Dell EMC OpenManage Software Support Matrix

Version 9.1

DELL EMC

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.

Topics:

What's new in this release

- Support for Microsoft Windows x86 to x64 OpenManage upgrade install:
  - Support for Microsoft Windows 32-bit installation is not available for OpenManage 9.1 and later.
  - An upgrade install is available only for Microsoft Windows 64-bit.
- Support for servers from 11th generation till 14th generation.
- Supported network cards:
  - - Emulex LightPulse LPe31000-M6-D 1-Port 16Gb Full Height Fibre Channel Adapter
  - Emulex LightPulse LPe31000-M6-D 1-Port 16Gb Low Profile Fibre Channel Adapter
  - Emulex LightPulse LPe31002-M6-D 2-Port 16Gb Full Height Fibre Channel Adapter
  - Emulex LightPulse LPe31002-M6-D 2-Port 16Gb Low Profile Fibre Channel Adapter
  - Mellanox ConnectX-4 Dual Port EDR VPI QSFP28 Low Profile Adapter
  - Mellanox ConnectX-4 Dual Port EDR VPI QSFP28 Full Height Network Adapter
  - Mellanox ConnectX-4 Single Port EDR VPI QSFP28 Low Profile Adapter
  - Mellanox ConnectX-4 Single Port EDR VPI QSFP28 Full Height Network Adapter
  - Harbor Channel - Intel(R) Ethernet 25G 2P XXV710 Adapter (25GBE PCIe Adapter)
  - QLogic Duluth - FH – 10Gb Dual Port BT Arrowhead based Converged Network Adapter QL41162HFRJ-DL-BK (without optics)
  - QLogic Duluth – LP - 10Gb Dual Port BT Arrowhead based Converged Network Adapter QL41162HLRJ-DL-BK (without optics)
  - QLogic Dunkirk - 10- FH – 10Gb Dual Port SFP Arrowhead based Converged Network Adapter QL41112HFCU-DL-BK (without optics)
  - QLogic Dunkirk - 10– LP - 10Gb Dual Port SFP Arrowhead based Converged Network Adapter QL41112HLCU-DL-BK (without optics)
  - QLogic Dunkirk - FH – 10/25Gb Dual Port SFP28 Arrowhead based Converged Network Adapter QL41262HFCU-DL-BK (without optics)
  - QLogic Dunkirk – LP - 10/25Gb Dual Port SFP28 Arrowhead based Converged Network Adapter QL41262HLCU-DL-BK (without optics)
  - QLogic Dundee - FH – 10Gb Quad Port BT Arrowhead based Converged Network Adapter QL41164HFRJ-DL (without optics)
  - QLogic Dundee – LP – 10Gb Quad Port BT Arrowhead based Converged Network Adapter QL41164HLRJ-DL (without optics)

- QLogic Delray - FH – 10Gb Quad Port SFP Arrowhead based Converged Network Adapter QL41164HFCU-DL (without optics)
- QLogic Delray – LP - 10Gb Quad Port SFP Arrowhead based Converged Network Adapter QL41164HLCU-DL (without optics)
- QLogic Dardanelle – rNDC - 10/25Gb Dual Port SFP28 Arrowhead based Converged Network Adapter QL41262HMCU-DL (without optics)
- QLogic Darwin – rNDC - 10Gb Dual Port BT Arrowhead based Converged Network Adapter QL41164HMRJ-DL (without optics)
- QLogic Dresden – rNDC - 10Gb Dual Port SFP Arrowhead based Converged Network Adapter QL41164HMCU-DL (without optics)
- QLogic Dartmouth – rNDC – 1Gb & 10Gb 2+2 Port BT Arrowhead based Converged Network Adapter QL41264HMCU-DL-BK (without optics)
- QLogic Dunedin – rNDC – 1Gb & 10Gb 2+2 Port SFP Arrowhead based Converged Network Adapter QL41264HMCURJ-DL-BK (without optics)

- Supported operating systems:
  - Red Hat Enterprise Linux 7.4
  - SUSE Linux Enterprise Server 12 SP3
  - Ubuntu 16.04.3 LTS (Xenial Xerus) from PowerEdge 14G servers onwards
  - ESXi 6.5 U1
- Supported web browsers:
  - Google Chrome version 57
  - Google Chrome version 58
  - Mozilla Firefox version 52
  - Mozilla Firefox version 53
  - Internet Explorer 11
  - Internet Explorer 10
  - Safari version 10.x
- Supported features:

  Server Administrator

  - Support for Java Runtime Environment 8 Update 131.
  - Upgraded Tomcat version to 8.5.15.
  - Minimum supported TLS version is TLSv1.1.
  - Encription Ciphers list has been updated as per OWASP Apache Tomcat Security Standards.
  - Supports NVDIMM (Non Volatile DIMM) monitoring in PowerEdge 14G servers.
  - Supports System Configuration Lockdown Mode in PowerEdge 14G servers.
  - Supports “Full Power Cycle” capability under BIOS settings which enables DC Power cycle followed by AC Power cycle of the auxiliary components (includes iDRAC, CPLD, etc.).
  - Server Administrator Shared Service which is used to invoke the Inventory Collector would be disabled by default during installation of Server Administrator. In order to invoke Inventory Collector explicitly customer should enable it through Server Administrator command line interface.
  - Server Administrator ESXi VIB leverages the ESXi OS Live installation capability so that a host OS reboot will not be required post installation or removal of the VIB.

  Storage Services

  - Support for "Prepare To Remove" operation for PCIe SSD devices through PERC S140 controller.
  - Support for setting the critical threshold and warning threshold for available spare and alert generation.
  - Support for the following Intel Cliffdale devices are added: P4500, and P4600
  - Support for CAPONE V2 (BOSS) device.
  - Support for Ubuntu 16.04.3 operating system.

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.

NOTE: For more information about any features, see the *Dell EMC OpenManage Server Administrator Online Help*.

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 — www.dell.com/SoftwareSecurityManuals
- For Dell EMC OpenManage documents — www.dell.com/OpenManageManuals
- For Dell EMC Remote Enterprise Systems Management documents — www.dell.com/esmmanuals
- For iDRAC and Dell EMC Lifecycle Controller documents — www.dell.com/idracmanuals
- For Dell EMC OpenManage Connections Enterprise Systems Management documents — www.dell.com/OMConnectionsEnterpriseSystemsManagement
- For Dell EMC Serviceability Tools documents — www.dell.com/ServiceabilityTools
- a Go to www.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

14th generation of PowerEdge servers	13th generation of PowerEdge servers	12th generation of PowerEdge servers	11th generation of PowerEdge servers
R7425	C4130	M420	M610
R7415	C6320	M520	M610x
R6415	C6320P	M620	M710
C6420	FC 430	M820	M710 HD
FC 640	FC 630	R220	M910
FC 640 v2	FC 630	R320	M915
FC 840 v2	FC 830	R420	R210
FD 332	M630	R520	R210 II
FD 342 v2	M630	R620	R310
M640	M830	R720	R410
M640-VRTX	R230	R720 XD	R415
R440	R330	R820	R510
R540	R430	R920	R515
R540 XD	R530	T320	R610
R640	R630	T420	R710
R740	R730	T620	R715
R740 XD	R730 XD		R810
R7920	R7910		R815

14th generation of PowerEdge servers	13th generation of PowerEdge servers	12th generation of PowerEdge servers	11th generation of PowerEdge servers
R940	R830		R910
T440	R930		T110
	T130		T110 II
	T330		T310
	T430		T410
	T630		T610
			T710

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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.

Topics:

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 9.1 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 9.1 Systems Management Software on Systems Running Microsoft Windows Server and Microsoft Windows Small Business Server Operating Systems

Dell Systems	Windows Server 2016	Microsoft Windows Server 2012	Microsoft Windows Server 2012 R2
14th generation servers			
R7425	X		X
R7415	X		X
R6415	X		X
C6420	X		X
FC 640	X		X
FC 640 v2	X		X
FC 840 v2	X		X
FD 332	X		X
FD 342 v2	X		X
M640	X		X
M640-VRTX	X		X
R440	X		X
R540	X		X
R640	X		X
R740	X		X
R740 XD	X		X
R940	X		X
T440	X		X
13th generation servers			
C4140	X		
C4130	X	X	X
C6320	X	X	X
FC 430	X	X	X
FC 630	X	X	X
FC 630	X	X	X
FC 830	X	X	X
M630	X	X	X
M630	X	X	X
M830	X	X	X
R230	X	X	X
R330	X	X	X
R430	X	X	X

Dell Systems	Windows Server 2016	Microsoft Windows Server 2012	Microsoft Windows Server 2012 R2
R530	X	X	X
R630	X	X	X
R730	X	X	X
R730 XD	X	X	X
R830	X	X	X
R930	X	X	X
T130	X	X	X
T330	X	X	X
T430	X	X	X
T630	X	X	X
12th generation servers			
M420	X	X	X
M520	X	X	X
M620	X	X	X
M820	X	X	X
R220	X	X	X
R320	X	X	X
R420	X	X	X
R520	X	X	X
R620	X	X	X
R720	X	X	X
R720 XD	X	X	X
R820	X	X	X
R920	X	X	X
T320	X	X	X
T420	X	X	X
T620	X	X	X
11th generation servers			
M610	X	X	X
M610x	X	X	X
M710	X	X	X
M710 HD	X	X	X
M910	X	X	X
M915	X	X	X
R210	X	X	X

Dell Systems	Windows Server 2016	Microsoft Windows Server 2012	Microsoft Windows Server 2012 R2
R210 II	X	X	X
R310	X	X	X
R410	X	X	X
R415	X	X	X
R510	X	X	X
R515	X	X	X
R610	X	X	X
R710	X	X	X
R715	X	X	X
R810	X	X	X
R815	X	X	X
R910	X	X	X
T110	X	X	X
T110 II	X	X	X
T310	X	X	X
T410	X	X	X
T610	X	X	X
T710	X	X	X

Table 4. Supported OpenManage 9.1 Systems Management Software on Systems Running Microsoft Windows Storage Server, Microsoft Windows Server Operating Systems

Dell Systems	Windows Server 2016	Microsoft Windows Server 2012	Microsoft Windows Server 2012 R2
14th generation servers			
R7425	X		X
R7415	X		X
R6415	X		X
C6420	X		X
FC 640	X		X
FC 640 v2	X		X
FC 840 v2	X		X
FD 332	X		X
FD 342 v2	X		X
M640	X		X
M640-VRTX	X		X
R440	X		X

Dell Systems	Windows Server 2016	Microsoft Windows Server 2012	Microsoft Windows Server 2012 R2
R540	X		X
R640	X		X
R740	X		X
R740 XD	X		X
R940	X		X
T440	X		X
13th generation servers			
C4130	X	X	X
C6320	X	X	X
FC 430	X	X	X
FC 630	X	X	X
FC 630	X	X	X
FC 830	X	X	X
M630	X	X	X
M630	X	X	X
M830	X	X	X
R230	X	X	X
R330	X	X	X
R430	X	X	X
R530	X	X	X
R630	X	X	X
R730	X	X	X
R730 XD	X	X	X
R830	X	X	X
R930	X	X	X
T130	X	X	X
T330	X	X	X
T430	X	X	X
T630	X	X	X
12th generation servers			
M420	X	X	X
M520	X	X	X
M620	X	X	X
M820	X	X	X
R220	X	X	X

Dell Systems	Windows Server 2016	Microsoft Windows Server 2012	Microsoft Windows Server 2012 R2
R320	X	X	X
R420	X	X	X
R520	X	X	X
R620	X	X	X
R720	X	X	X
R720 XD	X	X	X
R820	X	X	X
R920	X	X	X
T320	X	X	X
T420	X	X	X
T620	X	X	X
11th generation servers			
M610	X	X	X
M610x	X	X	X
M710	X	X	X
M710 HD	X	X	X
M910	X	X	X
M915	X	X	X
R210	X	X	X
R210 II	X	X	X
R310	X	X	X
R410	X	X	X
R415	X	X	X
R510	X	X	X
R515	X	X	X
R610	X	X	X
R710	X	X	X
R715	X	X	X
R810	X	X	X
R815	X	X	X
R910	X	X	X
T110	X	X	X
T110 II	X	X	X
T310	X	X	X
T410	X	X	X

Dell Systems	Windows Server 2016	Microsoft Windows Server 2012	Microsoft Windows Server 2012 R2
T610	X	X	X
T710	X	X	X

Supported OpenManage Systems Management Software on Linux Operating Systems

The following table lists the supported OpenManage 9.1 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 Systems	SLES 11 SP4	SLES 12 SP 3	RHEL 7.4	RHEL 6.9
14th generation servers				
R7425		X	X	X
R7415		X	X	X
R6415		X	X	X
C6420		X	X	X
FC640		X	X	X
FC 640 v2		X	X	X
FD 342 v2		X	X	X
FD332		X	X	X
M640		X	X	X
M640-VRTX		X	X	X
R7425		X	X	X
R7415		X	X	X
R6415		X	X	X
R440		X	X	X
R540		X	X	X
R640		X	X	X
R740		X	X	X
R740xd		X	X	X
R940		X	X	X
T440		X	X	X

Dell Systems	SLES 11 SP4	SLES 12 SP 3	RHEL 7.4	RHEL 6.9
13th generation servers				
C4130	X	X	X	X
C6320	X	X	X	X
FC 430	X	X	X	X
FC 630	X	X	X	X
FC 830	X	X	X	X
M630 VRTX	X	X	X	X
M630	X	X	X	X
M830	X	X	X	X
R230	X	X	X	X
R330	X	X	X	X
R430	X	X	X	X
R530	X	X	X	X
R630	X	X	X	X
R730	X	X	X	X
R730 XD	X	X	X	X
R830	X	X	X	X
R930	X	X	X	X
T130	X	X	X	X
T330	X	X	X	X
T430	X	X	X	X
T630	X	X	X	X
12th generation servers				
M420	X		X	X
M520	X		X	X
M620	X		X	X
M820	X		X	X
R220	X		X	X
R320	X		X	X
R420	X		X	X
R520	X		X	X
R620	X		X	X
R720	X		X	X
R720 XD	X		X	X
R820	X		X	X
R920	X		X	X

Dell Systems	SLES 11 SP4	SLES 12 SP 3	RHEL 7.4	RHEL 6.9
T320	X		X	X
T420	X		X	X
T620	X		X	X
11th generation servers				
M610	X		X	X
M610x	X		X	X
M710	X		X	X
M710 HD	X		X	X
M910	X		X	X
M915	X		X	X
R210	X		X	X
R210 II	X		X	X
R310	X		X	X
R410	X		X	X
R415	X		X	X
R510	X		X	X
R515	X		X	X
R610	X		X	X
R710	X		X	X
R715	X		X	X
R810	X		X	X
R815	X		X	X
R910	X		X	X
T110	X		X	X
T110 II	X		X	X
T310	X		X	X
T410	X		X	X
T610	X		X	X
T710	X		X	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 9.1 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 Systems	VMware	
	vSphere 6.5 U1	vSphere 6.0 U3
14th generation servers		
R7425	X	
R7415	X	
R6415	X	
C6420	X	X
FC640-VRTX	X	X
FC640	X	X
FC640 v2	X	X
FD342 v2	X	X
FD332	X	X
M640	X	X
M640-VRTX	X	X
R440	X	X
R540	X	X
R640	X	X
R740	X	X
R740xd	X	X
R940	X	X
T440	X	X
13th generation servers		
C4130		
C6320		
FC 430	X	X
FC 630	X	X
FC 830	X	X
M630	X	X
M630	X	X
M830	X	X
R230	X	X
R330	X	X

Dell Systems	VMware	
	vSphere 6.5 U1	vSphere 6.0 U3
R430	X	X
R530	X	X
R630	X	X
R730	X	X
R730 XD	X	X
R830	X	X
R930	X	X
T130	X	X
T330	X	X
T430	X	X
T630	X	X
12th generation servers		
M420	X	X
M520	X	X
M620	X	X
M820	X	X
R220	X	X
R320	X	X
R420	X	X
R520	X	X
R620	X	X
R720	X	X
R720 XD	X	X
R820	X	X
R920	X	X
T320	X	X
T420	X	X
T620	X	X
11th generation servers		
M610	X	X
M610x	X	X
M710	X	X
M710 HD	X	X
M910	X	X
M915	X	X

Dell Systems	VMware	
	vSphere 6.5 U1	vSphere 6.0 U3
R210	X	X
R210 II	X	X
R310	X	X
R410	X	X
R415	X	X
R510	X	X
R515	X	X
R610	X	X
R710	X	X
R715	X	X
R810	X	X
R815	X	X
R910	X	X
T110	X	X
T110 II	X	X
T310	X	X
T410	X	X
T610	X	X
T710	X	X

Supported OpenManage Systems Management Software on Precision Rack Systems

Table 7. Supported OpenManage Systems Management Software on Precision Rack Systems

Dell Systems	Microsoft Windows 10 Client	Microsoft Windows 8.1 Client	SLES 12 SP 3 (SLED)	RHEL 7.4 Workstation
R7920	Yes	Yes	No	Yes
R7910	Yes	Yes	Yes	No

OpenManage Server Administrator v9.1

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 8. 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
Windows Server 2016	N/A	X	X
Microsoft Windows Server 2012	N/A	X	X
Microsoft Windows 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 9. Supported Linux Operating Systems for Server Administrator

Supported Linux Operating Systems	Server Administrator	Server Administrator Web Server
Red Hat Enterprise Linux 7.4	X	X
Red Hat Enterprise Linux 6.9	X	X
SUSE Linux Enterprise Server 12 SP 3	X	X
SUSE Linux Enterprise Server 11 SP 4	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 10. Supported VMware operating systems on Physical System

VMware	Server Administrator	Server Administrator Web Server
vSphere 6.5 U1	X	N/A
vSphere 6.0 U3	X	N/A

Table 11. 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 v2.0.1
- OpenManage Power Center v 4.0
- OpenManage Server Administrator v9.1

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 v2.0.1

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 2.3 or later and/or Integrated Dell Remote Access Controllers (iDRACs) 9 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 12. Supported Microsoft Windows Operating Systems for Power Center

Microsoft Windows	Power Center
Windows Server 2016	X
Microsoft Windows Server 2012	X
Microsoft Windows Server 2012 R2	X

Supported Linux Operating Systems For Power Center v4.0

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

Table 13. Supported Linux Operating Systems

Supported Linux Operating Systems	Power Center
Red Hat Enterprise Linux 7.4	X
Red Hat Enterprise Linux 6.9	X
SUSE Linux Enterprise Server 12 SP3	X
SUSE Linux Enterprise Server 11 SP4	X

Supported web browsers for In-band management and monitoring

The list of supported web browsers for OpenManage 9.1 Systems Management software on systems running supported Microsoft Windows, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server(SLES).

Table 14. Supported web browsers running supported Microsoft Windows, Red Hat Enterprise Linux, SLES.

Operating System	Internet Explorer (64-bit)	Microsoft Edge	Mozilla Firefox	Google Chrome	Safari
	10, 11		52, 53	57, 58	9.1.3
Windows Server 2012	X		X		
Windows Server 2012 R2	X				
Windows Server 2016	X		X		
SLES 12 SP3	Native Mozilla Firefox Web Browsers				
SLES 11 SP4	Native Mozilla Firefox Web Browsers				
RHEL 6.9	Native Mozilla Firefox Web Browsers				

Operating System	Internet Explorer (64-bit)	Microsoft Edge	Mozilla Firefox	Google Chrome	Safari
	10, 11		52, 53	57, 58	9.1.3
RHEL 7.4	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*.

3

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.

Topics:

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

DRAC 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 3.1

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 3.11.11.11 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, Rack, and Tower Servers

The following table lists the supported Remote Access Controllers and Solutions for Blade, Rack, and Tower servers.

Table 15. Supported Remote Access Controllers and Solutions for Blade, Rack, and Tower Servers

Dell Systems	DRACs		CMC Firmware			BMC	Supported IPMI
	DRAC Type	Supported DRAC FW version	M1000e CMC	VRTX CMC	FX2 CMC		
14th generation servers							
R7425	iDRAC9	3.11.11.11	6.0	3.0	2.0	N/A	2.0
R7415	iDRAC9	3.11.11.11	6.0	3.0	2.0	N/A	2.0
R6415	iDRAC9	3.11.11.11	6.0	3.0	2.0	N/A	2.0
M640-VRTX	iDRAC9	3.11.11.11	6.0	3.0	2.0	N/A	2.0
M640	iDRAC9	3.11.11.11	6.0	3.0	2.0	N/A	2.0
R540	iDRAC9	3.11.11.11	6.0	3.0	2.0	N/A	2.0
R440	iDRAC9	3.11.11.11	6.0	3.0	2.0	N/A	2.0
T640	iDRAC9	3.11.11.11	6.0	3.0	2.0	N/A	2.0
T440	iDRAC9	3.11.11.11	6.0	3.0	2.0	N/A	2.0
R740xd	iDRAC9	3.00.00.00	6.0	3.0	2.0	N/A	2.0
R940	iDRAC9	3.00.00.00	6.0	3.0	2.0	N/A	2.0
R740	iDRAC9	3.00.00.00	6.0	3.0	2.0	N/A	2.0
R640	iDRAC9	3.00.00.00	6.0	3.0	2.0	N/A	2.0
FD332	iDRAC9	2.40.40.40	5.2	N/A	N/A	N/A	2.0
13th generation servers							
FC 430	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
FC 630	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
FC 630	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
FC 830	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
FM 120	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0

Dell Systems	DRACs		CMC Firmware			BMC	Supported IPMI
	DRAC Type	Supported DRAC FW version	M1000e CMC	VRTX CMC	FX2 CMC		
M630	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
M630	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
M830	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R230	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R330	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R430	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R530	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R630	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R730	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R730 XD	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R830	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R930	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
T130	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
T330	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
T430	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
T630	iDRAC8	2.40.40.40	5.2	N/A	N/A	N/A	2.0
12th generation servers							
M420	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
M520	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
M620	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
M820	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R220	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R320	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R420	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R520	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R620	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R720	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R720 XD	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R820	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
R920	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
T320	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
T420	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
T620	iDRAC7	2.40.40.40	5.2	N/A	N/A	N/A	2.0
11th generation servers							

Dell Systems	DRACs		CMC Firmware			BMC	Supported IPMI
	DRAC Type	Supported DRAC FW version	M1000e CMC	VRTX CMC	FX2 CMC		
M610	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
M610x	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
M710	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
M710 HD	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
M910	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
M915	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R210	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R210 II	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R310	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R410	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R415	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R510	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R515	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R610	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R710	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R715	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R810	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R815	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
R910	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
T110	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
T110 II	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
T310	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
T410	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
T610	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0
T710	iDRAC6	3.8	5.2	N/A	N/A	N/A	2.0

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 3.11.11.11** — 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 3.11.11.11** — 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 3.11.11.11

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 3.11.11.11

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 3.11.11.11

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	Mozilla Firefox	Google Chrome	Safari
	10, 11		52, 53	57, 58	9.1.3
Windows Server 2012	X		X		
Windows Server 2012 R2	X				

Operating System	Internet Explorer (64-bit)	Microsoft Edge	Mozilla Firefox	Google Chrome	Safari
	10, 11		52, 53	57, 58	9.1.3
Windows Server 2016	X		X		
SLES 12 SP3	Native Mozilla Firefox Web Browsers				
SLES 11 SP4	Native Mozilla Firefox Web Browsers				
RHEL 6.9	Native Mozilla Firefox Web Browsers				
RHEL 7.4	Native Mozilla Firefox Web Browsers				

4

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 **www.dell.com/Support/Home**.

- **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.

Topics:

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 9.1 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 Systems	Microsoft Windows Server 2012	Microsoft Windows Server 2012 R2	Windows Server 2016
14th generation servers			
R7425	D, S	D, S	D, S
R7415	D, S	D, S	D, S
R6415	D, S	D, S	D, S
C6420	D, S	D, S	D, S
FC640	D, S	D, S	D, S
FC640	D, S	D, S	D, S
FC 640 v2	D, S	D, S	D, S
FD 342 v2	D, S	D, S	D, S
FD332	D, S	D, S	D, S
FD332	D, S	D, S	D, S
M640	D, S	D, S	D, S
M640-VRTX	D, S	D, S	D, S
R440	D, S	D, S	D, S
R540	D, S	D, S	D, S
R640	D, S	D, S	D, S
R740	D, S	D, S	D, S
R740xd	D, S	D, S	D, S
R940	D, S	D, S	D, S
T440	D, S	D, S	D, S
13th generation servers			
C4130	D, S	D, S	D, S
C6320	D, S	D, S	D, S
DSS1500	S	S	
DSS1510	S	S	
DSS2500	S	S	
FC 430	D, S	D, S	D, S

Dell Systems	Microsoft Windows Server 2012	Microsoft Windows Server 2012 R2	Windows Server 2016
FC 630	D, S	D, S	D, S
FC 630	D, S	D, S	D, S
FC 830	D, S	D, S	D, S
M630	D, S	D, S	D, S
M630	D, S	D, S	D, S
M830	D, S	D, S	D, S
R230	D, S	D, S	D, S
R330	D, S	D, S	D, S
R430	D, S	D, S	D, S
R530	D, S	D, S	D, S
R630	D, S	D, S	D, S
R730	D, S	D, S	D, S
R730 XD	D, S	D, S	D, S
R830	D, S	D, S	D, S
R930	D, S	D, S	D, S
T130	D, S	D, S	D, S
T330	D, S	D, S	D, S
T430	D, S	D, S	D, S
T630	D, S	D, S	D, S
12th generation servers			
M420	D, S	D, S	D, S
M520	D, S	D, S	D, S
M620	D, S	D, S	D, S
M820	D, S	D, S	D, S
R220	D, S	D, S	D, S
R320	D, S	D, S	D, S
R420	D, S	D, S	D, S
R520	D, S	D, S	D, S
R620	D, S	D, S	D, S
R720	D, S	D, S	D, S
R720 XD	D, S	D, S	D, S
R820	D, S	D, S	D, S
R920	D, S	D, S	D, S
T320	D, S	D, S	D, S
T420	D, S	D, S	D, S

Dell Systems	Microsoft Windows Server 2012	Microsoft Windows Server 2012 R2	Windows Server 2016
T620	D, S	D, S	D, S
11th generation servers			
M610	D, S	D, S	D, S
M610x	D, S	D, S	D, S
M710	D, S	D, S	D, S
M710 HD	D, S	D, S	D, S
M910	D, S	D, S	D, S
M915	D, S	D, S	D, S
R210	D, S	D, S	D, S
R210 II	D, S	D, S	D, S
R310	D, S	D, S	D, S
R410	D, S	D, S	D, S
R415	D, S	D, S	D, S
R510	D, S	D, S	D, S
R515	D, S	D, S	D, S
R610	D, S	D, S	D, S
R710	D, S	D, S	D, S
R715	D, S	D, S	D, S
R810	D, S	D, S	D, S
R815	D, S	D, S	D, S
R910	D, S	D, S	D, S
T110	D, S	D, S	D, S
T110 II	D, S	D, S	D, S
T310	D, S	D, S	D, S
T410	D, S	D, S	D, S
T610	D, S	D, S	D, S
T710	D, S	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 9.1 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 and Red Hat Enterprise Linux Operating Systems.

Dell Systems	SLES 11 SP4	SLES 12 SP 3	RHEL 7.4	RHEL 6.9
14th generation servers				
R7425	D, S, L	D, S, L	D, S, L	D, S, L
R7415	D, S, L	D, S, L	D, S, L	D, S, L
R6415	D, S, L	D, S, L	D, S, L	D, S, L
C6420	D, S, L	D, S, L	D, S, L	D, S, L
FC640	D, S, L	D, S, L	D, S, L	D, S, L
FC640 v2	D, S, L	D, S, L	D, S, L	D, S, L
FD 342 v2	D, S, L	D, S, L	D, S, L	D, S, L
FD332	D, S, L	D, S, L	D, S, L	D, S, L
FD332	D, S, L	D, S, L	D, S, L	D, S, L
M640	D, S, L	D, S, L	D, S, L	D, S, L
M640-VRTX	D, S, L	D, S, L	D, S, L	D, S, L
R440	D, S, L	D, S, L	D, S, L	D, S, L
R540	D, S, L	D, S, L	D, S, L	D, S, L
R640	D, S, L	D, S, L	D, S, L	D, S, L
R740	D, S, L	D, S, L	D, S, L	D, S, L
R740xd	D, S, L	D, S, L	D, S, L	D, S, L
R940	D, S, L	D, S, L	D, S, L	D, S, L
T440	D, S, L	D, S, L	D, S, L	D, S, L
13th generation servers				
C4130	D, S, L	D, S, L	D, S, L	D, S, L
C6320	D, S, L	D, S, L	D, S, L	D, S, L
FC 430	D, S, L	D, S, L	D, S, L	D, S, L
FC 630	D, S, L	D, S, L	D, S, L	D, S, L
FC 630	D, S, L	D, S, L	D, S, L	D, S, L
FC 830	D, S, L	D, S, L	D, S, L	D, S, L
M630	D, S, L	D, S, L	D, S, L	D, S, L

Dell Systems	SLES 11 SP4	SLES 12 SP 3	RHEL 7.4	RHEL 6.9
M630	D, S, L	D, S, L	D, S, L	D, S, L
M830	D, S, L	D, S, L	D, S, L	D, S, L
R230	D, S, L	D, S, L	D, S, L	D, S, L
R330	D, S, L	D, S, L	D, S, L	D, S, L
R430	D, S, L	D, S, L	D, S, L	D, S, L
R530	D, S, L	D, S, L	D, S, L	D, S, L
R630	D, S, L	D, S, L	D, S, L	D, S, L
R730	D, S, L	D, S, L	D, S, L	D, S, L
R730 XD	D, S, L	D, S, L	D, S, L	D, S, L
R830	D, S, L	D, S, L	D, S, L	D, S, L
R930	D, S, L	D, S, L	D, S, L	D, S, L
T130	D, S, L	D, S, L	D, S, L	D, S, L
T330	D, S, L	D, S, L	D, S, L	D, S, L
T430	D, S, L	D, S, L	D, S, L	D, S, L
T630	D, S, L	D, S, L	D, S, L	D, S, L
12th generation servers				
M420	D, S, L	D, S, L	D, S, L	D, S, L
M520	D, S, L	D, S, L	D, S, L	D, S, L
M620	D, S, L	D, S, L	D, S, L	D, S, L
M820	D, S, L	D, S, L	D, S, L	D, S, L
R220	D, S, L	D, S, L	D, S, L	D, S, L
R320	D, S, L	D, S, L	D, S, L	D, S, L
R420	D, S, L	D, S, L	D, S, L	D, S, L
R520	D, S, L	D, S, L	D, S, L	D, S, L
R620	D, S, L	D, S, L	D, S, L	D, S, L
R720	D, S, L	D, S, L	D, S, L	D, S, L
R720 XD	D, S, L	D, S, L	D, S, L	D, S, L
R820	D, S, L	D, S, L	D, S, L	D, S, L
R920	D, S, L	D, S, L	D, S, L	D, S, L
T320	D, S, L	D, S, L	D, S, L	D, S, L
T420	D, S, L	D, S, L	D, S, L	D, S, L
T620	D, S, L	D, S, L	D, S, L	D, S, L
11th generation servers				
M610	D, S, L	D, S, L	D, S, L	D, S, L

Dell Systems	SLES 11 SP4	SLES 12 SP 3	RHEL 7.4	RHEL 6.9
M610x	D, S, L	D, S, L	D, S, L	D, S, L
M710	D, S, L	D, S, L	D, S, L	D, S, L
M710 HD	D, S, L	D, S, L	D, S, L	D, S, L
M910	D, S, L	D, S, L	D, S, L	D, S, L
M915	D, S, L	D, S, L	D, S, L	D, S, L
R210	D, S, L	D, S, L	D, S, L	D, S, L
R210 II	D, S, L	D, S, L	D, S, L	D, S, L
R310	D, S, L	D, S, L	D, S, L	D, S, L
R410	D, S, L	D, S, L	D, S, L	D, S, L
R415	D, S, L	D, S, L	D, S, L	D, S, L
R510	D, S, L	D, S, L	D, S, L	D, S, L
R515	D, S, L	D, S, L	D, S, L	D, S, L
R610	D, S, L	D, S, L	D, S, L	D, S, L
R710	D, S, L	D, S, L	D, S, L	D, S, L
R715	D, S, L	D, S, L	D, S, L	D, S, L
R810	D, S, L	D, S, L	D, S, L	D, S, L
R815	D, S, L	D, S, L	D, S, L	D, S, L
R910	D, S, L	D, S, L	D, S, L	D, S, L
T110	D, S, L	D, S, L	D, S, L	D, S, L
T110 II	D, S, L	D, S, L	D, S, L	D, S, L
T310	D, S, L	D, S, L	D, S, L	D, S, L
T410	D, S, L	D, S, L	D, S, L	D, S, L
T610	D, S, L	D, S, L	D, S, L	D, S, L
T710	D, S, L	D, S, L	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 9.1 change management software on systems running supported Virtualization operating systems.

Table 19. Supported OpenManage Change Management Software on Systems Running Supported Virtualization Operating Systems for VMware

Dell Systems	VMware	
	vSphere 6.5 U1	vSphere 6.0 U3
14th generation servers		
R7425	*	*
R7415	*	*
R6415	*	*
C6420	*	*
FC640	*	*
FC640	*	*
FC640 v2	*	*
FD 342 v2	*	*
FD332	*	*
FD332	*	*
M640	*	*
M640-VRTX	*	*
R440	*	*
R540	*	*
R640	*	*
R740	*	*
R740xd	*	*
R940	*	*
T440	*	*
13th generation servers		
C4130	*	*
C6320		
FC 430	*	*
FC 630	*	*
FC 630	*	*
FC 830	*	*
M630	*	*
M630	*	*

Dell Systems	VMware	
	vSphere 6.5 U1	vSphere 6.0 U3
M830	*	*
R230	*	*
R330	*	*
R430	*	*
R530	*	*
R630	*	*
R730	*	*
R730 XD	*	*
R830	*	*
R930	*	*
T130	*	*
T330	*	*
T430	*	*
T630	*	*
12th generation servers		
M420	*	*
M520	*	*
M620	*	*
M820	*	*
R220	*	*
R320	*	*
R420	*	*
R520	*	*
R620	*	*
R720	*	*
R720 XD	*	*
R820	*	*
R920	*	*
T320	*	*
T420	*	*
T620	*	*
11th generation servers		
M610	*	*

Dell Systems	VMware	
	vSphere 6.5 U1	vSphere 6.0 U3
M610x	*	*
M710	*	*
M710 HD	*	*
M910	*	*
M915	*	*
R210	*	*
R210 II	*	*
R310	*	*
R410	*	*
R415	*	*
R510	*	*
R515	*	*
R610	*	*
R710	*	*
R715	*	*
R810	*	*
R815	*	*
R910	*	*
T110	*	*
T110 II	*	*
T310	*	*
T410	*	*
T610	*	*
T710	*	*

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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

Topics:

Supported Microsoft Windows Pre-installation Environment for Deployment Toolkit v6.1

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

Table 20. Supported Microsoft Windows Pre-installation Environment for Dell Deployment Tool kit (DTK)

Windows Preinstallation Environment	DTK
4.0(64-bit)	X
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 21. Supported Microsoft Windows Server Operating Systems for RACADM

RACADM utility	Microsoft Windows Server 2016	Micsrosoft 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 22. Supported Linux Operating Systems for RACADM

RACADM utility	RHEL 6.9	RHEL 7.4	SLES 11 SP4	SLES 12 SP3
Remote RACADM	X	X	X	X
Local RACADM	X	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 23. Supported virtual Operating Systems for RACADM

RACADM utility	vSphere 6.7	vSphere 6.5 U1	vSphere 6.0 U3	Microsoft Hyper-V for Windows 2012 R2
Remote RACADM	X	X	X	X
Local RACADM	X	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 24. Supported Microsoft Windows Server Operating Systems for VMCLI and iVMCLI

Microsoft Windows Server	VMCLI and iVMCLI
Windows Server 2016	X
Microsoft Windows Server 2012	X
Microsoft Windows Server 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 25. Supported Linux Operating Systems for VMCLI and iVMCLI

Supported Linux Operating Systems	VMCLI and iVMCLI
SLES 11 SP4	X
SLES 12 SP3	X
RHEL 7.4	X
RHEL 6.9	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 26. Supported Linux Operating Systems for IPMITool In-Band

Supported Linux Operating Systems	IPMITool In-Band
SLES 11 SP4	X
SLES 12 SP3	X
RHEL 7.4	X
RHEL 6.9	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 27. Supported Microsoft Windows Server Operating Systems for BMU and IPMI Tool Out-of- Band

Supported Microsoft Windows Server Operating System	IPMITool Out-of- Band
Windows Server 2016	X
Microsoft Windows Server 2012	X
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 28. Supported Linux Operating Systems for IPMIToolI

Supported Linux Operating Systems	IPMITool Out-of-Band
SLES 11 SP4	X
SLES 12 SP3	X
RHEL 7.4	X
RHEL 6.9	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 29. Supported Microsoft Windows Server Operating Systems for IPMITool

Supported Microsoft Windows Server Operating System	IPMITool
Windows Server 2016	X
Microsoft Windows Server 2012	X
Microsoft Windows Server 2012 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 30. Supported Linux Operating Systems for IPMITool

Supported Linux Operating System	IPMITool BMU
SLES 11 SP4	X
SLES 12 SP3	X
RHEL 7.4	X
RHEL 6.9	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 31. Supported Virtualization operating systems for the IPMITool

Supported Virtualization operating system	IPMITool
vSphere 6.5 U1	X
vSphere 6.0 U3	X

Table 32. Supported Virtualization Operating Systems for IPMITool BMU

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

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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 9.1.

Table 33. 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	9.1
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 34. 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 35. NIC Manufacturers and Drivers Required for Supported SUSE Linux Enterprise Server Operating Systems

NIC Product Name	SLES 11 SP4	SLES 12 SP3
Broadcom NetXtreme Family of Adapters	20.2	20.2
Intel Family of Adapters	17.5.0	17.5.0
QLogic FC & Classic CNAs Family of Adapters	5.3.62	5.3.62
QLogic formally Broadcom CNAs	19.2.0	19.2.0
Emulex Family of Adapters	08.04.00	08.04.00
Brocade Family of Adapters	3.2.3	3.2.3
Mellanox Family of Adapters (Ethernet only)	MLNX OFED 3.2-1.0.0.1	MLNX OFED 3.2-1.0.0.1

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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.

Topics:

- PERC H740 and H740P Adapter
- PERC H800 Adapter
- PERC H810 Adapter
- PERC H830 Adapter, Mini Monolithic
- PERC H840 Adapter
- PERC S110
- PERC S140
- FD33XS-PERC Single
- FD33XD-PERC Dual
- SAS 6 Gbps HBA
- SAS 12Gbps HBA
- Internal Tape Adapter
- Dell PowerEdge PCIe Express Flash SSD

Linux Driver Included in RPM

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

PERC 6E Adapter

The PERC 6/E Adapter supports the following Dell PowerEdge systems: R200, R220, R300, R805, R900, R905, T300, T610, R410, R610, R710, T410, M610, M710, T710, T310, R310, R210, T110, R510, R810, R910, M910, R715, R815, R415, and R515.

The PERC 6/E Adapter supports the following Dell Storage systems: MD1000 and MD1120.

The PERC 6/E Adapter supports six storage enclosures.

Table 36. PERC 6/E Adapter

Storage Management Service supported elements	Version
Storage Management Service Version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	6.3.3-0002
Windows Server 2016 Driver	2.24.0.32
Windows Server 2012 Driver	2.24.0.64
Windows Server 2012 R2 Driver	4.5.0.64
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.3 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native

PERC 6i Adapter, Integrated, and Modular

The PERC 6/i Adapter supports the following Dell PowerEdge systems: R410, R905, T300, and T605.

The PERC 6/i Integrated supports the following Dell PowerEdge systems: T410, T710, T310, R310, R210, R220, T110, R510, R810, R910, M910, R715, R815, R415, R515, R805, R900, T610, R410, R610, R710, M610, and M710.

The PERC 6/i Modular supports the following Dell PowerEdge systems: R610, R710, T610, R410, T410, M610, M710, T710, T310, R310, R210, R220, T110, R510, R810, R910, M910, R715, R815, R415, R515, R805, and R900.

Table 37. PERC 6/i Integrated and Adapter

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	6.3.3-0002
Windows Server 2016 Driver	2.24.0.64
Windows Server 2012 Driver	4.5.0.64
Windows Server 2012 R2 Driver	Native
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.4 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native

SAS 6iR int Modular

The following tables list the elements supported by the SAS 6/iR Integrated and Adapter.

Table 38. SAS 6/iR Integrated and Adapter

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
SAS Firmware/BIOS Version	00.25.47.00/06.22.03.00
Windows Server 2016 Driver	1.28.03.01 (32–bit) / 1.28.03.01 (64–bit)
Windows Server 2012 Driver	Native
Windows Server 2012 R2 Driver	Native
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.3 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native

SAS 6 iR Integrated and Adapter

The SAS 6/iR Integrated supports the following Dell PowerEdge systems: R805, R900, M600, M605, M805, M905, T610, R410, R610, R710, M610, M710, R610, R710, T610, R410, T410, M610, M710, T710, T310, R310, R210, R220, T110, R510, R810, R910, M910, R715, R815, R415, and R515.

The SAS 6/iR Adapter supports the following Dell PowerEdge systems: R200, R300, R410, T105, T300, R905, T100, and T605.

Table 39. SAS 6/iR Integrated and Adapter

Storage Management Service supported elements	Version
Storage Management Service Version	6.0.1
Server Administrator Version	9.1
SAS Firmware/ BIOS Version	00.25.47.00/06.22.03.00
Windows Server 2016 Driver	1.28.03.01 (32-bit) / 1.28.03.01 (64-bit)
Windows Server 2012 Driver	Native
Windows Server 2012 R2 Driver	Native
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.3 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native

PERC H200 Adapter, Integrated, and Modular

The PERC H200 Adapter supports the following Dell PowerEdge systems: T410, R210, R220, T110, T310, R310, T610, R410, and T710.

The PERC H200 Integrated supports the following Dell PowerEdge systems: R220, R710, R815, R715, R510, T610, R610, and T710.

The PERC H200 Modular supports the following Dell PowerEdge systems: M710 and M610.

Table 40. PERC H200 Modular controllers

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	07.03.06.00
Windows Server 2016 Driver	Native
Windows Server 2012 Driver	Native
Windows Server 2016 R2 Driver	Native
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.4 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native

PERC H310 Adapter, Mini Blade, and Mini Monolithic

The PERC H310 Adapter, Mini Blade, and Mini Monolithic support the following Dell PowerEdge systems: R620, R720, R720XD, M520, M620, R820, R220, R320, R420, R520, T320, T420 and T620.

Table 41. PERC H310 Adapter, Mini Blade, and Mini Monolithic controllers

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	20.13.3-0001
Windows Server 2016 Driver	6.805.03.00
Windows Server 2012 Driver	6.805.03.00
Windows Server 2012 R2 Driver	6.805.03.00
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.4 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native

PERC H330 Adapter

The following tables list the other elements supported by the PERC H330 Adapter controller.

Table 42. PERC H330 Adapter controller

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	25.5.2.0001
Windows Server 2016 Driver	6.604.06.00
Windows Server 2012 Driver	6.604.06.00
Windows Server 2012 R2 Driver	6.604.06.00
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.4 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Native
VMware ESXi 6.5 U1 Driver	Native

PERC HBA H330 Mini, Adapter

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

Table 43. PERC HBA 330 Mini, Adapter controller

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	13.17.03.00
Windows Server 2016 Driver	2.51.15.00
Windows Server 2012 Driver	2.51.15.00
Windows Server 2012 R2 Driver	2.51.15.00
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.4 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Native
VMware ESXi 6.5 U1 Driver	Native

PERC H700 Adapter, Integrated, and Modular

The PERC H700 Adapter supports the following Dell PowerEdge systems: R220, R310, R410, R320, R420, R520, T310, T320, T410 and T420.

The PERC H700 Adapter supports the following Dell PowerVault system: PowerVault NX300.

The PERC H700 Integrated supports the following Dell PowerEdge systems: R710, R815, R715, R510, T610, R610, T710, R410, T410, M610, M710, T710, T310, R310, R210, R220, T110, R810, R910, M910, R415, and R515.

The PERC H700 Modular supports the following Dell PowerEdge systems: M610 and M710.

The following tables list the other elements supported by the PERC H700 Integrated and Adapter.

Table 44. Dell OpenManage Supported Elements: PERC H700 Adapter, Integrated, and Modular

Storage Management Service supported elements	Version	
Storage Management Service Version	6.0.1	
Server Administrator Version	9.1	
PERC Firmware Version	**Integrated** 12.10.7-0001	**Modular** 12.10.6-0001
Windows Server 2016 Driver	Native	
Windows Server 2012 Driver	Native	
Windows Server 2012 R2 Driver	Native	
Red Hat Enterprise Linux 6.9	Native	
Red Hat Enterprise Linux 7.4	Native	
SUSE Linux Enterprise Server 11 SP4 Driver	Native	
SUSE Linux Enterprise Server 12 SP3 Driver	Native	

PERC H710 and H710P Adapter, Mini Blade, and Mini Monolithic

The PERC H710 Adapter, Mini Blade, and Mini Monolithic support the following Dell PowerEdge systems: R620, R720, R720XD, M520, M620, R220, R320, R420, R520, T320, T420 and T620.

Table 45. PERC H710 Adapter, Mini Blade, and Mini Monolithic controllers

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	21.3.4-0001
Windows Server 2016 Driver	6.805.03.00
Windows Server 2012 Driver	6.805.03.00
Windows Server 2012 R2 Driver	6.805.03.00
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.4	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Native
VMware ESXi 6.5 U1 Driver	Native

PERC H730 and H730P Adapter

The following tables list the other elements supported by the PERC H730/H730P controller.

Table 46. PERC H730/H730P controller

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	25.5.2.0001
Windows Server 2016 Driver	6.604.06.00
Windows Server 2012 Driver	6.604.06.00
Windows Server 2012 R2 Driver	6.604.06.00
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.4	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Native

Storage Management Service supported elements	Version
VMware ESXi 6.5 U1 Driver	Native

PERC H740 and H740P Adapter

The following tables list the other elements supported by the PERC H740/H740P controller.

Table 47. PERC H740/H740P controller

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	50.0.1-0593
Windows Server 2016 Driver	7.700.51.00
Windows Server 2012 Driver	7.700.51.00
Windows Server 2012 R2 Driver	7.700.51.00
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.4	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Native
VMware ESXi 6.5 U1 Driver	Native

PERC H800 Adapter

The PERC H800 Adapter supports the following Dell PowerEdge systems: R220, R320, R420, R520, R710, R815, T410, R715, R210, R510, T310, R310, T320, T420, T610, R610, R410, and T710.

The PERC H800 Adapter supports the following Dell Storage systems: MD1200 and MD1220.

The PERC H800 Adapter supports eight storage devices.

The following tables list the other elements supported by the PERC H800 Adapter.

Table 48. PERC H800 Adapter

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	12.10.7-0001
Windows Server 2016 Driver	Native
Windows Server 2012 Driver	Native
Windows Server 2012 R2 Driver	Native

Storage Management Service supported elements	Version
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.4	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native

PERC H810 Adapter

The PERC H810 Adapter supports the following Dell PowerEdge systems: R620, R720, R720XD, R820, M620, R220, R320, R420, R520, T320, T420 and T620.

The following tables list the other elements supported by the PERC H810 Adapter controller.

Table 49. PERC H810 Adapter controller

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	21.3.4-0001
Windows Server 2016 Driver	6.805.03.00
Windows Server 2012 Driver	6.805.03.00
Windows Server 2012 R2 Driver	6.805.03.00
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.4	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Native
VMware ESXi 6.5 U1 Driver	Native

PERC H830 Adapter, Mini Monolithic

The PERC H830 Adapter, Mini Monolithic support the following Dell PowerEdge systems: R430, R530, R,630, R730, R7910, R730 XD, T430, T630, M630, M830, FC430, FC630, FC830 and C4130.

The following tables list the other elements supported by the PERC H830 Adapter, Mini Monolithic controllers.

Table 50. PERC H830 Adapter, Mini Monolithic controllers

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	25.5.2.0001
Windows Server 2016 Driver	Native

Storage Management Service supported elements	Version
Windows Server 2012 Driver	Native
Windows Server 2012 R2 Driver	Native
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.4	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native

PERC H840 Adapter

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

Table 51. PERC H840 controller

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	50.0.1-0593
Windows Server 2016 Driver	7.700.51.00
Windows Server 2012 Driver	7.700.51.00
Windows Server 2012 R2 Driver	7.700.51.00
Red Hat Enterprise Linux 6.9	Native
Red Hat Enterprise Linux 7.4	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Native
VMware ESXi 6.5 U1 Driver	Native

PERC S110

The PERC S110 controller supports the following Dell PowerEdge systems: M520, M620, R220, R320, R420, R520, R620, R720, T320, T420, and T620

The following tables list the other elements supported by the PERC S110 controller.

Table 52. Dell OpenManage Supported Elements: PERC S110

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	3.0.0.0139
Windows Server 2016 Driver	Not Supported

Storage Management Service supported elements	Version
Windows Server 2012 Driver	Not Supported
Windows Server 2012 R2 Driver	Not Supported
VMware ESXi 6.0 U3 Driver	Not Supported
VMware ESXi 6.5 U1 Driver	Not Supported

PERC S140

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

Table 53. OpenManage Supported Elements: PERC S140

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	5.1.0-0005
Windows Server 2016 Driver	Not Supported
Windows Server 2012 Driver	Not Supported
Windows Server 2012 R2 Driver	Not Supported
VMware ESXi 6.0 U3 Driver	Not Supported
VMware ESXi 6.5 U1 Driver	Not Supported

FD33XS-PERC Single

The FD33XS-PERC Single controller supports the Dell's 13th generation of PowerEdge systems.

The following tables list the other elements supported by the FD33XS-PERC Single controller.

Table 54. FD33XS-PERC Single controller

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	25.5.2.0001
Windows Server 2016 Driver	6.604.06.00
Windows Server 2012 Driver	6.604.06.00
Windows Server 2012 R2 Driver	6.603.07.00
Red Hat Linux 6.9 Driver	Native
Red Hat Linux 7.4 Driver	Native
SUSE Linux 11 SP4 Driver	Native
SUSE Linux 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Native

Storage Management Service supported elements	Version
VMware ESXi 6.5 U1 Driver	Native

FD33XD-PERC Dual

The FD33XD-PERC Dual controller supports the Dell's 14th generation of PowerEdge systems.
The following tables list the other elements supported by the FD33XD-PERC Dual controller.

Table 55. FD33XD-PERC Dual controller

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	25.5.2.0001
Windows Server 2016 Driver	6.604.06.00
Windows Server 2012 Driver	6.604.06.00
Windows Server 2012 R2 Driver	6.604.06.00
Red Hat Linux 6.9 Driver	Native
Red Hat Linux 7.4 Driver	Native
SUSE Linux 11 SP4 Driver	Native
SUSE Linux 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Native
VMware ESXi 6.5 U1 Driver	Native

SAS 6 Gbps HBA

The SAS 6 Gbps HBA supports the following Dell PowerEdge systems: R805, R900, M600, M605, M805, M905, T610, R410, R610, R710, M610, M710, R200, R220, R300, R410, T105, T300, R905, T100, and T605.

The following tables list the other elements supported by the SAS 6 Gbps HBA.

Table 56. SAS 6 Gbps HBA

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
SAS Firmware/ BIOS Version	07.03.06.00
Windows Server 2016 Driver	Native
Windows Server 2012 Driver	Native
Windows Server 2012 R2 Driver	Native
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.4 Driver	Native

Storage Management Service supported elements	Version
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Not Applicable
VMware ESXi 6.5 U1 Driver	Not Applicable

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 57. Storage Management Service supported elements: SAS 12Gbps HBA

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	13.17.03.00
Windows Server 2016 Driver	2.51.15.00
Windows Server 2012 Driver	2.51.15.00
Windows Server 2012 R2 Driver	2.51.15.00
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.4 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP3 Driver	Native
VMware ESXi 6.0 U3 Driver	Native
VMware ESXi 6.5 U1 Driver	Native

Internal Tape Adapter

The Internal Tape Adapter supports the following Dell PowerEdge systems: T620, T320, and T420.

The following tables list the other elements supported by the Internal Tape Adapter.

The Internal Tape Adapter supports the following Tape Drives: LTO3-080 for IBM ULTRIUM-HH3, LTO4-120 for IBM ULTRIUM-HH4, LTO5-140 for IBM ULTRIUM-HH5 and LTO6-200 for IBM ULTRIUM-HH6.

Table 58. Internal Tape Adapter controllers

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	07.03.06.00

Storage Management Service supported elements	Version
Windows Server 2016 Driver	Native
Windows Server 2012 Driver	Native
Windows Server 2012 R2 Driver	Native
Red Hat Enterprise Linux 6.9 Driver	Native
Red Hat Enterprise Linux 7.4 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	Native
SUSE Linux Enterprise Server 12 SP1 Driver	Native
VMware ESXi 6.0 U3 Driver	Native
VMware ESXi 6.5 U1 Driver	Native

Dell PowerEdge PCIe Express Flash SSD

The following tables list the other elements supported by the Dell PowerEdge PCIe Express Flash solid-state storage devices.

Table 59. PowerEdge PCIe Express Flash SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.0.1
Server Administrator Version	9.1
PERC Firmware Version	B1442808
Windows Server 2016 Driver	Not Supported
Windows Server 2012 Driver	Not Supported
Windows Server 2012 R2 Driver	6.27.1.8
Red Hat Enterprise Linux 6.9 Driver	1.2.32-1
Red Hat Enterprise Linux 7.4 Driver	Native
SUSE Linux Enterprise Server 11 SP4 Driver	1.2.32-1
SUSE Linux Enterprise Server 12 SP3 Driver	Native