

## SANsymphony-V from DataCore Software



# PRODUCT REVIEW PRODUCT

The enormous growth of network storage in the enterprise is forcing businesses to consider new ways of managing their storage capacity so as to keep within budget. Storage virtualisation is a significant consideration and the latest SANsymphony-V software from DataCore offers a viable solution, offering a keen focus on data availability, disaster recovery and performance.

SANsymphony-V reduces costs over proprietary SAN products because it allows you to choose non-proprietary hardware platforms and storage devices. The choice of storage devices can include anything attached to the Windows servers running the DataCore software, so you can use local hard disks, DAS or SAN arrays, and even the latest FCoE (fibre channel over Ethernet) devices. As long as the DataCore server can address the drives, then SANsymphony-V can use them.

Loading SANsymphony-V onto two servers with multiple network ports brings synchronous mirroring into play, delivering always-on data access. Real time I/O replication runs across the two nodes, so, if one fails, the virtual disks remain available to all of the attached hosts. Connect your hosts over MPIO (multi-path I/O) links and you have created complete end-to-end redundancy.

For lab testing, we deployed a pair of dual Xeon X5560 servers running Windows Server 2008 R2 and had SANsymphony-V installed on them in a matter of minutes. The new

management console is very impressive. It allows you to view all of your DataCore servers, attached physical storage, virtual resources and hosts from a single location.

The 'Getting Started' page makes light work of initial configuration by providing step-by-step guides for all functions. After adding our servers, we configured their port roles for mirroring duties and registered our test host systems, which were already logged in, using Microsoft's iSCSI initiator.

Using Disk pools, we could group physical storage devices together, and from here we could create different tiers to present various options based on performance, capacity and cost ratios. Creating a mirrored virtual disk was a cinch, achieved by selecting a pool on the first server, deciding on capacity, choosing the corresponding pool on the second server, and then leaving SANsymphony-V to do the rest. Virtual disks were then assigned to hosts and as long as they are already logged in to both servers, SANsymphony-V will automatically create fault-tolerant MPIO links. IP SAN performance sits comfortably alongside more costly hardware solutions.

Using Iometer we recorded a fast raw read rate for a mirrored target of 112MB/sec. Snapshots provide point-in-time backups of virtual disks and usefully any can be selected and presented to hosts as new virtual disks. CDP (continuous data protection) goes a step farther, as its history log allows you to rollback a virtual disk to any time during the period

that it was enabled.

For full disaster recovery you have offsite replication, where you select a local virtual disk and partner it with a remote disk on another SANsymphony-V server. The secondary server could easily be at a remote site and DataCore uses asynchronous replication to keep them in step. If the disk at the primary location fails, it can easily be restored from the offsite copy.

Thin provisioning is another valuable storage management feature, and this allows you to present virtual disks that are much larger than the physical space they occupy. It is only space that has been written to that is considered to be consumed, and SANsymphony-V dynamically allocates disk blocks as and when they are required. Along with a swift deployment, we were impressed with the sheer number of storage virtualisation features on offer. DataCore has a sharp focus on data availability.

SANsymphony has always offered a more cost-effective alternative than that on offer from proprietary network storage solutions and this latest version makes its case even more compelling. **NC**

**Product:** SANsymphony-V  
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**Price:** Fully redundant configurations, \$10,000 (USD)