

Sun Fire™ T2000 Server

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



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
- Preloaded with Solaris 10 OS, Java Enterprise System, and Cool Tools for CoolThreads servers to enable fast development and deployment of software applications
- Available as a Sun System Pack to maximize IT value while lowering total cost of acquisition and ownership

> 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 Fire™ T2000 server.

The Sun Fire 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 Fire T2000 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.

Sun delivers all that performance and reliability in a low-profile, 2RU design ideal for rackmount deployments, while it draws about one-fifth the power of other systems. The combination of high performance and RAS features with minimal energy costs and physical footprint is so innovative, we had to develop a new Space,

Watts, and Power (SWaP) metric 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. What's more, the Sun Fire T2000 server runs many Linux distributions, so you can choose the best operating system for your environment.

Best of all, the Sun Fire T2000 server is available as a Sun™ System Pack, which delivers significant advantages over traditional warranty plans by providing enhanced service coverage, automatic OS updates, training credits, and much more.

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

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

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

Sixteen DIMM slots, DDR2 with Chipkill and DRAM Sparing, ECC registered DIMMs, system maximum of 64 GB; support for 512 MB, 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 (PCI-E) slots for low-profile cards (support x1, x4 and x8 width cards); two PCI-X slots for 64-bit 133 MHz low-profile cards (Note: On earlier models, one PCI-X slot may be occupied with a disk controller card)
Network management	<ul style="list-style-type: none"> • Advanced Lights Out Management (ALOM) • Management system controller with RJ45 serial and 10/100 Mb/s Ethernet ports

Mass storage and media

Internal disk	Up to four 73 GB 2.5 in., 10K RPM SAS disks, providing a maximum capacity of 292 GB; Internal hardware RAID 1 (mirroring) and RAID 0 (striping) supported.
Internal DVD	One slimline DVD-R/CD-RW

External disk

- Sun StorageTek™ A5200
- Sun StorageTek D240 media tray
- Sun StorageTek S1 array
- Sun StorageTek T3 series
- Sun StorageTek 3120, 3310, 3320, 3510, 3511, 3910, and 3960 arrays
- Sun StorageTek 6120, 6130, 6140, 6320, and 6540 arrays
- Sun StorageTek 5210 NAS
- Sun StorageTek 6920 system

External tape

- Sun StorageTek DAT 72 tape drive
- Sun StorageTek tape drives, including SDLT 600, SDLT 320, LTO 1, LTO 2, LTO 3
- Sun StorageTek C2 autoloader
- Sun StorageTek C4 tape library
- Sun StorageTek L25, L100, L180, L500, and L700 tape libraries
- Sun StorageTek L7 and L8 autoloaders

Software

Operating system	Solaris 10 OS 11/06
Preloaded software	<ul style="list-style-type: none"> • Sun Java™ Enterprise System (90-day evaluation) • Cool Tools for CoolThreads servers (includes CoolTuner, Sun Studio 11, GCC for SPARC systems)

Power Supplies

Two redundant, hot swappable power supplies	
Typical operating power	275W (note: earlier models containing 550W power supplies have a typical operating power of 325W)

Environment

AC power	100 to 240 VAC, 50 to 60 Hz (4.5A @ 100 to 120 VAC, 2.5A @ 200 to 240 VAC)
Operating temperature	<ul style="list-style-type: none"> • Sea level to 900m (3,000 ft.): 5°C to 35°C • Above 900m (3000 ft.): Decrease maximum temperature as altitude increases, 1°C/300 m (1.6°F/1000 ft.) • 5°C to 35°C, 20% to 80% relative humidity, non-condensing, 27°C wet bulb
Operating humidity	20 to 80 percent relative humidity, non-condensing, (operating), 27°C wet bulb
Operating altitude	Up to 3,000m (10,000 ft.)
Non-operating temperature	<ul style="list-style-type: none"> • Sea level to 900m (3000 ft.): -40°C to 60° C • Above 900m (3000 ft.): -40°C to 60°C
Non-operating humidity	98 percent relative humidity, non-condensing
Non-operating altitude	Up to 12,000m (40,000 ft.)
Declared acoustics	<ul style="list-style-type: none"> • Operating/Idling acoustic noise 7.7B (LwAd, 1B=10 dB) • Operating/Idling acoustic noise 62 dB (LpAm, bystander positions)

Get the Details.

Learn more about the Sun Fire T2000 Server by visiting sun.com/T2000.

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, and CFR21 part 1040
Ergonomics	EK1-ITB-2000
RFI/EMC	EN55022/CISPR22 Class A, FCC CFR47 Part 15 Class A, EN61000-3-2, EN61000-3-3
Immunity	EN55024/CISPR24
Telecommunications	EN300-386
Regulatory Markings	CE, FCC, ICES-003, C-tick, VCCI, GOST-R, MIC, UL/cUL, UL/DEMKO/GS, UL/S-mark, BSMI, CCC

Dimensions and weight

H:	89 mm (3.5 inches)
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

Upgrades

Sun Fire T2000 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 Fire T2000 server. For more details on the Upgrade Advantage Program, visit sun.com/ibb/coolthreads

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



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

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