DYNAMIC VIRTUAL STORAGE
SIMPLIFYING IT

The Dell EqualLogic™ PS Series is fundamentally changing the way enterprises think about purchasing and managing storage.

Built on breakthrough virtualized peer storage architecture, the EqualLogic PS Series simplifies the deployment and administration of consolidated storage environments.

Its all-inclusive feature set streamlines purchasing. Its intelligent software delivers rapid SAN deployment, easy storage management and comprehensive data protection. The system’s dynamic virtualization enables enterprise-class performance and reliability and seamless pay-as-you grow expansion.

This simplicity yields important benefits: success and satisfaction for our users, which is supported by the fact that 98% of our customers would recommend the PS Series¹.

THE DELL DIFFERENCE

EASE OF USE
- Intelligent, automated management minimizes tedious administrative tasks
- From box to operating SAN in minutes

ENTERPRISE PERFORMANCE
- Exceptional performance for both sequential and transactional applications with linear scalability as arrays are added
- Automated, real-time load balancing across drives, RAID sets, connections, cache and controllers for optimized performance and resource utilization
- Pooling capability enables appropriate service levels for individual applications

RELIABILITY
- Fault tolerant, fully redundant dual controller design for no single point of failure
- Designed for 99.999% availability
- Enterprise-class RAID protection
- Hot swappable components

SCALABILITY
- Modular design allows growth when needed
- Online expansion without affecting data availability
- Linear scalability — scale capacity and performance together

AFFORDABILITY
- All-inclusive enterprise features and functionality with no additional software licenses to purchase
- Easy connection via iSCSI
- Automated features help to eliminate highly specialized administrative costs

¹Source: Yankee Group, EqualLogic Customer Satisfaction Survey, February 2008
THE EQUALLOGIC PS SERIES ISCSI SAN

The Dell EqualLogic PS Series is a family of virtualized iSCSI storage arrays that combine intelligence and automation with fault tolerance to provide simplified administration, rapid deployment, enterprise performance and reliability, and seamless scalability. The PS Series high performance storage arrays deliver a range of capacity points from 2 TB to 48 TB in either a 3U or 4U chassis. PS Series arrays can be combined to create a virtualized SAN that scales up to 576 TB under a single management interface.

EXCEPTIONAL EASE OF USE

The PS Series intelligent storage arrays are designed to provide rapid deployment, simple management and seamless expansion. All PS Series storage arrays include SAN configuration features and capabilities that sense network topology, automatically build RAID sets, and conduct system health checks to help ensure that all components are fully functional. PS Series arrays are designed to be deployed, configured, and serving storage in less than one hour.

MODULAR DESIGN WITH ENTERPRISE RELIABILITY

EqualLogic PS Series arrays are based on a virtualized, modular storage architecture that enables IT managers to purchase only the storage they need, when they need it — preventing both underutilization and over-provisioning. Using innovative data movement technology, all EqualLogic PS Series arrays in a SAN work together to automatically manage data, load balance across all resources, and expand to meet growing storage needs.

The Dell EqualLogic PS Series is designed to meet and exceed the rugged requirements of the data center. Each array comes standard with fault tolerance capabilities through fully redundant and hot-swappable components — dual-controllers, multiple fan trays and power supplies, and disk drives with hot spares.

ENTERPRISE DATA SERVICES WITHOUT ADDITIONAL COST

The PS Series has built-in storage features once relegated to top-tier data centers, enabling best practice storage for every size organization. Unlike traditional storage arrays, the EqualLogic PS Series arrays include a comprehensive set of enterprise data services and software features with no additional software licensing fees.

FLEXIBILITY WITH LOW COST OF OWNERSHIP

EqualLogic PS Series arrays represent a breakthrough in storage economics, from purchase and setup to operation and upgrades. In addition to the extensive included software, the PS Series scales easily, on-demand — and online — allowing storage growth without costly application disruptions or lengthy service engagements. As a result, EqualLogic arrays provide exceptional flexibility at a low total cost of ownership.

Whether consolidating direct-attached storage (DAS), migrating from an existing SAN or NAS system, improving data protection, or simply adding capacity, the EqualLogic PS Series deploys flexibly to address enterprise storage needs. As business needs change, an EqualLogic SAN can easily adapt. Its virtualized architecture allows simple redeployment of arrays, tiered storage, thin provisioning, online volume movement and much more, all without extra cost and cumbersome processes.

“WHEN WE NEEDED TO BUILD THE SAN WITH VIRTUAL SERVERS, WE CHOSE THE EQUALLOGIC PLATFORM BECAUSE IT IS ROBUST AND SIMPLE. THE I/O PERFORMANCE IS FANTASTIC; WE HAVE 61 VIRTUAL SERVERS UP, AND IT IS BARELY BREATHING HARD.”

Don Plowman, senior network administrator at Gallup
March, 2008
# PS SERIES ISCSI STORAGE ARRAYS

<table>
<thead>
<tr>
<th></th>
<th>PS5000E</th>
<th>PS5500E</th>
<th>PS5000X</th>
<th>PS5000XV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ARRAY CAPACITY</strong></td>
<td>2, 4, 8, 12 or 16 TB</td>
<td>24 TB or 48 TB</td>
<td>6.4 TB</td>
<td>2.3, 4.8 or 7.2 TB</td>
</tr>
<tr>
<td><strong>DISK DRIVES</strong></td>
<td>8 or 16 — 7,200 RPM</td>
<td>48 — 7,200 RPM</td>
<td>16 — 10,000 RPM</td>
<td>16 — 15,000 RPM</td>
</tr>
<tr>
<td><strong>DRIVE CAPACITIES</strong></td>
<td>SATA Drives</td>
<td>SATA Drives</td>
<td>SAS Drives</td>
<td>SAS Drives</td>
</tr>
<tr>
<td></td>
<td>250 GB, 500 GB, 750 GB or 1 TB</td>
<td>500 GB or 1 TB</td>
<td>400 GB</td>
<td>146, 300 or 450 GB</td>
</tr>
<tr>
<td><strong>FULL HARDWARE REDUNDANCY</strong></td>
<td>Yes¹</td>
<td>Yes</td>
<td></td>
<td></td>
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<tr>
<td>Hot-swappable controllers, fans, power supplies, disks</td>
<td></td>
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<tr>
<td><strong>NETWORK CONNECTIVITY</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>3 Ethernet/iSCSI Ports per Controller</td>
<td></td>
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<tr>
<td><strong>CHASSIS</strong></td>
<td>3U</td>
<td>4U</td>
<td>3U</td>
<td>3U</td>
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<tr>
<td><strong>MEMORY</strong></td>
<td>2 GB</td>
<td>4 GB</td>
<td>2 GB</td>
<td>2 GB</td>
</tr>
<tr>
<td><strong>ENTERPRISE DATA SERVICES</strong></td>
<td>Yes, all inclusive with no separate licenses (see below)</td>
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</table>

## ENTERPRISE DATA SERVICES

<table>
<thead>
<tr>
<th><strong>DATA PROTECTION, AVAILABILITY &amp; RECOVERY</strong></th>
<th>Auto-Replication, Multi-Way</th>
<th>Instant Volume Restore</th>
<th>Multi-Path I/O²</th>
<th>Multi-Volume, Writeable Snapshots</th>
<th>Snapshot and Auto-Replication Scheduler</th>
<th>Volume Cloning</th>
<th>Volume Consistency Sets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STORAGE VIRTUALIZATION</strong></td>
<td>Array Evacuation</td>
<td>Automatic Load Balancing</td>
<td>Automatic or Manual Storage Tiering</td>
<td>Complete SAN</td>
<td>Virtualization</td>
<td>Online Data and Volume Movement</td>
<td>RAID Load Balancing</td>
</tr>
<tr>
<td><strong>SERVER MANAGEMENT &amp; PROTECTION INTEGRATION</strong></td>
<td>Auto-Snapshot Manager/Windows Edition¹</td>
<td>Auto-Snapshot Manager/VMware Edition³</td>
<td>Automatic MPIO Connection Management</td>
<td>Microsoft VSS and VDS Providers</td>
<td>Smart Copy for Microsoft Exchange®, SQL Server®, Windows® File Systems and VMware® VMFS</td>
<td>VMware® Site Recovery Manager Adapter</td>
<td></td>
</tr>
<tr>
<td><strong>MANAGEMENT</strong></td>
<td>PS Group Manager</td>
<td>Rapid Provisioning</td>
<td>Remote Setup Wizard</td>
<td>Roles-Based Administration</td>
<td>Volume Management</td>
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<tr>
<td><strong>MAINTENANCE</strong></td>
<td>Auto-Stat Disk Monitoring System</td>
<td>E-mail Home</td>
<td>Enclosure Monitoring System</td>
<td>Performance Monitoring</td>
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</table>

¹Single-controller options are available for 2 or 4 TB arrays
²Qualified for Microsoft Windows Server 2000 and 2003, VMware®, Linux® and Sun™ Solaris™ Operating Systems
³Qualified for Microsoft Windows Server® 2003 and Windows Server® 2008
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**Simplify your Storage at** [WWW.DELL.COM/PSseries](http://WWW.DELL.COM/PSseries)