SGI InfiniteStorage Gateway

Lower the Cost of High Volume Storage with Intelligent Data Management

Key Features

Automated, policy-based data migration to active archive

Multi-tiered storage fabric with seamless online data access

Fast search, facilitates compliance, enables DR

Easy to connect and administer

SGI InfiniteStorage Gateway is a purpose-built appliance for enterprise data centers facing exponential growth of unstructured data and overwhelming storage expense. Leveraging SGI technology proven in many of the world's largest Big Data environments and supporting multi-vendor storage infrastructures, SGI InfiniteStorage Gateway enables IT organizations to align data throughout its lifecycle with the most appropriate storage medium while maintaining seamless access, significantly reducing the cost of high volume storage.

Reduce Storage Infrastructure and Operating Costs

The rapid growth of unstructured data is putting tremendous pressure on conventional data center infrastructures, driving storage acquisition costs prohibitively higher, increasing complexity, and fueling inefficient utilization. Studies show as much as 85% of data residing on primary storage is inactive. While all users want uninterrupted access in case of future need, IT managers must continually add expensive primary capacity or choose which data to archive and which users to impact. And as primary storage silos grow, so do energy costs, backup volumes, and management headaches.

SGI InfiniteStorage Gateway enables the automated placement of data on the right storage at the right time, without impacting user access. As primary network shares fill, infrequently accessed data is moved to the InfiniteStorage Gateway network share. Migrated data may reside on disk inside the appliance as well as on tertiary devices in the SGI storage fabric to include SGI MAID (ZeroWatt™ disk), tape, or SGI OmniStor™ solution,as well as remote or cloud-based storage. Moving data from primary disk to InfiniteStorage Gateway dramatically lowers the overall cost of storage. Less energy is consumed. Backup volumes decline. And the growth of high-cost data silos can now be contained.

Align Data Activity with Best Storage Medium, Automatically

Complementary to InfiniteStorage Gateway, optional SGI Trusted Edge™ software scans and analyzes storage use throughout your existing primary NAS environment, providing detailed information in graphical form. Trusted Edge software can then automatically move data from primary storage to InfiniteStorage Gateway that is less active or is subject to other usage policies. The appliance writes the data to internal disk—InfiniteStorage Gateway has up to 276TB of onboard capacity—and makes a second copy on tertiary storage within the virtualized SGI storage fabric. This provides immediate data protection and facilitates tiered migration.

When capacity thresholds are reached within the appliance, data is moved to the appropriate tertiary environment based on policy—data requiring more immediate access resides on higher speed storage, less urgent data resides on lower speed storage. And by retaining file system metadata when data is copied or moved downstream, InfiniteStorage Gateway retrieves data blocks from the closest media to further accelerate file access. The entire process is invisible to users and applications without any administrator intervention.

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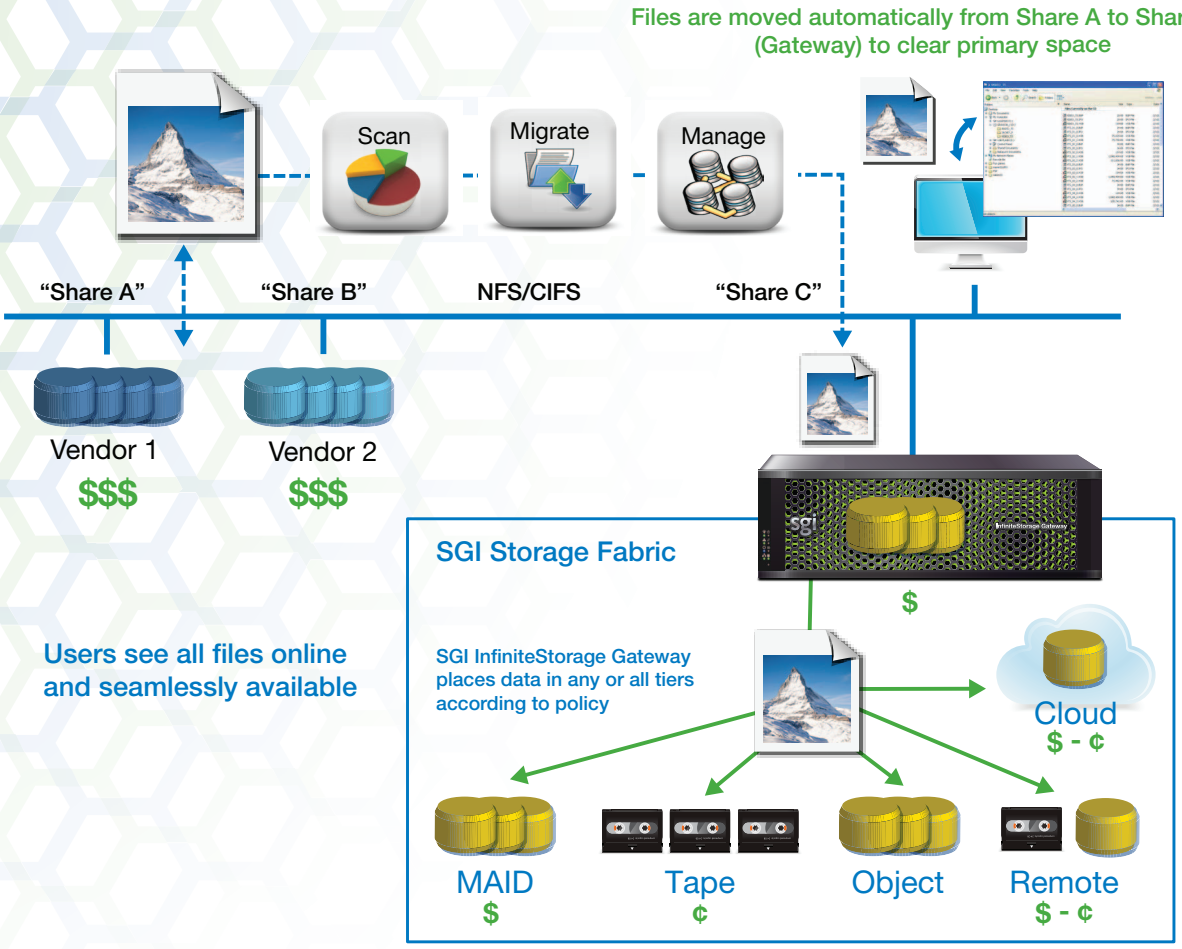

Seamless Online Access Wherever Data Resides

When data is moved from primary network shares to the InfiniteStorage Gateway share, users access it in the same way, wherever the data resides in the SGI storage fabric. No other applications to run. No backup restore requests. Users simply locate their data on the InfiniteStorage Gateway share or through symbolic links on primary shares, using the same directory, folder, and file structure. The file format remains as when first created. And it's always online.

Fast Search, Facilitates Compliance, Helps Achieve DR

A powerful *Appliance Edition* (AE) of SGI® LiveArc™ digital asset management software is embedded in InfiniteStorage Gateway and through simple license activation, delivers rapid search, facilitates compliance, and helps achieve disaster recovery. As files are moved to the appliance, LiveArc AE automatically indexes file metadata and content, enabling a host of capabilities. Administrators gain a global view of archived data from any network connection via browser-based GUI, including across multiple SGI storage fabrics. And users gain the ability to locate archived data quickly using fast, free-text search by file attribute or content, as well as preview files before accessing.

LiveArc AE delivers Write Once Read Many (WORM) functionality by restricting file changes and deletion. Data retention periods can be assigned. User views and access can be limited based on login. Version history and audit trails can also be captured.

LiveArc AE also provides intelligent archive replication to remote InfiniteStorage Gateway fabrics based on policy or query, automatically or manual, and en masse or selectively. Data encryption, compression, and integrity checks are performed in transit, with file-level deduplication to conserve storage consumption.

Heterogeneous Storage Support

An important advantage of InfiniteStorage Gateway is the ability to connect to existing infrastructures with primary storage from multiple vendors. No changes to primary storage or the management environment are required. Data moves from primary network shares to the InfiniteStorage Gateway share via standard NFS or CIFS protocols. In addition to reducing the need for more high-cost expensive primary capacity and expanding storage silos, InfiniteStorage Gateway enables administrators to further capitalize on existing storage investments and avoid lock-in for future storage purchases.

Proven in Largest BIG DATA Environments

SGI InfiniteStorage Gateway is powered by SGI® DMF™ technology, the tiered storage virtualization software deployed in hundreds of customers worldwide and among the largest data environments. Many customers have been using DMF technology for over 20 years, with some scaling to over 100PB of managed data and over 2 billion files. Even through multiple disk and tape storage upgrades and physical data center moves, DMF technology has enabled SGI customers to keep valuable intellectual property online at a fraction of the cost of conventional storage deployments.

SGI has integrated proven DMF technology into a purpose-built appliance to serve IT organizations now facing Big Data storage and cost challenges previously experienced by only the largest data environments. An extension of the SGI Modular InfiniteStorage platform, InfiniteStorage Gateway is designed for data centers with approximately 250TB or more, and to scale storage fabrics without limitation as data volumes grow.

Easy to Connect and Administer

SGI InfiniteStorage Gateway comes pre-loaded with all operating software and hardware needed to speed installation and accelerate time to solution. Simply connect the appliance to the LAN and to lower or outer tier storage. The storage fabric forms automatically through the immediate discovery of devices. No complex setup or calculations. Just lower cost storage and energy consumption in a matter of hours.

SGI InfiniteStorage Gateway also helps future-proof data management. Because the lifespan of data usually exceeds the life of storage hardware, infrastructure changes can be challenging. By allowing IT administrators to move data from old hardware to new without interrupting users or applications, InfiniteStorage Gateway enables orderly, non-disruptive storage upgrades to next generation technologies.

SGI Speed, Efficiency and Reliability

To clear capacity on expensive Tier 1 storage, SGI InfiniteStorage Gateway rapidly ingests data via GbE or 10 GbE connections and with total throughput up to 2GB/sec (higher bandwidth requirements are fulfilled using DMF technology in other solution configurations). Data is migrated to devices in the storage fabric over high speed 4Gb or 8Gb FC. The appliance is extremely power efficient and highly fault tolerant.

An Active Backup feature provides added layers of protection through backup of the active archive file system and metadata, as well as automating additional copies of data blocks if desired. As always, users see only one file copy regardless of the data management policies IT elects to apply. The virtualized storage fabric also has robust integrity checks during the migration and protection process to help ensure data reliability.

Helpful Services

SGI Services personnel bring expertise and experience to help turn powerful technology into business solutions. Technical support is available around the globe up to 24 by 7. And if you need assistance assessing your data environment, architecting a multi-tier storage fabric, or implementing a solution customized to your specific needs, SGI Services has the answer.

Align data with the right storage at the right time.

SGI InfiniteStorage Gateway Specifications

sgi.com/storage

Overview	
Profile	• 4U chassis, standard depth
Mount	• SGI 19" Destination Rack (D-Rack). Up to 10 chassis per D-Rack. • Standard 19" rack compatible; non-standard rack with 19" compatible rail mount • Rack weight rating - contact SGI for more info

Specifications	
Servers/System	• Single server, dual socket
Processor Support	• Intel® Xeon® E5-2620
Cores	• 12 per system
Memory	• 128GB, eight 16B DIMMs
Boot Drives	• 120 GB SSD
Appliance Capacity	• 148 TB or 276 TB chassis • NL-SAS drives
Fabric Capacity	• Unlimited
Operating System	• RHEL 6.4
Networking	• 2 or 4 port 10 GbE (6 ports max) • Dual GbE onboard

Storage Fabric	
MAID (ZeroWatt™ Disk)	• SGI MAID or VTL, 400 series
Tape Libraries	• Supports most all tape libraries and drive types • Auto-config for Spectra Logic T150, T120, T-Series, T950 & Tfinity • All libraries must be dedicated physically or via Shared Library Services (SLS) partitioning
Object and Cloud Storage	• Engineered for future support
Appliance Connectivity within Fabric	• 4-port 8Gb Fibre Channel

Appliance Software	
Data Management	• SGI® DMF™
Number of Files Supported	• Unlimited
File System	• XFS
Network Share File Transfer Protocols	• NFSv3, v4; CIFS SAMBA 3.6
Active Backup	• 2 or more copies during and after migration to fabric storage tiers (up to 64)

Dimensions	
Rack Height	• 4U
Height	• 6.94" (176 mm)
Width	• 16.9" (429.2 mm)
Depth	• 36" (914.4 mm)
Max weight	• 250 lbs. (113kg)

Availability	
Appliance RAID	• RAID 6
Hot Swap Components	• Drives, fans (dual), power supply (dual)

Operating Environment	
Operating Temperature	• 41° to 95° F (5° to 35° C)
Non-Operating Temperature	• - 40° to 140° F (- 40° to 60° C)
Operating Humidity	• 10% to 90% non-condensing
Non-operating Humidity	• 10% to 95% non-condensing

Power	
AC Input	• 100-240 VAC (50-60Hz), single or three phase
Safety	• UL/CSA certified to UL6050-1 • CE/CB certified to EN60950/IEC60950
EMC	• North America FCC Class A • Europe EN55022/EN55024

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