Datasheet

SGI™ 2100 Server

- Delivers enterprise-class I/O at workgroup server prices
- Scales from two to eight MIPS® processors
- Manages and provides interactive access to terabytes of real-time data
- Enables and utilizes full potential of added processors

Enterprise Power and Performance Breakthrough

The SGI 2100 server is a breakthrough product, delivering exceptional data performance and economy. SGI 2100 combines enterprise-class I/O capability and a workgroup server price to deliver instant data access and management and efficient application scaling to tackle your most complex projects. SGI 2100 has the bandwidth and compute power to manipulate vast amounts of data, including non-traditional data sets used in applications that demand exacting performance and instant access to terabytes of data. Typical compute-intensive solutions include technical/scientific computation, bioinformatics, and video or mixed media serving.

Manage Terabytes of Data for Less Than You Thought Possible

In addition to enterprise-class I/O, the SGI 2100 server enables management, protection, and effective utilization of terabytes of corporate data for a price you would expect to pay for less-capable workgroup-class servers. Unlike other servers in this price range, SGI 2100 includes true 64-bit components, including I/O architecture, processor, filesystem and IRIX® operating system and gives you gigabyte-per-second I/O to meet your application and budget demands. Drive terabytes of Fibre Channel storage at full speed or complete terabyte backups in record time, while taking advantage of proven 64-bit performance and industry-leading value.

Realize the Full Potential of Your Processor Investment

SGI 2100 leverages SGI's award-winning ccNUMA architecture to eliminate memory bottlenecks, allowing you to realize full performance value as additional processors are added to the system. With seamless support for up to 8 MIPS® microprocessors, SGI 2100 enables significant performance improvements and full compute capability as you scale your system to meet the demands of your data and business growth.

SGI™ 2100 Server
Technical Specifications

Processor Data

• Microprocessor	MIPS RISC R10000™ 64-bit CPU
• Primary caches	32KB two-way set-associative on-chip instruction cache 32KB two-way set-associative on-chip data cache
• Secondary cache	4MB cache per CPU

Node Card

• CPU capacity	2 R10000 CPUs
• Memory capacity	Up to 4GB ECC SDRAM
• Hardware cache coherency	Yes
• Interleaving	4-way per node card
• Memory bandwidth	680MB/sec sustained, 780MB/sec peak

SGI 2100 Deskside System

• Processors	1 to 4 node cards, 2 to 8 CPUs
• I/O bandwidth	5.0GB/sec sustained, 6.24GB/sec peak
• I/O boards	12 XIO or 11 XIO and 3 PCI 32- or 64-bit
• Internal peripherals	5 3.5" Ultra SCSI devices, 1 5.25" CD-ROM
• Independent power	Yes
• Redundant cooling	Yes

Storage I/O Devices

XIO Cards Supported

- Base I/O includes internal SE Ultra SCSI, external SE Ultra SCSI, 10/100Base-TX, two 460Kb/sec serial ports
- 4-port Ultra SCSI (3 differential, 1 SE or differential)
- 2-port Fibre Channel (copper) for direct attach
- 2-port Fibre Channel (optical only) for fabric attach
- 1-port Fibre Channel (copper) for direct and fabric attach
- 1-port Fibre Channel (optical) for direct and fabric attach

PCI-64 Cards Supported

- 1-port Fibre Channel (copper) for direct attach
- 2-port Fibre Channel (optical only) for fabric attach
- 1-port Fibre Channel (copper) for direct and fabric attach
- 1-port Fibre Channel (optical) for direct and fabric attach

Network I/O Devices

XIO Cards Supported

- Base I/O includes internal SE Ultra SCSI, external SE Ultra SCSI, 10/100Base-TX, two 460Kb/sec serial ports
- 4-port 100Base-TX and 6 460Kb/sec serial ports
- Gigabit Ethernet
- 1-port dual-attached FDDI
- 1-port single-attached FDDI
- 1-port or 4-port ATM OC3
- 1-port ATM OC12
- GSN (Gigabyte System Network)
- 1-port HIPPI serial (200MB/sec)
- Digital Video I/O (CCIR601)

PCI-64 Cards Supported

- 1-port dual-attached FDDI
- 1-port single-attached FDDI

I/O Expansion Devices

- XIO to internal PCI (3 slots) adapter
- XIO to external VME adapter (6U and 9U)

Mass Storage

• Interfaces	Ultra SCSI and Fibre Channel
• Maximum bandwidth	40MB/sec Ultra SCSI, 100MB/sec Fibre Channel
• Device capacity	9.1GB, 18.2GB
• External storage	Rack-mount vaults, 6 3.5" devices Ultra SCSI 10 3.5" devices Fibre Channel
• RAID	Fibre Channel rack (11 drawers of 10- 3.5" devices)
• Maximum capacity	8.6TB per module (Ultra SCSI) 43.6TB per module (Fibre Channel) 171.8TB per module (Fibre Channel RAID)

Dimensions and Weights

• Deskside system	25.5" H, 23" D, 21" W (65 cm H, 58 cm D, 53 cm W) 215 lb (98 kg)

Note: weights assume that modules are fully configured with processors, I/O, and peripherals.

Environmental (Nonoperating)

• Temperature	-20 ° to +60 °C
• Humidity	10% to 95% noncondensing
• Altitude	40,000 MSL

Environmental (Operating)

• Temperature	+5 ° to +35 °C, altitude 5,000 MSL +5 ° to +30 °C, altitude 10,000 MSL
• Humidity	10% to 90% noncondensing
• Noise	50 dBa

Electrical and Power

• Voltage	110-220 VAC (configuration limits apply at 110 VAC)
• Frequency	50-60 Hz
• Heat/power	2,500 W, dissipation 8,500 BTU/hr
• Electrical service/type	NEMA 5-20, type 110 VAC @ 20amp NEMA 6-20, 208 VAC @ 20amp

Software

• System software	IRIX® 6.5 ASE, X/OPEN XPG4 BASE 95, IEEE POSIX 1003.2, and 1003.1b, 1003.1c FIPS 151-2, UNIX® System V.4, 4.3 BSD extensions, MIPS ABI, SVID issue 3, XIIR6, Motif™ Window Manager 1.2, IRIS GL™, OpenGL®
• Networking	TCP/IP, NFS™ V2/V3, RSVP, DHCP, Bulk Data Service (BDSpro), NetVisualyzer™, SNMP management, SNMP MIB, NIS/ONC+
• Server software	XFS™ 64-bit journaled filesystem with guaranteed rate I/O, IRIS NetWorker, Performance Co-Pilot™ system and network performance monitoring software, System MIB (Provision), Software Distribution (Propel)
• Compilers	ANSI C, C++, Fortran 77, Ada, Pascal, Power C Accelerator (PCA), Power Fortran 77, Fortran 90, Power Fortran 90
• PC/Macintosh® integration	Syntax TotalNet Advance server, supports Windows® 95 and Windows NT® (SMB), NetWare™, AppleShare®, Samba environments for PC and Macintosh
• Security	Trusted IRIX™ B1 security, Commercial Security Pack (CSP)
• Web server	Netscape® Enterprise server

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