Dell EqualLogic PS6010XVS

The Dell™ EqualLogic™ family of virtualized iSCSI SANs is designed to provide you with responsive, reliable support while increasing efficiency and decreasing the cost of data management. The PS6010XVS is a high-performance offering created to support the data availability requirements of your tiered applications. The combination of low-latency Solid State Disk (SSD) and high-performance SAS drives within one array and the application of intelligent load balancing across drives make it possible for the PS6010XVS to deliver intuitive data responsiveness for tiered workloads. Add to that the increased throughput provided by 2 (two) 10GbE ports and the result is exceptional performance that can deliver real benefits to your organization.

Fluid Data availability

The EqualLogic PS6010XVS reinforces the Dell Fluid Data™ principles of intelligence and automation combined with fault tolerance to provide enterprise performance and reliability, seamless scalability and simplified administration. The PS6010XVS uses innovative Fluid Data technology to optimize data response for your applications automatically placing it on the appropriate disk based on historical I/O and performance patterns. The ability to sense and intelligently respond to data requirements is a valuable feature for applications that combine transactional or virtual client I/O with database I/O requests.

Feature-rich software portfolio

The EqualLogic PS Series arrays include innovative firmware and host software with no additional cost or software licensing fees. EqualLogic's latest firmware release offers new benefits to your organization so your hardware can continue to meet your current needs and be ready to grow with you as the demands of the virtual era increase:

- Enhancements to Ethernet with Data Center Bridging can provide deterministic performance and a converged SAN and LAN network, designed to greatly reduce or eliminate dropped packets

- Sub-volume auto-tiering with enhanced load balancing for optimized storage pool performance

- VMware® Thin Provisioning awareness for vSphere™ v5 designed to provide a new level of reliability using thin provisioned volumes and facilitate graceful data recovery

EqualLogic Host Software extends the functionality of the array-based software enabling cooperation with the host. Host Integration Tools for Microsoft®, VMware, and Linux® products as well as EqualLogic SAN Headquarters (SANHQ) management software are included with your EqualLogic array purchase.

Flexibility with low cost of ownership

The EqualLogic PS Series arrays represent a breakthrough in storage economics, from purchase to operation and upgrades. Unlike traditional SANs, the EqualLogic PS Series includes software and applications expected from an enterprise-level SAN at no extra cost. The PS Series scales on-demand—and online—allowing storage growth without disrupting applications. As a result, EqualLogic PS6010XVS arrays provide exceptional flexibility at a low total cost of ownership.

Enterprise reliability

The EqualLogic SAN line is designed to meet and exceed the rugged requirements of the data center. The PS6010XVS includes fault tolerance capabilities through fully redundant and hot-swappable components—dual controllers, standard dual fan trays, dual power supplies, and disk drives with hot spares.

Comprehensive data management services options

With a variety of systems built for capacity and performance, there is a Dell EqualLogic solution designed to suit your needs. And with comprehensive Dell Data Management Services that help plan, design, implement and support an efficient data management strategy and ecosystem, you can satisfy today's data availability, retention and recovery requirements while preparing to meet the demands of tomorrow.

Low-latency SSD and high-performance SAS drives for responsiveness

Feature	Dell™ EqualLogic™ PS6010XVS
Product Configurations	
Storage Controllers	Dual 10GbE iSCSI controllers with a total of 4 GB† battery-backed memory Battery-backed memory provides up to 72 hours of data protection
Network Interfaces	Two (2) SFP+ per controller, One (1) 10/100 copper (optional management network only) per controller
Hard Disk Drives	Eight (8) hot-pluggable Solid State Disk (SSD) drives and Eight (8) hot-pluggable SAS hard disk drives
Drive Capacities	Combines 100 GB† SSD drives and 450 GB† 15,000 RPM SAS drives
System Capacities	4.4 TB using eight (8) 100 GB† SSD drives and eight (8) 450 GB† SAS disk drives
Technical Highlights	
Volumes	Up to 1,024
Snapshots	512 per volume/up to 10,000 total per group
Volume connections per PS Series group	Up to 1,024 per pool/4,096 per group
Host Protocol	Any standards-compliant iSCSI initiator
OS Supported[1]	Windows® 2000 Server, Windows Server® 2003, Windows Server® 2008, including Hyper-V™, Windows Vista®, Windows Server® 2008 R2 including Hyper-V™, Windows XP®, Red Hat® Enterprise Linux®, SUSE® Linux® Enterprise, Sun™ Solaris™, IBM® AIX®, HP-UX, Mac OS® X, VMware® ESX® Server 3/3.5/4/4.1/5, ESXi™ 3.5/4/4.1/5, Citrix® XenServer™, Novell® NetWare®
RAID Support	Accelerated RAID 6
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
Reliability	Redundant, hot-swappable controllers; power supplies/cooling fans, and hot-swappable disks Individual disk drive slot power control
Enclosure Monitoring System	Automatic spare configuration and utilization SMART Automatic bad block replacement Auto-Stat Disk Monitoring System (ADMS) to monitor health of data on disk drives
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 for iSCSI Access control for management interfaces including RADIUS support
Notification Methods	SNMP traps, e-mail, syslog
Power	AC voltage: 100-240 VAC ±10% single phase Frequency: 47-63 Hz Power factor: 0.98 (minimum) PS6010XVS: Power consumption: 335 VA, 380 Peak VA (operating maximum), Heat dissipation: 1,142 BTU per hour (maximum) Power supplies: Dual 440W dc
Environmental	Temperature range: 5 to 35°C/41 to 95°F Storage temperature: -20 to 60°C/-22 to 140°F Altitude: -70 to 3,048 m operational/-305 to 12,192 m non-operational Relative humidity: 20 to 80% non-condensing operational/5 to 95% non-condensing non-operational Shock: 5 g 10 ms ½ sine operational/30 g 10 ms ½ sine non-operational Vibration: Random .21 grms @ 5-500Hz operational/Random 1.04 grms 2-200Hz non-operational Acoustics: Sound Power Operating: <5.8 db LpA @ 20°C Air Quality: Airborne contaminant level of G2 or lower as defined by ISA-S71.04-1985
Physical	Height: 13 cm/5.12 in/3 EIA units Width: 48.26 cm/19.0 in/1EC Rack Compliant Depth: 55.1 cm/21.7 in Weight: 36 kg/78.6 lb (maximum configuration)
Dell Support and Optional Storage Service Offerings	**1-Year Dell Basic Service**[2]: is included with all EqualLogic purchases. This service covers essential telephone support during local business hours, service parts logistics available in the locality, and access to software/firmware updates. Service upgrades are available supporting faster response times, extended hours and escalation options. Dell Data Management Services help customers plan, design, implement and support an efficient data management strategy and ecosystem. This comprehensive suite of services provides flexible, personalized storage options that meet your company's specific business needs. Storage management costs and explosive data growth are top concerns for organizations—large and small. Our experts will build you a blueprint that addresses your company's storage issues today and in the future—providing fast time to value for your business. Rely on Dell to help you effectively manage your storage growth through simple and scalable service options that are right for your data, budget and business. Contact your Dell representative today for the answers to your storage challenges.

†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.
[1]For a complete list of supported operating systems, please visit www.dell.com/equallogic/swsupport.
[2]Availability and terms of Dell Services vary by region. For more information, visit www.dell.com/servicedescriptions.

Simplify your storage at Dell.com/PSseries