

Lenovo Storage S3200

Extreme performance and versatility



Features and Performance

The Lenovo® Storage S3200 is a feature-rich, high-performing mid-range SAN ready for demanding workloads for any environment. Offering hybrid configurations and real-time tiering, the S3200 can provide near All-Flash-Array (AFA) performance, up to 120,000 IOPS, at a fraction of the cost. Along with extreme performance, the S3200 provides an easy-to-use GUI, Thin Provisioning, Virtual Snapshots, Flash Cache, Virtualized Storage, Rapid RAID Rebuild and more. By combining high performance and incredible features, the S3200 is the perfect mid-range SAN to support your business needs.

Easy Integration

The S3200 gives you storage flexibility which can be easily integrated into any network environment. Supporting hybrid connectivity options, you can choose between 16Gbps Fibre Channel and/or 10Gbps iSCSI, or 12Gbps SAS. This unique hybrid connection allows the S3200 to use both FC and

iSCSI at the same time. Along with flexible fabric choices, the S3200 supports up to 192 drives and virtualizes pooled storage across multiple drive types, which improves I/O. This combination of flexibility and virtualizing storage across the array keeps performance high and integration into your environment easy.

Business Optimized

The S3200 is a unique SAN product designed to provide you what you want, High performance, flexible configurations, and dependability all at a low price. Built to be always on with 99.999 percent availability and multi-pathing, your company can depend on the S3200. Configured with dual controllers, redundant power supplies and hot swap drives and fans, your data is available when you need it. As your storage needs grow, the S3200 scales out with thin positioning allowing your array to grow with you. No matter if you are a large enterprise or a small business are need a simple, flexible, and optimized mid-range SAN, the Lenovo S3200 is the right choice to support your data needs.

Why Lenovo

Lenovo is the leading provider of x86 systems for the data center. The portfolio includes rack, tower, blade, dense and converged systems, and supports enterprise class performance, reliability and security. Lenovo also offers a full range of networking, storage, software and solutions, and comprehensive services supporting business needs throughout the IT lifecycle.

Lenovo™

Product features

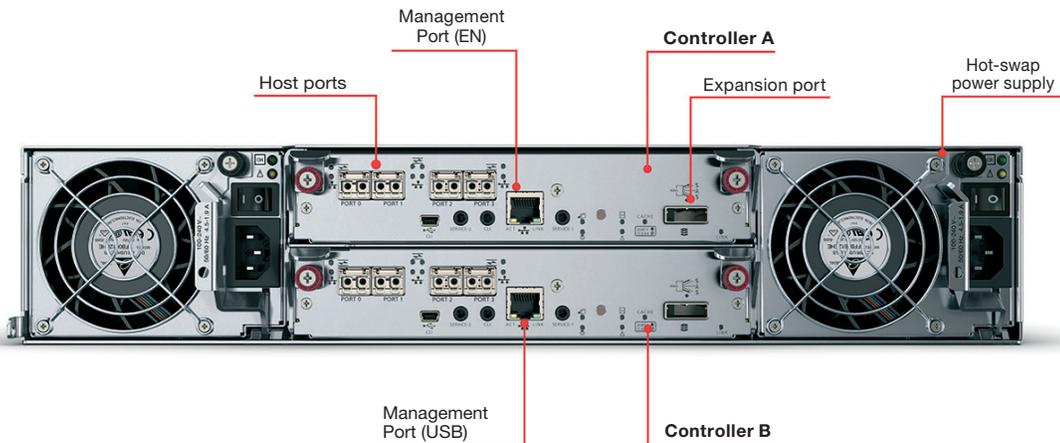
- Real-time tiering with flash hybrid
 - Intelligent real-time data placement on solid state drives (SSDs)
 - Provides near All Flash Array performance at a fraction of the cost
 - Moves data every five seconds to make data available when needed
- Outstanding performance and scalability
 - Support for up to 192 drives
 - Hybrid connectivity – FC and / or iSCSI or SAS
 - Extreme performance: 120,000 IOPS, 6400MBps Read and 5300MBps write speeds
- Designed for 99.999% availability
 - Always on availability and multi-pathing
 - Reliability you can depend on
 - High availability configurations: dual controllers, redundant fans, hot-swap drives and fans

Hardware summary

- Increased bandwidth & 4 ports per controller
- 8/16 Gb FC or 1/10 Gb iSCSI or 6/12 Gb SAS
- Hybrid Interface with 8/16G FC and 1G/10G iSCSI
- Dual (Active/Active) RAID Controller for high availability
- Future proof for next-gen host inter-connect
- Standard and Encrypted Drive support
- **Unique Technology**
 - Real-time storage tiering
 - Battery-Free Cache Protection
 - Low latency cache mirroring
- **Performance highlights**
 - 120K Read IOPS
 - 6400 MBps Read
 - 5300 MBps Write

Lenovo Storage S3200

CONTROLLER LAYOUT



Lenovo Storage S3200

Benefits

Intelligent Real-time Tiering	<ul style="list-style-type: none">Automatically moves data to higher performing drives to significantly increase performance
Storage Management	<ul style="list-style-type: none">Easy-to-use GUI helping make complex administrative tasks simple
Virtualized Storage	<ul style="list-style-type: none">Virtual Storage allows “pooled” storage across multiple drive types, improving I/O by 2.5x without impacting applications
SSD Read Cache	<ul style="list-style-type: none">Delivers priority access to “hot” data in SSD cache, increasing cache capacity by 200xRapid RAID Rebuild – Only rebuilds the stripe where the corruption occurred, not the space or other stripes. This significantly decreases the time it takes to recover lost data
Virtualized Snapshots	<ul style="list-style-type: none">Each snapshot is an equal volume and supports full read/writes and can be standalone or nested
Thin Provisioning	<ul style="list-style-type: none">Provision volumes independent of physical storage. Only purchase the storage you need and add more as you grow.
Common Drives	<ul style="list-style-type: none">Simplify your drives, the S3200 has common drives as the Lenovo System x servers.
Hybrid Interface	<ul style="list-style-type: none">Utilize both 16Gbps Fibre Channel and 10Gbps iSCSI fabrics at the same time
Full Drive Encryption	<ul style="list-style-type: none">Keep your data locked down with 256-bit AES encryption
High Availability	<ul style="list-style-type: none">Hot-swap dual controllers, redundant PSU, hot swappable HDDs and fans, automatic failover, multi-path support, and data protection keep your data always available, built to be 99.999% available.
Battery-less Cache Backup	<ul style="list-style-type: none">No need to change or manage batteries, the battery-less cache backup provides plenty of power to transport your cache data to flash storage in case of a power outage.
Synchronous Caching	<ul style="list-style-type: none">Provides instant cache mirroring with better write performance than with non-mirrored cache.
Impressive Capacity	<ul style="list-style-type: none">With support for up to seven expansion enclosures, E1012, supports up to 12 x 3.5-inch drives, and E1024, supports up to 24 x 2.5-inch drives, the S2200 supports up to 192 drives in a variety of configurations: SSDs, 2.5-inch HDDs, and 3.5-inch HDDs.



The Lenovo Storage S3200 controller unit with seven E1024 expansion units delivers a total of 192 drives.

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Specifications

Host Interface	6/12Gbps SAS or 1/10Gbps iSCSI or 8/16Gbps Fibre Channel
Single/Dual Controller	Dual Controller
RAID Support	RAID 0, 1, 5, 6, 10
Fans and Power Supplies	Fully redundant and hot swappable
Supported Drives	2.5-inch SAS Drives: 300 GB, 600 GB at 15,000 rpm; 2.5-inch 600 GB, 900 GB, 1.2 TB at 10,000 rpm; 2.5-inch NL-SAS SED Drives: 600 GB, 900GB, 1.2 TB at 10,000 rpm; 2.5-inch NL-SAS Drives: 1 TB at 7,200 rpm; 2.5-inch SAS SSD: 400 GB, 800 GB, 1.6 TB; 3.5-inch NL-SAS Drives: 2 TB, 4 TB, 6 TB, 8 TB at 7,200 rpm 3.5-inch NL-SAS SED Drive: 4 TB at 7,200 rpm
Cache per Controller	6 GB per controller
LUNs per System	1024 maximum and 128 TB maximum LUN size
Volumes per System	2048 maximum
Snapshots per Volume	254 maximum
Expansion Units (7 max)	E1012: 12 x 3.5-inch drives; E1024: 24 x 2.5-inch drives
Snapshots	128 included
Optional Licenses	Hybrid Real-Time Tiering, 512 Snapshots, 1024 Snapshots
Warranty	3 year Limited Warranty, 9x5 Next Business Day parts only

For More Information

To learn more about the Lenovo Storage S3200, contact your Lenovo representative or Business Partner or visit lenovo.com/systems/storage

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