

# VMware vSphere 6 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.

# Contents

|   |          |
|---|----------|
| <b>Chapter 1: Overview</b> .....  | <b>5</b> |
| Installation and upgrade instructions.....  | 5        |
| <b>Chapter 2: Known issues</b> .....  | <b>6</b> |
| Data integrity issue occurs when deleting virtual disks on ESXi system with PERC9 controller in RAID mode.....                                      | 7        |
| qedf driver data integrity may fail at 256 KB block size.....   | 7        |
| Uninstallation of Dell EMC OpenManage VIB fails to delete certain files.....  | 7        |
| IPMI driver stack may stop responding when iDRAC hard reset is performed.....   | 7        |
| Dell EMC PowerEdge Servers with VSAN All-Flash configuration and deduplication enabled, displays checksum error.....                                | 8        |
| After installing ESXi OS, ACPI error messages are displayed in the VMkernel log.....  | 8        |
| PowerEdge 14 <sup>th</sup> generations servers installed with ESXi are configured with default login credentials.....                               | 8        |
| By default, VMFS datastore is disabled on Dell EMC 14 <sup>th</sup> 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 scsi-be2iscsi Emulex driver.....                       | 9        |
| In ESXi Hardware Status, vmnics displays Battery status.....  | 9        |
| In ESXi host client, physical NICs reports duplicate entries of the speed supported.....  | 9        |
| 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       |
| ESXi 6.0 U3 upgrade to ESXi 6.5 fails with UEFI Secureboot enabled.....   | 10       |
| QLE2692 Network controller card is listed as QLogic Corp 2700.....  | 10       |
| Operating system reinstallation on top of an existing ESXi installation on a BOSS device fails.....   | 11       |
| NUMA related warning message is reported in VMkernel logs when Dell Fault Resilient Memory is enabled.....  | 11       |
| iDRAC does not report the operating system information.....   | 11       |
| Vendor label for certain hard drives report as NVMe.....  | 11       |
| When iSM VIB is running on ESXi 6.0 U2, syslog file displays error messages intermittently.....   | 12       |
| IPMI driver stack may stop responding when iDRAC hard reset is performed.....   | 12       |
| Fault tolerance feature is not supported on AMD 63xx series processor.....  | 12       |
| vSphere web client displays incorrect Service Tag for Dell EMC PowerEdge blade servers.....   | 12       |
| Unable to upgrade VMware ESXi when the ESXi partition table contains a coredump partition.....  | 13       |
| Configuring NVMe devices as passthrough device to the guest operating system, ESXi host stops responding and results in PSOD.....                   | 13       |
| Power supply unit status and details are displayed incorrectly in vSphere Web Client or vCenter Server .....  | 13       |
| Temperature status of the processor may display incorrectly in vSphere Web Client or vCenter Server .....   | 14       |
| Storage-related sensor details are not available in vSphere Web Client or vCenter Server .....  | 14       |
| Dell EMC PowerEdge Express Flash NVMe PCIe SSD device is not detected during hot-plug.....  | 14       |
| VMs configured with Fault Tolerance might not be in a protected state.....  | 14       |
| The status of LUN or disks is displayed as degraded.....  | 14       |
| Dual port Mellanox card displays incorrect vmnic number.....  | 15       |
| VMware ESXi installer lists local LUNs under the Remote section.....  | 15       |

|  |           |
|--|-----------|
| Incorrect name for Dell PowerEdge FD332 storage controller.....  | 15        |
| Software RAID is not supported for VMware ESXi.....  | 15        |
| Status of some of the PCI devices is listed as Unknown on vCenter server.....  | 15        |
| PSU wattage is not displayed for a ESXi host on the vCenter Server.....  | 16        |
| ESXi Direct Console User Interface displays the hardware label as N/A.....   | 16        |
| ESXi DCUI displays lesser memory than the total.....   | 16        |
| ESXi installation may fail while deploying from virtual media.....   | 16        |
| Unable to boot ESXi 6.0 with Intel X710 devices.....   | 16        |
| ESXi 6.0 host does not function and results in Purple Screen of Death.....   | 17        |
| VMware ESXi host periodically disconnect and reconnect from vCenter Server during heavy load on storage subsystem.....                       | 17        |
| Unable to write vmkernel coredump to local LUN when PSOD occurs.....   | 17        |
| ESXi console displays an error message.....  | 17        |
| vmkernel log file displays an error message.....   | 17        |
| Unable to turn on Windows virtual machine when Dell PowerEdge Express Flash NVMe PCIe SSD is directly connected as a passthrough device..... | 18        |
| Cannot enable SR-IOV on Intel X520 adapter using vSphere web client.....   | 18        |
| The PCI passthrough section on vSphere client or vCenter server does not display Dell PowerEdge Express Flash NVMe PCIe SSD.....             | 18        |
| <b>Chapter 3: Related information for virtualization solutions.....</b>  | <b>19</b> |
| <b>Chapter 4: Getting help.....</b>  | <b>21</b> |
| Contacting Dell EMC.....   | 21        |

# Overview

VMware vSphere 6 includes the ESXi 6 hypervisor and is managed by vCenter Server 6. 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:** The issues that are listed in this document are applicable to Dell EMC servers with VMware vSphere 6 installed.

## Topics:

- [Installation and upgrade instructions](#)

## Installation and upgrade instructions

For information about installing ESXi 6 or upgrading from a previous version of ESXi, see the version specific *VMware vSphere ESXi 6 on Dell EMC PowerEdge Servers Installation Instructions and Important Information Guide* at [www.dell.com/virtualizationsolutions](http://www.dell.com/virtualizationsolutions).

For the list of enhancements and bug fixes, see the version-specific VMware vSphere release notes at [support.vmware.com](http://support.vmware.com).

## Known issues

### Topics:

- Data integrity issue occurs when deleting virtual disks on ESXi system with PERC9 controller in RAID mode
- qedf driver data integrity may fail at 256 KB block size
- Uninstallation of Dell EMC OpenManage VIB fails to delete certain files
- IPMI driver stack may stop responding when iDRAC hard reset is performed
- Dell EMC PowerEdge Servers with VSAN All-Flash configuration and deduplication enabled, displays checksum error
- After installing ESXi OS, ACPI error messages are displayed in the VMkernel log
- PowerEdge 14th generations servers installed with ESXi are configured with default login credentials
- By default, VMFS datastore is disabled on Dell EMC 14th generation PowerEdge Servers with factory-installed VMware ESXi on BOSS-S1
- Scratch partition stops working after hardware or software iSCSI is enabled on ESXi with the scsi-be2iscsi Emulex driver
- In ESXi Hardware Status, vmnics displays Battery status
- In ESXi host client, physical NICs reports duplicate entries of the speed supported
- Embedded Host Client or vCenter Server reports an error when configuring SR-IOV
- 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
- ESXi 6.0 U3 upgrade to ESXi 6.5 fails with UEFI Secureboot enabled
- QLE2692 Network controller card is listed as QLogic Corp 2700
- Operating system reinstallation on top of an existing ESXi installation on a BOSS device fails
- NUMA related warning message is reported in VMkernel logs when Dell Fault Resilient Memory is enabled
- iDRAC does not report the operating system information
- Vendor label for certain hard drives report as NVMe
- When iSM VIB is running on ESXi 6.0 U2, syslog file displays error messages intermittently
- IPMI driver stack may stop responding when iDRAC hard reset is performed
- Fault tolerance feature is not supported on AMD 63xx series processor
- vSphere web client displays incorrect Service Tag for Dell EMC PowerEdge blade servers
- Unable to upgrade VMware ESXi when the ESXi partition table contains a coredump partition
- Configuring NVMe devices as passthrough device to the guest operating system, ESXi host stops responding and results in PSOD
- Power supply unit status and details are displayed incorrectly in vSphere Web Client or vCenter Server
- Temperature status of the processor may display incorrectly in vSphere Web Client or vCenter Server
- Storage-related sensor details are not available in vSphere Web Client or vCenter Server
- Dell EMC PowerEdge Express Flash NVMe PCIe SSD device is not detected during hot-plug
- VMs configured with Fault Tolerance might not be in a protected state
- The status of LUN or disks is displayed as degraded
- Dual port Mellanox card displays incorrect vmnic number
- VMware ESXi installer lists local LUNs under the Remote section
- Incorrect name for Dell PowerEdge FD332 storage controller
- Software RAID is not supported for VMware ESXi
- Status of some of the PCI devices is listed as Unknown on vCenter server
- PSU wattage is not displayed for a ESXi host on the vCenter Server
- ESXi Direct Console User Interface displays the hardware label as N/A
- ESXi DCUI displays lesser memory than the total
- ESXi installation may fail while deploying from virtual media
- Unable to boot ESXi 6.0 with Intel X710 devices
- ESXi 6.0 host does not function and results in Purple Screen of Death
- VMware ESXi host periodically disconnect and reconnect from vCenter Server during heavy load on storage subsystem
- Unable to write vmkernel coredump to local LUN when PSOD occurs
- ESXi console displays an error message

- vmkernel log file displays an error message
- Unable to turn on Windows virtual machine when Dell PowerEdge Express Flash NVMe PCIe SSD is directly connected as a passthrough device
- Cannot enable SR-IOV on Intel X520 adapter using vSphere web client
- The PCI passthrough section on vSphere client or vCenter server does not display Dell PowerEdge Express Flash NVMe PCIe SSD

## Data integrity issue occurs when deleting virtual disks on ESXi system with PERC9 controller in RAID mode

- Description:** On the Dell EMC PowerEdge systems running ESXi 6.0.x, data integrity issue occurs on PERC9 controller in RAID mode in the following conditions:
- PERC H730, H730P, H830, FD332xS, FD332xD
  - ESXi OS running PERC driver 7.x
  - Minimum three virtual disks or more RAID arrays are configured
  - A virtual disk is removed, using a delete command, or manually removing all physical disks from an array resulting in an array (VD) failure or removal
- Applies to:** ESXi 6.0.x
- Solution:** Download and install the [ESXi 6.0.x image](#) with PERC driver v7.703.18.00.

## qedf driver data integrity may fail at 256 KB block size

- Description:** On the Dell EMC PowerEdge systems running ESXi 6.0.x with QLogic FCoE driver (qedf), the I/O workload executed from a Linux VM data integrity may fail at 256 KB block size.
- Applies to:** ESXi 6.0.x
- Solution:** Update to Dell EMC customized VMware ESXi 6.5 U1 A11 image.

## 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 EMC OpenManage VIB.
- Applies to:** ESXi 6.0.x
- Solution:** There is no functionality loss. Reboot the system for complete cleanup.

## IPMI driver stack may stop responding when iDRAC hard reset is performed

- Description:** On the Dell EMC PowerEdge systems, the IPMI driver stack stops responding when iDRAC hard reset is performed.
- Applies to:** ESXi 6.0.x
- Solution:** This is a known issue. Complete the following workaround steps to resolve the issue:
1. Stop all the applications that use IPMI stack by using the command `/etc/init.d/sfcbd-watchdog stop`.
  2. To unload the drivers, run `Vmkload_mod -u ipmi_si_drv`.

3. To load the drivers, run `Vmkload_mod ipmi_si_drv.`

## Dell EMC PowerEdge Servers with VSAN All-Flash configuration and deduplication enabled, displays 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.x
- Solution:** This is a known issue. Follow one of the following recommendations:
- Install the Patch as mentioned in the *VMware Knowledge Base article 2151042*.
  - Install or upgrade to the latest Dell EMC customized image, that has this patch included. For more information about Dell EMC customized image, refer to [Image Customization Information](#).

## After installing ESXi OS, ACPI error messages are displayed in the VMkernel log

- Description:** The Dell EMC PowerEdge Servers with ESXi 6.0 U3 OS installed, VMkernel log displays the following ACPI error messages:

```
ACPI Error: Incorrect return type [Integer] requested  
[Buffer]0:00:00:06.226 cpu0:32768) (20120215/nsxfeval-219)  
0:00:00:06.226 cpu0:32768)VMKAcpi: 160: Failed to evaluate _DSM: AE_TYPE
```

- Applies to:** ESXi 6.x
- Solution:** This issue can be ignored because there is no functionality loss.

## PowerEdge 14<sup>th</sup> generations servers installed with ESXi are configured with default login credentials

- Description:** The Dell EMC 14<sup>th</sup> 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 13<sup>th</sup> generation PowerEdge Servers because password was not set for username `root`.
- Applies to:** ESXi 6.0 Update 3 and later, and 14<sup>th</sup> 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 [www.dell.com/virtualizationsolutions](http://www.dell.com/virtualizationsolutions).

# By default, VMFS datastore is disabled on Dell EMC 14<sup>th</sup> generation PowerEdge Servers with factory-installed VMware ESXi on BOSS-S1

- Description:** The Dell EMC 14<sup>th</sup> generation servers installed with ESXi on the BOSS-S1 device do not have VMFS datastore enabled by default.
- Applies to:** ESXi 6.0 Update 3 and later, 14<sup>th</sup> generation PowerEdge Servers, and BOSS-S1
- Workaround:** Dell EMC recommends using the BOSS-S1 device as a boot device only for VMware ESXi. For more information, see the *VMware Knowledge Base article 2145210*.

# Scratch partition stops working after hardware or software iSCSI is enabled on ESXi with the scsi-be2iscsi Emulex driver

- Description:** When specific versions of scsi-be2iscsi Emulex driver is installed or is part of ESXi, then enabling the hardware or software iSCSI stops the scratch partition. This prevents the redirection of logging to a persistent data store causing loss of log data across reboots.
- Applies to:** ESXi 6.0.x
- Solution:** This is a known issue with Emulex driver which is also part of Dell EMC Customized image ESXi 6.0 U3 and planned to address in the later version images. Follow any one of the workarounds as appropriate. The workarounds are:
- Use `syslog` for logging on hardware or software iSCSI configurations with Emulex driver version `be2iscsi-11.2.1147.5` and later. For more information about configuring syslog, refer to *VMware Knowledge Base article 2003322*.
  - Uninstall the scsi-be2iscsi driver and the associated shared library `ima-be2iscsi`, if Emulex is not part of the configuration. To uninstall the scsi-be2iscsi driver, run the following commands:
    1. `/etc/init.d/hostd stop`
    2. `localcli software vib remove -n scsi-be2iscsi -n ima-be2iscsi`
    3. `reboot`

# In ESXi Hardware Status, vmnics displays Battery status

- Description:** With ESXi 6.0 U3, Network Interfaces is displayed in Battery status on the Hardware Status page in vCenter Server. You will notice that the Battery status is displayed in the vmnics section.
- Applies to:** ESXi 6.0.x and 11<sup>th</sup> generation PowerEdge servers
- Solution:** This issue can be ignored because there is no functionality loss.

# 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 6.0.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 6.0.x

**Solution:** By default, SR-IOV is disabled. Enable SR-IOV by running the following 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 6.0.x and 14<sup>th</sup> generation PowerEdge servers

**Solution:** In **System BIOS Settings > Integrated Devices**, set **Memory Mapped I/O Base** to 12 TB. For more information, see *VMware Knowledge Base article 2142307*.

## ESXi 6.0 U3 upgrade to ESXi 6.5 fails with UEFI Secureboot enabled

**Description:** ESXi 6.0 does not support UEFI Secureboot. Any VIBs retained after upgrade will not support this feature.  **NOTE:** Recommendation is to upgrade the host and follow *VMware Knowledge Base article 2147606* to remove the VIBs before enabling UEFI Secureboot.

**Applies to:** ESXi 6.0.x, 14<sup>th</sup>, and 13<sup>th</sup> generation PowerEdge servers

**Solution:** This is an expected behavior. For more information, refer to *VMware Knowledge Base article 2147606*.

## QLE2692 Network controller card is listed as QLogic Corp 2700

**Description:** ESXi reports incorrect device name for QLogic 2692 Network controller card.

**Applies to:** ESXi 6.0.x and 14<sup>th</sup> generation PowerEdge servers

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

# Operating system reinstallation on top of an existing ESXi installation on a BOSS device fails

- Description:** Dell EMC 14<sup>th</sup> 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 PD1, 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 of the existing installation (using original non-RAID drive) works.
- Applies to:** ESXi 6.5 and 14<sup>th</sup> generation PowerEdge Servers
- Workaround:** 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 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`. This issue occurs when the Dell Fault Resilient feature is enabled in the System BIOS.
- Applies to:** ESXi
- Workaround:** There is no functionality impact and can be safely ignored. For more information, see VMware KB [1018754](#).

# 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 6.0 and 14<sup>th</sup> generation PowerEdge servers.
- Solution:** Install OpenManage Server Administrator on ESXi.

# Vendor label for certain hard drives report as NVMe

- Description:** Executing the command `esxcli storage core device list` to enumerate the SSDs show the vendor label as "NVMe".
- Applies to:** ESXi 6.0 U3
- Solution:** This is a known issue. As per the NVMe SCSI translation specification, the **Vendor** field is set to NVMe. There is no functionality impact for this issue.

## When iSM VIB is running on ESXi 6.0 U2, syslog file displays error messages intermittently

- Description:** When iDRAC Service Module (iSM) vSphere Installation Bundle (VIB) is running on ESXi 6.0 U2 system, the syslog file displays `Unknown` error messages. This issue may also occur when system is rebooted with the VIB installed.
- Applies to:** ESXi 6.0 U2
- Solution:** Restart syslog file with this command: `kill -15 <PID of vmsyslogd>` and `sfcdb watchdog` timer with this command: `/etc/init.d/sfcdb-watchdog restart`

## IPMI driver stack may stop responding when iDRAC hard reset is performed

- Description:** On the Dell EMC PowerEdge systems, the IPMI driver stack stops responding when iDRAC hard reset is performed.
- Applies to:** ESXi 6.0
- Solution:** This is a known issue. Complete the following workaround steps:
1. Stop all the applications that use IPMI stack by using the command `/etc/init.d/sfcdb-watchdog stop`.
  2. To unload the drivers, run `Vmkload_mod -u ipmi_si_drv`.
  3. To load the drivers, run `Vmkload_mod ipmi_si_drv`.

## Fault tolerance feature is not supported on AMD 63xx series processor

- Description:** In some Dell EMC servers with AMD 6300 series processor, the fault tolerance feature is not supported.
- Applies to:** ESXi 6.0 U2 installed on Dell EMC PowerEdge servers R815, R715, and M915.
- 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 6.0 U2
- 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.

# Unable to upgrade VMware ESXi when the ESXi partition table contains a coredump partition


- Description:** When ESXi is deployed on an SD card by using the `dd` command, VMware ESXi host creates a `coredump` partition as the second partition, during the first boot and does not allow to upgrade the ESXi.
- Applies to:** ESXi 6.0
- Solution:** This is a known issue. For more information, refer to the *VMware Knowledge Base article 2144074*.

# 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 6.0 U2
- 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 6.0 U2 installed on PowerEdge C6320 server
- Solution:** Use Dell EMC OpenManage for monitoring or managing the servers with ESXi.

## Temperature status of the processor may display incorrectly in vSphere Web Client 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 Web Client.
- Applies to:** ESXi 6.0 U2 installed on PowerEdge C6320 servers
- Solution:** Use Dell EMC OpenManage or iDRAC for monitoring or managing the servers with ESXi.

## Storage-related sensor details are not available in vSphere Web Client or vCenter Server

- Description:** On the Dell PowerEdge C6320 servers, the vSphere Web Client does not display hard drive, system board riser, and driver cable information under the **Storage and Cable/Interconnect sensor** section.
- Applies to:** ESXi 6.0 U2 installed on PowerEdge C6320 server
- Solution:** 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 6.0 U2
- Solution:** Perform one of the following:
- Reconnect the drive to a different drive slot, if available.
  - Restart the `sfcbd-watchdog` service, and reinsert the drive.

## VMs configured with Fault Tolerance might not be in a protected state

- Description:** For some PowerEdge systems with AMD 6300 series processor, VMs configured with Fault Tolerance (FT) might not be in a protected state. Sometimes, secondary VM takes more time to attain the protected state.
- Applies to:** ESXi 6.0 installed on PowerEdge systems R815, R715 and M915.
- Solution:** This is a known issue.

## The status of LUN or disks is displayed as degraded

- Description:** The command line interface (CLI) utility `esxcfg-scsidevs` lists the status of the LUN or disks attached to FD332 as degraded.
- Applies to:** ESXi 6.0 U2 installed on FD332 configured with FC630, FC430 and FC830.
- Solution:** 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 6.0 U2
- Solution:** There is no workaround.

## VMware ESXi installer lists local LUNs under the Remote section

- Description:** During VMware ESXi installation the local LUNs exposed from some PERC controllers are listed under the Remote section of the installer.
- Applies to:** ESXi 6.0
- Solution:** This issue can be ignored because there is no functionality loss.

## 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 6.0 U2
- 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 6.0 U2
- Solution:** There is no workaround.

## 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 6.0 U2
- 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 6.0 U2
- 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 6.0 U2
- Solution:** This issue can be ignored because there is no functionality loss.

## ESXi DCUI displays lesser memory than the total

- Description:** For some Dell's 11th generation of PowerEdge systems with storage controllers PERC H200/H310 the ESXi DCUI displays lesser memory than the total memory.
- Applies to:** ESXi 6.0
- Solution:** This is a known behavior.

## 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 6.0 U2
- Solution:** Disable STP or do not connect iDRAC NIC to Shared.

## Unable to boot ESXi 6.0 with Intel X710 devices

- Description:** For Dell's 13th generation of PowerEdge systems with NPAR/NPAR EP enabled on Intel X710 NDC ESXi results in Purple Screen of Death (PSOD) and does not boot.
- Applies to:** ESXi 6.0
- Solution:** Disable NPAR to boot ESXi successfully.

## ESXi 6.0 host does not function and results in Purple Screen of Death

- Description:** For Dell's 13th generation of PowerEdge systems, when NPAR is enabled on Emulex network devices and VLAN is configured, the ESXi host does not function and results in Purple Screen of Death (PSOD).
- Applies to:** ESXi 6.0
- Solution:** Disable NPAR or OS2BMC or VLAN configuration.

## 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 6.0 U2
- Solution:** This issue can be ignored because there is no functionality loss.

## Unable to write vmkernel coredump to local LUN when PSOD occurs

- Description:** During heavy load on storage subsystem if PSOD occurs ESXi unable to write coredump to the local LUN and results with the error message bad header error message.
- Applies to:** ESXi 6.0
- Solution:** Ensure that a network share is configured to coredump.

## ESXi console displays an error message

- Description:** ESXi console displays the error message CIM error: enumInstances Class not found in the ESXi technical support mode or the ssh console.
- Applies to:** ESXi 6.0
- Solution:** This issue can be ignored because there is no functionality loss.

## vmkernel log file displays an error message

- Description:** During boot of VMware ESXi the vmkernel log file displays an error message ACPI Error: [CDW1] Namespace lookup failure AE\_NOT\_FOUND.
- Applies to:** ESXi 6.0
- Solution:** This issue can be ignored because there is no functionality loss.

## 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 6.0 U2
- Solution:** The maximum number of VMs that Windows can support is 31. You can manually set the MSI-X vectors to 31. For more information, see the *VMware Knowledge Base article 2032981*.

## Cannot enable SR-IOV on Intel X520 adapter using vSphere web client

- Description:** Cannot enable SR-IOV on Intel X520 network adapter when vSphere web client is used. However you can enable when esxcli is used to enable the SR-IOV.
- Applies to:** ESXi 6.0
- Solution:** To resolve the issue, use the esxcli command to enable SR-IOV using command line interface.

## 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 6.0 U2
- Solution:** Restart hosted service (`/etc/init.d/hostd restart`) to make the device available for passthrough

## Related information for virtualization solutions

**Table 1. Related information for virtualization solutions**

| If you need information about  | See  |
|--|--|
| Dell EMC VMware documentation  | <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>   |
| OpenManage documentation   | <a href="https://www.dell.com/openmanagemanuals">https://www.dell.com/openmanagemanuals</a>  |
| PowerEdge documentation  | <a href="https://www.dell.com/poweredgemanuals">https://www.dell.com/poweredgemanuals</a>  |
| Basic configuration information for running ESXi on a Dell EMC PowerEdge server  | Getting Started Guide at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>  |
| <ul style="list-style-type: none"> <li>Information about downloading, installing, and configuring ESXi</li> <li>Supported hardware configurations for running ESXi on a Dell EMC PowerEdge server</li> </ul> | Installation Instructions and Important Information Guide at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>  |
| PowerEdge servers and compatibility with vMotion   | VMware ESXi vMotion Support on Dell EMC PowerEdge Servers Compatibility Matrix at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>   |
| PowerEdge and PowerVault compatibility information for running ESXi  | VMware vSphere on Dell EMC PowerEdge Servers Compatibility Matrix at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>  |
| Known issues and resolutions   | VMware vSphere 6 on Dell EMC PowerEdge Server Release Notes at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>  |
| ESXi ISO image customization information   | VMware ESXi on Dell EMC PowerEdge Systems Image Customization Information at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>  |
| UEFI Boot order management utility in VMware ESXi 7.0  | <a href="http://www.dell.com/support/article/en-us/sln321019">www.dell.com/support/article/en-us/sln321019</a>   |
| Dell EMC Add-on for VMware vSphere 7.0   | <a href="http://www.dell.com/support/article/en-us/sln320956">www.dell.com/support/article/en-us/sln320956</a>   |
| Dell EMC ESXi 7.0 Quick Boot compatibility guide   | <a href="http://www.dell.com/support/article/en-us/sln320746">www.dell.com/support/article/en-us/sln320746</a>   |
| VMware vSphere Life Cycle Manager vLCM and Dell EMC integration  | <a href="http://downloads.dell.com/manuals/all-products/esuprt_software_int/esuprt_software_virtualization_solutions/vmware-esxi-7x_white-papers3_en-us.pdf">downloads.dell.com/manuals/all-products/esuprt_software_int/esuprt_software_virtualization_solutions/vmware-esxi-7x_white-papers3_en-us.pdf</a> |
| PVRDMA Deployment and Configuration of QLogic CNA devices in VMware ESXi   | <a href="http://downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper6_en-us.pdf">downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper6_en-us.pdf</a>   |
| Self-Encrypting Drives in Dell EMC PowerEdge servers with VMware vSphere   | <a href="http://downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper7_en-us.pdf">downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper7_en-us.pdf</a>   |
| NVMe Hot-Plug on Dell EMC PowerEdge servers running VMware vSphere or vSAN   | <a href="http://downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper9_en-us.pdf">downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper9_en-us.pdf</a>   |
| Upgrading to Dell EMC vSphere and vSAN version 7.0   | <a href="http://downloads.dell.com/manuals/all-products/esuprt_software_int/esuprt_software_virtualization_solutions/vmware-esxi-7x_white-papers8_en-us.pdf">downloads.dell.com/manuals/all-products/esuprt_software_int/esuprt_software_virtualization_solutions/vmware-esxi-7x_white-papers8_en-us.pdf</a> |

# Technical support resources


- [vmware.com/support](http://vmware.com/support)
- [www.dell.com/support/home](http://www.dell.com/support/home)
- [Dell.com/services](http://Dell.com/services)

## Discussion forums

- [Communities.vmware.com/community/vmtn](http://Communities.vmware.com/community/vmtn)
- [Dell Virtualization](#)
- [Wikis, Forums, Blogs, and Videos](#)
- [Dell Community](#)

## Knowledge base



- [kb.vmware.com/kb](http://kb.vmware.com/kb)

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

## Virtualization videos for 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 for Dell EMC PowerEdge servers**

| Video title  | Links  |
|--|--|
| Downloading the Dell EMC customized ESXi image from support site   | <a href="http://www.youtube.com/watch?v=YnVxtkAkYTI">www.youtube.com/watch?v=YnVxtkAkYTI</a> |
| Downloading Dell EMC customized ESXi image from VMware website   | <a href="http://www.youtube.com/watch?v=TnWyuyxuk5k">www.youtube.com/watch?v=TnWyuyxuk5k</a> |
| Operating system Deployment (VMware ESXi)—Installing Using CD/DVD  | <a href="http://www.youtube.com/watch?v=-EbufUS86zA">www.youtube.com/watch?v=-EbufUS86zA</a> |
| Enabling and Configuring Fault Resilient Memory on Dell EMC PowerEdge servers  | <a href="http://www.youtube.com/watch?v=retSh-XIsK0">www.youtube.com/watch?v=retSh-XIsK0</a> |
| OS Deployment (VMware ESXi)—Installing on BOSS S1 device   | <a href="http://www.youtube.com/watch?v=TB1loXpFFME">www.youtube.com/watch?v=TB1loXpFFME</a> |
| OS Deployment (VMware ESXi)—Installing on IDSDM  | <a href="http://www.youtube.com/watch?v=EC-Xntg5mgw">www.youtube.com/watch?v=EC-Xntg5mgw</a> |
| To enable UEFI Secure Boot on VMware ESXi for Dell EMC's yx3x PowerEdge servers<br> <b>NOTE:</b> This video is applicable to VMware ESXi 6.5.x and later. | <a href="http://www.youtube.com/watch?v=LI9qIF9qV9I">www.youtube.com/watch?v=LI9qIF9qV9I</a> |
| To enable UEFI Secure Boot on VMware ESXi for Dell EMC's yx4x PowerEdge servers<br> <b>NOTE:</b> This video is applicable to VMware ESXi 6.5.x and later. | <a href="http://www.youtube.com/watch?v=ZzB_XyV0enY">www.youtube.com/watch?v=ZzB_XyV0enY</a> |

# Getting help

**Topics:**

- [Contacting Dell EMC](#)

## Contacting Dell EMC

Dell EMC provides several online and telephone-based support and service options. Availability varies by country, region, and product, and some services may not be available in your area.

To contact Dell EMC for sales, technical assistance, or customer service issues, see [www.dell.com/contactdell](http://www.dell.com/contactdell).

If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or the product catalog.