SGI Market Strategy

- **HPC**
  - Commercial
  - Scientific
  - Modeling & Simulation

- **Big Data**
  - Hadoop
  - In-memory
  - Analytics
  - Archive

- **Cloud**
  - Public
  - Private
  - Government

Providing Customers with **Trusted** Technical Computing Solutions
Four Solution Pillars

**Compute**
- SGI® ICE
- SGI® UV
- Rackable™
- Big Data Solutions
- Prism

**Storage**
- Modular Storage
- InfiniteStorage
- ArcFiniti™

**Software**
- Management Center
- Performance Suite
- DMF
- XFS
- OpenFOAM®
- LiveArc®

**Services**
- Consulting Services
- Implementation Services
- Support Services

Designed to work together. Designed to scale.
SGI Server Portfolio
Performance Optimized for FEA/CAE workloads

Altix® UV 2000
- 4-256 socket Intel® Xeon® E5-series supercomputer
- Scales to 1,536+ cores & 64+TB of memory
- World’s fastest shared memory system
- Open architecture
- 16-blade enclosures

Altix® UV 20
- Quad socket Intel® Xeon® E-5 Series
- High memory and I/O expansion capability

Rackable™ & CloudRack™
- Dual and quad socket Intel® Xeon® and AMD® Opteron™ nodes
- Clusters and workgroup servers
- Build to Order config. flexibility
- Eco-Logical™ for reduced power consumption
- Rackmount and tray form factors

Altix ICE®/ICE X®
- Dual socket Intel® Xeon® and AMD® Opteron™ nodes
- No-compromise bladed clusters
- Large clusters deliver immediate and sustained productivity
- Ideal for largest IB clusters

Latency & Bandwidth Between Nodes
Ethernet
InfiniBand
NUMAlink®
SGI Storage Portfolio
Tailored to meet customer workflow requirements

**InfiniteStorage RAID Platforms**

- **Entry RAID**
  - **IS5000**
    - Entry RAID
    - 6 Gb/s SAS
    - SAS and/or SSD drives
    - 192 drives max

- **Mid-Range**
  - **IS4600**
    - Mixed Use RAID
    - FC or IB HBAs
    - Optional 4U 60-drive dense tray
    - 480 drives max
  - **IS5500**
    - Next Gen RAID
    - 6 Gb/s SAS
    - SAS and/or SSD drives
    - 384 drives max

- **Performance**
  - **IS6120**
    - Performance RAID
    - SSD, SAS, SATA drives intermix
    - 120 drives max
  - **IS15000**
    - Extreme bandwidth, density & scalability
    - 600 drives per rack
    - 1200 drives max
  - **IS16000**
    - 10GB/s Reads and writes
    - 300k Random HDD read IOPS

**Persistent Data Stores**

- **MAID**
  - **COPAN 400M**
    - Native MAID
  - **COPAN 400T/TX**
    - VTL

**Tape Libraries**

- **Spectra Logic**
  - T50e
  - T120
  - T200
  - T380
  - T680
  - T950
  - T-Finity

**Integrated Archive**

- **ArcFiniti**
  - Network-accessible disk-based archive solution.
  - Up to 1.44 PB in a single rack.
  - Leveraging MAID

**InfiniteStorage Server Platforms**

- **InfiniteStorage Servers**
  - **ISS3009**
    - Half-depth, 3U 9 Drives
  - **ISS3012**
    - Half-depth, 3U 12 Drives
  - **ISS3118**
    - Full-depth, 3U 18 Drives
  - **ISS3500**
    - 4U – 36 Drives
    - IB, GigE & 10GigE
    - 6GB/s SAS
    - SAS, SATA & SSD
    - ISER, iSCSI, NFS, CIFS
Unified storage:
- Block and file

Integrating Open Storage software solution with modular, scalable hardware

Offers unmatched enterprise features at substantial savings:
- End to end data integrity
- Unlimited file size & snaps
- Synchronous and ZFS replication
SGI InfiniteStorage Software & File Systems
Aligned to customer workflow

For clients requiring:
- HSM
- Transparent multi-tier data migration
- A methodology to “green” their storage
- Minimize administrative overhead

DMF
- Enables “online” access to “offline” data
- Dramatic cost reductions in large environments
- Rules-based migration, enables fine tuning of storage resources at file and volume levels
- Maintains data in online state during migration
- Partial-file migration for rapid access

LiveArc
- Digital asset and knowledge management platform
- General (collaborative) application platform
- Components can be used to create a diverse range of applications
- Extensible service-oriented architecture (SOA)
- XODB, XML-based Object Database
- Written in platform neutral Java

For clients requiring:
- High bandwidth Access to Scale-up SSI servers
- Real-time, streaming workloads
- DMF back-end

CXFS
- Instant multi-OS, multi-platform, no copy, data sharing
- Enables multiple file systems in a cluster
- High availability with automatic failure detection and recovery

For clients requiring:
- Scalable FS to scale-out clusters
- Scalable to 100+ GB/s
- Linux only
- HPC Environment
- IB, GigE or 10 GigE
- DMF back-end

Lustre
- Medium to huge clusters with greater than 4GB/s requirements
- Best solution for very large clusters
- Open source solution
- Object-based file system, requires object storage server
SGI CAE Customers
Thank you