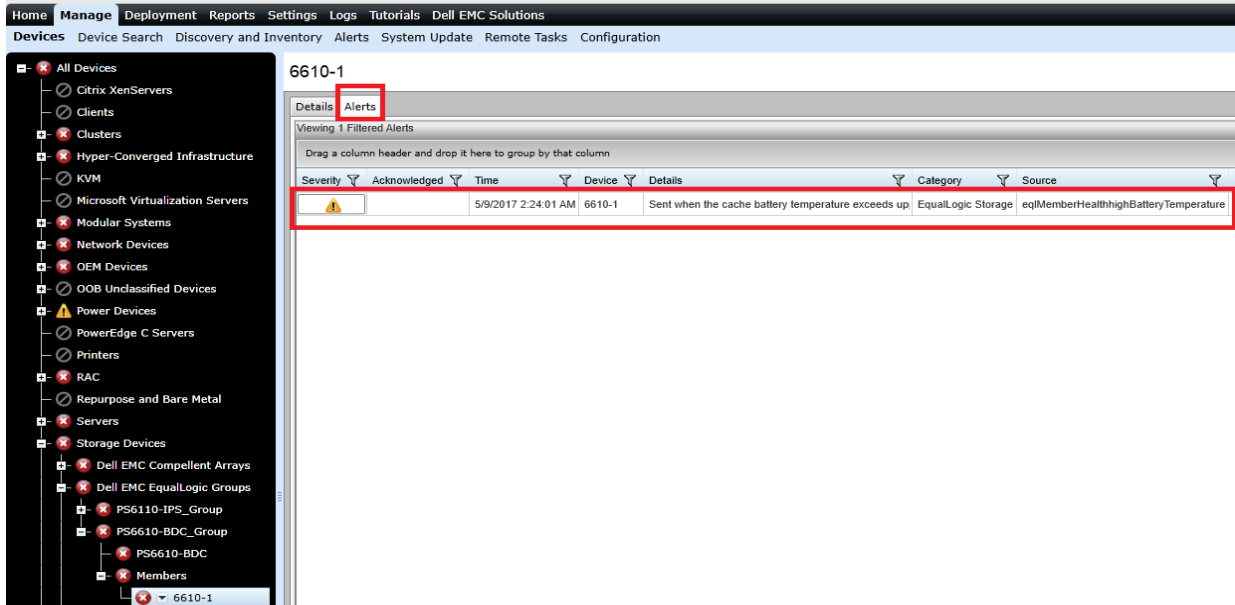


Figure 37 SNMP Alert from a Dell EMC EqualLogic Member

8.3 View alert categories in OpenManage Essentials

Predefined alerts for Dell EMC EqualLogic Groups, Dell EMC NAS Appliances, SonicWALL Firewall, PowerConnect W- Series, Brocade Fibre Channel, Dell EMC Compellent Arrays, Dell EMC Networking Switches, KVM, PDU, and UPS devices can be seen under the Alert Categories section in OpenManage Essentials. Click to **Manage** → **Alerts** → **Alert Categories & Definitions**, and then click the appropriate alert category.

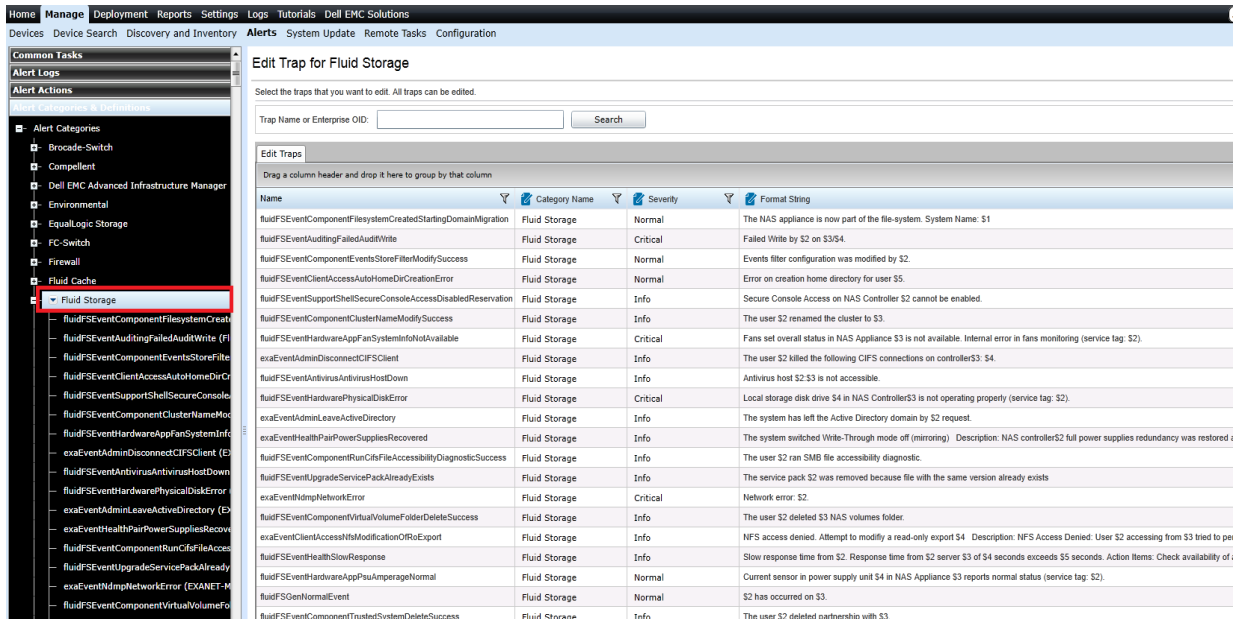


Figure 38 Alert Sources for Dell EMC NAS Appliances

Edit Trap for Compellent

Select the traps that you want to edit. All traps can be edited.

Trap Name or Enterprise OID:

Edit Traps

Drag a column header and drop it here to group by that column

| Name | Category Name | Severity | Format String |
|--------------------------|---------------|------------------|--|
| trapStatusUnavailable | Compellent | Warning | Compellent Trap in Unavailable state. Variables: sysName=\$1, |
| trapStatusUnknown | Compellent | Info | Compellent Trap in Unknown state. Variables: sysName=\$1, |
| trapStatusEmergency | Compellent | Critical | Compellent Trap in Emergency state. Variables: sysName=\$1, |
| trapStatusTestSpecific | Compellent | Normal | Compellent Trap in Test Specific state. Variables: sysName=\$1, |
| trapStatusCritical | Compellent | Critical | Compellent Trap in Critical state. Variables: sysName=\$1, |
| trapStatusTestSpecific | Compellent | Normal | Compellent Trap in Test Specific state. Variables: sysName=\$1, |
| trapStatusCritical | Compellent | Critical | Compellent Trap in Critical state. Variables: sysName=\$1, |
| trapStatusOkay | Compellent | Normal | Compellent Trap in Okay state. Variables: sysName=\$1, |
| trapStatusTest | Compellent | Normal | Compellent Trap in Test state. Variables: sysName=\$1, |
| trapStatusDown | Compellent | Warning | Compellent Trap in Down state. Variables: sysName=\$1, |
| trapStatusDown | Compellent | Warning | Compellent Trap in Down state. Variables: sysName=\$1, |
| trapStatusInform | Compellent | Normal | Compellent Trap in Inform state. Variables: sysName=\$1, |
| trapStatusInform | Compellent | Normal | Compellent Trap in Inform state. Variables: sysName=\$1, |
| trapStatusComplete | Compellent | Normal | Compellent Trap in Complete state. Variables: sysName=\$1, |
| trapStatusComplete | Compellent | Normal | Compellent Trap in Complete state. Variables: sysName=\$1, |
| trapStatusDegraded | Compellent | Warning | Compellent Trap in Degraded state. Variables: sysName=\$1, |
| trapStatusDegraded | Compellent | Warning | Compellent Trap in Degraded state. Variables: sysName=\$1, |
| scDiskFolderStatusChange | Compellent | By Varbind Value | \$8. Serial Number: \$1, Alert Definition ID: \$2, Disk Folder Number: \$3, Disk Folder Status: \$ |

Figure 39 Alert Sources for Dell EMC Compellent Arrays

Edit Trap for Firewall

Select the traps that you want to edit. All traps can be edited.

Trap Name or Enterprise OID:

Edit Traps

Drag a column header and drop it here to group by that column

| Name | Category Name | Severity | Format String | Enterprise OID | Description | Generic |
|--------------------------------|---------------|------------------|------------------|------------------------|--|---------|
| snfWfTrapEnHModemDebug | Firewall | Info | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates an event from modem debug. | 6 |
| snfWfTrapEnHLegacyDeniedAnIp | Firewall | Info | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This is a legacy trap for denied LAN IP activities. | 6 |
| snfWfTrapEnHDynAddrObjs | Firewall | Info | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates an event from a dynamic address object activity. | 6 |
| snfWfTrapEnHModemDebug | Firewall | By Varbind Value | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates an event from an ISMP activity. | 6 |
| snfWfTrapEnHLegacyAttacks | Firewall | Info | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | Please see description for snfWfTrapAttack trap. | 6 |
| snfWfTrapEnHDPSSL | Firewall | Info | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates a DPI SSL event. | 6 |
| snfWfTrapEnHModemDebug | Firewall | Info | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates an SSL-VPN event. | 6 |
| snfWfTrapEnHLegacyAttacks | Firewall | Info | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates a SonicPoint-N event. | 6 |
| snfWfTrapEnHDPSSL | Firewall | Info | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates an event from an RF management activity. | 6 |
| snfWfTrapEnHWebSite | Firewall | By Varbind Value | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates that there is a web site was blocked by the firewall. | 6 |
| snfWfTrapEnHComp | Firewall | By Varbind Value | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates an event from an IP Compression activity. | 6 |
| snfWfTrapEnHLegacyModemDebug | Firewall | Info | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This is a legacy trap for modem debug. | 6 |
| snfWfTrapEnHARS | Firewall | By Varbind Value | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap may be disabled at this time. | 6 |
| snfWfTrapEnHSecurityServices | Firewall | Info | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This is a legacy trap for user activities. | 6 |
| snfWfTrapEnHSecurityServices | Firewall | By Varbind Value | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates an event from a security services activity. | 6 |
| snfWfTrapEnHSecTunnel | Firewall | By Varbind Value | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates that there has been a change in the IPsec tunnel status along with the parameters required to identify the tunnel. | 6 |
| snfWfTrapEnHReal | Firewall | By Varbind Value | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates an event from a real-time black list activity. | 6 |
| snfWfTrapEnHIntrusionDetection | Firewall | By Varbind Value | Description: \$2 | 1.3.6.1.4.1.8741.1.1.2 | This trap indicates an event from an intrusion prevention activity. | 6 |

Figure 40 Alert Sources for SonicWALL Firewall

Edit Trap for Network

Select the traps that you want to edit. All traps can be edited.

Trap Name or Enterprise OID: Search

Edit Traps

Drag a column header and drop it here to group by that column

| Name | Category Name | Severity | Format String | Enterprise OID | Description | Generic Trap ID | Specific Trap ID |
|-------------------------------|---------------|----------|---|-----------------------|---|-----------------|------------------|
| dot1dStpPortStateNoForwarding | Network | Normal | The trap is sent by a bridge when any of its configured ports transitions from the Forwarding state to the Blocking state. \$1 | 1.3.6.1.4.1.89 | Dell PowerConnect PC-33 xx pcodot1dStpPortStateNoForwarding Trap. | 6 | 152 |
| cmnMacChangedNotification | Network | Info | There is at least one MAC address changed or removed. There is enough MAC address information to fully occupy a maximum size SNMP trap message. | 1.3.6.1.4.1.9.9.215.2 | This notification is generated when there is enough MAC address information to fully occupy a maximum size SNMP trap message. This notification is also generated when there is at least one MAC address changed or removed and the amount of time elapsed from the previous notification is greater than the maximum wait time denoted by cmnNotificationInterval object. If there are more MAC addresses information than can fit into one cmnMacChangedNotification object, then multiple notifications will be generated. | 6 | 1 |
| vtpVlanDeleted | Network | Warning | VLAN Deleted. | 1.3.6.1.4.1.9.9.46.2 | A vtpVlanDeleted notification is generated by a device when a VLAN is deleted. | 6 | 11 |
| tokenRingSoftErrExceededTrap | Network | Warning | A station local to a token ring port exceeds its Soft Error Threshold within the configured interval. | 1.3.6.1.4.1.9.5 | This trap is generated when a station local to a token ring port exceeds its Soft Error Threshold within the configured interval. | 6 | 10 |
| vtpVersionInUseChanged | Network | Info | Value of the object managementDomainVersionInUse (Possible values are: version1, version2, none, version3) is changed. | 1.3.6.1.4.1.9.9.46.2 | A vtpVersionInUseChanged notification is generated by a device when the value of the object managementDomainVersionInUse is changed. | 6 | 9 |
| stpInconsistencyUpdate | Network | Info | An inconsistency is discovered in the VLAN's Spanning Tree for a particular port, or such an inconsistency is discovered between | 1.3.6.1.4.1.9.9.82.2 | A stpInconsistencyUpdate notification is sent by a bridge when an instance of stpInconsistencyState is created or destroyed. That is, when an inconsistency is discovered in the VLAN's Spanning Tree for a particular port, or when such an inconsistency disappears. Note that the trap is not sent if the root transitions between | 6 | 1 |

Figure 41 Alert Sources for Dell EMC Networking Switches

Edit Trap for Brocade-Switch

Select the traps that you want to edit. All traps can be edited.

Trap Name or Enterprise OID: Search

Edit Traps

Drag a column header and drop it here to group by that column

| Name | Category Name | Severity | Format String | Enterprise OID | Description | Generic Trap ID | Specific Trap ID |
|---------------------|----------------|----------|---|-----------------|--|-----------------|------------------|
| fcEosFruUpdate | Brocade-Switch | Info | Varbind values are: fcEosFruCode=\$1 fcEosFruPosition=\$2 fcEosSysSwitchId=\$3 fcEosSysSwitchId=\$4 | 1.3.6.1.4.1.289 | A fcEosFruUpdate trap is generated whenever a FRU transitions to an update/busy status. ##fcEosFruCode#Field Replaceable Unit. A hardware component of the product that is replaceable as an entire unit. Each module defined in this MIB has a fixed FRU code. ##fcEosFruPosition#This object identifies the position of the module. The value starts from 1 to the maximum number of the cards that can be contained within this switch. ##fcEosSysSwitchName#The ASCII name of the switch. ##fcEosSysSwitchId#The Worldwide Name of the switch. | 6 | 8 |
| fcEosFruActive | Brocade-Switch | Normal | Varbind values are: fcEosFruCode=\$1 fcEosFruPosition=\$2 fcEosSysSwitchName=\$3 fcEosSysSwitchId=\$4 | 1.3.6.1.4.1.289 | A fcEosFruActive trap is generated whenever a FRU transitions to an active status. ##fcEosFruCode#Field Replaceable Unit. A hardware component of the product that is replaceable as an entire unit. Each module defined in this MIB has a fixed FRU code. ##fcEosFruPosition#This object identifies the position of the module. The value starts from 1 to the maximum number of the cards that can be contained within this switch. ##fcEosSysSwitchName#The ASCII name of the switch. ##fcEosSysSwitchId#The Worldwide Name of the switch. | 6 | 6 |
| fcEosThresholdAlert | Brocade-Switch | Warning | Varbind values are: fcEosPortIndex=\$1 fcEosThreshold=\$2 | 1.3.6.1.4.1.289 | An fcEosThresholdAlert() is generated whenever a threshold alert occurs. ##fcEosPortIndex#The first physical port number on the switch. It ranges from 1 to the number of physical ports that can be supported in the switch. ##fcEosThreshold#This | 6 | 4 |

Figure 42 Alert Sources for Brocade Fiber Channel

Home Manage Deployment Reports Settings Logs Tutorials Dell EMC Solutions

Devices Device Search Discovery and Inventory Alerts System Update Remote Tasks Configuration

Common Tasks Alert Logs Alert Actions Alert Categories & Definitions

Alert Categories

- Brocade-Switch
- Compellent
- Dell EMC Advanced Infrastructure Manager
- Environmental
 - EqualLogic Storage
 - eqiDiskStatusChange (EqualLogic)
 - eqiMemberHealthRAIDSetDoubleFaulted
 - eqiMemberHealthBothFanTraysRemoved (EqualLogic)
 - eqiMemberHealthRAIDSlotCache (EqualLogic)
 - eqiMemberHealthPowerSupplyFailure (EqualLogic)
 - eqiMemberHealthPowerSupplyFanFailure (EqualLogic)
 - eqiMemberHealthBothFanTraysRemoved (EqualLogic)
 - eqiMemberHealthRAIDSetLostBkTableFault (EqualLogic)
 - eqiMemberHealthBatteryLessThan72Hours (EqualLogic)
 - eqiMemberHealthTempSensorLowThreshold (EqualLogic)
 - eqiMemberHealthRaidOrphanCache (EqualLogic)
 - eqiMemberHealthRaidMultipleRaidSets (EqualLogic)
 - eqiMemberHealthNVRAMBatteryFailed (EqualLogic)
 - eqiMemberHealthhwComponentFailedCritical (EqualLogic)
 - eqiMemberHealthincompatControlModule (EqualLogic)
 - eqiMemberHealthlowAmbientTemp (EqualLogic)
 - eqiMemberHealthTempSensorHighThreshold (EqualLogic)
 - eqiMemberHealthFanSpeedLowThreshold (EqualLogic)
 - eqiMemberHealthFanSpeedHighThreshold (EqualLogic)
 - eqiMemberHealthopsPanelFailure (EqualLogic)

Edit Trap for EqualLogic Storage

Select the traps that you want to edit. All traps can be edited.

Trap Name or Enterprise OID: Search

Edit Traps

Drag a column header and drop it here to group by that column

| Name | Category Name | Severity | Format String | Enterprise OID | Description | Generic Trap ID | Specific Trap ID |
|--------------------------------------|--------------------|------------------|---|-------------------------|---|-----------------|------------------|
| eqiDiskStatusChange | EqualLogic Storage | By Varbind Value | Sent when eqiDiskStatus changes from one state to another state. Variables: eqiDiskStatus-1 eqiDiskSlot-2 | 1.3.6.1.4.1.12740.3.2.1 | Sent when eqiDiskStatus changes from one state to another state | 6 | 1 |
| eqiMemberHealthRAIDSetDoubleFaulted | EqualLogic Storage | By Varbind Value | Sent when the raid set has been detected to have double faulted. When this occurs, the array will not come up. User intervention is required to correct the issue. Variables: eqiMemberHealthStatus-1 | 1.3.6.1.4.1.12740.2.2.1 | Sent when the raid set has been detected to have double faulted. When this occurs, the array will not come up. User intervention is required to correct the issue. | 6 | 7 |
| eqiMemberHealthBothFanTraysRemoved | EqualLogic Storage | By Varbind Value | Sent when both of the fan trays have been removed from the chassis. This results in overheating. Variables: eqiMemberHealthStatus-1 | 1.3.6.1.4.1.12740.2.2.1 | Sent when both of the fan trays have been removed from the chassis. This results in overheating. | 6 | 8 |
| eqiMemberHealthRAIDSlotCache | EqualLogic Storage | By Varbind Value | Sent because the RAID driver is unable to recover the battery-backed cache. Variables: eqiMemberHealthStatus-1 | 1.3.6.1.4.1.12740.2.2.1 | Sent because the RAID driver is unable to recover the battery-backed cache. The disk array will not initialize without user intervention. See the Handling Lost Data section in the Group administration manual for more information. | 6 | 9 |
| eqiMemberHealthPowerSupplyFailure | EqualLogic Storage | By Varbind Value | The implementation of this trap should not send more than one notification of this type for a sensor in any 10 minute time span. Variables: eqiMemberHealthDetailsPowerSupplyName-1 eqiMemberHealthDetailsPowerSupplyCurrentState-2 | 1.3.6.1.4.1.12740.2.2.1 | Sent when a failure has been detected on any of the power supplies in the PSA. The implementation of this trap should not send more than one notification of this type for a sensor in any 10 minute time span | 6 | 6 |
| eqiMemberHealthPowerSupplyFanFailure | EqualLogic Storage | By Varbind Value | The implementation of this trap should not send more than one notification of this type for a sensor in any 10 minute time span. Variables: eqiMemberHealthDetailsPowerSupplyName-1 eqiMemberHealthDetailsPowerSupplyCurrentState-2 | 1.3.6.1.4.1.12740.2.2.1 | Sent when a failure has been detected on any of the power supply fan speed sensors. The implementation of this trap should not send more than one notification of this type for a sensor in any 10 minute time span | 6 | 5 |

Figure 43 Alert Sources for Dell EMC EqualLogic Storage

Home Manage Deployment Reports Settings Logs Tutorials Dell EMC Solutions

Devices Device Search Discovery and Inventory Alerts System Update Remote Tasks Configuration

Common Tasks Alert Logs Alert Actions Alert Categories & Definitions

Alert Categories

- Brocade-Switch
- Compellent
- Dell EMC Advanced Infrastructure Manager
- Environmental
- EqualLogic Storage
- FC-Switch
- Firewall
- Fluid Cache
- Fluid Storage
- General Redundancy
- Hyperv Server
- IDRAC
- Juniper-Switch
- Keyboard-Video-Mouse (KVM)
 - dsRebootStartedTrap (DS-MIB)
 - dsVideoSessionStartedTrap (DS-MIB)
 - dsVideoSessionStoppedTrap (DS-MIB)
 - dsVideoSessionTerminatedTrap (DS-MIB)
 - dsLocalPortViewingStartedTrap (DS-MIB)
 - dsLocalPortViewingStoppedTrap (DS-MIB)
 - dsImageUpgradeStarted (DS-MIB)
 - ds2RebootStartedTrap (DS-MIB)
 - ds2VideoSessionStartedTrap (DS-MIB)
 - ds2VideoSessionStoppedTrap (DS-MIB)

Edit Trap for Keyboard-Video-Mouse (KVM)

Select the traps that you want to edit. All traps can be edited.

Trap Name or Enterprise OID: Search

Edit Traps

Drag a column header and drop it here to group by that column

| Name | Category Name | Severity | Format String | Enterprise OID | Description | Generic Trap ID | Specific Trap ID |
|---------------------------|----------------------------|----------|--|-------------------------|---|-----------------|------------------|
| dsRebootStartedTrap | Keyboard-Video-Mouse (KVM) | Normal | The remote console switch is rebooting. Command issued by user: \$1. | 1.3.6.1.4.1.10418.3.1.8 | The remote console switch is in the process of rebooting. The name of the user who initiated the reboot is contained in dsTrapObjectUserName##dsTrapObjectUserName# This object is sent in a trap to identify the name of the user for which the trap condition occurred. If the trap condition occurred as a result of activity on the local port (OSD), then the value of this object will be the following string: local port | 6 | 1 |
| dsVideoSessionStartedTrap | Keyboard-Video-Mouse (KVM) | Normal | Video session started. User: \$1. Server: \$2. | 1.3.6.1.4.1.10418.3.1.8 | A video session has started. The name of the user who is connected to the session is contained in dsTrapObjectUserName. The session identifier is contained in dsTrapObjectSessionIdentifier##dsTrapObjectSessionIdentifier# This object is sent in a trap to identify the name of the user for which the trap condition occurred. If the trap condition occurred as a result of activity on the local port (OSD), then the value of this object will be the following string: local port##dsTrapObjectSessionIdentifier# This object is sent in a trap to identify the session which the trap condition occurred. The value will be the name of a server if the server name is known, otherwise the value will be the connection path to a server if the value is a connection path it will have the following format: SIP c Channel c Where s is the ID of the SIP and c is the serial switch channel number (0 if there is no switch in the path). | 6 | 4 |

Figure 44 Alert Sources for Dell KVM

Home Manage Deployment Reports Settings Logs Tutorials Dell EMC Solutions Search device

Devices Device Search Discovery and Inventory Alerts System Update Remote Tasks Configuration

Common Tasks Alert Logs Alert Actions

Alert Categories

- Brocade-Switch
- Compellent
- Dell EMC Advanced Infrastructure Manager
- Environmental
- EqualLogic Storage
- FC-Switch
- Firewall
- Fluid Cache
- Fluid Storage
- General Redundancy
- Hyperv Server
- iDRAC
- Juniper-Switch
- Keyboard-Video-Mouse (KVM)
- Memory
- Network
- Other
- PDU**
 - deviceCommunicationLostCleared (PDU)
 - deviceCommunicationLostSet (PDU)
 - componentCommLostCleared (PDU)
 - componentCommLostSet (PDU)
 - canBusOffCleared (PDU)
 - phaseOverLoadSet (PDU)
 - canBusOffSet (PDU)
 - powerSupplyFailureCleared (PDU)

Edit Trap for PDU

Select the traps that you want to edit. All traps can be edited.

Trap Name or Enterprise OID: Search

Edit Traps

Drag a column header and drop it here to group by that column

| Name | Category Name | Severity | Format String | Enterprise OID | Description | Generic Trap ID | Specific Trap ID |
|--------------------------------|---------------|----------|---|-------------------------------------|---|-----------------|------------------|
| deviceCommunicationLostCleared | PDU | Normal | S2 lost communication with device has been re-established. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Lost communication with device has been re-established. | 6 | 1 |
| deviceCommunicationLostSet | PDU | Critical | S2 lost communication with device | 1.3.6.1.4.1.674.10903.200.2.200.500 | Lost communication with device | 6 | 2 |
| componentCommLostCleared | PDU | Normal | S2 comm with on board component was re-established. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Lost communication with on board component has been re-established. | 6 | 3 |
| componentCommLostSet | PDU | Critical | S2 lost communication with an on board component | 1.3.6.1.4.1.674.10903.200.2.200.500 | Lost communication with an on board component | 6 | 4 |
| canBusOffCleared | PDU | Normal | S2 CAN bus off was cleared. | 1.3.6.1.4.1.674.10903.200.2.200.500 | CAN bus off condition was cleared. | 6 | 5 |
| canBusOffSet | PDU | Warning | S2 CAN bus off was set. | 1.3.6.1.4.1.674.10903.200.2.200.500 | CAN bus off condition was set. | 6 | 6 |
| powerSupplyFailureCleared | PDU | Normal | S2 Unit's power supply voltage is no longer out of tolerance. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Unit's power supply voltage is no longer out of tolerance. | 6 | 7 |
| powerSupplyFailureSet | PDU | Critical | S2 Unit's power supply voltage is out of tolerance. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Unit's power supply voltage is out of tolerance. | 6 | 8 |
| keypadButtonStuckCleared | PDU | Normal | S2 keypad button no longer stuck. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Keypad button stuck has been cleared. | 6 | 9 |
| keypadButtonStuckSet | PDU | Warning | S2 keypad button stuck. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Keypad button stuck has been set. | 6 | 10 |
| dryContactAbnormalCleared | PDU | Normal | S2 dry contact S3 is no longer in an abnormal state. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Dry Contact is no longer in an abnormal state. | 6 | 11 |
| dryContactAbnormalSet | PDU | Critical | S2 dry contact S3 has moved to an abnormal state. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Dry Contact has moved to an abnormal state. | 6 | 12 |
| deviceLowLoadCleared | PDU | Normal | S2 device is no longer below the 'Low Load' threshold. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Device load is no longer below the 'Low Load' threshold value. | 6 | 13 |
| deviceLowLoadSet | PDU | Warning | S2 Device load has fallen below the 'Low Load' threshold. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Device load has fallen below the 'Low Load' threshold value. | 6 | 14 |
| deviceNearOverLoadCleared | PDU | Normal | S2 device not over 'Near Over Load' threshold. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Device load no longer exceeds the 'Near Over Load' threshold value. | 6 | 15 |
| deviceNearOverLoadSet | PDU | Warning | S2 device is over the 'Near Over Load' threshold. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Device load has exceeded the 'Near Over Load' threshold value. | 6 | 16 |
| deviceOverLoadCleared | PDU | Normal | S2 device not over the 'Over Load' threshold. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Device load no longer exceeds the 'Over Load' threshold value. | 6 | 17 |
| deviceOverLoadSet | PDU | Critical | S2 device load is over the 'Over Load' threshold. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Device load has exceeded the 'Over Load' threshold value. | 6 | 18 |
| phaseOverLoadCleared | PDU | Normal | S2 phase S3 load is no longer below 'Low Load' threshold. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Phase load is no longer below the 'Low Load' threshold value. | 6 | 19 |
| phaseOverLoadSet | PDU | Warning | S2 phase S3 load has fallen below the 'Low Load' threshold. | 1.3.6.1.4.1.674.10903.200.2.200.500 | Phase load has fallen below the 'Low Load' threshold value. | 6 | 20 |

Figure 45 Alert Sources for Dell PDU

Home Manage Deployment Reports Settings Logs Tutorials Dell EMC Solutions Search device

Devices Device Search Discovery and Inventory Alerts System Update Remote Tasks Configuration

Security Storage Enclosure Storage Peripheral Storage Software System Events Tape Test Events Unknown

- UPS**
 - trapEnvironComFailure (UPS)
 - trapCommunicationRestored (UPS)
 - trapEnvironHumidityHigh (UPS)
 - trapCommunicationLost (UPS)
 - trapEnvironTemperatureLow (UPS)
 - trapEnvironInput2Closed (UPS)
 - trapEnvironTemperatureOK (UPS)
 - trapEnvironHumidityLow (UPS)
 - trapInverterOverVoltage (UPS)
 - trapInverterOverVoltageOk (UPS)
 - trapInverterUnderVoltage (UPS)
 - trapInverterUnderVoltageOk (UPS)
 - trapBypassFrequencyOutOfRange (UPS)
 - trapBypassFrequencyOutOfRangeOk (UPS)
 - trapOnBuck (UPS)
 - trapReturnFromBuck (UPS)
 - trapOnBoost (UPS)
 - trapReturnFromBoost (UPS)
 - trapInputOverVoltage (UPS)
 - trapInputOverVoltageOk (UPS)
 - trapInputUnderVoltage (UPS)

Edit Trap for UPS

Select the traps that you want to edit. All traps can be edited.

Trap Name or Enterprise OID: Search

Edit Traps

Drag a column header and drop it here to group by that column

| Name | Category Name | Severity | Format String | Enterprise OID | Description | Generic Trap ID | Specific Trap ID |
|---------------------------------|---------------|----------|--|-----------------------------|---|-----------------|------------------|
| trapEnvironComFailure | UPS | Warning | Environment Probe communication failure | 1.3.6.1.4.1.674.10902.2.140 | Environment Probe communication failure | 6 | 98 |
| trapCommunicationRestored | UPS | Info | Communication restored with UPS. | 1.3.6.1.4.1.674.10902.2.140 | Communication restored with UPS. HID database is updated. | 6 | 97 |
| trapEnvironHumidityHigh | UPS | Warning | Humidity is above high threshold. | 1.3.6.1.4.1.674.10902.2.140 | Humidity is above high threshold. | 6 | 106 |
| trapCommunicationLost | UPS | Warning | UMC lost communication with UPS. HID database is not updated. | 1.3.6.1.4.1.674.10902.2.140 | Lost communication with UPS. HID database is not updated. | 6 | 96 |
| trapEnvironTemperatureLow | UPS | Warning | Temperature is below low threshold. | 1.3.6.1.4.1.674.10902.2.140 | Temperature is below low threshold. | 6 | 100 |
| trapEnvironInput2Closed | UPS | Info | Input #2 is Closed. | 1.3.6.1.4.1.674.10902.2.140 | Input #2 is Closed. | 6 | 110 |
| trapEnvironTemperatureOK | UPS | Info | Temperature is in normal range. | 1.3.6.1.4.1.674.10902.2.140 | Temperature is in normal range. | 6 | 103 |
| trapEnvironHumidityLow | UPS | Warning | Humidity is below low threshold. | 1.3.6.1.4.1.674.10902.2.140 | Humidity is below low threshold. | 6 | 104 |
| trapInverterOverVoltage | UPS | Warning | The Inverter AC Voltage has exceeded the 'Over Voltage Threshold' value | 1.3.6.1.4.1.674.10902.2.140 | Inverter AC over voltage. | 6 | 1 |
| trapInverterOverVoltageOk | UPS | Info | The Inverter AC Voltage no longer exceeds the 'Over Voltage Threshold' value | 1.3.6.1.4.1.674.10902.2.140 | Inverter AC over voltage ok | 6 | 2 |
| trapInverterUnderVoltage | UPS | Warning | Inverter AC Voltage has fallen below the 'Under Voltage Threshold' value | 1.3.6.1.4.1.674.10902.2.140 | Inverter AC under voltage. | 6 | 3 |
| trapInverterUnderVoltageOk | UPS | Info | Inverter AC Voltage is no longer below the 'Under Voltage Threshold' value | 1.3.6.1.4.1.674.10902.2.140 | Inverter AC under voltage ok. | 6 | 4 |
| trapBypassFrequencyOutOfRange | UPS | Warning | UPS Bypass Frequency is out of Range. | 1.3.6.1.4.1.674.10902.2.140 | Bypass under or over frequency. | 6 | 5 |
| trapBypassFrequencyOutOfRangeOk | UPS | Info | UPS Bypass Frequency is no longer out of Range. | 1.3.6.1.4.1.674.10902.2.140 | Bypass under or over frequency ok. | 6 | 6 |
| trapOnBuck | UPS | Info | On Buck/ Input Voltage Reducer | 1.3.6.1.4.1.674.10902.2.140 | On Buck or Input Voltage Reducer. | 6 | 7 |
| trapReturnFromBuck | UPS | Info | The UPS has returned from Buck. | 1.3.6.1.4.1.674.10902.2.140 | Return from Buck. | 6 | 8 |
| trapOnBoost | UPS | Info | On Boost/ Input Voltage Booster. | 1.3.6.1.4.1.674.10902.2.140 | On Boost or Input Voltage Booster. | 6 | 9 |
| trapReturnFromBoost | UPS | Info | The UPS has returned from Boost. | 1.3.6.1.4.1.674.10902.2.140 | Return from Boost. | 6 | 10 |

Figure 46 Alert Sources for Dell UPS

8.4 Configure alert actions in OpenManage Essentials

Alert actions occur on all alerts received in the OpenManage Essentials console. The alert is received and processed to take appropriate action depending on the user configuration for that alert. To configure an alert action, navigate to **Manage** → **Alerts** → **Alert Actions** and right-click the appropriate category as shown in the following sample screen shot.

The following alert actions are supported in OpenManage Essentials:

- Application Launch
- E-mail Notification
- Ignoring Alerts
- Forwarding Alerts

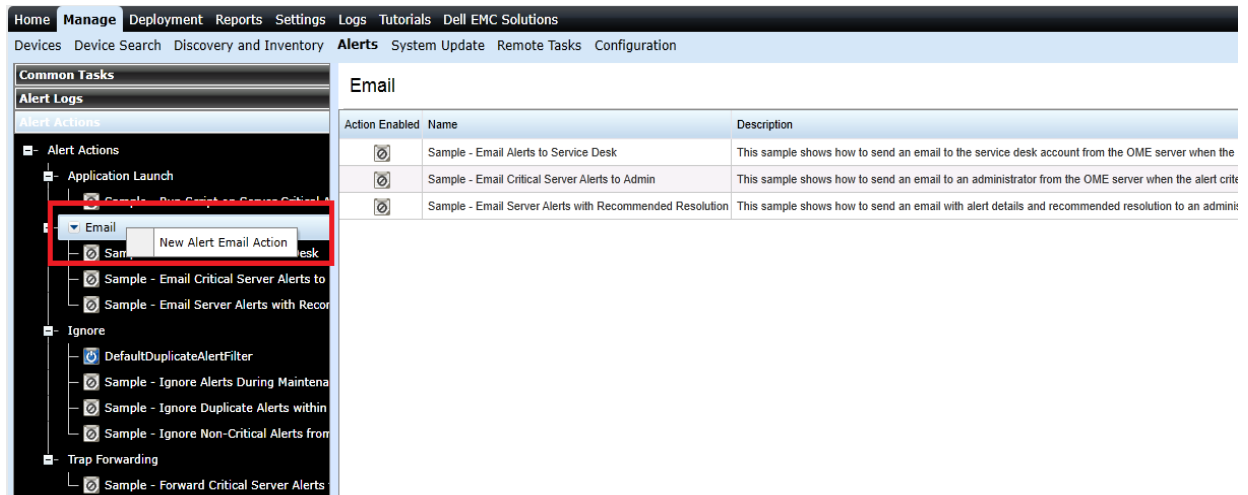


Figure 47 Configuring Email Alert Action

8.5 Configure Warranty email notifications

You can configure OpenManage Essentials to send a warranty notification of your devices at periodic intervals through email, based on your preference. The warranty notification email provides a list of devices and appropriate links that you can click to renew the warranty of the devices. To configure Warranty Email Notifications:

1. Click **Settings** → **Settings**.
2. In the left pane, click **Warranty Notification Settings**.
3. Under **Warranty Email Notifications**, select **Enable Warranty Email Notifications**.
4. In the **To** box, type the email addresses of the recipients (semicolon-separated).
5. In the **From** box, type the email address from which the warranty notification email is to be sent.
6. Set the criteria for the devices to be included in the warranty notification email.
7. Set the frequency at which you want to receive the warranty notification email.
8. To include devices with expired warranty or no warranty information in the warranty notification email, select **Include Expired Warranties**.
9. In the **Next Email will Send On** box, select the date and time at which you want to receive the next warranty notification e-mail.
10. If you want to configure the SMTP email server, click **Email Settings**.
11. Click **Apply**.

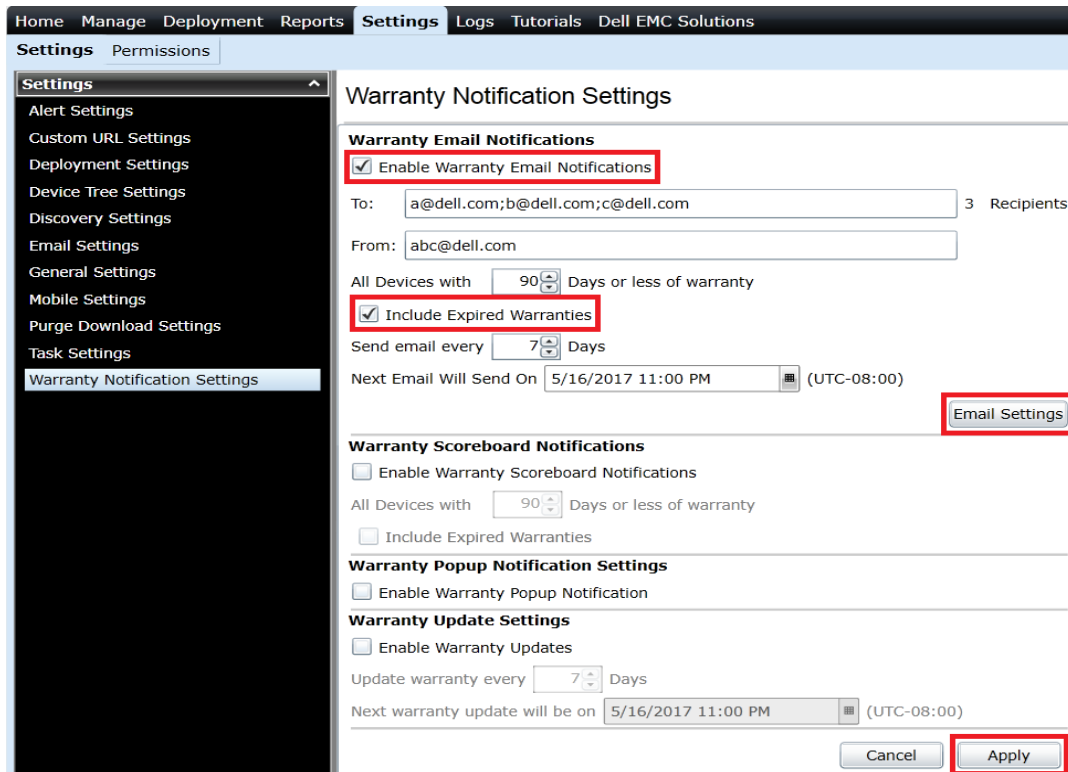


Figure 48 Warranty Email Notification Settings

8.6 Configure warranty scoreboard notifications

You can configure OpenManage Essentials to display a warranty scoreboard notification icon in the heading banner. If any device fulfills the set criteria, the OpenManage Essentials heading banner displays the warranty scoreboard notification icon including the number of devices.

To configure Warranty Scoreboard Notifications:

1. Click **Settings** → **Settings**.
2. In the left pane, click **Warranty Notification Settings**.
3. Under **Warranty Scoreboard Notifications**, select the **Enable Warranty Scoreboard Notifications** check box.
4. Set the criteria for the devices to be included in the warranty notification scoreboard.
5. To include devices with expired warranty or no warranty information in the warranty notifications scoreboard, select the **Include Expired Warranties** check box.
6. Click **Apply**.

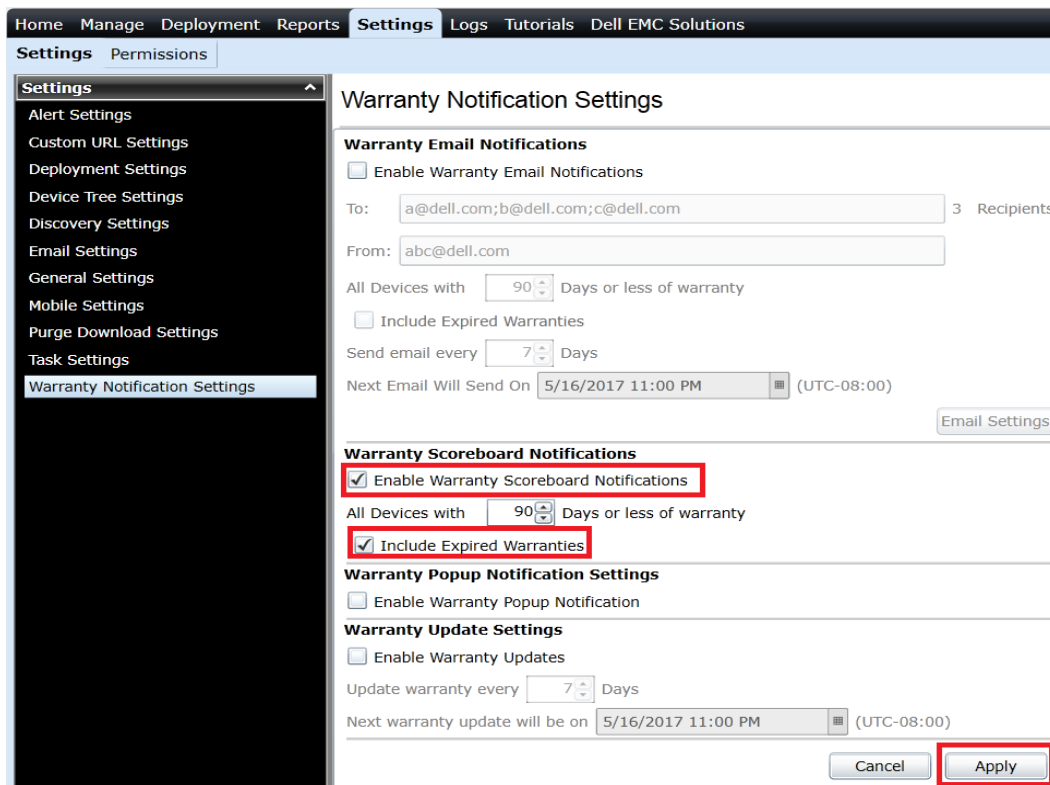


Figure 49 Warranty Scoreboard Notification Settings

8.7 Configure warranty notifications in OpenManage Essentials

1. Click **Settings** → **Settings**.
2. In the left pane, click **Warranty Notification Settings**.
3. Under **Warranty Popup Notification Settings**, select the **Enable Warranty Popup Notification** check box.
4. Click **Apply**.

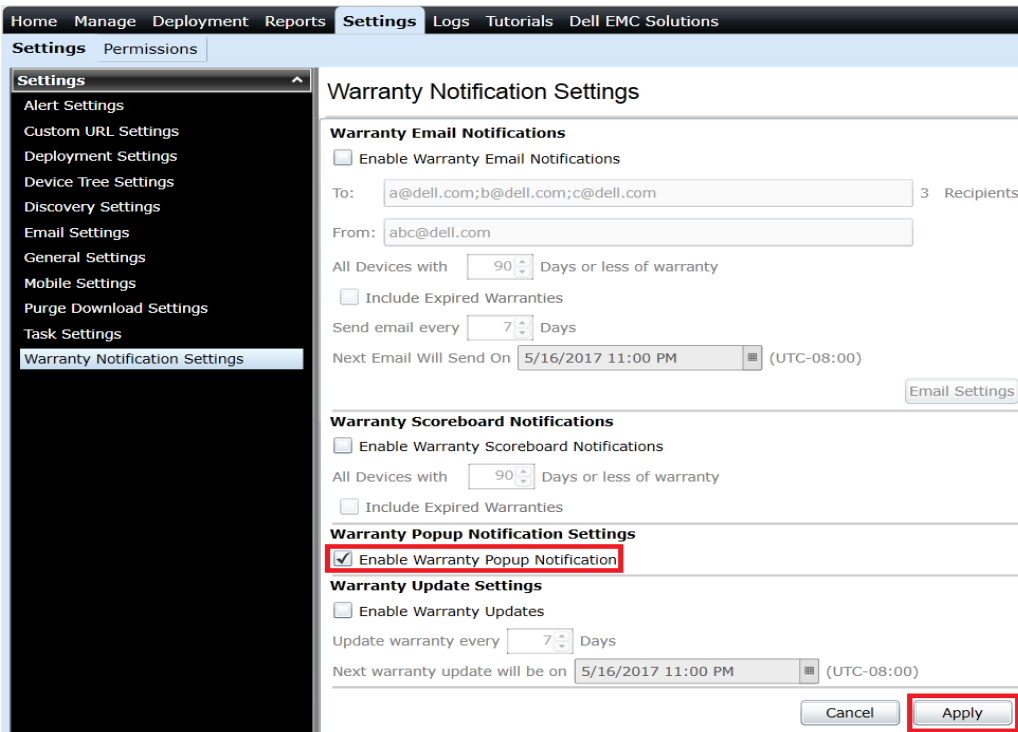


Figure 50 Warranty Popup Notification Settings

8.8 Configure warranty update settings

To configure warranty update settings:

1. Click **Settings** → **Settings**.
2. In the left pane, click **Warranty Notification Settings**.
3. Under **Warranty Update Settings**, select the **Enable Warranty Updates** check box.
4. Set the frequency at which you want to update the warranty.
5. In the **Next warranty update will be on** calendar, select the date and time at which you want to update the warranty.
6. Click **Apply**.

Home Manage Deployment Reports **Settings** Logs Tutorials Dell EMC Solutions

Settings Permissions

Settings

- Alert Settings
- Custom URL Settings
- Deployment Settings
- Device Tree Settings
- Discovery Settings
- Email Settings
- General Settings
- Mobile Settings
- Purge Download Settings
- Task Settings
- Warranty Notification Settings**

Warranty Notification Settings

Warranty Email Notifications

Enable Warranty Email Notifications

To: 3 Recipients

From:

All Devices with Days or less of warranty

Include Expired Warranties

Send email every Days

Next Email Will Send On (UTC-08:00)

[Email Settings](#)

Warranty Scoreboard Notifications

Enable Warranty Scoreboard Notifications

All Devices with Days or less of warranty

Include Expired Warranties

Warranty Popup Notification Settings

Enable Warranty Popup Notification

Warranty Update Settings

Enable Warranty Updates

Update warranty every Days

Next warranty update will be on (UTC-08:00)

Figure 51 Warranty Update Settings

9 Troubleshooting issues in OpenManage Essentials

9.1 Dell EMC OpenManage Essentials Troubleshooting Tool

The Dell EMC OpenManage Essentials Troubleshooting Tool is a standalone tool that is installed along with Dell EMC OpenManage Essentials. You can use this tool for a wide array of protocol related problems that are often at the root of discovery and alert issues.

9.2 Troubleshoot discovery of a Dell EMC device

1. Ensure that SNMP is enabled and properly configured on the target device by accessing its web Interface.
2. Start the Dell EMC Troubleshooting Tool.
3. Navigate to **Protocols (Remote Box)**.
4. Enter the IP address of the target device.
5. Select required protocol in the **Select Protocol(s)** pane.
 - If you are selecting **SNMP** protocol, enter the correct community name and click **Run Test**.
 - If you are selecting **WS-Man** protocol, enter the user name and password in the respective fields and click **Run Test**.
 - If you are selecting **REST-GET** protocol and **MX Chassis** radio button, enter user name and password in the respective fields and click **Run Test**.
 - If you are selecting **REST-GET** protocol and **Generic** (only https) radio button, enter the URI, user name, and password in the respective fields, and then click **Run Test**.
6. The **Result** window displays test results of the target device.

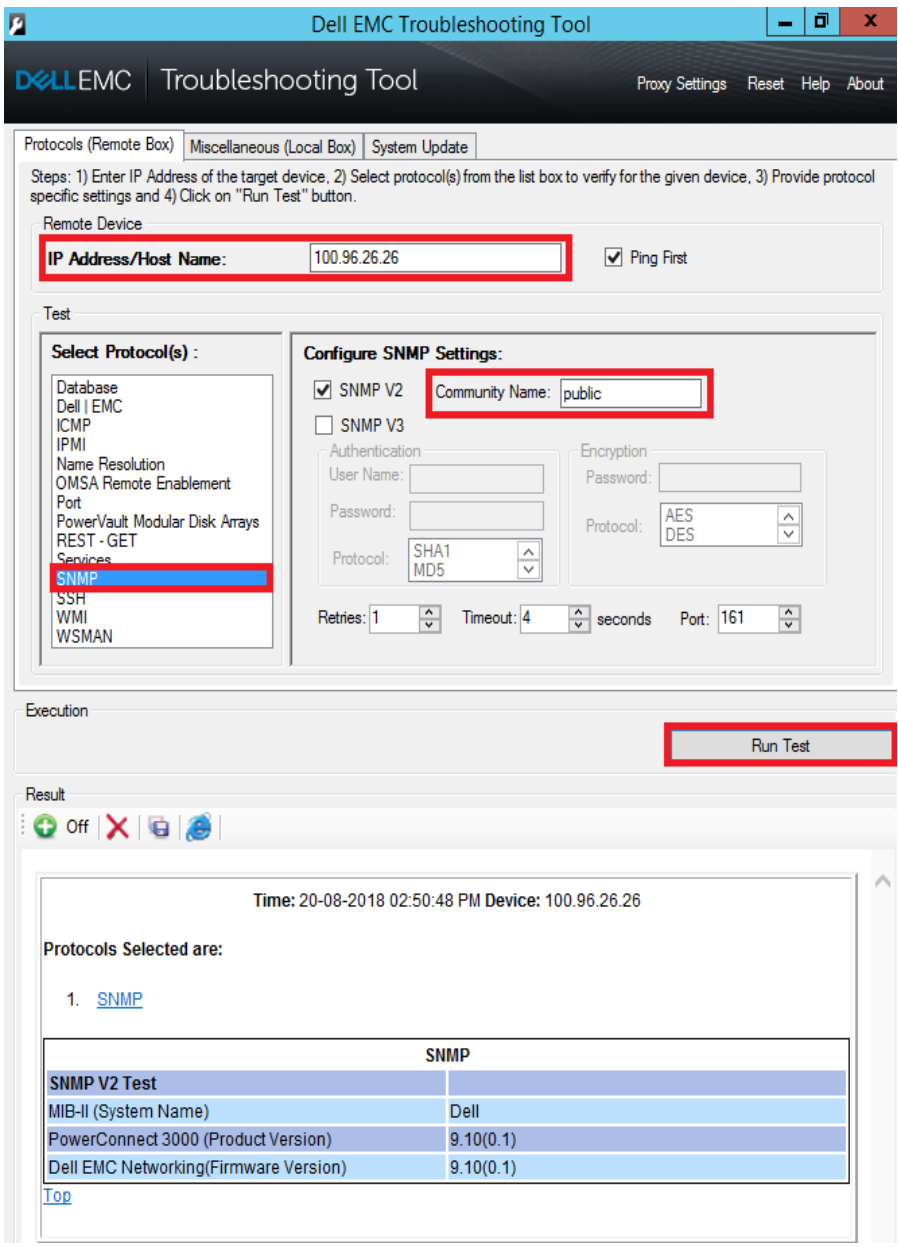


Figure 52 Troubleshooting Tool: SNMP Test for Dell EMC Networking Device

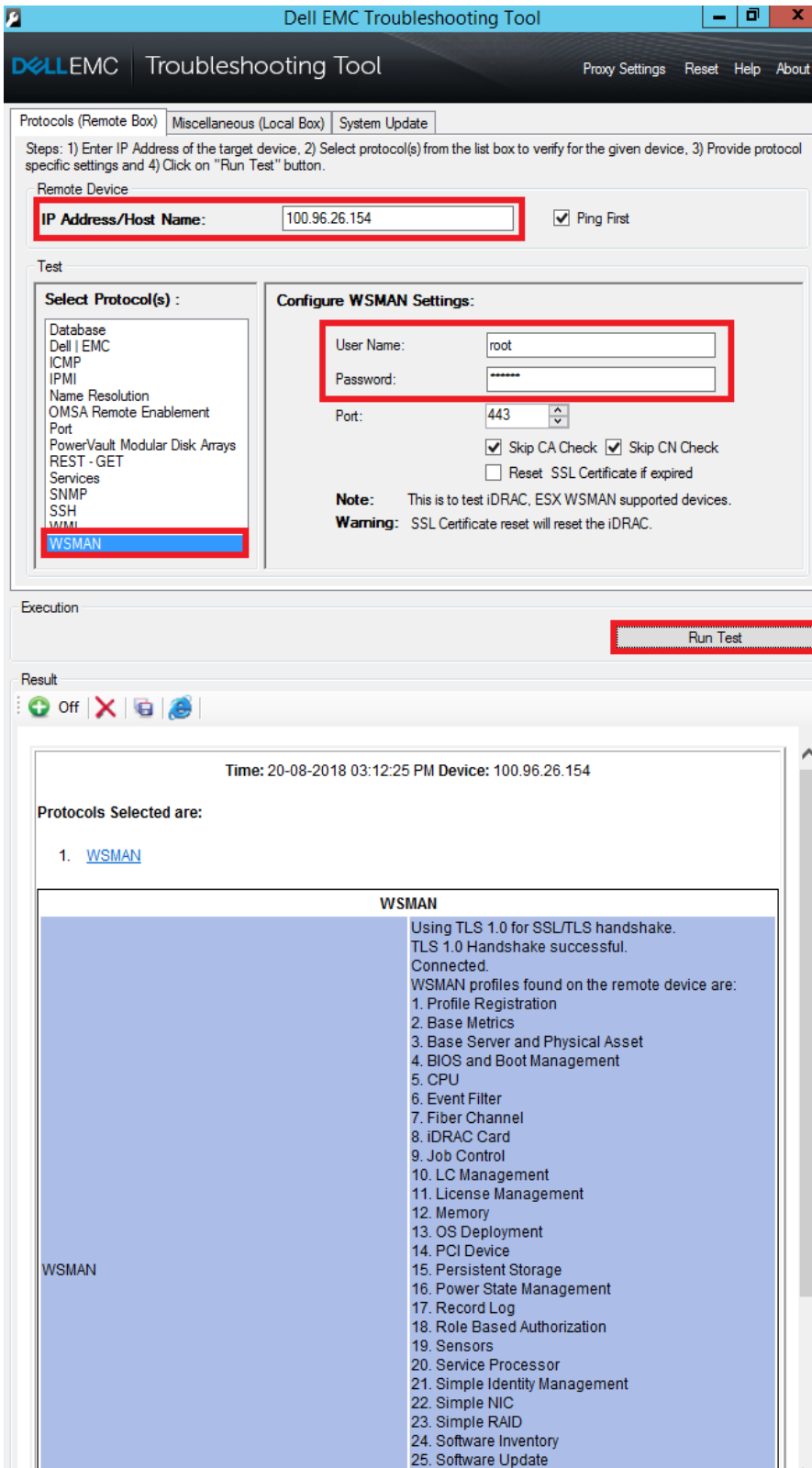


Figure 53 Troubleshooting Tool: WS-Man Test for Dell Server

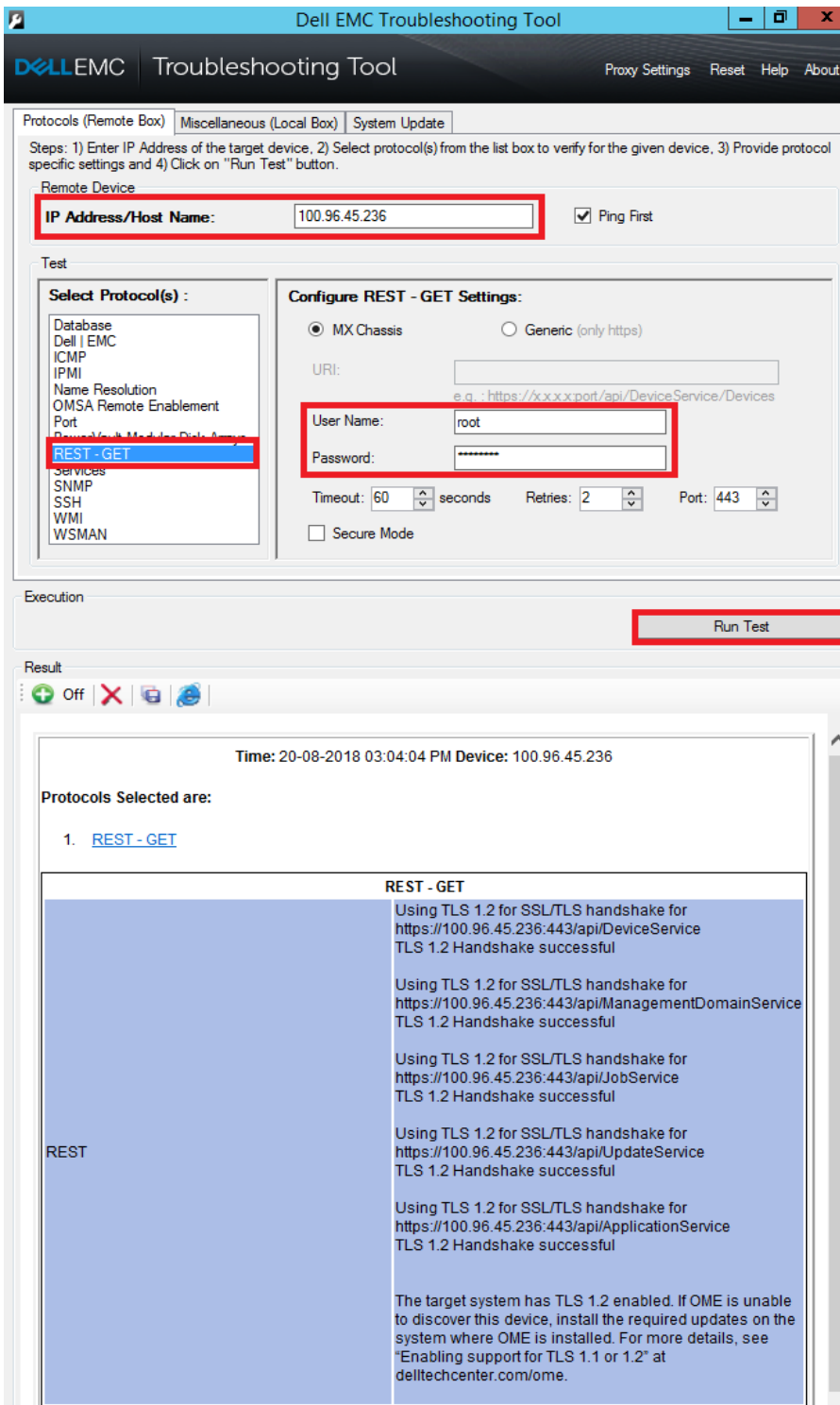


Figure 54 Troubleshooting Tool: REST Test for MX Chassis

Note—The displayed model name of VxFlex Ready Nodes is incorrect on the Troubleshooting Tool when an IPMI protocol test is run.

10 Proactive Support with Dell EMC SupportAssist Enterprise

The Dell EMC SupportAssist Enterprise plug-in for OpenManage Essentials proactively identifies hardware failures in your IT environment, and provides you with an efficient and personalized support experience. The Dell EMC SupportAssist Enterprise plug-in is bundled as part of the OpenManage Essentials installation package and can be installed from the package as required.

SupportAssist integrates with OpenManage Essentials to give you the added capabilities of secure remote monitoring so you know how your systems are performing at all times. SupportAssist is designed to help you manage your environment proactively with the following features:

- Detects and analyzes problems using automated data collection and diagnostics
- Helps accelerate resolution by automatically generating notifications and accurate case information with your Dell EMC Support team
- Provides parts replacement, as needed, directly from Dell EMC.

You can monitor Dell EMC Networking devices using Dell EMC SupportAssist Enterprise. The complete benefits of SupportAssist are available for devices with an active Dell EMC ProSupport Plus entitlement. For more information about SupportAssist, visit Dell.com/supportassist.

A Technical support and resources

[Dell.com/support](https://dell.com/support) is focused on meeting customer needs with proven services and support.