



Sun Fire™ X4140 Server

Industry-leading performance,
expandability, and power efficiency



Highlights

- The highest performance and up to twice the memory capacity and networking connectivity of any system in its class
- Designed for the enhanced third-generation AMD Opteron™ processors, delivering blazing speed for high-performance computing (HPC)/grid computing and Web infrastructure, as well as research, manufacturing, and business environments
- The highest density in terms of CPU, memory, I/O, and disk capacities — plus virtualization capability — empowers businesses to save on equipment and real estate expenses
- Integrated Lights Out Manager (ILOM) makes system-wide management incredibly simple from any location worldwide
- Runs the Solaris™, Red Hat Enterprise Linux, SUSE Linux, Windows, and VMware operating systems
- Optional HPC services and training to optimize your server implementation
- Saves on power costs with features such as AMD Smart Fetch and 45nm technology with immersion lithography — and more power-efficient components



Sun is helping today's enterprises meet the challenges of escalating datacenter requirements, power costs, real estate needs, and the pressure to bring products to market faster. The Sun Fire™ X4140 server integrates industry-leading AMD Opteron processors, massive storage and memory capacity, and superior networking connectivity to provide the fastest, most scalable x64 system in its class.

Flexible architecture designed for longevity

With a host of flexible options, and superior performance and hardware expandability, the Sun Fire X4140 server offers a solution designed to effectively manage constantly increasing datacenter costs and requirements, while providing the power and capacity to fuel a new generation of business growth. The server's massive hard drive and memory capacity, leading-edge AMD Opteron processors, and superior expandability make it an ideal workhorse for Web infrastructure, HPC/grid computing, virtualization, and disk-intensive applications, as well as for any large-scale manufacturing, research, science, or business environment.

The system also includes a host of advanced features and capabilities designed to reduce administration, service, and support

complexity. For example, Sun's ILOM enables remote control from virtually anywhere in the world; in addition, easily accessible hot-swappable redundant cooling fans, power supplies, and disks make servicing simple. And the advanced management tools streamline command of massive grid deployments, improve the ratio of systems to administrators, and lower operational costs.

Sun offers a suite of services to optimize your Sun Fire X4140 server implementation. SunSpectrumSM Support focuses on delivering proven expertise and responsive, consistent service quality to help you achieve high availability within your IT infrastructures. Sun can also help you architect, deploy, and manage your IT initiatives for faster time to deployment with reduced risk.

Sun Fire X4140 Server Specifications

Architecture

Processor

One or two Dual-Core, Quad-Core, or enhanced Quad-Core AMD Opteron processors

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

16 DDR2 DIMM slots (eight DIMM slots per CPU socket); system supports from 4 GB (2x 2 GB) to 128 GB (16x 8 GB) of memory

Standard integrated interfaces

- Network: Four 10/100/1000Base-T Ethernet ports
- Network management: One dedicated 10/100Base-T Ethernet port
- Serial management: One TIA/EIA-232-F asynchronous RJ-45 connector
- USB: Five USB 2.0 ports (two front, two rear, one internal)
- Expansion bus: Three internal MD2 low-profile 64-bit PCI Express slots (1x 16-lane, 2x 8-lane)

Software

Operating systems

- Solaris 10 OS
- OpenSolaris OS
- Red Hat Enterprise Linux 4
- Red Hat Enterprise Linux 5
- SUSE Linux Enterprise Server 10 (64-bit)
- VMware ESX 3.0.2 (dual-core only)
- VMware ESX 3.5
- Windows Server 2003 Standard/Enterprise Editions (32-bit/64-bit)¹
- Windows Server 2008

Languages

- C/C++, Fortran
- 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

- 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

Mass storage and media

- Hot-swappable 2.5 in. internal disk; up to eight SAS disk drives with add-on SAS host bus adapter (HBA)
- One EIDE DVD ± RW drive
- 73 GB and 146 GB 10,000 rpm/73 GB 15,000 rpm SAS drives supported

RAID configuration

Add-on RAID 0, 1, 1E, 5, 5EE, 6, 10, 50, 60 with SAS RAID HBA

Environment

- Operating temperature: 5° C to 35° C (41° F to 95° F)
- Nonoperating temperature: -40° C to 65° C (-40° F to 149° F)
- Operating relative humidity: 10–90%, noncondensing
- Nonoperating relative humidity: Up to 93%, noncondensing
- Operating altitude: Up to 3,000m, max. ambient temperature is derated by 1° C per 300m above 900m
- Nonoperating altitude: Up to 12,000m
- Acoustic noise:
 - LwAd: At max. ambient, 6.6 B
 - LpAm bystander: At max. ambient, 51 dB

Power

- Dual-redundant, hot-swappable power supply
- UL max. input power: 8.2 A rms at 100 V AC
- Power supply output rating: 650 W
- AC power: 100–120 V/200–240 V AC (50/60 Hz)

Learn More

For more information on the Sun Fire X4140 server, go to: sun.com/x4140.

Try risk-free for 60 days: Apply for a free trial at sun.com/tryandbuy.

Regulations

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

RFI/EMI: FCC CFR 47 Part 15 Class A, EN 55022 Class A, EN 61000-3-2, EN 61000-3-3, EN 300 386

Immunity: EN 55024, EN 300 386

Certifications

Safety: UL/cUL, UL DEMKO, CE, BSMI, CCC, GOST-R, S-Mark

EMC: CE, FCC, VCCI, ICES, C-Tick, MIC, CCC, GOST-R, BSMI Class A

Other: Complies with WEEE Directive (2002/96/EC) and RoHS Directive (2002/95/EC)

Dimensions and weight

Height: 44mm (1.746 in.)

Width: 426mm (16.75 in.)

Depth: 714mm (28.125 in.)

Weight: 16.55 kg (36.49 lbs.) min.
18.55 kg (40.90 lbs.) max.

Mounting options

- Rackmount slide rail kit
- Toolless rackmount slide rail kit
- Cable management arm

Warranty

- Three years, next business day



¹ Supported editions include Windows Server 2003 SP1, R2, SP2, R2 with SP2.

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