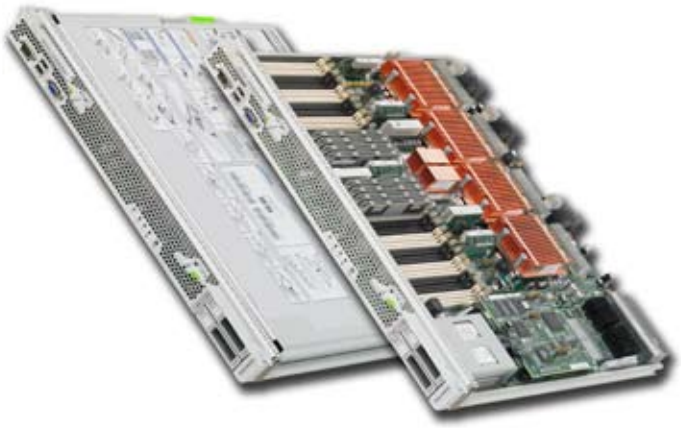
Intel® Xeon® Processor-based servers

Sun Blade™ X8450 Server Module

The fastest Intel Xeon processor-based performance



Highlights

- Part of the Sun Blade™ 8000 modular system family, offering up to double the memory (32 DIMM slots) and I/O capacity (160 Gbps) of competing blade and rack-mount servers
- Features Intel® Xeon® Quad-Core Processors for the most demanding workloads
- Supports large memory configurations at up to half the price
- Operating system (OS) flexibility — runs the Solaris™ 10 OS, Linux, Windows, or VMware
- Sun Blade transparent management — direct management of each server module, for seamless integration into existing management infrastructures
- Versatile storage — two SAS or SATA hard disk drives — up to 400 GB of hot-swappable storage
- Shared infrastructure designed for superior availability, with no fans or power supplies on the blades
- Extreme efficiency to reduce costs and offer a more eco-friendly datacenter

The four-socket Sun Blade X8450 server module, based on Intel Xeon (Quad-Core or Dual-Core) Processors, is an enterprise-class engine with the highest performance and the largest memory footprint in a blade form factor. It provides up to double the memory capacity and I/O throughput of comparable blade servers, with modularity and efficiency superior to the best rackmount four-socket servers. The Sun Blade X8450 server module offers plenty of headroom for future growth and extreme flexibility, making it the ideal platform to support the broadest range of applications and usages — such as server consolidation, virtualization, database, and other enterprise applications, in addition to high-performance computing.

You can save space through consolidation, leverage new efficiency and faster time to business readiness, and improve the performance of your databases and enterprise applications with the latest addition to the Sun Blade 8000 modular system. The Sun Blade X8450 server module offers versatility with minimal complexity, as well as investment protection and centralized, streamlined management and deployment. The server module enables you to cost-effectively add Intel Xeon Processor-based applications to your Sun Blade 8000 modular system.

The energy-efficient Sun Blade 8000 modular system chassis enables interoperability with all Sun Blade 8000 modular system I/O modules, and support for every major operating system: the Solaris OS, Windows, Linux, and VMware. This offers multiple options for virtualization and consolidation to minimize your datacenter's space, cooling, and power footprints. And because the server is managed simply with the same leading-edge Integrated Lights Out Manager (ILOM) 2.0 tools as other servers, there is no learning curve for management. The system is virtualization ready from day one — and ILOM 2.0 also works with third-party management systems, offering you further options.

Sun Blade X8450 Server Module Specifications

Architecture

Processors

Supports Intel Xeon 7000 Series Quad-Core and Dual-Core Processors — Two- and four-processor models available

Main memory

32 DIMM slots total — Supports 1, 2, 4, or 8* GB DDR2/667 HPC2-5300 ECC fully buffered DIMMs — total of 256* GB of RAM per Sun Blade X8450 server module

Interfaces

Midplane I/O

- Sun Blade™ 8000 chassis: Four PCIe (x8) links and two PCIe (x4) links per server module connect through the chassis midplane to two unique PCIe ExpressModules (EMs) and four PCIe Network Express Modules (NEMs)
- Sun Blade™ 8000 P chassis: Two PCIe (x8) links per server module connect through the chassis midplane to two PCIe Network Express Modules (NEMs)
- Two 10/100 Ethernet management ports to Chassis Monitoring Module (CMM)
- Storage: Two SAS/SATA interfaces using an LSI SAS1064E controller; two SAS interfaces, one to each of the SFF (small form factor) SAS/SATA disk-drive bays
- RAID: 0, 1 support
- Graphics: Embedded graphics using an ATI ES100 video controller

Software

Operating systems

- The Solaris 10 OS, Update 4
- Red Hat Enterprise Linux 4, Update 5, 32-bit/64-bit
- Red Hat Enterprise Linux 5, 64-bit
- SUSE Linux 10 Professional 64-bit
- Windows Server 2003, Enterprise Edition, 32-bit/64-bit
- Windows Server 2003, Standard Edition, 32-bit/64-bit
- VMware ESX 3.0.2

Networking

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

Management

Per server module (on-board) 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 keyboard, video, mouse, and storage redirect over Ethernet
- Discovery, grouping, bare metal provisioning, hardware monitoring, and OS monitoring

I/O modules

PCIe ExpressModules — Up to 20 per Sun Blade 8000 chassis (two per server module)

- Gigabit Ethernet dual-port PCIe ExpressModule — Copper (Intel 82571EB GbE Controller-based)
- Gigabit Ethernet dual-port PCIe ExpressModule — Fiber (Intel 82571EB GbE Controller-based)
- 10 Gigabit Ethernet dual-port PCIe ExpressModule — Fiber
- 4 Gbps Fibre Channel dual-port PCIe ExpressModule (QLogic ISP2432 FC Controller)
- 4 Gbps Fibre Channel dual-port PCIe ExpressModule (based on Emulex Zephyr IOC FC Controller)
- InfiniBand 4x dual-port PCIe ExpressModule (Mellanox MT2508 InfiniHost III Ex-based)

PCIe Network Express Modules (NEMS) — Up to four per Sun Blade 8000 chassis or two per Sun Blade 8000 P chassis

- Gigabit Ethernet 20-port passthru PCIe NEM (Intel 82571EB GbE Controller-based)
- 4 Gbps Fibre Channel 20-port passthru PCIe NEM (based on Emulex Zephyr IOC FC Controller)
- InfiniBand 4x, DDR, 10-port passthru PCIe NEM

Dimensions

- Height: 42.67mm (1.68 in.)
- Width: 499.36mm (19.66 in.)
- Depth: 465.58mm (18.33 in.)

Chassis support

10 Sun Blade X8450 server modules per Sun Blade 8000 chassis; 10 Sun Blade X8450 server modules per Sun Blade 8000 P chassis

Learn More

To learn more about the Sun Blade X8450 server module, go to: sun.com/blades.

* Available in an upcoming release.

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

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