

The SGI[®] Lustre[®] Solution

A Complete End-to-End
High Performance Clustered
Parallel File System

Features and Benefits

- **Better productivity and faster time to solution** through a comprehensive design
- **Faster installation and uptime** delivered by consultants and project managers with extensive experience in file system technologies and complex installations
- **Single point of accountability and contact** for the customer provides a one-stop shop for servers, storage, consulting and services.
- **A wealth of available resources with security clearances** to meet the requirements of classified projects in sensitive markets

The SGI Lustre file system solution is expressly designed for data-intensive applications that require the highest possible I/O performance. From installation to on-going operation, SGI leverages the unparalleled scalability, reliability, performance and cost effectiveness of the open source Lustre file system combined with SGI Altix servers and InfiniteStorage RAID technology to deliver a solution that meets the needs of even the most demanding cluster configurations.

Customizing Solutions to Optimize Lustre Performance

A key element of the Lustre solution is consulting from SGI Professional Services. With experience in file system technologies, infrastructure optimizations, and operational efficiencies, SGI consultants design, implement, and tune the Lustre architecture for optimal operation of your file system environment. The PS team is guided by its commitment to understanding the customer's business and technology requirements and developing and supporting a solution that meets those requirements.

Simplifying the Lustre Solution – End to End

SGI consultants draw on their superior skills in compute and data management technologies to simplify complex and hybrid environments and deliver complete solutions.

The team's extensive experience in Infiniband and Lustre technologies make SGI uniquely suited to help customers simplify their Lustre cluster file system installation. Additionally, as part of its best practices for file system implementations, SGI has developed a comprehensive Needs Assessment process that ensures that the design is right the first time – eliminating the frustration and downtime that frequently accompany new deployments.

The smooth installation ensures

- The Lustre system will be up and running quickly to deliver the highest possible scalability and I/O performance
- Network-neutral data storage and retrieval system that combines open standards, the Linux operating system, an open networking API
- Innovative protocols customized to the customer's unique needs



The SGI® Lustre® Solution

Use Case

When a large computing applications center needed a powerful cluster with a parallel file system, they turned to SGI. The SGI experts in cluster technology, parallel file system configurations, and large program installations designed and installed a system that met the extreme IO and throughput requirements needed for their research and development projects.

“SGI Professional Services provided the Lustre parallel file system needed for the shared file access required by our users. We found their consultants to be skilled in file system design and implementation; exactly what we needed to get the complex system running so it could meet the demanding needs of our research community.”

Leveraging Resources

SGI simplifies IT operations and projects by providing customers with a central, single source for experienced, expert resources for a range of support – from assessing needs and designing solutions to deploying projects and administering them long term. Additionally, SGI extends the resources of Lustre users, giving customers the expertise they need without their having to build an infrastructure of staff to support the technology goals and objectives of the Lustre deployment.

Delivering Unmatched Value

SGI is the single point of contact for everything Lustre. Professional Services experts optimize the customer's investment by delivering both strategic business value and long-term operating value. This enables the efficiencies and flexibility companies need to get up and running faster and for smooth on-going operation of the technology.

To Learn More

For more information about the SGI Lustre Solution and other services in SGI's portfolio of Professional Services, contact your SGI sales representative.

SGI Professional Services delivers a unique convergence of technology, innovation, and expertise for exceptional business results.

SGI Lustre Solution Components

- Installation and setup of
 - File System Clients
 - Lustre MetaData Server
 - Lustre Object Storage Servers
 - Lustre Network Drivers
- System Administrator training and knowledge transfer
- Design, Implementation, and Project Management
- Support via SGI's world renowned Customer Support Organization

SGI Lustre Solution Benefits

Scalability

- Object-based storage architecture scales to tens of thousands of clients and petabytes of data

Reliability

- Deployed on large and small clusters, meets uptime requirements of the most mission-critical applications

Performance

- Delivers increased throughput and I/O via intelligent serialization and separation of metadata operations from data manipulation

Cost Effectiveness

- Support for industry standard platforms and heterogeneous networking environments reduces deployment and support costs

Open Source

- Developed and maintained as open source software with an open networking protocol and POSIX file system semantics ensures broad support for industry standard platforms and heterogeneous networking environments



Corporate Office
1140 E. Arques Avenue
Sunnyvale, CA 94085
(650) 960-1980
www.sgi.com

North America +1 800.800.7441
Latin America +55 11.5185.2860
Europe +44 118.912.7500
Japan +81 3.5488.1811
Asia Pacific +61 2.9448.1463