DATACORE™

DataCore™ Virtual SAN Converged Storage Solution for Clustered Servers

ACCELERATES PERFORMANCE

IMPROVES UPTIME

KEEPS COSTS LOW

Looking for an attractive converged storage solution to share data among clustered servers? The DataCore ™ Virtual SAN software pools, replicates and caches the internal storage from your servers without requiring a separate external SAN. It offers incredibly fast access to internal storage close to the applications, while ensuring continuous data availability. As importantly, it runs in compact hardware configurations you choose to cut costs and keep management simple. The software has been especially designed for several uses cases, including:

REMOTE OFFICE / BRANCH OFFICE (ROBO) SITES

These locations require high-availability (HA), but frequently lack the space and budget for a SAN. There's the added pressure to reduce costs when tens, hundreds or thousands of locations are involved. Restaurant chains, hotels, retail stores, health care clinics, bank branches and manufacturing plants make good candidates.

According to Evaluator Group

Virtual SANs are becoming a priority as storage and virtual infrastructure administrators seek ways to lower storage costs while providing the high availability and reliability expected from storage networks.

LATENCY-SENSITIVE, VIRTUALIZED APPLICATIONS

Increasingly, databases (MS SQL Server and Oracle DB), applications based on databases (MS Exchange, MS SharePoint, SAP), as well asVDI (VMware Horizon and Citrix XenDesktop) are deployed on applicationspecific clusters to minimize resource contention and I/O bottlenecks. High performance tops their list of requirements, as does the ability to start small and quickly scale out as demand surges. The need to contain costs for these dedicated servers is heightened.

DataCore Virtual SAN Solution Highlights: Compact, Fast, and Highly-Available, Without Spending a Bundle!

SMALL FOOTPRINT, MINIMAL INFRASTRUCTURE

With DataCore, you can set up a fully-redundant cluster with just two servers and inexpensive internal storage. That's all many ROBO sites and application clusters need. Other alternatives require you to use a minimum of 3 or 4 servers, driving up costs and complexity unnecessarily. The 33% to 50% savings becomes especially significant when calculated across numerous sites and clusters.

10X FASTER PERFORMANCE FROM HIGHSPEED MEMORY CACHING

Much of the interest in converged systems and serverside flash stems from the need to speed up applications. These I/O-intensive workloads incur relatively long delays when retrieving and updating shared data over an external SAN. Since many concurrent requests contend for the same central storage system, the delays are magnified.

In DataCore's distributed architecture, the software caches data right next to each application using the server's high speed memory (RAM). The data is kept directly on the server to avoid network latency. RAM is much faster than flash, responding in nanoseconds rather than microseconds, which explains why DataCore customers report up to a 10x performance increase.

OPTIMIZE FLASH AND DISK

Other converged storage products require you to purchase additional server flash strictly for caching. DataCore, on the other hand, uses RAM already in your servers to speed up read and write data access. Instead of using flash for caching, it is used as a persistent storage tier, complementing magnetic disks. Both will benefit from RAM caching. The distributed cache scales naturally as the number of servers in the cluster grow, effectively multiplying the IOPS and throughput sustainable by the cluster.

Further speed ups and cost reductions result from dynamic optimization of flash resources using auto-tiering. DataCore Virtual SAN automatically determines which portions of your data are best served by solid state devices, and which parts will do well with lower cost spinning disks. This saves you from over-provisioning pricier flash as you might do with static resource allocation required in other products.

For VDI, the combination of RAM caching and auto-tiering directly on the servers has the added benefit of increasing the number of virtual desktops you can pack into a physical machine, while maintaining the desired level of performance.

With DataCore's Virtual SAN solution customers report these impressive results[1]:

Up to **75%** reduction in storage costs*

Up to **10x** performance increase*

Up to **4x** capacity utilization*

Up to **100%** reduction in storage-related downtime*

To learn more about our solution visit **www.datacore.com/virtualsan**

An important piece of advice:

When evaluating converged or integrated solutions, look out for products that prevent you from making mid-course corrections. DataCore customers over the years attest to how easily they're able to respond to the uncertainties the future brings.

CONVERGED STORAGE THAT DOESN'T TIE YOUR HANDS

In contrast to converged and hyper-converged systems that force you to buy their servers, their storage and their networking gear, DataCore lets you make the best use of the equipment you already own. When the time comes to expand or replace it, you also have complete freedom to select hardware from other suppliers. That gives you the rare chance to evolve nondisruptively as your needs change, and puts you in the driver's seat when negotiating your next purchase.

EXTENSIBLE ARCHITECTURE ADAPTS TO FUTURE SURPRISES

The possibility to scale compute, networking and storage simply by adding servers feels like the right approach today. However, it may not make as much sense if data expands much quicker than your computational requirements. Rather than waste money on extra processors and memory, as others require, with DataCore's Integrated Storage Architecture you can seamlessly tap into capacity on external SANs and cloud storage; all managed end-to-end from the same central console.

HYPERVISOR-AGNOSTIC

In a similar vein, consider how some hyper-converged offerings trap you into a specific server hypervisor. Months from now, continued price hikes and budget pressures may well require you to consider a different supplier. DataCore Virtual SAN software works on all the popular server hypervisors (ESXi, Hyper-V, KVM, Oracle VM, and XenServer). You can use it to share data across them during the transition. It supports Windows Server Failover Clusters on physical servers equally well.

DATACORE VIRTUAL SAN: THE IDEAL CONVERGED STORAGE SOLUTION FOR ROBO AND HIGH-PERFORMANCE APPLICATION CLUSTERS

The DataCore Virtual SAN software provides the best option for sharing data in compact ROBO sites, as well as in server clusters where performance requirements can only be met by bringing storage close to the applications. The advanced software accelerates and safeguards data across clustered servers incorporating external SAN resources when their added capacity and capabilities are required. The integrated approach results in the lowest TCO and simplest operations. In fact, customers report up to 75% lower spending on storage with DataCore.

> We would not have been able to achieve the overall agility, cost-savings and productivity benefits without DataCore.
>
> *- IT MANAGER, DISABILITY RIGHTS TEXAS*

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WORKS CITED

1. Research results by TechValidate (www.techvalidate.com)

DATACORE SOFTWARE

DataCore is a leader in software-defined storage. The company's storage virtualization software empowers organizations to seamlessly manage and scale their data storage architectures, delivering massive performance gains at a fraction of the cost of solutions offered by legacy storage hardware vendors. Backed by 10,000 customer sites around the world, DataCore's adaptive and self-learning and healing technology takes the pain out of manual processes and helps deliver on the promise of the new software-defined data center through its hardware agnostic architecture. For more information go to www.datacore.com

For additional information, please visit **datacore.com** or email **info@datacore.com**

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