PowerEdge RAID Controller H730P

Dell's high-performance, next-generation PowerEdge™ RAID Controller H730 brings a doubling of IOPs performance along with 12Gbps SAS support and enhanced options for managing and configuring storage.

As storage demands expand and processing loads grow, it becomes increasingly more difficult for administrators to achieve maximum performance from their applications. The newest line of PowerEdge RAID Controller (PERC) cards, built on the LSI SAS3108 dual-core PowerPC RAID-on-Chip (ROC), offer unmatched I/O performance for database applications and streaming digital media environments.

The PERC H730P, with eight internal ports, delivers two PowerPC processor cores and a 72-bit DDR3 interface that drives 2GB non-volatile cache memory. You can deploy the PERC H730P in hard-drive-based server environments for significant performance gains. If you are implementing hybrid server platforms based on solid-state storage, these next-generation PERCs exploit the potential of solid-state drives (SSDs) for unsurpassed performance and enterprise-class reliability.

Enterprise data protection

Standard support for the most popular RAID levels and accessories, including RAID 5, RAID 6, RAID 50, RAID 60 and NVCache, further strengthen the data-protection capabilities of the PERC H730P. Dell's NVCache technology backs up data to non-volatile memory in a power-loss event and can store it safely for a nearly unlimited period of time.

Intuitive RAID management

Managing the PERC H730P is easy with the integrated Dell Remote Access Controller 7 (iDRAC7) with Lifecycle Controller. Without having to deploy an agent, IT admins can configure, deploy, update, and monitor the PERC H730P, via the GUI or through Dell's CLI known as RACADM. With the release of iDRAC7 firmware 1.50.50 and beyond, you have the ability to perform storage operations through the Racadm interface. This includes RAID controllers as well as physical disks in the PowerEdge system and external enclosures.

- iDRAC will create jobs and automatically execute them for each storage configuration operation.

- Offers you the option to reboot the host OS automatically to complete jobs or wait and do it at a later, more convenient time.

- Supports real-time RAID monitoring and inventory of hardware RAID connected to the server.

iDRAC7 incorporates Dell OpenManage™ Storage Services, which provides essential tools to efficiently manage PERC products, whether deployed in an enterprise or small business. Dell offers a collection of applications and tools, including a pre-boot setup utility and a full spectrum of online RAID management utilities. This suite of applications allow admins to adjust SAS or SATA topology views from the system host, controller and disk enclosure down to the logical and physical drive level. Extending to enterprise deployments, these tools can scale to easily configure, monitor and manage RAID and JBOD volumes locally or over the LAN network.

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- 12Gbps SAS Support
- Doubling of IOPs performance capabilities
- Doubling of NV Cache from 1GB to 2GB

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Feature	PERC H730P technical specification	
Solution provided	8-port internal SATA+SAS solution supporting 3Gb/s and 6Gb/s SATA. 3Gb/s, 6Gb/s and 12Gb/s SAS hard disk drives (HDDs) and solid-state drives (SSDs)	
Physical dimensions	167.6 mm (6.6 in) x 64.4 mm (2.5 in)	
Connectors	2 internal HD mini-SAS SFF8643	
Device support	Up to 255 (SAS, SATA)	
Host bus type	8-lane, PCI Express 3.0 compliant	
Data transfer rates	Up to 12Gb/s per port	
SAS controller	LSI SAS3108 1.2Ghz PowerPC 476 Dual Core 12Gb/s ROC	
Cache memory	2GB 1866MT/s DDR3 SDRAM	
Key RAID & data protection features	• RAID levels 0, 1, 5, 6 • RAID spans 10, 50, 60 • Online Capacity Expansion (OCE) • Online RAID Level Migration (RLM) • Auto resume after power loss during array rebuild or reconstruction/RLM • Check Consistency for background data integrity • Physical disk power management (Dimmer-Switch™) • 4K native sector support • Workload profiles • Support for TRIM/UNMAP Commands for SAS/SATA SSDs • T10-DIF Support • NVRAM "Wipe" feature — protects proprietary data when card is decommissioned • End Device Frame Buffering (EDFB) — bandwidth optimizer technology support for compatible expander-based enclosures • SED drive support	• Load balancing • Fast initialization for quick array setup • Configurable stripe size up to 1MB • SSD support • Patrol read for media scanning and repairing • Up to 64 logical drive and 64TB LUN support • DDF compliant Configuration on Disk (COD) • S.M.A.R.T. support • Global and dedicated hot spare with revertible hot-spare support: automatic rebuild, enclosure affinity, emergency SATA • UEFI (HII)
RAID management	CTRL-R Dell OpenManage Storage Services Additional management: • CEM • UEFI HII	
Operating temperature	Maximum ambient temperature: 55°C	
Optional SSD optimization	Dell FastPath™ firmware feature: delivers high IOPs performance on SSD array	
Operating systems	Microsoft® Windows Server® 2008 R2 SP1 Microsoft Windows Server 2012 Red Hat® Enterprise Linux® 5.8 Red Hat Enterprise Linux 6.5 SUSE® Linux Enterprise Server 10 SP4 SUSE Linux Enterprise Server 11 SP3	**Virtualization options:** VMware® ESX/ESXi 5.1 VMware® 6.0

Global services and support

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