



# Dell EqualLogic PS6100XS

The Dell™ EqualLogic™ PS6100XS storage array gives you Solid State Drive (SSD) speed with Hard Disk Drive (HDD) capacity in a 13 TB 2U/2.5" drive solution.

## Speed and capacity where and when you need it

The EqualLogic PS6100XS continues the EqualLogic tradition of performance scaling linearly with capacity.<sup>1</sup> With up to 67% IOPS improvements on typical workloads over previous-generation EqualLogic arrays<sup>2</sup>, the PS6100 Series is designed to grow with your data demands—all while providing simple management and seamless expansion using innovative Fluid Data™ technology. Dell doesn't just sell you more storage—Dell delivers comprehensive end-to-end solutions to help you store and manage your data so you can efficiently move the right data to the right place at the right time for the right cost.

## Modular design with enterprise reliability

PS Series arrays are based on a virtualized modular storage architecture that enables you to purchase only the storage you need when you need it. PS6100 Series storage arrays include SAN configuration features and capabilities that sense network connections, automatically build RAID sets, and conduct system health checks. All PS Series arrays in a SAN work together to automatically manage data, load balance across all resources, and expand to meet your growing storage needs. The reliable PS6100XS also includes fault-tolerant capabilities through use of fully redundant and hot-swappable controllers, fan trays, power supplies, and disk drives with hot spares, as well as vertical port failover.

## 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 (available on 10GbE arrays only)

- 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.

## Find your storage solution

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.

<sup>1</sup> Based on 2011 internal Dell testing.

<sup>2</sup> Based on 2011 internal Dell testing comparing configurations of up to 3 Dell EqualLogic PS6100XS arrays to Dell EqualLogic PS6000XS arrays running Firmware v5.1 with IOMeter and FIO test tools in Microsoft® Windows® and Linux® operating system environments with typical block sizes (4 and 8K) and read/write mix (70:30 or 80:20).

Speed and automated data tiering for your most demanding enterprise applications

Feature	Dell™ EqualLogic™ PS6100XS
Product configurations	
Storage controllers	Dual controllers, each with 4GB <sup>1</sup> memory and cache-to-flash memory data protection
Network interfaces	Four (4) copper per controller + One (1) dedicated management port
Hard disk drives	Seven (7) hot-pluggable Solid State Disk (SSD) drives and seventeen (17) hot-pluggable SAS hard disk drives
Drive capacities	Combines 2.5" 400 GB <sup>1</sup> SSD drives and 2.5" 600 GB <sup>1</sup> 10,000 RPM SAS drives
System capacities	13 TB <sup>1</sup> using seven (7) 400 GB <sup>1</sup> SSD drives and seventeen (17) 600 GB 10,000 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
Host protocol	Any standards-compliant iSCSI initiator
OS supported <sup>1</sup>	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	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.
Reliability	Vertical port sharing 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 Active Directory, LDAP, or RADIUS support
Notification methods	SNMP traps, e-mail, syslog
Power	AC voltage: 100-240 VAC +10% single phase 700W (max, total), +5V up to 155W; +12V up to 924W; +5Vsb up to 10W Frequency: 50/60 Hz Power factor: 0.98 (minimum) Power supplies: Dual 700 W
Environmental	5° to 40°C (41° to 104°F) Storage temperature: -40° to 65°C (-40° to 149°F) For altitudes above 2950 feet, the maximum operating temperature is derated 1°F/550 ft Operating Relative humidity: 20% to 80% (noncondensing) with a maximum humidity gradation of 10% per hour Operational shock: Half-sine shock 31G +/- 5% with a pulse duration of 2.6ms +/- 10% in operational orientations only Operating Vibration: 0.26 Grms (5 to 350 Hz) for 5 minutes in operational orientations Acoustics Category 4: <=7.2 bels at 23C +/- 2C Airborne contaminant level of G1 or lower as defined by ISA-S71.04-1985
Physical	Height: 2U/8.68 cm (3.41 inches) Width 44.63 cm (17.57 inches) Depth: 54.1 cm (21.3 inches) Weight: 24.49 kg (54 lb)
Dell Support and Optional Storage Service Offerings	<b>1-Year Dell Basic Service<sup>2</sup></b> 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.

<sup>1</sup> 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.

<sup>1</sup> For a complete list of supported operating systems, please visit [www.dell.com/equallogic/swsupport](http://www.dell.com/equallogic/swsupport).

<sup>2</sup> Availability and terms of Dell Services vary by region. For more information, visit [www.dell.com/servicesdescriptions](http://www.dell.com/servicesdescriptions).

Simplify your storage at [Dell.com/PSseries](http://Dell.com/PSseries)

