

# SGI® InfiniteStorage 4000

## Scalable Multi-Purpose Storage

### Features

- State of the art performance
- High density design
- Cost effective
- High-availability and data security
- Investment protection
- RoHS compliant, NEBS certified

The SGI InfiniteStorage 4000 is a cost effective high-performance storage system with scalability and data protection features which will satisfy the requirements of enterprise storage environments.

### State of the Art Performance

The SGI InfiniteStorage 4000 is a good fit for workgroups or small businesses that desire a well-balanced storage platform where workloads will include a variety of tasks. Fueled by 4Gbit Fibre Channel architecture, the higher throughput of the SGI InfiniteStorage 4000 dramatically improves productivity when compared to older 2Gbit storage, as less time is wasted waiting for data transfer. For technical or high performance computing applications, the SGI InfiniteStorage 4000 provides up to 800MB/s of read and write throughput and is well suited for file-based workflows requiring high-transaction rates as well as environments requiring high rates of data throughput. The SGI InfiniteStorage 4000 is compatible with legacy 1Gbit and 2Gbit Fibre Channel SANs, allowing end-users to immediately experience the benefits of new technology while maintaining past investments.

### High Density Design

Efficient rack utilization is critical for organizations where unbridled data growth is stressing the data center environment. The SGI InfiniteStorage 4000 provides as much as a 54% increase in capacity per square foot over previous generation storage systems through a combination of increased density per drive enclosure and a new rack design.

### Cost Effective

The SGI InfiniteStorage 4000 is a cost-effective system designed to fit budgets of small to medium sized businesses, yet will easily scale to match the capacity and performance requirements anticipated with future growth. A single integrated module contains both redundant controllers and drive capacity to satisfy most server and workgroup applications. Creating a low cost, high-density repository for reference data is simple, as the SGI InfiniteStorage 4000 scales up to 56TBs using high-capacity SATA drives. Customers can intermix Fibre Channel and SATA drives to satisfy their need for tiered storage and manage as a single system, greatly simplifying the management of their storage investment.

### High-availability and Data Security

In today's competitive business environment data and applications must be available 24x7. The SGI InfiniteStorage 4000 features redundant hot swappable components, mirrored cache with battery backup and automated path failover to ensure access to data even in degraded condition. Enhanced business continuance features also protect critical business data, enabling faster recovery from application failures.

### Investment Protection

Regardless of changes to your business landscape, SGI's InfiniteStorage 4000 adapts to your needs. As application demands grow, the SGI InfiniteStorage 4000



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system can be upgraded to an Enterprise-class SGI InfiniteStorage 4500 while leaving existing data in place, by simply replacing the controllers with the higher performance SGI InfiniteStorage 4500 controllers. Additionally, the new 4Gbit Fibre Channel drive enclosures can be added to previous generations of SGI storage systems, allowing SGI customers to extend the value of their TP9300, TP9500 and TP9700 systems still in production.

Controller	4000 "F" Model	4000 "H" Model
• RAID Controllers	Dual, active	Dual, active
• Cache Size	4 GB	2 GB
• Host Interface	4 Gb Fibre Channel	4 Gb Fibre Channel or InfiniBand
• Host Paths	8	4
• Partitions	2 Standard	2 Standard

## Optional Software Features

• Additional partitions	4, 16, 64	4, 16
• SnapCopy	Supported	Not Available
• Volume Copy	Supported	Not Available
• Remote Volume Mirroring	Supported	Not Available
• SATA/FC Drive Intermix	Supported	Not Available

## Controller Features

• RAID	0, 1, 1+0, 3, 5, 6
• Battery backup	7-day maximum
• LUNs	256 per partition, 1024 per system
• Volume group	Up to 30 drives (29+1) for a RAID 5 group
• Global hot spare drives	Unlimited
• Rack support	SGI rack options and 19" industry standard racks with mount kits
• Standard redundancy	RAID controllers, power supplies, cooling fans, FC drive loops
• Controller management	In-band or out-band via 2 Ethernet ports
• Diagnostic interface	2 RS-232 Ports

## Host Connections

- 4 Gb Fibre Channel, quantity is model dependant
- LC optical connectors for Fibre Channel

## Drive Enclosure Connections

- Two 4 Gb Fibre Channel Loops, redundant
- Fused copper cable SFP assembly

## Enclosure Dimensions

- Height 5.25", 13.1cm, 3 U
- Width 17.6", 44.7cm
- Depth 23.5", 59.7cm
- Weight 2 ESM's, no drives: 21.4 lbs. (9.7 kg)  
2 ESM's 16 drives: 56.1 lbs. (25.4 kg)  
2 Controllers, no drives: 34.0 lbs. (15.4 kg)  
2 Controllers, 16 drives: 60.4 lbs. (27.4 kg)

## Rack Dimensions 40U

- Height 78", 198.1 cm
- Width 24", 60.9cm
- Depth 40", 101.6cm
- Weight 300 lb (135 kg) empty

## Drive Options

- 73 GB, 15K rpm, FC
- 146 GB, 10K and 15K rpm, FC
- 300 GB, 10K and 15K rpm, FC
- 400GB, 10K rpm, FC
- 500 GB, 750 GB and 1000 GB, 7200 rpm, SATA
- Drives per enclosure: Minimum 4; Maximum 16
- Drives per system: Minimum 4; Maximum 112
- Maximum drives per rack (40U): 208

## Environmental (Operating) Operating Temperature

- Minimum: 10° C (50° F)
- Maximum: 40° C (104° F)

## Operating Relative Humidity

- 20% to 80% (non-condensing)

## Temperature Change

- 10°C/hr

## Operating Altitude

- Minimum: -30.5m (-100 ft)
- Maximum: 3,000m (9,840 ft)

## Host Management

### SGI InfiniteStorage System Manager

- Out-Band management
  - RHEL 3, 4, 5
  - SLES 8, 9, 10
  - Windows 2003 Server Edition
  - Solaris 8, 9, 10
  - IRIX 6.5.28
  - AIX 5.2, 5.3
  - Windows XP Professional
  - SuSE Professional 9.x
  - Windows Vista
- In-Band management
  - RHEL 3, 4, 5
  - SLES 8, 9, 10
  - Windows 2003 Server Edition
  - Solaris 8, 9, 10
  - IRIX 6.5.28
  - AIX 5.2, 5.3
- Software features
  - Immediate LUN availability
  - Performance monitoring
  - Non-disruptive firmware upgrades
  - Management window provides a comprehensive view of all Total Performance 9XXX and InfiniteStorage 4XXX systems in the management domain

## Optional Host Software

### 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
- Host Attachment via CXFS- Solaris™, Windows® NT, Windows® 2000, AIX, MAC OS X, 32-bit Linux®, 64-bit Linux®

### 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

## Power (40U rack)

- 200-240 VAC, 50 to 60 Hz
- NEMA L6 30 (US), IEC 309 (Intl)
- 48A Max @ 200-240 VAC per PDU

## Regulatory Compliance

- Manufactured under an ISO 9000-registered system
- UL 1950 CSA 22.2 No.950 IEC 950, EN 609
- RoHS Compliant

## Warranty

- 3 years hardware repair and replacement, 5x9 on-site next business day response, upgrade options to extended years, 7x24, 2 hour response



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