

VMware vSphere 6.5.x on Dell EMC PowerEdge Servers

Release Notes

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.

Copyright © 2017 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

Contents

1 Overview.....	5
Installation and upgrade instructions.....	5
2 Issues and resolutions.....	6
ESXi 6.5 U1 does not display the complete description of USB controller.....	6
Critical issue observed on Dell EMC's 14th generation of PowerEdge servers with AMD processor and HBA330/12Gbps controller.....	6
VMkernel logs may display a warning message in VSAN cluster configuration.....	6
Uninstallation of Dell EMC OpenManage VIB fails to delete certain files.....	7
Dell EMC PowerEdge Servers with VSAN All-Flash configuration and deduplication enabled reports unrecoverable medium or checksum error.....	7
ESXi 6.5 with dell-shared-perc8 driver fails to clone VMs simultaneously on a shared datastore.....	7
qlnativefc driver does not load for QLE8262.....	8
snmpd failure message is displayed in the vRealize log insight with snmp enabled.....	8
ESXi OS with Secure boot enabled, the executables does not work on /scratch partition.....	8
PowerEdge 14th generations servers installed with ESXi have been configured with default login credentials.....	8
By default, VMFS datastore is disabled on Dell EMC 14th generation PowerEdge servers with factory-installed VMware ESXi on BOSS-S1.....	9
Scratch partition stops working after hardware or software iSCSI is enabled on ESXi with the elxiscsi Emulex driver.....	9
Virtual machines fail to power on, when System BIOS has MMIO set to 56 TB with supported GPU configured as Pass-Through device to the Guest Operating System.....	9
In ESXi host client, physical NICs reports duplicate entries of the speed supported.....	10
Embedded Host Client or vCenter Server reports an error when configuring SR-IOV.....	10
Virtual machines fail to power on, when System BIOS has MMIO set to 56 TB with Network Controllers enabled with NPAR or NPAREP and SR-IOV.....	10
In ESXi 6.5, xHCI related platform erratum is reported in VMKernel logs.....	10
Hardware Health status reports the raw reading instead of the computed reading of IPMI Sensors.....	11
iDRAC does not report the operating system information.....	11
iDRAC does not report the operating system information.....	11
Operating system reinstallation on top of an existing ESXi installation on a BOSS device fails because of an Invalid Partition table.....	11
NUMA related warning message is reported in VMkernel logs when Dell Fault Resilient Memory is enabled.....	12
Hardware Health Status tab does not display sensor details.....	12
VMkernel logs may display a warning message	12
Hostd log may display warning message.....	12
VMkernel logs may display a warning message related to jumpstart plugin.....	13
SAS address of the Dell EMC PERC controller is displayed incorrectly.....	13
SATA SSD disks may report disk protocol incorrectly.....	13
Some Emulex controller models are displayed incorrectly.....	13

Host platform fails due to unsupported sector sizes on the NVMe devices.....	13
Intel Ethernet 10G 2P X520 adapter controller is displayed incorrectly.....	14
vmnic enumeration for the Mellanox controller may display as vmnic 1000202.....	14
Dell PERC H310 model name is displayed incorrectly.....	14
System physical memory reported in DCUI varies.....	14
vSphere web client displays incorrect Service Tag for Dell EMC PowerEdge blade servers.....	14
Configuring NVMe devices as passthrough device to the guest operating system, ESXi host stops responding and results in PSOD.....	15
Power supply unit status and details are displayed incorrectly in vSphere web client or vCenter Server.....	15
Temperature status of the processor may display incorrectly in vSphere WebClient or vCenter Server.....	16
Storage related sensor details are not available in vSphere WebClient or vCenter Server.....	16
Dell EMC PowerEdge Express Flash NVMe PCIe SSD device is not detected during hot-plug.....	16
The status of LUN or disks is displayed as degraded.....	16
Dual port Mellanox card displays incorrect vmnic number.....	16
Incorrect name for Dell PowerEdge FD332 storage controller.....	17
Software RAID is not supported for VMware ESXi.....	17
Status of some of the PCI devices is listed as Unknown on vCenter server.....	17
PSU wattage is not displayed for a ESXi host on the vCenter Server.....	17
ESXi Direct Console User Interface displays the hardware label as N/A.....	17
ESXi installation may fail while deploying from virtual media.....	18
Unable to turn on Windows virtual machine when Dell PowerEdge Express Flash NVMe PCIe SSD is directly connected as a passthrough device.....	18
VMware ESXi host periodically disconnect and reconnect from vCenter Server during heavy load on storage subsystem.....	18
The PCI passthrough section on vSphere client or vCenter server does not display Dell PowerEdge Express Flash NVMe PCIe SSD.....	18
3 Getting help.....	19
Contacting Dell EMC.....	19
Related information for virtualization solutions.....	19
Technical support resources.....	20
Discussion forums.....	20
Knowledge base.....	20
Virtualization videos on Dell EMC PowerEdge servers.....	20
Documentation resources.....	21
Downloading the drivers and firmware.....	23
Documentation feedback.....	23

Overview

VMware vSphere 6.5.x includes the ESXi 6.5.x hypervisor and is managed by vCenter Server 6.5.x. The current release of VMware vSphere incorporates feature upgrades, new hardware, feature support, and bug fixes that enhance the virtualization experience in VMware environments.

NOTE: Only issues relating to Dell EMC servers running VMware vSphere 6.5.x are discussed in this document.

Installation and upgrade instructions

For information about installing ESXi 6.5.x or upgrading from a previous version of ESXi, see the version specific *VMware ESXi 6.5.x for Dell EMC PowerEdge servers Installation Instructions and Important Information Guide* at Dell.com/virtualizationsolutions.

For the list of enhancements and bug fixes see the version-specific *VMware vSphere Release Notes* at support.vmware.com.

NOTE: For more information related to VMware ESXi installation on Dell EMC PowerEdge servers, see [Dell Virtualization](#).

NOTE: For more information about supported virtualization videos for Dell EMC PowerEdge servers, see [Supported Operating servers for Dell PowerEdge servers playlist](#).

Issues and resolutions

ESXi 6.5 U1 does not display the complete description of USB controller

Description: On Dell EMC's 14th generation of PowerEdge servers with AMD Naples Zen processor and ESXi 6.5 U1 operating system, `lspci` output does not show the complete description of the USB 3.0 controller. The incomplete output may be similar to:

```
0000:04:00.3 Serial bus controller:[vmhba33]
```

whereas the output should be:

```
0000:04:00.3 Serial bus controller: Advanced Micro Devices, Inc. [AMD] USB 3.0 Host controller [vmhba33]
```

Applies to: ESXi 6.5.x

Solution: This issue can be ignored because there is no functionality loss.

Critical issue observed on Dell EMC's 14th generation of PowerEdge servers with AMD processor and HBA330/12Gbps controller

Description: On Dell EMC's 14th generation of PowerEdge servers with Advanced Micro Devices (AMD) processors and HBA330/12Gbps controller with ESXi 6.5 U1 operating system, the VMKernel log displays the following error message:

```
lsi_msgpt3:msgpt_base_fault_info:236: lsi_msgpt3_0:fault_state(0x2100)!
```

This is a known issue with `lsi_msgpt3` driver v14.15.00. The issue is resolved in v14.15.01.

Applies to: ESXi 6.5.x on Dell EMC's 14th generation of PowerEdge R7425, R7415 and R6415 servers

Solution: Perform one of the following:

- Install or upgrade the `lsi_msgpt3` driver to v14.15.01.
- Install or upgrade to the latest Dell EMC customized image that has this driver included.

VMkernel logs may display a warning message in VSAN cluster configuration

Description: On PowerEdge servers with HBA330 running ESXi 6.5 U1, if the server is in VSAN cluster configuration, the following warning message is displayed in the VMkernel log. `WARNING: VmkMgmtSyncEventIoctl - unable to validate header`

Applies to: ESXi 6.5.x

Solution: This issue can be ignored because there is no functionality loss.

Uninstallation of Dell EMC OpenManage VIB fails to delete certain files

Description: Specific Dell EMC OpenManage files and directories are not deleted after uninstalling the Dell OpenManage VIB.

Applies to: ESXi 6.5.x

Solution: This issue can be ignored because there is no functionality loss. Reboot the system for complete cleanup.

Dell EMC PowerEdge Servers with VSAN All-Flash configuration and deduplication enabled reports unrecoverable medium or checksum error

Description: Dell EMC PowerEdge Servers with VSAN All-Flash configuration and deduplication enabled reports the following vSphere observations in the **Events** tab:

- VSAN detected an unrecoverable medium or checksum error for component uuid on disk group uuid
- VSAN detected and fixed a medium or checksum error for component uuid on disk group uuid

Under specific operations and IO patterns, you will encounter IO read errors and in some cases severe symptoms such as inaccessible VMs, host failures or stuck resynchronizations.

Applies to: ESXi 6.5.x

Solution: This is a known issue. Follow one of the following recommendations:

- Install the Patch as mentioned in the *VMware Knowledge Base article 2151081*.
- Install or upgrade to the latest Dell EMC customized image, that has this patch included. For more information about Dell EMC customized image, see [Image Customization Information](#).

ESXi 6.5 with dell-shared-perc8 driver fails to clone VMs simultaneously on a shared datastore

Description: Due to open critical issues around dell-shared-perc8 driver (v06.806.89.00), Dell EMC has revoked VMware ESXi 6.5 support on Dell EMC PowerEdge VRTX. Some of the use cases which fail on VRTX are clone, snapshots and so on. The failure occurs when there are storage intensive I/O operations involving Shared PERC8 VMFS datastore. During the failure, vmkernel log file reports:

```
Writing lock failed: I/O error
```

Applies to: ESXi 6.5.x

Solution: Dell EMC recommends that you install [ESXi 6.5 U1 A04](#) image which has latest dell-shared-perc8 driver (v6.806.90.00).

qlnativefc driver does not load for QLE8262

- Description:** The Dell EMC PowerEdge server with QLE8262 running ESXi 6.5 U1 does not load the qlnativefc driver.
- Applies to:** ESXi 6.5.x
- Solution:** Perform any one of the following tasks that is appropriate:
- Install Dell Customized 6.5 U1 image that has the async qlnativefc driver for QLE8262.
or
 - If the ESXi image is downloaded from the VMware download page, use the latest async driver from VMware HCL.

snmpd failure message is displayed in the vRealize log insight with snmp enabled

- Description:** With snmp enabled on ESXi 6.5 U1 OS, the following snmpd failure message is displayed in the vRealize log insight.
`snmpd: process_compact_sensor: load current state for sensor 0x3c failed completion code 0xcb`
- Applies to:** ESXi 6.5.x
- Solution:** This issue can be ignored because there is no functionality loss.

ESXi OS with Secure boot enabled, the executables does not work on /scratch partition

- Description:** ESXi OS, with Secure boot enabled, does not allow any executables to run on **/scratch partition** or non-visorfs.
- Applies to:** ESXi 6.5.x
- Solution:** This is the OS design limitation from VMware. Any executable attempt to run on **/scratch partition** is unsupported.

PowerEdge 14th generations servers installed with ESXi have been configured with default login credentials

- Description:** The Dell EMC 14th generation PowerEdge servers installed with ESXi have been configured with username as `root` and the password is the service tag of your system. This is different compared to the Dell EMC 13th generation PowerEdge servers because password was not set for username `root`.
- Applies to:** ESXi 6.5.x and later, and 14th generation PowerEdge servers
- Solution:** This is not an issue. This is a change introduced from Dell EMC factories shipping VMware ESXi. To locate the service tag of your system, see the *Locating Service Tag of your system* section in *VMware vSphere 6.5.x on Dell EMC PowerEdge Systems Getting Started Guide* at Dell.com/virtualizationsolutions.

By default, VMFS datastore is disabled on Dell EMC 14th generation PowerEdge servers with factory-installed VMware ESXi on BOSS-S1

Description:	The Dell EMC 14 th generation servers installed with ESXi on the BOSS-S1 device do not have VMFS datastore enabled by default.
Applies to:	ESXi 6.5.x and later, 14 th generation PowerEdge servers, and BOSS-S1
Solution:	Dell EMC recommends using the BOSS-S1 device as a boot device only for VMware ESXi. For more information, see <i>VMware Knowledge Base article 2145210</i> .

Scratch partition stops working after hardware or software iSCSI is enabled on ESXi with the elxiscsi Emulex driver

Description:	When specific versions of elxiscsi Emulex driver is installed or is part of ESXi, then, enabling the hardware or software iSCSI stops the scratch partition to work. This prevents the redirection of logging to a persistent data store causing loss of log data across reboots.
---------------------	---

Applies to: ESXi 6.5.x

Solution: Dell EMC recommends that you install ESXi 6.5U1-A05 customized image which has latest Emulex elxiscsi-11.2.1197.17 driver to resolve this issue. With Dell EMC Customized image ESXi 6.5 A04 image, this is a known issue with the Emulex driver. Follow any one of the workarounds that is appropriate.

The workarounds are:

- Use `syslog` for logging on hardware or software iSCSI configurations with Emulex driver version `elxiscsi-11.2.1152.0` and later. For more information about configuring `syslog`, see *VMware Knowledge Base article 2003322*.
- Uninstall the elxiscsi driver and the associated shared library `elx-esx-libelxima.so`, if Emulex is not part of the configuration. To uninstall the elxiscsi driver, run the following commands:
 - a `/etc/init.d/hostd stop`
 - b `localcli software vib remove -n elxiscsi -n elx-esx-libelxima.so`
 - c `reboot`

Virtual machines fail to power on, when System BIOS has MMIO set to 56 TB with supported GPU configured as Pass-Through device to the Guest Operating System

Description: When system BIOS has **Memory Mapped I/O Base** set to 56 TB and if the server has GPU cards such as Nvidia M60 as the PCIe Pass-Through device, the virtual machines fails to power on.

Applies to: ESXi 6.5.x and Dell EMC's 14th generation PowerEdge servers

Solution: To resolve this, set the MMIO to 12 TB. To set MMIO, in **System BIOS Settings > Integrated Devices**, you have to set **Memory Mapped I/O Base** to 12 TB. For more information, see *VMware Knowledge Base article 2142307*

In ESXi host client, physical NICs reports duplicate entries of the speed supported

Description: When you try to edit settings for physical NICs, you will find multiple duplicated entries of the network speed supported which is displayed multiple times. For example, 10,000 Mbps, full duplex.

Applies to: ESXi 6.5.x

Solution: This issue can be ignored because there is no functionality loss.

Embedded Host Client or vCenter Server reports an error when configuring SR-IOV

Description: When configuring SR-IOV with Embedded Host Client or vCenter Server, a warning message is displayed, `Failed to configure SR-IOV.`

Applies to: ESXi 6.5.x

Solution: By default SR-IOV is disabled, you have to enable it by running the command `esxcli system module parameters set -m NIC_Driver_Module -p "max_vfs=n"`. For more information, see *VMware Knowledge Base article 2142307*.

Virtual machines fail to power on, when System BIOS has MMIO set to 56 TB with Network Controllers enabled with NPAR or NPAREP and SR-IOV

Description: When system BIOS has **Memory Mapped I/O Base** set to 56 TB and if the server has network controllers with NPAR and SR-IOV enabled, virtual machines fail to power on.

Applies to: ESXi 6.5.x and 14th generation PowerEdge servers

Solution: To resolve this, set the MMIO to 12 TB. To set MMIO, in **System BIOS Settings > Integrated Devices**, you have to set **Memory Mapped I/O Base** to 12 TB. For more information, see *VMware Knowledge Base article 2142307*.

In ESXi 6.5, xHCI related platform erratum is reported in VMKernel logs

Description: After ESXi Installation, VMkernel logs displays the following warning message:

Platform erratum: xHCI Host Controller USB 2.0 Control Transfer may cause IN Data to be dropped. BIOS firmware update may be required.

WARNING: xhci_pci_attach:340: Platform erratum: xHCI controller Parity Error response bit set to avoid parity error on poison packet

Applies to: ESXi 6.5.x and 14th generation PowerEdge servers

Solution: This issue can be ignored because there is no functionality loss.

Hardware Health status reports the raw reading instead of the computed reading of IPMI Sensors

Description: In ESXi vCenter Server or Webclient, the Host Hardware status information reports the raw reading of the sensors rather than the computed reading.

Applies to: ESXi 6.5.x and 14th generation PowerEdge servers

Solution: This is an expected behavior and recommendation is to use Open Manage Server Administrator or iDRAC to monitor system health status.

iDRAC does not report the operating system information

Description: PowerEdge server installed with VMware ESXi 6.5 does not report the installed operating system information in iDRAC.

Applies to: ESXi 6.5.x, 13th, and 12th generation PowerEdge servers

Solution: This is a known issue. By default, WBEM is disabled, the workaround is to enable WBEM by running the command

```
esxcli system wbem set -e 1
```

iDRAC does not report the operating system information

Description: PowerEdge server installed with VMware ESXi 6.0.x does not report the installed operating system information in iDRAC.

Applies to: ESXi 6.5.x and 14th generation PowerEdge servers.

Solution: This is a known issue and workaround is to install OpenManage Server Administrator on ESXi.

Operating system reinstallation on top of an existing ESXi installation on a BOSS device fails because of an Invalid Partition table

Description: Dell EMC 14th generation PowerEdge server configurations include a Boot Optimized Server Storage (BOSS) device for OS boot. BOSS device supports two Intel M.2 devices that are configured as separate non-RAID drives (PD1, PD2) or RAID 1 (VD). This configuration provides an option to have two physical disk (PD1, PD2) or RAID 1(VD) options, utilizing the two physical disks which are Intel M.2 devices.

On the first installation of ESXi 6.0.x to a BOSS PD 1, OS initializes or formats the disk layout and works as expected.

After ESXi 6.0.x is installed on a BOSS device, with ESXi 6.0.x installed on PD 1, if a customer creates a VD on top of two physical disks (PD1, PD2), a subsequent reinstall (overwrite) of ESXi fails to reformat the disk layout. Upgrades on top of the existing installation (using original non-RAID drive) works.

Applies to: ESXi 6.5 and 14th generation PowerEdge servers

Solution: This is an expected behavior. The workaround is to delete the virtual disk (VD) and erase the physical disks manually from HII (**System BIOS > Device Settings > BOSS AHCI Configuration Utility > Erase Physical disks**), and then recreate the VD again. This workaround removes existing partition table and results in successful installation.

NUMA related warning message is reported in VMkernel logs when Dell Fault Resilient Memory is enabled

Description: When accessing the console of the ESX/ESXi host or VMkernel logs, a warning message is displayed similar to:
`Significant imbalance between NUMA nodes detected.`

Applies to: ESXi

Solution: This is a known issue. This issue occurs when the Dell Fault Resilient feature is enabled in the System BIOS. There is no functionality impact and can be safely ignored. For more information, see VMware KB [1018754](#).

Hardware Health Status tab does not display sensor details

Description: In vCenter, the **Hardware Health Status** tab does not display all sensor details.

Applies to: ESXi 6.5.x

Solution: Enable `wbem` by using `esxcli system wbem set -e 1`. Wait for a couple of minutes, and then update the **Hardware Health Status** tab.

VMKernel logs may display a warning message

Description: On Dell EMC PowerEdge Servers, when ESXi 6.5 is deployed, the system may display a warning message:`Failed to get irq routing info for seg/bus 0000:3f.`

Applies to: ESXi 6.5.x

Solution: This issue can be ignored because there is no functionality loss.

Hostd log may display warning message

Description: Hostd log may display a warning message as `Default Estimated fds limit 5120 > 4096 max supported by setrlimit. Setting fds limit to 4096.`

Applies to: ESXi 6.5.x

Solution: This issue can be ignored because there is no functionality loss.

VMkernel logs may display a warning message related to jumpstart plugin

Description:	VMkernel logs may display a warning message: <code>Jumpstart plugin restore-networking activation failed.</code>
Applies to:	ESXi 6.5.x
Solution:	This issue can be ignored because there is no functionality loss.

SAS address of the Dell EMC PERC controller is displayed incorrectly

Description:	In ESXi 6.5, the SAS address of the Dell EMC PERC controller is displayed as <code>wwnn</code> under the Storage Adapter section, in vSphere Webclient.
Applies to:	ESXi 6.5.x
Solution:	This issue can be ignored because there is no functionality loss.

SATA SSD disks may report disk protocol incorrectly

Description:	In ESXi 6.5, vSphere WebClient may report the SATA SSD disks as SAS protocol.
Applies to:	ESXi 6.5.x
Solution:	This issue can be ignored because there is no functionality loss.

Some Emulex controller models are displayed incorrectly

Description:	In ESXi, Emulex OCe14102-UX-D, Emulex OCm14104-UX-D, and Emulex OneConnect OCm14102B controller models are displayed as Emulex Corporation Emulex OneConnect OCe14000 NIC.
Applies to:	ESXi 6.5.x
Solution:	This issue can be ignored because there is no functionality loss.

Host platform fails due to unsupported sector sizes on the NVMe devices

Description:	The PowerEdge UEFI partition manager supports sector sizes 512B or 4 KB for the NVMe devices. When you reformat the NVMe device to a new sector size other than 512B or 4 KB, the host platform fails to boot.
Applies to:	ESXi 6.5.x
Solution:	Use only 512B (default) or 4 KB sector sizes. To recover 2.5-inch NVMe devices, which have been formatted to an unsupported sector size: <ol style="list-style-type: none">1 Remove them from the host platform before booting.2 Hot insert once the operating system is up and running.

Intel Ethernet 10G 2P X520 adapter controller is displayed incorrectly

- Description:** In ESXi, the Intel Ethernet 10G 2P X520 Adapter model is displayed incorrectly as Intel Corporation 82599 EB 10-Gigabit SFP+ Network Connection.
- Applies to:** ESXi 6.5.x
- Solution:** This issue can be ignored because there is no functionality loss.

vmnic enumeration for the Mellanox controller may display as vmnic 1000202

- Description:** On the Dell EMC PowerEdge servers with ESXi 6.5, vmnic Enumeration for the Mellanox controllers may display values like `vmnic 1000202`. The enumeration occurs as the VMware ESXi device naming mechanism is based on the PCIe Index and Mellanox has single function for both ports.
- Applies to:** ESXi 6.5.x
- Solution:** This issue can be ignored because there is no functionality loss.

Dell PERC H310 model name is displayed incorrectly

- Description:** In ESXi 6.5, Dell H310 mini controller name is displayed as **MegaRAID SAS SKINNY Controller**.
- Applies to:** ESXi 6.5.x
- Solution:** This issue can be ignored because there is no functionality loss.

System physical memory reported in DCUI varies

- Description:** System memory reported in DCUI is slightly different when compared to the memory displayed in the system BIOS. For example, memory present is 128 GB but ESXi may report the memory as 127.9 GB.
- Applies to:** ESXi 6.5.x
- Solution:** This issue can be ignored because there is no functionality loss.

vSphere web client displays incorrect Service Tag for Dell EMC PowerEdge blade servers

- Description:** The vCenter server connected using a web client displays incorrect service tag for Dell EMC PowerEdge blade servers. The Service Tag displayed is a combination of chassis service tag and blade server Service Tag.
- Applies to:** ESXi 6.5.x
- Solution:** This issue can be ignored because there is no functionality loss. Run the `smbiosDump` command in ESXi to know the correct Service Tag for the blade and also for the chassis.

Configuring NVMe devices as passthrough device to the guest operating system, ESXi host stops responding and results in PSOD

Description: When the NVMe devices are configured as passthrough device to the guest operating system, the host system stops functioning and can result in data corruption.

Applies to: ESXi 6.5.x

Solution: You must manually set the Virtual Machine (VM) Memory Mapped Input Output (MMIO) space to 2 GB in the `.vmx` file by using the following steps:

NOTE: Do not replace any hardware components while performing these steps.

- 1 All the VMs configured memory must be reserved. If each VM has 2 GB of memory allocated, you should reserve all 2 GB. To do this by using the vSphere Client, select the **Reserve all guest memory** option from the **Memory** drop-down menu under the **Resources** tab in a **Virtual Machine's Settings** window. For more information, see the *VMware Knowledge Base article 1010789*.
- 2 For VMs that have more than 2 GB of configured memory, add this parameter to the `.vmx` file of the VM: `pciHole.start = "2048"`.

NOTE: The guest OS should be turned off before editing the `.vmx` file.

- 3 By using the vSphere Client, connect NVMe PCIe SSD installer that is configured as passthrough devices directly to the ESXi host, or select the host in vCenter.
- 4 Right-click the VM and select **Edit Settings**.
- 5 Add a new device by selecting PCI Device from the list, and then click **Next**.
- 6 Select the **NVMe PCIe SSD** as the passthrough device to connect to the VM from the drop-down list, and then click **Next**.
- 7 Click **Finish**.
- 8 Download and install the supported drivers for the VM's OS.
- 9 Reboot the VM.

Power supply unit status and details are displayed incorrectly in vSphere web client or vCenter Server

Description: On the Dell PowerEdge C6320 servers, the status and details of power supply unit (PSU) are displayed incorrectly. The PSU report is displayed as Not Installed on the **Hardware Health Status** tab, in vCenter Server. The PSU report is displayed as **Normal** on the **Hardware Health Status** tab, in vSphere web client.

Applies to: ESXi 6.5.x

Solution: This is a known issue. Dell EMC recommends that you use Dell EMC OpenManage for monitoring or managing the servers with ESXi.

Temperature status of the processor may display incorrectly in vSphere WebClient or vCenter Server

Description:	On the Dell PowerEdge C6320 servers, when the temperature of the processor crosses critical thresholds, the temperature status of the processor may display incorrectly on the Hardware Health Status tab of the vCenter Server or vSphere WebClient.
Applies to:	ESXi 6.5.x
Solution:	This is a known issue. Dell EMC recommends to use Dell EMC OpenManage or iDRAC for monitoring or managing the servers with ESXi.

Storage related sensor details are not available in vSphere WebClient or vCenter Server

Description:	On the Dell PowerEdge C6320 servers, the vSphere WebClient does not display hard drive, system board riser, and driver cable information under the Storage and Cable/Interconnect sensor section.
Applies to:	ESXi 6.5.x
Solution:	This is a known issue. Dell EMC recommends to use Dell EMC OpenManage or iDRAC for monitoring or management the servers with ESXi.

Dell EMC PowerEdge Express Flash NVMe PCIe SSD device is not detected during hot-plug

Description:	When the Express Flash NVMe PCIe SSD namespace is set as Offline and hot-plug operation is performed in the same slot, the SSD does not initialize and is not detected.
Applies to:	ESXi 6.5.x
Solution:	This is a known issue. Perform one of the following: <ul style="list-style-type: none">· Reconnect the drive to a different drive slot, if available.· Restart the <code>sfcbd-watchdog</code> service and reinsert the drive.

The status of LUN or disks is displayed as degraded

Description:	The command line interface (CLI) utility <code>esxcfg-scsidevs</code> lists the status of the LUN or disks attached to FD332 as degraded.
Applies to:	ESXi 6.5.x
Solution:	This is a known behavior. For the actual LUN or VD status, see the Storage section of iDRAC or vCenter Server.

Dual port Mellanox card displays incorrect vmnic number

Description:	The dual port Mellanox card displays an incorrect vmnic number for the second port.
---------------------	---

Applies to: ESXi 6.5.x
Solution: This is a known issue with the Mellanox driver design.

Incorrect name for Dell PowerEdge FD332 storage controller

Description: The storage controller for Dell PowerEdge FD332 is named as FS332 instead of FD332.
Applies to: ESXi 6.5.x
Solution: This issue can be ignored because there is no functionality loss.

Software RAID is not supported for VMware ESXi

Description: On-board SATA controller for Dell EMC PowerEdge servers provides an option to create RAID. The software RAID LUNs are not supported because VMware ESXi does not carry supported drivers. Select AHCI or ATA mode for SATA Controller on the BIOS Setup page and clear RAID mode.
Applies to: ESXi 6.5.x
Solution: This is a known behavior.

Status of some of the PCI devices is listed as Unknown on vCenter server

Description: On vCenter Server some of the entries status in the PCI device section of the **Hardware Status** tab on the ESXi host are listed as `Unknown`.
Applies to: ESXi 6.5.x
Solution: This issue can be ignored because there is no functionality loss.

PSU wattage is not displayed for a ESXi host on the vCenter Server

Description: For Dell's 13th generation of PowerEdge servers with ESXi the power (Watt) of a Power Supply Unit (PSU) is not displayed in the Power section on the Hardware Status tab on vCenter Server.
Applies to: ESXi 6.5.x
Solution: This issue can be ignored because there is no functionality loss.

ESXi Direct Console User Interface displays the hardware label as N/A

Description: For some network cards the Hardware Label field on the DCUI of ESXi displays N/A instead of a valid device description. This issue occurs because of the method in which ESXi maps the device to the user interface by checking the output of the `lspci` and `smbios` commands from the server.
Applies to: ESXi 6.5.x

Solution: This issue can be ignored because there is no functionality loss.

ESXi installation may fail while deploying from virtual media

Description: For some PowerEdge systems while installing VMware ESXi from virtual media with iDRAC virtual console installation the installation stops responding if Spanning Tree Protocol is enabled and the iDRAC NIC is set as Shared.

Applies to: ESXi 6.5.x

Solution: Disable STP or do not connect iDRAC NIC to Shared.

Unable to turn on Windows virtual machine when Dell PowerEdge Express Flash NVMe PCIe SSD is directly connected as a passthrough device

Description: Unable to turn on Microsoft Windows VMs such as Microsoft Windows 2008 R2 SP1, Microsoft Windows 2012 or Microsoft Windows 2012 R2 when PCIe SSDs such as Express Flash NVMe PCIe SSD is directly connected as a passthrough device.

Applies to: ESXi 6.5.x

Solution: This is a known limitation of Microsoft Windows guest operating systems with respect to MSI-X vectors. The maximum number of VMs that Windows can support is 31. You can perform the workaround of manually setting the MSI-X vectors to 31. For more information, see the *VMware Knowledge Base article 2032981*.

VMware ESXi host periodically disconnect and reconnect from vCenter Server during heavy load on storage subsystem

Description: ESXi host gets disconnected periodically from vCenter Server during heavy load on storage subsystem. However, the host gets reconnected automatically after some time.

Applies to: ESXi 6.5.x

Solution: This issue can be ignored because there is no functionality loss.

The PCI passthrough section on vSphere client or vCenter server does not display Dell PowerEdge Express Flash NVMe PCIe SSD

Description: After a hot plug of Express Flash NVMe PCIe SSD, the device is not available for PCI passthrough. The device itself is not displayed in the PCI passthrough page.

Applies to: ESXi 6.5.x

Solution: Restart hosted service (`/etc/init.d/hostd restart`) to make the device available for passthrough

Getting help

Topics:

- [Contacting Dell EMC](#)
- [Related information for virtualization solutions](#)
- [Documentation resources](#)
- [Downloading the drivers and firmware](#)
- [Documentation feedback](#)

Contacting Dell EMC

Dell EMC provides several online and telephone based support and service options. If you do not have an active internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell EMC product catalog. Availability varies by country and product, and some services may not be available in your area.

To contact Dell EMC for sales, technical assistance, or customer service issues:

- 1 Go to Dell.com/support.
- 2 Select your country from the drop-down menu on the lower right corner of the page.
- 3 For customized support:
 - a Enter your system Service Tag in the **Enter your Service Tag** field.
 - b Click **Submit**.

The support page that lists the various support categories is displayed.
- 4 For general support:
 - a Select your product category.
 - b Select your product segment.
 - c Select your product.

The support page that lists the various support categories is displayed.
- 5 For contact details of Dell EMC Global Technical Support:
 - a Click [Global Technical Support](#).
 - b The **Contact Technical Support** page is displayed with details to call, chat, or email the Dell EMC Global Technical Support team.

Related information for virtualization solutions

Table 1. Related information for virtualization solutions

If you need information about	See
Dell EMC VMware documentation	Dell.com/virtualizationsolutions
OpenManage documentation	Dell.com/openmanagemanuals
PowerEdge documentation	Dell.com/poweredgemanuals
Basic configuration information for running ESXi on a Dell EMC PowerEdge server.	<i>Getting Started Guide</i> at Dell.com/virtualizationsolutions

If you need information about	See
<ul style="list-style-type: none"> Information about downloading, installing, and configuring ESXi Supported hardware configurations for running ESXi on a Dell EMC PowerEdge server 	<i>Installation Instructions and Important Information Guide</i> at Dell.com/virtualizationsolutions
PowerEdge servers and compatibility with vMotion	<i>VMware vMotion and 64-bit Virtual Machine Support Compatibility Matrix</i> at Dell.com/virtualizationsolutions
PowerEdge and PowerVault compatibility information for running ESXi	<i>VMware vSphere for Dell EMC PowerEdge servers Compatibility Matrix</i> at Dell.com/virtualizationsolutions
About known issues and resolutions	<i>VMware vSphere 6 on Dell EMC PowerEdge server Release Notes</i> at Dell.com/virtualizationsolutions
ESXi ISO image customization information	<i>ESXi Image Customization Information</i> at Dell.com/virtualizationsolutions

Technical support resources

- vmware.com/support
- [Dell and VMware product page](#)
- Dell.com/support/home
- Dell.com/services

Discussion forums

- communities.vmware.com/community/vmtn
- en.community.dell.com/techcenter/virtualization/w/wiki/vmware.aspx
- [Wikis, Forums, Blogs and Videos](#)
- Dellcommunity.com

Knowledge base

- kb.vmware.com/kb

NOTE: For more information related to the VMware ESXi installation on Dell EMC PowerEdge servers, go to [Dell Virtualization](#).

Virtualization videos on Dell EMC PowerEdge servers

All the supported virtualization videos for Dell EMC PowerEdge servers are available in the [Supported Operating Systems for Dell PowerEdge servers](#) playlist.

Table 2. Virtualization videos on Dell EMC PowerEdge servers

Video title	Links
Downloading the Dell EMC customized ESXi image from support site	www.youtube.com/watch?v=YnVxtkAkYTI
OS Deployment (VMware ESXi) - Installing Using CD/DVD	www.youtube.com/watch?v=-EbufUS86zA
Enabling and Configuring Fault Resilient Memory on Dell EMC PowerEdge servers	www.youtube.com/watch?v=retSh-XIsK0
To enable UEFI Secure Boot on VMware ESXi 6.5.x for Dell's 13th generation of PowerEdge server	www.youtube.com/watch?v=LI9qIF9qV9I
OS Deployment (VMware ESXi) - Installing on BOSS S1 device	www.youtube.com/watch?v=TB1loXpFFME
OS Deployment (VMware ESXi) - Installing on IDSMD	www.youtube.com/watch?v=EC-Xntg5mgw
To enable UEFI Secure Boot on VMware ESXi 6.5.x for Dell EMC's 14th generation of PowerEdge server	www.youtube.com/watch?v=ZZB_XyV0enY

Documentation resources

This section provides information about the documentation resources for your server.

Table 3. Additional documentation resources for your server

Task	Document	Location
Setting up your server	For information about installing the server into a rack, see the Rack documentation included with your rack solution Or the <i>Getting Started With Your System</i> document that is shipped with your server.	Dell.com/poweredgemanuals
	For information about turning on the server and the technical specifications of your server, see the <i>Getting Started With Your System</i> document that is shipped with your server.	Dell.com/poweredgemanuals
Configuring your server	For information about the iDRAC features, configuring and logging in to iDRAC, and managing your server remotely, see the Integrated Dell Remote Access Controller User's Guide.	Dell.com/idracmanuals
	For information about installing the operating system, see the operating system documentation.	Dell.com/operatingsystemmanuals

Task	Document	Location
	For information about understanding Remote Access Controller Admin (RACADM) subcommands and supported RACADM interfaces, see the RACADM Command Line Reference Guide for iDRAC.	Dell.com/idracmanuals
	For information about updating drivers and firmware, see the Methods to download firmware and drivers section in this document.	Dell.com/support/drivers
Managing your server	For information about servers management software offered by Dell EMC, see the Dell EMC OpenManage Systems Management Overview Guide.	Dell.com/openmanagemanuals
	For information about setting up, using, and troubleshooting OpenManage, see the Dell EMC OpenManage Server Administrator User's Guide.	Dell.com/openmanagemanuals
	For information about installing, using, and troubleshooting Dell EMC OpenManage Essentials, see the Dell EMC OpenManage Essentials User's Guide.	Dell.com/openmanagemanuals
	For information about installing and using Dell SupportAssist, see the Dell EMC SupportAssist Enterprise User's Guide.	Dell.com/serviceabilitytools
	For understanding the features of Dell EMC Lifecycle Controller (LC), see the Lifecycle Controller User's Guide.	Dell.com/idracmanuals
	For information about partner programs enterprise systems management, see the OpenManage Connections Enterprise Systems Management documents.	Dell.com/omconnectionsenterprisesystemsmanagement
	For information about viewing inventory, performing configuration, and monitoring tasks, remotely turning on or off servers, and enabling alerts for events on servers and components using the Dell EMC Chassis Management Controller (CMC), see the CMC User's Guide.	Dell.com/esmmanuals
Working with the Dell EMC PowerEdge RAID controllers	For information about understanding the features of the Dell EMC PowerEdge RAID controllers	Dell.com/storagecontrollermanuals

Task	Document	Location
	(PERC) and deploying the PERC cards, see the Storage controller documentation.	
Understanding event and error messages	For information about checking the event and error messages generated by the system firmware and agents that monitor server components, see the Dell EMC Event and Error Messages Reference Guide.	Dell.com/openmanagemanuals > OpenManage software
Fan Control Board firmware update and Set Chassis Type procedure	For information about updating the Fan Control Board firmware and setting the chassis type to accommodate either PowerEdge C6320 or PowerEdge C6320p sleds in the PowerEdge C6300 enclosure, see the Fan Control Board firmware update and Set Chassis Type procedure section in this document.	
Troubleshooting your system	For information about identifying and troubleshooting the PowerEdge server issues, see the Server Troubleshooting Guide.	Dell.com/poweredgemanuals

Downloading the drivers and firmware

Dell EMC recommends that you download and install the latest BIOS, drivers, and systems management firmware on your system. Ensure that you clear the web browser cache before downloading the drivers and firmware.

- 1 Go to [Dell.com/support/drivers](https://dell.com/support/drivers).
- 2 Under the **Drivers & Downloads** section, type the Service Tag of your system in the **Service Tag or Express Service Code** box, and then click **Submit**.

NOTE: If you do not have the Service Tag, select **Detect My Product** to allow the system to automatically detect your Service Tag, or under **General support**, navigate to your product.

- 3 Click **Drivers & Downloads**.
The drivers that are applicable to your selection are displayed.
- 4 Download the drivers to a USB drive, CD, or DVD.

Documentation feedback

You can rate the documentation or write your feedback on any of our Dell EMC documentation pages and click **Send Feedback** to send your feedback.