sgi®

SGI® InfiniteStorage

DELIVERING POWERFUL, cost-effective storage

In a typical organization, stored data volumes are doubling every 24 months (6-18 months for SGI customers), and current storage infrastructures are breaking under the strain. This data "explosion" is causing considerable pain for many organizations. But with SGI® storage solutions, exponential data growth doesn't have to mean exponential growth in storage costs.

Don't let your organization suffer the "pain" of the data explosion

SGI is the world's leading supplier to high-performance computing and visualization markets where customers need to create, store, and manage "big data". As a result, SGI has had to develop storage solutions that facilitate this process, resulting in a history of storage "firsts" for a system vendor, and of world record performance. These include:

• First system vendor to ship Fibre Channel Storage (1997)
• First System vendor to ship shared FileSystem for Storage Area Networks (SANs) (1999)
• Breaking the 3GByte/second SAN barrier (2000)
• First 2Gbit SAN fabric (2001)
• First 12GByte/second SAN solution (2003)
• Network Attached Storage (NAS) system supports over 100TB (2003)
• World record backup tripled – 10TB in one hour (2003)
• First system vendor with 4Gbit SAN (2004)

Key storage technologies – such as SGI's Data Lifecycle Management system DMF – have been used in production environments for more than a decade. The reason that customers choose SGI storage solutions is that they address critical "pain points" through a highly-scalable storage infrastructure for:

• Intelligent data consolidation
• Data lifecycle management
• Data protection

solutions for over a decade

The data explosion has meant that while more storage media is being added, data access is becoming a bottleneck, limiting productivity; and according to Gartner, administration cost of the added storage is 8 to 10 times its acquisition cost. The result: costs spiraling out of control.

Intelligent Consolidation

SGI's Intelligent Consolidation Solution addresses these issues by enabling all storage to be managed via a central consolidated storage architecture ensuring:

- Better disk utilization
- Better capacity load balancing
- Zero replication of data (the system only maintains a single copy of all data)
- Reduced storage capacity requirements (and hence costs)
- Ongoing savings through reduced management costs
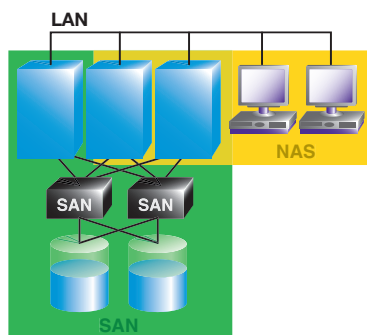
The solution enables you to connect all existing storage assets, irrespective of vendor or operating system, into a single integrated NAS or SAN. It also enables a seamless transition from one storage architecture to another as your storage requirements grow – for excellent return on, and protection of, your existing storage investments.

If, for example, you're using Direct Attached Storage (DAS), you can transition to Network Attached Storage (NAS) and then to a Storage Area Network (SAN) or SAN/NAS hybrid without any need to restructure data using our unique shared FileSystem, CXFS. Business can continue while the transition is in progress, and data is always consistent and available.

SGI's Intelligent Consolidation solution can be scaled independently in different dimensions over time including storage capacity, bandwidth, performance, connectivity, and supported operating systems – providing virtually unlimited growth paths and ongoing investment protection. And the file system can grow within a live production environment – avoiding downtime, and ensuring high data availability and business continuity.

Data Lifecycle Management

Regulatory compliance, corporate responsibility, multi-year projects, and the increasing numbers of workflows requiring access to the same data over longer periods of time, are accelerating data growth and adding to complexity. Because of this, organizations now need to control and manage their data throughout its entire usable lifetime – from creation, storage and protection to eventual deletion.

### The Information Management Dilemma

All organizations engage in information management. For most organizations, this means a tedious manual process in which administrators decide which data to keep online and which data to archive. This manual method is slow, manpower intensive, expensive, and prone to errors that may lead to data corruption and data loss.

SGI DLM solutions take the guesswork out of data management by automatically and transparently moving data from primary disk to secondary disk, tape or other storage device according to your criteria, ensuring that data is always stored on the most appropriate and cost-effective media. Data is recalled to primary storage immediately on first access without the need for user or administrator intervention.

SGI DLM solutions virtualize your storage assets, creating a scalable storage pool that is transparent to your users and applica-

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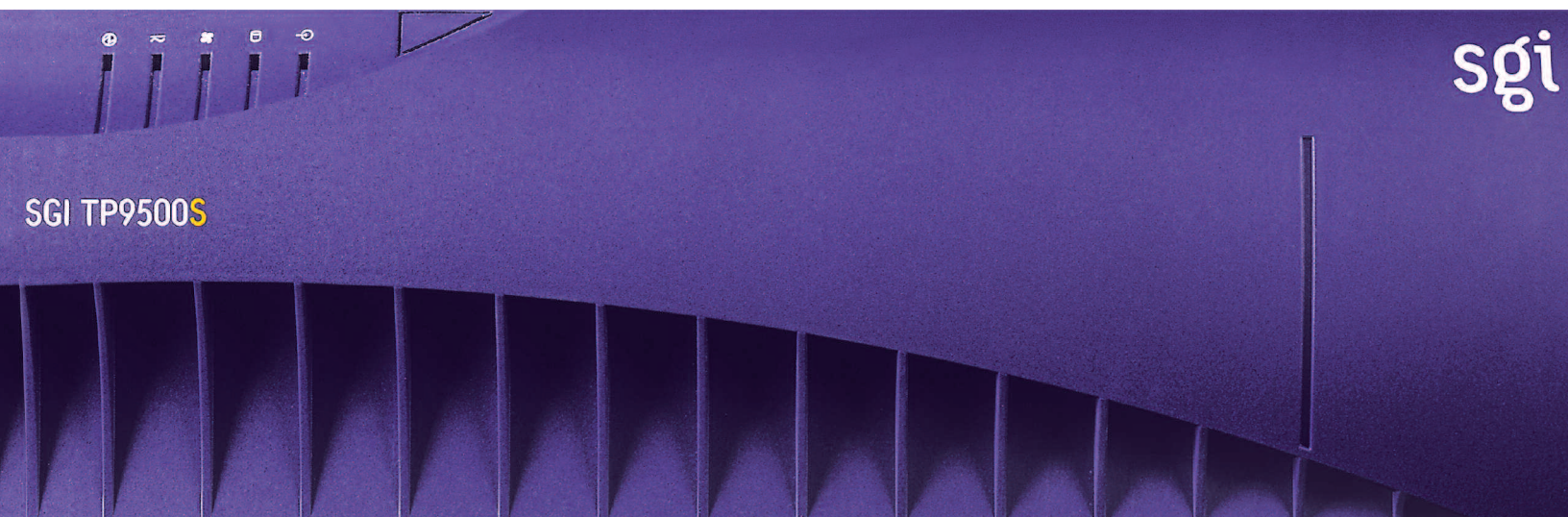
tions. This fully-automated, tiered approach to data storage adapts automatically to changing usage patterns to ensure data is always accessible and your users are always productive while greatly simplifying storage management and dramatically reducing the cost of your storage infrastructure.
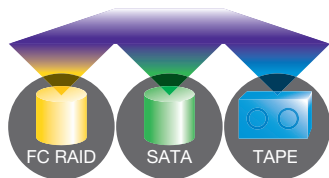
Data Protection

In today's global business environment critical data and applications must be protected from equipment failures or user error and be available around the clock. SGI offers a flexible array of options from simple offline tape solutions to 100% redundant environment ensuring that your data protection needs are met.

Backup and Restore

Your organization may have no backup and restore solution in place; may lack confidence in the integrity of the backups that are being made; or may want a solution with increased performance to minimize unproductive downtime.
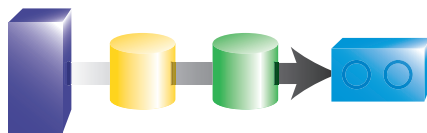
SGI's modular Backup and Restore solution combines record performance with a choice of best-of-breed products from the leading software vendors. In 2003, SGI shattered the world record for backup and restore by 3x. Faster backup and restore performance means shorter backup windows, increasing productivity and return on investment.

If you're concerned about integrity, SGI can migrate you to a more secure environment; while for those wanting increased performance, we can offer a high throughput environment in which all leading backup and restore packages will operate most effectively.

Business Continuity

Most organizations need a disaster recovery strategy to ensure that a site-wide disaster won't disrupt their ongoing operations or result in permanent loss of critical data. They also need to maximize systems uptime by protecting application availability against hardware or software failures.

While most organizations recognize a need for these capabilities, architecting complete solutions for business continuity can be expensive, time consuming, and difficult. With years of experience in some of the most intensive and critical data environments, SGI has the technology and expertise to help.

With SGI's modular Business Continuity solution, you can select components according to the perceived cost of a given device or body of data being unavailable:

- For organizations requiring exact real-time data replication at a secure remote location, we offer synchronous mirroring.
- For those requiring guaranteed high availability of critical data, our fail-over technology enables applications and services to achieve 100% system uptime at a fraction of the cost of specialized fault-tolerant systems.
- We also provide a range of disaster recovery solutions to reduce the impact of outages that impact an entire site.

How can you tell if SGI® InfiniteStorage solutions could benefit your organization?

Just ask yourself the following questions:

- Can your users access their data as and when they need to
- Would a partial or complete loss of data impact your ability to do business
- Is there a current or planned compliance requirement for you to store and report data
- Does your business regularly need to make or manipulate very large files
- Would you like to ensure that data is automatically migrated to the most cost-effective storage medium, based on your priority criteria
- Are your storage costs getting out of control, and would you like to be able to consolidate your storage in such a way that avoids this

Answer "yes" to any of these, and SGI InfiniteStorage solutions could well be of benefit by enabling you to:

- Transparently share your storage infrastructure everywhere
- Scale data as your business and application requirements grow
- Manage your data lifecycles without limiting access
- Eliminate data access bottlenecks
- Provide reliable, proven solutions to meet your strategic storage requirements today, and for the foreseeable – and unforeseeable – future