Sun Fire™ X4100 Server
Fast, Reliable, and Energy-Efficient
One- to Four-Way x64 Server

> Sun is at the forefront of x64 (x86-64-bit) computing. The Sun Fire™ X4100 server:
A fast, reliable, and energy-efficient one- to four-way x64 server that runs Solaris™ OS,
Linux, and Windows operating systems.

Highlights

- Rack-optimized server providing the highest performance levels in its class
  - Able to accept the fastest single-core and dual-core AMD Opteron processors

- Sun Fire X4000 family of servers raise the bar for industry-standard servers
  - Enterprise RAS features for maximum uptime
  - Four integrated Gigabit Ethernet ports for maximum network expandability

- More energy efficient than Xeon servers
  - Significant power and cooling savings

- Runs virtually any operating system including the Solaris OS, Linux, and Windows — all supported by Sun

- Simplified remote management with no hidden costs through Integrated Lights Out Management (ILOM)

- High Compute Density
  - Four-way server in a one Rack Unit footprint

- Application Consolidation Platform
  - Runs Solaris Containers and VMWare
  - Supports Sun Cluster
  - Expandable I/O

The Sun Fire X4100 server is a key component in standardizing your infrastructure, helping to lower total cost of ownership (TCO), simplify data center management, and achieve industry-leading performance. The Sun Fire X4100 server runs 32-bit and 64-bit applications and delivers 100 percent industry-standard x64 computing.

Powered by up to two single- or dual-core AMD Opteron™ processors, the Sun Fire X4100 server comes preinstalled with Solaris operating system and Sun Java™ Enterprise System software.

Designed from the ground up to facilitate system management, the Sun Fire X4100 server architecture provides Integrated Lights Out Management (ILOM) and state-of-the-art remote automation that integrates at the data center level. With zero-touch capabilities managed through a variety of interface options, the Sun Fire X4100 server's architec-

ture simplifies installation, deployment, and maintenance. The only x64 server in its class with four Gigabit Ethernet ports, the Sun Fire X4100 server provides multiple connectivity for high-speed, high-bandwidth networking.

The Sun Fire X4100 server is qualified to work with Sun's comprehensive portfolio of software, storage and network switches. A variety of service offerings are also available to help meet the needs of enterprise customers. Sun's customer-ready program offers integration and testing services: Customers can order racks of pre-configured servers with storage, switches, and software. Sun's partners can also provide industry-specific expertise and deployment services.

Sun Fire X4100 Server

Architecture

Processor

Up to two single-core/dual-core AMD Opteron 200 Series processors, 1 MB Level 2 cache per core

Main memory

Four DIMM slots per CPU socket, DDR1/400 ECC registered DIMMs (128-bit plus ECC data-bus), total eight DIMM slots, up to eight GB per CPU

System architecture

8.0 GB/sec. HyperTransport link — each processor controls two pairs of DIMM slots, with 6.0 GB/sec. access between processor and memory

Standard/integrated interfaces

- Network: Four 10/100/1000Base-T Ethernet ports
- Network management: One dedicated 10/100Base-T Ethernet port
- Serial: One TIA/EIA-232-F asynchronous RJ45 Port
- SAS: Four-channel SAS interface, internal access only
- USB: One USB 1.1 port (front), two USB 1.1 ports (rear)
- Expansion bus: Two internal MD2 low-profile 64-bit PCI-X slots (one at 100 MHz, one at 133 MHz)

Software

Operating systems

- Solaris 10 Operating System on x64, 64-bit
- Red Hat Enterprise Linux 3.0, 32-bit/64-bit
- Red Hat Enterprise Linux 4.0, 64-bit
- SUSE LINUX 9 Professional 64-bit
- Windows Server 2003, Enterprise Edition, 32-bit/64-bit
- Windows Server 2003, Standard Edition, 32-bit/64-bit

Sun Java Enterprise System 3

- Solaris 10 Operating System on x64
- Standard Linux distributions

Languages

- C/C++, FORTRAN (Solaris OS on x64) planned for Q3FY04)
- Java programming language
- All other standard Sun-supported languages

Networking

ONC™, ONC+, NFS, WebNFS, TCP/IP, SunLink™, OSI, MHS, IPX™/SPX, SMB technologies, and XML

Management

ILOM Service Processor providing: DMTF CLP-based CLI over SSH, Web-based GUI over HTTPS/HTTP, IPMI 2.0, SNMP V1, v2c and v3, remote graphical access over Ethernet and remote storage over Ethernet

Mass storage and media

Hot-swappable, 2.5-inch SAS internal disks: Up to two HDDs with DVD-ROM, up to four HDDs without DVD-ROM

- Internal DVD-ROM: One EIDE DVD-ROM

Environment

AC power

90–264 V AC (47–63 Hz)

Operating temperature (single, non-rack system)

5° C. to 35° C. (41° F. to 95° F.), 10% to 90% relative humidity, non-condensing, 27° C. max. wet bulb

Non-operating temperature (single, non-rack system)

-40° C. to 65° C. (-40° F. to 149° F.), up to 93% relative humidity, non-condensing, 38° C. max. wet bulb

Operating altitude (single, non-rack system)

Up to 3,000m, maximum ambient temperature is derated by 1° C. per 500m above 500m

Non-operating altitude (single, non-rack system)

Up to 12,000m

Acoustic noise (single, non-rack system)

Less than 83 dB sound power in ambient temperature of up to 24° C.

Power

- Dual redundant, hot-swappable power supply
- Maximum AC output: 550 W

Regulations (meets or exceeds the following requirements)

- Safety: IEC60950, UL/CSA60950, EN60950, CB scheme with all country differences
- RFI/EMI: FCC Class A, Part 15 47 CFR, EN55022, CISPR 22, EN300-386: v1.31, ICES-003
- Immunity EN55024, EN300-386:v1.31

Certifications

- Safety: cULus Mark, TUV GS Mark, CE Mark, CCC, GOST R, S-Mark
- EMC: CE Mark (93/68/EEC), Emissions and Immunity Class A Emissions Levels: FCC, VCCI, BSMI, C-Tick, MIC, CCC, GOST
- Other: Labeled per WEEE (Waste Electrical and Electronic Equipment) Directive

Dimensions and weight

- Height: 43mm (1.69 in.)
- Width: 425.5mm (16.75 in.)
- Depth: 632mm (24.88 in.)
- Weight (with packaging): 17.9 kg (39.3 lb.) max.

Mounting option

19-inch rackmount kit