

Lenovo SDS Solution with DataCore

Highly available, high-performance software defined storage



Growing Demands, Shrinking Budgets: The Perfect Storm

Rapid evolution of technology has drastically increased IT complexity for businesses of all sizes. Virtual-everything is now the standard and the rise of container-based applications has introduced new performance expectations along with big challenges around data persistence and protection.

Ever tightening data retention regulations often demand that legacy storage systems coexist with these newer, more advanced technologies. When you layer a shrinking IT budget on top of the growing complexity, what you have is the perfect storm.

Lenovo + DataCore: The Perfect Solution

The powerful combination of industry-leading Lenovo ThinkSystem servers and the rich functionality of DataCore software is the ideal foundation for the modern, software-defined data center.

Designed to help customers efficiently manage increasing storage complexity and demands, these validated solutions provide easy scalability and single pane management at a fraction of the cost of legacy systems — without trade-offs in availability, reliability, or functionality.

Lenovo's global leadership and innovation includes industry-leading reliability* and world-class performance for business-critical applications and cloud deployments.

DataCore software turns ThinkSystem servers into very intelligent and extremely capable storage systems designed to meet your business requirements and provides easy deployment of software-defined storage (SDS) into your data center. Together, they are the perfect solution to get more efficiency and performance out of your storage infrastructure.

While DataCore has been validated to run on any Lenovo ThinkSystem server, ideal units to complement DataCore software are the ThinkSystem SR630, SR650 and SR950. Both the SR630 and SR650 are designed to handle most data center workloads.

The SR630 is a 1U 2-processor system and provides high performance and a large storage capacity. The SR650 is a 2U 2-processor system designed for speed and expansion with flexible storage and I/O options.

The SR950 is a powerful 4U 8-processor system for workloads requiring large memory and storage capacity.

Lenovo™

Eliminate Bottlenecks

DataCore Multi-Core Parallel I/O Technology, in combination with ThinkSystem's powerful Intel® Xeon® processors and high-speed RAM caching, are designed to service read/write requests quickly, while automatically moving data between spinning disks and flash to optimize performance.

Zero Downtime

Data is mirrored in real time between separate storage systems to maintain continuous availability despite equipment and site outages.

You can quickly and confidently deploy new storage technologies such as NVMe or conduct migrations with no disruption. Extensive automation frees system administrators to care for other parts of their infrastructure.

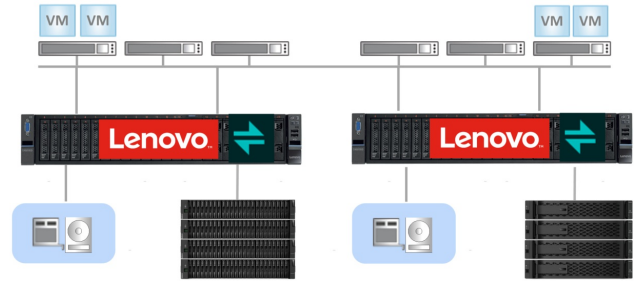
Maximize Investments

The new Lenovo SDS solutions deliver easy expansion for scalable deployments, as well as integration with existing storage infrastructure, enabling you to grow your SDS deployment on your own terms.

DataCore supports all of the popular storage devices from flash and disks inside servers to storage arrays and public cloud storage.

DataCore Software

DataCore software optimizes storage infrastructures with the highest levels of performance, availability, and utilization with innovation such as DataCore Multi-Core Parallel I/O Technology.



The Lenovo SDS Solution with DataCore allows you to unify, virtualize, and manage heterogeneous storage. Data services can be propagated across all storage arrays and the solution can be scaled up or out by adding more capacity or more virtualization nodes.

In addition, the software takes isolated storage devices, sometimes spread between different locations, and places them under one common set of enterprise-wide data services. Pooling the collective resources, it manages them centrally and uniformly despite the differences and incompatibilities among manufacturers, models, and generations of equipment in use.

Surveyed DataCore customers report:

- Lower cost of ownership: Up to 75 percent reduction in storage costs
- Faster applications: Up to 10x performance increase
- Higher availability: Up to 100 percent reduction in storage-related downtime
- Greater productivity: Up to 90 percent decrease in time spent on routine storage tasks

Enterprise Use Cases

Data powers many of today's most innovative businesses, and the Lenovo SDS Solution with DataCore provides an affordable, highly efficient, and durable storage platform to meet the massive data growth.

Target use cases for the Lenovo SDS Solution with DataCore include:

- Accelerate transactional databases, analytics, ERP and CRM
- Deliver business continuity/disaster recovery for business-critical applications
- Manage data growth by increasing storage utilization
- Scale up or scale out storage as needed
- Increase efficiency, availability, and utilization of existing storage assets

Specifications

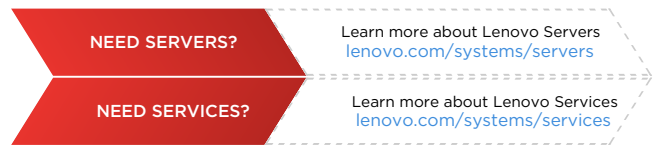
Storage Software	DataCore
Scale Up or Scale Out Storage	Use two server nodes for synchronous mirroring then scale with more nodes (scale out) or external storage (scale up)
Data Availability and Integrity	Synchronous Mirroring, Asynchronous Replication, CDP, Snapshots/Backup, Metro-cluster support
Data Acceleration	Multi-Core Parallel I/O processing, high-speed caching, Auto-tiering, Random Write Accelerator, QoS
Data Optimization	Storage Pooling, Thin Provisioning, Deduplication/Compression, nondisruptive Data Migration
Systems Management	Lenovo XClarity Administrator with mobile option; Lenovo XClarity Pro software bundle; Lenovo XClarity Energy Manager; IMM2.1

About Lenovo

Lenovo (HKSE: 992) (ADR: LNVGY) is a US\$45 billion Fortune 500 company and a global technology leader in driving Intelligent Transformation. Lenovo's data center solutions (ThinkSystem, ThinkAgile) are creating the capacity and computing power that are changing business and society.

For More Information

For more information on the Lenovo SDS Solution, contact your Lenovo representative or Business Partner or visit: lenovo.com/systems/storage. For indepth details, read the [DataCore Software Defined Storage](#) solution guide.



* For more information, visit

- [ITIC 2017–2018 Global Server Hardware, Server OS Reliability Report, December 2017](#)
- [ITIC 2018 Global Reliability Survey Mid-Season Update, August 2018](#)

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