SGI InfiniteStorage 5000 Storage System

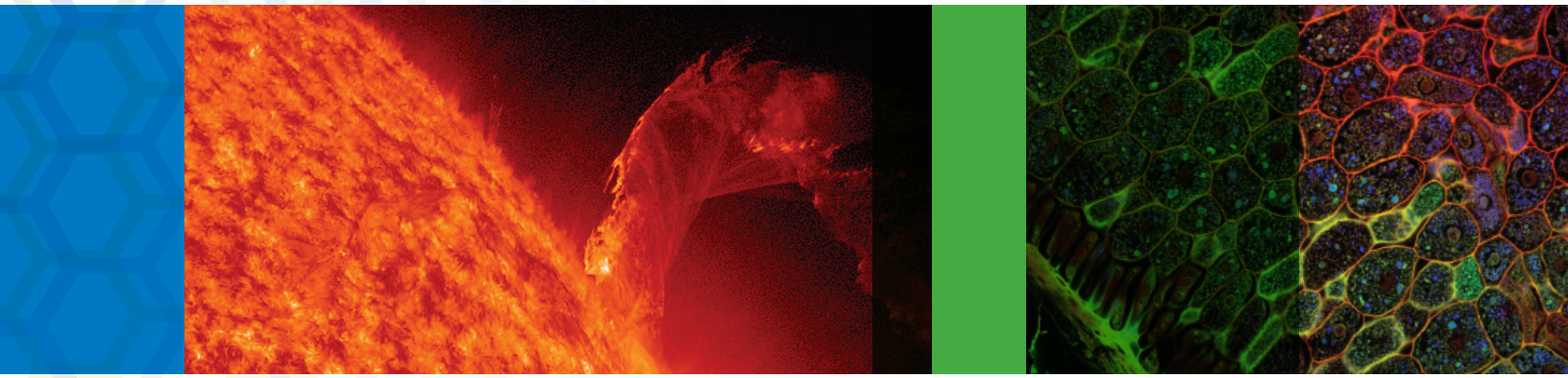
Affordable High-Perfomance Storage for Entry Level and Midrange Enviroments

Key Features

A powerful, feature-rich and intuitive storage management for total control

Supports mulitple host interfaces, drive types and enclosures

“Always On” availability to ensure data accessibility



SGI InfiniteStorage 5000 (IS5000) is a RAID storage system that combines leading edge hardware with a choice of host interfaces and drive technologies in an affordable external storage platform. IS5000 provides a cost effective path to consolidated storage with next-generation 6 Gb/s SAS back-end technology and ultra-low power consumption. IS5000 delivers performance, flexibility and scalability without sacrificing simplicity and availability. IS5000 perfectly complements SGI® UV server and Rackable™ rackmount server environments

Balanced Performance Delivers Application Flexibility

IS5000 delivers a balanced mix of IOPS and throughput to provide sustainable performance that is a considerable improvement over previous generation technology. With up to 4,000 MB/s and 65,000 IOPS available through an optional High Performance Feature Key, IS5000 delivers impressive throughput to bandwidth-intensive and IOPS demanding applications.

Advanced Power Efficiency and Cooling Innovation

IS5000 drives low overall energy consumption with power supplies that meet multiple efficiency standards. The IS5000 produces exceptional per-drive performance and IOPS per watt provide value by leveraging the fewest drives for optimum performance using the least amount of power.

IS5000, with SGI’s DMF, is an ideal primary or secondary tier storage solution for tiered virtualization implementations. It is also ideal as a front-end for active archive architectures using an SGI® COPAN™ MAID solution on the back-end.

Lower Costs Through Adaptability and Choice

IS5000-SGI tuned & IS5000-standard — The platform comes in the base IS5000 SGI tuned, with especially tuned firmware intended for SGI high-performance compute environments. In addition the IS5000-standard version of the platform comes with generic firmware, and is ideal for customers integrating the platform into heterogeneous environments.

It is application-ready for the Oracle Database, VMWare, and Microsoft enterprise software including: SQL Server, Exchange and SharePoint. The line offers heterogeneous support with the flexibility to tightly integrate with SGI compute environments, to operate as standalone storage, as well as integrating with other non-SGI compute environments.

The IS5000 comes with two native 6 Gb/s SAS host interfaces and an additional host interface card (HIC) for two additional 6 Gb/s SAS or four 8 Gb/s Fibre Channel (FC) host ports per controller and three drive enclosure options supporting up to 192 high performance and nearline SAS drives, self-encrypting drives (SEDs), and solid state disk (SSDs). IS5000-standard supports two native 6 Gb/s SAS host interfaces and an additional HIC for two additional 6 Gb/s SAS, four 1Gb/s iSCSI, two 10Gb/s iSCSI or four 8 Gb/s (FC) host ports per controller.

This flexible, multi-protocol approach allows users to choose the right configuration for their DAS or SAN deployments. IS5000 cost-effectively satisfies an organization’s complete range of data capacity requirements with high performance 6 Gb/s 3.5 and 2.5 inch SAS, NL SAS, self encrypting drives and SSD drives in 2.5-in. form factor — all within a single storage system.

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SGI IS5000 System Specifications

sgi.com/storage

Controller	
RAID Controllers	• Dual, active
Cache Sizes	• 4GB (2GB per controller)
Host Interfaces	• IS5000 only: 6Gb SAS (2 standard), optional 2 additional 6Gb SAS or four 8Gb FC per controller • IS5000-standard only: 6Gb SAS (2 standard), optional 2 additional 6Gb SAS or four 8Gb FC ports or four 1Gb/s iSCSI or two 10Gb/s iSCSI connections per controller
Partitions	• 2 Standard
OS Version	• ISSM 10.86
High-Availability Features	• Dual active controller with automated I/O path failover Supports Dynamic Disk Pools and traditional RAID levels 0, 1, 3, 5, 6, and 10 • Redundant, hot-swappable storage controllers, disk drives, power supplies, and cooling fans • Automatic rebuild following a drive failure (DDP to spare capacity, traditional RAID to hot spare) • Mirrored data cache with battery backup and destage to flash • SANtricity Proactive Drive Health monitoring identifies problem drives before they create issues
Software Features	
Standard Features	• Dynamic Disk Pools • Dynamic volume expansion • Dynamic capacity expansion • Dynamic RAID-level migration • Dynamic segment size migration • Persistent monitor • Proactive drive heath monitoring • Nondisruptive firmware upgrades • Media scan with autoparity check and correction
Optional Premium Software Features	• Drive Encryption (except countries where prohibited) • Thin Provisioning • Snapshot Consistency Group • Checkpoint Asynchronous Mirroring • Volume Copy • Remote Mirroring • Turbo Performance
Drive Types Supported	• SAS, NL SAS, SED***, SSDs****
24-Bay Drive Enclosure Dimensions	
Drive Size	• 2.5"
Rack Height	• 2U
Height	• 3.47", 8.8 cm
Width	• 19", 48.3 cm
Depth	• 19.6", 49.8 cm
Max Weight	• 57.3 lbs., 26 kg
Power	**AC Power**
3.5" and 2.5" inch enclosures	• 2.06 max @ 230 VAC (100 to 240 VAC, 50/60 HZ)
48VDC power option (IS5000-SP only)	• Meets the network equipment building system (NEBS) Level 3 standards

12-Bay Drive Enclosure Dimensions	
Drive Size	• 3.5"
Rack Height	• 2U
Height	• 3.4", 8.6 cm
Width	• 18.98", 48.2 cm
Depth	• 21.75", 55.2 cm
Max Weight	• 59.5 lbs., 27 kg
60-Bay Drive Enclosure Dimensions*	
Drive Size	• 3.5"
Rack Height	• 4U
Height, Width, Depth	• H 7" (17.78 cm) x W 19" (48.26cm) x D 32.5" (82.55 cm)
Max Weight	• 232 lbs., 105.2 kg
Supported Operating Systems	• RHEL 5.8, 5.9†††, 6.3, 6.4††† • SLES 10.4, 11.1†††, 11.2 • Windows Server 2012 (VDS)
Environment	
Operating Temperature	• 32°F to 104°F (10°C to 40°C) for 12 and 24 bay • 32°F to 95°F (10°C to 35°C) for 60 bay
Relative Humidity	• 20% to 80% non-condensing
Altitude	•100' below sea level (-30.5m) to 9,840' (3,000m)
Optional Host Software	
CXFS (IS 5000 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 - Mac OS X 10.5 & 10.6; Linux – RHEL & SLES; Windows XP SP2 & SP3; Windows Server 2003 R2 & SP2; Windows Server 2008; Windows Vista SP1; Windows 7
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

Air Flow and Heat Dissipation††	Controller Enclosure	Controller Enclosure
IS5000-12: with (12) 3.5-in drives	• 334W (1138 BTU/hr)	• 223W (761 BTU/hr)
IS5000-24: with (24) 2.5-in drives	• 378W (1293 BTU/hr)	• 268W (916 BTU/hr)
IS5000-60: with (60) 3.5-in drives	• 970W (3309 BTU/hr)	• 847W (2889 BTU/hr)

*Can not mix 60-bay drive enclosures with 12-bay or 24 bay
**Failover support by third party suppliers
***When ordering SED (FDE) drives, FDE premium feature key must be ordered to activate them
****When ordering SDDs, SDD premium feature key must be ordered to activate them
†Remote Volume Mirroring is not supported over iSCSI HICs
††Calculated upon typical drive type, may vary
†††Available on SGI-tuned version of the platform

Global Sales and Support: sgi.com/global