



Dell Storage PS4210 Series

The Dell™ Storage PS4210 Series arrays offer next-generation storage with increased memory, performance and connectivity options for small-to-medium data centres, remote offices and current PS Series environments. The PS4210 10 GbE iSCSI arrays feature industry-leading capabilities of the Dell PS Series product line with streamlined management, multi-generational compatibility and all-inclusive software licensing. This series offers multiple configurations in drive capacities with up to 72 TB of storage in 2U, 2.5" and 3.5" drive options. Additionally, the PS4210 Series offers a hybrid configuration to auto-tier data and store frequently accessed data on SSDs for rapid response, and store cold data on HDDs within the same array. This minimises the number of SSDs required, reducing your overall cost.

Optimised performance, capacity and connectivity

With choices in performance, capacity and networking, the Dell Storage PS4210 Series arrays can provide your small data centre or remote office with an easy-to-manage storage solution that is optimised for virtualisation platforms and a variety of applications. The PS4210 Series allows you to auto negotiate from 1 Gb to 10 Gb to make your environment easier to manage while providing the flexibility of using SFP+ or 10 GBASE-T (copper) ports so you can leverage your existing infrastructure or build out lower-cost 10 GBASE-T.

With new hybrid arrays, the next-generation Dell Storage PS4210 Series offers up to 6x the performance improvement of the previous-generation arrays.¹ These hybrid-flash arrays are ideal for mission-critical workloads such as VDI deployments, OLTP databases and other mixed workloads with up to 80,000 random read performance.¹

Enterprise power, everyday simplicity

PS Series arrays are based on a virtualised, modular storage architecture that enables you to purchase only the storage you need when you need it. Sophisticated, yet simple, management features speed SAN configuration, and built-in intelligence capabilities sense network connections, automatically build RAID sets and conduct system health checks. All PS Series arrays, regardless of generation, work together to automatically manage data, load balance across all resources or seamlessly expand the storage pool when you add a new array. The PS4210 Series also includes fault-tolerant capabilities through use of fully redundant and hot-swappable controllers, fan trays, power supplies and disk drives.

The PS4210 Series arrays offer low TCO through a family of solutions that can be tailored to fit your exact needs, and grow with you, simply and cost effectively.

Feature-rich software portfolio

The PS Series arrays include innovative firmware and host software with no additional cost or software licensing fees. PS Series Host Software extends the functionality of the array-based software enabling cooperation with the host. Host Integration Tools for Microsoft® VMWare® and Linux® environments as well as PS Series SAN Headquarters (SAN HQ) management software are included with your PS Series array purchase.

PS Series SAN Headquarters (SAN HQ) provides an interface for monitoring your groups of PS Series arrays, and offers a proactive and automated support process with SupportAssist to help improve productivity and accuracy, while helping you gain insight and control. In addition, Dell Storage Manager (DSM) offers common management and cross-platform replication capabilities between PS and SC Series arrays, allowing you to take advantage of new functionality while leveraging existing investments.²

Dell Storage customers achieved up to a 513% ROI and earned back their investment in 6.2 months on average³

Feature	PS4210E	PS4210X	PS4210XV	PS4210XS
Product configurations	Entry-level configurations for affordable capacity	Great balance of cost, performance and capacity	Highest performance HDD system	SSD speed and HDD capacity within one array
Storage controllers	Dual controllers with 16 GB non-volatile memory (8 GB per controller) with up to 32 GB non-volatile memory in a group of 2 arrays			
Network interfaces	10 GbE connectivity Management network: 1 x 100 BASE-TX per controller Interfaces ports: 2 x 10 GBASE-T with RJ45 or 2 x 10 GbE SFP+ for fibre or twin-ax copper cabling			
Drive types	12 hot-pluggable 3.5" 7.2K NL-SAS	24 hot-pluggable 2.5" 10K SAS	24 hot-pluggable 2.5" 15K SAS	7 hot-pluggable 2.5" SSDs plus 17 hot-pluggable 2.5" 10K RPM SAS drives
Drive capacities	2 TB, 3 TB, 4 TB, 6 TB	600 GB, 900 GB, 1.2 TB, 1.8 TB	300 GB, 600 GB	400 GB SSD, 600 GB SAS
System capacities	Up to 72 TB (up to 144 TB with 2 arrays)	Up to 43.2 TB (up to 86.4 TB with 2 arrays)	Up to 14.4 TB (up to 28.8 TB with 2 arrays)	Up to 13 TB (up to 26 TB with 2 arrays)

Technical highlights	
Host protocol	Any standards-compliant iSCSI initiator
Expansion option	Can be combined with other PS Series arrays in the same SAN group, online with a maximum of 16 total arrays per group that can support up to two PS4xxx arrays and 14 PS6xxx arrays. A maximum of two arrays can be in a group of PS4xxx Series with up to 144 TB. Additionally, Dell Storage Manager (DSM) offers common management and cross-platform replication capabilities between PS Series and SC Series arrays, providing PS Series customers the flexibility to add SC Series arrays to their environment, if and when they choose. ²
Operating systems and hypervisors	Microsoft® Windows Server® including Hyper-V® VMware® ESX Server™ Red Hat® Enterprise Linux® (RHEL) SUSE® Enterprise Linux® (SLES) Oracle® Linux Citrix® XenServer® For a complete list of supported OS versions including software initiators, NICs/CNAs, and HBAs, see the Dell Storage Compatibility Matrix on http://en.community.dell.com/dell-groups/dtcmmedia/m/mediagallery/20438558 .
RAID	RAID 6, RAID 10 and RAID 50 ⁴ Accelerated RAID 6
TCP network support	IPv4, IPv6 compliant. USGv6 certified.
Reliability	Redundant hot-swappable controllers with vertical port sharing Hot-swappable disks and power supplies
Enclosure monitoring system	CHAP authentication; Access control lists for iSCSI as well as new Access Control Policies; Access control for management interfaces including Active Directory, LDAP or RADIUS support
Management	DSM for day-to-day tasks across SC Series and PS Series arrays from a single management interface ² PS Series Group Manager SAN Headquarters multi-group performance and event monitoring tool Serial console Ability to configure a separate management network SNMP, telnet, SSH, HTTP, Web (SSL), host scripting Multi-administrator support
Security	CHAP authentication Access control for iSCSI Access control for management interfaces including RADIUS support
Notification methods	SNMP traps, e-mail, syslog
Physical	Height: 2U 8.68 cm (3.41 in) Width: 44.63 cm (17.57 in) E/XV 3.5" Depth: 59.4 cm (23.4 in) X/XV Depth: 54.1 cm (21.3 in) E/XV 3.5" Weight: 29.2 Kg (64.4 lb) X/XV Weight: 24.1 Kg (53.1 lb)
Power	AC voltage: 100-240 VAC +10% single phase 700 W (max, total), +5 V up to 155 W; +12 V up to 624 W; +5 Vsb up to 10 W Frequency: 50/60 Hz Power factor: 0.98 (minimum) Power supplies: Dual 700 W
Rack support	ReadyRails™ II static rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded-hole racks
Dell support and optional storage service offerings	Dell ProSupport Plus for critical systems or Dell ProSupport for premium hardware and software support are recommended to provide you with the right support services for your PS Series. ⁵ Contact your Dell representative today for more information.

¹ Performance will vary depending on the workload and drive type. Based on August 2014 Dell performance testing the PS4210XS hybrid-flash arrays and the PS4110XV HDD arrays with 4 KB block and 100% random read IOs.

² New Dell Storage Manager (DSM) enables day-to-day management of SC Series and PS Series arrays from a single interface. DSM is available now as a free upgrade for SC9000, SC8000, SC4020 and SCv2000 arrays in Q3 2016 with a current support contract. DSM supports PS6xxx, PS-M4110 and PS4xxx arrays running PS 8.0 firmware or above. Cross-platform replication is available on SC9000, SC8000, SC4020, PS6xxx, PS-M4110 and PS4xxx arrays running SCOS 7.0/PS 9.0 firmware or above as a free upgrade with a current support contract.

³ Based on Dell Storage PS Series and SC Series customer interviews from the January 2015 [Dell-sponsored IDC Whitepaper: Driving Business Value with Flash-Optimized Dell Storage Solutions](#).

⁴ RAID 5 is also available for non-production data, but is generally not recommended; RAID 50 is similarly not recommended for production data on drives larger than 2 TB.

⁵ Availability and terms of Dell Services vary by region. Dell Basic Service is included standard with PS Series units. For more information, visit Dell.com/ServiceDescriptions.

End-to-end technology solutions

Reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell for end-to-end solutions to maximise your performance and uptime. A proven leader in Servers, Storage and Networking, Dell Enterprise Solutions and Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell Financial Services™ has a wide range of options to make technology acquisition easy and affordable. Contact your Dell Sales Representative for more information.

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