SGI InfiniteStorage 4600 Storage System

Provides High Perfomance RAID Storage for Data intensive Applications

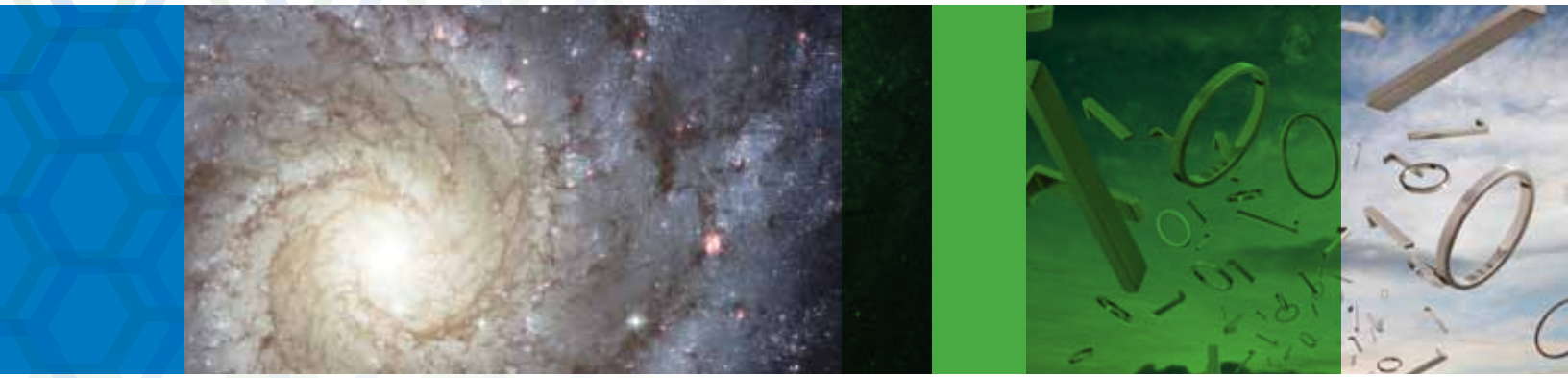
Highlights

Balanced Performance

Multi-dimensional Adaptability

Increased Connectivity

Robust Data Protection



High Performance RAID Storage for Data-Intensive Applications and Large Consolidations

Success often depends on the speed at which data can be acquired, processed and retrieved, especially when addressing the needs of core business applications. SGI InfiniteStorage 4600 (IS4600) delivers breakthrough performance, capacity and scalability to support the escalating storage and I/O demands of today's database-driven applications and large-scale consolidation/virtualization environments.

Part of a proven architecture built on more than 25 years of storage expertise, the IS4600 supports the most demanding service level agreements (SLA), data-intensive applications and transactional, high I/O workloads. This ability to deliver balanced performance allows the IS4600 to easily handle the diverse and concurrent workloads created by consolidation and virtualization implementations.

Flexibility and Efficiency

As data grows and budgets stay flat, IT managers are looking for ways to lower costs and simplify their infrastructure without sacrificing SLAs. To go along with its relentless performance, the IS4600 offers a unique combination of flexibility and efficiency to meet those needs. A range of drive types and enclosures ensures data is stored on the technology that best meets performance, protection and cost requirements.

IS4600 relies on seventh generation technology to deliver exceptional adaptability. With a choice of InfiniBand or Fibre Channel connectivity the IS4600 is an ideal fit for HPC low-latency, high performance infrastructure. IS4600-SP offers Fibre Channel and iSCSI connectivity.

Both HPC and HPB customers often generate tremendous amounts of data and the IS4600 was designed specifically to meet the challenges of this type of data management. With a choice of 16-bay drive trays for high performance or large capacity drives or a 60-bay dense enclosure solution for large capacity drives. Because drives can be mixed in the 16-bay trays, customers can achieve a tiered storage environment that accommodates RAID block storage, high capacity environments, consolidation and virtualization initiatives and a variety of data management needs.

Protected and Secure

Architected to provide the highest reliability and availability, the IS4600 offers redundant components, automated I/O path failover, and extensive online administration capabilities to ensure your data is available 24x7x365. The IS4600 ensures stored data is protected as well. Self-encrypting drives secure data at rest with no performance penalty, Proactive Drive Health Monitoring (PDHM) technology identifies faulty drives before they create problems, RAID 6 technology guards against concurrent drive failures and errors, and persistent cache backup ensures any data in cache is capture and safe in the event of a power outage.

Comprehensive Storage Management

Java-based enterprise level administration software, InfiniteStorage System Manager (ISSM-EE), enables enhanced configuration flexibility, custom performance tuning and a variety of replication options. The solution allows continuous access to user data during administrative tasks including expansion and maintenance of the system.

SGI IS4600 and IS4600-SP System Specifications

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Conroller	
RAID Controllers	• Dual, active
Cache Sizes	• 8GB (upgrades to 16GB, 32GB and 64GB available)
Host Interfaces	• IS4600 only: 4Gb FC (16 ports), 8Gb FC (16 Ports), or DDR IB (8 Ports) • IS4600-SP only: 4Gb FC (16 ports), 8 Gb FC (16 Ports), 10Gb iSCSI (8 ports)
Partitions	• None Standard

Controller Features	
RAID Levels	• 0, 1, 3, 5, 6, 10
Cache backup	• Cache destaged to Flash in case of power loss
LUNs	• 512 LUNs per partition, 2048 total
Global Hot Spare Drives	• Unlimited
Power and Cooling	• Dual, redundant, hot swappable
Number of Drives Supported	• 448 in 16-bay Enclosures, 480 in 60-bay Enclosures

Optional Software Features	
Additional Partitions	• 4, 8, 16, 64, 128, 256, or 512
SnapCopy	• 4 or 16 Snaps
Volume Copy	• Supported
Remote Volume Mirroring	• 64 or 128 Remote Mirrors

Controller Enclosure Dimensions	
Rack Height	• 4 U
Height	• 6.9”, 17.5 cm
Width	• 19”, 48.3 cm
Depth	• 23.5”, 59.7 cm
Weight	• 80.5 lbs., 36.5 kg

Rack Dimensions	
Total U	• 40
Height	• 78”, 198.1 cm
Width	• 24”, 60.9 cm
Depth	• 40”, 101.6 cm
Weight	• 300 lbs., 135 kg

16-Bay Drive Enclosure Dimensions	
Drive Size	• 3.5”
Rack Height	• 3 U
Height	• 5.3”, 31.1 cm
Width	• 17.6”, 44.7 cm
Depth	• 23.5”, 59.7 cm
Max Weight	• 56.1 lbs., 25.4 kg

60-Bay Drive Enclosure Dimensions	
Drive Size	• 3.5”
Rack Height	• 4 U
Height	• 7”, 17.78 cm
Width	• 19”, 48.26 cm
Depth	• 32.5”, 82.55 cm
Max Weight	• 232 lbs., 105.2 kg

Supported Operating Systems	
	• SLES 10.3, 11.1 • RHEL 5.6, 6.0 • VMware ESX 4.0, 4.1, VMware ESXi 5.0 • MAC OSX 10.5.8, 10.6.3 (IS4600 only) • MAC OSX* (IS4600-SP only) • Windows Server 2003 • Windows Server 2008 • Sun Solaris 10 (IS4600-SP only) • HP-UX* 11.31 (FC only) (IS4600-SP only) • IBM AIX* 6.1, 7.1 (FC only) (IS4600-SP only)

Power	AC Power
Controller	• 2.65 max @ 240 VAC (180 to 260 VAC, 50/60 HZ)
16-bay Enclosure	• 1.97A max @ 240 VAC (180 to 264 VAC, 50/60 HZ)
60-bay Enclosure	• 7.20A max @ 240 VAC (200 to 240 VAC, 50/60 HZ)

Enviroment	
Operating Temperature	• 32°F to 104°F (10°C to 40°C) for 16 bay enclosure • 32°F to 95°F (10°C to 35°C) for 60 bay enclosure
Relative Humidity	• 20% to 80% non-condensing
Altitude	• 100’ below sea level (-30.5m) to 10,000’ (3058m)

Air Flow and Heat Dissipation**	Controller Enclosure (Command Module)	Drive Enclosure
IS4600-16: with (16) 3.5-in. drives	• 540W (1,842 BTU/hr)	• 444W (1,517 BTU/hr)
IS4600-60: with (60) 3.5-in. drives	• 540W (1,842 BTU/hr)	• 1,181W (4,039 BTU/hr)

Optional Host Software	
CXFS (IS4600 only)	• 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 or InfiniBand 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 digital content throughout a virtual tiered storage pool based upon business policies

*Failover support by third party supplies

**Calculated upon typical drive type, may vary

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