

# StorMagic SvSAN with Lenovo and System x

## TARGETED INDUSTRIES



Legal  
Docs



Video  
Surveillance



Retail  
POS



Government  
Comms



Energy  
Production

## SvSAN's unique features and benefits

- Abstraction of storage services away from traditional storage arrays, making it a key component of a software-defined storage strategy
- Elimination of the need for a physical Storage Area Network (SAN)
- Virtualization of internal disk drives and external, direct-attached storage arrays (DAS) to enable storage sharing among multiple servers
- High availability in a simple two-server solution (the only software that can do so)
- At least 33% lower capital acquisition cost for distributed environments
- Over 40% lower TCO through reduced power and cooling costs, decreased spares and maintenance costs, and minimized need for dedicated IT resources
- Maximized application uptime
- Centralized storage management of entire multisite infrastructure
- Rapid, scripted deployments and updates of multiple sites simultaneously with automated provisioning
- Optimal flexibility, as SvSAN is hypervisor agnostic and can scale as storage requirements grow
- Fast resynchronization through restore capability, enabling users to replace a failed server with a new one and automatically rebuild their environment

## Eliminating downtime for your business-critical applications

One of the greatest challenges of multisite organizations is to ensure the uptime and availability of business-critical applications in local and distributed IT environments. This becomes even more challenging as organizations strive to reduce capital and operating expenses.

This is now achievable through combining the leading software-defined storage solution from StorMagic with the latest in server technology from Lenovo™. This joint solution allows businesses to deploy a data storage infrastructure that remains highly available.

## What is StorMagic SvSAN?

SvSAN is a software solution which enables organizations to eliminate downtime of business-critical applications where this disruption directly equates to a loss in service and revenue. SvSAN ensures high availability through a virtualized shared storage platform so that business-critical applications remain operational. StorMagic's customers have anywhere from a single site to thousands of remote sites where local IT resources are not available and uptime of applications is a must.

SvSAN provides an intuitive, standardized management interface that allows multiple SvSANs to be managed and provisioned quickly and simply. SvSAN's lightweight (1vCPU and 2GB RAM), flexible architecture and its modular approach enable it to meet the ever-changing and increasingly demanding storage requirements of any organization.



Lenovo System x3250 M5



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**SvSAN Standard vs. Advanced License**

Feature	Standard	Advanced
Minimum cluster size	2	2
Synchronous mirroring / high-availability storage	Yes	Yes
Stretched / MetroCluster support	Yes	Yes
Volume migration	Yes	Yes
VSA restore (VMware vSphere only)	Yes	Yes
Centralized management and monitoring	Yes	Yes
Remote shared quorum	Yes	Yes
I/O performance statistics	Yes	Yes
Multiple VSA GUI deployment and upgrade	Yes	Yes
Powershell script generation	Yes	Yes
SSD caching (read / write)	No	Yes
Memory-based caching — most frequently used mode	No	Yes
Memory-based caching — read-ahead mode	No	Yes
Memory-based caching — data-pinning mode	No	Yes
Intelligent automated tiering	No	Yes

**Lenovo System x3250 Server**

**Benefits**

- For SMB / ROBO with small HA requirements
- Compact 1U servers (small form factor)
- Intel® Xeon® processors
- Efficiency and value
- Hyper-V and VMware supported
- IMM2 management with FoD
- Affordable price point and TCO
- 2.5" and 3.5" disk CRNs available



Requirement	CRN	Description	SvSAN Licensing Part # (Lenovo Part #)
2TB 1U SvSAN Standard Entry	HCSMMEC1A64	Lenovo 2TB 4C entry HDD only configuration	SM-SvSAN-2TB-STD-PLAT1 (7ZN7A04017)
2TB 1U SvSAN Advanced Entry	HCSMMEC3C64	Lenovo 2TB 4C entry SSD and HDD hybrid configuration	SM-SvSAN-2TB-ADV-PLAT1 (7ZN7A04023)
6TB 1U SvSAN Standard Entry	HCSMMEA1A64	Lenovo 6TB 4C entry HDD only configuration	SM-SvSAN-6TB-STD-PLAT1 (7ZN7A04029)
6TB 1U SvSAN Advanced Entry	HCSMMEA3C64	Lenovo 6TB 4C entry SSD and HDD hybrid configuration	SM-SvSAN-6TB-ADV-PLAT1 (7ZN7A04035)



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## Lenovo System x3550 Server

### Benefits

- For SMB / ROBO with small HA requirements
- Compact 1U servers (small form factor)
- Intel® Xeon® processors
- IMM2 management with FoD
- High-performance CPUs up to 10 cores
- Hyper-V and VMware supported
- 2.5" and 3.5" disk CRNs available



Requirement	CRN	Description	SvSAN Licensing Part # (Lenovo Part #)
2TB 1U SvSAN Standard Mid	HCSMMEC2B64	Lenovo 2TB 8C mid HDD only configuration	SM-SvSAN-2TB-STD-PLAT1 (7ZN7A04017)
2TB 1U SvSAN Advanced Mid	HCSMMEC4D64	Lenovo 2TB 8C mid SSD and HDD hybrid configuration	SM-SvSAN-2TB-ADV-PLAT1 (7ZN7A04023)
6TB 1U SvSAN Standard Mid	HCSMMEA2B64	Lenovo 6TB 8C mid HDD only configuration	SM-SvSAN-6TB-STD-PLAT1 (7ZN7A04029)
6TB 1U SvSAN Advanced Mid	HCSMMEA4D64	Lenovo 6TB 8C mid SSD and HDD hybrid configuration	SM-SvSAN-6TB-ADV-PLAT1 (7ZN7A04035)

## Lenovo System x3650 Server

### Benefits

- High-performance CPUs up to 10 cores
- For SMB / ROBO with high application requirements
- Flexible 2U design
- IMM2 management with FoD
- Groundbreaking storage density
- Hyper-V and VMware supported
- 2.5" and 3.5" disk CRNs available



Requirement	CRN	Description	SvSAN Licensing Part # (Lenovo Part #)
12TB 2U SvSAN Standard Mid	HCSMMEB1A64	Lenovo 12TB 8C high HDD only configuration	SM-SvSAN-12TB-STD-PLAT1 (7ZN7A04041)
12TB 2U SvSAN Advanced Mid	HCSMMEB3C64	Lenovo 12TB 8C high SSD and HDD hybrid configuration	SM-SvSAN-12TB-ADV-PLAT1 (7ZN7A04047)
UTB 2U SvSAN Standard Mid	HCSMMEB2B64	Lenovo UTB 8C high HDD only configuration	SM-SvSAN-UTB-STD-PLAT1 (7ZN7A04053)
UTB 2U SvSAN Advanced Mid	HCSMMEB4D64	Lenovo UTB 8C high SSD and HDD hybrid configuration	SM-SvSAN-UTB-ADV-PLAT1 (7ZN7A04059)

## Powered by Lenovo

The StorMagic SvSAN solution leverages powerful Lenovo servers with Intel® Xeon® processors for optimal reliability, scalability, and performance. Lenovo servers use industry-standard components and range from feature-rich, scalable enterprise x86 servers to rack-optimized servers designed for business productivity to entry-level rack and tower servers.



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Lenovo delivers a number of unique advantages over other x86-based platforms for distributed enterprises and virtualized environments. In addition to supporting a wide range of networking, storage, memory, and processor options, they remedy common IT pain points with these highlighted benefits:

- **Leadership reliability for high uptime** — System x servers incorporate best-in-class and redundant components such as hot-swappable power supplies, fans, disks, and RAID for data protection and high availability. According to the ITIC 2016 Global Server Hardware and Server OS Reliability Survey,<sup>1</sup> an overwhelming 99% of System x servers achieved a minimum of 99.95% uptime for the highest reliability of x86 systems in the industry.
- **Outstanding performance and storage for quick business decisions** — Lenovo's innovative AnyBay design allows multiple storage types in the same drive bay from PCIe SSD to 3.5" SATA. Whatever your storage needs, Lenovo ThinkServer® and System x servers can meet the demands of your business-critical applications.
- **Energy efficiency for cost savings** — Lenovo servers include superior energy features and options for significant power savings, including support for ambient operating temperatures (up to 45° C). Ideal for an environment where data center cooling is not an option.

## Solution applications

The combination of SvSAN with Lenovo servers is an ideal solution for organizations in many industries, including:



- Retail — systems such as stock control, customer and staff management, and point-of-sale optimization
- Defense — battlefield control systems
- Government — diplomatic communication platforms
- Manufacturing and building automation — process control
- Financial services — customer transactions
- Restaurant and hospitality — booking and kitchen order systems
- Transportation — vehicle positioning and monitoring
- Energy production — remote power-generation plant control
- Medical — PACS, health records
- Legal — file and print, document management

## Solution benefits

StorMagic and Lenovo deliver to the edge:

- Competitive cost of entry for shared storage in virtualized environments
- A hypervisor-agnostic storage infrastructure, accommodating both VMware ESX and Microsoft Hyper-V implementations
- Unique multisite features, such as a simple two-server configuration
- High-availability storage
- Centralized management
- Easy, automated deployment



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<sup>1</sup> ITIC 2016 Global Server Hardware and Server OS Reliability Survey. [Web](#).