Notes, cautions, and warnings

**NOTE:** A NOTE indicates important information that helps you make better use of your product.

**CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

**WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.
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Topics:
- Version
- Release date
- Priority and recommendations

Version
6.7.x

Release date
August 2019

Priority and recommendations
RECOMMENDED: Dell EMC recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).
Compatibility

Topics:

- System configuration requirements

System configuration requirements

Memory

The following table lists the system memory requirements for VMware vSphere 6.7.x on Dell EMC PowerEdge servers.

Table 1. Memory requirements for VMware vSphere 6.7.x

<table>
<thead>
<tr>
<th>Memory</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum recommended system memory</td>
<td>1.5 GB per logical CPU</td>
</tr>
<tr>
<td>Maximum certified system memory</td>
<td>16 TB</td>
</tr>
</tbody>
</table>
New and enhanced in VMware vSphere 6.7.x release

VMware vSphere 6.7.x includes the ESXi 6.7.x hypervisor and is managed by vCenter Server 6.7.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:** The issues that are listed in this document are only applicable for Dell EMC servers with VMware vSphere 6.7.x installed.

Following are some of the important features that are included with vSphere 6.7:

- TPM 2.0 support for ESXi hosts, and virtual TPM (vTPM) 2.0 for VMs
- Support for Microsoft virtualization-based security
- User interface updates—Advances in the functionality of the vSphere Client
- Multiple Syslog targets


Topics:

- Installation and upgrade instructions

Installation and upgrade instructions

For information about installing ESXi 6.7.x or upgrading from a previous version of ESXi, see the version specific VMware ESXi 6.7.x for 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 [www.support.vmware.com](http://www.support.vmware.com).

**NOTE:** For more information related to VMware ESXi installation on Dell EMC PowerEdge servers, see Dell Virtualization.
The following issue is fixed in this release:

Tracking number: 122715

Description: On Dell EMC yx4x PowerEdge R7415 and R6415 AMD servers, hot-add or hot-replace of NVMe devices did not work at times. A warning message was displayed in the VMkernel log similar to the following: WARNING: PCIEHP: 850: 0000:c0:03.4: hotplug slot:0xb7 Inserted adapter seems broken, or removed (slotStatusPDS: 1). Aborting hot-add operation.
Not Applicable.
vSAN nodes may experience a PSOD during log collection under heavy load

**Description:** Dell PowerEdge AMD EPYC vSAN nodes experience a PSOD during log collection on the nodes under heavy load. This behavior is an intermittent issue. The PSOD displays entries that are similar to the following screen capture.

![Figure 1. PSOD](image)

**Applies to:** ESXi 6.7.x

**Workaround:** This is a known issue.

**Systems affected:** All Dell EMC PowerEdge servers

**Tracking number:** 142775

The vmkernel log displays a warning

**Description:** On the PowerEdge AMD EPYC servers, the vmkernel log displays a following warning message:

```plaintext
WARNING: AMDIOMMU: 222: completion wait bit is not set after a while!
```

These messages are displayed on vSAN Cluster nodes.

**Applies to:** ESXi 6.7.x

**Workaround:** These messages can be ignored because there is no functionality loss with these error messages logged in vmkernel.log file.

**Systems affected:** yx5x AMD PowerEdge servers

**Tracking number:** 142440
The vmkernel log displays an invalid support message on the multiple PCIe devices

**Description:** On PowerEdge AMD ROME servers with multiple PCIe devices, the vmkernel log displays the following message for all the PCIe devices:

```
invalid supported max link speed
```

These messages are displayed only when Dell iSM or Dell OMSA is installed on the system or when wbem is enabled.

**Applies to:** ESXi 6.7.x

**Workaround:** Enable the wbem, and then disable the provider vwm_pci to prevent these repeated error messages logging in vmkernel.log file. For more information about enable/disable wbem, see the VMware KB 1025757. For more information about disabling provider vwm_pci, see the VMware KB 2053715.

**Systems affected:** yx5x AMD PowerEdge servers

**Tracking number:** 114799

PSOD is not seen in the host when NMI option is selected in the iDRAC GUI

**Description:** In the iDRAC GUI of Dell EMC PowerEdge AMD EPYC Servers, below Configuration tab, select the Power Control option, and then select the NMI(Non-Masking Interrupt). On selecting the option NMI on the idrac page, the server crashes the PSOD. However, the PSOD is not seen with the yx5x AMD server because bug in AMD IOMMU.

**Applies to:** ESXi 6.7.x

**Workaround:** Disable IOMMU in the BIOS.

**Systems affected:** yx5x AMD PowerEdge servers

**Tracking number:** 132871

Auto-negotiation value shown as false though it was set with 100G

**Description:** With vSphere web client, auto-negotiation value is shown as false although the configure speed was set to 100G.

**Applies to:** ESXi 6.7.x

**Workaround:** Use the Mellanox mlxlink tool available at [www.mellanox.com/page/management_tools](http://www.mellanox.com/page/management_tools) to read the link speed value.

**Systems affected:** All Dell EMC PowerEdge servers

**Tracking number:** 114799

The hardware label for PCIe devices is shown as N/A

**Description:** On Dell EMC PowerEdge AMD servers, the hardware label for PCIe devices in ESXi Direct Control User Interface (DCUI) is shown as N/A. But the vCenter Server and other esxcli commands show the appropriate values.

**Applies to:** ESXi 6.7.x and ESXi 6.5 U3
**Workaround:**
There is no workaround. This issue can be ignored as it is a cosmetic issue, and there is no functionality loss.

For more information about the PCIe device info, use vCenter Server or the esxcli command: `esxcfg-nics -l`.

**Systems affected:**
Dell EMC PowerEdge servers with AMD operating system

**Tracking number:**
137055

---

**Multiple sfcb core files are generated on ESXi 6.7 U1 host after installing OM and iSM**

**Description:**
On Dell EMC PowerEdge servers, sfcb core files are generated in `/var/core` (for example, `sfcb-ProviderMa-zdump.000`) after installing OpenManage (OM) and iDRAC Service Module (iSM) vib.

**Applies to:**
ESXi 6.7 U1

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

**Systems affected:**
All Dell EMC PowerEdge servers

**Tracking number:**
118018

---

**Virtual machines report guest data consistency errors after disk extend operation**

**Description:**
Virtual machines running on VMware vSAN 6.6 and later report guest data consistency errors following a disk extend operation. This is a rare occurrence, requiring specific conditions to be met.

**Applies to:**
ESXi 6.7.x

**Workaround:**
VMware recommends the following workaround:

1. Log in to the ESXi host through SSH with username as root.
2. To set the Inplace Expansion value to 0, run the following command:
   ```bash
   # esxcfg-advcfg -s 0 /VSAN/ClomEnableInplaceExpansion
   ```
3. To confirm that the value is set to 0, run the following command:
   ```bash
   # esxcfg-advcfg -g /VSAN/ClomEnableInplaceExpansion
   ```
4. Repeat this process on all ESXi hosts in the vSAN cluster.

For more information, see the VMware KB article 58715.

**Systems affected:**
All Dell EMC PowerEdge servers

**Tracking number:**
NA

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**SR-IOV functionality is not available for QLogic 41xxx adapter**

**Description:**
If the inbox native driver, `qedentv-2.0.6.4-8`, is installed on ESXi 6.7, Virtual Functions (VFs) cannot be enabled on QLogic 41xxx adapter. Therefore, the SR-IOV functionality is not available.

**Applies to:**
ESXi 6.7.x

**Workaround:**
There is no workaround.

**Systems affected:**
All Dell EMC PowerEdge servers

**Tracking number:**
99976
iDRAC web interface shows incorrect status with ESXi inbox native driver

**Description:** If the ESXi inbox native driver is installed, iDRAC web interface displays incorrect status for network card details such as **OS Driver State** and **Family Driver version**.

**Applies to:** ESXi 6.7.x

**Workaround:** This issue can be ignored because there is no functionality loss. For more information about the port link status, use vCenter Server or the esxcli command: esxcfg-nics -l.

**Systems affected:** All Dell EMC PowerEdge servers

**Tracking number:** 86600

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

**Description:** When the Express Flash NVMe PCIe SSD namespace is set as Offline and the hot-plug operation is performed in the same slot, the SSD is not initialized and detected.

**Applies to:** ESXi 6.7.x

**Workaround:** Perform one of the following steps:
- If a different drive slot is available, reconnect the drive to the available drive slot.
- Restart the sfcbd-watchdog service, and reinsert the drive.

**Systems affected:** All Dell EMC PowerEdge servers

**Tracking number:** 100866

ESXi OS installed on IDSDM fails to boot when USB 3.0 is enabled

**Description:** On rebooting the Dell EMC PowerEdge R530, R430, and T430 servers, the ESXi OS installed on IDSDM does not boot when the USB 3.0 controller is enabled on the server BIOS.

**Applies to:** ESXi 6.7.x

**Workaround:** Disable the vmkusb module on the affected servers by running the command:

```
#esxcli system module set -m=vmkus b -e=FALSE
```

For more information, see VMware KB 2147650.

**Systems affected:** Dell EMC PowerEdge R530, R430, and T430 servers

**Tracking number:** 93275

While logging into OMSA, vSAN cluster experiences Connection Error

**Description:** While logging into OMSA, the vSAN cluster, under heavy utilization, experiences a Connection Error.
Dell EMC customized VMware ESXi 6.7 A00 installer fails to boot from PXE infrastructure

Description: Dell EMC customized ESXi 6.7 A00 installer fails to boot from PXE infrastructure either in the UEFI or BIOS boot modes and displays the following error message:

```
Error loading DellEMC_.v00 ... Fatal Error: 24 (TFTP error)
```

Applies to: ESXi 6.7.x

Workaround: Go to TFTP/Web server and rename the ESXi 6.7 A00 file name from DellEMC_.v00 to dellemc_.v00 or download and install the ESXi 6.7.x A01 image available at www.dell.com/support.

Systems affected: All Dell EMC PowerEdge servers

Tracking number: 100451

PCI devices status is listed as Unknown on vCenter server

Description: On vCenter Server installed on an ESXi host, the status of some of the devices under Hardware Status > PCI device is displayed as Unknown.

Applies to: ESXi 6.7.x

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

Systems affected: All Dell EMC PowerEdge servers

Tracking number: 79601 and 87243

iDRAC does not report the operating system information

Description: PowerEdge servers with VMware ESXi 6.7 installed do not report the operating system information that is installed in iDRAC.

Applies to: ESXi 6.7.x

Workaround: This is an expected behavior and it is recommended to set it manually by the following steps:

1. Run the command: `vmware -vl`
   The output is: `<OS Name> build <OS Version>`.
2. Run the command:

   `esxcli hardware ipmi bmc set -n <OS Name> -v <OS Version>`
FcoE, iSCSI, RoCE functionality are not available for BCM5741x and QL411xx in ESXi 6.7

Description: In ESXi 6.7 OS, FcoE, iSCSI and RoCE functionality are not available for BCM5741x and QL411xx family devices, due to the unavailability of bnxtroe, qedf, scsi-qedil, and qedrntv drivers.

Applies to: ESXi 6.7.x

Workaround: This is an expected behavior with ESXi 6.7 A00 build because these drivers are not available.

Unsafe shutdowns counter of an NVMe device is incremented for both soft and abrupt shutdowns

Description: Unsafe shutdowns counter of a NVMe device is incremented for both soft and abrupt shutdowns.

Applies to: ESXi 6.7.x

Workaround: This issue can be ignored because there is no data loss or corruption.

Systems affected: All Dell EMC PowerEdge servers

Tracking number: 87053

Systems affected: All Dell EMC PowerEdge servers

Tracking number: 86600
Limitations

Not Applicable.
This section provides information about the documentation resources for your server.

### Table 2. Additional documentation resources for your server

<table>
<thead>
<tr>
<th>Task</th>
<th>Document</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting up your server</td>
<td>For information about installing the server into a rack, see the rack documentation included with your rack solution or the Getting Started Guide that is shipped with your server.</td>
<td><a href="http://www.dell.com/poweredge">www.dell.com/poweredge</a> manuals</td>
</tr>
<tr>
<td></td>
<td>For information about turning on the server and the technical specifications of your server, see the Getting Started Guide that is shipped with your server.</td>
<td><a href="http://www.dell.com/poweredge">www.dell.com/poweredge</a> manuals</td>
</tr>
<tr>
<td>Configuring your server</td>
<td>For information about the iDRAC features, configuring and logging in to iDRAC, and managing your server remotely, see the Integrated Dell Remote Access Configuration Tool User’s Guide.</td>
<td><a href="http://www.dell.com/idracmanuals">www.dell.com/idracmanuals</a></td>
</tr>
<tr>
<td></td>
<td>For information about installing the operating system, see operating system documentation.</td>
<td><a href="http://www.dell.com/operatingsystemmanuals">www.dell.com/operatingsystemmanuals</a></td>
</tr>
<tr>
<td></td>
<td>For information about understanding Remote Access Controller Admin (RACADM) subcommands and supported RACADM interfaces, see the iDRAC RACADM CLI Guide.</td>
<td><a href="http://www.dell.com/idracmanuals">www.dell.com/idracmanuals</a></td>
</tr>
<tr>
<td></td>
<td>For information about updating drivers and firmware, see Download drivers and firmware topic in this document.</td>
<td><a href="http://www.dell.com/support/drivers">www.dell.com/support/drivers</a></td>
</tr>
<tr>
<td>Managing your server</td>
<td>For information about server management software offered by Dell EMC, see the Dell EMC Systems Management Overview Guide.</td>
<td><a href="http://www.dell.com/openmanagemanuals">www.dell.com/openmanagemanuals</a></td>
</tr>
<tr>
<td></td>
<td>For information about setting up, using, and troubleshooting OpenManage, see the Dell EMC OpenManage Server Administrator User’s Guide.</td>
<td><a href="http://www.dell.com/openmanagemanuals">www.dell.com/openmanagemanuals</a></td>
</tr>
<tr>
<td></td>
<td>For information about installing, using, and troubleshooting Dell EMC OpenManage Essentials, see the Dell EMC <a href="http://www.dell.com/openmanagemanuals">www.dell.com/openmanagemanuals</a>.</td>
<td><a href="http://www.dell.com/openmanagemanuals">www.dell.com/openmanagemanuals</a></td>
</tr>
</tbody>
</table>
### Task | Document | Location
--- | --- | ---
OpenManage Essentials User’s Guide. | www.dell.com/serviceabilitytools
For information about installing and using Dell SupportAssist, see the Dell EMC SupportAssist Enterprise User’s Guide. | www.dell.com/idracmanuals
For understanding the features of Dell EMC Lifecycle Controller (LC), see the Lifecycle Controller User’s Guide. | www.dell.com/emsmanuals
For information about partner programs enterprise systems management, see the OpenManage Connections Enterprise Systems Management documents. | www.dell.com/emsmanuals
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 Chassis Management Controller User’s Guide. | www.dell.com/emsmanuals
Working with the Dell EMC PowerEdge RAID controllers | For information about understanding the features of the Dell EMC PowerEdge RAID controllers (PERC) and deploying the PERC cards, see the Storage controller documentation. | www.dell.com/storagecontrollermanuals
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. | www.dell.com/openmanagemanuals
Troubleshooting your system | For information about identifying and troubleshooting the PowerEdge server issues, see the PowerEdge Servers Troubleshooting Guide. | www.dell.com/poweredgemanuals

### Topics:
- Download drivers and firmware

### Download drivers and firmware

It is recommended 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.

2. In the Drivers & Downloads section, enter the Service Tag of your system in the Enter a Dell Service Tag, Dell EMC Product ID, or Model field, and then click the right arrow button.
NOTE: If you do not have the Service Tag, click Detect PC to allow the system to automatically detect your Service Tag.

3. Click Drivers & Downloads.
   A list of applicable downloads is displayed.

4. Download the drivers or firmware to a USB drive, CD, or DVD.
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.

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.