



Bring the benefits of a physical SAN to your virtualized servers with a virtual SAN.

Is the cost of SANs for your virtual servers holding you back? Want higher availability storage for your virtual servers but lack the budget and room for an external SAN system?

The HP LeftHand P4000 Virtual SAN Appliance Software creates a shared storage node using resources that already exist inside the physical server running VMware ESX. These nodes can be clustered together to transform existing server storage into a clustered storage system that is managed as a single SAN. This allows you to use all VMware ESX advanced features that need shared storage such as VMware HA, VMotion, DRS, and SRM. You can use the P4000 VSA to cluster disks from multiple servers without disruption and add more as needed. The P4000 VSA is a VMware certified compatible SAN/Storage device customers can count on. Installed easily on any VMware ESX server, the P4000 VSA combines server virtualization and SAN on the same server platform and is fully integrated with HP LeftHand P4000 SAN Solutions.

Key features and benefits

Shared storage for VMware ESX environments: HP P4000 Virtual SAN Appliance Software creates a shared storage node using resources that already exist inside your server. These nodes can be clustered together to transform your existing server storage into a clustered storage system that can be managed as a single SAN to support VMware.

Enables VMware advanced features: A SAN using the P4000 VSA enables many of the advanced features of VMware that required shared storage at a lower entry cost including: High Availability (HA), VMotion, Distributed Resource Scheduling (DRS), and Site Recovery Manager (SRM).

Scalable without disruption: P4000 VSA allows for additional storage nodes to be added without interrupting the virtual SAN. Capacity can be added as required. Ideal for mid-market, remote/branch offices, and test and development environments wanting the benefits of VMware features without the cost or space.

VMware certified compatible SAN/storage device: The P4000 VSA is VMware certified compatible SAN/Storage device. VMware recognizes VSA as certified with VMware and supports customers using it with VMware software.



Easy to deploy and use—installs easily on any

VMware ESX server: The P4000 VSA installs easily to the hosting server with at least 5 GB of disk storage with a redundant RAID configuration; 1 GB of memory; a single CPU with at least 2000 MHz reserved; and a gigabit Ethernet network.

Combines virtual server and SAN on same platform:

By virtualizing the internal disk capacity of VMware ESX Server the P4000 VSA keeps the overall costs and footprint small.

Effective test and development environment:

Supporting your test environment with the P4000 VSA allows you to do a limited rollout of applications without investing in expensive storage systems. P4000 VSA is fully integrated with the HP LeftHand P4000 SAN Solution.

Cost effective disaster recovery: P4000 VSA offers simple disaster recovery for mid-market, remote and branch offices. Remote offices can enable all the VMware features once considered out of reach.

Efficient tiered storage: The P4000 VSA allows you to make use of that stranded storage in your VMware ESX servers. Use this storage as a second tier to complement the storage on the physical SAN.

Better Together/Attach

Integrated solutions with ProLiant Servers and StorageWorks products offer reduced time to startup and simplify your infrastructure. By purchasing them together you can take advantage of common development principles that drive tighter integration in future technologies. Run with confidence, knowing your unified system consists of servers and storage that have been configured and tested to meet your capacity, connectivity and design requirements.

HP ProLiant server solutions share common management tools with HP StorageWorks products (For example, SIM) and thus reduce the time and energy it takes to manage your IT infrastructure. HP remote diagnostics can monitor the overall IT environment and react quickly to potential problems before they result in application down time. With a single contact for your servers and storage, support problems can be resolved without confusion surrounding multiple hardware suppliers. Available factory integrated, HP servers and storage can be delivered together, racked, and configured to your specifications. For more information visit:

www.hp.com/go/factory-express

HP LeftHand P4000 Virtual SAN Appliance Software for VMware ESX Server Stock LTU	TA688AB
HP LeftHand P4000 Virtual SAN Appliance Software for VMware ESX Server LTU	TA688AA
HP LeftHand P4000 Virtual SAN Appliance Software for VMware ESX Server E-LTU	TA688AAE
HP LeftHand P4000 Virtual SAN Appliance SW 2-pack Integrators Only for VMware ESX Server LTU	TA694AB
HP LeftHand P4000 Virtual SAN Appliance SW 3-pack Integrators Only for VMware ESX Server LTU	TA695AB
HP LeftHand P4000 VSA Evaluation Software Version for VMware ESX Server www.hp.com/go/vsa	

QuickSpec URL: http://h18000.www1.hp.com/products/quickspecs/13255_div/13255_div.pdf

The Total Package—Solution

- HP LeftHand P4000 Virtual SAN Appliance software is a certified VMware ESX Server SAN/Storage system and VMware virtual appliance for entry environments
- Turns unused storage internal to VMware Infrastructure servers into shared storage—gain benefits of a SAN without requiring a physical SAN infrastructure
- Take advantage of VMware Infrastructure’s advanced features such as VMotion, HA, DRS, VCB and SRM which require shared storage, without purchasing external SAN system
- Enables a DR solution for remote or branch offices that do not have budget, space, or power for a traditional SAN

The Total Package—Software

- Easy to deploy and manage using simple management console
- Runs on any server certified with VMware ESX
- Installs easily on any VMware ESX server with few system requirements
- Scale storage by clustering disks in multiple servers into single pool of storage
- Network RAID synchronously replicates data across disks for redundancy

- Synchronous replication for data replication to remote sites
- Snapshot capability for data protection
- Thin Provisioning for efficient storage utilization
- Certified with VMware Site Recovery Manager for a simple and affordable DR solution

Hardware Prerequisites

HP LeftHand P4000 Virtual SAN Appliance Software for VMware ESX requires VMware Infrastructure 3.X with at least:

- 1 GB of RAM reserved
- 1 virtual CPU with 2 GHz reserved
- 5 GB of disk storage
- A dedicated Gigabit virtual switch

Warranty

One year of HP Software Support, standard 9x5 business hours phone support (software technical support and software product and documentation updates).

HP warrants only that the software media will be free of physical defects for a period of ninety (90) days from delivery. For more information about HP Global Limited Warranty and Technical Support, visit:

www.hp.com/products/storageworks/warranty.

Service and Support

Customer Technical Training

Consider education as an integral part of your strategy to get the best return on investment for your HP storage solution. HP offers a variety of training courses on storage software, networking, archiving and disk storage systems. Our classes are available in many delivery modalities from traditional instructor-led courses at one of our 80 training centers worldwide to on-site training customized to your needs or online.

www.hp.com/learn/storage

Financial Services

HP Financial Services provides innovative financing and financial asset management programs to help customers cost-effectively acquire, manage and ultimately retire their HP solutions. For more information on these services, please contact your HP representative or visit

www.hp.com/go/hpfinancialservices

HP Services

Put the strategic and technical know-how of HP Service experts to work for you: When you buy HP LeftHand SAN Solutions, it's a good time to think about other levels of service and support you may need. You can trust the service professionals at HP to collaborate with you to make technology the difference in your business.

Recommended services

- **HP Support Plus 24 Service:** For around-the-clock, reactive onsite hardware support and over-the-phone software support.

Related Services

- **HP Proactive 24 Service:** Integrated proactive and reactive services, for businesses looking to achieve better performance, higher availability and greater stability.
- **HP Proactive Select Service:** Improve IT performance and manageability, for businesses looking for services flexible enough to cover the IT product lifecycle and adapt to changing needs.

When Technology works. Business works.

For more information, contact your HP sales representative or HP-authorized Channel Partner or, visit <http://www.hp.com/hps/storage>.

Technology for better business outcomes

To learn more, visit www.hp.com/go/vsa

© Copyright 2009 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

4AA2-5104ENW, April 2009

