Storage Virtualization Software
Selling With Microsoft® Virtualization Solutions

Experience SANs with the highest availability, fastest performance and fullest utilization

Virtually everything hinges on storage. Server and desktop consolidation, in particular, place extraordinary demands on it. Too often, disks slow down, interrupt or endanger these centralized IT operations not because they are poorly designed or built, but because they are physically constrained. Microsoft Windows Server® 2008 Hyper-V® and Hyper-V Server help you to overcome similar limitations in CPU and memory, however, when it comes to advanced functions such as workload migration, load balancing, fail-over and disaster recovery, server virtualization is completely dependent on highly available (HA) shared storage. You will be shocked at the high hardware costs and major overhaul generally proposed to put such a storage infrastructure in place.

DataCore™ storage virtualization software delivers a radically simple, high availability solution to meet Hyper-V's shared storage requirements. The software abstracts your storage into idealized, virtual disks akin to virtual machines. It pools and mirrors disk blocks across available devices, despite differences in make and model. In the process, it speeds up I/O response and throughput using extensive SAN-wide caching. This lets you take optimum advantage of Microsoft's full suite of capabilities without hesitation. From a central console, you can non-disruptively provision, share, clone, replicate and expand virtual disks among physical servers and VMs. DataCore yields the highest availability, fastest performance and fullest utilization from your storage assets, making it an essential element of your Microsoft "Data Center to Desktop" Virtualization Strategy.

Key Product Features

- **Highly Available (HA), Shared Virtual Disks:** Delivers fault-tolerant, shared, virtual disks across physically separate arrays by synchronously mirroring I/Os over the SAN. Automatically fails over when equipment is taken out-of-service (intentionally or otherwise), quickly resynchronizes mirrored pairs when the resources are restored and automatically fails back to the original active-active HA I/O paths.
- **Thin Provisioning:** Minimizes capacity consumption and maximizes disk utilization by only allocating space to non-zero writes. Virtual capacity can oversubscribe physical pool, but warns when to add more disks.
- **Online Snapshots:** Offers rapid, low impact, instant point-in-time snapshots and full LUN cloning that are Thin-Provisioned.
- **Disaster Recovery (DR):** Maintains up-to-date disaster recovery images at remote sites through asynchronous remote replication over standard IP WANs.
- **High-speed Caching:** Speeds up storage performance by factors of 2X or more through high-speed, SAN-wide, external caching that taps the power of x86/X64 architecture servers.

Certified for
Microsoft® Windows Server™ 2003 Standard Edition

Key Product Differentiators

- Most effective way to get the highest availability, fullest utilization and fastest performance from existing storage assets.
- Comprehensive set of integrated and scalable virtual LUN management, I/O processing and data protection functions supplied as packaged software.
- Spans all storage assets despite differences between manufacturers and models.
- Takes full advantage of existing storage devices and seamlessly accommodates the addition of new disk arrays into the virtual storage pool.
- Significantly accelerates application response (rather than degrading it) by extensively caching disk I/Os.
- Runs on physical servers and virtual machines to accommodate wide range of needs.
- Employs the same, centralized commands and administrative interface across all types of storage devices.
- Virtualizes storage resources for all the major server operating systems, hypervisors, server and OS virtualization solutions.
- Underlying network servers can be replaced at anytime with higher performing and more cost-effective ones while preserving software investment and best practices.
- License upgrades are calculated as the difference between the two prices at MSRP. Unlike hardware-embedded products, DataCore software is fully portable to faster machines without becoming obsolete.

DataCore™ SOFTWARE

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System Requirements

- DataCore software is installed on standard x86/x64 servers (physical or virtual) running Windows. The servers become "universal storage controllers" on the SAN.
- Two DataCore storage controllers are required for high-availability (HA) or disaster recovery (DR). Additional DataCore storage controllers may be configured for larger workloads, greater scalability and better resiliency in SANsymphony™-V N+1 redundant configurations.
- Internal disks drives or external disk arrays are connected to the DataCore servers via IDE/ATA, SCSI, SATA, SAS, iSCSI, FireWire, Fibre Channel or other disk interface supported by the DataCore storage controllers.
- The DataCore storage controllers and their virtual disk pool are accessible over the storage area network (SAN) through iSCSI, Fibre Channel (FC) and Infiniband connections from each client computer.
- Supports Windows, AIX, HP-UX, Solaris, RedHat & SUSE Linux, NetWare and OS X clients. Also supports any of the major hypervisors and server virtualization solutions.

Pricing

- $4,000 U.S.D. MSRP for a pair of SANsymphony-V 500GB licenses to achieve high-availability or disaster recovery with built-in replication. Price varies with capacity under management in the physical pool.
- Add approximately 25% of license list price for annual software maintenance and technical support.

Target Customer Profile

Typical Customer Buyer Titles

- "C" Level executives
- IT or System Operations Managers and Directors

Organizational Profiles

- IT organizations across all vertical industries
- Organizations large or small with a few hundred gigabytes to petabytes of capacity

Questions to Ask

1. How many more users or workloads will you bring down when one of your newly consolidated servers has to be taken out of service?
2. How frequently are you forced to take down applications to maintain, upgrade, reconfigure or expand your storage configuration?
3. How difficult is it to schedule and coordinate these outages and migrations, especially as more users aggregated by virtualization depend on the same physical servers?
4. What steps do you foresee taking to increase the availability of your online storage resources to minimize these costly disruptions?
5. What portion of your disaster recovery plan are you unable to implement and why?
6. Do users complain that their disks seem to be running out of space or run slowly? What alternatives are you considering to address the issues?
7. Where has your existing storage area network (SAN) fallen short of satisfying your storage requirements?

Instructions

This Sales Reference Card provide guidelines for selling DataCore software products into IT environments using or planning to use Microsoft **Windows Server 2008 R2 Hyper-V or Hyper-V Server R2.** Please refer to the accompanying customer-facing solution brief for:

- Business challenges encountered by these customers
- Use case scenarios
- DataCore solution highlights
- Illustrations

Closing the Deal

Sales Pointers

- Emphasize the severity and urgency associated with their exposure to single points of failure.
- Position DataCore as a must-have software component to get the fullest use, highest availability and fastest performance from their existing storage assets.
- Always propose HA configurations. Single node implementations may be easier to get in the door, but they perpetuate the single point of failure problem.
- Do not position the DataCore solution as a head-on competitor to someone else's storage equipment. Rather, leverage storage equipment already in place to reduce costs. Note that they are free to choose hardware from any of the manufacturers in the market.

Sales Objection Handling

Won't the storage virtualization software further degrade performance?	On the contrary, DataCore software accelerates I/Os by using standard x86/x64 servers as powerful network based I/O caches dedicated to the virtual storage pool under its control. Many examples of the speed up are available at www.datacore.com. By the way, it gets even faster and more cost-effective when you decide to substitute newer and faster x86/x64 servers over time. Additionally, you can swap them out non-disruptively while another redundant server covers the workloads.
Other vendors are telling me to stay away from software solutions that are not tightly integrated with hardware at the factory.	Of course they would. They prefer to lock you into their hardware and firmware which only works within the confines of their specific product. Consider instead, how having DataCore software controls and manages all your storage devices, giving you the freedom to add or replace equipment without being locked into any one model or brand. Any new skills and best practices that you develop while using DataCore software continue to be valuable as you add new disk arrays or upgrade older ones. There is no throw-away. Your software investment lives on.
But I'm looking to have one solution that handles block and file services.	Our recommendation is to treat your file servers as consumers of the virtual disk pool, rather than lump conflicting block and file services on the same device.

For additional information, please visit: www.datacore.com **or e-mail:** info@datacore.com