

SGI Modular InfiniteStorage

Modular Storage and Compute Platform

Key Features

High Density Storage Server
and JBOD

Scalability, with extreme storage
and processing density

Simplified Deployment &
Serviceability



Evolving IT requirements on a fixed budget can challenge even the most innovative organizations. The SGI Modular InfiniteStorage platform is an integrated server and storage system designed to provide the most flexible, adaptable and cost effective platform for the widest variety of customer applications. Built around the industry's densest packaging, this modular system can pack more than 400TB of disk capacity and four processors in a single 4U chassis. With a wide choice of compute capability, network connectivity, and storage options, the SGI Modular InfiniteStorage platform delivers a powerful, high performance yet low cost platform that can meet the requirements of today, and is adaptable to meet changing needs over time.

Meeting the Information Growth Challenge

The SGI Modular InfiniteStorage platform is perfect for environments that need data and compute to be tightly coupled for a wide range of processing and performance requirements. This dense and powerful package enables customers to pool processing and storage requirements for greater efficiency. The SGI Modular Storage platform can also provide NAS connectivity without the need for separate gateways or other equipment, simplifying deployment while minimizing cost, footprint and environmental consumption.

Breakthrough Modular Design

Leveraging industry-leading density in an innovative, adaptable design, SGI Modular Storage platform provides the industry's widest range of functional scalability within the same base platform. The SGI

Modular InfiniteStorage platform is available initially in two base configurations: SGI Modular InfiniteStorage Server (SGI MIS Server) in single or dual motherboard configurations, and SGI Modular InfiniteStorage JBOD (SGI MIS JBOD) a dense, low-cost expansion configuration. Together the SGI Modular InfiniteStorage system enables finely tuned solutions for wide-ranging, functional scalability in diverse data environments. This enables IT organizations to confidently make purchase decisions today, knowing that the platform can readily adapt and scale to changing business needs tomorrow.

Extreme Density

As a storage server, SGI MIS Server delivers the industry's highest density by packaging dual server compute engines with 72 3.5" or 2.5" drives within a single 4U, chassis. Each of the two motherboards in the SGI MIS Server provides dual socket processing power, which will be populated with two processors from the Intel® Xeon® processor E5 family. In addition to this processor flexibility, SGI Modular system can leverage even greater density by adding one or more SGI MIS JBOD expansion chassis, each of which can be configured with up to 81 3.5" or 2.5" drives for up to 486TB with 6TB drives in 4U. When combined with SGI's 19" Destination rack, or other standard rack, up to 4.8PB of capacity and up to forty discrete processors can be supplied within a single 19" rack footprint. This density enables IT organizations to reclaim valuable floor space and reduce power and cooling costs.



Flexible Performance

With the ability to intermix the latest Solid State Disk (SSD), high performance SAS drives, and high density SATA drives into the same platform, the SGI Modular InfiniteStorage platform can cost effectively balance performance and efficiency. 'Hot' or frequently accessed information can be retained within SSD or high performance SAS drives while less frequently used data can be stored on lower cost SATA or SAS drives. The SGI Modular InfiniteStorage platform can help IT organizations meet performance service level agreements, and scale to meet increasing demands over time.

High Availability

IT organizations rely on the timely retrieval of information to facilitate decision making and transactions. The SGI Modular Infinite Storage platform supports this goal by using hot pluggable and redundant components such as fans and optional power supplies. Servers are hot pluggable, and can be serviced without impacting the rest of the chassis or the other server. Through an innovative rail design, the chassis can be accessed from the front or rear, enabling drives and other components to be none disruptively replaced. RAID5 0, 1, 5, 6 and 10 can be deployed in the same chassis simultaneously for total data protection. Battery backup is used to allow for cache de-staging for an orderly shutdown in the event of power disruptions.

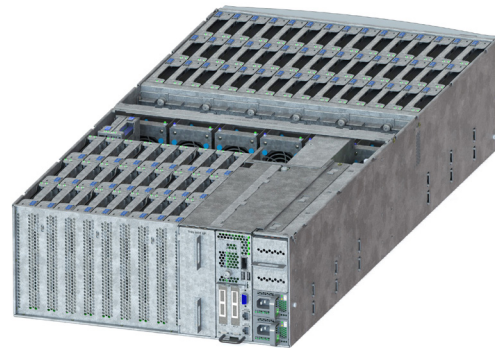


SGI Modular InfiniteStorage introduces an innovative rail design, enabling hot-swappable components to be accessible from both front and rear of the rack. This reduces cable stress and eases servicing.

Flexible, Powerful, Efficient

The SGI Modular Storage platform cost effectively scales compute capability, performance and capacity to meet the needs of today's enterprise. With support for Microsoft Windows and VMware, as well as multiple Linux® distributions, SGI Modular Storage platform provides a powerful and flexible solution for a wide variety of shared server and storage applications including:

- File Serving
- Web and Media Servers
- Data Warehousing
- Engineering Design (CAD) and Software Repositories
- Home Directories and Shares
- Corporate Document Repositories
- Database and Email Servers, including Oracle™, MySQL, Microsoft SQL and Microsoft Exchange



The extreme density of SGI Modular Infinite storage enables up to 4.8PB of disk capacity and forty discreet processors in a single 19" rack.



SGI Modular InfiniteStorage Platform Specifications

sgi.com/storage

Overview		Dimensions	
Profile	<ul style="list-style-type: none"> • 4U chassis standard depth 	Rack Height	<ul style="list-style-type: none"> • 4U
Servers/System	<ul style="list-style-type: none"> • SGI MIS Server or SGI MIS JBOD 	Height	<ul style="list-style-type: none"> • 6.94" (176 mm)
Connectivity	<ul style="list-style-type: none"> • Up to 4 SGI MIS JBODs per SGI MIS Server enclosure 	Width	<ul style="list-style-type: none"> • 16.9" (429.2 mm)
Mount	<ul style="list-style-type: none"> • SGI 19" Destination Rack (D-Rack). Up to 10 chassis per D-Rack. Standard 19" rack compatible rail mount (weight dependent - contact SGI for more info) 	Depth	<ul style="list-style-type: none"> • 36" (914.4 mm)
Operating Environment		Max weight	<ul style="list-style-type: none"> • 250 lbs. (113kg)
Operating Temperature Range	<ul style="list-style-type: none"> • 41° to 95° F (5° to 35° C) 	Power	
Non-Operating Temperature Range	<ul style="list-style-type: none"> • -40° to 140° F (minus 40° to 60° C) 	AC Input	<ul style="list-style-type: none"> • 100-240 VAC (50-60Hz), single or three phase
Operating Humidity Range	<ul style="list-style-type: none"> • 10% to 90% non-condensing 	Optional DC Input	<ul style="list-style-type: none"> • +54 VDC Nominal
Non-operating Humidity	<ul style="list-style-type: none"> • 10% to 95% non-condensing 	Safety	<ul style="list-style-type: none"> • UL/CSA certified to UL6050-1 • CE/CB certified to EN60950/IEC60950
SGI MIS Server Specifications		EMC	<ul style="list-style-type: none"> • North America FCC Class A • Europe EN55022/EN55024
Servers/System	<ul style="list-style-type: none"> • One or two server motherboards per system, dual socket processors per server 	Networking	<ul style="list-style-type: none"> • Dual-Port GigE controller (Intel® I350)
Processor Support	<ul style="list-style-type: none"> • Supports Intel® Xeon® processor E5 family* 	Expansion Slots	<ul style="list-style-type: none"> • Single server: 6 x PCIe gen 3 • Dual server: 4 x PCIe gen 3 per server (8 per enclosure)
Max Cores	<ul style="list-style-type: none"> • 16 per server (32 per enclosure) 	RAID or SAS Controllers	<ul style="list-style-type: none"> • Single server: Up to four cards • Dual server: Up to two cards per server mother board (four per enclosure)
Memory	<ul style="list-style-type: none"> • Up to 8 DDR3 DIMMs per server motherboard (8GB, 16GB or 32 GB DIMMs) Max 256GB per server motherboard, 512GB per server enclosure 	External Storage Attachment	<ul style="list-style-type: none"> • Up to 4 SGI MIS JBOD chassis per server enclosure
Boot drives	<ul style="list-style-type: none"> • One 240GB SSD per server motherboard standard. Additional SSD drive is optional. 	Internal Storage	<ul style="list-style-type: none"> • Up to 72 X 3.5" or 2.5" 15mm drives • Up to 144 x 2.5" 9.5mm drives. • Drive size and capacity can be mixed in groups of 8 • Supported Internal Drives: SAS, SATA, SSD**
Supported Operating Systems	<ul style="list-style-type: none"> • RHEL 6.x, 7.x • VMware ESX 5.x • SLES 11.x, 12.x 		
SGI MIS JBOD Specifications			
Internal Storage	<ul style="list-style-type: none"> • Up to 81 X 3.5" drives • Drive type and size can be mixed in groups of 9 	<ul style="list-style-type: none"> • Up to 162 x 2.5" 9.5mm drives. • Supported Internal Drives: SAS, SATA, SSD** 	
Connectivity	<ul style="list-style-type: none"> • Four quad port SAS standard. Eight quad port SAS optional 		



About SGI

SGI is a global leader in high performance solutions for compute, data analytics and data management that enable customers to accelerate time to discovery, innovation, and profitability. Visit sgi.com for more information.

For More Information

Please contact Mike Wade at mwade@sgi.com or visit sgi.com/remoteservices.

Global Sales and Support: sgi.com/global

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