EqualLogic PS6510 and PS6500 series

Density, capacity and performance in one array

Dell™ EqualLogic™ PS6510 and PS6500 virtualized iSCSI SANs maximize enterprise performance, reliability and capacity while delivering the lowest five-year total cost of ownership of comparable arrays on the market.[1] The PS65x0 series arrays provide cost-effective capacity and performance designed to scale up to 2.3PB without downtime.

Always ready for the next big thing

Intelligently manage your infrastructure with enterprise storage that is reliable and easy to use and that enables you to keep pace with your changing business needs. Featuring the EqualLogic PS6510 and EqualLogic PS6500 arrays, the EqualLogic PS65x0 series is designed to optimize capacity utilization and performance dynamically through auto-tiering and load balancing. It enhances the value of your existing infrastructure investments by seamlessly integrating with virtualized applications and toolsets already in place. As your needs change, the EqualLogic PS65x0 series brings peer scaling to your storage environment, enabling you to add capacity without downtime while protecting your data securely and reliably. As a result, you can optimize both performance and capacity while achieving a lower total cost of ownership.[1]

Deliver data dynamically

The EqualLogic PS6510 and PS6500 arrays automatically adjust to changing data demands by reducing latency and balancing performance and capacity across all EqualLogic SAN resources. Available with 10GbE or 1GbE controller options, the PS65x0 series also features NL-SAS, 10K SAS or auto-tiering hybrid (SSD + NL-SAS) configurations. When combined with EqualLogic FS series NAS appliances, the PS65x0 arrays offer a unified block and file storage solution, minimizing both resource management and storage costs.

Easily manage your virtual environment

Seamlessly integrate and manage storage within a virtual environment. As with all EqualLogic arrays, all-inclusive software licensing delivers advanced storage functionality at no additional cost. EqualLogic software is multi-generational, so as your storage and business requirements grow, your existing SAN resources receive continuous advancements and capabilities, helping to generate

a substantial return on investment. EqualLogic's Host Integration Toolkits for VMware, Microsoft and Linux are all engineered to heighten performance and increase the efficiency and reliability of the virtualization technologies you are already using.

Scale without fail

Workloads are expanding rapidly, and storage is required to meet demands today and in the future. EqualLogic adapts to increasing demands with iSCSI SAN storage that non-disruptively moves the right data to the right place at the right time at the right cost. The EqualLogic peer scaling architecture provides the flexibility to scale your storage environment when the need arises. This distinctive feature enables expansion of computing power and capacity across multi-generational EqualLogic arrays.

For tiered workloads, the PS6510 hybrid arrays can process up to 430% more IOPS with 79% reduced latency than peer systems.[2]

Features	PS6500E	PS6500X	PS6500ES	PS6510E	PS6510X	PS6510ES
Storage controllers	Dual controllers with 2GB[3] non-volatile memory per controller					
Network interfaces	Management network: One 100BASE-TX per controller Interfaces ports: Four 1000BASE-T ports per controller			Management network: One 100BASE-TX per controller Interfaces ports: Two 10GbE SFP+ for fibre or twin-ax copper cabling		
Hard disk drives	48 hot-pluggable 3.5" 7.2K RPM SATA and NL-SAS drives	48 hot-pluggable 2.5" 10K RPM SAS drives	7 hot-pluggable 2.5" SSDs + 41 hot-pluggable 2.5" 7.2K RPM NL-SAS drives	48 hot-pluggable 3.5" 7.2K RPM SATA and NL-SAS drives	48 hot-pluggable 2.5" 10K RPM SAS drives	7 hot-pluggable 2.5" SSDs + 41 hot-pluggable 2.5" 7.2K RPM NL-SAS drives
Drive capacities	1TB[3], 2TB SATA 3TB NL-SAS 3TB NL-SAS SED	600GB, 900GB SAS 900GB SAS SED	400GB SSD 2TB NL-SAS	1TB, 2TB SATA 3TB NL-SAS 3TB NL-SAS SED	600GB, 900GB SAS 900GB SAS SED	400GB SSD 2TB NL-SAS
System capacities	Up to 144TB	Up to 43.2TB	Up to 84.8TB	Up to 144TB	Up to 43.2TB	Up to 84.8TB
Technical highlights						
Volumes	Up to 1,024/4,096 per group					
Snapshots	512 per volume/up to 10,000 total					
Host protocol	Any standards-compliant iSCSI initiator					
Operating systems and hypervisors	Microsoft® Windows Server® including Hyper-V® VMware® ESX Server Red Hat® Enterprise Linux® (RHEL) SUSE® Enterprise Linux® (SLES) Oracle® Linux Oracle® Solaris™ IBM® AIX®			HP-UX Mac OS® X Citrix® XenServer® Novell® NetWare® For a complete list of supported OS versions including software initiators, NICs/CNAs, and HBAs, please see the EqualLogic Compatibility Matrix.		
RAID[4]	RAID 5, RAID 6, RAID 10, and RAID 50		RAID 6 Accelerated	RAID 5, RAID 6, RAID 10, and RAID 50		RAID 6 Accelerated
TCP network support	IPv4, IPv6 core support					
Expansion option	Can be combined with other EqualLogic PS series arrays in the same SAN group, online; up to 16 total members per group					
Unified storage options	Adding an EqualLogic FS7500, FS7600 or FS7610 NAS appliance to an EqualLogic group enables both block and file storage from a single storage solution.					
Management interfaces	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 lists for iSCSI; Access control for management interfaces including Active Directory, LDAP, or RADIUS support					
Notification methods	SNMP traps, email, syslog					
Physical	Height: 17.5 cm / 6.89 in / 4U Width: 48.3 cm / 19.01 in / 1EC rack-compliant Depth: 96 cm / 37.8 in Weight: 74.8 kg / 165 lb (maximum configuration)					
Power	AC voltage: 100-240 VAC ±10% single phase Frequency: 47-63 Hz Power factor: 0.95 (minimum) Power supplies: Three 440W DC					
Dell support and optional storage service	Dell ProSupport Plus for critical systems or Dell ProSupport for premium hardware and software support are recommended to provide you the right support services for your EqualLogic solution.[5] Contact your Dell representative today for more information.					

[1] Source: ESG Lab Report, "Dell EqualLogic TCO Analysis—Multi-generational Manageability and Efficiency at a Low Cost," an April 2012 report sponsored by Dell.

[2] Results based on August 2012 internal Dell testing using Dell PowerEdge™ R710 and Dell 12G Servers

[3] GB means 1 billion bytes, TB equals 1 trillion bytes and PB equals 1 quadrillion bytes; actual capacity varies with preloaded material and operating environment, and will be less.

[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 2TB.

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

Global services and support

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 maximize 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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