SGI® Data Management

Store, Send, Share, Secure

Data Management at SGI

At SGI, our priority is to ensure that your information is completely secure and instantly available. We handle the details of complex data management so you can focus on what you do best.

Our data management strategy is based upon providing high-performance, total modularity and reduced complexity. The key to optimum performance is flawless integration among your computational server, visualization engine, and storage bandwidth to ensure that a lack of neither bandwidth nor capacity limits your ability to innovate. Modularity ensures you purchase only the capabilities needed and you can trust they will easily integrate, scale, and transfer to evolving storage architectures. When it comes to complex data management, our ultimate goal is to reduce the complexity of information management.

SGI provides the ultimate storage solutions by combining the latest filesystem technology, unrivaled bandwidth, scalability, high-availability tools, hierarchical storage management (HSM), and reliable backup capabilities.

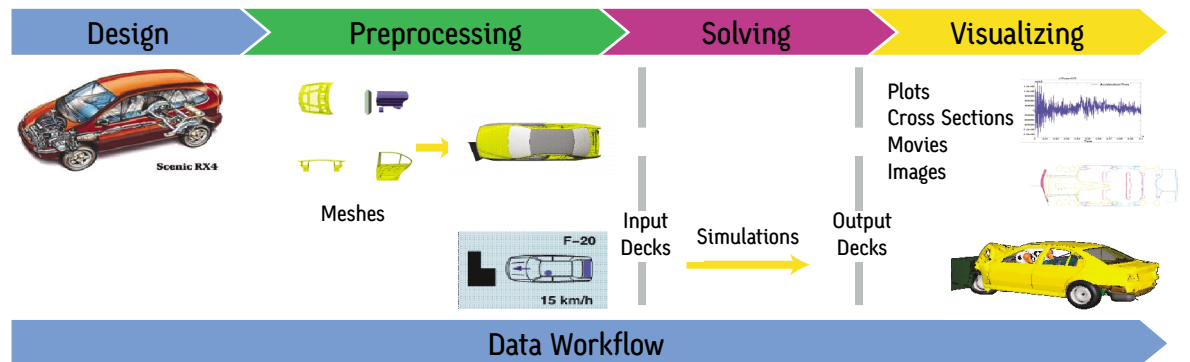### Data Management in Manufacturing

The dynamics of today's global manufacturing industry have many manufacturers re-engineering their product development practices to bring new products to market faster, at lower cost, and with more options for consumers. SGI works with manufacturing-software providers to optimize performance on SGI systems and also provides flexible, high-performance data management to optimize workflow for design, simulation, and visualization for CAD/CAM, CAE, and digital prototyping. Combining application optimization and data manage- ment provides the ideal environment for manufacturing workflow, decreasing simulation time, improving informa- tion sharing, and ultimately shortening the time to design completion.

Computer-Aided Design (CAD), Computer-Aided Manufacturing (CAM), and Product Data Management (PDM)

In CAD, CAM, and PDM, the biggest data-related challenges include high-bandwidth access to large files by many users, data integrity, and data security. Whether using network- attached or SANs, SGI complex data management solutions provide highly available storage with the greatest bandwidth in the industry. SGI filesystems, backup, and hierarchical storage management solutions ensure scalability and flexi- bility as your information archive grows. These capabilities can be combined to suit specific customer requirements and offer the ideal environment for storing, sending, and sharing CAD, CAM, and PDM data.

Computer-Aided Engineering (CAE) and Multidisciplinary Design Optimization (MDO)

CAE and MDO have unique requirements in terms of com- pute power and shared data. Throughout the design process time savings are realized through optimized application per- formance, efficient compute, and powerful visualization. To support this design process, flexible, high-bandwidth, high- speed data access and management is required. That is why SGI provides direct-attached, network-attached, and SAN solutions. Using powerful SGI filesystem, backup, and HSM solutions, SGI servers can manage files and computations, be dedicated to file serving, or focus on computation only while attached to a SAN. These solutions all use the same base software suite: XFS™ and CXFS™ (clustered extended filesystem), Legato Networker, and DMF, ensuring more sta- bility, less reconfiguration, and more manageability.
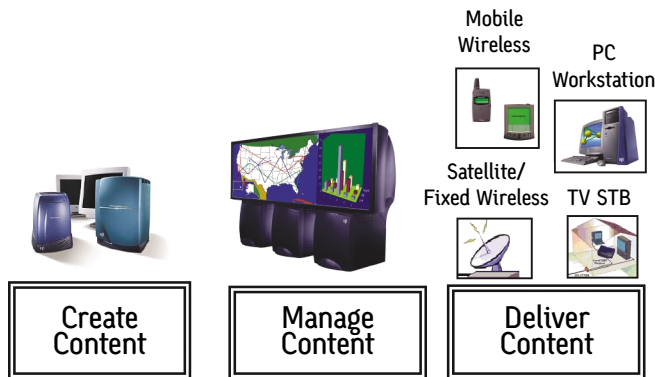

Manufacturing Workflow

Digital Prototyping

In digital prototyping the emphasis is on visualization and interactive review to predict an item's form and functional behavior in the physical world. SGI visualization technologies have revolutionized digital prototyping. Additionally, the large amounts of data that need instantaneous availability require high-performance file serving, shared data, or a combination of both. SGI's unique capability to provide multipurpose file servers that can also handle application loads and our ability to provide high-performance data sharing via CXFS can mean significant time savings in digital prototyping.

Data Management in Media

In media, creating, managing, and delivering digital information is the name of the game. Supporting data management infrastructure must ensure effective, high-performance capabilities to simplify your workflow and allow you to focus on your business. SGI provides flexible, high-performance data management solutions for digital content creation, asset management, and media streaming to seamlessly store, send, share, and secure your digital assets.

Mobile Wireless

PC Workstation

Satellite/ Fixed Wireless **TV STB**

Create Content **Manage Content** **Deliver Content**

Digital Content Creation

Digital content creation is all about sharing digital assets among multiple individuals who modify the same images. SGI file servers optimize sharing of assets among many designers connected to an Ethernet backbone or file server. SGI file servers provide scalable, high-bandwidth, reliable repositories for storage of digital assets. SGI understands that having a powerful visual environment for content modification is required. Coupling a Silicon Graphics® Octane2™ V10 graphics

system with an SGI® TP9100 storage array provides affordable, versatile storage to support the most demanding needs of individual content creators.

Asset Management

Most large organizations have some digital and physical assets including photos, images, video, copy, audio clips, and maps. As organizations acquire more assets and transport of assets over LANs and WANs grows, managing and distributing these assets becomes critical. Tools such as StudioCentral™ and Ascential™ Software Media360™ manage assets at the highest level and position your assets at the center of your workflow. The underlying storage infrastructure to support asset management is crucial to ensuring fast, efficient, and secure availability of your assets regardless of where you are located.

At the core of this infrastructure is a storage area network (SAN) with high-performance file sharing using CXFS. A SAN consolidates storage devices and provides the highest performance available to access your assets. CXFS ensures all systems have access assets stored in the SAN and that accessing them is as fast as the underlying storage hardware.

As your repository of assets grows, some content is not accessed as frequently. These assets are automatically moved to more cost-effective StorageTek tape libraries using DMF, a tool for hierarchical storage management. These near-line and offline files are still fully visible just as your online files are, and they are automatically delivered to your local computer when requested.

Because asset management is at the core of your workflow, SGI provides the ability to attach content-creation file servers to your asset management environment, ensuring the ultimate in effective, high-performance workflow.

Media Streaming

When streaming media or capturing data you cannot afford any delays or downtime. You don't get a second chance. Managing video or satellite imagery as data can be distributed over data networks at much faster than real-time rates, ensuring no interruptions. SGI provides storage solutions using the Ciprico® 7000 or SGI® TP900 storage array that ensure the highest possible transfer rates, security of your information, and a cost-effective price tag. When sharing of content is required, SGI asset management solutions are also available.