

## Sun SPARC Enterprise® T5440 Server

Change your midrange computing economics



### Highlights

- Delivers high throughput of Chip Multithreading (CMT) with the scalability and reliability of a midrange system
- Delivers massive throughput of up to 256 simultaneous compute threads and 512 GB of memory
- Drive up utilization, drive down costs, and massively consolidate workloads with built-in, no-cost virtualization technology with Logical Domains (LDoms) and Solaris™ Containers
- World's first quad-socket, general-purpose server powered by the UltraSPARC® T2 Plus "system on a chip" processor
- Delivers outstanding performance and availability for mission-critical, back-office applications – such as large-scale Oracle databases, SAP ERP, and Siebel CRM
- Accelerate application response times and slash energy consumption with Flash SSDs
- Solaris 8 and 9 OS applications will run unchanged on the Solaris 10 OS



Ideal for datacenter consolidation—as well as databases, back-office applications, and other demanding tasks—the Sun SPARC Enterprise T5440 server offers built-in, no-cost virtualization and up to 4x the performance of competitive midrange servers for as little as 1/5 the cost.

The Sun SPARC Enterprise T5440 server is the first quad-socket, general-purpose server powered by the first true “system on a chip” the UltraSPARC T2 Plus processor—running the free and open-source Solaris OS. Each processor packs eight cores and 64 simultaneous threads onto a single piece of silicon, together with the key functions of an entire system.

Built-in, flexible, and no-cost Logical Domains (LDoms) virtualization technology provides up to 128 isolated domains per server.

The Sun SPARC Enterprise T5440 server offers massive I/O and memory expandability, enabling you to easily and cost-effectively add more capacity. With the Sun External I/O Expansion Unit, the number of I/O slots available can be expanded to 28 PCIe slots. The

innovative design and reliability features of the Sun SPARC Enterprise T5440 server significantly increase uptime and reduce unplanned service actions. System integration reduces component count by up to 36% compared to x86 platforms and up to 900% compared to legacy midrange server platforms.

You can maximize your investment in the Sun SPARC Enterprise T5440 server by leveraging the SunSM Virtualization Suite of Services to help architect and deploy consolidation and virtualization projects, and the Sun Eco Services Suite to optimize datacenter power, space, and cooling. In addition, Sun offers a range of services to help you upgrade to the Solaris 10 OS, as well as award-winning support services.

# Sun SPARC Enterprise T5440 Server Specifications

## Processor

One to four UltraSPARC T2 Plus processors at 1.2 GHz, 1.4 GHz or 1.6 GHz, eight cores per processor

## Other Processor key features

Eight floating-point units per processor, one per core

On-board cryptography supporting 10 embedded security industry-standard ciphers: DES, 3DES, AES, RC4, SHA1, SHA256, MD5, RSA to 2048 key, ECC, CRC32

## Main memory

System maximum of 512 GB; support for 2 GB, 4 GB, and 8 GB FB-DIMMs

## System architecture

SPARC® V9 architecture, ECC protected

## Cache per processor

4 MB integrated L2

## Standard/integration interfaces

Network: Four 10/100/1000 Mb/sec Ethernet; two optional 10 Gb/sec Ethernet connections

Expansion bus: Eight eight-lane PCIe slots, two shared with 10 Gb/sec Ethernet slots  
USB: Four USB 2.0 ports

Serial: RJ-45 System controller running Integrated Lights Out Manager (ILOM) software with one 10/100 Mb/sec Ethernet port and one DB-9 serial port  
Standard integrated interfaces

## Mass storage and media

### Internal disk

Up to four 73 GB, 146 GB, or 300 GB 2.5 in. SAS drives or up to four 32 GB 2.5 in. SATA solid-state drives (SSD)

### Internal DVD

One slimline CD-RW/DVD-RW

### External Storage

Sun offers a complete line of best-in-class, innovative storage, hardware, and software solutions, along with renowned world-class service and support. For more information, please refer to [sun.com/storageetek](http://sun.com/storageetek)

## Software

### Operating system

Solaris 10 OS 8/07 plus patches or later

### Software Included

- Solaris 10 5/09 Preloaded
- Sun LDOMs Manager and MIB 1.2 Pre-install
- ILOM 3.0
- CMT Tools 1.0 Pre-install
- GCC 4 for SPARC Systems 4.0.4 Pre-install
- Sun Studio™ 12 Pre-install
- SYS, FW, Download UTIL Pre-install
- MAI, 10 GBE ETCYSYS CFG
- Live Upgrade, ABE Pre-install

## Virtualization

Built-in, no-cost LDOMs and Solaris Containers provide the flexibility and power of 128 virtual systems in a single server

## Power Supplies

Four hot-swappable AC 1,120 W redundant (2 + 2) power supplies

Maximum operating input current: 26.3 A @ 100–120 V AC; 12.6 A @ 200 V AC

Maximum operating input power at 100 V AC: 2,629

## Environment

- Operating temperature
  - 5°C to 35°C (41°F to 95°F)
  - Decrease in maximum temperature: 1°C/300m (1.6°F/1,000 ft.)
- Nonoperating temperature
  - 40°C to 65°C (-40°F to 149°F), maximum altitude 40,000 ft.
- Operating relative humidity
  - 10 to 90%, noncondensing, 27°C wet bulb
- Nonoperating relative humidity
  - 93%, noncondensing, 35°C (95°F)
- Operating altitude
  - 0 to 3,000m (0 to 10,000 ft.)
- Nonoperating altitude
  - 0 to 12,000m (0 to 40,000 ft.)

## Learn More

For more information on the Sun SPARC Enterprise T5440 server, go to [sun.com/t5440](http://sun.com/t5440)

To try the Sun SPARC Enterprise T5440 server risk-free for 60 days, go to [sun.com/tryandbuy](http://sun.com/tryandbuy)

- Acoustic noise
  - 7.4 B idle, 8.9 B operating maximum (LwAd: 1 B = 10 dB)
  - 6.3 B idle, 8.0 B operating maximum (LpAm: bystander positions)
- Power and cooling
  - Maximum heat dissipation: 8,970.5 BTU/hr or 9,464.4 kJ/hr

## Dimensions and weight

Height: 176 mm (6.92 in.); 4 RU

Width: 445 mm (17.5 in.)

Depth: 633 mm (24.9 in.)

Weight: Approx. 40 kg (88 lbs.) max., without PCI adapters, rackmount kit, etc.

## Regulations (meets or exceeds the following requirements)

Safety: UL/CSA 60950-1, EN 60950-1, IEC 60950-1 CB Scheme with all country deviations, IEC 825-1, 2 CFR 21 part 1040, CNS 14336

EMI/EMC: EN 55022 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, EN 61000-3-2, EN 61000-3-3

Immunity: EN 55024, 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

Regulatory markings: CE, FCC, ICES-003, C-Tick, VCCI, GOST-R, BSMI, MIC, UL/cUL, UL/S-Mark

## Key RAS features

- Hot-pluggable disk drives
- Redundant, hot-swappable power supplies and fans
- Environmental monitoring
- Error correction and parity checking memory
- Easy component replacement
- Integrated disk controller with RAID 0 and 1