

DataCore's Global Users List Top Ten SAN Tips and Real-life "Lessons Learned" for Virtualization

DataCore Software has published key findings from a series of global user group roundtables in which DataCore data center users identified key lessons they learned in working with DataCore's products for storage control, storage management and storage consolidation. Comprising the user group roundtables were representatives from Maimonides Hospital (US), Canon (US), NewYork-Presbyterian Hospital (US), Fidelity's Homebuilders Financial Network (US), World Savings (US), Fingerhut (US), Hunterdon Medical Center (US), Yorkshire Water (UK), Stephenson Harwood (UK), NAPP Pharmaceuticals (UK), Degussa (Germany), Bitburger (Germany), among many others.

"DataCore held a series of quarterly, user group roundtable meetings in the Americas, Europe and Asia Pacific regions," said George Teixeira, President and CEO of DataCore Software. "The knowledge that we have derived by holding these roundtables is revealing, and we feel that it is important to share this with the data storage community at large to help further best practices in the industry."

Key lessons learned from DataCore's global user groups include:

#1 -- Keep it simple and avoid complexity.

While hardware independence is crucial for purchasing advantages, users agreed that it is best within a given site to standardize on common hardware where practical (i.e. a maximum of 2 or 3 models/vendors); to zone by function (i.e. backup) or by application type so it is simpler to isolate problems; to set up a simple and obvious naming convention; and to protect systems with redundant paths and mirror key elements of the configuration wherever possible.

#2 – Flexibility is key. Avoid vendor lock-in and proprietary hardware.

Participants in the user roundtables also emphasized the benefits derived from selecting hardware independent, portable, management software that enables flexibility to meet change and chose hardware. It was interesting to note that many virtual storage users were first introduced to the benefits of virtualization through seeing the benefits of virtual server technologies.

#3 -- Document the storage area network (SAN) environment.

Many participants said that they wished they had known this key, but often ignored, point earlier. Planning and documenting the SAN environment can reduce complexity as the network grows. They recommended taking the time to think through the naming convention and make it simple and logical so it can grow with the SAN.

#4 -- Test, test, test.

Participants worldwide hailed the benefits of setting up a test or pre-production SAN.

#5 -- People, Product and Procedure are all equally important.

Storage management requires an understanding of the skill sets, training and procedures within the enterprise. Don't expect software miracle cures; it is only one dimension of the solution. To fully realize the new benefits and cost savings possible, think about how current processes should be adjusted to the new virtual infrastructure.

#6 -- Good fences make good neighbors.

Segregate storage traffic from the internal/public network (e.g. security), and limit SAN access to "trained" personnel who understand the SAN. SANs support many servers and users; best practices and training must be embraced and instituted.

#7 -- Deploy a SAN with advanced storage management features to get more than connectivity.

Today's state-of-the-art features for storage management include storage virtualization, automated tools, snapshots, CDP technologies, storage pooling, "Auto-Grow" virtual capacity and remote replication. These advanced features enable a great deal of automation and allow the SAN to scale as well as to meet new requirements.

#8 -- Deploy a SAN solution with redundancy throughout.

A SAN architected correctly will achieve much higher levels of availability. Obviously, to get best results, SAN solutions should be fully redundant and have dual controllers, power supplies, fans, network connections, as well as hot-swappable disk drives and components.

#9 -- Future-proof for storage management.

Computers are advancing every year, disk prices are dropping dramatically, and new innovations like iSCSI and SAS are now practical. A hardware independent infrastructure can absorb new innovations when they make sense. Select storage management software and a SAN that can start at a size that meets today's need, grow easily and cost-effectively, and be upgraded without downtime.

#10 -- Keep it simple and avoid complexity for backups and disaster recovery.

Where practical, simplify and reduce backup procedures using continuous data protection (CDP) technologies, disk-to-disk copy and snapshots. Together they give users greater control of their data protection and backup process as well as make it possible for users to utilize disk technologies to buffer storage and avoid the ever-shrinking backup windows. When practical, utilize simple synchronous mirroring of the storage pool for disaster recovery (cross campus, cross town) or new asynchronous, IP-based mirroring for cost effective replication across longer distances.

Virtualization Footnote:

DataCore has thousands of virtual SAN deployments around the world. An interesting point made by roundtable participants was that while many were hesitant to adopt virtual infrastructures at first, once they did make use of virtual server technologies (e.g. deploying VMware or Microsoft virtual servers) or DataCore software for storage virtualization they became champions for further virtualizing their IT environments. Cost savings, hardware independence, better resource utilization, greater productivity and faster response to change were the main reasons they changed their minds and decided that going virtual is the better way to go forward.



About DataCore Software

DataCore Software fundamentally changes the economics of management storage with innovative software that combines advanced functions and services with the agility and savings of hardware independence. DataCore's disk server software easily adds capacity expansion and centralized storage management for Windows, UNIX, Linux, VMware, MacOS, and NetWare systems. DataCore is privately held with corporate headquarters in Fort Lauderdale, Florida. For more information, visit www.datacore.com.



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