

Sun Fire™ X4600 M2 Server

Compact, modular 2- to 8-socket x64 server



➤ The innovative Sun Fire™ X4600 M2 servers power 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 in the Sun Fire X4600 M2 server, customers can consolidate datacenters better, support more business transactions, and process more data to get higher ROI from their IT investment.

Highlights

- Unique, compact modular processors enable flexibility and 4- to 16-way scalability without disruption to datacenter operations
- Efficient cooling and power design optimizes power consumption and costs
- Now supports up to 256 GB of memory
- Server longevity with modular design lowers total cost of ownership, with upgradability to future computing and memory technologies
- Automated management with ILOM and Sun N1™ System Manager
- Scales multiple operating systems for optimization of the IT datacenter with choice of virtually any OS
- Linearly scalable virtualization result in lower cost and higher server utilization
- Available as a Sun™ System Pack, enabling customers to maximize their IT value while lowering total cost of acquisition and ownership

Get ahead and stay ahead

Powered by industry-standard, single- or dual-core AMD Opteron™ processors, the 4- to 16-way Sun Fire X4600 M2 server delivers twice the competitors' processing. The superior architecture of the Sun Fire X4600 M2 server also offers cost efficiency and higher performance. With its compact, rack-optimized 4U form factor, the Sun Fire X4600 M2 server can 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 Sun Fire X4600 M2 server runs most mission-critical applications. And with the highly flexible Sun N1 System Manager and Integrated Lights Out Manager (ILOM), the typically complicated task of system management is streamlined. The systems' high availability and multiple OS support also enable them to consolidate many applications.

To further complement the systems, Sun offers comprehensive services designed to help users architect, implement, manage, and support their systems.

The right building block for databases and high performance applications

The modularity of the Sun Fire X4600 M2 server makes a powerful database engine for both transactions processing and data warehousing. With up to 1/4 of a terabyte of memory at low costs, the server can process very complex database or high performance computation at a fraction of the costs of legacy servers. Multiple servers can be clustered with high bandwidth.

Versatile enterprise virtualization platform

The server family 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 M2 Server Specifications

Processor options

Processor	2, 4, 6, or 8 processors, quad-core upgradeable
CPU interconnect	HyperTransport speed: One GHz, eight GB/s
Cache	One-MB Level 2 per core

Main memory

- Eight-DIMM slots or four-DIMM slots per CPU socket; choice of one-GB, two-GB, and four-GB DDR2/667 ECC-registered DIMMs

Standard configurations

- Four GB (up to 256 GB maximum)

Onboard Gigabit Ethernet	Four 10/100/1000Base-T Ethernet ports, RJ45 connectors, with support for teaming and failover
Network management	Additional dedicated 10/100Base-T Ethernet port, RJ45 connector
Serial	RS-232 serial interface, RJ45 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

Mass storage and media

Hard disk	Up to four hot-swappable, 2.5-inch SAS internal disks
Internal DVD-ROM	Standard DVD-ROM in every server
External disk	See sun.com/servers/x64/x4600/storage.jsp
Service processor	ILOM built-in—managed the same way as other Sun Fire x64 servers
In-band management resident agent	IPMI v2.0 via KCS driver, SNMP OS-resident agent
Out-of-band management	IPMI v2.0, DMTF CLI, SNMP (v1, v2c, v3), Web GUI, SSH
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
System management paths	Dedicated 10/100BaseT Ethernet port, RJ45 serial port

Software

Operating system	Solaris OS, Red Hat Enterprise Linux, Microsoft Windows, and VMware; see sun.com/servers/x64/x4600/os.jsp
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)

Sun installation assistant

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

Power supplies

- 950 W power supplies, 93 percent efficient*
- 850 W power supplies, 83 percent efficient

Environment

Power source	100-240 V AC, 50-60 Hz input
UL maximum (DC output)	850 W/PSU (maximum output)
AC power	90-264 V AC (47-63 Hz)
Typical AC power	<ul style="list-style-type: none"> • 557 watts • 1,901 BTU/hour
Operating temperature/humidity (single nonrack system)	5°C to 35°C (41°F to 95°F), 10-90 percent relative humidity, non-condensing, 27°C max. wet bulb
Storage temperature (single nonrack system)	-20°C to 60°C (-4°F to 140°F)
Humidity	20-90 percent noncondensing
Operating altitude (single nonrack system)	Maximum 10,000 ft. (3048 m)
Notes	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 maximum ambient: 8.9 B
LpAm bystander	At or below 25°C: 66 dB, at maximum ambient: 74 dB

Learn More.

Available as a Sun™ System Pack, which combines the Sun Fire X4600 M2 server with the right services to maximize IT value while lowering total cost of acquisition and ownership. For more information on the Sun Fire X4600 M2 server, visit:

sun.com/x4600

Regulations (meets or exceeds the following requirements)

Safety	IEC60950, UL/CSA60950-1, EN60950, CB Scheme with all country differences
RFI/EMI	FCC Class A, Part 15 47 CFR, EN55022, CISPR 22, EN300-386:v1.3.2, ICES-003
Immunity	EN55024, EN300-386:v1.3.2
Certifications	Safety: cULus Mark, CE Mark, CCC, GOST R, S-Mark; EMC: CE Mark (93/68/EEC.); Emissions and Immunity—Class A Emissions Levels: FCC, VCCI, C-Tick, MiC, CCC1, GOST R1, BSM11
RoHS	RoHS 5 and 6 compliant
Other	Labeled per Waste Electrical and Electronic Equipment (WEEE) Directive

Dimensions and weight

Chassis	<ul style="list-style-type: none"> • H: 176 mm (6.92 in.) • 432 mm (17.0 in.) • 609 mm (24 in.)
Weight	56.7 kg (125 lbs.) maximum with rack kit

* Only available for 8-DIMM processor board



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