

Microsoft® Windows Server® 2003 R2,
Standard and Enterprise
x64 Editions With SP2 for
Dell™ PowerEdge™ Systems

Important Information



Notes and Notices



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



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

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This document provides important information about Microsoft® Windows Server® 2003 R2, Standard and Enterprise x64 Editions With SP2 operating system.

The following topics are discussed in this document:

- Minimum supported BIOS, system firmware, and redundant array of independent disks (RAID) controller driver versions
- Adding trusted sites to your browser
- Hardware management component in Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2
- Microsoft Windows® activation requirements
- Known issues



NOTICE: To prevent the possibility of viruses, it is recommended that you use a different system to download any recommended patches, hotfixes, and service packs from the Microsoft website at www.microsoft.com. Before you install the updates on your system, ensure that the system is attached to your network.

Minimum Supported BIOS, System Firmware, and RAID Controller Driver Versions



NOTE: The tables in this section list the minimum requirements for supporting Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2 on supported Dell PowerEdge™ systems. It is recommended that you use the latest BIOS, firmware, and drivers located on the Dell Support website at support.dell.com/support/downloads or on the *Dell PowerEdge Service and Diagnostic Utilities* media.

Table 1-1 provides a list of the PowerEdge systems that support Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2 and the minimum supported versions of the BIOS and Baseboard Management Controller (BMC) firmware.

Table 1-1. Minimum Supported BIOS/BMC Versions

PowerEdge System	Supported BIOS/BMC Version
830	A04/A04 or later
840	A02/A02 or later
850	A04/A04 or later
860	A02/A02 or later
1800	A07/A08 or later
1850	A06/A09 or later
1855	A05/A04 or later
1900	1.2.0/A02 or later
1950	1.2.0/A06 or later
1955	1.1.0/A03 or later
2800	A06/A09 or later
2850	A06/A09 or later
2900	1.2.0/A04 or later
2950	1.2.0/A04 or later
2970	1.0.0/A00 or later
6800	A04/A09 or later
6850	A04/A09 or later
6950	1.1.2/A02 or later
SC430	A04 or later
SC440	1.2.0 or later
SC1420	A04 or later
SC1425	A03/A07 or later
SC1430	1.1.0 or later
SC1435	1.1.0/A03 or later

Native drivers are included with the operating system; non-native drivers are not included with the operating system. You can download non-native drivers and utilities from the Dell Support website at support.dell.com/support/downloads or from the *Dell PowerEdge Service and Diagnostic Utilities* media that shipped with your Dell system.

If your system is *not* listed in Table 1-1 or Table 1-2, see your system documentation to determine whether Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2 is a supported operating system.

Table 1-2 lists the minimum supported versions of the system firmware and drivers for the supported RAID controllers.

Table 1-2. Minimum Supported Versions of System Firmware and RAID Controller Driver

Product and Supported Platforms	Minimum Required Firmware Version	Minimum Required Driver Version	Driver included in the operating system?
Serial-attached SCSI (SAS) 5/i Integrated on PowerEdge 1950, 2900, 2950	00.10.49.00.06.12.02.00 or later	1.24.04.00 or later	No
SAS 5/E on PowerEdge 1950, 2950, 2970	00.10.49.00.06.12.02.00 or later	1.24.04.00 or later	No
SAS 5/iR on PowerEdge 840, 860, SC440, SC1430, SC1435	00.10.49.00.06.12.02.00 or later	1.24.04.00 or later	No
SAS 5/iR on PowerEdge on 1955	00.10.49.00.06.12.02.00 or later	1.24.04.00 or later	No
PowerEdge Expandable RAID controller (PERC) 5/E adapter on PowerEdge 1950, 2900, 2950	5.1.1-0040 or later	2.8.0.64 or later	No


Table 1-2. Minimum Supported Versions of System Firmware and RAID Controller Driver (continued)

Product and Supported Platforms	Minimum Required Firmware Version	Minimum Required Driver Version	Driver included in the operating system?
PERC 5/i adapter on PowerEdge 1950, 2900, 2950	5.1.1-0040 or later	2.8.0.64 or later	No
Adaptec 39320/39320A on PowerEdge 1950, 2900, 2950	4.30.1 or later	7.0.0.1	No
PERC 4e/DC on PowerEdge 1950, 2900, 2950	522A or later	6.46.3.64 or later	Yes
PERC 4/SC on PowerEdge 1800, 1850	352B or later	6.46.3.64 or later	Yes (native)
PERC 4/DC on PowerEdge 1800, 1850, 2800, 2850, 6800, 6850	352B or later	6.46.3.64 or later	Yes
PERC 320/DC on PowerEdge SC1420, 1800	5813 or later	4.0.0.5818 or later	No (non-native)
Adaptec U320 SCSI RAID 0 or 1 on PowerEdge SC1420, SC1425, 1800	4.30.4S5 or later	2.00.00.3635 or later	No
Adaptec 39160	3.10 or later	5.2.3790.3959 or later	Yes
Perc 4/im on PE1855MC	1.03.23 or later	5.2.3790.3959 or later	Yes
1020/1030 embedded	1.03.23 or later	5.2.3790.3959 or later	Yes

Table 1-2. Minimum Supported Versions of System Firmware and RAID Controller Driver (continued)

Product and Supported Platforms	Minimum Required Firmware Version	Minimum Required Driver Version	Driver included in the operating system?
CERC Serial ATA (SATA) 2s RAID 0 or 1 on PowerEdge SC1420, SC1425, 1800	not applicable	6.0.3643.4 or later	No
CERC SATA 6CH	4.1.0.7417 or later	4.1.1.7038 or later	No
PERC 4e/Si on PowerEdge 1850	522A or later	6.46.3.64 or later	Yes
PERC 4e/Di on PowerEdge 2800 and 2850, 6800, 6850	522A or later	6.46.3.64 or later	Yes

The drivers and firmware are located on the *Dell PowerEdge Service and Diagnostic Utilities* media, the *System Support* media, and on the Dell Support website at support.dell.com.

 **NOTE:** For information about Microsoft's minimum requirements and recommended hardware configurations for Windows Server 2003 R2, x64 Editions, see the Microsoft website at www.microsoft.com/windowsserver2003/64bit/x64/sysreqs.mspx.


 **NOTE:** Dell recommends a 12-GB system partition. The default setting for Dell factory-installed images and the Dell PowerEdge Installation and Server Management media is 12 GB.

Table 1-3 lists the minimum BIOS requirements for Execute Disable (XD) and Enhanced Intel® SpeedStep® Technology (EIST) support. Dell PowerEdge systems based on Intel EM64T support the following features in Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2:

- **Data Execution Prevention (DEP)**, which requires XD-supported processors that are shipped with supported PowerEdge systems since October 2004.
- **System Balanced Processor Power and Performance**, which leverages EIST on supported Intel processors. Support for this operating system feature depends on the processor model, frequency, and stepping.



NOTE: DEP and System Balanced Processor Power and Performance are features that require hardware support in Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2.

Table 1-3. Minimum BIOS Requirements for XD and EIST Support on Dell PowerEdge Systems

Dell PowerEdge System	Minimum BIOS Revision Required for XD Support	Minimum BIOS Revision Required for EIST Support
830	A04	A04
840	A02	A02
850	A04	A04
860	A02	A02
1800	A07	A07
1850	A06	A06
1855	A05	A05
1900	1.2.0	1.2.0
1950	1.2.0	1.2.0
1955	1.1.0	1.1.0
2800	A06	A06
2850	A06	A06
2900	1.2.0	1.2.0

Table 1-3. Minimum BIOS Requirements for XD and EIST Support on Dell PowerEdge Systems (continued)

Dell PowerEdge System	Minimum BIOS Revision Required for XD Support	Minimum BIOS Revision Required for EIST Support
2950	1.2.0	1.2.0
6800	A04	A04
6850	A04	A04
SC430	A04	A04
SC440	1.2.0	1.2.0
SC 1420	A04	EIST not supported
SC 1425	A03	A03
SC1430	1.1.0	1.1.0

Adding Trusted Sites to Your Browser

Due to enhanced Microsoft security standards, you may be prompted to add an Internet or intranet site to the trusted sites zone when you initially access the site.

To add trusted sites to your browser, perform the following steps:

- 1** In the **Tools** menu, click **Internet Options**.
The **Internet Options** window appears.
- 2** Click the **Security** tab.
The **Security** tab menu appears.
- 3** Click **Trusted Sites**.
- 4** Click **Sites**.
The **Trusted sites** window appears.
- 5** In the **Add this Web site to the zone:** field, type the address of the site, and click **Add**.
The site appears in the **Web sites:** box.
- 6** Repeat step 5 to add any additional sites and click **Close**.
The **Internet Options** window appears.
- 7** Click **OK**.

Hardware Management Component in R2

Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2 contains an optional component called Hardware Management that consists of a set of features designed to improve management of the system hardware.



NOTE: For more information regarding the Hardware Management component, see the related article on the Microsoft website at www.microsoft.com/technet/scriptcenter/preview/wsm/intro.mspx.



NOTE: For detailed instructions on installing the additional R2 components, see the document *Microsoft Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2 for Dell PowerEdge Systems Installation and Setup Guide* located on the User Guides website at www.dell.com/ostechsheets.

When installing the Hardware Management component on a system that has a BMC, the following message may appear:

```
An IPMI device has been registered within the system BIOS; all 3rd party IPMI drivers must be removed from the system prior to installation in order to prevent system instability; if all 3rd party drivers have been removed or you wish to ignore this risk press 'OK' otherwise press 'Cancel'.
```

Before proceeding, it is recommended that you uninstall all third-party intelligent platform management interface (IPMI) drivers.



NOTE: Dell OpenManage™ 4.5.x requires the Dell IPMI driver and cannot use the R2 IPMI driver. If you are using Dell OpenManage™ 4.5.x to manage your eighth generation PowerEdge systems, it is recommended that you do not install the R2 IPMI driver on those systems. For more information on the impact of the R2 IPMI driver on the Dell OpenManage suite and possible limitations of Dell OpenManage, see *What Versions of Dell OpenManage are Supported in Microsoft Windows Server 2003 R2?* on the Dell Support website at support.dell.com.

After the Hardware Management component is installed, manually install the IPMI device driver using the following commands (if required): `Rundll32 ipmisetp.dll, AddTheDevice`

The IPMI device can be viewed in **Device Manager** under **System Devices** under the entry **Microsoft Generic IPMI Compliant Device**.

The R2 Hardware Management component and IPMI driver only supports PowerEdge systems with BMCs that support IPMI versions 1.5 and later. PowerEdge systems with BMCs that support IPMI version 1.0 are not supported by R2 IPMI driver. These systems can continue to use the Dell OpenManage IPMI driver.

Table 1-4 provides the support matrix for the R2 IPMI driver and the Dell OpenManage IPMI driver on PowerEdge systems.

Table 1-4. Support Matrix for the R2 IPMI and Dell OpenManage IPMI Driver

PowerEdge System	R2 IPMI Driver Support	Dell OpenManage IPMI Driver Support
830	Yes	Yes
840	Yes	Yes
850	Yes	Yes
860	Yes	Yes
1800	Yes	Yes
1850	Yes	Yes
1855	Yes	Yes
1900	Yes	Yes
1950	Yes	Yes
1955	Yes	Yes
2800	Yes	Yes
2850	Yes	Yes
2900	Yes	Yes

Table 1-4. Support Matrix for the R2 IPMI and Dell OpenManage IPMI Driver (continued)

PowerEdge System	R2 IPMI Driver Support	Dell OpenManage IPMI Driver Support
2950	Yes	Yes
2970	Yes	Yes
6800	Yes	Yes
6850	Yes	Yes
6950	Yes	Yes
SC430	No	No
SC440	No	No
SC1420	No	No
SC1425	Yes	Yes
SC1430	No	No
SC1435	Yes	Yes

Windows Activation Requirements

Systems that are installed using the operating system media provided by Dell do not require Microsoft product activation.



NOTE: If you are not using the media provided by Dell, the need for activation is indicated by an **Activate Windows** window.



NOTE: For more information on re-installing your operating system, see the document *Microsoft Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2 for Dell PowerEdge Systems Installation and Setup Guide*.

Known Issues

This section contains known issues related to Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2 operating system.



NOTE: For information about other Windows Server 2003 R2 x64 issues, see *Microsoft Windows Server 2003 R2 Standard and Enterprise x64 Editions Important Information* at www.dell.com/ostechsheets.

- **Assigning static IP addresses to virtual bus driver network interfaces fails during an unattended installation of the operating system**

All the parameters that are specified in the **TcpipParams.AdapterX** section in the unattended file are restored to the default values after the operating system installation is complete. This issue occurs on all network cards that use the virtual bus driver model such as Broadcom® 5708.

The operating system tracks every device using the device node. The device node of the network cards are attached to the virtual bus and virtual bus device does not contain the Peripheral Component Interconnect (PCI) mapping data. Windows unattended installer uses the PCI mapping data to match devices with their proper settings. Since the virtual bus device of the network cards does not contain the PCI mapping data, the windows unattended installer does not detect the network card.

To work around this issue, use the Media Access Control (MAC) address in the **TcpipParams.AdapterX** section of the unattended file. Download the latest network drivers from the Dell Support website at support.dell.com. For more information, see *Best Practices for Installation of Microsoft Windows on Dell Servers with Broadcom NetXtreme Devices* on the Dell Support website at support.dell.com.

- **The storage backplane appears as a yellow bang in Device Manager**

This issue occurs when you install the Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2 operating system on certain storage backplanes. The backplane **.inf** file, which is a part of the operating system may not have an entry for the latest server backplane.

To work around this issue, download the latest **.inf** file from the Dell Support website at support.dell.com. This issue does not occur if the operating system is either factory-installed or Dell OpenManage Server Assistant-installed because the latest **.inf** file is included during the installation process.

- **Windows Deployment Services (WDS) installation of an x64 operating system on an x64-based client computer fails to start**

If you install an x64 operating system on a x64-based client system from a Windows Server 2003- based system running WDS, the following error messages may appear:

```
PXE-T01: File not Found
```

```
PXE-E3B: TFTP Error - File not Found
```

This issue occurs because the client computer reports an incorrect architecture to the WDS.

To work around this issue, use the **Wdsutil.exe** command line tool to enable architecture detection in the WDS. Type the following command at the command prompt on the server:

```
wdsutil /set-server /architecturediscovery:yes
```

For more information, see the Microsoft Knowledge Base articles 932447 and 222177 on the Microsoft Support website at support.microsoft.com.

- **IPMI Driver appears as a yellow bang in Device Manager.**

If the R2 IPMI driver is manually installed on a system that is not configured with BMC, the driver appears in **Device Manager** with a yellow bang and a message stating that the driver could not start.

This is the expected behavior since the driver is unable to communicate with BMC.

To fix this issue, do not install the IPMI driver on systems with unsupported or missing BMC.

- **Enabling Microsoft Clustering Services (MSCS) on a system running Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2.**

To enable MSCS on a system running Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2, MSCS must be configured before installing the R2 additional components. If additional R2 components are installed on your system, uninstall these components, configure MSCS, and then reinstall the R2 components. This procedure ensures that the R2 components will function properly in a cluster environment.

- **Compatibility issues with third party HyperTerminal**

Compatibility issues exist between Windows Server 2003 R2, Standard and Enterprise x64 Editions With SP2 and certain terminal emulation programs such as Hilgraeve HyperTerminal v6.3. It is not possible to establish a serial connection between the two systems.

- **Onboard SATA controller on the PowerEdge systems that have ICH5R or ICH6R as the Intel I/O Controller Hub (South bridge) are displayed as Ultra ATA controllers.**

Microsoft uses the IDE port driver (**atapi.sys**) for the onboard SATA controller. The device description section of **.inf** file that belongs to the port driver is not updated for SATA controller. This issue causes the on-board SATA controller on the PowerEdge systems to be displayed as either Ultra ATA storage controller -24D1 or Ultra ATA storage controller-2652.

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