DATACORE™

Hyperconverged Infrastructure Based on Software-Defined Storage

Building a hyperconverged environment with DataCore SANsymphony software-defined storage delivers ultimate flexibility, scalability, and cost-efficiency for your HCI platform.

KEY BENEFITS

- **Ultimate Flexibility:** Customize HCI as needed with any component from any vendor
- **Centralized Command & Control:** Deliver uniform data services across HCI clusters and other SAN devices
- **High Availability:** Achieved with only two HCI nodes using synchronous mirroring and automatic failover
- **Storage Efficiency:** Benefit from capacity optimization, performance acceleration, and load-balancing across HCI nodes
- **Extreme Scalability:** Easily scale out from 2 to 64 nodes on demand
- **Future-proof Architecture:** Easily integrate new technologies into your HCI environment without painful migrations

Hyperconverged infrastructures (HCI) are gaining popularity from the edge to the core where IT teams are looking to reduce the complexity and cost overheads of running a three-tier environment with servers, storage systems, and network fabrics that are separately implemented, configured, and managed. HCI consolidates servers, storage, the hypervisor, and some network functions into a software-centric solution deployed on commodity hardware.

The simple converged form factor of an HCI appliance enabling rapid deployment, its predictable scalability, and high availability make it a compelling technology to run various workloads. IT organizations can start small with HCI and grow linearly on demand thereby reducing upfront infrastructure costs and hardware footprint.

> *The global HCI market size is expected to grow from USD 7.8 billion in 2020 to USD 27.1 billion by 2025, at a compound annual growth rate (CAGR) of 28.1%.*
>
> **- HCI Market Report, Markets and Markets**

SOFTWARE-DEFINED STORAGE FOR HCI ENVIRONMENTS

DataCore SANsymphony software allows you to customize your HCI cluster based on your choice of components (server, hypervisor, CPU, RAM, network, SSDs, HDDs) and vendors. You can run your HCI platform on its own or seamlessly integrate it into your broader storage infrastructure, while managing all storage resources under a single platform.

Powered by advanced block-level storage virtualization technology, SANsymphony provides ultimate flexibility to control how you store, protect, and access data. It also ensures business continuity with just two nodes, easily scaling out to 64 nodes, and lets you achieve greater productivity for performance-demanding workloads by improving I/O processing and reducing read/write latency.

FEATURES AT A GLANCE

- Ensure high availability and uninterrupted access for your data
- Enhance application performance and response times
- Automate data services, such as tiering, snapshots, replication, and more
- Choose components from a variety of vendors for truly flexible deployment
- Extend your HCI storage to serve non-HCI applications
- Scale compute and storage independently (for example, with external storage)

> *Dramatically lower both capital and operational costs with DataCore's revolutionary architecture and integrated management, which efficiently leverages the full power of your hardware. Most hyperconverged products place restrictions on the hardware or hypervisors that your business can choose. DataCore SANsymphony gives you the freedom to deploy and grow your hyperconverged infrastructure the way you want.*
>
> Gartner PeerInsights
>
> ★★★★★
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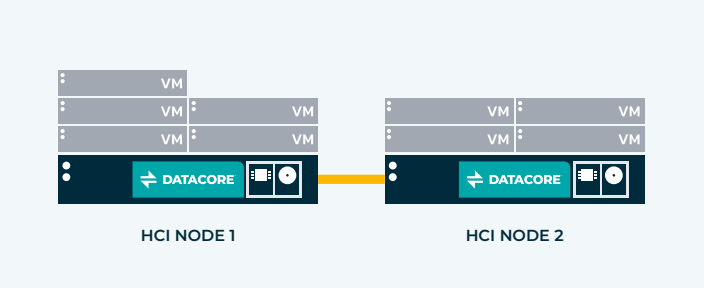
> *Analyst, Services Industry*

USE CASES: DEPLOYING SANSYMPHONY ON HYPERCONVERGED INFRASTRUCTURES

SMALL DATA CENTER

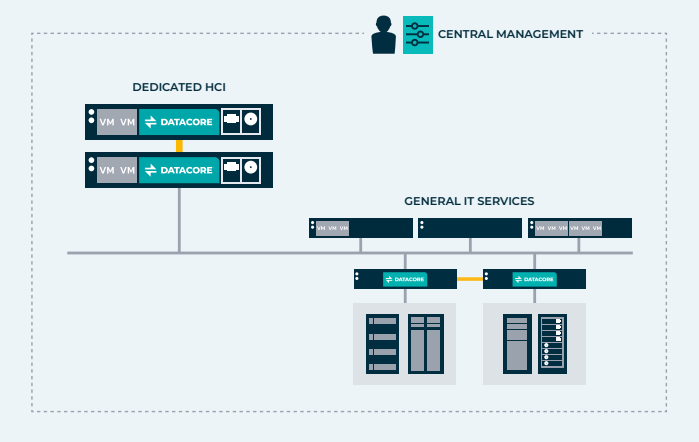
SANsymphony can be deployed on a small data center infrastructure which runs two HCI nodes and can scale out as needed. Standard x86 servers can be customized into HCI nodes paired up for high availability. No separate storage is required. Based on the business demand, SANsymphony can scale from 2 to 64 nodes. Additionally, when there are applications running separately on non-HCI servers, they can access storage from SANsymphony-powered HCI nodes.



DEDICATED APPLICATION CLUSTER

When IT requirements need specific applications to run in a separate cluster outside of the core data center servers and storage infrastructure, SANsymphony can help run them on a HCI platform separated from, yet integrated with, the primary data center. Benefits include improved storage management across the data center, including the dedicated application cluster, with a centralized control plane, as well as the ability to:

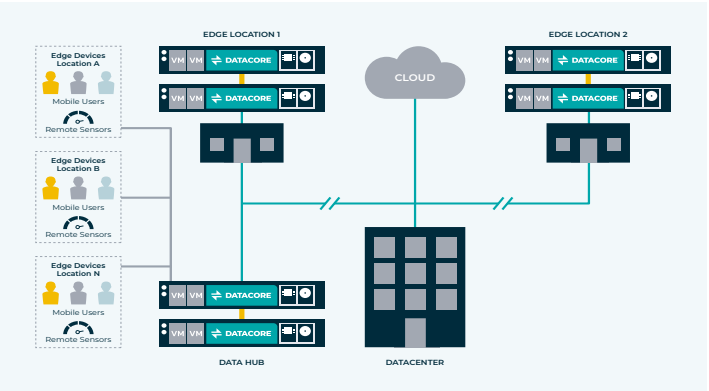
- Meet compliance objectives
- Save on license cost of applications
- Ensure QoS levels
- Achieve lower TCO with smaller hardware footprint



EDGE COMPUTING

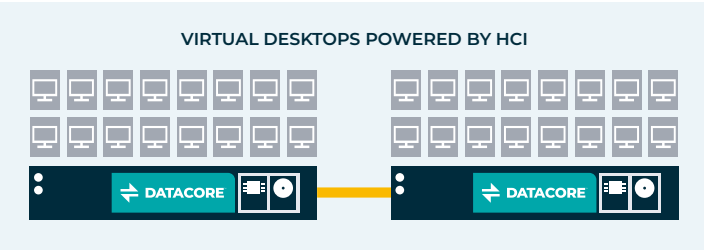
SANsymphony-powered HCI nodes can be deployed and run at edge locations where local data processing is required. Manage storage across all locations from one console and centralize control over data services even though the HCI nodes are running independently in distributed locations.

ROBO and **IoT** deployments are also supported.



VIRTUAL DESKTOP INFRASTRUCTURE

With SANsymphony for VDI you can run virtual desktop workloads on low-cost HCI servers and linearly scale compute and storage as required. Additionally, the performance acceleration features in SANsymphony help you improve storage performance and achieve lower cost per desktop with increased user density per server.



BENEFITS FOR IT ORGANIZATIONS

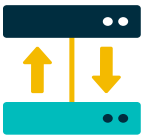
ULTIMATE FLEXIBILITY: NO VENDOR LOCK-IN OR DEPLOYMENT CONSTRAINTS

DataCore lets you make the best use of the equipment you already own unlike typical hyperconverged vendors that lock you to their offerings. When the time comes to expand or replace it, you have complete freedom to select hardware from other suppliers. That puts you in the driver's seat when negotiating your next purchase. And, if you eventually need to transition to a converged deployment model, leverage separate storage, or serve hyperconverged storage to non-HCI applications, you can do so seamlessly without disrupting your business operations.

EXTENSIBLE ARCHITECTURE ADAPTS TO FUTURE NEEDS

Scale compute and storage independently for your HCI environment on-demand and reduce IT spending. Seamlessly tap into capacity on external SANs, all centrally controlled from the same console. You can also configure non-HCI servers to access storage from HCI nodes.

SANsymphony lets you easily integrate new technology into your HCI cluster without painful data migrations and forklift upgrades. And you can also non-disruptively migrate between traditional SAN, hyperconverged, and hybrid environments as the business demands with no impact on your applications.



COST-OPTIMIZED HIGH AVAILABILITY

SANsymphony enables you to achieve true high availability using just two HCI nodes. By synchronously mirroring data in real time to a secondary HCI node, SANsymphony ensures data availability for your mission-critical applications.

WELL-SUITED FOR MIXED HYPERVISOR ENVIRONMENTS

If you use different hypervisors for different workloads or are migrating from one hypervisor to another, SANsymphony works on VMware vSphere and Microsoft Hyper-V letting you provision storage to the hypervisor the same way you provision virtual compute resources.

PROVEN CAPABILITIES OF DATACORE SANSYMPHONY SOFTWARE-DEFINED STORAGE

Parallel I/O – Processes I/O in parallel vs. serially for increased application performance

Caching – Accelerates application performance by using CPU cache/RAM as read and write cache

Random Write Accelerator – Eliminates random write performance penalty

Auto-Tiering – Automatically sets tier assignments based on data usage patterns, with support for up to 15 storage tiers

Load Balancing – Auto balances I/Os across devices and bypasses failed/offline channels

Quality of Service (QOS) – Limits I/O traffic from lower priority workloads and enables critical apps to run faster

Storage Pooling – Splits tiers based on price/performance/capacity and eliminates stranded disk space

Deduplication/Compression – Reduces the required storage space

Thin Provisioning – Only consume what is needed; no wasting of storage space by pre-allocating it

Replication & Site Recovery – Bi-directional asynchronous replication with automatic failover, resynchronization and failback in case of a disaster

Continuous Data Protection – Behaves as an undo button for any unwanted change

Encryption – XTS-AES 256-bit encryption for data at rest, which is storage device-independent

Synchronous Mirroring – Eliminates storage as a single point of failure, offers fully transparent and automatic failover, resynchronization, and failback

Snapshots – Allows simple and fast generation of independent point-in-time copies

WHY DATACORE FOR HCI

DataCore helps you customize your hyperconverged deployment with greater flexibility than any other HCI solution. Whether it is leveraging existing assets, a remote outpost or a dedicated extension of your current data center, SANsymphony readily adapts to your unique situation. When requirements call for high-performance and uninterrupted operations in an affordable, compact footprint, we will tailor it just right for you.

If you are weighing the differences between HCI and centralized SANs, feeling uncomfortable about the trade-offs and the stark differences, we will craft a hybrid configuration that gives you the best of both worlds. DataCore software-defined storage solutions incorporate assets you already have in place to reduce the cost, time, and effort for a successful HCI rollout.

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DATACORE

REQUEST A FREE TRIAL

Discover the Ultimate Flexibility of DataCore Software

DataCore Software delivers the industry's most flexible, intelligent, and powerful software-defined storage solutions for block, file and object storage, helping more than 10,000 customers worldwide modernize how they store, protect, and access data. With a comprehensive product suite, intellectual property portfolio, and unrivaled experience in storage virtualization and advanced data services, DataCore is The Authority on Software-Defined Storage. **www.datacore.com**