SGI® InfiniteStorage 10000

High-Performance, Ultra-Dense, Scalable Array

Features

- Optimized Storage Density
- Cost effective data management
- High-performance data protection
- Rapid recovery of backups
- Ultimate Versatility

The SGI® InfiniteStorage 10000 represents a breakthrough in online storage technology. Leveraging experience gained in the most demanding data management environments, SGI has combined high-density disk storage with unrivaled performance in a space saving package, which together deliver highly cost-effective storage.

Optimized Storage Density

The ever increasing demands for high-speed online storage placed on IT environments can finally be mitigated. SGI InfiniteStorage 10000 serves as an ideal repository for large amounts of data while minimizing the footprint in the data center. The SGI InfiniteStorage 10000 can be configured up to 240TB in a single rack, covering a space only slightly larger than a floor tile, representing a 300% improvement in drive density per rack compared to standard RAID sub-systems.

Cost Effective Data Management

The SGI InfiniteStorage 10000 serves well as a foundation for tiered storage architecture and is perfect as a tape complement or email archive. Data managers can defer or eliminate tape system upgrades and reduce high maintenance charges associated with outdated tape technology. Maintenance costs on a per-TB basis for the SGI InfiniteStorage 10000 are dramatically lower compared to tape library. With an acquisition cost profile similar to tape installations, the Serial ATA-based (SATA) SGI InfiniteStorage 10000 delivers cost-effective data storage while using less precious floor space in the data center.

High-Performance Data Protection

Utilizing state of the art technology, the SGI InfiniteStorage 10000 features unparalleled performance for data protection and online archiving applications. Dual-active 4Gb Fibre Channel controllers provide read and write performance in excess of 2.5GB/s. This performance is instrumental in dramatically reducing backup windows. The sustained throughput of the SGI InfiniteStorage 10000 also significantly exceeds traditional disk-to-disk backup solutions by as much as 10x. Using a 10TB database for example, customers can complete a full back-up of their data in just over an hour - approximately a 5X improvement over a heavily configured tape library. The high-performance of the SGI InfiniteStorage 10000 allows users to protect their data faster and thereby freeing up precious time for users to access their data.

Rapid Recovery of Backups

For business critical information, using the SGI InfiniteStorage 10000 as the basis for disk-to-disk backup solutions considerably enhances business continuity. If your Recovery Time Objective (RTO) needs to be in minutes rather than hours, the SGI InfiniteStorage 10000 is the right solution.

Ultimate Versatility

With industry leading capacity, performance, reliability, and connectivity, the SGI InfiniteStorage 10000 will serve the most challenging data storage purposes like:

SGI® InfiniteStorage 10000

Storage Consolidation: Because of its superior density the SGI InfiniteStorage 10000 replaces multiple mid-range or high-end tape libraries or small RAID arrays. This will help customers realize significant cost savings in administration, maintenance contracts and floor-space.

Data Archiving: With archival needs continuing to expand, due to regulatory and legal mandates, long term preservation on disk is now possible. **Data Lifecycle Management**: Deploy the SGI InfiniteStorage 10000 with the premiere SGI data lifecycle management solution – SGI® InfiniteStorage Data Migration Facility (DMF) to automate data movement among tiered storage devices based on your criteria.

Controller	4Gbit Fibre Channel	2Gbit Fibre Channel
• Throughput	Up to 3.0GB/s reads/writes	Up to 1.5GB/s reads/writes
• Architecture	Dual active 4Gbit FC	Dual active 2Gbit FC
• Host interface	Eight full-duplex 4Gbit FC ports	Eight full-duplex 2Gbit FC ports
• Back-end channels	Twenty FC-AL loops	Twenty FC-AL loops
• Cache	5.0GB cache	5.0GB cache
• Parity	Dual parity 8+2, Single parity 8+1	Single parity 8+1

System Features

- Ten 4U drive enclosures each with 48 drive bays
- 24TB per drive enclosure using 500GB SATA drives
- Up to 240TB per rack
- Minimum system configuration of 120TB (raw)
- Maximum system configuration of 480TB (multiple racks)
- Dedicated bandwidth for fast rebuilds
- Up to 125 hot-spare drives
- One Ethernet port per controller for remote management
- One RS-232 port per controller for system monitoring
- Temperature monitoring
- Fully redundant hot-swappable power supplies
- Fully redundant hot-swappable cooling fans
- 2-Yr 5X9 hardware parts and labor warranty, on-site, NBD response; upgradeable to multi-year, 7X24, 2-hour response

Controller Enclosure Dimensions (Approximate)

• Height	3.5”, 8.9cm, 2 EIA units
• Width	19.0” 48.3cm
• Depth	25.0”, 63.5cm
• Weight	40 lb (18 kg)

Drive Enclosure Dimensions (Approximate)

• Height	6.89”, 17.5cm, 4 EIA units
• Width	19.01” 48.3cm
• Depth	31.9”, 81.0cm
• Weight	168 lbs (76 kg) fully loaded, 80 lbs (38kg) empty

Rack Dimensions	42U	45U
• Height	79.5”, 201.9 cm	86”, 218.4 cm
• Width	24”, 61 cm	24”, 61 cm
• Depth	42”, 106.7 cm	42”, 106.7 cm
• Weight	300 lbs empty; 1254 lbs full	330 lbs empty; 2098 lbs full

Storage Capacity

- Serial ATA drives - 500GB 7,200 RPM
- Min. drive capacity - 216 drives using 8+1, 240 drives using 8+2 per system
- Max. drive capacity - Up to 960 drives per system
- Drive expansion 48-slot drive enclosure, set of ten
- Max. drives per rack - 480 for 45U rack; 240 per 42U rack

Environmental (Operating)

Temperature
- 10˚C to 35˚C

Humidity
- 20% to 80%(noncondensing)

Altitude
- 0 to 3047M (0 to 10,000 ft)

Thermal rating
- 5120 BTU/hr maximum for a single enclosure with 48 drives
- 3000 BTU/hr maximum for dual controllers

Environmental (Non Operating)

Temperature
- 0˚C to 50˚C

Altitude
- 305 to 12,192M (-1000 to 40,000 ft)

Software Management

- SGI® InfiniteStorage 10000 host management software
- Supports Windows, Linux, IRIX

Optional Host Software

XFS®
- High-performance, 64-bit journaled file system for SGI IRIX and Linux system platforms

CXFS
- Heterogeneous shared file system for storage area networks; eliminates the need for replication of data across a network by allowing multiple users to share one version of content at Fibre Channel speeds

DMF
- Data Lifecycle Management (Archive) policy automation software virtualizes storage devices and automates the migration and archive of studio content throughout the virtual storage pool based upon business policies

High-Availability Clustering
- Cluster two or more systems for application high-availability. SGI InfiniteStorage high-availability clustering software (Cluster Manager for Linux) fail

Power (Redundant to each enclosure)

Power distribution
- Dual internal rack power distribution to enclosures, single phase, 200-240 VAC, 50/60 Hz

Power connections rack
- US: NEMA L6-30P locking plug, 250 VAC, 30A (qty 2 for 42U rack, qty 4 for 45U rack) International: IEC 309 locking plug, 240 VAC, 32A (qty 2 for 42U rack, qty 4 for 45U rack)

Voltage range
- 100-120/200-240 VAC

Power consumption
- 1500W, 850W typical single enclosure with 48 drives 880w typical dual controllers

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