

High-Performance
Storage with
Breakthrough
Scalability, Density,
and Energy Efficiency

KEY FEATURES

Maximum bandwidth for
HPC performance

Scale massively to 2.4PB

Industry leading density
(TB/rack)

Innovative power saving
features

SGI® InfiniteStorage 15000



The SGI InfiniteStorage 15000 overcomes performance barriers to meet the needs of the most bandwidth-sensitive applications. System capacity, within a very small footprint, provides the head room required for data growth. And an innovative MAID implementation makes the SGI InfiniteStorage 15000 an environmental- and data center-friendly solution with the ability to reduce energy consumption, cooling requirements, and overall cost of ownership.

Ideally Suited for Bandwidth Intensive Applications

Purpose-built for applications that require immediate access to large data sets, the SGI InfiniteStorage 15000 storage solutions ideally suit:

- Rich media, with no dropped frames and the ability for one controller to support multiple 2K or 4K data streams (reducing the number of controllers required) and massive archives.
- High-performance computing (HPC), with balanced read/write performance – up to 6GB/sec in either direction.
- Applications within energy, digital content, satellite communications/surveillance, and other data-intensive industries, where the SGI InfiniteStorage 15000 can power large data sets, real-time streaming, and fast access to immense repositories.

Small Footprint with Headroom for Growth

The high-performance SGI InfiniteStorage 15000 offers unmatched scalability and a compact package. The resulting capacity—up to 2.4 petabytes (PB) behind a single system and in only two racks—provides an attractive solution for today's space-restricted data centers. The resulting density is almost four-times that of the competitors, making it one of the most space-efficient solution on the market. The enclosures support ultra-dense 4U packaging.

Flexibility to mix SAS and SATA Drives in a Single System

The configuration flexibility of the SGI InfiniteStorage 15000 allows storage managers to choose the best solution for each application. Mixing performance-centric SAS and capacity-centric SATA disk drives in a single enclosure supports today's tiered storage architectures and shields users from complexity while meeting their performance requirements.

Highest Reliability SATA Solution

Integrated SATAAssure features increases the reliability of large pools of SATA drives without requiring degrading performance:

- Parity checks on both reads and writes to detect and correct "silent" data corruption
- RAID 6 protection against double disk failures in each tier
- Multiple autorecovery attempts before taking a drive offline
- Ability to power cycle individual drives
- Performance penalty-free drive rebuilds for up to four drives per controller (partial rebuilds)
- Supports partial rebuilds

Saving Power while Optimizing Performance

SGI InfiniteStorage 15000 storage introduces an innovative power saving for high performance storage. With the optional Dynamic Massive Array of Idle Disks (D-MAID) functionality, idle drives are spun down but the drive electronics remain active. The power savings are considerable, but data remain near-instantaneously accessible even on "green" drives. The fast re-activation of drives enables SATA storage to serve as a new tier alternative. Much faster than tape, the D-MAID enabled SATA drives provide an energy-efficient, cost-effective, and higher-performance alternative for third-tier storage.



SGI InfiniteStorage 15000

Configuration Specifications

www.sgi.com/storage

Rack 40U Dimensions		
<ul style="list-style-type: none"> • Host Interface Technology: DDR InfiniBand or 8Gb FC • Number of Host Ports: 8 • Back-end Channels: 20 • Parity: Dual Parity, 8+2 • Cache: 5GB • Throughput: Sustained reads and writes up to 6.0GB/s 		
System Features		
<ul style="list-style-type: none"> • Up to twenty 4U drive enclosures each with 60 drive bays • Mix high performance SAS drives with high capacity SATA drives • Up to 120TB per drive enclosure using 2TB SATA drives • Up to 1.2PB per rack • Two redundant hot swappable cooling modules • Four redundant hot swappable power supplies 		
Standard Software Features		
Integrated software with no external host installation required for: LUN Mapping and Masking by WWN and/or Port Zoning; Power LUNs; Real-time DATA Verification; Background Data Scrubbing; LUN in Cache; Place Holder LUNs; Intelligent Stream Detection; ReadOnly LUNs, Advanced A/V Modes, DirectMirror LUN Caching, Direct API		
Optional Host Software		
CXFS	<ul style="list-style-type: none"> • 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 	
DMF	<ul style="list-style-type: none"> • 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 	
Warranty		
2 year 5x9 hardware parts and labor warranty with on-site Next Business Day response standard; upgradable to multi-year, 7x24, 2 hour response		
Controller Environmental Specifications		
Height	7", 17.8 cm, 4 EIA Units	
Width	17", 43.2cm	
Depth	31", 78.8 cm	
Weight	90 lbs, 41.0 kg	
Power	1100 W/5.3A Max, 800 W/3.8A Ave	
Cooling	3756 BTU/h Max, 2730 BTU/h Ave	
Peak Airflow	280 cfm	
Voltage Range	85-264VAC	
Operating Environment	50° F to 95° F (10° C to 35° C)	
Non-Operating	-14° F to 122° F (-10° C to 50° C)	
Drive Enclosure Specifications		
Height	7", 17.8 cm, 4 EIA Units	
Width	17.56", 44.6 cm	
Depth	36", 91.4 cm	
	42", 107 cm with bezel and cable management arms	
Weight (Empty)	120 lbs, 54.5 kg	
Weight (with Drives)	240 lbs, 109 kg	
Power	3904 W max, 1750 W Ave	
Cooling	13324 BTU/h Max, 5973 BTU/h Ave.	
Peak Airflow	220 cfm	
Rack Specifications*		
	42U	45U
Height	79.5", 200 cm	86", 218 cm
Width	28", 71.1 cm	28", 71.1 cm
Depth	42", 105 cm	42", 105 cm
Weight	325 lbs, 148 kg	350 lbs, 159 kg
AC Power	208/230V	208/230V
L6-30p Plugs	4	8
Number of Outlets (internal)	32	64
Certifications		
UL, CE, CUL, C-Tick, FCC, RoHS Compliant		

NOTE: Due to the dimensions and weight of the system, the SGI InfiniteStorage 15000 will only be supported in the specified racks
 NOTE: All dimensions and weights are approximate

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