# Dell EqualLogic PS6100X

The Dell™ EqualLogic™ PS6100X storage array provides a balance of performance and capacity for your enterprise data center with 21.6 TB in a SAS 2U/2.5" drive solution.

## Performance and capacity where and when you need it

The EqualLogic PS6100X continues the EqualLogic tradition of performance scaling linearly with capacity.[1] With up to 67% IOPS improvements on typical workloads over previous-generation EqualLogic arrays[2], 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 PS6100X 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.

[1] Based on 2011 internal Dell testing.
[2] Based on 2011 internal Dell testing comparing configurations of up to 3 Dell EqualLogic PS6100XV arrays to Dell EqualLogic PS6000XV 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).

## Performance and capacity for enterprise applications

| Feature | Dell™ EqualLogic™ PS6100X |
|---|---|
| **Product configurations** | |
| Storage controllers | Dual controllers, each with 4GB† memory and cache-to-flash memory data protection |
| Network interfaces | Four (4) copper per controller + One (1) dedicated management port |
| Hard disk drives | Twenty-four (24) 10K SAS hot-pluggable hard disk drives (Twelve (12) drive configuration available. Please contact your Dell Sales Representative for details.) |
| Drive capacities | 2.5" 10,000 RPM SAS drives available in 300 GB†, 600 GB† and 900 GB† |
| System capacities | 7.2 TB† using twenty-four (24) 300 GB† 10,000 SAS disk drives<br>14.4 TB† using twenty-four (24) 600 GB† 10,000 SAS disk drives<br>21.6 TB† using twenty-four (24) 900 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[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 | RAID 5, RAID 6, RAID 10, and RAID 50 |
| 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<br>Redundant hot-swappable controllers, power supplies/cooling fans, and hot-swappable disks<br>Individual disk drive slot power control |
| Enclosure monitoring system | Automatic spare configuration and utilization<br>SMART<br>Automatic bad block replacement<br>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<br>Serial console<br>Ability to configure a separate management network<br>SNMP, telnet, SSH, HTTP, Web (SSL), host scripting<br>Multi-administrator support |
| Security | CHAP authentication<br>Access control for iSCSI<br>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<br>700W (max, total), +5V up to 155W; +12V up to 924W; +5Vsb up to 10W<br>Frequency: 50/60 Hz<br>Power factor: 0.98 (minimum)<br>Power supplies: Dual 700 W |
| Environmental | 5° to 40°C (41° to 104°F)<br>Storage temperature: -40° to 65°C (-40° to 149°F)<br>For altitudes above 2950 feet, the maximum operating temperature is derated 1°F/550 ft<br>Operating Relative humidity: 20% to 80% (noncondensing) with a maximum humidity gradation of 10% per hour<br>Operational shock: Half-sine shock 31G +/- 5% with a pulse duration of 2.6ms +/- 10% in operational orientations only<br>Operating Vibration: 0.26 Grms (5 to 350 Hz) for 5 minutes in operational orientations<br>Acoustics Category 4: <=7.2 bels at 23C +/- 2C<br>Airborne contaminant level of G1 or lower as defined by ISA-S71.04-1985 |
| Physical | Height: 2U/8.68 cm (3.41 inches)<br>Width 44.63 cm (17.57 inches)<br>Depth: 54.1 cm (21.3 inches)<br>Weight:  24.49 kg (54 lb) |
| 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.<br>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. |

# Simplify your storage at Dell.com/PSseries