

# Sun SPARC® Enterprise T2000 Server

Combining breakthrough throughput and high-end RAS features with dramatic energy and space savings.



With the growing demand for network services, datacenter managers are caught between competing requirements: building server capacity and deploying applications quickly on the one hand, while managing complexity and server sprawl and coping with burgeoning energy costs and real-estate limitations on the other. So companies are looking for systems that can deliver on all the requirements of the next-generation datacenter—for compute density, for price/performance, and for energy and space efficiency. That's the whole idea behind the Sun SPARC® Enterprise T2000 server.

## Highlights

- World's first eco responsible server
- Up to 32 simultaneous execution threads using CoolThreads™ chip-multithreading technology (CMT)
- Industry-leading server efficiency as defined by Space, Watts, and Performance (SWaP)\* metric
- Space-efficient, rack-optimized 2RU design
- Investment protection with SPARC® V9 binary application compatibility
- Enhanced system uptime supported by high on-chip RAS, redundant power supplies and fans, hot-pluggable disk drives, hardware RAID (0 + 1), and low component count
- Exceptional expandability and I/O performance from five PCI slots and four Ethernet interfaces
- Increase consolidation/virtualization capabilities with Solaris containers
- Preloaded with Solaris 10 OS, Java Enterprise System, and Cool Tools for CoolThreads servers to enable fast development and deployment of software applications

Part of the Sun SPARC Enterprise family of servers, the Sun SPARC Enterprise T2000 server is powered by the UltraSPARC® T1 processor, which delivers four or eight cores for a maximum of 32 simultaneous software threads per chip. The result? Up to five times the throughput-optimized performance of competitors' systems—performance that's ideal for not only Web-tier applications, but for critical OLTP databases and ERP, CRM, and SCM applications as well.

For these types of applications, your systems have to be up, online, and available. And the Sun SPARC Enterprise T2000 server delivers enhanced uptime capabilities you can rely on: hot-pluggable disk drives, redundant, hot-swappable power supplies and fans, environmental monitoring, RAID 0+1 monitoring, and much more. Plus, the component count itself is extremely low—and fewer components means better reliability and less system downtime.

The combination of high performance and RAS features with minimal energy costs and physical footprint is so innovative, a Space Watts and Performance (SWaP) metric has been created and endorsed by analysts to describe its true cost and environmental impact on the datacenter.

Plus, it comes preinstalled with the highly available, secure, reliable Solaris 10 OS. With the Solaris Application Guarantee, we ensure binary compatibility between Solaris releases and source compatibility between UltraSPARC and x64/x86 processors. And Solaris Containers let you consolidate multiple applications onto a single system to virtualize your environment, increase utilization, and cut system and licensing costs.

With the Sun SPARC Enterprise T2000 server, we're proving that faster can be cooler, better can be cleaner, and cheaper can be greener.

# Sun SPARC® Enterprise T2000 Server Specifications

## Key applications

- Web serving
- Streaming media
- Security applications
- Java Application Servers and Virtual Machines
- OLTP databases
- ERP, CRM, SCM
- Network infrastructure
- SOA and business integration platforms
- Consolidated Web and application infrastructure

## Processor

Processor	4- or 8-core, 1.0 GHz/8-core, 1.2 GHz/8-core, 1.4 GHz UltraSPARC T1 processor
Architecture	SPARC® V9 architecture, ECC protected
Cache per processor	<ul style="list-style-type: none"> <li>• 16 KB instruction</li> <li>• 8 KB primary data cache</li> <li>• 3 MB integrated L2</li> </ul>

## 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)

## Main memory

Sixteen DIMM slots, DDR2 with Extended ECC and DRAM Sparing, ECC registered DIMMs. System maximum of 64 GB; support for 1 GB, 2 GB, and 4 GB DIMMs

## Standard/integration interfaces

Network	Four 10/100/1000 Mb/s Ethernet
Serial	One DB9 serial port
USB	Four 1.1 USB ports
Expansion bus	Three PCI-Express (PCIe) slots for low-profile cards (support x1, x4 and x8 width cards); two PCI-X slots for 64-bit 133 MHz low-profile cards
Network management	<ul style="list-style-type: none"> <li>• Advanced Lights Out Management (ALOM)</li> <li>• Management system controller with RJ45 serial and 10/100 Mb/s Ethernet ports</li> </ul>

## Mass storage and media

Internal disk	Up to four 73 GB or 146 GB 2.5" 10K rpm SAS disks, providing a maximum capacity of 584 GB; Internal hardware RAID 1 (mirroring) and RAID 0 (striping) supported
Internal DVD	One slimline DVD-ROM/CD-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 <a href="http://sun.com/storageetek">sun.com/storageetek</a>

## Software

Operating system	Solaris 10 OS 11/06
Preloaded software	<ul style="list-style-type: none"> <li>• Solaris 10 OS 11/06</li> <li>• Sun Java™ Enterprise System</li> <li>• Cool Tools for CoolThreads servers (includes CoolTuner, Sun Studio 11, GCC for SPARC systems)</li> </ul>

## Power supplies

Two redundant, 450W hot-swappable power supplies	
Typical operating input power	275W

## Environment

AC power	100 to 240 VAC, 50 to 60 Hz (4.5A @ 100 to 120 VAC, 2.25A @ 200 to 240 VAC)
Operating temperature	<ul style="list-style-type: none"> <li>• Sea level to 900m (3,000 ft.): 5°C to 35°C</li> <li>• Above 900m (3,000 ft.): decrease maximum temperature as altitude increases, 1°C/300 m (1.6°F/1,000 ft.)</li> </ul>
Operating humidity	20 to 80 percent relative humidity, non-condensing
Operating altitude	Up to 3,000 m (10,000 ft.)
Non-operating temperature	-40°C to 60°C
Non-operating humidity	98 percent relative humidity, non-condensing
Declared acoustics	<ul style="list-style-type: none"> <li>• Operating/Idling acoustic noise 7.7B (LwAd, 1B=10 dB)</li> <li>• 62 dB (LpAm, bystander positions)</li> </ul>

## Get the Details.

Learn more about the Sun SPARC® Enterprise T2000 server by visiting [sun.com/se\\_t2000](http://sun.com/se_t2000)

## Regulations (meets or exceeds the following requirements)

Product safety	UL/CSA-60950-1, EN60950-1, IEC60950-1 CB Scheme with all country deviations, IEC825-1, 2, CFR21 part 1040, CNS14336, GB4943
RFI/EMI	EN55022 Class A, 47 CFR 15B Class A, ICES Class A, VCCI Class A, AS/NZ 3548 Class A, CNS 13438 Class A, KSC 5858 Class A, GB 9254 Class A, EN61000-3-2, GB 17625.1, 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	EN300-386
Regulatory markings	CE, FCC, ICES-003, C-tick, Markings VCCI, GOST-R, BSMI, MIC, UL/cUL, UL/S-mark, CCC
Ergonomics	EK1-ITB-2000

## Dimensions and weight

H:	89 mm (3.5 inches); 2 rack units
W:	425 mm (16.7 inches)
D:	621 mm (24.4 inches)
Weight	18.2 kg (40 lb.) (approximate, includes two power supplies, two disk drives, one DVD)

## Warranty

Hardware support	1 year
Software install	90 days
Call response	8 hours
Delivery	Next business day



\*SWaP = Space, Watts and Performance as defined by the formula Performance / Space / Power

Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 USA Phone 1-650-960-1300 or 1-800-555-9SUN Web [sun.com](http://sun.com)

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