



Dell Storage PS6610 Series

Building on the industry-leading capabilities of the Dell™ EqualLogic PS Series line, the Dell Storage PS6610 Series storage solution takes you to the next level by providing superior density and improved performance compared to the previous generation. This series can scale out to over 8PB of capacity, in a group of 16 arrays, while using less space in your data center.

More performance in less space

The Dell Storage PS6610 Series combines the power of 10GbE and dense storage, offering up to 3.5 times more capacity¹ and up to 7 times increased performance² compared to the previous generation. The dense design of the PS6610 easily fits in your data center while offering over a half a petabyte of capacity in one array. With next-generation controllers and advanced software, the PS6610 offers 16 times more memory than previous generation, and up to 50% space savings with compression of snapshots and replicas.³ The Dell Storage PS6610 is ideal for archival/secondary storage, mixed workload consolidation and video surveillance solutions.

Scale your solution to meet your storage needs

The Dell Storage PS6610 solution is designed to meet growing capacity requirements without the administrative overhead. PS Series arrays include SAN configuration features and capabilities that sense network connections, automatically build RAID sets, and conduct system health checks to help ensure that all components are fully functional. Based on a virtualized modular storage architecture — you purchase only the storage you need, when you need it — the PS Series arrays help prevent both underuse and over-provisioning in the data center. 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. With the addition of EqualLogic FS Series appliances, you can effectively store both block and file data in a unified storage solution. Plus, the Dell EqualLogic PS Series storage solution has the lowest total cost of ownership over a five-year period compared to two comparable SAN arrays in the market.⁴

Feature-rich software portfolio

The PS Series arrays include innovative firmware and host software with no additional cost or software licensing fees. EqualLogic's latest firmware release 8.0 offers new features such as advanced vSphere Virtual Volumes integration and improved storage management with Smart Tags.

EqualLogic 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 EqualLogic SAN Headquarters (SAN HQ) management software are included with your EqualLogic array purchase. SAN HQ provides an interface for monitoring your groups of EqualLogic arrays, and offers a proactive and automated support process with SupportAssist to help improve productivity and accuracy while helping you gain insight and control.

Up to 2.8x improved
density per U
compared to the
previous generation.⁵

| Features | PS6610E | PS6610X | PS6610ES |
|---|---|--|--|
| Product configurations | Provides affordable, high-capacity storage for data-intensive workloads such as archival/secondary storage. | Balances cost, performance and capacity for consolidating mixed workloads such as Microsoft Exchange and SharePoint. | Provides high-speed, low-latency solid state drives (SSDs) and high-capacity hard disk drives (HDDs) together in a single array. |
| Storage controllers | Dual controllers with 32GB ⁶ non-volatile memory per controller | | |
| Network interfaces | 10GbE connectivity; management network: 1 x 100BASE-TX per controller; interface ports: 2 x 10GBASE-T with RJ45 or 2 x 10GbE SFP+ for fibre or twin-ax copper cabling | | |
| Drive types | 42 or 84 hot-pluggable 3.5" 7.2K RPM NL-SAS | 42 or 84 hot-pluggable 2.5" 10K RPM SAS | 14 hot-pluggable 2.5" SSDs plus 70 hot-pluggable 3.5" 7.2K RPM NL-SAS |
| Drive capacities including self-encrypting drives (SED) | 2TB, 4TB, 6TB NL-SAS, 4TB NL-SAS SED | 600GB, 900GB, 1.2TB SAS, 1.2TB SAS SED | 400GB, 800GB SSD plus 2TB, 4TB NL-SAS |
| System capacities | Up to 504TB (up to 8.06PB with 16 arrays) | Up to 100.8TB (up to 1.6PB with 16 arrays) | Up to 291.2TB (up to 4.6PB with 16 arrays) |
| RAID | RAID 6, RAID 10 | RAID 6, RAID 10 | RAID 6, RAID 10 |

Technical highlights

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| Host protocol | Any standards-compliant iSCSI initiator |
| Expansion option | Can be combined with other EqualLogic PS Series arrays in the same SAN group, online with up to 16 total members per group. |
| 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, please see the EqualLogic Compatibility Matrix . |
| TCP network support | IPv4, IPv6 core support |
| Reliability | Redundant hot-swappable controllers; Hot-swappable disks and power supplies |
| 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 lists and policies for iSCSI; Access control for management interfaces including Active Directory, LDAP, or RADIUS support |
| Notification methods | SAN Headquarters alerting including Dell SupportAssist, SNMP traps, email, syslog |
| Physical | Height: 5U/22.23 cm (8.8 in) Width: 48.26 cm (19 in) Depth: 91.44 cm (36 in) Weight: 130.7 kg (287.5 lb) (max config) |
| Power | Dual 2200W, 220-240VAC, 50/60Hz (high AC line power source only) |
| Dell support and optional storage services | 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. ⁷ Contact your Dell representative today for more information. |

1 Based on internal Dell analysis of total capacity in October 2014 comparing PS6610 arrays to PS6510 arrays.

2 Based on January 2015 Dell performance testing the PS6610ES hybrid-flash arrays and the PS6510ES hybrid-flash arrays using IOMeter with 4KB block and 70/30 read/write random IOs. Actual performance will vary depending on the workload and drive type.

3 Based on September 2014 internal Dell analysis of the EqualLogic Array Software 8.0 compression feature with PS6210 arrays, using real-world home share environment comprised of snapshots and replicas. Requires a PS6210 or PS6610 in the environment. Results will vary based on configuration, data types and usage.

4 Source: ESG Lab Report, "Dell EqualLogic PS Series Storage and TCO Analysis- Delivering Lasting Value with Streamlined Management and Improved Performance Scalability," a January 2014 report sponsored by Dell. For the full report see http://en.community.dell.com/techcenter/extras/m/white_papers/20438150/download.aspx

5 Based on internal Dell analysis of total density per unit in January 2015 comparing PS6610 arrays to PS6510 arrays.

6 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.

7 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.

Learn more at Dell.com/EqualLogic

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