

Sun StorEdge™ 6920 System 3.0

Manage More Data with Less Risk, Affordably



Highlights

- **Storage Consolidation:** Virtualization capabilities and heterogeneous support eliminate the complexity and cost of managing disparate storage devices.
- **Business Continuity:** A comprehensive set of data management and protection software—from disk-based recovery to remote site replication—help ensure continuous, non-stop access to data.
- **Investment Protection:** Extends the value of existing storage investments and enables the addition of new capabilities via a unified suite of Sun data management and protection services.



Today's enterprises face accelerating data growth and manageability problems.

Deploying multiple discrete storage devices to support single applications is a common strategy to meet the growing demand for storage. These devices have varying capabilities for data protection and management, and offer no possibility for sharing surplus storage capacity among applications. The result is wide variations in asset utilization and data protection levels. These challenges contribute to a heightened risk of data loss and application down time, and high cost of ownership. Sun StorEdge™ 6920 systems address these problems with extremely cost-effective storage consolidation, and a complete set of business continuity and investment protection capabilities, in a single tiered-storage system.

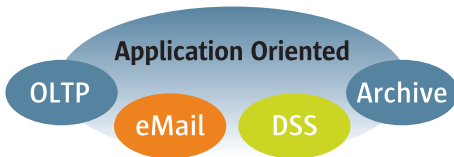
Be Efficient. Consolidate Storage for Multiple Applications.

Support of multiple applications in a single storage system provides better efficiency. Storage Containers maintain a logical partition between application data, presenting secure virtual private storage to hosts. This prevents workload conflicts and helps ensure optimum performance from multiple applications. This approach provides all the benefits of storage consolidation—including reduced complexity, centralized management, fewer software licenses, and less maintenance—while retaining advantages of direct-attached storage, such as security and simplicity. And

coupling the Sun StorEdge 6920 system with the Solaris™ 10 Operating System produces a powerful consolidation solution from application to server to storage. Both Solaris 10 OS and Sun StorEdge 6920 systems enable flexible allocation of system resources and the capability to dedicate resources to specific applications. This provides a unique opportunity to realize the benefits of end-to-end consolidation of IT infrastructure.

Protect and Preserve Your Investments

A variety of array types, including non-Sun storage, can be integrated and virtualized into a single, tiered-storage system. With the Sun



Serve multiple application workloads distinctly and concurrently.

StorEdge 6920 system, you can preserve your existing storage assets and add additional capabilities via a unified suite of Sun data management and protection software—all without disrupting existing, in-place data. Enhance the value of existing storage and data by adding 6920 data services, such as data snapshot and data replication software. With support for a variety of storage arrays, online migration can be done in cadence with business needs, at your convenience, enabling you to protect data-in-place now, and migrate later.

Get Continuous, Non-stop Access to Data

The Sun StorEdge 6920 system offers a comprehensive set of high availability data management and protection software for business. This high-end software suite enables an open information management strategy, in which data can be moved easily between systems, helping to meet business objectives with consistent and reliable access to data.

Sun StorEdge™ Pool Manager Software

Simplify capacity management by virtualizing assets and pooling like storage resources. This is a browser-based, manage-from-anywhere interface from which data services are deployed—replication, snapshots, mirrors, and migration.

Support for Sun and non-Sun storage allows you to take advantage of the data management and protection software capabilities while preserving existing storage investments.

- Simplify management by virtualizing and pooling storage resources, enabling quick and precise provisioning based on application workloads.
- Improve capacity inventory management—easily view capacity by storage pool and quickly determine available capacity for an application type.
- Get consistent configuration for predictable service levels. Automate configuration in a few easy steps that are quickly mastered using pre-defined Storage Profiles based on specific application workloads.
- Simplify administration and lower risk by deploying a consistent suite of software across existing and new storage from Sun and other vendors like EMC and HP already populated with data.

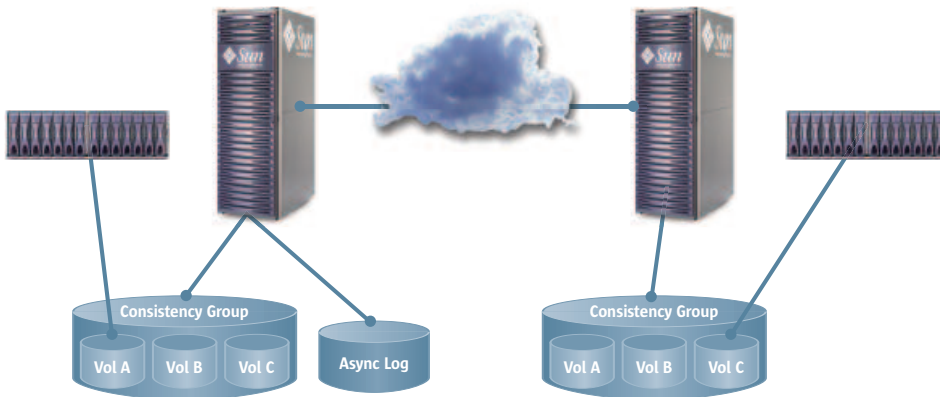
Sun StorEdge™ Data Snapshot Software

Create frequent and regular snapshots of application data to minimize the window for data loss caused by software errors, user errors and viruses. Rapid restore from disk-based snapshots accelerates data recovery, eliminating the need for lengthy tape restore.

- Reduce the window for data loss and improve time to recovery. Make frequent copies of data and rollback in time to a recent copy in the event of corruption or loss.
- Support a broad range of uses. Read and write capabilities provide usage flexibility—from backup to application testing.
- Get rapid disk-based recovery. Snapshot rollback combined with frequent snapshot creation improves both recovery time objective (RTO) and recovery point objective (RPO).
- Save on disk space. The copy-on-write (COW) design of the software is such that multiple copies of data can be maintained without adding disk space.
- Handle unexpected growth easily and save. Snapshot reserve space can be expanded online and placed on lower-cost storage when appropriate.



Get 360 degree heterogeneity. Support a range of different storage arrays and operating systems concurrently and effectively.



Protect against data loss from a system outage, building outage, or remote site outage.

Sun StorEdge™ Data Replicator Software

Replicate volumes to protect against data loss from a system, building, site or even a regional outage. Select from either synchronous real-time replication or bandwidth-conscious asynchronous replication. The ability to copy installed storage from Sun, EMC and HP, lets you preserve your existing storage investments while achieving a higher level of business continuity.

- Get zero data loss capability with Synchronous replication for the shortest possible RPO. Remote systems contain complete and current sets of data.
- Balance protection and performance. Asynchronous replication prioritizes local application performance over timeliness of data for best possible local performance and an almost current set of data at an alternate site.
- Improve data copy integrity. Write-order Consistency preserves write transaction ordering across volumes at alternate sites.
- Speed time to recovery and accelerate data center migration. FastStart enables fast instantiation of remote sites via shipped tape, eliminating excessive bandwidth consumption.

- Reduce cost and complexity with an optional IP/FC combo card. Eliminate the need to deploy, manage, and learn equipment for the FC to IP conversion process.

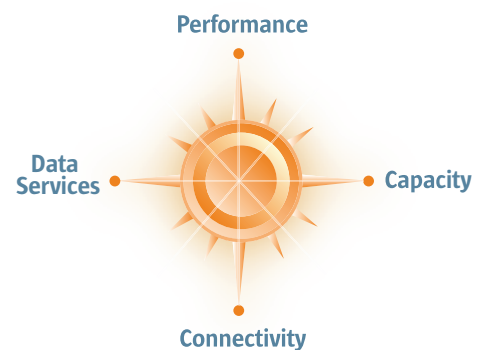
Sun StorEdge™ Data Mirror Software

Create full copies of volumes and split them off for use by another application, such as backup or test. Mirrored volumes may be rejoined as needed with rapid updating. Primary data remains online while conducting application test or analysis on a copy. Online data migration can be done from installed storage devices, serving multiple needs at once and extracting more value from data.

- Accelerate the process of bringing mirrored copies current. Present a full copy of a volume to alternate SAN hosts. The software tracks changes to the mirrored volume and rapidly rejoins.
- Achieve reduced RTO. Perform immediate recovery from disk.
- Quickly move data between storage tiers, or redistribute application workloads while online with data mirror and break functions.
- Migrate in cadence with business needs and avoid outages. Virtual Legacy Volumes (VLVs) enable integration of existing external arrays with data-in-place.

Sun StorEdge 6920 System's Architectural Advantage

Purpose-built to host multiple applications, the Sun StorEdge 6920 system provides dedicated compute resources to deliver system-wide data services without disruption of application workload performance. A cross-bar design with any-to-any connectivity enables harmonious N-way scalability of performance, availability, capacity, and connectivity to maintain application performance and service levels as your data environment grows.



Get N-way Scalability—scale in multiple dimensions simultaneously.

Sun StorEdge™ 6920 System 3.0

Software

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| Management software and software delivered with system | Sun StorEdge™ Pool Manager software Sun StorEdge Data Snapshot software StorEdge Data Mirror software StorEdge Data Replicator software Sun Storage Automated Diagnostic Environment v2.4 Sun StorEdge Traffic Manager software, v4.4 and above (multipathing mgmt) Sun StorEdge SAN Foundation Kit, release 4.4 and above StorEdge Pool Manager software for non-Sun systems |
|--|--|

Drives

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| Form factor | 3.5 in. drives (7 to 14 per enclosure) |
| Supported drives | 36 GB, 15,000 rpm; 73 GB, 10,000 rpm; 73 GB, 15,000 rpm; 146 GB, 10,000 rpm |

Maximum Total Capacity

| | 36 GB | 73 GB | 146 GB |
|-----------------------------|---------|---------|---------|
| Base cabinet | 4.0 TB | 8.2 TB | 16.4 TB |
| Base + 2 expansion cabinets | 16.1 TB | 32.7 TB | 65.4 TB |

Host/SAN Connectivity

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|--------------------------------|--|
| Maximum number of FC ports | 28 ports (with 4 SRC/SIO card combination) |
| Maximum logical device support | 1024 volumes |

External Storage

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| | Supports Sun StorEdge and select competitive systems behind the Sun StorEdge 6920 system |
| | Supports up to 128 Virtual Legacy Volumes (VLV) per system |

Data Cache

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|--|---------------------------|
| | Scales from 2 GB to 28 GB |
|--|---------------------------|

Software

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|---------------------------------|--|
| Operating system support | Solaris™ 8 Operating System (update 4) and higher Microsoft Windows 2000 Server and Advanced Server SP4 Microsoft Windows 2003 Server (Standard, Enterprise, Web Editions) IBM-AIX 5.1 (64-bit) Hewlett-Packard HP-UX 11.0 and 11i Red Hat Linux, Enterprise Edition, 8, 2.1 (WS/AS/ES) |
| StorEdge Data Snapshot software | 8 snapshots per volume Space efficient copy-on-write technology Snapshot rollback Flexible snapshot reserve space Read and write support for snapshots Max no. of snapshots per system – 784 |
| StorEdge Data Mirror software | 2,3,4 mirror components per mirror Split, break, rejoin and reverse rejoin operations Read and write support for split mirror components Easy data migration when used in conjunction with Virtual Legacy Volumes |

Learn More

For additional information on this product, go to:
www.sun.com/storage/midrange/6000/6920/

| | |
|-----------------------------------|--|
| StorEdge Data Replicator software | Synchronous or asynchronous data transfer modes Consistency groups Fibre channel and IP Role reversal operations Fast Start Virtual Legacy Volume Replication |
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Regulations

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| Safety and Emissions | Meets or exceeds the following requirements: IEC60950, EN 60950, UL 60950, FCC Part 15 (47CFR15B), EN55022, EN 61000-3-2, EN 61000-3-3 |
| Immunity | EN55024 |

Power

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|---------------------------|---|
| Input power (per cabinet) | 4200 W (maximum) Two dedicated 200 to 220 V AC, 30 A* circuit breakers |
| AC power | 200 to 240 V AC at 50 to 60 Hz single phase |

*Power sequencers are rated for a maximum amperage of 24 A. This is the maximum the system can draw.

Environment

| | Operating | Nonoperating |
|-----------------------------------|---|--|
| Temperature | 5° C to 35° C (41° F to 95° F) | -40° C to 60° C (-40° F to -76° F) |
| Relative humidity | 10% to 90%, noncondensing | 93%, noncondensing |
| Effective altitude | 3000 m (9840 ft.) | 12,000 m (39,370 ft.) |
| Shock (from any axis X, Y, Z) | 3.0 g for maximum duration of 11 ms, half-sine | 1.0 in. roll-off freefall, front to back rolling directions |
| Vibration (from any axis X, Y, Z) | 0.15 g on z-axis; 0.10 g on x- and y-axes; 5 to 500 Hz sinusoidal | 0.5 g on z-axis; 0.25 g on x- and y-axes; 5 to 500 Hz sinusoidal |

Dimensions and Weight (fully loaded)

| | One Cabinet | Two Cabinets | Three Cabinets |
|-----------------|--------------------------|--------------------------|--------------------------|
| Height | 190.5 cm (75.0 in.) | 190.5 cm (75.0 in.) | 190.5 cm (75.0 in.) |
| Width | 60.7 cm (23.9 in.) | 121.4 cm (47.8 in.) | 182.1 cm (71.7 in.) |
| Depth | 94.0 cm (37.0 in.) | 94.0 cm (37.0 in.) | 94.0 cm (37.0 in.) |
| Footprint (ft.) | 0.57 sq. m (6.1 sq. ft.) | 1.4 sq. m (12.3 sq. ft.) | 1.7 sq. m (18.4 sq. ft.) |
| Weight | 659 kg (1450 lb.) | 1364 kg (3000 lb.) | 2068 kg (4550 lb.) |

Required Clearances

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|--|-----------------|----------------|
| | front | rear |
| | 122 cm (48 in.) | 92 cm (36 in.) |

Warranty/Service

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|----------------------|---|
| Warranty | Sun three-year warranty with Same Business Day,* on-site parts delivery, four business Hours* on-site hardware service response, local extended business hours coverage, 24x7 phone support |
| Installation service | Sun StorEdge 6920 Enterprise Installation service (optional) |
| Service upgrades | SunSpectrum™ service upgrades are available |

*Average response times

Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 USA Phone 1-650-960-1300 or 1-800-555-9SUN Web sun.com

