



IT CONSOLIDATION WITH VMWARE AND DELL EQUALLOGIC ISCSI SANS

A FULLY VIRTUALIZED IT ENVIRONMENT - SIMPLE TO DEPLOY, MANAGE AND GROW

Dell EqualLogic™ PS Series iSCSI SANs help to reduce the cost and complexity of IT Consolidation and uniquely integrate with VMware® Infrastructure to enable the fully virtualized IT environment

- Networked storage for virtual machines in less than one hour
- Utilize existing IP networking skills and infrastructure
- IT provisioning from single, scalable pool of storage for high resource utilization
- Designed for 99.999% availability and all enterprise software included: No Hidden Costs
- Virtual Storage can enable advanced VMware functionality- HA, VMotion, DRS and SRM
- vStorage integration for Automated Disaster Recovery and Data Protection

VIRTUALIZATION DRIVING IT CONSOLIDATION FOR BOTH SERVERS AND STORAGE

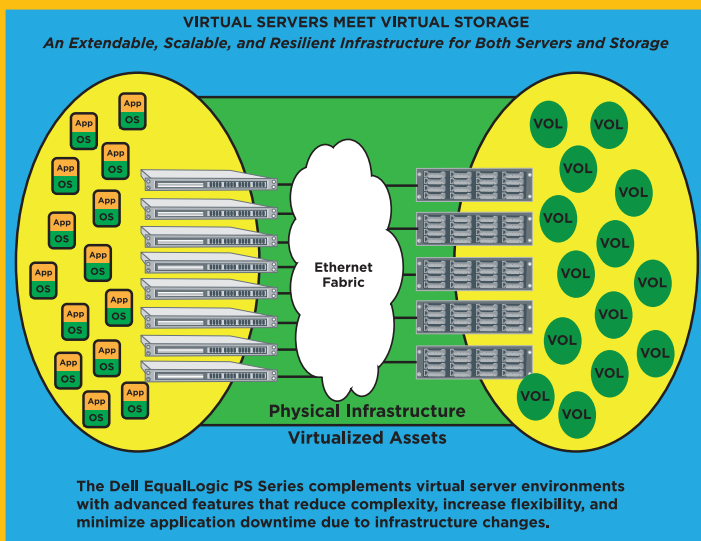
Organizations trying to achieve higher levels of efficiency in their data center operations are broadly adopting server virtualization. To support 7x24 operations, enable advanced functionality, and extend the value of server virtualization, storage consolidation is also required. Classically, storage consolidation is a complex and expensive undertaking requiring proprietary infrastructure, expensive add-on software and skilled specialists all in conflict with the goals of the overall initiative. Dell EqualLogic PS Series virtualized iSCSI storage area network (SAN) provides a cost-effective, enterprise-class storage solution ideally suited for virtualized infrastructures.

NEW VIRTUAL STORAGE DESIGN ENABLES SIMPLE, AFFORDABLE DATA CENTER OPERATIONS

Virtual data centers are designed to simplify operations, increase flexibility and agility, and reduce costs. The PS Series is uniquely architected to meet the needs of the virtualized data center, designed for easy deployment, automated management, optimized resource utilization, and seamless scalability. EqualLogic storage technology virtualizes the entire SAN to simplify deployment and ongoing management. In the SAN, volumes are automatically provisioned as a single, scalable pool of storage that utilizes all storage resources within the SAN. As workload demands shift or migrate between virtual machines and their physical host servers, a virtualized PS Series SAN is designed to automatically apply storage resources where and when they are needed without intervention or manual tuning. The Dell EqualLogic PS Series SANs are designed for 99.999% availability and use iSCSI to simplify deployment, leveraging the organization's inherent networking skills and resources. A rich set of data protection features and tools are bundled into the EqualLogic arrays providing for cost-effective data protection and disaster recovery.

HYPERVERSOR-AWARE STORAGE EMERGING AS CORE REQUIREMENT

Dell and VMware™ are partnering together to deliver integrated virtual server and virtual storage solutions through VMware vStorage application programming interfaces (API's). With vStorage API's, SAN resources can be utilized for greater virtual server performance and more efficient management of the entire virtualized data center. Integrated solutions available today from Dell include Auto-Snapshot Manager/VMware Edition, an automated data protection tool for virtual machines, and Auto-Replication integration with VMware's Site Recovery Manager.



POTENTIAL BENEFITS OF DEPLOYING EQUALLOGIC IN A VMWARE ENVIRONMENT:

- **Enterprise reliability:** EqualLogic is designed for 99.999% availability utilizing redundant, enterprise-class RAID-protected, hot-swappable components with advanced system and disk monitoring capabilities.
- **Simple SAN Infrastructure:** The PS Series help to free administrators from complex SAN management by utilizing iSCSI, advanced storage virtualization and automation, saving time for higher value tasks.
- **Efficient Resource Utilization:** Snapshot and replication processing is executed within the array rather than within ESX hosts or VMs, helping to reduce overhead and contention for greater consolidation.
- **Rapid Online Recovery:** Volumes are restorable to any number of recovery points, and snapshots can be quickly mounted for retrieving specific data.
- **Native IP-based Replication Over Distance:** Auto-Replication can integrate directly into the IP network, overcoming distance limitations and reducing the cost and complexity of WAN integration.
- **Bundled Data Protection:** PS Series storage is bundled with a complete set of tools including snapshots, clones, and replication helping to reduce the total cost of ownership.
- **Advanced VSS Integration:** PS Series Auto-Snapshot Manager/Microsoft Edition integrates with standard backup software using the Microsoft VSS framework to create clean, consistent backups of Windows-based applications.
- **Scalable Hypervisor-Aware Snapshots:** Auto-Snapshot Manager/VMware integrates with VMware APIs to provide automated local protection for virtual machines.
- **Automated Site Recovery:** PS Series Auto-replication integrates directly with VMware Site Recovery Manager and is designed to achieve optimized disaster recovery automation and testing.

SIMPLIFY YOUR STORAGE AT WWW.DELL.COM/PSseries



EQUALLOGIC