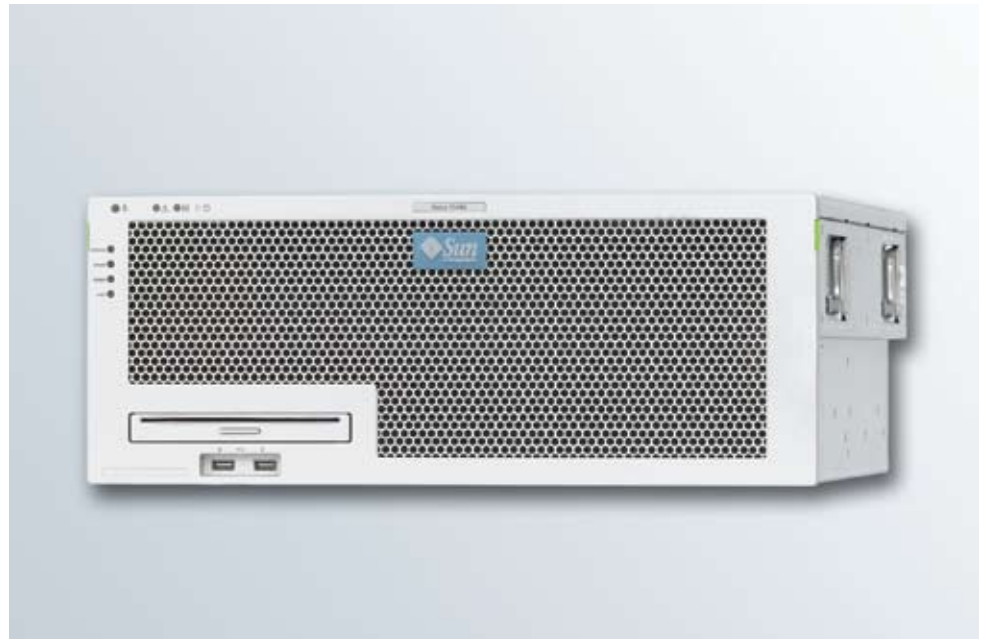


# Sun Netra™ T5440 Server

Record-setting throughput, groundbreaking energy and space efficiency



## Highlights

- First dual-socket 4 RU carrier-grade server powered by the UltraSPARC® T2 Plus processor — a true “system on a chip” — with on-board 10 GbE for high-speed networking, delivering massive throughput of up to 128 compute threads
- Blazing performance with UltraSPARC T2 Plus processors — the highest-performing packet-processing Sun Netra offering for Data Plane application services, when running NDPS software
- Multidimensional efficiency with record throughput, groundbreaking energy and space efficiency, and the industry’s best performance per watt
- Extreme network element consolidation
- Telcordia Network Equipment Building Standard (NEBS) Level 3 certification and ETSI compliance for reliable operation in severe environmental conditions
- Open platform, built on open-source technology and open standards
- Supports the Solaris™ 10 OS



Introducing the most innovative carrier-grade server, designed with up to 128 threads, a two-socket UltraSPARC T2 Plus processor in a four rack-unit (4 RU), 20 in.-deep enclosure, built to enhance your competitive position while reducing operational costs.

Maximize your ROI and create plenty of headroom for future growth with the Sun Netra™ T5440 server. Engineered to help organizations serve millions of new users efficiently, cost-effectively, and securely, the 4 RU Sun Netra T5440 server enables you to securely run high-speed network applications and virtualize your datacenter for greater eco-efficiency and superior utilization.

The reemergence of the telecom industry provides a number of opportunities for growth on a foundation of open-standards-based technology. The Sun Netra T5440 server is the ideal means for your company to take advantage of this shift in the marketplace, using an architecture designed for scalability and high-density storage and I/O, along with industry-leading compute power. The multisocket Sun Netra T5440 server is designed to support a multicore, multithreaded server on a chip (SoC) design that vastly

increases reliability and performance as it minimizes cost, power demand, and components required — reducing operating costs.

Providing a significant improvement in performance, density, and throughput, the carrier-grade Sun Netra T5440 server is based on the UltraSPARC T2 Plus processor — the next generation in chip multithreading (CMT) technology. Packing tremendous performance into a 4 RU design, the system leverages processor innovation such as eight SPARC® cores that concurrently run eight threads per core, a memory access crossbar, integrated PCI Express (PCIe) features and PCI-X, a separate floating-point unit for each core, L2 cache, and two to four independent, dual-channel memory controllers. Scaling with threads rather than frequency, the server minimizes space and power consumption while offering massive internal storage expansion and memory capacity.

# Sun Netra T5440 Server Specifications

## Processor

Up to eight-core, 1.2 GHz UltraSPARC T2 Plus processors; two processors per system, maximum 128 threads

## Main memory

32 FB-DIMM slots. Up to 128 GB memory (up to 256 GB memory when 8 GB DIMMs are available)

## System architecture

SPARC® V9 architecture, ECC protected, 4 MB integrated L2 cache per CPU

- Memory access crossbar, two FB-DIMM DDR2 memory controllers, one FPU
- One floating-point unit per core, up to eight floating-point units per processor
- On-board cryptography supporting 10 embedded security-standard ciphers: DES, 3DES, AES, RCA, SHA1, SHA256, MD5, RSA to 2048 key, ECC, CRC32
- One 10 GbE port, coherency link to interconnect multiple UltraSPARC T2 Plus processors

## Standard/integration interfaces

Network: Four 10/100/1000 Mb/sec Ethernet; up to 2x optional 10 GbE XAUI connections

Network management: One 10/100 Mb/sec Ethernet port

Serial management: One TIA/EIA-232-F asynchronous RJ-45 port

USB: Four 2.0 USB ports (two front, two rear)

Expansion bus: Six PCIe slots for MD2 low-profile cards — six x8 electrical/x8 mechanical, two of these slots are shared with 10 GbE XAUI cards

Two PCIe slots for full-height, full-length cards — x8 electrical/x16 mechanical

Two PCI-X slots for full-height, full-length cards — 64-bit, 133 MHz

Serial: One serial port — DB-9

Alarms: Four fail-safe, dry contact alarms: critical, major, minor, and user — DB-15

## Mass storage and media

Up to 12 146 GB SAS disk drives, depending on configuration; one slimline DVD-R/W drive

External storage; for more information, go to: [sun.com/storageetek](http://sun.com/storageetek)

## Software

Operating systems: Supports the Solaris OS — beginning with the Solaris 10 OS 8/07

## Virtualization

Integrated, open-source, no-cost virtualization technology provides the flexibility and power of 128 virtual systems in a single server

## Remote management

Management: Integrated Lights Out Manager (iLOM)

## Power supplies

Four 2+2 redundant DC or AC hot-swappable power supplies

Maximum power supply rating: 650 W

## Environment

DC power: -48 V DC or -60 V DC

AC power: 100–240 V AC, 50–60 Hz

Operating temperature: 5° C to 40° C (41° F to 104° F), short-term -5° C to 55° C (23° F to 131° F)

Operating relative humidity: 5–85%, noncondensing

Short-term relative humidity: 5–90%, noncondensing, but not to exceed 0.024 kg water/kg dry air (0.053 lbs. water/2.205 lbs. dry air)

Operating altitude: Up to 3,000m (9,850 ft.) at 40° C

Nonoperating temperature: -40° C to 70° C (-40° F to 158° F)

Nonoperating relative humidity: Up to 93%, noncondensing, 40° C (104° F)

Nonoperating altitude: Up to 12,000m (40,000 ft.)

Acoustic noise: Operating/idling 7.2 B (LwAd: 1 B = 10 dB)

## Learn More

To learn more about the Sun Netra T5440 server, go to: [sun.com/netra/t5440](http://sun.com/netra/t5440).

ETSI: EN 300019-2-1,2,3, Class 1.2, 2.3, 3.1E (except condensing humidity and rain)

NEBS: NEBS Level 3 certified by Telcordia

Seismic: GR-63-CORE requirements for Earthquake Zone 4

## Dimensions and weight

Height: 174.2mm (6.86 in.)

Width: 445mm (17.5 in.) including bezel

Depth: 530mm (20.87 in.) max., to PSU handles

Depth: 505mm (19.88 in.) max., to rear I/O

Weight: 33 kg (72.6 lbs.) fully configured without PCI cards

## Regulations (meets or exceeds the following requirements)

Safety: UL/CSA 60950-1, EN 60950-1, IEC 60950-1 CB Scheme with all national differences, IEC 825-1, 2, and CFR 21 part 1040

RFI/EMC: EN 55022/CISPR 22 Class A, FCC CFR 47 Part 15 Class A

Immunity: EN 55024/CISPR 24, EN 61000-3-2, EN 61000-3-3

Telecommunications: EN 300 386

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

Other: Restriction of Hazardous Substances (RoHS) labeled, per WEEE (Waste Electrical and Electronics Equipment) Directive (2002/95/EC)

## Warranty

Hardware support: One year

Call response: Eight hours, business hours

Delivery: Return to Sun

Customer-installable hardware product: Yes