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## DELL(TM) UPDATE PACKAGES README FOR MICROSOFT(R) WINDOWS(R)

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Version 6.2

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This Readme contains updated information for your "Dell Update Packages for Microsoft Windows Operating Systems User's Guide" and any other technical documentation included with the Dell Update Packages for Windows operating systems.

Dell Update Packages offer ease and flexibility for updating the system software on Dell PowerEdge(TM) systems. Update Packages are available for the following software components:

- \* System BIOS
- \* System firmware, also known as the Embedded Systems Management (ESM) firmware
- \* Dell Embedded Open Manage(TM) Server Administrator for ESXi Server version 4.0
- \* Dell Remote Access Controller (DRAC) firmware, which also includes Embedded Remote Access (ERA) firmware
- \* PowerEdge Expandable RAID Controller (PERC) firmware and driver
- \* Cost-Effective RAID Controller (CERC) firmware and driver
- \* Software RAID Controller firmware and driver
- \* Dell PowerVault(TM) 220S/221S firmware
- \* IDE Controller drivers
- \* Baseboard Management Controller (BMC) firmware
- \* SCSI Backplane (BP) firmware
- \* SAS BP firmware
- \* SAS Expander firmware
- \* SSD firmware
- \* SED firmware
- \* SAS HDD firmware
- \* SATA HDD firmware

- \* PowerVault 100T firmware
- \* PowerVault 110T firmware
- \* PowerVault MD1000 firmware
- \* PowerVault MD1120 firmware
- \* PowerVault MD1200 firmware
- \* PowerVault MD1220 firmware
- \* PowerVault RD1000 firmware
- \* Broadcom Network Adapter driver
- \* Intel(R) Network Adapter driver
- \* Power Supply firmware

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**CONTENTS**  
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- \* CRITICALITY
- \* MINIMUM REQUIREMENTS
- \* UPDATE PACKAGES: SUPPORTED COMPONENTS
- \* KNOWN ISSUES

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**CRITICALITY**  
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2 - Recommended  
 It is recommended that you apply 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).

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**MINIMUM REQUIREMENTS**  
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The Update Packages support Dell systems running the following Windows operating systems:

- \* Microsoft Windows Small Business Server 2003 R2 Standard and Premium

Editions with SP1 and SP2

- \* Microsoft Windows Small Business Server 2008 Standard and Premium Editions
- \* Microsoft Windows Server® 2003 Web, Standard, and Enterprise Editions with SP2 (32-bit x86)
- \* Microsoft Windows Server 2003 Standard, Enterprise, and Datacenter (x64) Editions with SP2
- \* Microsoft Windows Server 2003 R2 Standard and Enterprise (x86) Gold Editions with SP2
- \* Microsoft Windows Server 2003 R2 Standard and Enterprise (x64) Gold Editions with SP2
- \* Microsoft Windows Storage Server 2003 R2 Express, Workgroup, Standard, and Enterprise x64 Editions
- \* Microsoft Windows Server 2003 Compute Cluster Edition
- \* Microsoft Windows Server 2003 HPC Edition
- \* Microsoft Windows Server 2008 Web, Standard, and Enterprise (32-bit x86) Editions
- \* Microsoft Windows Server 2008 Standard, Enterprise, and Datacenter (x64) Gold Editions
- \* Microsoft Windows Server 2008 Core Standard and Enterprise (32-bit x86) Editions
- \* Microsoft Windows Server 2008 R2 Web, Standard, and Enterprise (32-bit x86) Editions with SP2
- \* Microsoft Windows Server 2008 R2 Standard, Enterprise, and Datacenter (x64) Gold Editions with SP2
- \* Microsoft Windows Server 2008 R2 Standard, Enterprise, Datacenter and Web (x64) Editions with SP2
- \* Microsoft Windows Server 2008 Foundation
- \* Microsoft Windows Server 2008 Core Standard, Enterprise, and Datacenter (x64) Gold Editions
- \* Microsoft Hyper-V™ and Windows Server® 2008 with Hyper-V role
- \* Microsoft Hyper-V™ R2 and Windows Server® 2008 with Hyper-V role R2

NOTE: For the latest information about the various Dell systems and operating systems that Dell Update Packages are supported on, see the "Dell Systems Software Support Matrix" on the Dell Support

website at "www.support.dell.com/manuals".

NOTE: Update Packages may also be applied in a pre-operating system environment that uses the Embedded Linux (ELI) through the Dell OpenManage(TM) Deployment Toolkit (DTK).

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UPDATE PACKAGES: SUPPORTED COMPONENTS  
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Update Packages currently do not support every system component type. Dell will continue to make Update Packages available on additional devices in future releases.

This release of Update Packages supports updates to the devices listed in the following table.

Component Type	Supported Components
BIOS	BIOS
ESM firmware	ESM3, ESM4
Dell Embedded Open Manage Server Administrator	USB Flash with installed ESXi 4.0
DRAC firmware	DRAC 4, DRAC 5, iDRAC6
RAID firmware	PERC 4/Di, PERC 4e/Di, PERC 4e/DC, PERC 4e/Si, PERC 4/DC, PERC 4/SC, PERC H200 Integrated, PERC H200 Adapter, PERC H700 Integrated, PERC H700 Adapter, PERC H800 Adapter, PERC S300 Adapter, CERC/SATA 6 channel, PERC 5/E, PERC 5/i, SAS 5/i, SAS 5/iR Adapter, SAS 5/E, SAS 6/E, SAS 5/iR, SAS 6/iR, SAS 6/iR Adapter, PERC 6/E, PERC 6/i, PERC 6/i Adapter, CERC 6/i
RAID drivers	PERC 4e/Si, PERC 4e/Di, PERC 4/DC, PERC 4/im, PERC 4/SC, PERC 4e/DC, PERC 4/DI, PERC H200 Integrated, PERC H200 Adapter, PERC H700 Integrated, PERC H700 Adapter, PERC H800 Adapter, PERC S300 Adapter, CERC/SATA 6 channel, PERC 5/E, PERC 5/i, PERC S100, SAS 5/E, SAS 5/iR, SAS 5/i, SAS 5/iR Adapter, SAS 5/E, SAS 6/E, SAS 5/iR, SAS 6/iR, SAS 6/iR Adapter, PERC 6/E, PERC 6/i, PERC 6/i Adapter, CERC6/i
IDE controllers	CERC ATA 100 (firmware and drivers) and SI680A drivers, CERC/SATA 2S, CERC SATA 6ch
BMC firmware	BMC

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SCSI BP firmware      BP  
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SAS BP                      BP  
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Storage enclosure      PowerVault 220S/221S, PowerVault MD1000,  
                            PowerVault MD1120, PowerVault MD1200,  
                            PowerVault MD1220, PowerVault MD3000  
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Tape drives firmware    PowerVault PV100T DDS4,  
                            PowerVault PV110T DAT72,  
                            PowerVault PV110T LTO1,  
                            PowerVault PV110T LTO2,  
                            PowerVault PV110T LTO2-L,  
                            PowerVault PV110T LTO3,  
                            PowerVault PV110T LTO3-HH,  
                            PowerVault PV110T LTO4,  
                            PowerVault PV110T SDLT320,  
                            PowerVault PV110T DLT VS80,  
                            PowerVault PV110T DLT VS160,  
                            PowerVault PV110T SDLT  
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Removable disk drive    PowerVault RD1000  
backup firmware  
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Network adapter driver    Broadcom NetXtreme family of adapters  
                            Broadcom NetXtreme II family of adapters  
                            Intel PRO PCI-E Gigabit family of adapters  
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KNOWN ISSUES  
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For all Dell Update Packages  
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\* Do not run other applications while executing Dell Update Packages.

\* For firmware Dell Update Packages, an update package will not inventory the device if only a native non-Dell driver is installed. Therefore, firmware update packages cannot upgrade a device with a native driver.

\* For driver Dell Update Packages, an update package can inventory the device, but will not upgrade the driver if the native driver is at a higher version than the Dell driver being installed.

\* On some servers running Windows 2000, the digital signature information of signed Dell Update Packages displays the message "The certificate is not valid for requested usage."

Root Cause:

The message is caused by an out-of-date root certificate on the server.

Solution:

To update the root certificate:

- 1) Enable Windows Update.
- 2) Access "www.update.microsoft.com" in a Web browser.
- 3) Select "Custom" to perform a scan of your machine for updates.  
After the scan completes, it will list all available updates.
- 4) Select the "Software, Optional" category.
- 5) Look for "Root Certificates Update", and select it. Your root certificates will be updated.
- 6) After your root certificates are updated, check the digital signature information of your Dell Update Packages again. The information should now indicate that the digital signature is valid.

See the following Website for reference:

"<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnsecure/html/rootcertprog.asp>"

- \* If you encounter the message, "This Update Package is not compatible with any of the devices detected on your system", for a supported device, ensure that you have the latest Dell drivers for your system from the Dell Support website at "www.support.dell.com."
- \* If you are using Windows BitLocker(TM) on Windows Server 2008, wait for BitLocker to finish encrypting the drive before executing Dell Update Packages.
- \* The DUP update process involves several resets to the USB bus which cause all USB devices to be enumerated again by the Operating System. If you insert the USB device for the first time and if you are prompted with the "Scan and Fix" process, select it to avoid multiple "Scan and Fix" messages each time the USB bus reset happens.

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Unified Server Configurator (USC) Dell Update Packages (DUPs)  
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- \* For the first time, before you attempt to run Driver Package Diagnostics DUPs, execute the USC DUP.
- \* If the operating system is installed from "Operating System Deployment", select "Reboot and Exit" in the USC environment before booting to the operating system. This closes the USC session which is held for 18 hours. If you do not want to enter the USC and select "Reboot and Exit", but want to execute the DUPs within 18 hours, unplug the power supply of the system, wait for 10 seconds, and then power on the system.

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## BIOS

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\* A BIOS update requires enough free physical memory to load the entire BIOS image into the physical memory. If there is insufficient free physical memory available on the system to load the BIOS image, the Dell Update Package for BIOS may fail. In this instance, the BIOS can be updated using the diskette method, by running the Dell Update Package after adding more memory, or by running the Dell Update Package immediately after a reboot.

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## Dell Embedded Open Manage Server Administrator

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The Dell Update Package for Dell Embedded Open Manage Server Administrator can only be applied in a pre-operating system environment that uses the Embedded Linux (ELI) through the Dell OpenManage(TM) Deployment Toolkit (DTK).

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## BMC firmware and BP firmware

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\* When upgrading the BMC/ESM firmware or the BP firmware on PowerEdge x8xx or x9xx servers with the Windows Server 2003 R2 IPMI driver installed, the update may take up to 20 minutes to complete.

To expedite such updates on PowerEdge x8xx or x9xx servers, you can uninstall the R2 IPMI driver before performing the firmware upgrade operation using the command "rundll32 ipmissetp.dll, RemoveTheDevice" from a command prompt.

After the firmware flash is complete, you can install the driver again by executing the command "rundll32 ipmissetp.dll, AddTheDevice". On PowerEdge x9xx servers, the driver can be re-installed by performing a "Scan for hardware changes" in the Device Manager.

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## BMC firmware

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\* When upgrading the BMC/ESM firmware on PowerEdge x8xx or x9xx servers with the Windows Server 2003 R2 IPMI driver installed, multiple time-out warning messages from source "IPMIDRV" with Event ID 1004 are logged in the System Log in the Event Viewer console.

These messages can be safely ignored. However, to prevent the messages from being logged, you can uninstall the R2 IPMI driver before performing the firmware upgrade operation using the command

"rundll32 ipmissetp.dll, RemoveTheDevice" from a command prompt.

After the firmware flash is complete, you can install the driver again by executing the command "rundll32 ipmissetp.dll, AddTheDevice". On PowerEdge x9xx servers, the driver can be re-installed by performing a "Scan for hardware changes" in the Device Manager.

For more information on this issue, including its cause, see the Microsoft KB article number 912596.

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## 11G iDRAC

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\* When upgrading the iDRAC firmware for the first time on a server with Windows operating system, the following message might be displayed: "Windows has finished installing new devices. The software that supports your device requires that you restart your computer. You must restart your computer before the new settings will take effect. Do you want to restart your computer now?"

Select "No" to ignore this message. This message is due to the creation of a temporary USB device used for storing the firmware image. If you select "Yes", the firmware update process stops.

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## DRAC 5 firmware

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\* Before updating the DRAC firmware, ensure that the following conditions are met:

- USB is enabled
- IPMI is working properly
- DRAC Virtual Flash is not in use by the operating system or another application
- WMI service is running

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## Power Supply Unit firmware

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\* Power Supply Unit firmware updates can be performed only on Life Cycle Controller enabled systems.

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## All PERC firmware and all SAS firmware (All storage controller firmware)

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\* Do not run storage controller update packages if the controller is in use by other applications.

The firmware upgrade may fail if any of the RAID controllers in the



system are performing an I/O background task (consistency check, background initialization, rebuild, or reconstruction). Allow the background task to complete before attempting to upgrade the firmware. "Patrol Read" tasks will not affect a firmware upgrade.

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#### PERC 4 firmware

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- \* Firmware updates require a reboot to take effect.
- \* If a PERC update package fails on a Windows 2000 system, ensure that the version of your installed PERC driver is 5.35.2 or higher. You can obtain the latest PERC driver update package from the Dell Support website at "[www.support.dell.com](http://www.support.dell.com)."

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#### PowerVault 220S/221S firmware and PowerVault MD1000 firmware

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- \* The PowerVault update procedure requires the RAID controller to be in a known good state. If a problem occurs with the RAID controller during the update procedure, the Update Packages cannot communicate with the PowerVault system, inventory its firmware version, or perform the update. (138462)

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#### PowerVault 220S/221S firmware

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- \* Stop all input/output to the PowerVault 220S/221S before running the PowerVault 220S/221S firmware update package.
- \* Before performing the update on the PowerVault 220S/221S enclosure, note that the PowerVault 220S/221S firmware update packages will stop the Dell OpenManage(TM) Array Manager and the Dell OpenManage Server Administrator Storage Management Service applications if they are running. The cancellation prevents these services from sending SCSI commands to the PowerVault 220S/221S systems during the firmware update. After the update is performed, these services are restored to their original status before running the package.
- \* When both cluster nodes are in active mode, the PowerVault 220S/221S firmware download is not supported and may cause unknown effects. The PowerVault 220S/221S firmware update should be run only from the active node of an Active/Passive cluster.
- \* If the PowerVault 220S/221S firmware update is interrupted before successful completion, it will show the PowerVault 220S/221S kernel version as a PowerVault 220S/221S firmware version the next time the PowerVault 220S/221S firmware update package is run.

\* The PowerVault 220S/221S firmware update package only inventories the primary Enclosure Management Module (EMM) in the enclosure. The update package may warn that no update is required if the primary EMM is at the current update package version but the secondary EMM is an earlier version and the PowerVault 220S/221S is in cluster or joined modes. Split mode only updates the primary EMM. Using the PowerVault 220S/221S firmware update package to upgrade to the same current version, will update all EMMs in the PowerVault 220S/221S.

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#### PowerVault MD1000 firmware

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\* Stop all input/output to the PowerVault MD1000 before running the PowerVault MD1000 firmware update package.

\* **WARNING: THE SERVER MUST BE REBOOTED AFTER UPDATING THE FIRMWARE ON MD1000 ENCLOSURES IN ORDER TO MAINTAIN ENCLOSURE MANAGEMENT. ACCESS TO THE ENCLOSURES WILL BE LOST IF THE SERVER IS NOT REBOOTED.**

\* When prompted for reboot after the update, select "Yes".

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#### PowerVault PV100T DDS4 firmware and all PowerVault PV110T firmware (PV110T DDS4, PV110T DAT72, PV110T LTO1, PV110T LTO2, PV110T LTO2-L, PV110T LTO3-HH, PV110T LTO4, PV110T SDLT320, PV110T LTO3, PV110T DLT VS80, PV110T DLT VS160, and PV110T SDLT)

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\* Before executing the firmware update, stop all tape backup activity and put all scheduled jobs on hold.

\* After the firmware update is completed, restart your system for the updates to take effect.

\* Tape automation devices are not supported by Dell Update Packages. Please disconnect or power off such devices before executing Dell Update Packages.

The tape automation devices are as follows:

1. PowerVault PV120T
2. PowerVault PV122T
3. PowerVault PV124T
4. PowerVault PV128T
5. PowerVault PV130T
6. PowerVault PV132T
7. PowerVault PV136T
8. PowerVault PV160T
9. PowerVault ML6000

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#### Storage Controller Drivers

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Not all storage controller drivers support the fresh install feature.  
The older driver packages that do not support this feature are listed here:

Dell PERC 4/IM, v.1.8.6, A00 ; A00 ; DRVR-R47682.exe

Dell PERC 4/IM, v.1.9.11.0, A00 ; A00 ; RAID-DRVR-R87058.exe

Dell PERC 4/IM, v.1.9.11.0, A02 ; A02 ; RAID-DRVR-R87059.exe

Adaptec U320 SCSI RAID 0 or 1, v.2.0.0.3 ; A00 ; RAID\_DRVR\_WIN\_R98040.EXE

LSI Logic PERC 4/SC, PERC 4/DC, PERC 4e/ ; A01 ; RAID\_DRVR\_WIN\_R100373.EXE

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SATA HDD firmware  
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\* The Windows DUP for SATA HDD fails, if the drives are attached to a H200 controller.

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