Microsoft® Windows Server® 2003 R2,
Standard, Enterprise, and Web Editions
With SP2 (32-Bit, x86) for
Dell™ PowerEdge™ Systems

Important Information

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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.

Contents

This document provides important information about Microsoft® Windows Server® 2003 R2, Standard, Enterprise, and Web x86 Edition with SP2 operating systems.

The following topics are discussed in this document:

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

- Adding Trusted Sites to Your Browser

- Hardware Management Component in Windows Server 2003 R2, Standard and Enterprise x86 Editions With SP2

- Windows Activation Requirements

- Known Issues

NOTICE: To prevent the possibility of viruses infecting your system, Dell™ recommends 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 SP2 on the supported Dell PowerEdge™ systems. Dell strongly recommends 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 1-1provides a list of the PowerEdge systems that support SP2 and the minimum supported versions of the BIOS and Baseboard Management Controller (BMC) firmware.

Table 1-2 lists the minimum supported versions of the system firmware and driver for the supported Redundant Array of Independent disks (RAID) controllers. 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 find them on the *Dell PowerEdge Services and Diagnostic Utilities* media that shipped with your Dell system.

If your system is not listed in either Table 1-1 or Table 1-2, see your system documentation to determine whether SP2 is a supported operating system.

Table 1-3 lists the minimum BIOS requirements for Execute Disable (XD) and Enhanced Intel® SpeedStep® Technology (EIST) support. PowerEdge systems with Intel EM64T technology support the following features in 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.

DEP and System Balanced Processor Power and Performance are features available in SP2 that require hardware support.

Table 1-1. Minimum Supported BIOS/BMC Versions

PowerEdge System	Supported BIOS/BMC Version
Recent Releases	
800	A03/A06 or later
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
1855MC	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

Table 1-1.   Minimum Supported BIOS/BMC Versions *(continued)*

PowerEdge System	Supported BIOS/BMC Version
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
SC420	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	1.0.0/A03 or later
Earlier Systems	
300	A03 or later
350	A09 or later
400SC	A10 or later
500SC	A07 or later
600SC	A09 or later
650	A05 or later
700	A06 or later
750	A06 or later
1300	A12 or later
1400	A09 or later
1500SC	A06 or later
1550	A09 or later
1600SC	A12 or later
1650	A11 or later

Table 1-1. Minimum Supported BIOS/BMC Versions *(continued)*

PowerEdge System	Supported BIOS/BMC Version
1655MC	A03 or later
1750	A12 or later
2300	A15 or later
2400	A09 or later
2450	A09 or later
2500	A07 or later
2550	A09 or later
2600	A14 or later
2650	A21 or later
4300	A12 or later
4350	A06 or later
4400	A11 or later
4600	A13 or later
6300	A13 or later
6350	A13 or later
6400	A14 or later
6450	A14 or later
6600	A17 or later
6650	A17 or later
8450	A06 or later

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

Product and Supported Platforms	Supported Firmware Version	Supported Driver Version
Serial Attached SCSI (SAS) 5/E	00.10.49.00.06.12.02.00 or later	1.24.04.00 or later
SAS 5/i	00.10.49.00.06.12.02.00 or later	1.24.04.00 or later
SAS 5/iR on PowerEdge 840, 860, 1900, 2900, 2970, 6950, SC440, SC1430, SC1435	00.10.49.00.06.12.02.00 or later	1.24.04.00
SAS 5/iR on PowerEdge 1955	00.10.49.00.06.12.02.00 or later	1.24.04.00
PowerEdge expandable RAID controller (PERC) 5/E Adapter on PowerEdge 1950, 2900, and 2950	5.1.1-0040 or later	2.8.0.32 or later
PERC 5/i Integrated on PowerEdge 1950, 2900, and 2950	5.1.1-0040 or later	2.8.0.32 or later
PERC 4e/DC	522A or later	6.46.2.32
PERC 4e/Si (PE1850)	522A or later	6.46.2.32 or later
PERC 4e/Di	522A or later	6.46.2.32 or later
PERC 4e/DC	522A or later	6.46.2.32 or later
PERC 4/SC and PERC 4/DC	352B or later	6.46.2.32 or later
PERC 4/Di on PE 1750	422A or later	6.46.2.32 or later
PERC 4/Di on PE 2600	252A or later	6.46.2.32 or later
PERC 4/im on PE1655MC	1.00.12 or later	1.09.11 or later
PERC 4/im on PE1855MC	1.03.23 or later	1.09.11 or later
PERC 3/SC, PERC 3/DC, PERC 3/DCL, and PERC 3/QC	199A or later	6.46.2.32 or later
PERC 3/Di and PERC 3/Si	2.8.1.6098 or later	2.8.0.6085 or later
PERC 2	2.8.1.6099 or later	2.8.0.6085 or later

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

Product and Supported Platforms	Supported Firmware Version	Supported Driver Version
PERC 2/Si (PE2400)	2.8.1.6098 or later	2.8.0.6085 or later
PERC 2/SC	3.13 or later	6.46.2.32 or later
PERC 2/DC on PE 2300, 4300, and 6300	1.06 or later	6.46.2.32 or later
PERC 2/DC on PE 2400, 4400, and 6400	1.06 or later	6.46.2.32 or later
PERC 320/DC	5813 or later	5810 or later
Adaptec U320 SCSI RAID 0 or 1	4.30.4S5 or later	2.0.38.0 or later
Adaptec 39160	3.10 or later	6.4.630.100 or later
Adaptec 39320/39320A	4.30.1 or later	3.0.0.0 or later
1020/1030 embedded	1.03.23 or later	1.09.11 or later
Cost Effective Raid Controller (CERC) SATA 2s	N/A	6.0.50.5 or later
CERC SATA 1.5/6CH	4.1.0.7417 or later	4.1.1.7040 or later
CERC ATA 100/4CH	6.67	6.46.2.32 or later

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

Table 1-3 lists the minimum BIOS requirements for Execute Disable (XD) and EIST support.

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

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
2950	1.2.0	1.2.0
6800	A04	A04
6850	A04	A04
SC430	A04	A04
SC440	1.2.0	1.2.0
SC1420	A04	EIST not supported
SC1425	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

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**→ **Sites**.

The **Trusted sites** window appears.

4 In the **Add this Web site to the zone:** field, type the address of the site, and then click **Add**.

The site appears in the **Web sites:** box.

5 Repeat step 4 to add any additional sites and then click **Close**.

The **Internet Options** window appears.

6 Click **OK**.

Hardware Management Component in Windows Server 2003 R2, Standard and Enterprise x86 Editions With SP2

NOTE: The hardware management component is not available in Windows Server 2003, Web x86 Edition with SP2 operating system.

Windows Server 2003 R2, Standard and Enterprise x86 Editions With SP2 contain an optional component called Hardware Management that consists of a set of features designed to improve management of the system hardware.

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**.

For detailed instructions on installing the additional R2 components, see the *Microsoft Windows Server 2003 R2, Standard, Enterprise, and Web x86 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, Dell recommended that you uninstall all third-party Intelligent Platform Management Interface (IPMI) drivers.

![NOTE icon] **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, Dell strongly recommends 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 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 Device**s under the entry **Microsoft Generic IPMI Compliant Device**.

For more information about the impact of the R2 IPMI driver on the Dell OpenManage suite and possible limitations of Dell OpenManage, see the Dell Support website at **support.dell.com.**

The Windows Server 2003 R2, Standard and Enterprise x86 Editions With SP2 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 Windows Server 2003 R2, Standard and Enterprise x86 Editions With SP2 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 Drivers**

PowerEdge System	R2 IPMI Driver Support	Dell OpenManage IPMI Driver Support
Recent Releases		
800	Yes	Yes
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
2950	Yes	Yes
2970	Yes	Yes
6800	Yes	Yes
6850	Yes	Yes
6950	Yes	Yes
SC420	No	No
SC430	No	No
SC440	No	No

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

PowerEdge System	R2 IPMI Driver Support	Dell OpenManage IPMI Driver Support
SC1420	No	No
SC1425	Yes	Yes
SC1430	No	No
SC1435	Yes	Yes
Earlier Releases		
300	No	No
350	No	No
400SC	No	No
500SC	No	No
600SC	No	No
650	No	Yes (with Dell remote assistant card [DRAC] installed)
700	No	Yes (with DRAC installed)
750	No	Yes (with DRAC installed)
1300	No	No
1400	No	No
1500SC	No	Yes
1550	No	Yes
1600SC	No	Yes (with DRAC installed)
1650	No	Yes
1655MC	No	No
1750	No	Yes
2300	No	Yes
2400	No	Yes
2450	No	Yes
2500	No	Yes

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

PowerEdge System	R2 IPMI Driver Support	Dell OpenManage IPMI Driver Support
2550	No	Yes
2600	No	Yes
2650	No	Yes
4300	No	Yes
4350	No	Yes
4400	No	Yes
4600	No	Yes
6300	No	Yes
6350	No	Yes
6400	No	Yes
6450	No	Yes
6600	No	Yes
6650	No	Yes
8450	No	Yes

Windows Activation Requirements

Systems that are installed using the operating system media provided by Dell do not require the Product ID (PID) during installation or the 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.

For more information on re-installing your operating system, see the *Microsoft Windows Server 2003 R2, Standard, Enterprise, and Web x86 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, Enterprise, and Web x86 Editions with SP2 operating system.

- **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 nodes of the network cards are attached to the virtual bus, which does not contain the Peripheral Component Interconnect (PCI) mapping data. Windows unattended installer is unable to detect the network cards since it uses the PCI mapping data to match devices with their settings.

  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, Enterprise, and Web x86 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 and install the latest inf file from the Dell Support website at **support.dell.com**. This issue does not occur if the operating system is factory-installed or Dell OpenManage Server Assistant-installed on the system as the latest inf file is included during the installation process.

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

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

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

  ```
  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. To do this, 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 the **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 R2 system.**

  To enable MSCS on an R2 system, 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, Enterprise, and Web x86 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 Intel I/O Controller Hub (south bridge) are shown as Ultra ATA controllers.**

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

- **User interface components display text in English after the Multilanguage User Interface (MUI) is installed.**

  User interface components like lists, menus, dialog boxes, help, and other locations in the Microsoft Management Console 3.0, Windows Deployment Services, and Microsoft File Server Manager display text in English though the MUI is installed.
  For information about customizing the user interface components and downloading the MUI update package, see the Microsoft KB article 925148 located on the Microsoft Support website at **support.microsoft.com**.

- **The MUI installation fails when you try to change the language setting using the MUI media the second time.**

  When you install the MUI media contents, the MUI package is installed using **MUISetup.exe**. If you try to install the MUI package again using the **MUISetup.exe**, the Windows MUI application does not launch. This issue occurs because the **MUISetup.exe** checks the **%windir%\mui** folder to see if the binaries match, but this folder is replaced by a newer version of the file by system file protection mechanism. Due to this difference in binaries, the MUI window fails to launch.

To change the current language setting, run the following command from the command prompt

```
muisetup.exe /i <language ID>
```

To remove the current language setting, run the following command from the command prompt

```
muisetup.exe /u <language ID>
```

✎ **NOTE:** You can find the list of language IDs in the help file.

For information about the issues in other versions of Windows Server 2003 R2 With SP2, see the corresponding Important Information document located on the Dell documentation website at **www.dell.com\ostechsheets**.

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