Dell EMC OpenManage Software Support Matrix

Version 10.1.0.0

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Rev. A05

DELL Technologies

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.

Contents

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Introduction

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

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

Topics:

OMSA customer survey

Survey link: https://secure.opinionlab.com.

Dell Technologies is exclusively surveying OMSA customers, collecting feedback, and implementing suggestions. As a customer, the above link is available for you to take the survey at various phases of OMSA usage such as Windows or Linux based installation, while using the OMSA GUI and CLI, and VMware ESXi.

What is new in this release

The following are the release highlights of OpenManage Server Administrator and Storage Management.

- New features in Server Administrator:
  - Oracle Java Runtime Environment 11.0.11 and Tomcat 9.0.45 bundled with Server Administrator.
  - For the YX2X to YX5X generation of PowerEdge servers, new memory events are supported that provide additional recommendations about the resolution steps to resolve an event.
  - In Server Administrator, the About page displays the latest OpenJDK version and a link from Red Hat to download and that can be used as an alternative system JRE with Server Administrator.
  - Server Administrator web server supports the subject alternative name (SAN) attribute for certificates.
  - SNMP Management Interface is not installed as part of the Typical Installation setup in Server Administrator.
  - Inventory collector is not bundled as part of Server Administrator.
    - Change Management Group information through Simple Network Management Protocol(SNMP), Windows Management Instrumentation(WMI), and Command Line Interface(CLI) are removed.
  - OpenManage product nomenclature is updated to standard format of four digits.
- New features in Storage Management:
  - NVMe Telemetry feature for direct-attached NVMe devices.
  - Samsung PM1733/PM1735 v2, Intel Optane P5800x, and Hynix PE8010 drives are supported.
- New controllers are:
  - PERC H750 Adapter is supported only on PowerEdge R640, R740, R740xd, R840, R940, R940xa, R440, R540, T440, T640, C6520, and C6525 servers.

- HBA350i Adpt is supported only on R640, R740, R740xd, R840, R940, R940xa, R440, R540, T440, and T640 PowerEdge servers.
- PERC H350 Adapter is supported only on PowerEdge R640, R740, R840, R940, R940xa, R440, R540, T440, T640, C6520, and C6525 servers.
- PERC H355 Adapter and PERC H355 Front are supported on all PowerEdge YX5X servers.
- HBA355e Adpt is supported on all PowerEdge YX4X servers.

NOTE: Ensure to install OM 10.1.0.1 on Red Hat Enterprise Linux, SUSE Linux Enterprise Server and Ubuntu operating systems to claim support for the latest controllers. The controllers are supported on Microsoft Windows operating system on OM 10.2.0.0.

NOTE: The HBA355e Adpt is supported on all PowerEdge YX4X servers, to fully replace 12 Gbps Ext. SAS HBA cards.

- New supported operating systems are:
  - Red Hat Enterprise Linux 8.5
  - Red Hat Enterprise Linux 8.4
  - SUSE Linux Enterprise Server 15 SP3
  - VMware ESXi 7.0 U3
  - Ubuntu Server 20.04.3

NOTE: Ubuntu Server 20.04.3 is supported only on OM 10.1.0.1.

- New client operating systems supported on Dell EMC Precision R7920 are:
  - Red Hat Enterprise Linux 8.0
  - Ubuntu Desktop 20

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

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

Supported web browsers

- Mozilla Firefox version 81
- Mozilla Firefox version 80
- Google Chrome version 84
- Google Chrome version 83
- Internet Explorer version 11
- Safari version 13.x
- Microsoft Edge

For more support and compatibility information, see *Dell EMC OpenManage Software Support Matrix Version 10.1.0.0* and *Dell EMC OpenManage Software Compatibility Matrix Version 10.1.0.0*.

Supported operating systems

- Red Hat Enterprise Linux 8.5
- Red Hat Enterprise Linux 8.4
- Red Hat Enterprise Linux 8.3
- Red Hat Enterprise Linux 7.9
- SUSE Linux Enterprise Server 15 SP3
- SUSE Linux Enterprise Server 15 SP2
- Ubuntu Server 20.04.3
- Ubuntu Server 20.04.2
- VMware ESXi 7.0 U3
- VMware ESXi 7.0 U2
- VMware ESXi 6.7 U3
- Microsoft Windows 2016
- Microsoft Windows 2019

Supported network cards

- Marvell QLogic Fibre Channel Single Port 32GFC PCIe Gen4 x8 Adapter
- Marvell QLogic Fibre Channel Dual Port 32GFC PCIe Gen4 x8 Adapter
- Intel(R) Ethernet 25G 2P E810-XXV OCP
- Intel(R) Ethernet 25G 2P E810-XXV Adapter
- Intel(R) Ethernet 10G 4P X710/I350 rNDC
- Intel FPGA Programmable Acceleration Card D5005
- Dual Port 10Gb Ethernet (BCM57810S) LOM (FC430)
- QLogic 57810S-K Dual Port 10Gb bNDC KR CNA
- QLogic 57810S-k Dual Port 10Gb bMezz KR CNA
- QLogic 57840S-K Quad Port 10Gb bNDC KR CNA
- Broadcom BCM57504 25G KR Quad Port Fab AB Mezz
- Broadcom NetXtreme-E P410SDBT BCM57454 4x10G BT PCIE Ethernet
- Broadcom NetXtreme-E N410SDBT BCM57454 4x10G BT OCP3.0 Ethernet
- Broadcom NetXtreme-E P425D BCM57504 4x25G SFP28 PCIE Ethernet
- Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet

Structure of this guide

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

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

Accessing support content from the Dell EMC support site

Access supporting content related to an array of systems management tools using direct links, going to the Dell EMC support site, or using a search engine.

- Direct links:
  - For Dell EMC Enterprise Systems Management and Dell EMC Remote Enterprise Systems Management—https://www.dell.com/esmmanuals
  - For Dell EMC Virtualization Solutions—www.dell.com/virtualizationsolutions
  - For Dell EMC OpenManage—https://www.dell.com/openmanagemanuals
  - For iDRAC—https://www.dell.com/idracmanuals
  - For Dell EMC OpenManage Connections Enterprise Systems Management—https://www.dell.com/OMConnectionsEnterpriseSystemsManagement
  - For Dell EMC Serviceability Tools—https://www.dell.com/serviceabilitytools
- Dell EMC support site:
  1. Go to https://www.dell.com/support.
  2. Click **Browse all products**.
  3. From the **All products** page, click **Software**, and then click the required link.
  4. Click the required product and then click the required 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 www.dell.com/Support/Home 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								

Supported PowerEdge servers

The following table lists the supported PowerEdge servers

Table 2. List of supported PowerEdge servers

yx5x servers	yx4x servers	yx3x servers	yx2x servers
R750xa	R240	C4130	M420
R750	R340	C6320	M520
R650	T140	C6320P	M620
C6520	T340	FC430	M820
MX750c	R740xd2	FC630	M820-VRTX
R6515	MX7000	FC830	R220
R7515	MX5016s	M630	R320
R6525	MX740c	M630-VRTX	R420
C6525	MX840c	M830	R520
R7525	R7425	M830-VRTX	R620
	R7415	R230	R720
	R6415	R330	R720xd
	C6420	R430	R820
	FC640	R530	R920
	M640	R630	T320
	M640-VRTX	R730	T420

Table 2. List of supported PowerEdge servers (continued)

yx5x servers	yx4x servers	yx3x servers	yx2x servers
	R440	R730xd	T620
	R540	R7910	
	R540XD	R830	
	R640	R930	
	R740	T130	
	R740xd	T330	
	R7920	T430	
	R940	T630	
	T440		
	T640		
	C4140		
	R840		
	R940xa		

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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 EMC devices. 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, which is 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 www.dell.com/OpenManageManuals.

Supported OpenManage Systems Management software on Windows operating systems

The following table lists the supported OpenManage 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 EMC devices column indicates that Server Administrator is supported on that operating system for the corresponding system.

Table 3. Supported OpenManage Systems Management software on systems running Microsoft Windows Server and Microsoft Windows Small Business Server operating systems

Dell EMC devices	Windows Server 2016	Windows Server 2019
yx5x generation of PowerEdge servers	X	X
yx4x generation of PowerEdge servers	X	X
yx3x generation of PowerEdge servers	X	X
yx2x generation of PowerEdge servers	X	X

Table 3. Supported OpenManage Systems Management software on systems running Microsoft Windows Server and Microsoft Windows Small Business Server operating systems (continued)

Dell EMC devices	Windows Server 2016	Windows Server 2019
yx1x generation of PowerEdge servers		

Table 4. Supported OpenManage Systems Management software on systems running Microsoft Windows Storage Server, Microsoft Windows Server operating systems

Dell EMC devices	Windows Server 2016	Windows Server 2019
yx5x generation of PowerEdge servers	X	X
yx4x generation of PowerEdge servers	X	X
yx3x generation of PowerEdge servers	X	X
yx2x generation of PowerEdge servers	X	X
yx1x generation of PowerEdge servers		

Supported OpenManage Systems Management software on Linux operating systems

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

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

Table 5. Supported OpenManage Systems Management software on systems running Linux operating systems

Dell EMC devices	Red Hat Enterprise Linux 8.5, 8.4 and 8.3	Red Hat Enterprise Linux 7.9	SUSE Linux Enterprise Server 15 SP3 and SP2	Ubuntu Server 20.04.3
yx5x generation of PowerEdge servers	X	X	X	X
yx4x generation of PowerEdge servers	X	X	X	X
yx3x generation of PowerEdge servers	X	X	X	X
yx2x generation of PowerEdge servers				
yx1x generation of PowerEdge servers				

Supported OpenManage Systems Management software on Virtualization operating systems

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

The following table lists the supported OpenManage 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 EMC devices	VMware vSphere 7.0 U3	VMware vSphere 6.7 U3
yx5x generation of PowerEdge servers	X	X
yx4x generation of PowerEdge servers	X	X
yx3x generation of PowerEdge servers	X	X
yx2x generation of PowerEdge servers		
yx1x generation of PowerEdge servers		

OpenManage Server Administrator

OpenManage Server Administrator Web Server allows you to remotely manage and monitor your entire network of managed systems from your system. However, for laptop and desktop you are required to use the latest version of OM Web 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
Windows Server 2019	N/A	X	X
Windows Server 2016	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 8.5, 8.4 and 8.3	X	X
Red Hat Enterprise Linux 7.9	X	X
SUSE Linux Enterprise Server 15 SP3 and SP2	X	X
Ubuntu Server 20.04.3	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
vSphere 7.0 U3	X	N/A
vSphere 6.7 U3	X	N/A

Table 10. Supported Microsoft operating systems on physical system

Microsoft	Server Administrator	Server Administrator Web Server
Hyper-V for Windows 2016	X	X
Hyper-V for Windows 2019	X	X

NOTE:

- Server Administrator includes Server Instrumentation, Storage Management, Remote Access Components, and Remote Enablement.
- Server Administrator Web Server component cannot be installed on Dell EMC 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 Mobile
- OpenManage Enterprise Power Manager
- OpenManage Server Administrator

OpenManage Mobile v3.3

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 or later and/or Integrated Dell Remote Access Controllers (iDRACs) 7 or later and/or OpenManage Enterprise consoles and/or Chassis. OpenManage Mobile provides OpenManage Essentials and OpenManage Enterprise 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.

Dell EMC OpenManage Enterprise Power Manager v1.2

Dell EMC OpenManage Enterprise Power Manager is an extension to Dell EMC OpenManage Enterprise (OME) console and uses fine-grained instrumentation to provide increased visibility over power consumption, anomalies, and utilization. Also, Power Manager alerts and reports about power and thermal events with servers, chassis, and custom groups consisting of servers and chassis. This enables increased control, faster response times, greater accuracy, and broader decision-making intelligence than would otherwise be possible.

When used with PowerEdge servers, or modular systems with an iDRAC Enterprise license, or supported chassis, and OpenManage Enterprise Advanced license, Power Manager leverages information from OME console for platform-level power reporting. Power Manager then communicates with Integrated Dell Remote Access Controller (iDRAC) or Chassis Management Controller (CMC) on each managed server to provide power-management data, and execution of control policy—making it easy for Administrators to identify areas to gain efficiencies and cut wasteful costs.

Supported web browsers for In-Band management and monitoring

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

Table 11. Supported web browsers running supported Microsoft Windows, Red Hat Enterprise Linux.

Operating system	Internet Explorer (64-bit)	Microsoft Edge	Mozilla Firefox	Google Chrome	Safari
	11		80 and 81	84 and 83	13.X
Windows Server 2019 and 2016	X	X	X	X	
Red Hat Enterprise Linux 8.5, 8.4 and 8.3	Native Mozilla Firefox Web Browsers				
Red Hat Enterprise Linux 7.9	Native Mozilla Firefox Web Browsers				
SUSE Linux Enterprise Server SP3 and SP2	Native Mozilla Firefox Web Browsers				
Ubuntu Server 20.04.3	Native Mozilla Firefox Web Browsers				

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

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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 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 includes:

- Graphical User Interface(GUI), Command-Line Interface(CLI), and WSMan
- 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 EMC also offers two options to better fit into a customer's existing environment. **Auto-discovery** or **DHCP** can be set from the factory to enable you to access iDRAC and remotely configure your server.

iDRAC9 Management Traffic – Dedicated NIC or Shared LOM

For certain yx4x generation of 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 EMC recommends placing 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 EMC 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 www.dell.com/Support/Home.

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 iDRAC
- Supported Chassis Management Controller versions and firmware
- Supported BMC firmware versions
- Supported IPMI protocol versions

iDRAC Service Module

The Integrated Dell Remote Access Controller (iDRAC) Service Module is a lightweight optional software application that can be installed on yx2x servers or later with minimum Firmware version of 4.00.00.00 for iDRAC 9 on yx4x and yx5x servers. The iDRAC Service Module complements iDRAC interfaces – Graphical User Interface (GUI), RACADM CLI and Web Service Management (WSMan) 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 (operating system/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 12. Supported Remote Access Controllers and solutions for blade, rack, and tower servers

Dell EMC devices	DRACs		MSM/CMC Firmware				BMC	Supported IPMI
	iDRAC Type	Supported DRAC FW version	M1000e CMC	VRTX CMC	FX2 CMC	MX7000 MSM		
R750xa	iDRAC9	4.40.29.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R750	iDRAC9	4.40.29.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
C6520	iDRAC9	4.40.29.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R650	iDRAC9	4.40.29.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
MX750c	iDRAC9	4.40.29.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R7525	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R6515	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R7515	iDRAC9	4.40.40.00	N/A	N/A	N/A	N/A	N/A	2.0

Table 12. Supported Remote Access Controllers and solutions for blade, rack, and tower servers (continued)

Dell EMC devices	DRACs		MSM/CMC Firmware				BMC	Supported IPMI
	iDRAC Type	Supported DRAC FW version	M1000e CMC	VRTX CMC	FX2 CMC	MX7000 MSM		
		5.00.00.00 5.10.10.00						
R6525	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
C6525	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R240	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R340	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
T140	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
T340	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R740xd2	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
MX740c	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	1.00.01	N/A	2.0
MX840c	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	1.00.01	N/A	2.0
R840	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R940xa	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R7425	iDRAC9	4.40.40.00	N/A	N/A	N/A	N/A	N/A	2.0

Table 12. Supported Remote Access Controllers and solutions for blade, rack, and tower servers (continued)

Dell EMC devices	DRACs		MSM/CMC Firmware				BMC	Supported IPMI
	iDRAC Type	Supported DRAC FW version	M1000e CMC	VRTX CMC	FX2 CMC	MX7000 MSM		
		5.00.00.00 5.10.10.00						
R7415	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R6415	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
M640-VRTX	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	3.20	N/A	N/A	N/A	2.0
M640	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	6.20	N/A	N/A	N/A	N/A	2.0
FC640	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	2.20	N/A	N/A	2.0
R540	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R440	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
T640	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
T440	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R740xd	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R940	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
R740	iDRAC9	4.40.40.00	N/A	N/A	N/A	N/A	N/A	2.0

Table 12. Supported Remote Access Controllers and solutions for blade, rack, and tower servers (continued)

Dell EMC devices	DRACs		MSM/CMC Firmware				BMC	Supported IPMI
	iDRAC Type	Supported DRAC FW version	M1000e CMC	VRTX CMC	FX2 CMC	MX7000 MSM		
		5.00.00.00 5.10.10.00						
R640	iDRAC9	4.40.40.00 5.00.00.00 5.10.10.00	N/A	N/A	N/A	N/A	N/A	2.0
FC430	iDRAC8	4.40.40.00 5.00.00.00	N/A	N/A	2.20	N/A	N/A	2.0
FC630	iDRAC8	4.40.40.00 5.00.00.00	N/A	N/A	2.20	N/A	N/A	2.0
FC830	iDRAC8	4.40.40.00 5.00.00.00	N/A	N/A	2.20	N/A	N/A	2.0
FM120	iDRAC8	2.70.70.70	N/A	N/A	2.20	N/A	N/A	2.0
M430	iDRAC8	2.70.70.70	6.20	N/A	N/A	N/A	N/A	2.0
M630	iDRAC8	2.70.70.70	6.20	N/A	N/A	N/A	N/A	2.0
M630-VRTX	iDRAC8	2.70.70.70	N/A	3.20	N/A	N/A	N/A	2.0
M830	iDRAC8	2.70.70.70	6.20	N/A	N/A	N/A	N/A	2.0
M830-VRTX	iDRAC8	2.70.70.70	N/A	3.20	N/A	N/A	N/A	2.0
R230	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
R330	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
R430	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
R530	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
R630	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
R730	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
R730xd	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
R830	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
R930	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
T130	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
T330	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
T430	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
T630	iDRAC8	2.70.70.70	N/A	N/A	N/A	N/A	N/A	2.0
M420	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
M520	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
M620	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
M820	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
R220	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0

Table 12. Supported Remote Access Controllers and solutions for blade, rack, and tower servers (continued)

Dell EMC devices	DRACs		MSM/CMC Firmware				BMC	Supported IPMI
	iDRAC Type	Supported DRAC FW version	M1000e CMC	VRTX CMC	FX2 CMC	MX7000 MSM		
R320	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
R420	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
R520	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
R620	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
R720	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
M720XD	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
M820	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
M920	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
T320	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
T420	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0
T620	iDRAC7	2.60.60.60	N/A	N/A	N/A	N/A	N/A	2.0

Lifecycle Controller—Supported Dell EMC systems and operating systems

The Dell EMC 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 yx4x generation of 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 yx4xgeneration of 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 4.00.00.00** —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 4.00.00.00** —Remote Services (WSMan) simplifies end-to-end server lifecycle management using the one-to-many method. It interfaces for remote deployment that is integrated with OpenManage Essentials and partner consoles.

For more information, see the Lifecycle Controller documentation available at www.dell.com/Support/Home.

Supported Dell EMC systems and Windows operating systems for Lifecycle Controller

See Supported OpenManage Systems Management software on Windows operating systems for a list of all the Dell EMC systems and Microsoft operating systems that support Lifecycle Controller.

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

Supported Dell EMC systems and Linux operating systems for Lifecycle Controller

See Supported OpenManage systems Management Software on Linux operating systems for a list of all the Dell EMC systems and Linux operating systems that support Lifecycle Controller.

Supported Dell EMC systems and Virtualization operating systems for Lifecycle Controller

See Supported OpenManage systems Management Software on Virtualization operating systems for a list of all the Dell EMC systems and Virtualization 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 and Red Hat Enterprise Linux.

Table 13. Supported web browsers for iDRAC9 on systems running supported Microsoft Windows, Red Hat Enterprise Linux.

Operating system	Internet Explorer (64-bit)	Microsoft Edge	Mozilla Firefox	Google Chrome	Safari
	11		80 and 81	84 and 83	13.X
Windows Server 2019 and 2016	X		X		
RHEL 8.5, 8.4 and 8.3	Native Mozilla Firefox Web Browsers				
RHEL 7.9	Native Mozilla Firefox Web Browsers				
SLES 15 SP3 and SP2	Native Mozilla Firefox Web Browsers				
Ubuntu Server 20.04.3	Native Mozilla Firefox Web Browsers				

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Supported OpenManage Change Management software

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

OpenManage Change Management software consists of:

- Dell EMC Update Packages
- Dell EMC Server Update Utility
- FTP Catalog
- Dell EMC System Update
- **Dell EMC 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 EMC system.

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

For more information about DUPs, see the *Dell Update Packages User's Guide* available on the Dell EMC 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 contains updates for yx2x, yx3x, yx4x, and yx5x systems.
- **Dell System Update** - Dell System Update (DSU) is an improved version of Online repository to distribute Dell updates for Linux and Windows systems. DSU distributes 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 that are 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 EMC system columns indicates support for DUPs.

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

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

NOTE: SUU is used for server updates and may not work on newly released Dell EMC 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 Change management software on systems running supported Microsoft Windows operating systems.

Table 14. Supported OpenManage Change Management software on systems running supported Microsoft Windows Server and Microsoft Windows Small Business Server operating systems

Dell EMC systems	Windows Server 2019	Windows Server 2016
yx5x generation of PowerEdge servers	D, S	D,S
yx4x generation of PowerEdge servers	D, S	D, S
yx3x generation of PowerEdge servers	D, S	D, S
yx2x generation of PowerEdge servers	D, S	D
yx1x generation of PowerEdge servers	D, S	D, S

Supported Change Management software on Linux operating systems

A '**D**' in the intersection of the operating system and the Dell EMC system columns indicates support for DUPs. The Dell EMC 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 EMC system columns indicates support for SUU. The Dell EMC 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 EMC system columns indicates support for Dell EMC System Update.

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

The following table lists the supported OpenManage Change management software on systems running supported Linux operating systems:

Table 15. Supported OpenManage Change Management software on systems running supported Red Hat Enterprise Linux operating systems.

Dell EMC systems	SUSE Linux Enterprise Server 15 SP3 and SP2	Red Hat Enterprise Linux 8.5, 8.4 and 8.3	Red Hat Enterprise Linux 7.9	Ubuntu Server 20.04.3
yx5x generation of PowerEdge servers	D, S, L	D, S, L	D, S, L	D, S, L
yx4x generation of PowerEdge servers	D, S, L	D, S, L	D, S, L	D, S, L
yx3x generation of PowerEdge servers	D, S, L	D, S, L	D, S, L	D, S, L
yx2x generation of PowerEdge servers	D, S, L	D, S, L	D, S, L	D, S, L
yx1x generation of PowerEdge servers				

Supported Change Management software on Virtualization operating systems

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

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

X indicates the Dell EMC systems that do not support OpenManage software.

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

NOTE: DUPs are not supported on ESXi.

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

Table 16. Supported OpenManage Change Management software on systems running supported Virtualization operating systems for VMware

Dell EMC systems	VMware	
	vSphere 7.0 U3	vSphere 6.7 U3
yx5x generation of PowerEdge servers	X	X
yx4x generation of PowerEdge servers	X	X
yx3x generation of PowerEdge servers	X	X
yx2x generation of PowerEdge servers	X	X
yx1x generation of PowerEdge servers		

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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 - RACADM
- IPMI Tool in-Band
- BMC Management Utility and IPMI Tool Out-of-Band

Topics:

iDRAC tools - RACADM

RACADM is a command-line utility that enables administrators to configure and replicate settings across multiple Dell remote access controllers (iDRACs). The RACADM utility supports operations by using command-line parameters, switches, and a configuration file that contains all data that is required to configure a iDRAC.

NOTE: This release of OpenManage Software does not support VMCLI and iVMCLI tools.

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 17. Supported Microsoft Windows Server operating systems for RACADM

RACADM utility	Microsoft Windows Server 2019	Microsoft Windows Server 2016
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 18. Supported Linux operating systems for RACADM

RACADM utility	RHEL 7.x	RHEL 8.x
Remote RACADM	X	X
Local RACADM	X	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 19. Supported Linux operating systems for IPMITool In-Band

Supported Linux operating systems	IPMITool In-Band
RHEL 8.x	X
RHEL 7.x	X

Supported Microsoft Windows operating systems for IPMITool In-Band

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 20. Supported Microsoft Windows Server operating systems for IPMITool

Supported Microsoft Windows Server operating system	IPMITool
Windows Server 2019	X
Windows Server 2016	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 21. 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 2019	X
Windows Server 2016	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 22. Supported Linux operating systems for IPMITool

Supported Linux operating systems	IPMITool Out-of-Band
RHEL 8.x	X
RHEL 7.x	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 that is installed on your system.

The following table lists the NIC manufacturers and drivers version that is required for the supported operating systems in OpenManage:

Table 23. NIC Manufacturers and Drivers required for supported Microsoft Windows operating systems

NIC Product Name	Microsoft Windows Server Family
Broadcom BCM57504 25G KR Quad Port Fab AB Mezz	21.60.29.36
Intel(R) Ethernet 25G 2P E810-XXV OCP	Native
Intel(R) Ethernet 25G 2P E810-XXV Adapter	Native
Intel(R) Ethernet 10G 4P X710/I350 rNDC	19.5.0
Intel FPGA Programmable Acceleration Card D5005	Native
Dual Port 10Gb Ethernet (BCM57810S) LOM (FC430)	Native
Marvell QLogic Fibre Channel Single Port 32GFC PCIe Gen4 x8 Adapter	35.15.00
Marvell QLogic Fibre Channel Dual Port 32GFC PCIe Gen4 x8 Adapter	35.15.00
QLogic 57810S-K Dual Port 10Gb bNDC KR CNA	35.15.00
QLogic 57810S-k Dual Port 10Gb bMezz KR CNA	35.15.00
QLogic 57840S-K Quad Port 10Gb bNDC KR CNA	35.15.00

Table 24. NIC Manufacturers and Drivers required for supported Red Hat Enterprise Linux operating systems

NIC Product Name	Red Hat Enterprise Linux 7.x, 8.x, and SUSE Linux Enterprise 15
Broadcom BCM57504 25G KR Quad Port Fab AB Mezz	21.6.2
Intel(R) Ethernet 25G 2P E810-XXV OCP	NA
Intel(R) Ethernet 25G 2P E810-XXV Adapter	NA
Intel(R) Ethernet 10G 4P X710/I350 rNDC	NA
Intel FPGA Programmable Acceleration Card D5005	NA
Dual Port 10Gb Ethernet (BCM57810S) LOM (FC430)	NA
Marvell QLogic Fibre Channel Single Port 32GFC PCIe Gen4 x8 Adapter	35.15.00.08
Marvell QLogic Fibre Channel Dual Port 32GFC PCIe Gen4 x8 Adapter	35.15.00.08
QLogic 57810S-K Dual Port 10Gb bNDC KR CNA	Native
QLogic 57810S-k Dual Port 10Gb bMezz KR CNA	Native
QLogic 57840S-K Quad Port 10Gb bNDC KR CNA	35.15.00.08

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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 that is 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 EMC system
- Firmware version number required for a particular controller
- Supported operating systems, where each operating system requires a specific driver.

For more information about Storage Management Services, see the Dell *Server Administrator Storage Management User's Guide* at www.dell.com/OpenManageManuals.

The following types of controllers are supported:

Table 25. Supported RAID controllers

Supported RAID controllers				Supported non-RAID controllers
• PERC S100 • PERC S110 • PERC S130 • PERC S140 • PERC S150 • PERC S300	• PERC H350 Adapter • PERC H355 Adapter and Front • PERC H310 Adapter • PERC H310 Mini Monolithic • PERC H310 Mini Blades • PERC H710 Adapter • PERC H710 Mini Monolithic • PERC H710 Mini Blades • PERC H710P Adapter • PERC H710P Mini Monolithic • PERC H710P Mini Blades • PERC H810 Adapter	• PERC H330 Adapter • PERC H330 Mini Monolithic • PERC H330 Mini Blades • PERC H330 Embedded • PERC H730 Adapter • PERC H730 Mini Monolithic • PERC H730 Mini Blades • PERC H730P Adapter • PERC H730P Mini Monolithic • PERC H730P Mini Blades • PERC H730P Slim • PERC H830 Adapter	• PERC H840 Adapter • PERC H740P Adapter • PERC H740P Mini Monolithic • PERC FD33xD/ FD33xS • PERC H730P MX • PERC H745P MX • PERC H745P Front • PERC H745 Front • PERC H345 Front and Adapter • PERC H755 Front and Adapter • PERC H755N Front • PERC H755 MX • PERC H750 Adapter	• SAS 12 Gbps HBA • HBA330 • HBA330 MX • HBA330 MMZ • HBA345 Frnt and Adpt • HBA355i Frnt and Adpt • HBA355e Adpt • HBA350i MX • HBA350i Adpt

The RAID controller card group supports the following operating systems:

- Red Hat Enterprise Linux 8.5
- Red Hat Enterprise Linux 8.4
- Red Hat Enterprise Linux 8.3
- Red Hat Enterprise Linux 7.9
- SUSE Linux Enterprise Server 15 SP3
- SUSE Linux Enterprise Server 15 SP2
- Ubuntu Server 20.04.3
- Ubuntu Server 20.04.2
- VMware ESXi 7.0 U3
- VMware ESXi 7.0 U2
- VMware ESXi 6.7 U3
- Windows Server 2019
- Windows Server 2016

NOTE: Ensure to install OM 10.1.0.1 on Red Hat Enterprise Linux, SUSE Linux Enterprise Server and Ubuntu operating systems to claim support for the latest controllers. The controllers are supported on Microsoft Windows operating system on OM 10.2.0.0.

NOTE: The HBA355e Adpt is supported on all PowerEdge YX4X servers, to fully replace 12 Gbps Ext. SAS HBA cards.

NOTE: The supported devices for yx5x generation of PowerEdge servers are PERC H730 and PERC H730P, PERC H740 and PERC H740P, PERC S150, PERC H745 Front, PERC H745 Adapter, PERC H345 Front,PERC H345 Adapter,HBA345 Adp,HBA345 Frnt, SAS12 Gbps, HBA330, PERC H755N, PERC H755 Adapter, PERC H755 Front, HBA355i Frnt, HBA355i Adpt PowerEdge PCIe Express Flash SSD. For more information, see platform supported operating system in earlier sections.

NOTE: The firmware and drivers that are 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 www.dell.com/OpenManageManuals for the Storage Management Service.

Topics:

Linux Driver included in RPM

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

List of supported firmware, Storage Management Service, and Server Administrator versions for PERC and BOSS controllers

Table 26. List of supported firmware, Storage Management Service, and Server Administrator versions for controllers

Controller	Firmware/BIOS version	Storage Management Service version	Server Administrator version
LSI 1020 on 1600 SC	Not Applicable	7.1.0.0	10.1.0.0
LSI 1030 on 1750	Not Applicable	7.1.0.0	10.1.0.0
PERC H800 Adapter	12.10.7-0001	7.1.0.0	10.1.0.0
PERC H700 Integrated	12.10.7-0001	7.1.0.0	10.1.0.0
PERC H700 Adapter	12.10.7-0001	7.1.0.0	10.1.0.0
PERC H700 Modular	12.10.6-0001	7.1.0.0	10.1.0.0
PERC H200 Adapter	07.03.06.00	7.1.0.0	10.1.0.0
PERC H200 Integrated	07.03.06.00	7.1.0.0	10.1.0.0
PERC H200 Modular	07.03.06.00	7.1.0.0	10.1.0.0
PERC H200 Embedded	07.03.06.00	7.1.0.0	10.1.0.0
6 Gbps SAS HBA	07.03.06.00	7.1.0.0	10.1.0.0
Internal Tape Adapter	07.03.06.00	7.1.0.0	10.1.0.0
PERC H310 Adapter	20.13.3-0001	7.1.0.0	10.1.0.0
PERC H310 Mini Monolithic	20.13.3-0001	7.1.0.0	10.1.0.0
PERC H310 Mini Blades	20.13.3-0001	7.1.0.0	10.1.0.0
PERC H710 Adapter	21.3.5-0002	7.1.0.0	10.1.0.0
PERC H710 Mini Blades	21.3.5-0002	7.1.0.0	10.1.0.0
PERC H710 Mini Monolithic	21.3.5-0002	7.1.0.0	10.1.0.0
PERC H710P Adapter	21.3.5-0002	7.1.0.0	10.1.0.0
PERC H710P Mini Blades	21.3.5-0002	7.1.0.0	10.1.0.0
PERC H710P Mini Monolithic	21.3.5-0002	7.1.0.0	10.1.0.0
PERC H810 Adapter	21.3.5-0002	7.1.0.0	10.1.0.0
PERC S110	3.0.0.0139	7.1.0.0	10.1.0.0
PERC S100	2.0.0-0162	7.1.0.0	10.1.0.0
PERC S300	2.0.0-0166+00193000	7.1.0.0	10.1.0.0

Table 26. List of supported firmware, Storage Management Service, and Server Administrator versions for controllers (continued)

Controller	Firmware/BIOS version	Storage Management Service version	Server Administrator version
PERC S130	4.3.0-0002	7.1.0.0	10.1.0.0
PERC S140	5.5.2.0006	7.1.0.0	10.1.0.0
PERC H730P Adapter	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H730P Mini Blades	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H730P Mini Monolithic	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H730P Slim	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H730 Adapter	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H730 Mini Blades	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H730 Mini Monolithic	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H830 Adapter	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H330 Adapter	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H330 Mini Blades	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H330 Mini Monolithic	25.5.8.0001	7.1.0.0	10.1.0.0
PERC H330 Embedded	25.5.8.0001	7.1.0.0	10.1.0.0
HBA H330 Adapter	16.17.01.00	7.1.0.0	10.1.0.0
HBA H330 Mini	16.17.01.00	7.1.0.0	10.1.0.0
PERC H740P Adapter	51.14.0-3900	7.1.0.0	10.1.0.0
PERC H740P Mini Monolithic	51.14.0-3900	7.1.0.0	10.1.0.0
PERC H840 Adapter	51.14.0-3900	7.1.0.0	10.1.0.0
FD33XD-PERC Dual	25.5.8.0001	7.1.0.0	10.1.0.0
FD33XS-PERC Single	25.5.8.0001	7.1.0.0	10.1.0.0
12 Gbps SAS HBA	16.17.01.00	7.1.0.0	10.1.0.0
HBA330 MX	16.17.01.00	7.1.0.0	10.1.0.0
HBA330 MMZ	16.17.01.00	7.1.0.0	10.1.0.0
PERC H745P MX	51.14.0-3900	7.1.0.0	10.1.0.0
PERC H730P MX	25.5.8-0001	7.1.0.0	10.1.0.0
FD33XD-HBA Dual	16.17.01.00	7.1.0.0	10.1.0.0
FD33XS-HBA Single	16.17.01.00	7.1.0.0	10.1.0.0

Table 26. List of supported firmware, Storage Management Service, and Server Administrator versions for controllers (continued)

Controller	Firmware/BIOS version	Storage Management Service version	Server Administrator version
PERC S150	6.1.0.0009	7.1.0.0	10.1.0.0
PERC H745 Front	51.14.0-3900	7.1.0.0	10.1.0.0
PERC H745 Adapter	51.14.0-3900	7.1.0.0	10.1.0.0
PERC H345 Front	51.14.0-3900	7.1.0.0	10.1.0.0
PERC H345 Adapter	51.14.0-3900	7.1.0.0	10.1.0.0
HBA345 Adapter	15.15.12.00	7.1.0.0	10.1.0.0
HBA345 Front	15.15.12.00	7.1.0.0	10.1.0.0
PERC H755N	52.14.0-3901	7.1.0.0	10.1.0.0
PERC H755 Adapter	52.14.0-3901	7.1.0.0	10.1.0.0
PERC H755 Front	52.14.0-3901	7.1.0.0	10.1.0.0
PERC H755 MX	52.14.0-3901	7.1.0.0	10.1.0.0
HBA355i Front	15.15.13.00	7.1.0.0	10.1.0.0
HBA355i Adpt	15.15.13.00	7.1.0.0	10.1.0.0
HBA355e Adpt	15.15.13.00	7.1.0.0	10.1.0.0
HBA350i MX	15.15.13.00	7.1.0.0	10.1.0.0
HBA355e Adpt (14G servers)	17.15.08.00	7.1.0.0	10.1.0.1
HBA350i Adpt	17.15.08.00	7.1.0.0	10.1.0.1
PERC H750 Adapter	52.16.1-4074	7.1.0.0	10.1.0.1
PERC H350 Adapter	52.19.1-4171	7.1.0.0	10.1.0.1
PERC H355 Adapter	52.19.1-4171	7.1.0.0	10.1.0.1
PERC H355 Front	52.19.1-4171	7.1.0.0	10.1.0.1

NOTE: Ensure to install OM 10.1.0.1 on Red Hat Enterprise Linux, SUSE Linux Enterprise Server and Ubuntu operating systems to claim support for the latest controllers. The controllers are supported on Microsoft Windows operating system on OM 10.2.0.0.

Table 27. List of supported firmware, Storage Management Service, and Server Administrator versions for BOSS controllers

Controller	Firmware/BIOS version	Storage Management Service version	Server Administrator version
BOSS-S1 Adapter	2.5.13.3024	7.1.0.0	10.1.0.0
BOSS-S1 Modular	2.6.13.3024	7.1.0.0	10.1.0.0
BOSS-S2	2.5.13.4008	7.1.0.0	10.1.0.0

Microsoft Windows Drivers for controllers

The table lists the firmware version for Microsoft Windows 2016 and 2019 Drivers.

Table 28. Windows Drivers for PERC controllers for OM 10.1.0.0

Controller	Windows Server 2016 Driver	Windows Server 2019 Driver
LSI 1020 on 1600 SC	Not Applicable	Not Applicable
LSI 1030 on 1750	Not Applicable	Not Applicable
PERC H800 Adapter	Not Applicable	Not Applicable
PERC H700 Integrated	Not Applicable	Not Applicable
PERC H700 Adapter	Not Applicable	Not Applicable
PERC H700 Modular	Not Applicable	Not Applicable
PERC H200 Adapter	Not Applicable	Not Applicable
PERC H200 Integrated	Not Applicable	Not Applicable
PERC H200 Modular	Not Applicable	Not Applicable
6 Gbps SAS HBA	Not Applicable	Not Applicable
PERC H310 Adapter	Not Applicable	Not Applicable
PERC H310 Mini Blades	Not Applicable	Not Applicable
PERC H310 Mini Monolithic	Not Applicable	Not Applicable
PERC H710 Adapter	Not Applicable	Not Applicable
PERC H710 Mini Blades	Not Applicable	Not Applicable
PERC H710 Mini Monolithic	Not Applicable	Not Applicable
PERC H710P Adapter	Not Applicable	Not Applicable
PERC H710P Mini Blades	Not Applicable	Not Applicable
PERC H710P Mini Monolithic	Not Applicable	Not Applicable
PERC H810 Adapter	Not Applicable	Not Applicable
Internal Tape Adapter	Not Applicable	Not Applicable
PERC S300	Not Applicable	Not Applicable
PERC S110	3.2.0-0014	Not Applicable
PERC S130	4.3.0-0003	4.3.0-0006
PERC S140	5.6.0.0004	5.6.0.0004
PERC S150	6.2.0.0004	6.2.0.0004
PERC H730P Adapter	6.604.06.00	Native
PERC H730P Mini Blades	6.604.06.00	Native
PERC H730P Mini Monolithic	6.604.06.00	Native
PERC H730P Slim	6.604.06.00	Native
PERC H730 Adapter	6.604.06.00	Native
PERC H730 Mini Blades	6.604.06.00	Native
PERC H730 Mini Monolithic	6.604.06.00	Native
PERC H830 Adapter	6.604.06.00	Native

Table 28. Windows Drivers for PERC controllers for OM 10.1.0.0 (continued)

Controller	Windows Server 2016 Driver	Windows Server 2019 Driver
PERC H330 Mini Blades	6.604.06.00	Native
PERC H330 Mini Monolithic	6.604.06.00	Native
PERC H330 Embedded	6.604.06.00	Native
FD33XD-PERC Dual	6.604.06.00	Native
FD33XS-PERC Single	6.604.06.00	Native
PERC H330 Adapter	6.604.06.00	Native
PERC H740P Adapter	7.716.03.00	7.716.03.00
PERC H740P Mini Monolithic	7.716.03.00	7.716.03.00
PERC H840 Adapter	7.716.03.00	7.716.03.00
12 Gbps SAS HBA	2.51.25.01	2.51.25.02
HBA330 Adpt	2.51.25.01	2.51.25.02
HBA330 Mini	2.51.25.01	2.51.25.02
HBA330 MX	2.51.25.01	2.51.25.02
HBA330 MMZ	2.51.25.01	2.51.25.02
PERC H745P MX	7.716.03.00	7.716.03.00
PERC H730P MX	6.604.06.00	Native
FD33XD-HBA Dual	2.51.25.01	2.51.25.02
FD33XS-HBA Single	2.51.25.01	2.51.25.02
PERC H745 Front	7.716.03.00	7.716.03.00
PERC H745 Adapter	7.716.03.00	7.716.03.00
PERC H345 Front	7.716.03.00	7.716.03.00
PERC H345 Adapter	7.716.03.00	7.716.03.00
HBA345 Frnt	2.61.14.00	2.61.14.00
HBA345 Adpt	2.61.14.00	2.61.14.00
PERC H755N	7.716.03.00	7.716.03.00
PERC H755 Adapter	7.716.03.00	7.716.03.00
PERC H755 Front	7.716.03.00	7.716.03.00
PERC H755 MX	7.716.03.00	7.716.03.00
PERC H750 Adapter	7.716.03.00	7.716.03.00
PERC H350 Adapter	7.719.06.00	7.719.06.00
HBA355i Frnt	2.61.14.00	2.61.14.00
HBA355i Adpt	2.61.14.00	2.61.14.00
HBA355e Adpt	2.61.14.00	2.61.14.00
HBA350i MX	2.61.14.00	2.61.14.00
HBA350i Adpt	2.61.14.00	2.61.14.00

Table 29. Windows Drivers for BOSS controllers

Controller	Windows Server 2016/2019 Driver
BOSS-S1 Adapter	1.2.0.1051
BOSS-S1 Modular	1.2.0.1051
BOSS-S2	1.2.0.1051

Linux and VMware ESXi Drivers for controllers

Table 30. Linux and VMware ESXi Drivers for controllers on OM 10.1.0.0

Controller	Red Hat Linux 7.9 64-bit Driver	VMware ESXi 6.7 U3 Driver	VMware ESXi 7.0 U2 and ESXi 7.0 U3 64-bit Driver	Red Hat Linux 8.5, 8.4 and 8.3 64-bit Driver	Ubuntu 20.04.2 64-bit Driver	SUSE Linux 15 SP3 and SP2 64-bit Driver
LSI 1020 on 1600SC	Native	Native	Not supported	Native	Native	Native
LSI 1030 on PowerEdge 1750	Native	Native	Not Supported	Native	Native	Native
PERC H800 Adapter	Native	Native	Not Supported	Native	Native	Native
PERC H700 Integrated	Native	Native	Not Supported	Native	Native	Native
PERC H700 Adapter	Native	Native	Not Supported	Native	Native	Native
PERC H700 Modular	Native	Native	Not Supported	Native	Native	Native
PERC H200 Adapter	Native	Native	Not Supported	Native	Native	Native
PERC H200 Integrated	Native	Native	Not Supported	Native	Native	Native
PERC H200 Modular	Native	Native	Not Supported	Native	Native	Native
6 Gbps SAS HBA	Native	Native	Not Supported	Native	Native	Native
PERC H310 Adapter	Native	Native	Not Supported	Native	Native	Native
PERC H310 Mini Monolithic	Native	Native	Not Supported	Native	Native	Native
PERC H310 Mini Blades	Native	Native	Not Supported	Native	Native	Native

Table 30. Linux and VMware ESXi Drivers for controllers on OM 10.1.0.0 (continued)

Controller	Red Hat Linux 7.9 64-bit Driver	VMware ESXi 6.7 U3 Driver	VMware ESXi 7.0 U2 and ESXi 7.0 U3 64-bit Driver	Red Hat Linux 8.5, 8.4 and 8.3 64-bit Driver	Ubuntu 20.04.2 64-bit Driver	SUSE Linux 15 SP3 and SP2 64-bit Driver
PERC H710 Adapter	Native	Native	Not Supported	Native	Native	Native
PERC H710 Mini Blades	Native	Native	Not Supported	Native	Native	Native
PERC H710 Mini Monolithic	Native	Native	Not Supported	Native	Native	Native
PERC H710P Adapter	Native	Native	Not Supported	Native	Native	Native
PERC H710P Mini Blades	Native	Native	Not Supported	Native	Native	Native
PERC H710P Mini Monolithic	Native	Native	Not Supported	Native	Native	Native
PERC H810 Adapter	Native	Native	Not Supported	Native	Native	Native
Internal Tape Adapter	Native	Native	Not Supported	Native	Native	Not Supported
PERC S100	Not Supported	Not Supported	Not Supported	Not Supported	Not supported	Not Supported
PERC S300	Not Supported	Not Supported	Not Supported	Not Supported	Not supported	Not Supported
PERC S110	Not Supported	Not Supported	Not Supported	Not Supported	Not supported	Not Supported
PERC S130	Not Supported	Not Supported	Not Supported	Not Supported	Not supported	Not Supported
PERC S140	Not Supported	Not Supported	Not Supported	Not Supported	Not supported	Not Supported
PERC S150	Not Supported	Not Supported	Not Supported	Not Supported	Not supported	Not Supported
PERC H730P Adapter	Native	Native	Native	Native	Native	Native
PERC H730P Mini Blades	Native	Native	Native	Native	Native	Native
PERC H730P Mini Monolithic	Native	Native	Native	Native	Native	Native
PERC H730P Slim	Native	Native	Native	Native	Native	Native
PERC H730 Adapter	Native	Native	Native	Native	Native	Native
PERC H730	Native	Native	Native	Native	Native	Native

Table 30. Linux and VMware ESXi Drivers for controllers on OM 10.1.0.0 (continued)

Controller	Red Hat Linux 7.9 64-bit Driver	VMware ESXi 6.7 U3 Driver	VMware ESXi 7.0 U2 and ESXi 7.0 U3 64-bit Driver	Red Hat Linux 8.5, 8.4 and 8.3 64-bit Driver	Ubuntu 20.04.2 64-bit Driver	SUSE Linux 15 SP3 and SP2 64-bit Driver
Mini Blades						
PERC H730 Mini Monolithic	Native	Native	Native	Native	Native	Native
PERC H830 Adapter	Native	Native	Native	Native	Native	Native
PERC H330 Adapter	Native	Native	Native	Native	Native	Native
PERC H330 Mini Blades	Native	Native	Native	Native	Native	Native
PERC H330 Mini Monolithic	Native	Native	Native	Native	Native	Native
PERC H330 Embedded	Native	Native	Native	Native	Native	Native
FD33XD PERC Dual	Native	Native	Native	Native	Native	Native
FD33XS PERC Single	Native	Native	Native	Native	Native	Native
HBA330 Adpt	Native	Native	Native	Native	Native	Native
HBA330 Mini	Native	Native	Native	Native	Native	Native
12 Gbps SAS HBA	Native	Native	Native	Native	Native	Native
PERC H740P Adapter	Native	Native	Native	Native	Native	Native
PERC H740P Mini Monolithic	Native	Native	Native	Native	Native	Native
PERC H840 Adapter	Native	Native	Native	Native	Native	Native
HBA H330 MX	Native	Native	Native	Native	Native	Native
HBA H330 MMZ	Native	Native	Native	Native	Native	Native
PERC H745P MX	Native	Native	Native	Native	Native	Native
PERC H730P MX	Native	Native	Native	Native	Native	Native

Table 30. Linux and VMware ESXi Drivers for controllers on OM 10.1.0.0 (continued)

Controller	Red Hat Linux 7.9 64-bit Driver	VMware ESXi 6.7 U3 Driver	VMware ESXi 7.0 U2 and ESXi 7.0 U3 64-bit Driver	Red Hat Linux 8.5, 8.4 and 8.3 64-bit Driver	Ubuntu 20.04.2 64-bit Driver	SUSE Linux 15 SP3 and SP2 64-bit Driver
PERC H745 Front	Native	Native	Native	Native	Native	Native
PERC H745 Adapter	Native	Native	Native	Native	Native	Native
PERC H345 Front	Native	Native	Native	Native	Native	Native
PERC H345 Adapter	Native	Native	Native	Native	Native	Native
HBA345 Frnt	Native	Native	Native	Native	Native	Native
HBA345 Adpt	Native	Native	Native	Native	Native	Native
PERC H755N	Native	Native	Native	Native	Native	Native
PERC H755 Adapter	Native	Native	Native	Native	Native	Native
PERC H755 Front	Native	Native	Native	Native	Native	Native
PERC H755 MX	Native	Native	Native	Native	Native	Native
HBA355i Frnt	Native	Native	Native	Native	Native	Native
HBA355i Adpt	Native	Native	Native	Native	Native	Native
HBA355e Adpt	Native	Native	Native	Native	Native	Native
HBA350i MX	Native	Native	Native	Native	Native	Native

Table 31. Linux and VMware ESXi Drivers for BOSS controllers on OM 10.1.0.0

Controller	Red Hat Linux 7.9 64-bit Driver	VMware ESXi 6.7 U3 Driver	VMware ESXi 7.0 U2 and ESXi 7.0 U3 64-bit Driver	Red Hat Linux 8.5 and 8.4 64-bit Driver	Ubuntu 20.04.2 64-bit Driver	SUSE Linux 15 SP3 64-bit Driver
BOSS-S1 Adapter	Native	Native	Native	Native	Native	Native
BOSS-S1 Modular	Native	Native	Native	Native	Native	Native
BOSS-S2	Native	Native	Native	Native	Native	Native

Table 32. Linux Drivers for controllers on OM 10.1.0.1

Controller	Red Hat Linux 7.9 64-bit Driver	Red Hat Linux 8.5, 8.4 and 8.3 64-bit Driver	SUSE Linux 15 SP3 and SP2 64-bit Driver	Ubuntu Server 20.04.3 64-bit Driver
PERC H350 Adapter	Native	Native	Native	Native
PERC H355 Adapter	Native	Native	Native	Native
PERC H355 Front	Native	Native	Native	Native

Table 32. Linux Drivers for controllers on OM 10.1.0.1 (continued)

Controller	Red Hat Linux 7.9 64-bit Driver	Red Hat Linux 8.5, 8.4 and 8.3 64-bit Driver	SUSE Linux 15 SP3 and SP2 64-bit Driver	Ubuntu Server 20.04.3 64-bit Driver
PERC H750 Adapter	Native	Native	Native	Native
HBA355e Adpt	Native	Native	Native	Native
HBA350i Adpt	Native	Native	Native	Native

NOTE: Ensure to install OM 10.1.0.1 on Red Hat Enterprise Linux, SUSE Linux Enterprise Server and Ubuntu operating systems to claim support for the latest controllers. The controllers are supported on Microsoft Windows operating system on OM 10.2.0.0.

Supported NVMe Drivers

The supported NVMe Drivers are listed with the supported firmware, Storage Management Service, Server Administrator, Windows Driver, Linux, and VMware Drivers.

Supported firmware, Storage Management Service, and Server Administrator versions for NVMe Drives

Table 33. List of supported firmware, Storage Management Service, and Server Administrator versions for NVMe Drives

NVMe Drives	Firmware/BIOS version	Storage Management Service version	Server Administrator version
PCIe SSD (Micron)	B1491508	7.1.0.0	10.1.0.0
Samsung - PM1725 2.5-inch and HHHL PCIe SSD NVMe	KPYADD3Q	7.1.0.0	10.1.0.0
Samsung - PM1725b 2.5-inch and HHHL PCIe SSD NVMe	1.2.2	7.1.0.0	10.1.0.0
Samsung - PM1725a 2.5-inch and HHHL PCIe SSD NVMe	1.2.1	7.1.0.0	10.1.0.0
Samsung - PM1735 MU ISE U.2 and AIC PCIe SSD NVMe	2.1.2	7.1.0.0	10.1.0.0
Samsung - PM1733 RI ISE U.2 PCIe SSD NVMe	2.1.2	7.1.0.0	10.1.0.0
Samsung - PM1735 MU Opal U.2 and AIC PCIe SSD NVMe	1.1.2	7.1.0.0	10.1.0.0
Samsung - PM1733 RI Opal U.2 PCIe SSD NVMe	1.1.2	7.1.0.0	10.1.0.0
Samsung - PM1733/35v2 MU/RI ISE U.2 PCIe SSD NVMe	2.0.0	7.1.0.0	10.1.0.0
Samsung - PM1733/35v2 MU/RI FIPS U.2 PCIe SSD NVMe	3.0.0	7.1.0.0	10.1.0.0
Intel - P4500 2.5-inch and HHHL PCIe SSD NVMe	QDV1DP17	7.1.0.0	10.1.0.0
Intel - P4600 2.5-inch and HHHL PCIe SSD NVMe	QDV1DP17	7.1.0.0	10.1.0.0

Table 33. List of supported firmware, Storage Management Service, and Server Administrator versions for NVMe Drives (continued)

NVMe Drives	Firmware/BIOS version	Storage Management Service version	Server Administrator version
Intel - P4510 2.5-inch PCIe SSD NVMe	VDV1DP24	7.1.0.0	10.1.0.0
Intel - P4610 2.5-inch PCIe SSD NVMe	VDV1DP24	7.1.0.0	10.1.0.0
Intel - P5500 RI OPAL/ISE U.2 PCIe SSD NVMe	1.0.0	7.1.0.0	10.1.0.0
Intel - P5600 MU OPAL/ISE U.2 PCIe SSD NVMe	1.0.0	7.1.0.0	10.1.0.0
Kioxia - CD5 RI U.2 PCIe SSD NVMe	1.2.0	7.1.0.0	10.1.0.0
Kioxia - CD6 ISE RI U.2 PCIe SSD NVMe	2.1.5	7.1.0.0	10.1.0.0
Kioxia - CM6 RI/MU ISE U.2 PCIe SSD NVMe	2.1.5	7.1.0.0	10.1.0.0
Kioxia - CM6 RI/MU FIPS U.2 PCIe SSD NVMe	3.0.6	7.1.0.0	10.1.0.0
Intel - P4800X 2.5-inch and HHHL PCIe SSD NVMe	E201DP36	7.1.0.0	10.1.0.0
Intel - P5800X OPAL/ISE U.2 PCIe SSD NVMe	0.0.23	7.1.0.0	10.1.0.0
Hynix - PE8010 RI ISE U.2 PCIe SSD NVMe	0.1.9	7.1.0.0	10.1.0.0
Hynix - PE8010 RI OPAL U.2 PCIe SSD NVM	0.1.9	7.1.0.0	10.1.0.0

Supported Microsoft Windows Drivers for NVMe Drives

Table 34. Windows Drivers for NVMe Drives

NVMe Drives	Windows Server 2016 Driver	Windows Server 2019 Driver
PCIe SSD (Micron)	Not Applicable	Not Applicable
Samsung - PM1725 2.5-inch and HHHL PCIe SSD NVMe	Native	Native
Samsung - PM1725b 2.5-inch and HHHL PCIe SSD NVMe	Native	Native
Samsung - PM1725a 2.5-inch and HHHL PCIe SSD NVMe	Native	Native
Samsung - PM1735 MU ISE U.2 and AIC PCIe SSD NVMe	Native	Native
Samsung - PM1733 RI ISE U.2 PCIe SSD NVMe	Native	Native
Samsung - PM1735 MU Opal U.2 and AIC PCIe SSD NVMe	Native	Native

Table 34. Windows Drivers for NVMe Drives (continued)

NVMe Drives	Windows Server 2016 Driver	Windows Server 2019 Driver
Samsung - PM1733 RI Opal U.2 PCIe SSD NVMe	Native	Native
Samsung - PM1733/35v2 MU/RI ISE U.2 PCIe SSD NVMe	Native	Native
Samsung - PM1733/35v2 MU/RI FIPS U.2 PCIe SSD NVMe	Native	Native
Intel - P4500 2.5-inch and HHHL PCIe SSD NVMe	Native	Native
Intel - P4600 2.5-inch and HHHL PCIe SSD NVMe	Native	Native
Intel - P4510 2.5-inch PCIe SSD NVMe	Native	Native
Intel - P4610 2.5-inch PCIe SSD NVMe	Native	Native
Intel - P5500 RI OPAL/ISE U.2 PCIe SSD NVMe	Native	Native
Intel - P5600 MU OPAL/ISE U.2 PCIe SSD NVMe	Native	Native
Kioxia - CD5 RI U.2 PCIe SSD NVMe	Native	Native
Kioxia - CD6 ISE RI U.2 PCIe SSD NVMe	Native	Native
Kioxia - CM6 RI/MU ISE U.2 PCIe SSD NVMe	Native	Native
Kioxia - CM6 RI/MU FIPS U.2 PCIe SSD NVMe	Native	Native
Intel - P4800X 2.5-inch and HHHL PCIe SSD NVMe	Native	Native
Intel - P5800X OPAL/ISE U.2 PCIe SSD NVMe	Native	Native
Hynix - PE8010 RI ISE U.2 PCIe SSD NVMe	Native	Native
Hynix - PE8010 RI OPAL U.2 PCIe SSD NVMe	Native	Native

Supported Linux and VMware ESXi Drivers for NVMe Drives

Table 35. Linux and VMware ESXi Drivers for NVMe Drives

NVMe Drives	Red Hat Linux 7.9 64-bit Driver	VMware ESXi 6.7 U3 Driver	VMware ESXi 7.0 U2 and ESXi 7.0 U3 64-bit Driver	Red Hat Linux 8.5, 8.4 and 8.3 64-bit Driver	Ubuntu Server 20.04.3 64-bit Driver	SUSE Linux 15 SP3 and SP2 64-bit Driver
PCIe SSD (Micron)	Not supported	Not supported	Native	Not supported	Not supported	Not supported
Samsung - PM1725 2.5-inch and HHHL PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Samsung - PM1725b 2.5-	Native	Native	Native	Native	Native	Native

Table 35. Linux and VMware ESXi Drivers for NVMe Drives (continued)

NVMe Drives	Red Hat Linux 7.9 64-bit Driver	VMware ESXi 6.7 U3 Driver	VMware ESXi 7.0 U2 and ESXi 7.0 U3 64-bit Driver	Red Hat Linux 8.5, 8.4 and 8.3 64-bit Driver	Ubuntu Server 20.04.3 64-bit Driver	SUSE Linux 15 SP3 and SP2 64-bit Driver
inch and HHHL PCIe SSD NVMe						
Samsung - PM1725a 2.5-inch and HHHL PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Samsung - PM1735 MU ISE U.2 and AIC PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Samsung - PM1733 RI ISE U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Samsung - PM1735 MU Opal U.2 and AIC PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Samsung - PM1733 RI Opal U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Samsung - PM1733/35v2 MU/RI ISE U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Samsung - PM1733/35v2 MU/RI FIPS U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Intel - P4500 2.5-inch and HHHL PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Intel - P4600 2.5-inch and HHHL PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Intel - P4510 2.5-inch PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Intel - P4610 2.5-inch PCIe SSD NVMe	Native	Native	Native	Native	Native	Native

Table 35. Linux and VMware ESXi Drivers for NVMe Drives (continued)

NVMe Drives	Red Hat Linux 7.9 64-bit Driver	VMware ESXi 6.7 U3 Driver	VMware ESXi 7.0 U2 and ESXi 7.0 U3 64-bit Driver	Red Hat Linux 8.5, 8.4 and 8.3 64-bit Driver	Ubuntu Server 20.04.3 64-bit Driver	SUSE Linux 15 SP3 and SP2 64-bit Driver
Intel - P5500 RI OPAL/ISE U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Intel - P5600 MU OPAL/ISE U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Kioxia - CD5 RI U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Kioxia - CD6 ISE RI U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Kioxia - CM6 RI/MU ISE U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Kioxia - CM6 RI/MU FIPS U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Intel - P4800X 2.5-inch and HHHL PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Intel - P5800X OPAL/ISE U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Hynix - PE8010 RI ISE U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native
Hynix - PE8010 RI OPAL U.2 PCIe SSD NVMe	Native	Native	Native	Native	Native	Native

PowerEdge PCIe Express Flash SSD

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

Table 36. PowerEdge PCIe Express Flash SSD

Storage Management Service supported elements	Version
Storage Management Service version	7.1.0.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	B1442808

Table 36. PowerEdge PCIe Express Flash SSD (continued)

Storage Management Service supported elements	Version
Windows Server 2019 Driver	Not Supported

XS1715 PCIe SSD

Table 37. PowerEdge XS1715 PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	IPM0LD3Q
Windows Server 2019 Driver	Native
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native
VMware ESXi 6.7 U3 Driver	Native

SM1715 PCIe SSD

Table 38. PowerEdge SM1715 PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	IPV48D3Q
Windows Server 2019 Driver	Native
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native
VMware ESXi 6.7 U3 Driver	Native

PM1725 PCIe SSD

Table 39. PowerEdge PM1725 PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	KPYACD3Q
Windows Server 2019 Driver	Native
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native

Table 39. PowerEdge PM1725 PCIe SSD (continued)

Storage Management Service supported elements	Version
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native
VMware ESXi 6.7 U3 Driver	Native

PM1725a PCIe SSD

Table 40. PowerEdge PM1725a PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	1.1.1
Windows Server 2019 Driver	Native
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native
Ubuntu 20.04 Driver	Native
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native
VMware ESXi 6.7 U3 Driver	Native

PM1725b PCIe SSD

Table 41. PowerEdge PM1725b PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	1.0.0
Windows Server 2019 Driver	Native
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native
Ubuntu 20.04 Driver	Native
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native
VMware ESXi 6.7 U3 Driver	Native

P4500 PCIe SSD

Table 42. PowerEdge P4500 PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	QDV1DP15
Windows Server 2019 Driver	Native

Table 42. PowerEdge P4500 PCIe SSD (continued)

Storage Management Service supported elements	Version
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native
Ubuntu 20.04 Driver	Native
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native
VMware ESXi 6.7 U3 Driver	Native

P4600 PCIe SSD

Table 43. PowerEdge P4600 PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	QDV1DP15
Windows Server 2019 Driver	Native
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native
Ubuntu 20.04 Driver	Native
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native
VMware ESXi 6.7 U3 Driver	Native

P4510 PCIe SSD

Table 44. PowerEdge P4510 PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	VDV1DP20
Windows Server 2019 Driver	Native
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native
Ubuntu 20.04 Driver	Native
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native
VMware ESXi 6.7 U3 Driver	Native

P4610 PCIe SSD

Table 45. PowerEdge P4610 PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	VDV1DP20
Windows Server 2019 Driver	Native
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native
Ubuntu 20.04 Driver	Native
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native
VMware ESXi 6.7 U3 Driver	Native

P4800x PCIe SSD

Table 46. PowerEdge P4800x PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	E201DB3D
Windows Server 2019 Driver	Native
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native
Ubuntu 20.04 Driver	Native
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native
VMware ESXi 6.7 U3 Driver	Native

Toshiba CD5 PCIe SSD

Table 47. PowerEdge Toshiba CD5 PCIe SSD

Storage Management Service supported elements	Version
Storage Management Service version	6.5.0
Server Administrator Version	10.1.0.0
PERC Firmware Version	0.1.10
Windows Server 2019 Driver	Native
Red Hat Enterprise Linux 7.x Driver	Native
Red Hat Enterprise Linux 8.x Driver	Native
Ubuntu 20.04 Driver	Native
VMware ESXi 7.0 U2 and VMware ESXi 7.0 U3	Native

Table 47. PowerEdge Toshiba CD5 PCIe SSD (continued)

Storage Management Service supported elements	Version
VMware ESXi 6.7 U3 Driver	Native