

SGI® InfiniteStorage 6700

Storage Array for High-performance
Computing and Media Applications

Features

- Guaranteed latency
- Industry leading performance
- Balanced capability on reads and writes
- Robust data protection
- Unmatched scalability

The SGI InfiniteStorage 6700 delivers industry leading performance for throughput intensive data applications. Combining 4 GB Fibre Channel RAID architecture with isochronous data delivery, the SGI InfiniteStorage 6700 delivers high performance, low latency, and guaranteed delivery. Environments that benefit from these attributes include: broadcast, post-production, film mastering, high performance computing, design automation and manufacturing.

Guaranteed Latency

The SGI InfiniteStorage 6700 is designed to optimize real-time throughput, even in the event of media errors, drive failures, or controller failover. Through a specialized isochronous design, the system inherently protects against dropped frames, ensuring the reliable delivery of real-time data. This is an essential requirement for environments like Digital Cinema mastering facilities where re-scanning a film reel due to dropped 2K or 4K resolution frames would cause a major delay in a project, or a Television Network where any interruption in content to air would result in lost revenue from advertisers.

Industry Leading Performance

Post production professionals who are currently working on multiple HD projects, 2K resolution film mastering now have a platform that will support their transition to additional projects or higher resolution 4K workflows. The ability to stream data at up to 3GB per second enables true real-time 2K scanning, resolution independent grading, finishing and playout. The SGI InfiniteStorage 6700 is capable of delivering two 4K streams, a level of performance that could, until now, only be attained aggregating multiple storage systems. The SGI InfiniteStorage 6700 not only increases workflow productivity, it also reduces management overhead by decreasing the number of systems to be managed.

Ideal for High Performance Computing Environments

Scientists researching weather and climatology are demanding the ability to load and unload data sets of a Terabyte or more into a supercomputer's system memory in as little time as possible. The SGI InfiniteStorage 6700 with its 3GB per second data transfer rate, is an ideal complement to a High Performance Computing environment because of its ability to support a large scale system as it reads, processes, and writes very large data. In addition, the SGI InfiniteStorage 6700 offers a choice of host interconnect technology, with either 4Gb Fibre Channel or 10Gb InfiniBand, allowing customers to better utilize existing high performance network infrastructure.

Robust Data Protection

As capacities expand and individual drive sizes grow the time to recover from an individual drive failure increases. This makes the protection of data within a storage system more and more critical. The SGI InfiniteStorage 6700 ensures data availability and protection by providing a dual parity (8+2) data protection capability for SATA and Fibre Channel drives.

Unmatched Scalability

The SGI InfiniteStorage 6700 can scale in capacity to over 1000 disk drives, providing hundreds of terabytes of virtualized capacity from a single, easily managed storage system. As a platform for storage consolidation, particularly when utilizing a shared file system, hierarchical storage system or information lifecycle management solution in a real-time environment the SGI InfiniteStorage 6700 is unmatched.



SGI® InfiniteStorage 6700

Single Controller

- Host Ports 4 x 4Gb FC or 10GB IB
- FC Back End Loops 10
- Cache Size 2.5GB cache standard, upgrade available 2U enclosure

Dual Controller

- FC Host Ports 8 x 4Gb FC or 10GB IB
- Back-end channels 20 FC-AL
- Cache Size 5.0GB cache, upgrade available
Active active controller with multi-pathing and load balancing
4U for dual enclosure

Controller Enclosure Dimensions (each)

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

Storage Capacity

- Fibre Channel Drives 146GB and 300GB 15,000 RPM
- Serial ATA Drives 500GB 7,200 RPM
- Min. Drive Capacity 2 tiers (18 drives)
- Max. Drive Capacity Up to 1120 total drives, 1000 data drives
- Drive Expansion 2016, 4016
- Max. Expansion 70 drive enclosures
- Drives / Enclosure Up to 16
- Max. Drives / Rack 160
- LUN Configuration Segments Up to 128 LUNs, divisible into 8,192 LUN
- Fibre Channel Loop for Parity Independent Fibre Channel loop for parity
- Global Sparing & Fast Rebuilds Independent Fibre Channel loop for global spares for fast rebuilds
Up to 112 global spare drives
One ethernet port per controller for remote management
One RS-232 port per controller for system monitoring
- Global Sparing
- Management Connectivity
- Temperature & Cooling Temperature monitoring
4 redundant hot-swappable power supplies
2 redundant hot-swappable cooling fan

Controller Power Specifications

- Average / Maximum Current, Single Controller 3.0A @ 110VAC,
1.5A @ 230VAC / 4.0A @ 110VAC,
1.9A @ 230VAC
- Average / Maximum Current, Dual Controller 6.0A @ 110VAC,
3.0A @ 230VAC / 8.0A @ 110VAC,
3.8A @ 230VAC

Drive Enclosures

- Height 5.25", 13.34cm, 3 EIA units
- Width 17.5", 44.45cm
- Depth 19.68", 50.0cm
- Weight 77 lbs (<35 kg) fully loaded, 19 lbs (<9kg) empty
- Cord type/ Connections IEC 320, C-14, 250V, 10A socket;
250V, 10A plug
Weight and dimensions apply to each enclosure model: 2016, 4016

Rack

- 79", 201cm, 42 EIA units
- 24", 61.0cm
- 30", 76.0cm
- 330 lbs (136.1kg) empty
- US: NEMA L6-30P locking plug, 250 VAC, 30A (qty 2)
- International: IEC 309 locking plug, 230 VAC 32A (qty 2)
- Dual internal rack power distribution to enclosures, single phase, 250 VAC (180 min. to 257 max.), 50/60 Hz, 16A (25A circuit breakers)

Environmental

Operating temperature

- Minimum 41°F (5°C)
- Maximum 95°F (35°C)

Non-operating temperature

- Minimum 14°F (10°C)
- Maximum 122°F (50°C)

Operating relative humidity

- 20% to 80% (noncondensing)

Thermal rating (single/dual-controller)

- 1500 BTU / 3000 BTU

Certification

- UL, CE, CUL, C-Tick, FCC

Software Management

- SGI InfiniteStorage RSM host management software (Windows, Linux®, or IRIX)

Optional Host Software

XVM

- Volume Manager for SGI systems is a virtualization technology to organize logical data structures for high performance and ease of management

XVM Plexing

- Provides disk striping, mirroring, concatenation and advanced recovery features

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 over file-system mounts and user applications in case of system failure

Warranty

- 2 year, 5X9 hardware parts and labor warranty, on-site, NBD response; upgradeable to multi-year, 7X24, 2-hour response



Corporate Office
1140 E. Arques Avenue
Sunnyvale, CA 94085
(650) 960-1980
www.sgi.com

North America +1 800.800.7441
Latin America +55 11.5185.2860
Europe +44 118.912.7500
Japan +81 3.5488.1811
Asia Pacific +1 650.933.3000

© 2007 SGI. All rights reserved. Features and specifications subject to change without notice. SGI, IRIX, Origin, XFS, Altix, the SGI cube and the SGI logo are registered trademarks and Innovation for Results is a trademark of SGI in the United States and/or other countries worldwide. Linux is a registered trademark of Linus Torvalds in several countries. Windows NT and Windows 2000 are registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks mentioned herein are the property of their respective owners. 3931 [09.20.2007] J15152