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# MAINTAINING DELL PLATFORMS WITH DELL TECHNICAL UPDATES

Dell periodically releases updates for its servers, storage, and other enterprise platforms. These updates are classified as urgent, recommended, or optional depending on the enhancements they provide. Dell recommends customers keep their system firmware and software up-to-date to take advantage of these enhancements, which are designed to improve system functionality and minimize potential problems. The following tables summarize recent firmware updates for Dell™ PowerEdge™ components and Dell PowerVault™ storage. To sign up for Dell Technical Updates, visit [support.dell.com/support/notifications/technicalupdates.aspx](http://support.dell.com/support/notifications/technicalupdates.aspx).

## Firmware updates for Dell PowerEdge Expandable RAID Controllers (PERCs) and Serial Attached SCSI (SAS) controllers

Product	PERC 3	PERC 4/DC, PERC 4/SC	PERC 4e/DC, PERC 4e/Di, PERC 4e/Si	PERC 4/Di	PERC 5/i Adapter, PERC 5/i Integrated, PERC 5/E Adapter	SAS 5/iR Adapter, SAS 5/iR Integrated, SAS 5/i Integrated, SAS 5/E Adapter
<b>Firmware version</b>	199D	352D	5A2D	422D, 252D <sup>a</sup>	5.2.1-0067, 5.2.1-0066	00.10.51.00.06.12.05.00
<b>Firmware release date</b>	July 17, 2007	July 18, 2007	October 25, 2007	July 17, 2007	November 20, 2007	November 20, 2007
<b>Criticality</b>	Urgent	Recommended	Recommended	Recommended	Recommended	Recommended
<b>Enhancement</b>	Fixes system lockup and controller hang problem caused by single-bit/multi-bit errors in some configurations	■	■	■		
	Addresses problem that may occur if a drive fails within seconds after another drive completes a rebuild	■	■	■	■	
	Fixes problem in PERCs causing VMFS volumes to disappear in VMware® ESX Server environments		■	■	■	
	Fixes Ctrl+R display issue caused by DRAM initialization when BBU History is enabled					■
	Fixes problem causing hot spare to go offline during multiple virtual drive initialization					■
	Fixes problem in PERCs that allowed RAID-6 volume created on PERC 6 to import					■
	Modifies firmware to fail import of RAID-6 volumes created on a PERC 6, because the PERC 5 does not support RAID-6					■
	Addresses restriction during 128 KB stripe size RAID volume creation using Ctrl+R					■
	Enhances capabilities to provide notification of hard drive failure through server backplane LEDs					■
Improves handling of sense key/code/qualifier (SKQ) 02/04/11 data in firmware					■	

<sup>a</sup> Firmware version 422D applies to PowerEdge 1750 servers, and 252D applies to PowerEdge 2600 servers.

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**Firmware updates for Dell PERCs and SAS controllers (continued)**

Product	PERC 3	PERC 4/DC, PERC 4/SC	PERC 4e/DC, PERC 4e/Di, PERC 4e/Si	PERC 4/Di	PERC 5/i Adapter, PERC 5/i Integrated, PERC 5/E Adapter	SAS 5/iR Adapter, SAS 5/iR Integrated, SAS 5/i Integrated, SAS 5/E Adapter
<b>Firmware version</b>	199D	352D	5A2D	422D, 252D <sup>a</sup>	5.2.1-0067, 5.2.1-0066	00.10.51.00.06.12.05.00
<b>Firmware release date</b>	July 17, 2007	July 18, 2007	October 25, 2007	July 17, 2007	November 20, 2007	November 20, 2007
<b>Criticality</b>	Urgent	Recommended	Recommended	Recommended	Recommended	Recommended
<b>Enhancement</b>	Enhances handling of backplane storage enclosure processor (SEP) reset after firmware download				■	
	Improves handling of PERC 5 and PERC 6 coexistence				■	
	Fixes issue with write cache bit settings being incorrectly toggled, causing warnings in database environments				■	
	Addresses problem that may occur if a drive fails in a virtual disk within seconds after another drive completes a rebuild				■	
	Fixes issues related to handling drive failures during RAID-level migration or online capacity expansion				■	
	Modifies PERC option ROM to improve cylinder/head/sector (CHS) to logical block address (LBA) translation, to add support for updated disk partition utilities					■
	Addresses spin-up issue for high-capacity Serial ATA (SATA) drives				■	
	Fixes issue causing errors during cable disconnect when connected to a PowerVault MD3000 enclosure					■
	Addresses issue causing interrupt warnings during OS installations					■
	Fixes issue with rebuild progress reporting in an OS environment					■
	Improves tape performance of SAS 5/E adapter with external SAS tape units					■
	Disables BIOS option to change the report-device-missing delay, which could potentially cause timing- and performance-related issues with attached devices when toggled					■
	Modifies Webpack script for SAS 5 cards to provide compatibility with other sixth-generation SAS controllers					■
Modifies SAS 5 option ROM to improve CHS to LBA translation, to add support for updated disk partition utilities					■	

<sup>a</sup> Firmware version 422D applies to PowerEdge 1750 servers, and 252D applies to PowerEdge 2600 servers.

Firmware updates for Dell PowerVault direct attach storage and hard disk drives							
Product	PowerVault 220S		PowerVault MD3000 with PowerVault NX1950, SAS RAID controller	PowerVault MD3000	PowerVault MD3000i	PowerVault MD1000 controller card	Maxtor Atlas 10KV (Genesis)
<b>Firmware version</b>	E.18	E.19	6.70.15.60 (A03)	6.70.15.60 (A03)	6.70.15.60 (A02)	A.04, A04	BP005
<b>Firmware release date</b>	October 12, 2005	September 11, 2006	April 4, 2008	April 4, 2008	April 4, 2008	September 4, 2007	December 8, 2006
<b>Criticality</b>	Urgent	Recommended	Recommended	Recommended	Recommended	Urgent	Urgent
<b>Enhancement</b>	Reduces loss of storage access or communications	■					
	Minimizes SCSI resets, SCSI Enclosure Services time-outs, and MegaRAID (MRAID) errors	■					
	Improves SCSI parity		■				
	Supports expansion with PowerVault MD1000 storage enclosures			■ <sup>a</sup>			
	Supports Microsoft® Windows Server® 2008 OS				■	■	
	Fixes the time in the Lost Timer Errata report when a PowerVault MD1000 is connected behind a PowerVault MD3000 or PowerVault MD3000i						■
	Corrects an error report that occurs intermittently when a PowerVault MD1000 is used in split mode with two PERC 5/E controller						■
	Provides Self-Monitoring, Analysis, and Reporting Technology (SMART) and minimizes time-outs						
<p><sup>a</sup> This enhancement also requires that the PowerVault MD1000 controller card firmware be updated to version A.03, A03.</p>							

**Firmware updates for Dell PowerVault tape drives**

Product	PowerVault 110T LTO-2-L Certance	PowerVault 110T LTO-2	PowerVault 110T LTO-3	PowerVault 110T DLT VS160	PowerVault 100T DAT72	PowerVault 110T SDLT 320
<b>Firmware version</b>	1914, A00	53Y3, A04	5BG2, A01	3200, A13	A16E, A09	5D5D, A15
<b>Firmware release date</b>	December 18, 2006	April 17, 2006	April 18, 2006	November 20, 2006	November 16, 2005	April 10, 2006
<b>Criticality</b>	Urgent	Recommended	Recommended	Urgent	Recommended	Recommended
<b>Enhancement</b>	Improves load/unload operation	■	■	■	■	■
	Improves head cleaning	■			■	
	Improves error recovery	■	■	■	■	
	Reduces read/write errors	■	■	■	■	
	Reduces media failures	■	■	■	■	■
	Reduces eject/insert errors	■	■	■	■	■

**Firmware updates for Dell PowerVault tape autoloaders and libraries**

Product	PowerVault 122T LTO-2	PowerVault 124T LTO-2-L, LTO-3, and DLT VS160	PowerVault 132T, PowerVault 136T LTO-2	PowerVault 132T, PowerVault 136T SDLT 320
<b>Firmware version</b>	53Y3, A03	Loader V31	53Y3, A04	5D5D
<b>Firmware release date</b>	October 7, 2005	June 19, 2006	June 22, 2005	April 10, 2006
<b>Criticality</b>	Recommended	Recommended	Recommended	Recommended
<b>Enhancement</b>	Improves load/unload operation	■	■	■
	Improves head cleaning		■	
	Improves error recovery	■	■	■
	Reduces read/write errors	■	■	■
	Reduces media failures	■	■	■
	Reduces eject/insert errors	■	■	■
	Fixes move issues		■	■
	Fixes communication issues		■	■
	Fixes picker issues		■	■