Sun SPARC® Enterprise T5120 Server
World-record performance with unsurpassed eco and datacenter savings

Highlights

- Designed for secure Web-scale and virtualized computing

- World's first 64-thread, general-purpose server powered by the groundbreaking UltraSPARC® T2 "system on a chip" processor

- Record-breaking performance, maximum energy and space efficiency, delivering the industry's best performance per watt

- World's first server with integrated, open-source, no-cost virtualization technology, enabling more than 2,500 isolated domains per rack

- Integrated on-chip cryptographic acceleration and 10 Gigabit Ethernet enable secure computing at wire speed

- The industry's most open platform, built on open-source technologies and open standards

- Industry-standard systems management and no-cost development and deployment tools to speed time to service

- Extreme levels of reliability through integrated and simplified design — resulting in fewest parts in class

> Introducing the world's first server designed to meet the demands of Web-scale performance. The Sun SPARC® Enterprise T5120 server is the fastest server designed for secure, high-throughput, high-efficiency Web-scale computing, with a combination of world-record performance, performance per watt, and price/performance. No other server better empowers organizations to build for Web scale and push the boundaries of network participation. The Sun SPARC Enterprise T5120 server enables organizations to securely, reliably, and eco-efficiently serve millions of new users and communities while slashing operational costs.

The Sun SPARC Enterprise T5120 server is the first 64-thread, general-purpose server powered by the UltraSPARC T2 "system on a chip" processor, which packs up to eight cores and up to 64 simultaneous threads. It also integrates all the key functions of a system on a single chip — computing, networking, security, and input/output (I/O) — all delivered in just 1 rack unit of space.

The Sun SPARC Enterprise T5120 server offers the industry's only integrated, open-source, and no-cost virtualization technologies with a choice of Solaris Containers and Logical Domains (LDOMs). By enabling up to 64 isolated domains per server, customers can deploy more than 2,500 isolated domains per rack for ultimate server virtualization and consolidation.

The Sun SPARC Enterprise T5120 server is also the industry's most open platform, built on open-source technologies and open standards,

packaging the only mainstream processor and virtualization hypervisor offered under the GPL, and having a choice of open-source operating systems and preinstalled Sun Java™ Enterprise System middleware. Linux distributions have been certified for the Sun SPARC Enterprise T5120 server, with support provided by the respective distribution communities. The Solaris™ Operating System is free, open, and the only open-source UNIX OS to run on more than 900 platforms on multiple x86 and SPARC® processors.

Maximize your investment in the Sun SPARC Enterprise T5120 server by leveraging the Sun Eco Services Suite to optimize your datacenter power, space, and cooling, or Sun Consolidation and Virtualization Services to help you architect and deploy your consolidation and virtualization projects.

Sun SPARC Enterprise T5120 Server Specifications

Key applications

- Web serving
- Streaming media
- Security applications
- Java™ application servers
- Java virtual machines
- Network infrastructure
- SOA and business integration platforms
- Compute and network node
- Consolidation and virtualization
- Multithreaded floating-point applications for manufac-
  turing, pharmaceutical, and financial services industries

Processor

Processor	Four-, six-, and eight-core 1.2-GHz or eight-core 1.4-GHz UltraSPARC T2 processors; one processor per system, maximum 64 threads
Architecture	SPARC® V9 architecture, ECC protected
Cache per processor	4-MB integrated L2

Other processor key features

- Under 95 W (nominal) and fewer than 2 W per thread
- Dual, multithreaded, 10 Gb Ethernet PCIe integrated onto chip
- Eight floating-point units
- Onboard cryptography supporting 10 embedded security industry-standard ciphers including: DES, 3DES, AES, RC4, SHA1, SHA256, MD5, RSA to 2048 key, ECC, CRC32

Key RAS features

- Hot-pluggable disk drives
- Redundant hot-swappable power supplies
- Redundant hot-swappable fans
- Environmental monitoring
- Error correction and parity checking
- Easy component replacement
- Internal hardware drive mirroring (RAID 1)
- RAID 0 and 1 support

Main memory

16 FB-DIMM slots, system maximum of 64 GB; support for 1-GB, 2-GB, and 4-GB DIMMs; minimum of 4 GB (4x 1 GB)

Standard integration interfaces

Network	Four 10/100/1000 Mbps Ethernet; Up to 2x optional 10 GbE XAUI connections
Expansion bus	One eight-lane PCIe and two four-lane PCIe or XAUI
USB	Four 2.0 USB ports

Mass storage and media

Internal disk	up to four 73- or 146-GB SAS disks
Internal DVD	one slimline CD-RW/DVD-RW
External storage	Sun offers a complete line of best-in-class, innovative storage hardware,

software, and solutions — including tape drives, tape libraries, disk storage systems, data management software, and more — along with renowned world-class service and support. Our data management solutions help customers share information more effectively, manage data more efficiently to save money, and reduce risk by making sure that data is available, recoverable, and compliant. For more information, please see: sun.com/storagetek

Software

Operating system	The Solaris 10 Operating System 8/07
Preloaded software	• The latest Solaris 10 OS 8/07 • Sun Java Enterprise System Release 5 (90-day evaluation) • Logical Domains Manager 1.0.1 • Logical Domains MIB 1.0.1 • Sun Studio™ 12 • CoolTools for CoolThreads™ servers

Power supplies

Two hot-swappable AC 650 W or DC 660 W power supply units (PSUs) providing N+1 redundancy

Environment

Operating temperature	• Sea level to 900m (3,000 ft.) 5° to 35° C (41° F to 95° F) • Above 900m (3,000 ft.) decrease maximum temperature as altitude increases by 1° C/300m (1.6° F/1,000 ft.)
Nonoperating temperature	• Above 900m (3,000 ft.) -40° to 65° C
Relative humidity	• 10 to 90 percent RH, noncondensing, 27° C wet bulb, IEC 60068-2-3&56
Nonoperating relative humidity	• 93 percent RH 35° C, noncondensing
Operating altitude	• 0–3,000m (0–10,000 ft.), IEC 60068-2-13
Nonoperating altitude	• 0–12,000m (0–40,000 ft.), IEC 60068-2-3&56
Declared acoustics	• Operating/idling acoustic noise 7.0B (LwAd, 1B = 10 dB) • Operating/idling acoustic noise 59 dB (LpAm, bystander positions)

Regulations (meets or exceeds the following requirements)

Safety	UL/CSA-60950-1, EN60950-1, IEC60950-1 CB Scheme with all country deviations, IEC825-1, 2, CFR21 part 1040, CNS14336, GB4943

Ergonomics	EK1-ITB-2000
RFI/EMC	EN55022 Class A, 47 CFR 15B Class A, ICES-003 Class A, VCCI Class A, AS/NZ 3548 Class A, CNS 13438 Class A, KSC 5858 Class A, GB9254 Class A, EN61000-3-2, GB17625.1, EN61000-3-3
Immunity	EN55024, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Telecommunications	EN 300 386
Regulatory markings	CE, FCC, ICES-003, C-tick, VCCI, GOST-R, BSMI, MIC, UL/cUL, UL/DEMKO, UL/S-mark, CCC

Dimensions and weight

Height	44mm (1.746 in.); one rack unit
Width	425mm (16.75 in.)
Depth	714mm (28.125 in.)
Weight	approximately 16.55 kg (36.5 lbs.)

Upgrades

Sun SPARC Enterprise servers are eligible for the Upgrade Advantage Program. Customers can trade in their old Sun or non-Sun servers and receive a discount toward the price of their new Sun SPARC Enterprise server. For more details on the Upgrade Advantage Program, visit: sun.com/ibb/coolthreads

Warranty

Hardware support	one year
Operating system support	90-day warranty provided for installation telephone support and defective media replacement
Call response	eight hours
Delivery	next business day onsite or parts exchange for customer-replaceable units

Customer Ready Systems

Take advantage of the Sun Customer Ready Systems program and have your system tailored to your specific requirements by our factory experts. Learn more at sun.com/crs