SGI® Professional Services – HPC Solutions

Features and Highlights: f1200

- Supports Intel® Extended Memory 64 Technology. Runs 32- and 64-bit applications simultaneously

- Dual-Core or Quad-Core Intel® Xeon® Processors with 4MB or 8MB L2 cache and 1333MHz front side busses - improve productivity through faster information access and higher processing performance

- Available in both deskside and standard 6U rack-mount form factor. No special cooling requirement

- Superior TCO with breakthrough energy efficiency (as low as 40 Watts/socket) and performance density

- "Pay-as-you-grow" computing architecture. Chassis expansion supports from 8 to 48 processors (Dual-Core or Quad-Core)

- Maximum configuration for f1200 (1 chassis) is 12 processors (24/48 cores), 48 DIMM supporting up to 192GB of memory, up to 4 chassis connection in a single shared-memory system

- Value-priced, custom-configured, fully factory-integrated software stack to reduce time to deployment

- Standard 3-year next-business day warranty

SCALABLE 12-PROCESSOR SMP SYSTEM FOR THE HIGH PERFORMANCE TECHNICAL COMPUTING MARKET

Top Performance for Demanding Applications

f1200 is a shared-memory multi-processors system product line for High Performance Technical Computing (HPTC) applications. This Intel® Xeon® processor-based server, supporting Intel® Extended Memory 64 Technology, is the ideal platform for departmental users who have applications that require high processor count and large memory addressability.

The f1200 complements the SGI Altix family of servers, the industry's best end-to-end server offerings for demanding applications. Based on either Dual-Core or Quad-Core Intel Xeon processors, f1200 systems combine Intel's high-performance processors and ScaleMP's versatile SMP (vSMP) architecture with SGI's expertise in compute-and data-intensive applications. f1200 systems provide out-of-the-box value with Linux® operating system and integrated pre-installed applications for optimal performance and rapid deployment.

Flexible Packaging

The f1200 product line offers a choice of several packages and configurations. The systems are available in either desk-side or 6U rack-mount form factors and support Intel Dual-Core and Quad-Core processors. The f1200 expansion module allows the high-end configurations to be expanded up to 4 chassis, providing up to 48 processors and 768GB shared-memory.

Factory-Integrated for Maximum Flexibility and Ease of Deployment

SGI offers a suite of turnkey solutions, based on the f1200 product line, targeting the fields of Computational Structural Mechanics, Computational Fluid Dynamics, Computational Chemistry, Bio-Informatics, Mathematical Simulations and Oil & Gas. Applications can be pre-installed and optimally configured to provide the best possible performance, ease of deployment, exceptional TCO and higher productivity. The f1200 runs industry-standard Linux operating systems, including a choice of Novell® SUSE® Linux Enterprise Server or Red Hat® Enterprise Linux® AS or WS. The f1200 system is provided with a highly-tuned Linux environment, specifically designed to provide maximum performance for demanding compute- and data-intensive applications.

f1200 systems are backed by SGI's world-class customer support organization. In addition, SGI's Professional Services organization brings years of industry and technical expertise to help customers develop and deploy the optimal solution for their application, budget and timeline, including fully integrated turnkey solutions for leading commercial HPTC applications.

To Learn More

Contact your local SGI sales office to learn more about how HPC Solutions from SGI Professional Services can help you accomplish your technology goals and optimize your technology investment.

For Education and Training requirements, please visit our Customer Education websites or contact your local SGI sales office:
USA: http://www.sgi.com/support/custeducation/
Europe: http://www.sgi.com/global/uk/custeducation/

f1200 Physical Specifications

Form Factor	Deskside: 19" x 10.5" x 30" Rackmount: 10.5" (6U) x 19" x 30"
Enclosure Power	110/220 volt single-phase AC support (20 Amp)
Chassis Rear	Video, keyboard, mouse, serial 7 x 10/100/1000 Ethernet port 2 x Chassis expansion port
Chassis Front	USB, DVDROM

Architecture	ScaleMP® versatile SMP (vSMP)
Max Spec per Chassis	12 Intel® Xeon® Processors (Dual-Core or Quad-Core) Up to 192GB ECC FBDIMM DDR2 667MHz memory Up to 4.5TB of storage (6 x 750GB) Up to 440 GigaFLOPS of processing power (12 x Quad-Core Intel® Xeon® Processor 5145)

f1200 Configurations

	Entry-Level system	Mid-Range system	High-End system
Processors	Dual-Core Intel® Xeon® processors 5100 series	Dual-Core and Quad-Core Intel® Xeon® processors 5100 or 5300* series	
Number of Processors	8	8 to 12	24
Memory	Up to 32 DDR2 FBDIMM memory modules 32GB to 128GB DDR2 667 MHz FBDIMM memory	Up to 48 DDR2 FBDIMM memory modules 48GB to 192GB DDR2 667 MHz FBDIMM memory	Up to 96 DDR2 FBDIMM memory modules 96GB to 384GB DDR2 667 MHz FBDIMM memory
System Cache	Minimum of 10% of RAM reserved for system cache		
Architecture	ScaleMP™ versatile SMP (vSMP)		
Chipset	Intel® 5000X		
Network	5 x Gigabit Ethernet	7 x Gigabit Ethernet	14 x Gigabit Ethernet
Internal Drives	7,200RPM drives: 320GB, 400GB, 500GB, 750GB 10,000RPM drives: 74GB, 150GB		
Number of Internal Drives	4	Up to 6	12
I/O Expansion	2 x eSATA ports		4 x eSATA ports No PCI expansion
System Expansion	2 chassis expansion ports		
Form-Factor	Desk-side or Rack-mount	Rack-mount	
Lead Free Compliance	Lead Free Compliance: Compliance with European Union Lead-Free Directive 2002/95/EC, officially titled "the Restriction on the Use of Hazardous Substances (RoHS) in Electrical and Electronic Equipment"		
Ambient Temperature	Operating: 10˚C to 35˚C Non-operating/storage: -40˚C to +70˚C		
Relative Humidity	Non-operating: 95% or non-condensing at 30˚C		
OS Support	Red Hat and SUSE standard Linux distributions. Optional highly-tuned Linux kernel provided.		
Applications	Computational Structural Mechanics: ANSYS Mechanical, ABAQUS/Explicit, ABAQUS/Standard, LSTC LS-DYNA Computational Fluid Dynamics: Fluent, ANSYS, CFX, CD-Adapco STAR-CD, AVL FIRE Computational Chemistry: Schrödinger Jaguar, Schrödinger Glide, NAMD, DOC, GAMESS, GOLD Bio-Informatics: HMMER Oil & Gas: Schlumberger ECLIPSE, Paradigm GeoDept, 3DGEO 3DPSDM		

* Intel® Xeon® X5355 not currently supported

vSMPowered™

scalable systems by **ScaleMP.**

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