

Sun Fire™ X4600 M2 Server

Now with Enhanced Quad-Core
AMD Opteron™ processors



> The innovative Sun Fire™ X4600 M2 server powers virtualization, database, and high-performance applications with two times the performance of rival systems, optimized energy efficiencies, and flexibility to support current and future needs for these applications. With unparalleled scalability in processing, memory, and I/O, combined with powerful remote management, you can consolidate datacenters better, support more business transactions, and process more data while maximizing ROI.

Highlights

- Unique, compact modular processors enable flexibility and 4- to 32-core scalability without disruption to datacenter operations
- Efficient cooling and power design optimizes power consumption and costs
- Server longevity with modular design lowers TCO, with upgradability to future computing and memory technologies
- Automated management with Integrated Lights Out Manager (ILOM)
- Scales multiple operating systems for optimization of the IT datacenter with choice of virtually any OS
- Linearly scalable virtualization results in higher server utilization
- Available as a Sun™ System Pack, enabling you to maximize your IT value

Get ahead and stay ahead

Powered by industry-standard Dual, Quad, or enhanced Quad-Core AMD Opteron™ processors, the 4- to 32-core Sun Fire X4600 M2 server delivers a powerful platform for virtualization and database processing. The superior architecture of the system also offers cost efficiency and higher performance. With its compact, rack-optimized 4U form factor, the Sun Fire X4600 M2 server can easily scale 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 minimal infrastructure impact, maximal effectiveness, and unprecedented scalability in a smaller footprint.

The Sun Fire X4600 M2 server runs most mission-critical applications. And with the highly flexible ILOM, the typically complicated task of system management is streamlined. The system's high availability and its support of multiple operating systems also enable it to consolidate many applications.

To further complement the server, Sun offers comprehensive services designed to help you architect, implement, manage, and support your system.

The right building block for databases and high-performance applications

The modularity of the Sun Fire X4600 M2 server produces a powerful database engine for both transaction processing and data warehousing. With up to .25 TB of memory, the server can process very complex database or high-performance computation at a fraction of the cost of legacy servers. In addition, multiple servers can be clustered with high bandwidth.

Versatile enterprise virtualization platform

The Sun Fire x4600 M2 server supports virtualization technologies such as XEN, VMware, Solaris™ Containers, and Microsoft Virtualization. It can easily and effectively host and manage many virtual machines within the server, allocating compute resources that can quickly and easily maximize utilization.

Sun Fire X4600 M2 Server Specifications

Architecture

Processor

Two, four, six, or eight Dual-Core, Quad-Core, or enhanced Quad-Core AMD Opteron processors, including support for AMD Dual Dynamic Power Management™ (split-plane) in Quad-Core

CPU interconnect: HyperTransport speed: 1 GHz, 8 GB/sec

Cache

- 2x 1 MB L2 for dual-core processor
- 4x 512 KB L2 and 2 MB L3 for quad-core processor
- 4x 512 KB L2 and 6 MB L3 for enhanced quad-core processor

Main memory

Eight DIMM slots per CPU socket; choice of 2 GB and 4 GB DDR2-667 ECC Registered DIMMs

Standard integrated interfaces

- Network: Four 10/100/1000Base-T Ethernet ports, RJ-45 connectors, with support for teaming and failover
- Network management: Additional dedicated 10/100Base-T Ethernet port, RJ-45 connector
- Serial management: RS-232 serial interface, RJ-45 connector
- SAS: Four-channel SAS interface
- USB: Two USB 2.0 ports (front) and two USB 2.0 ports (rear)
- Expansion bus: Eight low-profile PCI expansion slots: six PCIe slots (four eight-lane PCIe slots and two four-lane PCIe slots) and two 64-bit/100 MHz PCI-X slots

Software

Operating systems

- Solaris OS
- OpenSolaris OS
- Red Hat Enterprise Linux
- Microsoft Windows
- VMware

Sun Java™ Enterprise System 2005Q4 (4)

See sun.com/software/javaenterprisesystem/index.xml

Management

- CLI (in-band and out-of-band), IPMI 2.0 (in-band and out-of-band), SNMP (out-of-band only)
- ILOM with dedicated 10/100Base-T Ethernet port
- Remote management features: Remote keyboard, video, mouse (KVM); remote media functionality; remote power control; remote access to BIOS; remote FRU status, monitoring, logging, and role-based access control

Sun installation assistant

Guided, easy installation of Linux and Windows operating systems with correct drivers

Mass storage and media

- Hard disk: Up to four hot-swappable, 2.5 in. SAS internal disks
- Internal DVD-ROM: Standard DVD-ROM in every server
- External disk: See sun.com/servers/x64/x4600/storage.jsp
- 73 GB and 146 GB 10,000 rpm/73 GB 15,000 rpm SAS drives supported

Environment

- Operating temperature: 5° C to 35° C (4° F to 95° F)
- Nonoperating temperature: 20° C to 60° C (-4° F to 140° F)
- Operating relative humidity: 10–90%, noncondensing
- Nonoperating relative humidity: 20–90%, noncondensing
- Operating altitude: Max. 3,048m (10,000 ft.)
- Acoustic noise: Declared noise emissions in accordance with ISO 9296, A-weighted, operating and idling
 - LwAd (1 B = 10 dB): at or below 25° C: 8.1 B, at max. ambient: 8.9 B
 - LpAm bystander: at or below 25° C: 66 dB, at max. ambient: 74 dB

Learn More

For more information on the Sun Fire X4600 M2 server, go to: sun.com/x4600.

Power

- Power supply output rating: 1,133 W for enhanced quad-core and SE quad-core; 950 W for standard quad-core
- AC power: 90–264 V AC (47–63 Hz)
- Power source: 100–240 V AC, 50–60 Hz input
- UL max. (DC output): 1,133 V DC w/PSU

Regulations

Safety: IEC 60950, UL/CSA 60950-1, EN 60950, CB Scheme with all country differences

RFI/EMI: FCC Class A, Part 15 47 CFR, EN 55022, CISPR 22, EN 300 386: v1.3.2, ICES-003

Immunity: EN 55024, EN 300 386: v1.3.2

Certifications

Safety: cULus, CE, CCC, GOST-R, S-Mark

EMC: CE (93/68/EEC)

Emissions and Immunity — Class A Emissions Levels: FCC, VCCI, C-Tick, MIC, CCC, GOST-R, BSMI

Other: Labeled per Waste Electrical and Electronic Equipment (WEEE) Directive; RoHS 5 and 6 compliant

Dimensions and weight

Height: 176mm (6.92 in.)

Width: 432mm (17.0 in.)

Depth: 609mm (24 in.)

Weight: 56.7 kg (125 lbs.) max., with rack kit



Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 USA Phone 1-650-960-1300 or 1-800-555-9SUN Web sun.com

