

UNLIMITED INNOVATION. SCALE. DISCOVERY.

The SGI® Altix® family of servers, clusters, and supercomputers features the exceptional performance and choice of Intel® Itanium® 2 Processors



Entry



Midrange



Capability



SGI® Altix® is HPC from End-to-End

High-Performance Servers for a Range of Applications

The power and flexibility of the SGI® Altix® family of servers drives high-performance computing for a broad range of applications. The groundbreaking architecture and performance of SGI Altix technology powers applications that advance computational chemistry, seismic research, computational fluid dynamics, computer-aided engineering, digital media, and the ever-increasing number of other applications that require computational heavy lifting.



Discover Breakthrough Performance

Powered by the Intel® Itanium® 2 Processor, SGI® Altix® servers deliver benchmark-setting performance and unparalleled scalable performance, leveraging the shared-memory SGI® NUMAlink™ interconnect, which is capable of transporting data at 6.4GB/second. Scientific and industrial communities depend on SGI Altix systems to support complex, mixed workloads and turbocharge their applications with the SGI ProPack™ software option in a proven, 64-bit Linux® environment.

Raise the Bar on Scalability and Cost-Effectiveness

SGI Altix servers provide a unified Linux platform that scales seamlessly from one to hundreds of processors, protecting investments and eliminating the need for costly “forklift” upgrades. Designed to match infrastructure to demand, these systems enable you to start with only the power you need, and to easily expand as your business grows.

Build Seamlessly as Your Needs Grow

The SGI Altix modular architecture in SGI Altix systems enables you to scale processors, memory and I/O independently, so that you can meet changing compute and business requirements.

Maximize Your Price/Performance With Clusters

The NUMAflex™ shared memory architecture maximizes the efficiency of multi-node clusters, delivering high performance while simplifying workload management. This architecture minimizes latency and maximizes bandwidth, to enhance system communication and rapidly allocate resources where they are needed, keeping up with demands for greater throughput.

SGI® Altix® 330 Server

SGI quality server at an affordable price point, with exceptional performance and flexibility

- Seamless growth path, with the ability to “start small” and grow to meet any future processing requirements
- SGI Altix quality and performance at an affordable entry-level price point
- Ideal departmental server, database server or development platform server
- Advanced developer capacity in an ultra-high density form factor



SGI® Altix® 350 Server

The most flexible, affordable, and open solution for midrange technical computing

- Scales up to 32 processors and 384GB of memory for cluster-level scalability from a single server
- More real-world performance than any other midrange server
- Ideal for technical database and cluster applications
- Flexible growth path with expand-on-demand architecture
- Available in a factory-integrated SGI® Altix® 1350 cluster that is easy to deploy and administer



SGI® Altix® 1350 Cluster

A fully integrated, competitively-priced cluster solution

- Industry-leading quality and performance, easy to deploy and administer
- Built with industry-standard components for minimal risk and optimal investment protection
- Efficiently handles diverse workloads for shortest time-to-solution
- Expand-on-demand architecture



SGI® Altix® 3700 Server

A powerful and versatile HPC platform

- Scale up or out to 512 processors, under one instance of the Linux OS
- Highly efficient development and administration environment
- Breakthrough peer I/O provides direct high-speed link to memory
- Up to 24TB of globally addressable memory



What Will You Discover

SGI Altix Supercomputers are enabling discoveries such as:

- Estimating the circulation and climate of the ocean
- Modeling the formation and evolution of stars and galaxies
- Accelerating computational disease research
- Forecasting fire weather and smoke behavior for meteorologists and firefighters
- Enabling bioinformatics studies for pharmaceutical research
- Modeling functioning human organs for development of minimally-invasive surgical procedures
- Accelerating quantum mechanical and molecular dynamics studies in nanotechnology and materials science
- Accelerating nuclear research
- Reducing processing times for crash and fluid dynamics analysis for automotive production

Linux OS for HPC



Linux Operating System

SGI delivers scalable shared-memory systems and clusters to let you take full advantage of this high-performance operating system.

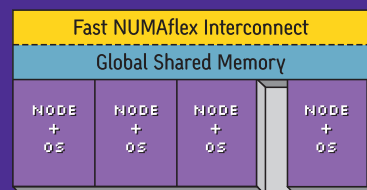
The power of the Linux OS delivers a competitive advantage to developers with cost-effective, multi-platform support for easy-to-deploy programming and implementation.

The Linux OS allows access to a broad availability of open-source applications for data-intensive commercial workloads and end users alike.

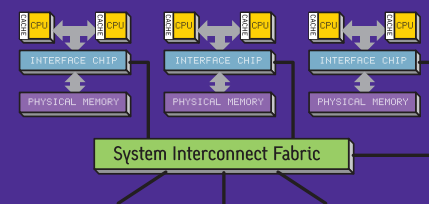
SGI's Entry Supercomputer Solutions



Global Shared Memory



NUMAflex™



SGI ProPack™

- Ideal for enabling technical and creative users to solve large compute and data problems
- Provides HPC libraries and other system-level software to complement and extend a Linux OS distribution

RASC™



- Reconfigurable Application-Specific Computing

Intel® Itanium® 2 Processor



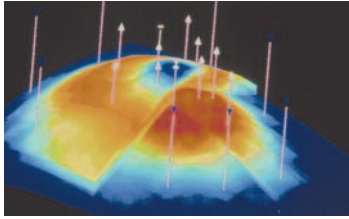
- Outstanding price/performance for HPC solutions

SGI® Altix® technology features the exceptional performance and choice of Intel® Itanium® 2 Processors.



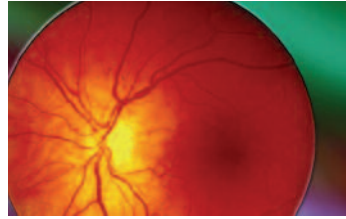
Applications Optimized For Every Industry

The SGI® Altix® family of servers, clusters, and supercomputers features the exceptional performance and choice of Intel® Itanium® 2 Processors



Energy

Solutions for optimizing exploration and production decisions



Sciences

Solutions ranging from weather forecasting to drug design, and everything in between



Manufacturing

Solutions for aerospace, automotive, consumer products manufacturing, and more



Horizontal Software

Solutions for application development, database management, and more



Government

Solutions for government agency and defense decision makers



Media

Solutions for creating and managing digital content for film and broadcast

SGI for Solid Support

SGI offers a number of support options, from traditional service contracts, to online support, to specialized 24/7 support. However you choose to take advantage of SGI support services, you'll find we've earned our reputation for providing the fastest response and quickest resolution to technical challenges.

Put the Power of SGI and the Linux OS to Work for You

The combination of SGI Altix systems and the Linux operating system deliver unmatched performance and efficiency with all the cost-effectiveness of open source systems. SGI has contributed to the development of the Linux OS, applying its HPC experience to the enhancement of Linux scalability, memory usage, and other features to make SGI and Linux an unbeatable combination.

Select Users of SGI Technology

SGI technology supports all categories of HPC applications.	CSM Computational Structural Mechanics	CFD Computational Fluid Dynamics	RES Reservoir Simulation	RAY Ray Tracing/Image Processing	BIO Bioinformatics
	Anchor Application Examples: MSC.Nastran™, ABAQUS®, ANSYS®, PERMAS, LS-DYNA®, PAM-CRASH, RASIOS, MADYMO	Anchor Application Examples: FLUENT, OTHER: STAR-CD™, PowerFLOW, VECTIS	Anchor Application Examples: Eclipse	Anchor Application Examples: Mental Ray, Star-Ray, INTRACE	Anchor Application Examples: BLAST®, FASTA, ClustalW, HMMER, Phrap, EMBOSS
SPI Seismic Processing and Interpretation	CWO Climate/Weather Ocean Simulation	DMB Data Mining/Business Analytics	CCM Computational Chemistry and Material Science	CEM Computational Electromagnetics	DSP Digital Signal Processing
Anchor Application Examples: OMEGA, SeisUp	Anchor Application Examples: CCM3, MOM, POP, Aladin, IFS, HIRLAM	Anchor Application Examples: IBM® DB2®, Universal Database, Oracle® Database 10g and Oracle Database 9i, IBM® DB2 (Entity Analytic Solutions, IBM® Informix®, Dynamic Server Sybase ASE, MySQL, P*TIME	Anchor Application Examples: Gaussian®, GAMESS, NAMD, VASP, WIEN2K, Gromacs, VAMP	Anchor Application Examples: Xpatch, FMSlib, MM3D, FEKO, PAM-CEM	Anchor Application Examples: Proprietary applications

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