



SUN ENTERPRISE™ 4500 SERVER

Compact design, yet highly expandable midrange system.

A compact rack-optimized server with tremendous computing power, the Sun Enterprise™ 4500 server nearly doubles the expandability of the Sun Enterprise 3500 server. This dense packaging—combined with Sun's advanced availability features Dynamic Reconfiguration and Alternate Pathing—makes this the ideal choice for both enterprise and service providers. What's more, it delivers mission-critical availability and advanced system management tools perfect for databases, business

applications, e-commerce, and Internet applications. The common, modular design of the Sun™ server family—from the Sun Enterprise 3500 system to the Sun Enterprise 6500 system—simplifies upgrades and delivers exceptional investment protection. Sun servers support the Solaris™ Operating Environment so you can choose from more than 12,000 off-the-shelf applications. All this makes the Sun Enterprise 4500 server a safe, versatile investment for growing businesses.

HIGHLIGHTS

- Advanced availability features maximize application uptime, with the ability to reconfigure and repair system components while the server remains online.
- Delivers up to 14 processors in a small package, and up to four Sun Enterprise 4500 servers may be rack-mounted in a single Sun data center cabinet.
- Sun Management Center software simplifies system management, lowering your total cost of ownership with an easy-to-use interface and proactive hardware failure prediction.
- Flexible, dependable service offerings from Sun provide mission-critical support that fits your budget.

SUN ENTERPRISE™ 4500 SERVER SPECIFICATIONS

PROCESSOR

Number of processors	1 to 14
Architecture	Superscalar SPARC™ Version 9, UltraSPARC™
Cache per processor	Primary: 16-KB instruction, and 16-KB data on chip Secondary: 4-MB or 8-MB external cache
CPU interface	1 to 14 128-bit Ultra™ Port Architecture (UPA) slots
System Interconnect	Gigaplane™, 2.68-GB/sec (at 84 MHz), 3.2-GB/sec (at 100 MHz)

SYSTEM BOARDS

Number of boards	Maximum of eight boards per system; minimum configuration requires one CPU/Memory board and one I/O board
CPU/Memory board	Holds up to two processors and 16 memory DIMMs
SBus I/O board	Offers two SBus channels, three SBus slots, SunFastEthernet™, Fast/Wide SCSI-2, two FC-AL sockets
Graphics I/O board	Offers one SBus channel, two SBus slots, one UPA slot for Creator3D graphics, SunFastEthernet, Fast/Wide SCSI-2, two FC-AL sockets
PCI I/O board	Offers four PCI channels, two (short) PCI slots, SunFastEthernet, Fast/Wide SCSI-2
Main Memory	Up to 28-GB memory capacity per system

STANDARD INTERFACES

Serial	Two RS-232/423 ports on clock board
SBus	64-bit data bus width, 25 MHz
PCI	64-bit data bus width, 66 MHz
Keyboard and mouse port	One each per system
Ethernet	10/100-MB/sec twisted pair standard (10-BaseT and 100-BaseT) and/or MII transceiver per I/O board
SCSI	On-board 20-MB/sec Fast/Wide SCSI-2 (synchronous) per I/O board
Fibre channel	Two on-board sockets (100-MB/sec full duplex) per SBus and Graphics I/O boards

MASS STORAGE AND MEDIA

Internal disk	Up to four disk boards, each with two SCSI disk drives
Internal tape	8-mm and 4-mm tape options available
CD-ROM	SunCD™ 32 drive standard
External storage	Supports over 20-TB of storage

CONSOLE OPTIONS

Monitor	17- to 24-inch color monitors
Frame buffer	PGX32, Creator3D, and Elite3D frame buffer
SBus options	SunFastEthernet, SunATM™ 155 and 622, Sun Quad FastEthernet™, Differential Fast/Wide Intelligent SCSI-2 (DWIS/S), Single-Ended Fast/Wide Intelligent SCSI-2 (SWIS/S), High-Speed Serial Interface (HSI/S), Token Ring Interface (TRI/S), Single- and Dual-Attach FDDI, Serial Parallel Controller (SPC/S), 100-BaseT Fast/Wide SCSI, ISDN, Fast Differential SCSI-2 Buffered Ethernet (DSBE/S), Fast SCSI-2 Buffered Ethernet (FSBE/S), Sun Gigabit Ethernet, FC-AL
PCI options	10/100-BaseT Fast/Wide UltraSCSI, 10/100-BaseT FastEthernet, Quad FastEthernet, Single- and Dual-Attach FDDI, Token Ring, High Speed Serial Interface, Serial Asynchronous Interface, Gigabit Ethernet Network, SunATM 155 and 622, HIPPI

Power supplies

One 184-watt Peripheral Power Supply standard. Up to four hot-swappable 300-watt Power Cooling Modules (PCM) with redundant, dual-speed fans. One PCM required per two systems boards. Fully-redundant power and cooling available on this system.

Availability features

Automatic System Recovery
Dynamic Reconfiguration
Alternate Pathing
CPU Power Control
Redundant Power and Cooling
Hot-swap Power/Cooling Modules
Hardware Failure Prediction
Remote Power Control
Modular components and more

SOFTWARE

Operating system	Solaris Operating Environment 2.5.1 or later
Languages	C, C++, Pascal, FORTRAN, Java™
Networking	ONC™, NFS, TCP/IP, SunNet™ OSI, MHS, X.25, DCE, Netware
Windowing system	CDE, OpenWindows™ Version 3 optional
System monitoring	Sun Management Center
System and network management	Solaris Web Start, Solstice AdminSuite™, Solstice Domain Manager™, Solstice Enterprise Manager™, Solstice DiskSuite™, Solstice Backup™, Veritas File System and more

ENVIRONMENT

AC power	100-240 VAC, 47-63 Hz, 12 A
Operating	5° C to 40° C (41° F to 104° F) 20% to 80% relative humidity, noncondensing
Nonoperating	-20° C to 60° C (-4° F to 140° F) 5% to 93% relative humidity, noncondensing

REGULATIONS

Safety	Meets or exceeds the following requirements: UL 1950, CSA 950, TUV EN60950, CB Scheme (Nordic Deviation)
RFI/EMI	FCC Class A, DOC Class A, EN55022 Class A, VCCI Class 1
Immunity	EN50082-1
Harmonics	EN61000-3-2

DIMENSIONS AND WEIGHT

Height	34 cm (13.5 in.)
Width	50 cm (19.7 in.)
Depth	56 cm (22 in.)
Weight, main cabinet	68 kg (150 lb.) approximate
Power cord	1.83 m (6 ft.)

UPGRADES

Full system upgrades are available for SPARCcenter™ 2000/2000E, SPARCserver™ 1000/1000E, SPARCserver 6X0, 4X0, and 3X0 systems.
Chassis upgrades are available for Sun Enterprise 3x00 and Sun Enterprise 4000 servers. Competitive server trade-ins are also available.

SUN ENTERPRISE SERVER FAMILY OF PRODUCTS

Sun Enterprise 3500	Sun Enterprise 4500	Sun Enterprise 5500	Sun Enterprise 6500
			

HEADQUARTERS SUN MICROSYSTEMS, INC., 901 SAN ANTONIO ROAD, PALO ALTO, CA 94303-4900 USA
PHONE: 650 960-1300 OR 800-555-9SUN INTERNET: www.sun.com



We're the dot in .com™

SALES OFFICES

AFRICA (NORTH, WEST, AND CENTRAL): +33-1-3067-4680 • ARGENTINA: +54-11-4317-5600 • AUSTRALIA: +61-2-9844-5000 • AUSTRIA: +43-1-60563-0 • BELGIUM: +32-2-704-80-00 • BRAZIL: +55-11-5187-2100 • CANADA: +905-477-6745 • CHILE: +56-2-372-4500
COLOMBIA: +571-629-2323 • COMMONWEALTH OF INDEPENDENT STATES: +7-502-935-8411 • CZECH REPUBLIC: +420-2-33-00-93-11 • DENMARK: +45-4556-5000 • EGYPT: +202-570-9442 • ESTONIA: +372-6-308-900 • FINLAND: +358-9-525-561 • FRANCE: +33-01-30-67-50-00
GERMANY: +49-89-46008-0 • GREECE: +30-1-618-8111 • HUNGARY: +36-1-202-4415 • ICELAND: +354-563-3010 • INDIA: +91-80-559-9595 • IRELAND: +353-1-8055-666 • ISRAEL: +972-9-951-3465 • ITALY: +39-039-60551 • JAPAN: +81-3-5717-5000
KAZAKHSTAN: +7-3272-466774 • KOREA: +822-3469-0114 • LATVIA: +371-750-3700 • LITHUANIA: +370-729-8468 • LUXEMBOURG: +352-49-11-33-1 • MALAYSIA: +603-264-9988 • MEXICO: +52-5-258-6100 • THE NETHERLANDS: +31-33-450-1234 • NEW ZEALAND: +64-4-499-2344
NORWAY: +47-2202-3900 • PEOPLE'S REPUBLIC OF CHINA: BEIJING: +86-10-6803-5588; CHENGDU: +86-28-619-9333; GUANGZHOU: +86-20-8755-5900; HONG KONG: +852-2802-4188; SHANGHAI: +86-21-6466-1228 • POLAND: +48-22-874-7800 • PORTUGAL: +351-21-4134000
RUSSIA: +7-502-935-8411 • SINGAPORE: +65-438-1888 • SLOVAK REPUBLIC: +421-7-4342-94-85 • SOUTH AFRICA: +2711-805-4305 • SPAIN: +34-91-596-9900 • SWEDEN: +46-8-623-90-00 • SWITZERLAND: +41-1-908-9000 • TAIWAN: +886-2-2514-0567 • THAILAND: +662-636-1555
TURKEY: +90-212-236-3300 • UNITED ARAB EMIRATES: +971-4-366-333 • UNITED KINGDOM: +44-1-276-20444 • UNITED STATES: +1-800-555-9SUN OR +1-650-960-1300 • VENEZUELA: +58-2-905-3800 • WORLDWIDE HEADQUARTERS: +1-800-555-9SUN OR +1-650-960-1300

SUN™ Specifications are subject to change without notice. © 2000 Sun Microsystems, Inc. All rights reserved. Sun, Sun Microsystems, the Sun logo, Sun Enterprise, Gigaplane, Solaris, Solstice Domain Manager, Solstice Enterprise Manager, SunFastEthernet, Sun Quad FastEthernet, SunCD, SunATM, Java, ONC, SunNet, Solstice DiskSuite, Solstice AdminSuite, Solstice Backup, OpenWindows, and We're the dot in .com are trademarks, or registered trademarks of Sun Microsystems, Inc., in the United States and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc., in the United States and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc. LFC1.2 Printed in USA 5/00 DE828-3/50K