

DISCOVERY AND INVENTORY OF DELL EMC DEVICES BY USING DELL EMC OPENMANAGE ESSENTIALS (OME)

ABSTRACT

This technical white paper describes the discovery, inventory, and other features of OME.

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CONTENTS

EXECUTIVE SUMMARY	4
INTRODUCTION	4
SCOPE	4
DISCOVERY AND INVENTORY	4
Prerequisites	4
Performing discovery and inventory using guided wizard.....	5
Configuring discovery range	5
IP Address or IP Range	6
Device type filtering	8
Configuring ICMP	9
Configuring SNMP.....	9
Configuring WMI.....	11
Configuring WS-Man	11
WS-Man configuration field descriptions	11
WS-Man configuration screen options for discovering CMC and all associated components	12
Configuring SSH.....	14
Summary	14
DEVICE-BASED DISCOVERY	16
Note for upgrade scenarios	16
Excluding range.....	17
Skipping ICMP ping during discovery	18
PERFORMING DISCOVERY AND INVENTORY USING STANDARD WIZARD.....	19
Configuring Storage	20
Configuring IPMI.....	21
Discovery range action	22

DISCOVERY AND INVENTORY PORTAL..... 23

DEVICE TREE 24

DEVICE INVENTORY DETAILS..... 25

DEVICE SEARCH..... 26

LEARN MORE 26

Executive summary

A fundamental element of any Device Management is discovery and inventory of devices an organization is trying to manage in its IT and data center environment. Discovery must be non-invasive, easy to administer, efficient, thorough, accurate, broad in scope, and responsive to network changes.

Discovery is a process of identifying all Dell EMC hardware devices in your network, such as PowerEdge servers, EqualLogic storage, and PowerConnect switches. It is an unobtrusive way of searching for all networked devices and providing an analysis of each device such as software, memory, components, and serial number. The Inventory Report provides information about all discovered devices such as device health, available memory, and installed software.

Introduction

OME is a hardware management application that provides a comprehensive view of Dell EMC systems, devices, and components in the enterprise network. OME is a web-based and one-to-many systems management application. For Dell EMC systems and other devices and components, you can discover and inventory the systems, monitor the systems' health, and perform system updates.

Scope

The purpose of this technical white paper is to help you with the necessary steps to perform discovery and inventory of Dell EMC devices. The high-level tasks described in this technical white paper:

- Discovery and inventory
 - Guided Wizard
 - Standard Wizard
- Device Based Discovery
- Skipping ICMP ping during discovery
- Providing a holistic view of the data center.
- Searching specific devices.

Discovery and inventory

Discovery and inventory enables understanding about the hardware and software installed across an organization and it is the basic step to effective systems management. Areas such as license compliance, health monitoring, security and upgrades, and migrations require the networked hardware to be available to the System Administrator on a single console to help simplify the process. OME provides these capabilities to initialize the discovery and inventory process and perform required actions on these devices.

Prerequisites

Credentials: The discovery process in OME communicates to the devices by using the following supported protocols:

Table 1. Protocols and Credentials

Protocols	Required Credentials
SNMP	SNMP Community string
WMI	Windows Administrator credentials
IPMI	IPMI operator credentials
WS-Man	WS-Man Administrator credentials
Dell EMC Array	EMC credentials
SSH	SSH Administrator credentials

Setting up the systems to be managed: There are a few settings to be performed on the managed node to make it discoverable over the network. For more information, see the ***Make your Environment Manageable with Dell OpenManage Essentials*** white paper on the [Dell TechCenter](#).

OpenManage Server Administrator (OMSA): OMSA must be installed on all the systems that must be managed by using OME.

Performing discovery and inventory using guided wizard

- [Discovery Range Configuration](#)
- [Device Type Filtering](#)
- [ICMP Configuration](#)
- [SNMP Configuration](#)
- [WMI Configuration](#)
- [WS-Man Configuration](#)
- [SSH Configuration](#)
- [Summary](#)

Configuring discovery range

Mention the device IP ranges in the environment to perform discovery and inventory.

1. Click **Manage** → **Discovery and Inventory** → **Discovery Ranges** → **All Ranges**.
2. Right-click **All Ranges** and click **Add Discovery Range**.

Figure 1. Adding Discovery Range

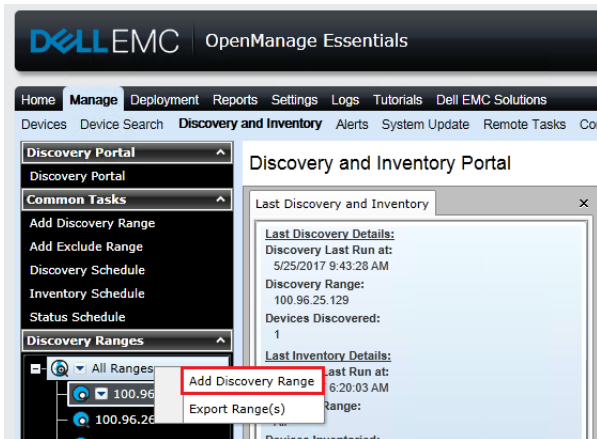
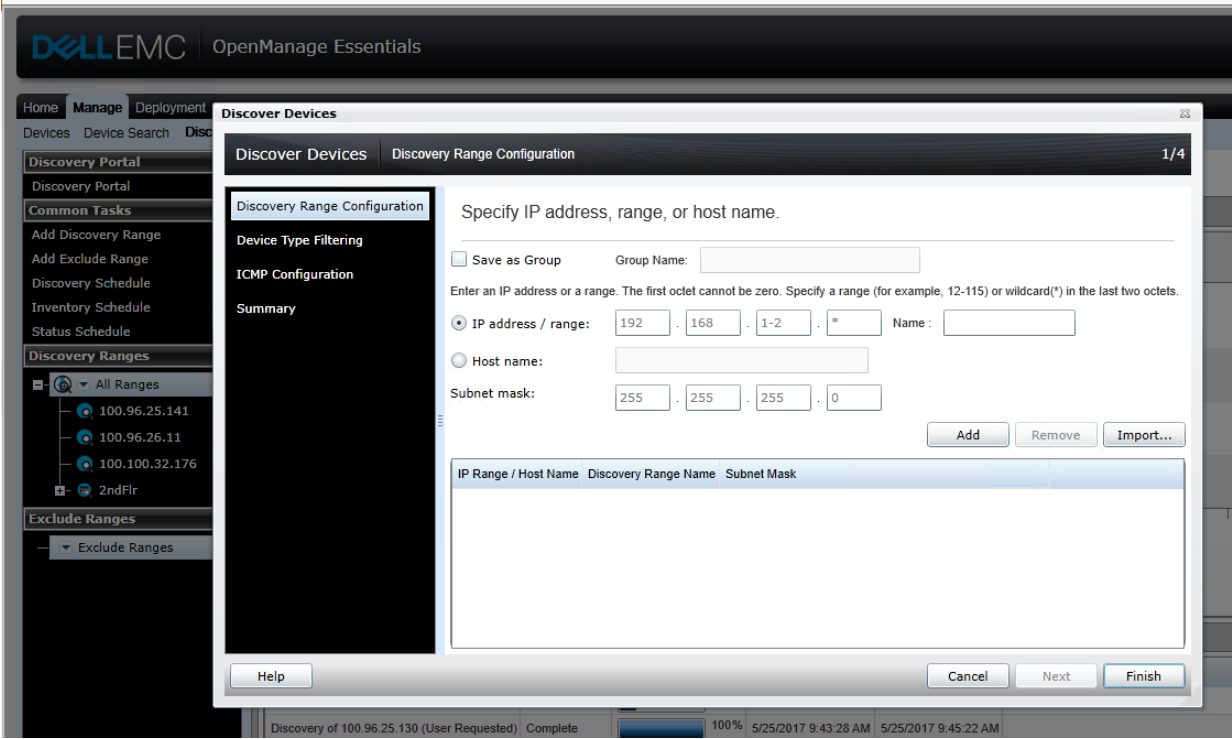


Figure 2. Discovery Range Wizard



IP Address or IP Range

Sample IP ranges that can be used as an IP range for discovery:

Table 2. Sample IP range

IP range	192.109.112.*
	192.109.110-112.*
	192.109.*.*
	192.109.110-112.11-19
	192.109.110.11-19
Host name	WIN-XPDF17J
Single IP	192.109.112.113

The Import functionality provided in OME enables you to import a Discovery Range which is defined in a .csv file format. The maximum numbers of devices that can be imported by using this method is 500.

Figure 3. .csv file

Name	Type	Data
1750-win-r03-03	Host (A)	10.94.172.180
1750-win-r03-04	Host (A)	10.94.172.181
1750-win-r03-05	Host (A)	10.94.172.182
1750-win-r03-06	Host (A)	10.94.172.183
1750-win-r03-07	Host (A)	10.94.10.184
1750-win-r03-08	Host (A)	10.94.172.185
1750-win-r03-09	Host (A)	10.94.172.186
2890-win2k12R2	Host (A)	10.94.17.187
2891-esx	Host (A)	10.94.12.188

The following example demonstrates adding a Discovery Range by using SNMP or WMI protocol in the Add Discovery Range Wizard.

1. Enter the IP range to be discovered.
2. Type the Range Name (optional) and click **Add**.
3. If necessary, repeat steps 1–2.
4. Click **Next**.

Figure 4. Specifying IP range

Discover Devices 23
Discover Devices | Discovery Range Configuration 1/4

Discovery Range Configuration

Device Type Filtering
ICMP Configuration
Summary

Specify IP address, range, or host name.

☐ Save as Group Group Name:

Enter an IP address or a range. The first octet cannot be zero. Specify a range (for example, 12-115) or wildcard(*) in the last two octets.

☒ IP address / range: . . . Name :

☐ Host name:

Subnet mask: . . .

IP Range / Host Name	Discovery Range Name	Subnet Mask
100.99.25.24	Printer	255.255.255.0

Device type filtering

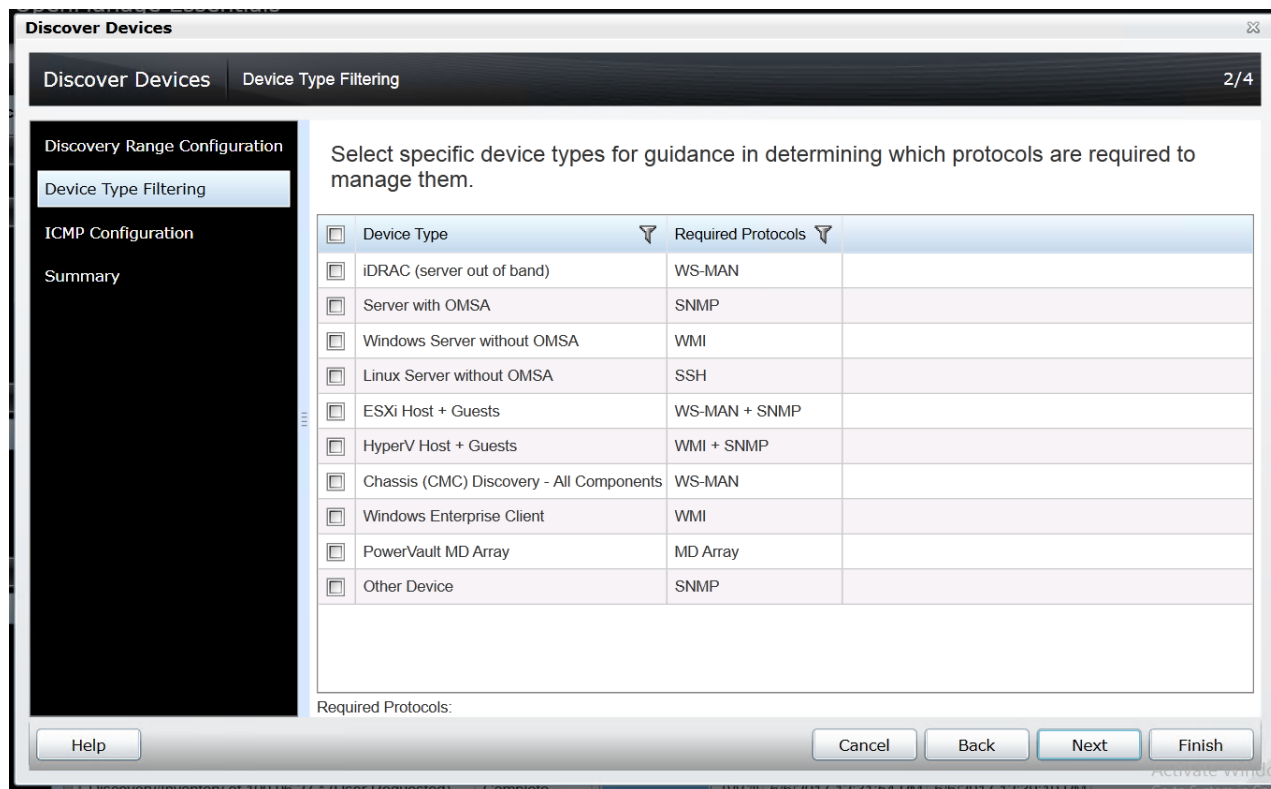
Enables selection of the type of devices that must be discovered. Each selected device has an associated protocol and the types of devices and associated devices that can be selected are listed in 0 and the screen shot is shown in Figure 5.

For example, to select an out-of-band IP, select the **iDRAC (server out of band)** check box, and then type the WS-Man credentials (see Figure 5).

Device type and associated protocols:

Sl. No	Device Type	Required Protocols
1	iDRAC (Server out of band)	WS-MAN
2	Server with OMSA	SNMP
3	Windows Server without OMSA	WMI
4	Linux Server without OMSA	SSH
5	ESXi Host	SNMP + WS-MAN
6	HyperV Host + Guests	SNMP + WMI
7	Chassis (CMC) Discovery - All Compone	WS-MAN
8	Windows Desktops and Laptops	WMI
9	PowerVault MD Array	MD Array
10	Other Devices	SNMP

Figure 5. Device Type Filtering screen



Note:

To select Chassis (CMC) Discovery, you must type the group name. See Figure 4.

Configuring ICMP

1. Set the time after which the PING task must time out.
2. Specify the number of attempts.
3. Click **Next**.

Figure 6. ICMP Configuration screen

The screenshot shows the 'Discover Devices' window with the 'ICMP Configuration' tab selected. The left sidebar contains 'Discovery Range Configuration', 'Device Type Filtering', 'ICMP Configuration' (highlighted), and 'Summary'. The main area has a title bar with 'Discover Devices' and 'ICMP Configuration' (3/4), and a subtitle 'You may configure the ICMP parameters.' with a help icon. Below the subtitle are two input fields: 'Timeout: 1,000 milliseconds' (labeled 1) and 'Retries: 1 attempts' (labeled 2). At the bottom, there are four buttons: 'Help', 'Cancel', 'Back', and 'Next' (labeled 3), followed by 'Finish'.

Configuring SNMP

You can configure SNMP on:

- A server that has OMSA installed
- An ESXi Host
- A HyperV Host and guest servers
- Other devices

On the SNMP Configuration page, following options are displayed:

- Option to select SNMP V1/V2C
 - Get Community Name
 - Set community name
- Option to select SNMP V3
 - Authentication protocols (SHA1, MD5, None)
 - User Name
 - Authentication Password
 - Encryption Protocol (AES, DES, None)

- Encryption Password
- Timeout
- Number of retries to be performed

For more information about the SNMP V3 configuration, see the *SNMP v3 based discovery and monitoring* technical white paper on [Dell TechCenter](#).

Figure 7. SNMP Configuration screen

The image shows the 'SNMP Configuration' screen within the 'Discover Devices' application. The screen is divided into a left sidebar and a main configuration area. The sidebar contains a tree view with the following items: 'Discovery Range Configuration', 'Device Type Filtering', 'ICMP Configuration', 'SNMP Configuration' (selected), and 'Summary'. The main area is titled 'Specify the SNMP settings for discovery.' and contains several sections. The 'Enable SNMP discovery' section is checked. The 'Enable SNMP V1/V2C' section is checked and labeled with a red '1'. It contains two text boxes: 'Get community:' with the value 'public' and 'Set community:' which is empty. The 'Enable SNMP V3' section is checked and labeled with a blue '2'. It contains a dropdown menu for 'Authentication Protocol' set to 'SHA1', a text box for 'User Name' which is empty, a text box for 'Authentication Password' which is empty, a dropdown menu for 'Encryption Protocol' set to 'AES', and a text box for 'Encryption Password' which is empty. The 'Generic Settings' section is labeled with a blue '3' and contains two spinners: 'Timeout:' set to '4' seconds and 'Retries:' set to '2' attempts. A blue '4' is next to the 'Retries' spinner. At the bottom of the screen are buttons for 'Help', 'Cancel', 'Back', 'Next', and 'Finish'. The status bar at the very bottom shows the date and time: '5/25/2017 6:20:05 AM' and '5/25/2017 6:24:24 AM'.

Discover Devices

Discover Devices | SNMP Configuration 4/5

Discovery Range Configuration

Device Type Filtering

ICMP Configuration

SNMP Configuration

Summary 1.1

1.2

2.1

2.2

2.3

2.4

2.5

Specify the SNMP settings for discovery.

☒ Enable SNMP discovery:

☒ Enable SNMP V1/V2C 1

Get community: public

Set community:

☒ Enable SNMP V3 2

Authentication Protocol SHA1

User Name:

Authentication Password

Encryption Protocol AES

Encryption Password

Generic Settings 3 Timeout: 4 seconds Retries: 2 attempts 4

Help Cancel Back Next Finish

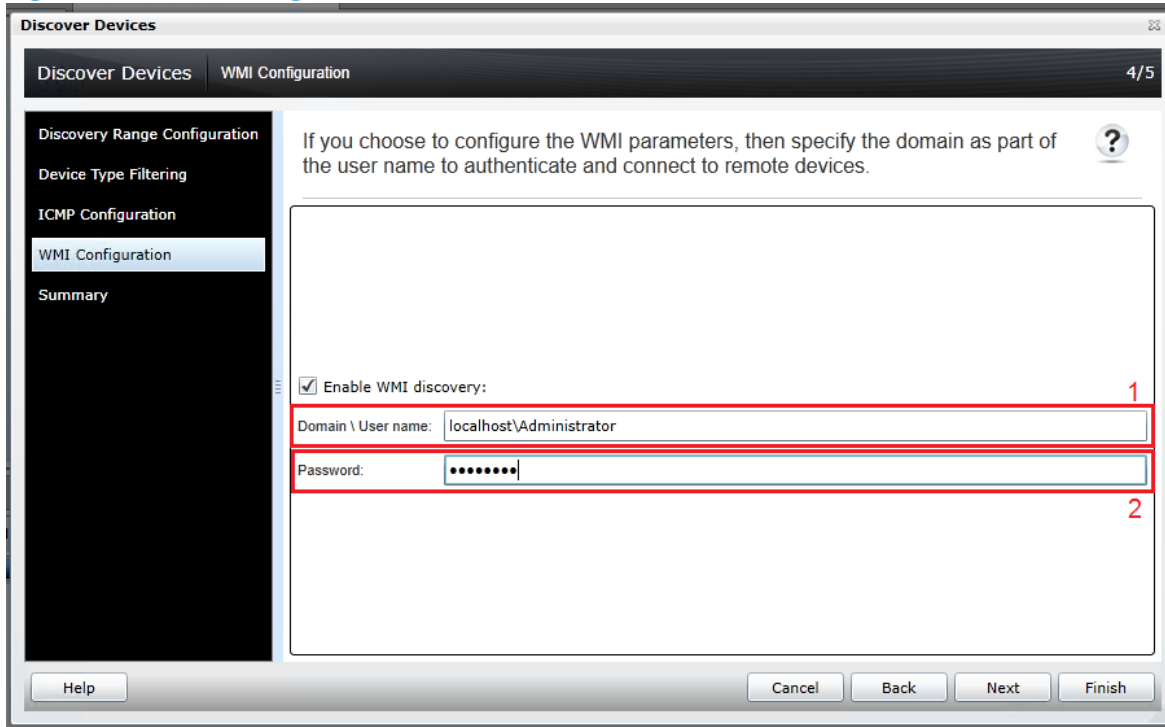
5/25/2017 6:20:05 AM 5/25/2017 6:24:24 AM

Configuring WMI

The WMI Configuration dialog box is displayed when the following options are selected:

- **Domain \ User name**
- **Password**

Figure 8. WMI Configuration screen



Configuring WS-Man

The WS-Man Configuration dialog box is displayed when the following options are selected:

- **iDRAC (Server out of band)**
- **ESXi Host**
- **Chassis (CMC) Discovery – All Components**

WS-Man configuration field descriptions

Select **iDRAC (Server out-of-band)** and **ESXi Host**, and type or select data in the fields:

- **WS-MAN User ID**, where the iDRAC or ESXi host user name must be typed.
- Type the iDRAC or ESXi host name and password.
- Type the duration after which the discovery task must time out, number of attempts to discover, and the port to access a device.
- **Secure Mode**, provides the options related to security
 - **Skip Common name check**: to skip authenticating common name
 - Weather **Trusted site** or not: to skip authenticating certifying authority
 - Certificate file, if the WS-MAN server(s) needs to be provided

Figure 9. WS-Man Configuration screen

The screenshot shows the 'Discover Devices' wizard with the 'WS-Man Configuration' tab selected. The left sidebar contains the following options: 'Discovery Range Configuration', 'Device Type Filtering', 'ICMP Configuration', 'WS-Man Configuration' (highlighted), and 'Summary'. The main area is titled 'Please specify the WS-Man credentials.' and contains the following fields and options:

- ☒ Enable WS-Man Discovery
- User ID: (labeled 1)
- Password: (labeled 2)
- Timeout: 60 seconds, Retries: 3 attempts (labeled 3)
- Port: 443 (Secure)
- ☒ Secure Mode (labeled 4)
- ☒ Skip Common name check (labeled 4.1)
- ☒ Trusted Site (labeled 4.2)
- Certificate File: Browse (labeled 4.3)

At the bottom, there are buttons for 'Help', 'Cancel', 'Back', 'Next', and 'Finish'.

WS-Man configuration screen options for discovering CMC and all associated components

In case of **Chassis (CMC) Discovery – All Components**, the following tabs are displayed:

- WS-Man Configuration of the CMC Device
- WS-Man configuration for iDRACs and switches

The first tab screen is exactly same as WS-Man configuration . Second tab (Alternate WS-Man Configuration for iDRACs) has additional options, mentioned below and shown in Figure 11:

- Auto-discover iDRACs and switches in CMC – Select to discover switches and iDRACs installed on a CMC
- Use the same credentials of CMC for discovering iDRACs – If you clear the check box, type the iDRAC credentials

Figure 10. CMC WS-Man Configuration Screen, tab 1

Discover Devices

Discover Devices WS-Man Configuration 4/5

Discovery Range Configuration
Device Type Filtering
ICMP Configuration
WS-Man Configuration
Summary

Please specify the WS-Man credentials of the CMC/iDRACs.

WS-Man Configuration Alternate WS-Man Configuration for iDRACs

☒ Enable WS-Man Discovery

User ID:

Password:

Timeout: 60 seconds Retries: 3 attempts

Port: 443 (Secure)

☒ Secure Mode

☒ Skip Common name check

☒ Trusted Site

Certificate File: Browse

Help Cancel Back Next Finish

Figure 11. CMC WS-Man Configuration Screen, tab 2

Discover Devices

Discover Devices WS-Man Configuration 4/5

Discovery Range Configuration
Device Type Filtering
ICMP Configuration
WS-Man Configuration
Summary

Please specify the WS-Man credentials of the CMC/iDRACs.

WS-Man Configuration Alternate WS-Man Configuration for iDRACs

☒ Auto discover iDRACs and switches in the CMC ☒ Use same credentials of CMC for discovering iDRACs

User ID:

Password:

Timeout: 60 seconds Retries: 3 attempts

Port: 623

☒ Secure Mode

☒ Skip Common name check

☒ Trusted Site

Certificate File: Browse

Help Cancel Back Next Finish

Configuring SSH

This screen appears when SSH is selected in the device type filtering screen. It is as shown in Figure 12.

- **User Name**
- **Password**
- **Port, Retries and Timeout**

Figure 12. SSH Configuration screen

The screenshot shows the 'SSH Configuration' screen within the 'Discover Devices' wizard. The left sidebar contains a list of configuration options: Discovery Range Configuration, ICMP Configuration, SNMP Configuration, WMI Configuration, Storage Configuration, WS-Man Configuration, SSH Configuration (highlighted), IPMI Configuration, Discovery Range Action, and Summary. The main area is titled 'Specify the SSH related parameters to enable discovery of Linux servers.' and contains the following fields:

- ☒ Enable SSH discovery: (labeled 1)
- User Name: root (labeled 1)
- Password: (masked with dots) (labeled 1)
- Port: 22 (labeled 2)
- Retries: 3 attempts (labeled 3)
- Timeout: 3 seconds (labeled 3)

At the bottom, there are buttons for Help, Cancel, Back, Next, and Finish.

Summary

This screen displays a list that summarizes the options selected from the first screen. After reviewing the summary, you can modify the settings or complete the process.

1. Click **Back** to navigate to the previous screens.
2. Click **Finish** to complete the range configuration, the range will be added to the **Include Range** list.
3. Select the required label to directly go to a specific screen.

Discover Devices

Summary7/7

Discovery Range Configuration

Device Type Filtering

ICMP Configuration

SNMP Configuration

WMI Configuration

WS-Man Configuration

Summary

Review your inputs and click Finish to continue or click Back to change your inputs.

Attribute	Value
Action to be taken	Perform both Discovery and Inventory.
Include Range	192.168.1-2.*/255.255.255.0
ICMP Timeout (milliseconds)	1000
ICMP Retry	1
WSMAN Discovery	Enabled
WSMan UserName	root
WSMAN Port #	443
WSMAN Timeout	60
WSMAN Retries	3
Certificate Path	
SNMP Discovery	Enabled
SNMP v3 Discovery	Disabled
SNMP v1/v2c Discovery	Enabled
SNMP Timeout (seconds)	4
Number of SNMP Retry attempts	2
SNMP Get Community	public
SNMP Set Community	
WMI Discovery	Enabled
WMI User Name	localhost/Administrator

Help

Cancel

Back

Finish

3

1

2

Device-based discovery

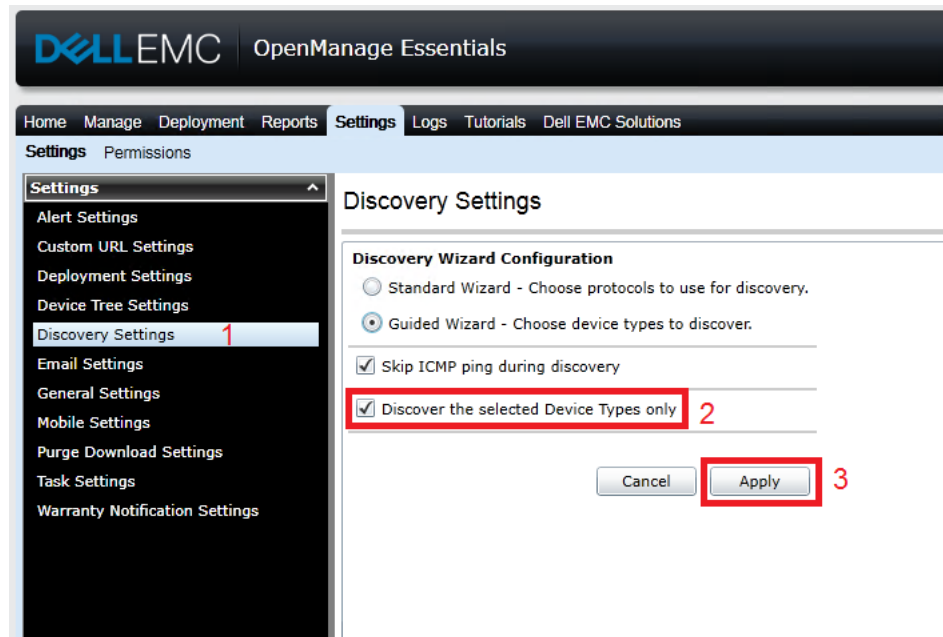
Enables discovering only the device types selected in the **Device Type Filtering** screen mentioned in Figure 5.

For example, if **iDRAC (server out-of-band)** is selected in the **Device Type Filtering** screen, only iDRAC servers that match the credentials are discovered, and CMCs or ESXi servers are not discovered.

By default, OME has device-based discovery. To disable this filter:

- Click **Settings** → **Discovery Settings**.
- Clear the **Discover the selected Device Types only** check box.
- Click **Apply**.

Figure 13. Device Based Discovery screen



Note for upgrade scenarios

If OME was upgraded from either 2.1 or 2.2 to 2.3 and later versions, you observe a change in the guided wizard. By default, the guided wizard in OME 2.3 shows the behavior of device-based discovery.

By default, the Discovery/Inventory uses Device-based discovery in the following cases:

- Any new discovery configuration created after upgrade
- The discovery configuration that was created in the previous version by using guided wizard

Excluding range

OME allows excluding a particular range from being discovered or rediscovered. To exclude a range from discovery task:

1. Click **Manage** → **Discovery and Inventory** → **Add Exclude Range**.
2. Right-click **Add Exclude Range** and select **Add Exclude Range** when prompted.
3. Click **OK**.
4. Type the IP address or IP range, discovery range name, or host name.
5. Click **Add**.
6. Click **Finish**.

Figure 14. Exclude Discovery Range screen

Exclude Discovery Range

OpenManage Essentials | Exclude Range Configuration | 1/1

Exclude Range Configuration

Enter an IP address or a range. The first octet cannot be zero. Specify a range (for example, 12-115) or wildcard(*) in the last two octets.

☒ IP address / range: . . . Name

☐ Host name:

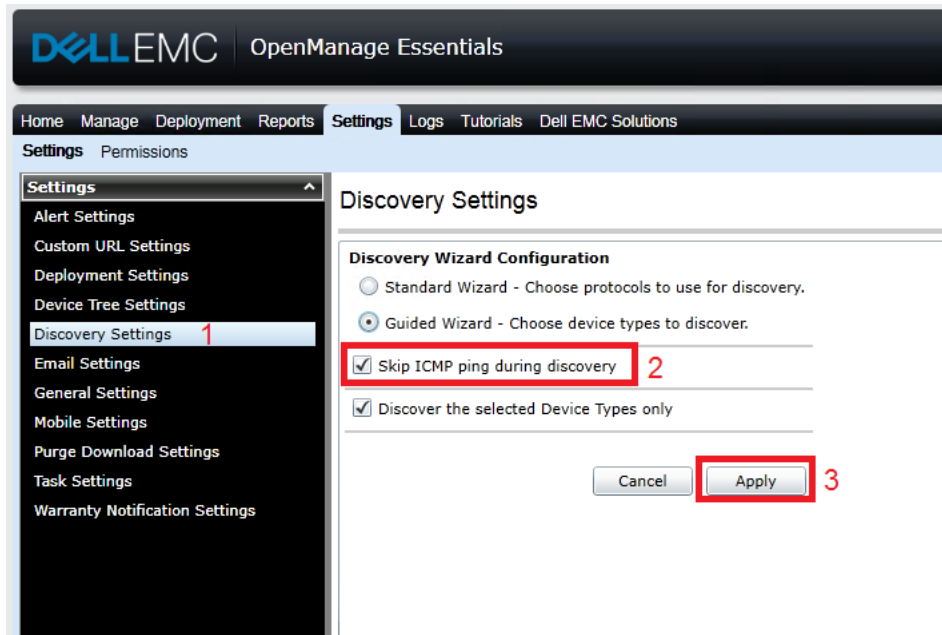
IP Range / Host Name	Exclude Range Name
192.168.1-2.*	

Skiping ICMP ping during discovery

In many organizations, ICMP protocol is disabled in the servers. Therefore, OME does not support ICMP ping by default during discovery and any other tasks. However, it is possible to disable this feature by doing the following:

- Click **Settings** → **Discovery Settings**.
- Clear the **Skip ICMP ping during discovery** check box.
- Click **Apply**.

Figure 15. Skip ICMP screen



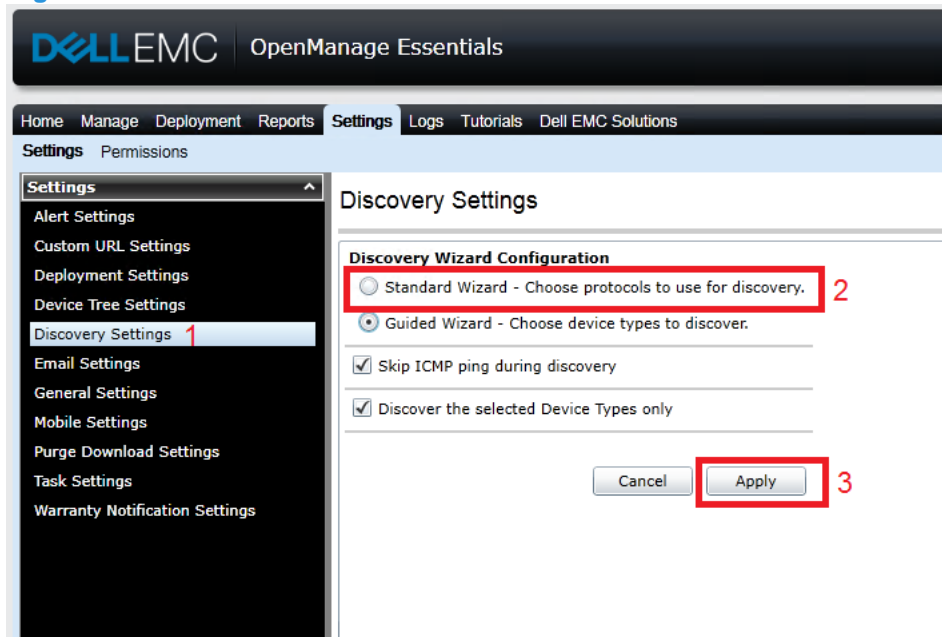
Performing Discovery and Inventory using Standard Wizard

It is also possible to discover the devices using legacy standard wizard if required at any point. It is possible to use standard wizard during discovery by doing the following:

1. Click **Settings** → **Discovery Settings**.
2. Select the **Standard Wizard – Choose protocols for use to discovery** check box.
3. Click **Apply**.

Because the discovery is based on protocols and not based on device type, Device type filtering screen does not appear in the standard wizard.

Figure 16. Wizard selection screen



The discovery and inventory of devices using standard wizard can be summarized as follows:

- [Discovery Range Configuration](#)
- [ICMP Configuration](#)
- [SNMP Configuration](#)
- [WMI Configuration](#)
- [Storage Configuration](#)
- [WS-Man Configuration](#)
- [SSH Configuration](#)
- [IPMI Configuration](#)
- [Discovery Range Action](#)
- Summary

For more information about Discovery Configuration, ICMP, SNMP, WMI, WS-Man, SSH Configurations and Summary screen, see [Steps for Performing Discovery and Inventory using Guided Wizard](#).

Configuring Storage

Set the options to discover PowerVault Modular drives or Dell EMC Devices. Any required credentials for the devices must be provided.

Figure 17. Storage Configuration screen

The screenshot shows the 'Discover Devices' wizard window. The title bar says 'Discover Devices'. The window has two tabs: 'Discovery Range Configuration' and 'Storage Configuration'. The 'Storage Configuration' tab is active, and the page number '5/10' is in the top right corner. On the left is a navigation pane with the following items: 'Discovery Range Configuration', 'ICMP Configuration', 'SNMP Configuration', 'WMI Configuration', 'Storage Configuration' (highlighted), 'WS-Man Configuration', 'SSH Configuration', 'IPMI Configuration', 'Discovery Range Action', and 'Summary'. The main area of the 'Storage Configuration' tab contains the following text: 'Select these check-boxes if you have PowerVault Modular Disk or Dell/EMC devices in this discovery range.' followed by a question mark icon. Below this are two checkboxes: 'Enable PowerVault MD array discovery:' (unchecked) and 'Enable Dell/EMC array discovery:' (unchecked). Under the second checkbox are three input fields: 'Dell/EMC user name:', 'Dell/EMC password:', and 'Dell/EMC port:' (with '443' entered). At the bottom of the main area is a text box with the following text: 'For discovery, enable SNMP on the Dell/EMC arrays. For inventory, install Navisphere Secure CLI (naviseccli.exe) on management stations. For additional setup information on AX model storage products, refer to online help.' At the bottom of the window are four buttons: 'Help', 'Cancel', 'Back', 'Next', and 'Finish'.

Configuring IPMI

Set the options to configure IPMI credentials for discovering DRAC or iDRAC devices.

Figure 18. IPMI Configuration screen

The screenshot shows a window titled "Discover Devices" with a tabbed interface. The "IPMI Configuration" tab is selected, showing a configuration screen for IPMI parameters. The left sidebar contains a list of configuration steps: Discovery Range Configuration, ICMP Configuration, SNMP Configuration, WMI Configuration, Storage Configuration, WS-Man Configuration, SSH Configuration, IPMI Configuration (highlighted), Discovery Range Action, and Summary. The main area has a heading "You may configure the IPMI parameters." and a checkbox "Enable IPMI discovery:" which is checked. Below this are input fields for "User Name:" (root), "Password:" (masked with dots), "KG key:" (12345), "Timeout:" (5 seconds), and "Retries:" (2 attempts). At the bottom are buttons for "Help", "Cancel", "Back", "Next", and "Finish".

Discover Devices

Discovery Range Configuration | IPMI Configuration 8/10

Discovery Range Configuration

ICMP Configuration

SNMP Configuration

WMI Configuration

Storage Configuration

WS-Man Configuration

SSH Configuration

IPMI Configuration

Discovery Range Action

Summary

You may configure the IPMI parameters.

☒ Enable IPMI discovery:

User Name: root

Password: ••••

KG key: 12345

Timeout: 5 seconds

Retries: 2 attempts

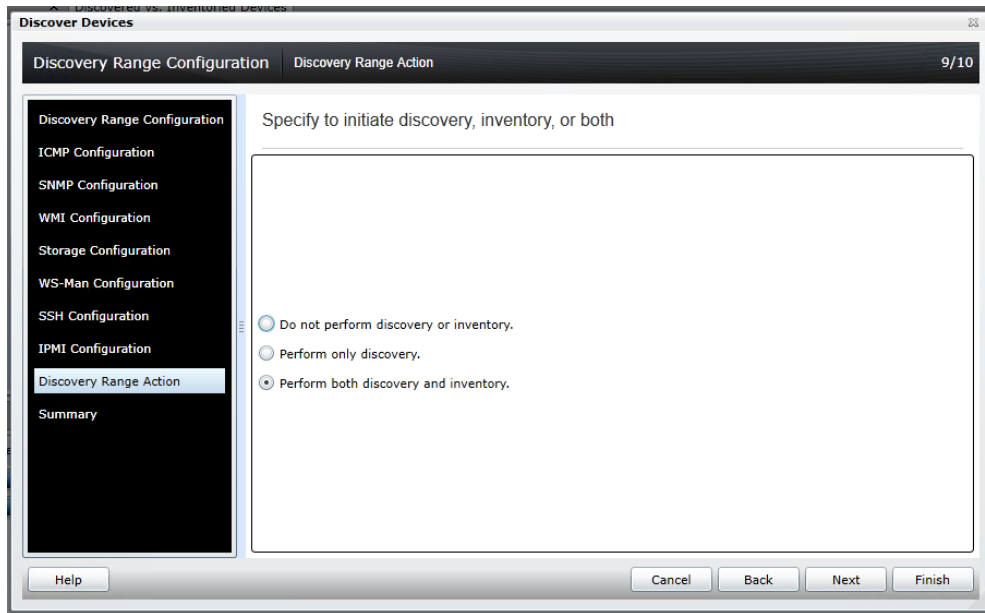
Help Cancel Back Next Finish

Discovery range action

Select one of the following:

- Do not perform discovery or inventory
- Perform only discovery
- Perform both discovery and inventory

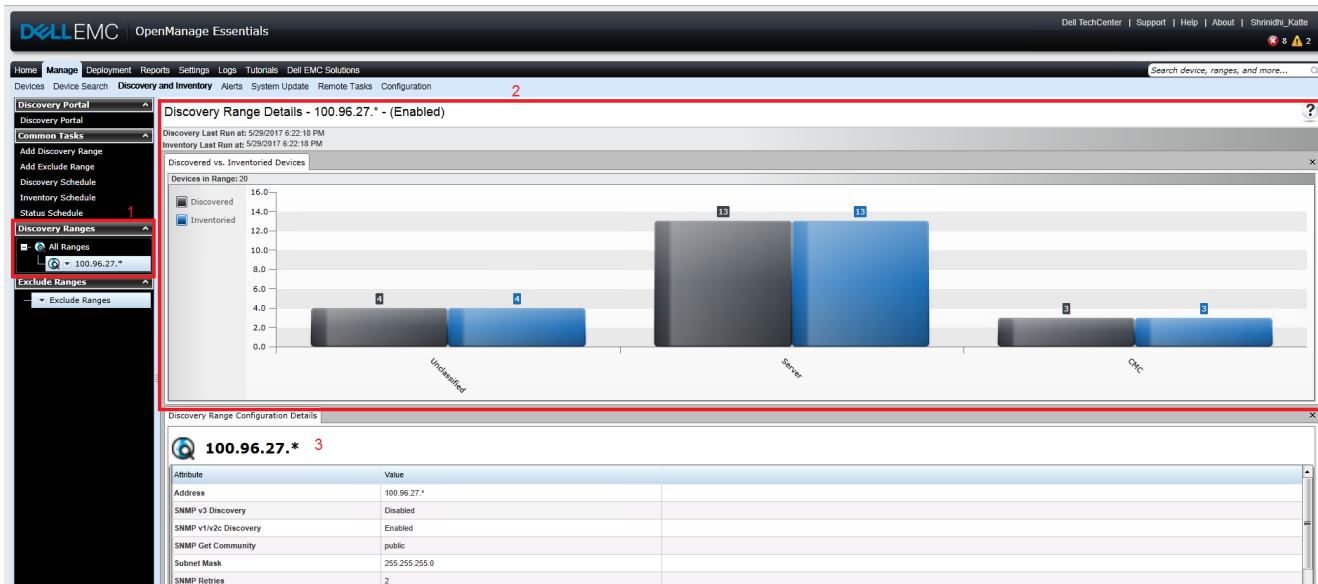
Figure 19. Discovery Range Action Screen



Discovery and Inventory Portal

The Discovery and Inventory Portal provides a single point of access to view the details of discovered or inventoried devices at any given point of time. To view the portal, click **Manage** → **Discovery and Inventory** → **Discovery Ranges** → **All Ranges** → preferred range. Using this screen, a System Administrator can monitor the progress of the Discovery Inventory process.

Figure 20. Discovery and Inventory Portal Page



The screen is divided into three sub-screens:

- **Discovery Ranges:** The range of IPs which is added.
- **Discovery Range Details:** A graphical representation of discovered and inventoried devices to visually separate the devices from the previously executed discovery and inventory task.
- **Discovery Range Configuration Details:** The details of discovery configuration range.

Device Tree

After the discovery and inventory process is completed, the System Administrator can view the detailed information of all the devices using the Device Tree screen.

To view the Device Tree, navigate to the **Manage → Devices** tab, and then select the **All Devices** node to view the devices classified under specific nodes as per the device category. The icon corresponding to each device represents the current health status.

This screen gives a glance of all the discovered and inventoried devices, the type of devices, and the health of each device (green-normal, yellow-warning, and red-critical).

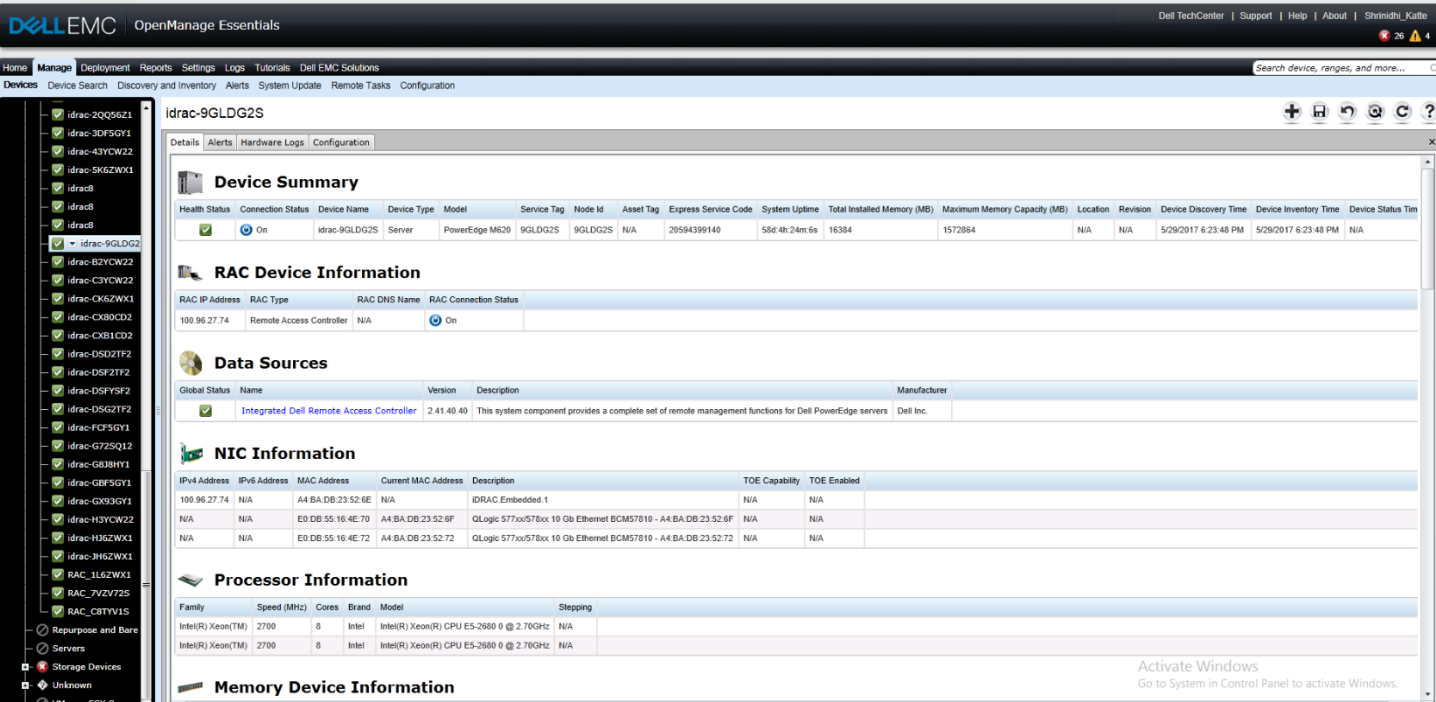
Figure 21. Device Tree

Health Status	Connection Status	Device Name	RAC Name	Service Tag	Device Type	Model	Discovered On	Invented On	Statused On
On	On	ALM_POC	N/A	3N15X42	Dell EMC Networking	S4848 ON access switch	5/29/2017 6:28:06 PM	5/29/2017 6:28:06 PM	
On	On	cmc-6JR5621	N/A	6JR5621	CMC	PowerEdge VRTX	5/29/2017 6:22:40 PM	5/29/2017 6:22:40 PM	
On	On	CMC-CT3YV42	N/A	CT3YV42	CMC	PowerEdge F32c	5/29/2017 6:22:45 PM	5/29/2017 6:22:45 PM	
On	On	ice-switch	N/A	G3SPX42	Dell EMC Networking	S4848 ON access switch	5/29/2017 6:28:07 PM	5/29/2017 6:28:07 PM	
On	On	idrac	idrac	4T3DR42	Server	PowerEdge R730	5/29/2017 6:27:08 PM	5/29/2017 6:27:08 PM	
On	On	idrac	idrac	2P7SY42	Server	PowerEdge R630	5/29/2017 6:27:59 PM	5/29/2017 6:27:59 PM	
On	On	idrac	idrac	4Q3DR42	Server	PowerEdge R630	5/29/2017 6:26:11 PM	5/29/2017 6:26:11 PM	
On	On	idrac-2489R42a	idrac-2489R42a	2489R42	Server	PowerEdge FM120	5/29/2017 6:26:39 PM	5/29/2017 6:26:39 PM	
On	On	idrac-2489R42b	idrac-2489R42b	2489R42	Server	PowerEdge FM120	5/29/2017 6:27:13 PM	5/29/2017 6:27:13 PM	
On	On	idrac-2489R42c	idrac-2489R42c	2489R42	Server	PowerEdge FM120	5/29/2017 6:27:48 PM	5/29/2017 6:27:48 PM	
On	On	idrac-2489R42d	idrac-2489R42d	2489R42	Server	PowerEdge FM120	5/29/2017 6:28:32 PM	5/29/2017 6:28:32 PM	
On	On	idrac-35X3621	108 96 27 11	35X3621	Server	PowerEdge R520	5/29/2017 6:22:33 PM	5/29/2017 6:22:33 PM	
On	On	idrac-50Q5621	idrac-50Q5621	50Q5621	Server	PowerEdge R520	5/29/2017 6:23:17 PM	5/29/2017 6:23:17 PM	
On	On	idrac-88DH932	idrac-88DH932	88DH932	Server	PowerEdge R730nd	5/29/2017 6:28:20 PM	5/29/2017 6:28:20 PM	
On	On	idrac-89DH932	idrac-89DH932	89DH932	Server	PowerEdge R530	5/29/2017 6:23:19 PM	5/29/2017 6:23:19 PM	
On	On	idrac-820FR42	idrac-820FR42	820FR42	Server	PowerEdge T630	5/29/2017 6:24:45 PM	5/29/2017 6:24:45 PM	
On	On	idrac-BN1JR42a	idrac-BN1JR42a	BN1JR42	Server	PowerEdge FM120	5/29/2017 6:27:03 PM	5/29/2017 6:27:03 PM	
On	On	idrac-BN1JR42b	idrac-BN1JR42b	BN1JR42	Server	PowerEdge FM120	5/29/2017 6:27:39 PM	5/29/2017 6:27:39 PM	
On	On	idrac-BN1JR42c	idrac-BN1JR42c	BN1JR42	Server	PowerEdge FM120	5/29/2017 6:28:13 PM	5/29/2017 6:28:13 PM	
On	On	idrac-BN1JR42d	idrac-BN1JR42d	BN1JR42	Server	PowerEdge FM120	5/29/2017 6:28:44 PM	5/29/2017 6:28:44 PM	

Device Inventory Details

To view a detailed inventory of a particular device, select the device, and view the details in the working pane.

Figure 22. Device Details



The inventory details table displays all the details based on the discovery protocol used.

The following table shows all possible inventory headers captured and displayed by OME:

Figure 23. Inventory Details

Device Summary	Physical Disk
OS Information	Virtual Disk
Software Agent Information	Contact
NIC Information	Software Inventory
RAC information	Trusted Plafrom Module
iDRAC	FRU
Processor Information	Acquisition Information
Memory Device Info	Depreciation Information
Firmware Information	Extended Warranty
Power Supply	Ownership Information
Embedded Device	Outsource Information
Controller Device	Virtual Machine Guest Info.
Enclosure Information	Virtual Machine NIC Info.

Device Search

If there are many devices under the tree, managing them might be difficult. Searching manually for a particular device for monitoring can be a tedious process. To overcome this situation, OME includes a Device Search option.

1. Click **Manage** → **Device Search**.
2. Type a name for the new search query.
3. Select the required options from the **Where** drop-down menu.
4. Select any supporting sub-criteria.
5. Type a part of the device name.
6. Click **Run Query**.

The result is displayed in the lower horizontal pane.

Figure 24. Device Search Screen

The screenshot shows the Dell EMC OpenManage Essentials interface. The top navigation bar includes 'Home', 'Manage', 'Deployment', 'Reports', 'Settings', 'Logs', 'Tutorials', and 'Dell EMC Solutions'. The 'Device Search' tab is selected. The search query builder shows a query named 'MyQuery_5/29/2017 6:38:09 PM'. The 'Where' field is set to 'Device Name', the operator is 'Contains', and the value is 'idrac'. The 'Run Query' button is highlighted. Below the query builder, a table displays search results for 53 devices. The table has columns for Health Status, Connection Status, Name, OS Name, OS Revision, Service Tag, Asset Tag, Device Model, Device Type, System Revision Number, Device Location Information, Data Center Name, and Room Name. The first row shows a device with Health Status 'On', Connection Status 'On', Name 'idrac', OS Name 'VMware ESXi 5.1.0 build-1483697', OS Revision 'NA', Service Tag 'CQ3R052', Asset Tag 'DEF', Device Model 'PowerEdge M630', Device Type 'Server', System Revision Number 'NA', Device Location Information 'NA', Data Center Name 'BDC', and Room Name 'NA'.

Health Status	Connection Status	Name	OS Name	OS Revision	Service Tag	Asset Tag	Device Model	Device Type	System Revision Number	Device Location Information	Data Center Name	Room Name
On	On	idrac	VMware ESXi 5.1.0 build-1483697	NA	CQ3R052	DEF	PowerEdge M630	Server	NA	NA	BDC	NA
On	On	idrac	VMware ESXi 6.0.0 build-3620759	NA	7C83GY1	DEF	PowerEdge R620	Server	NA	NA	DC	Room
On	On	idrac	VMware ESXi 5.5.0 build-2652839	NA	4Q3DR42	NA	PowerEdge R630	Server	NA	NA	DC	Room
On	On	idrac	NA	NA	4T3DR42	NA	PowerEdge R730	Server	NA	NA	DC	Room
On	On	idrac	NA	NA	2P7SY42	NA	PowerEdge R630	Server	NA	NA	DC	Room

Learn More

For more information about other System Management software of Dell EMC, visit:

- <http://en.community.dell.com>
- <http://en.community.dell.com/techcenter/systems-management/w/wiki/1989.openmanage-essentials>