



# Sun Fire™ X4600 Server

Compact, Scalable 4- to 16-Way x64 Server



## Highlights

- Industry's first four-U modular x64 server expandable to 16-way
- Twice the performance and built-in energy efficiencies, at twice the scalability of Xeon-based servers
- Efficient cooling design optimizes power consumption and costs
- Server longevity with modular design lowers total cost of ownership, with upgradeability to future computing and memory technologies
- Automated management with ILOM and N1 System Manager
- Scales multiple OS for optimization of the IT data center with choice of virtually any OS
- Virtualization options result in lower cost and higher server utilization

> The innovative Sun Fire X4600 server powers the data center with two times the performance of rival systems, optimized energy efficiencies, and flexibility to support current and future enterprise and high-performance applications at twice the scalability of Xeon-based servers. With the Sun Fire X4600 server's unparalleled scalability and vast virtualization options, data centers can be scaled up numerous times their existing capacity—while energy maintenance costs are contained, providing higher ROI.

### Get ahead and stay ahead of your business needs

Powered by industry-standard single- or dual-core AMD Opteron™ processors, the four- to 16-way Sun Fire X4600 server delivers double the competitors' processing. The Sun Fire X4600 server's superior architecture also offers cost-efficiency and higher performance. The Sun Fire X4600 server's compact, rack-optimized four-U form factor enables it to easily be scaled out to meet larger computing demands. It can also be upgraded to next-generation processors—or up to eight processors in a single chassis—with minimum infrastructure impact, maximum effectiveness, and unprecedented scalability in a smaller footprint. The server runs most vital mission-critical applications, and system management is streamlined with the highly flexible N1 Systems Manager and ILOM. The system's high availability and multiple OS support also enable it to consolidate many

applications, and Sun offers comprehensive services designed to help users architect, implement, manage, and support their systems.

### The right building block for high-performance computing

The Sun Fire X4600 server is also the right building block for large compute clusters. Multiple servers can be clustered with high-bandwidth connectivity to create a multi-tera-flop system, to solve complex problems such as product design or real world simulations.

### Versatile enterprise virtualization platform

The Sun Fire X4600 server supports virtualization technologies such as XEN, VMware, Solaris™ Containers, and Microsoft Virtualization, easily and effectively hosting and managing many virtual machines within the server. Allocating compute resources into these virtual machines can quickly and easily maximize utilization.

## Sun Fire X4600 Server Specifications

### Processor options

Up to eight single-core or dual-core AMD Opteron processors, models 856 (3.0 GHz), 885 (2.6 GHz)

880 (2.4 GHz)

### Processor interconnect

Total processor bandwidth of 2 x 8 x 4 GB/sec. = 64 GB/sec. bidirectional

### Memory

64 GB memory<sup>2</sup>

### Cache

1 MB Level 2 per core

### Disk drive

Up to four hot-swappable SAS (2.5-inch) HDDs, enterprise 10K RPM

### Onboard RAID

Mirroring, RAID 0, 1

### Network

Teaming/failover of four Gigabit Ethernet ports

### Network connections

Serial

RS-232 Serial Interface, RJ45 port

USB

Two USB 2.0 ports (front), two USB 2.0 ports (rear)

### Removable media

One DVD-ROM

### Expansion bus

20 GB/sec. of bi-direction I/O, eight low-profile PCI expansion slots, four x8-lane PCI-Express slots, two x4-lane PCI-Express slots, two 64-bit/100 MHz PCI-X slots

### In-band management

IPMI v2.0 via KCS driver, SNMP OS-resident agent

### Out-of-band management

Secured SSH, IPMI v2.0, DMTF CLI, SNMP- v1, v2c, v3, Web GUI

### Remote management

Remote keyboard, video, mouse with video redirection

### System management paths

Single dedicated management 100Base-T port, system serial port, four system Ethernet ports

### Power supply

Redundant, hot-swappable, 850 W each

Power consumption

Max. 1,137 W, four-socket configuration

Max. 1,603 W, eight-socket configuration

### Power source

90-264 V AC (47-63 Hz)

### Operating systems

Solaris™ 10 OS on x64, Red Hat Enterprise Linux® 4, SUSE LINUX Enterprise Server 9 64-bit (Q1FY07), Windows Server 2003 Enterprise Edition 64-bit/32-bit, Windows Server 2003 Standard Edition, VMware GSX and Virtual Server

### Operating environment

Operating temperature and humidity

5° C to 32° C (41° F to 90° F), 10 to 90 percent relative humidity, noncondensing, 27° C max. wet bulb

Air flow

400 CFM

Nonoperating temperature and humidity

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

### Learn More

Learn more about the Sun Fire X4600 server by visiting [sun.com/X4600](http://sun.com/X4600).

Altitude

- Operating altitude: 32° C up to 900m and a derating of 1° C for every 300m in altitude up to 3,048m maximum
- Nonoperating altitude: Up to 12,000m

### Dimensions and weight

Height: 6.9 inches (176mm)

Depth: Chassis with bezel: 24.75 inches (629mm)

Chassis, bezel, and rear power supply latches: 25.25 inches (642mm)

Width: 17.5 inches (445mm)

Weight: Maximum standalone server: 88 lbs. (40 kg)

Maximum with available rackmount kit and cable management arm: 160 lbs. (48 kg)

### Certification

- Safety: IEC60950, UL/CSA60950-1, EN60950, CB Scheme with all country differences
- EMC: cULus Mark, CE Mark, CCC, GOST R, S-Mark CE Mark (93/68/EEC), Emissions and Immunity Class A Emissions
- Levels: FCC, VCCI, C-Tick, MIC, CCC, GOST R, BSMI
- Other: Labeled per WEEE (Waste Electrical and Electronic Equipment) Directive

### PCI cards and storage options

[sun.com/servers/entry/X4600/optioncards.jsp](http://sun.com/servers/entry/X4600/optioncards.jsp)

[sun.com/servers/entry/X4600/storage.jsp](http://sun.com/servers/entry/X4600/storage.jsp)

2. 128 GB available in the future.