

Dell EMC OpenManage Software Support Matrix

Version 9.0.1

Notes, cautions, and warnings

-  **NOTE:** A NOTE indicates important information that helps you make better use of your product.
-  **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.
-  **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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Introduction

The Systems Management Software Support Matrix helps identify OpenManage software and other Dell components supported on Dell PowerEdge, browsers, and operating systems.

This guide is intended for system administrators and technicians. The guide provides information about the available Dell systems, the operating systems supported by these systems, and the OpenManage components that can be installed on these systems.

What is new in this release

This release adds support for the following:

- Support for the following operating systems:
 - Support for Red Hat Enterprise Linux 6.9
 - VMware ESXi 6.5
 - VMware ESXi 6.0 U3
 -  **NOTE: Citrix XenServer operating system support has been dropped for Server Administrator and Storage Management.**
- Support for the following browsers:
 - Internet Explorer - 9, 10, 11
 - Microsoft Edge 25
 - Google Chrome - 58
 - Safari - 9.1
 - Mozilla Firefox - 52, 53

 **NOTE: For the list of supported operating systems and Dell servers, see the *Dell EMC OpenManage Software Support Matrix* in the required version of OpenManage Software at dell.com/openmanagemanuals.**

Structure of this guide

OpenManage solutions and tools allow customers to quickly respond to problems by helping them to manage Dell servers effectively and efficiently; in physical, virtual, local, and remote environments, operating in-band and out-of-band (agent-free).

This guide is organized on the basis of in-band and out-of-band management and monitoring.

Accessing documents from the Dell EMC support site

You can access the required documents using the following links:

- For Dell EMC Enterprise Systems Management documents — Dell.com/SoftwareSecurityManuals
- For Dell EMC OpenManage documents — Dell.com/OpenManageManuals
- For Dell EMC Remote Enterprise Systems Management documents — Dell.com/esmmanuals
- For iDRAC and Dell EMC Lifecycle Controller documents — Dell.com/idracmanuals
- For Dell EMC OpenManage Connections Enterprise Systems Management documents — Dell.com/OMConnectionsEnterpriseSystemsManagement
- For Dell EMC Serviceability Tools documents — Dell.com/ServiceabilityTools
- For Client Command Suite Systems Management documents — Dell.com/DellClientCommandSuiteManuals

- a. Go to Dell.com/Support/Home.
- b. Click **Choose from all products**.
- c. From **All products** section, click **Software & Security**, and then click the required link from the following:
 - **Enterprise Systems Management**
 - **Remote Enterprise Systems Management**
 - **Serviceability Tools**
 - **Dell Client Command Suite**
 - **Connections Client Systems Management**
- d. To view a document, click the required product version.
- Using search engines:
 - Type the name and version of the document in the search box.

Where can I find the Server Administrator one-to-one agent

Supported versions of Server Administrator are available at dell.com/support and also on the *Dell EMC Systems Management Tools and Documentation* ISO image.

Supported GUI languages

OpenManage is localized to French, German, Spanish, Simplified Chinese, and Japanese languages.

The following table lists the languages of the OpenManage GUI against the operating system languages. OpenManage supports only the languages listed in the following table.

Table 1. Supported OpenManage GUI Languages

OpenManage GUI Languages	Operating System							
	English	French	German	Spanish	Simplified Chinese	Japanese	Korean	Traditional Chinese
English	X						X	X
French		X						
German			X					
Spanish				X				
Simplified Chinese					X			
Japanese						X		
Korean								
Traditional Chinese								

Documentation conventions for Dell systems

The following table lists the documentation conventions followed for Dell systems.

Table 2. Documentation Conventions for Dell Systems

14 th generation of PowerEdge servers
R740
R740XD

14th generation of PowerEdge servers
R640
R940
C6420

In-band server management and monitoring

In-band server management is the process of managing and monitoring servers using operating system tools, and other inbuilt tools, using OpenManage Server Administrator.

Supported OpenManage Systems Management Software

OpenManage systems management software is a suite of applications for Dell systems. This software allows you to manage your system with proactive monitoring, notification, and remote access.

OpenManage systems management software consists of OpenManage Server Administrator.

OpenManage Server Administrator (Server Administrator) is a comprehensive, one-to-one systems management solution, designed for system administrators to manage systems locally and remotely on a network.

Server Administrator comprises the following services:

- Server Administrator Web Server
- Server Instrumentation
- Remote Enablement
- Remote Access Controller
- Storage Management

For more information, see the *Dell EMC OpenManage Server Administrator User's Guide* available at dell.com/openmanagemanuals.

Supported OpenManage Systems Management Software on Windows Operating Systems

The following table lists the supported OpenManage 9.0.1 installation and systems management software on systems running supported Microsoft Windows operating systems.

An **X** in the intersection of the operating system and the Dell system columns indicates that Server Administrator is supported on that operating system for the corresponding system.

An asterisk (*) in the intersection of the operating system and the Dell system columns indicates operating system support for Dell systems that do not support OpenManage software.

Table 3. Supported OpenManage 9.0.1 Systems Management Software on Systems Running Microsoft Windows Server and Microsoft Windows Small Business Server Operating Systems

Dell System	Windows Server 2016
R740	X
R740XD	X
R640	X
R940	X
C6420	X

Table 4. Supported OpenManage 9.0.1 Systems Management Software on Systems Running Microsoft Windows Storage Server, Microsoft Windows Server Operating Systems

Dell System	Microsoft Windows Server 2012 R2	Windows Server 2016
R740	X	X
R740XD	X	X
R640	X	X
R940	X	X
C6420	X	X

Supported OpenManage Systems Management Software on Linux Operating Systems

The following table lists the supported OpenManage 9.0.1 installation and systems management software on systems running supported Linux operating system.

An **X** in the intersection of the operating system and the Dell system columns indicates that Server Administrator is supported on that operating system for the corresponding Dell system.

An asterisk (*) in the intersection of the operating system and the Dell system columns indicates operating system support for Dell systems that do not support OpenManage software.

Table 5. Supported OpenManage Systems Management Software on Systems Running Linux Operating Systems

Dell System	SUSE Linux Enterprise Server 12 SP2 (64-bit)
R740	X
R740XD	X
R640	X
R940	X
C6420	X

Supported OpenManage Systems Management Software On Virtualization Operating Systems

An **X** in the intersection of the operating system and the Dell system columns indicates that the Server Administrator is supported on that operating system for the corresponding Dell system.

An asterisk (*) in the intersection of the operating system and the Dell system columns indicates operating system support for Dell systems that do not support OpenManage software.

The following table lists the supported OpenManage 9.0.1 installation and systems management software on systems running supported Virtualization operating systems.

Table 6. Supported OpenManage Systems Management Software on Systems Running Supported Virtualization Operating Systems

Dell System	VMware	
	ESXi 6.5	ESXi 6.0 U3
R740	X	X
R740XD	X	X
R640	X	X
R940	X	X
C6420	X	X

OpenManage Server Administrator v9.0.1

OpenManage Server Administrator Web Server allows you to remotely manage and monitor your entire network of managed systems from your system (which maybe a laptop, desktop, or server). You have to install Server Administrator Web Server on your system and install server instrumentation on the managed systems.

Supported Microsoft Windows Operating Systems for Server Administrator and Server Administrator Web Server

The following table lists the supported Microsoft Windows operating systems for the Server Administrator and Server Administrator web server.

Table 7. Supported Microsoft Windows Server Operating Systems for Server Administrator and Server Administrator web server.

Microsoft Windows Server	Service Pack	Server Administrator	Server Administrator Web Server
2012 R2	N/A	X	X

Supported Linux Operating Systems for Server Administrator and Server Administrator Web Server

The following table lists the supported Linux operating systems for the Server Administrator.

Table 8. Supported Linux Operating Systems for Server Administrator

Supported Linux Operating Systems	Server Administrator	Server Administrator Web Server
Red Hat Enterprise Linux 6.9	X	X
Red Hat Enterprise Linux 7.3	X	X
SUSE Linux Enterprise Server 12 SP2	X	X

Supported Virtualization Operating Systems for Server Administrator and Server Administrator Web Server

The following table lists the supported Virtualization Operating Systems for the Server Administrator and Server Administrator web server.

Table 9. Supported VMware operating systems on Physical System

VMware	Server Administrator	Server Administrator Web Server
ESXi 6.5	X	N/A
ESXi 6.0 U3	X	N/A

Table 10. Supported Microsoft Operating Systems on Physical System

Microsoft	Server Administrator	Server Administrator Web Server
Hyper-V for Windows 2012 R2	X	X

 **NOTE:** Server Administrator comprises Server Instrumentation, Storage Management, Remote Access Components, and Remote Enablement.

 **NOTE:** Server Administrator Web Server component cannot be installed on Dell systems running the VMware ESXi operating system.

Supported Operating Systems for Server Administrator Web Server on your Managed System (Servers)

For information on supported operating systems on managed systems, see [Supported OpenManage Systems Management Software](#).

Supported OpenManage Systems Management Consoles

OpenManage systems management consoles provide the necessary tools for remote or one-to-many group system management. These tools also consolidate the management applications used on management workstations.

OpenManage Systems Management Consoles include:

- [OpenManage Essentials v2.3](#)
- [OpenManage Mobile v2.0](#)
- [OpenManage Power Center v 4.0](#)
- [OpenManage Server Administrator v9.0.1](#)

OpenManage Essentials v2.3

The OpenManage Essentials in the one-to-many Systems Management console providing Elemental Hardware Management that helps you maximize IT performance and uptime capabilities of Dell PowerEdge™ servers, EqualLogic™ and PowerVault™ storage, PowerConnect™ and Dell Force10 switches.

For more information, see the *OpenManage Essentials Support Matrix* at dell.com/openmanagemanuals.

OpenManage Mobile v2.0

OpenManage Mobile is a systems management application that enables you to monitor your datacenter from an Android or an iOS mobile device. OpenManage Mobile enables you to add one or more OpenManage Essentials consoles 2.0 or later and/or Integrated Dell Remote Access Controllers (iDRACs) 7 or later. OpenManage Mobile provides OpenManage Essentials alerts to your mobile device and enables you to troubleshoot your hardware in case of emergencies. In addition, OpenManage Mobile allows you to view the health of your data center and perform basic tasks such as power control functions.

OpenManage Power Center v4.0

OpenManage Power Center (OMPC) management console provides increased visibility of and control over Dell PowerEdge Servers power consumption, anomalies, and utilization through fine-grained instrumentation. This enables increased control, improved rack density, faster response times, greater accuracy, and broader decision-making intelligence. OMPC allows customers to set a budget cap and provides millisecond fast power capping to prevent tripping a circuit breaker, allows IT Admins to set policies to dictate automated response when power or temperature events occur. OMPC supports heterogeneous environment, generate reports for stranded power for devices and device groups. Representational State Transfer (REST) Application Program Interface (API) support is also provided for report generation.

Supported Microsoft Windows Operating Systems for Power Center v4.0

The following table lists the supported Microsoft Windows operating systems for the Power Center

Table 11. Supported Microsoft Windows Operating Systems for Power Center

Microsoft Windows	Version	Service Pack	Power Center
Server 2012 R2 (64-bit)	Standard, Enterprise	SP2	X

Supported Linux Operating Systems For Power Center v3.3

The following table lists the supported Linux Operating Systems for the power center.

Table 12. Supported Linux Operating Systems

Supported Linux Operating Systems	Power Center
Red Hat Enterprise Linux 6.9 (64-bit)	X
Red Hat Enterprise Linux 7.3 (64-bit)	X
SUSE Linux Enterprise Server 12 SP2 (64-bit)	X

Supported web browsers for In-band management and monitoring

The list of supported web browsers for OpenManage 9.0.1 Systems Management software on systems running supported Microsoft Windows, Red Hat Enterprise Linux, SUSE Linux Enterprise Server(SLES).

Table 13. Supported web browsers running supported Microsoft Windows, Red Hat Enterprise Linux, SLES.

Operating System	Internet Explorer (64-bit)			Microsoft Edge 25	Mozilla Firefox	Google Chrome	Safari
	9	10	11		52, 53	58	9.1
Windows Server 2012 R2 (64-bit)		X	X		X		
Windows Server 2016				X			
SLES 12 SP2	Native Mozilla Firefox Web Browsers						
Red Hat Enterprise Linux 6.9	Native Mozilla Firefox Web Browsers						
Red Hat Enterprise Linux 7.3	Native Mozilla Firefox Web Browsers						



NOTE: For the latest information, see the *Release Notes* for the specific product available at dell.com/openmanagemanuals. Select the OpenManage release version and then select the appropriate product to view the *Release Notes*.

Out-of-band server management and monitoring

Out-of-band server management is the process of remotely managing and monitoring servers using Integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller.

Supported Integrated Dell Remote Access Controllers and solutions

The Dell PowerEdge embedded server management solution, Integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller, helps IT administrators to speed up the essential management tasks, it increases the availability of your servers, and reduces your IT operational expenses.

With powerful, easy-to-use, remote management and configuration options, iDRAC with Lifecycle Controller alerts IT administrators when an issue occurs, enables streamlined local and remote server management, and reduces or eliminates the need for administrators to physically visit the server even if the server is not operational.

iDRAC comprises:

- Graphical User Interface(GUI), Command Line Interface(CLI), and WS-MAN
- Server instrumentation
- OS Integration
- Manage storage devices

Overview

All versions of iDRAC9 – Basic, Express, and Enterprise – ship from the factory with a default static IP address, this is a preferred and a known method. However, Dell also offers two options to better fit into a customer's existing environment. **Auto-discovery** or **DHCP** can be set from the factory to allow you to access iDRAC and remotely configure your server.

iDRAC version naming convention

- iDRAC7
 - 1.xx.yy
 - xx is the iDRAC firmware version
 - yy is the power & thermal table version
- iDRAC8
 - 2.xx.yy.zz
 - xx is the iDRAC firmware version
 - yy is the power & thermal table version
 - zz is the Lifecycle Controller version

For 14th generation of Dell PowerEdge servers, the iDRAC and Lifecycle Controller firmware is a single image.

iDRAC ships from the factory with a default, static IP address, with either Express or Enterprise licenses. This is a preferred and known method. However, Dell also offers two additional options to better fit into a certain customer IT environments: **DHCP** or **Provisioning Server**. Either of which can be set from the factory to allow you to access the iDRAC and remotely configure your server. Only one setting is possible There is no charge for any of these options.

- Static
 - iDRAC will ship with the factory default static IP address 192.168.0.120
- DHCP

This option is for customers who have a Dynamic Host Configuration Protocol (DHCP) server already installed in their data center environment. The DHCP server can automatically assign the IP address, gateway, and subnet mask to a server's iDRAC. DHCP should also be selected if using iDRAC Auto Config or OpenManage Essentials Configuration Manager to automate server provisioning. Please select this option if you would like to ensure that this feature is enabled at the Dell factory. Again, there is no charge to enable the "DHCP" option at time of order.

- Provisioning Server

The Provisioning Server option is for customers that have some type of provisioning server already installed in their data center environment. A provisioning server manages and automates the deployment or upgrade of an operating system and applications to a Dell PowerEdge server. By enabling the "Provisioning Server" option, the servers will — upon first boot — search for a provisioning server to take control and begin the automated deployment or update process. Please select this option if you would like to ensure that this feature is enabled at the Dell factory. Again, there is no charge to enable the "Provisioning Server" option at time of order.

iDRAC9 Management Traffic – Dedicated NIC or Shared LOM

For certain 14th generation of Dell's PowerEdge servers, you have the option to choose the network interface they wish to route iDRAC traffic – either the default **Dedicated NIC** for the iDRAC itself or through the **Shared LOM** that is also used by the server. Dell recommends to place the iDRAC's on a separate management network for best iDRAC security. However, you can also route iDRAC management traffic over the shared LOM. Select the **shared LOM** option if you may want to ensure that this feature is enabled at the Dell factory. There is no additional charge to enable shared LOM at the time of order. The servers which support the option of selecting shared LOM for iDRAC management traffic are:

- R740
- R740xd
- T640
- R940
- C6420

iDRAC also logs event data and the most recent crash screen (for systems running the Microsoft Windows operating system only) to help diagnose the probable cause of a system crash.

For more information, see the *Dell Remote Access Controller User's Guide* or the *Integrated Dell Remote Access Controller User's Guide* at dell.com/support/manuals.

Table below "Remote Access Controllers and Solutions for Blade Servers" and Table "For Rack and Tower Servers" list the following:

- Supported Remote Access Controller versions and firmware for iDRAC8
- Supported Chassis Management Controller versions and firmware
- Supported BMC firmware versions
- Supported IPMI protocol versions

iDRAC Service Module 3.0.1

The Integrated Dell Remote Access Controller (iDRAC) Service Module is a lightweight optional software application that can be installed on 14th generation of Dell PowerEdge servers or later with minimum Firmware version of 3.00.00.00 for iDRAC9. The iDRAC Service Module complements iDRAC interfaces – Graphical User Interface (GUI), RACADM CLI and Web Service Management (WS-MAN) with additional monitoring data. You can configure the features on the supported operating system depending on the features to be installed and the unique integration needs in a work environment.

The iDRAC Service Module architecture uses IP socket communication and provides additional Server Management data (OS/device driver) to iDRAC and presents one-to-many consoles with access to Systems Management data through OS standard interfaces.

Supported Remote Access Controllers and Solutions for Blade Servers

The following table lists the supported Remote Access Controllers and Solutions for blade servers.

Table 14. Supported Remote Access Controllers and Solutions for Blade Servers

Dell System	DRACs	
	DRAC Type	Supported DRAC FW version
C6420	iDRAC9	3.00.00.00

Supported Remote Access Controllers and Solutions for Rack and Tower Servers

The following table lists the supported Remote Access Controllers and Solutions for Rack and Tower Servers.

Table 15. The following table lists the supported Remote Access Controllers and Solutions for Rack and Tower Servers

Dell System	DRACs	
	DRAC Type	Supported DRAC FW
R740	iDRAC9	3.00.00.00
R740XD	iDRAC9	3.00.00.00
R640	iDRAC9	3.00.00.00
R940	iDRAC9	3.00.00.00

Lifecycle Controller — Supported Dell Systems and Operating Systems

The Dell Lifecycle Controller provides advanced embedded systems management and is delivered as part of integrated Dell Remote Access Controller (iDRAC) and embedded Unified Extensible Firmware Interface (UEFI) applications in the 14th generation of Dell PowerEdge servers.

The Lifecycle Controller software components are built on iDRAC and UEFI system firmware. Lifecycle Controller firmware can access and manage the hardware, including component and sub- system management that is beyond the traditional Baseboard Management Controller (BMC) capabilities. The UEFI environment provides the local console interface and the infrastructure for locally managed system components. It simplifies the end-to-end server lifecycle management.

On the 14th generation of Dell PowerEdge servers, Lifecycle Controller is known as Lifecycle Controller 3 (includes GUI and Remote Services). The functionalities available are based on the generation of the server and the variant of Lifecycle Controller:

- **Lifecycle Controller GUI 3.00.00.00** — Lifecycle Controller GUI supports systems management tasks such as deploy, configure, update, maintain, and diagnose in a one-to-one method.
- **Lifecycle Controller-Remote Services 3.00.00.00** — Remote Services (WS-MAN) simplifies end-to-end server lifecycle management using the one-to-many method. It interfaces for remote deployment integrated with OpenManage Essentials and partner consoles.

For more information, see the Lifecycle Controller documentation available at dell.com/support/manuals.

Supported Dell Systems and Windows Operating Systems for Lifecycle Controller 3.00.00.00

See [Supported OpenManage Systems Management Software on Windows Operating Systems](#) for a list of all the Dell systems and Microsoft Operating systems that support Lifecycle Controller.

 **NOTE: Lifecycle Controller is not supported on Windows Storage Server operating systems.**

Supported Dell Systems and Linux Operating Systems for Lifecycle Controller 3.00.00.00

See [Supported OpenManage Systems Management Software on Linux Operating Systems](#) for a list of all the Dell systems and Microsoft Operating systems that support Lifecycle Controller.

Supported Dell Systems and Virtualization Operating Systems for Lifecycle Controller 3.00.00.00

See [Supported OpenManage Systems Management Software on Virtualization Operating Systems](#) for a list of all the Dell systems and Microsoft Operating systems that support Lifecycle Controller.

Supported web browsers for Out-of-Band management and monitoring

The list of supported web browsers for iDRAC9 on systems running supported Microsoft Windows, Red Hat enterprise Linux, SUSE Linux Enterprise Server.

Table 16. Supported web browsers for iDRAC9 on systems running supported Microsoft Windows, Red Hat enterprise Linux, SUSE Linux Enterprise Server (SLES).

Operating System	Internet Explorer (64-bit)			Microsoft Edge 25	Mozilla Firefox	Google Chrome	Safari
	9	10	11		52, 53	58	9.1
Windows Server 2012 R2 (64-bit)		X	X		X		
Windows Server 2016				X			
SLES 12 SP2	Native Mozilla Firefox Web Browsers						
Red Hat Enterprise Linux 6.9	Native Mozilla Firefox Web Browsers						
Red Hat Enterprise Linux 7.3	Native Mozilla Firefox Web Browsers						

Supported OpenManage Change Management Software

OpenManage change management software is a set of tools that enables you to update Dell systems easily. It is also an efficient way to manage hardware, software, and operating system updates.

OpenManage change management software comprises of:

- Dell Update Packages
- Server Update Utility
- Dell System Update Repository — Formerly known as Yellow Dog Update Modified Repository
- FTP Catalog
- Dell System Update Linux Repository
- **Dell Update Packages** - A Dell Update Package (DUP) is a self-contained executable in a standard package format. Each DUP is designed to update a single software component on a Dell system.

DUPs allow administrators to update a wide range of system components simultaneously and apply scripts to similar sets of Dell systems to bring system software components up to the same version levels.

For more information on DUPs, see the *Dell Update Packages User's Guide* available on the Dell Support website at dell.com/support/manuals.

- **FTP Catalog** With Repository Manager, you can use the FTP catalog to identify and gather updates relevant to the system in your Data Center. The FTP catalog contain updates for 10th, 11th, 12th, 13th, and 14th generation of Dell PowerEdge systems.
- **Dell System Update** - Dell System Update (DSU) is an improved version of OpenManage Linux Repository (DLR) to distribute Dell updates for Linux systems. DSU distributes OpenManage Server Administrator and BIOS and Firmware updates for different servers. DSU provides a better customer experience by getting the latest updates to your system.

 **NOTE: The list provides the details of the supported platforms against the operating systems for other change management products that are aligned with the latest OpenManage release. For the latest list of operating systems and platforms supported by DSU, see [Dell System Update](#).**

Supported Change Management Software on Microsoft Windows Operating Systems

A **'D'** in the intersection of the operating system and the Dell system columns indicates support for DUPs.

A **'S'** in the intersection of the operating system and the Dell system columns indicates support for SUU.

A **'V'** in the intersection of the operating system and the Dell system columns indicates support only in a virtual machine and not as a host operating system.

An asterisk (*) in the intersection of the operating system and the Dell system columns indicates operating system support for Dell systems that do not support OpenManage software.

 **NOTE: SUU is used for server updates and may not work on newly released Dell systems that do not receive any server updates.**

 **NOTE: DSS1500, DSS1510, and DSS2500 are supported only by SUU of Change management and not supported by OM.**

The following table lists the supported OpenManage 9.0.1 change management software on systems running supported Microsoft Windows operating systems.

Table 17. Supported OpenManage Change Management Software on Systems Running Supported Microsoft Windows Server and Microsoft Windows Small Business Server Operating Systems

Dell System	Microsoft Windows Server 2012 R2	Microsoft Windows 2016
R740	D,S	D,S
R740XD	D,S	D,S
R640	D,S	D,S
R940	D,S	D,S
C6420	D,S	D,S

Supported Change Management Software on Linux Operating Systems

A 'D' in the intersection of the operating system and the Dell system columns indicates support for DUPs. The Dell Update Package (DUP) is a self-contained executable in a standard package format that updates an application or component firmware on a server. Using Dell Repository Manager along with other tools helps to keep the managed systems up-to-date.

A 'S' in the intersection of the operating system and the Dell system columns indicates support for SUU. The Dell Server Update Utility (SUU) helps to identify and apply updates to a managed system. Use this utility to update the managed system or to view the updates available for the supported systems.

A 'L' in the intersection of the operating system and the Dell system columns indicates support for Dell System Update Linux Repository information — Formerly known as Dell System Update repository.

 **NOTE: SUU is used for server updates and may not work on newly released Dell systems that do not receive any server updates.**

The following table lists the supported OpenManage 9.0.1 change management software on systems running supported Linux operating systems.

Table 18. Supported OpenManage Change Management Software on Systems Running Supported SUSE Linux Enterprise Server Operating Systems

Dell System	SUSE Linux Enterprise Server 12 SP2 (64-bit)
R740	X
R740XD	X
R640	X
R940	X
C6420	X

Table 19. Supported OpenManage Change Management Software on Systems Running Supported Red Hat Enterprise Linux Operating Systems

Dell System	Red Hat Enterprise Linux 6.x	Red Hat Enterprise Linux 7.x
R740	D,S,L	D,S,L
R740XD	D,S,L	D,S,L
R640	D,S,L	D,S,L
R940	D,S,L	D,S,L
C6420	D,S,L	D,S,L

Supported Change Management Software on Virtualization Operating Systems

A 'D' in the intersection of the operating system and the Dell system columns indicates support for DUPs.

A 'S' in the intersection of the operating system and the Dell system columns indicates support for SUU.

An asterisk (*) in the intersection of the operating system and the Dell system columns indicates operating system support for Dell systems that do not support OpenManage software.

 **NOTE: You can install OMSA using VIB file on Embedded VMware (ESXi) operating systems.**

 **NOTE: DUPs are not supported on ESXi operating systems.**

The following table lists the supported OpenManage 9.0.1 change management software on systems running supported Virtualization operating systems.

Table 20. Supported OpenManage Change Management Software on Systems Running Supported Virtualization Operating Systems for VMware

Dell Systems	VMware	
	ESXi 6.5	ESXi 6.0 U3
R740	X	X
R740XD	X	X
R640	X	X
R940	X	X
C6420	X	X

OpenManage Systems Management tools for in-band and out-of-band access

OpenManage Systems Management tools or utilities provide the necessary tools for remote or one-to-many group system management. These tools also consolidate the management applications used on management workstations.

- Dell Deployment Toolkit
- DRAC tools that include RACADM, VMCLI, and iVMCLI
- IPMI Tool in-Band
- BMC Management Utility and IPMI Tool Out-of-Band

Supported Microsoft Windows Pre-installation Environment for Deployment Toolkit v6.0.1

The following table lists the supported Microsoft Windows pre-installation environment for Dell Deployment Tool kit (DTK).

Table 21. Supported Microsoft Windows Pre-installation Environment for Dell Deployment Tool kit (DTK)


Windows Preinstallation Environment	DTK
5.1(64-bit)	X
10 (64-bit)	X

DTK Deprecation Message

The OpenManage Deployment Toolkit (DTK) along with the associated tools and capabilities will be deprecated for version 6.0.1 and later:

- Redundant Array of Independent Disks Configuration (RAIDCFG) Utility
- System Configuration (SYSCFG) Utility
- ELI tool
- Utility Partition (UPINIT)

It is recommended to use the RACADM Command Line (CLI) as a replacement for the RAIDCFG and SYSCFG utilities. For more information on downloading RACADM, see support.dell.com.

 **NOTE: DTK will continue to support any new hardware or operating system for the 14th generation of PowerEdge servers. However, support for later generations of PowerEdge servers will be deprecated. For more information about features supported by DTK, see the latest User's Guide available at dell.com/openmanagemanuals.**

DRAC tools that include RACADM, VMCLI, and iVMCLI

RACADM is a command-line utility that enables administrators to configure and replicate settings across multiple Dell remote access controllers (DRACs). The RACADM utility supports operations through the use of command-line parameters, switches, and a configuration file that contains all data required to configure a DRAC.

Supported Microsoft Windows Operating Systems for the RACADM Utility

The following table lists the supported Microsoft Windows operating systems for the RACADM utility.

An 'X' in the operating system column indicates support for the RACADM utility.

Table 22. Supported Microsoft Windows Server Operating Systems for RACADM

RACADM utility	Microsoft Windows Server 2016	Microsoft Windows Server 2012 R2
Service Pack	N/A	N/A
Remote RACADM	X	X
Local RACADM	X	X

Supported Linux Operating Systems for the RACADM Utility

The following table lists the supported Linux operating systems for the RACADM utility.

An 'X' in the operating system column indicates support for the RACADM utility.

Table 23. Supported Linux Operating Systems for RACADM

RACADM utility	Red Hat Enterprise Linux 6.9 64-bit	Red Hat Enterprise Linux 7.3 64-bit	SUSE Linux Enterprise Server 12 SP2
Service Pack	N/A	N/A	SP2
Remote RACADM	X	X	X
Local RACADM	X	X	X

Supported Virtualization Operating Systems For The RACADM Utility

The following table lists the supported Virtualization operating systems for the RACADM utility.

An 'X' in the operating system column indicates support for the RACADM utility.

Table 24. Supported virtual Operating Systems for RACADM

RACADM utility	ESXi 6.5	ESXi 6.0 U3	Microsoft Hyper-V for Windows 2012 R2
Remote RACADM	X	X	X
Local RACADM	X	X	X

Supported Microsoft Windows Operating Systems for VMCLI and iVMCLI

The following table lists the supported Microsoft Windows operating systems for VMCLI and iVMCLI.

An 'X' in the operating system column indicates support for the VMCLI and iVMCLI.

Table 25. Supported Microsoft Windows Server Operating Systems for VMCLI and iVMCLI

Microsoft Windows Server	VMCLI and iVMCLI
2012 R2	X

Supported Linux Operating Systems for the VMCLI and iVMCLI

The following table lists the supported Linux operating systems for VMCLI and iVMCLI.

An 'X' in the operating system column indicates support for the VMCLI and iVMCLI utility.

Table 26. Supported Linux Operating Systems for VMCLI and iVMCLI

Supported Linux Operating Systems	VMCLI and iVMCLI
SUSE Linux Enterprise Server 12 SP2	X
Red Hat Enterprise Linux 6.9 (64-bit)	X
Red Hat Enterprise Linux 7.3 (64-bit)	X

Supported Linux Operating Systems for IPMITool In-Band

The following table lists the supported Linux operating systems for the IPMITool In-Band.

An 'X' in the operating system column indicates IPMITool in-band support.

Table 27. Supported Linux Operating Systems for IPMITool In-Band

Supported Linux Operating Systems	IPMITool In-Band
SUSE Linux Enterprise Server 12 SP2	X
Red Hat Enterprise Linux 6.9 (64-bit)	X
Red Hat Enterprise Linux 7.3 (64-bit)	X

Supported Microsoft Windows Operating Systems for IPMITool Out-of-Band

The following table lists the supported Microsoft Windows operating systems for IPMI Tool Out of Band

An 'X' in the operating system column indicates IPMI Tool out-of-band support.

Table 28. Supported Microsoft Windows Server Operating Systems for BMU and IPMI Tool Out-of- Band

Supported Microsoft Windows Server Operating System	IPMITool Out-of- Band
Microsoft Windows Server 2012 R2	X

Supported Linux Operating Systems for IPMITool Out-of-Band

The following table lists the supported Linux operating systems for the IPMITool Out-of-Band.

An 'X' in the operating system column indicates IPMITool.

Table 29. Supported Linux Operating Systems for IPMITool

Supported Linux Operating Systems	IPMITool Out-of-Band
SUSE Linux Enterprise Server 12 SP2	X
Red Hat Enterprise Linux 6.9 (64-bit)	X
Red Hat Enterprise Linux 7.3 (64-bit)	X

Supported Microsoft Windows Operating Systems for IPMITool BMU

The following table lists the supported Microsoft Windows operating systems for the IPMI Tool.

An 'X' in the operating system column indicates IPMITool support.

Table 30. Supported Microsoft Windows Server Operating Systems for IPMITool

Supported Microsoft Windows Server Operating System	IPMITool
Microsoft Windows Server2012 R2	X

Supported Linux Operating Systems for IPMITool BMU

The following table lists the supported Linux operating systems for the IPMITool BMU.

An 'X' in the operating system column indicates BMU support.

Table 31. Supported Linux Operating Systems for IPMITool

Supported Linux Operating System	IPMITool BMU
SUSE Linux Enterprise Server 12 SP2	X
Red Hat Enterprise Linux 6.9 (64-bit)	X
Red Hat Enterprise Linux 7.3 (64-bit)	X

Supported Virtualization Operating Systems for IPMITool BMU

The following table lists the supported Virtualization operating systems for the IPMITool.

An 'X' in the operating system column indicates IPMITool support.

Table 32. Supported Virtualization operating systems for the IPMITool

Supported Virtualization operating system	IPMITool
ESXi 6.5	X
ESXi 6.0 U3	X

Table 33. Supported Virtualization Operating Systems for IPMITool BMU

Supported Virtualization Operating System	IPMITool BMU
Hyper-V for Windows 2012 R2	X

Network Interface Controllers and Supported Operating Systems

The drivers required for a Network Interface Card (NIC) depend on the operating system installed on your system.

The following table lists the NIC manufacturers and drivers version required for the supported operating systems in OpenManage 9.0.1.

Table 34. NIC Manufacturers and Drivers Required for Supported Microsoft Windows Operating Systems

NIC Product Name	Microsoft Windows Server 2012 Family
Broadcom NetXtreme Family of Adapters	20.2
Broadcom NetXtreme E-Series Family of Adapters	20.2
Intel Family of Adapters	17.5.0
QLogic FC & Classic CNAs Family of Adapters	5.3.29.801
QLogic formally Broadcom CNAs	19.0.0
Emulex Family of Adapters	9.0.1
Brocade Family of Adapters	3.2.3
Mellanox Family of ConnectX-3/ConnectX-3 Pro Adapters (Ethernet only)	WinOF 5.10
Mellanox Family of ConnectX-4/ConnectX-4 Lx Adapters (Ethernet only)	WinOF-2 1.40

Table 35. NIC Manufacturers and Drivers Required for Supported Red Hat Enterprise Linux Operating Systems

NIC Product Name	Red Hat Enterprise Linux 6.9 and 7.3
Broadcom NetXtreme Family of Adapters	20.2
Broadcom NetXtreme E-Series Family of Adapters	20.2
Intel Family of Adapters	17.5.0
QLogic FC & Classic CNAs Family of Adapters	5.3.62
QLogic formally Broadcom CNAs	19.2.0
Emulex Family of Adapters	08.04.00
Brocade Family of Adapters	3.2.3
Mellanox Family of Adapters (Ethernet only)	MLNX OFED 3.2-1.0.0.1

Table 36. NIC Manufacturers and Drivers Required for Supported SUSE Linux Enterprise Server Operating Systems

NIC Product Name	SUSE Linux Enterprise Server 12 SP2
Broadcom NetXtreme Family of Adapters	20.2
Intel Family of Adapters	17.5.0
QLogic FC & Classic CNAs Family of Adapters	5.3.62

NIC Product Name	SUSE Linux Enterprise Server 12 SP2
QLogic formally Broadcom CNAs	19.2.0
Emulex Family of Adapters	08.04.00
Brocade Family of Adapters	3.2.3
Mellanox Family of Adapters (Ethernet only)	MLNX OFED 3.2-1.0.01

RAID and non-RAID Controller Supported Servers, Operating Systems, Firmware, and Driver Versions

Starting with OpenManage Server Administrator version 5.0, only the enhanced Storage Management Service is supported. The Storage Management Service allows you to configure and manage your storage devices from within Server Administrator.

 **NOTE: The Storage Management Service mentioned in this guide refers to the enhanced Storage Management Service. Server Administrator no longer supports the basic Storage Management Service (also known as Array Manager).**

Most of the systems management releases support management of RAID controllers in the form of PERC cards, and some systems management releases also support SATA controllers. System administrators responsible for monitoring the compatibility of their systems' storage devices need a clear matrix that shows the elements that are compatible with a particular storage controller. Each storage controller version in turn supports a specific array of elements, including:

- Version of the Storage Management Service
- Dell system
- Firmware version number required for a particular controller
- Supported operating systems, where each operating system requires a specific driver

For more information on Storage Management Services see the Dell *Server Administrator Storage Management User's Guide* at dell.com/openmanagemanuals.

The following types of controllers are included in this section:

- The RAID controller card group contains the following controllers: H730P, H740, H840, HBA330, SAS12GBPS, AND S140.
- The RAID controller card group supports the following operating systems: Windows Server 2012 R2, Windows Server 2016, VMware ESXi 6.5, VMware ESXi 6.0 U3, Red Hat Enterprise Linux 6.9, Red Hat Enterprise Linux 7.3, and SUSE Linux Enterprise Server 12 SP2.

 **NOTE: The firmware and drivers listed in this section refer to the minimum supported version as of the publication date of this document. Later versions of the firmware and drivers may also be supported or required. For the most recent driver and firmware requirements, see dell.com/openmanagemanuals for the Storage Management Service.**

Linux Driver Included in RPM*

The 1.1.4 Linux driver is included in RPM 2302 (Red Hat Package Manager 2302).

PERC H840 Adapter

The following tables list the other elements supported by the PERC H840 Adapter controllers.

Table 37. OpenManage supported elements: PERC H840 Adapter

OpenManage supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.0.1
PERC Firmware Version	50.0.1-0508
Windows Server 2012 R2	6.604.06.00

OpenManage supported elements	Version
Windows Server 2016	6.604.06.00
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.3	Native
VMware ESXi 6.5	Native
VMware ESXi 6.0 U3	Native
SUSE Linux Enterprise Server 12 SP2	Native

PERC H740P Adapter and Mini

The following tables list the other elements supported by the PERC H740P Adapter and Mini controllers.

Table 38. OpenManage supported elements: PERC H740P Adapter and Mini

OpenManage supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.0.1
PERC Firmware Version	50.0.1-0537
Windows Server 2012 R2	6.604.06.00
Windows Server 2016	6.604.06.00
VMware ESXi 6.5	Native
VMware ESXi 6.0 U3	Native
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.3	Native
SUSE Linux Enterprise Server 12 SP2	Native

PERC HBA 330 Adapter and Mini

The following tables list the other elements supported by the PERC HBA 330 Adapter and Mini.

Table 39. OpenManage supported elements: PERC HBA 330 Adapter

OpenManage supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.0.1
PERC Firmware Version	13.17.03.00
Windows Server 2012 R2	6.604.06.00
Windows Server 2016	6.604.06.00
VMware ESXi 6.5	Native
VMware ESXi 6.0 U3	Native
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.3	Native

PERC H730P Adapter and Mini

The following tables list the other elements supported by the PERC H730P controller.

Table 40. OpenManage Supported Elements: PERC H730P

OpenManage Supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.0.1
PERC Firmware Version	25.5.2.0001
Windows Server 2012 Driver R2	6.604.06.00
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.3	Native
SUSE Linux Enterprise Server 12 SP2 Driver	Native

PERC S140

The following tables list the other elements supported by the PERC S140 controller.

Table 41. OpenManage Supported Elements: PERC S140

OpenManage Supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.0.1
PERC Firmware Version	5.0.0-0029
Windows Server 2012 R2	5.0.0-0029
Windows Server 2016	5.0.0-0029

SAS 12Gbps HBA

The SAS 12Gbps HBA supports the Dell Storage MD1400 and MD1420 Enclosures.

The following tables list the other elements supported by the SAS 12Gbps HBA.

Table 42. Storage Management Service supported elements: SAS 12Gbps HBA

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.0.1
PERC Firmware Version	13.17.03.00
Windows Server 2012 R2	2.51.15.00
Windows Server 2016	2.51.15.00
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.3	Native
SUSE Linux Enterprise Server 12 SP2	Native

Marvell controller

The following tables list the other elements supported by the Marvell controller.

Table 43. OpenManage supported elements: Marvell controller

OpenManage supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.0.1
PERC Firmware Version	2.3.13.1083
Windows Server 2012 R2	1.2.0.1048
Windows Server 2016	1.2.0.1048
VMware ESXi 6.5	Native
VMware ESXi 6.0 U3	Native
SUSE Linux Enterprise Server 12 SP2	Native