

# SUN NETRA T5440 SERVER

## KEY FEATURES

RECORD-SETTING THROUGHPUT COMBINED WITH GROUNDBREAKING ENERGY AND SPACE EFFICIENCY

- First dual-socket 4RU carrier-grade server powered by the UltraSPARC T2 Plus processor—a true “system on a chip”—with onboard 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
- Oracle Solaris

*Built to enhance your competitive position while reducing operational costs, Oracle’s Sun Netra T5440 server is the most innovative carrier-grade server, designed with up to 128 threads, a two-socket UltraSPARC T2 Plus processor from Oracle in a four rack-unit (4RU), 20 in.-deep enclosure.*



**The Sun Netra T5440 server is built on open source technology and open standards.**

## Sun Netra T5440 Server Overview

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 4RU Sun Netra T5440 server enables you to securely run high-speed network applications and virtualize your data center for greater ecoefficiency and superior utilization.

The re-emergence 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 4RU 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; an 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

<b>Processor</b>
<ul style="list-style-type: none"> <li>Up to eight-core, 1.2 Ghz and 1.4GHz UltraSPARC T2 Plus processors; two processors per system, maximum 128 threads</li> </ul>
<b>Main Memory</b>
<ul style="list-style-type: none"> <li>32 FB-DIMM slots; up to 256GB memory (with 8GB DIMM)</li> </ul>
<b>System Architecture</b>
<p>SPARC V9 architecture, ECC protected, 4 MB integrated L2 cache per CPU</p> <ul style="list-style-type: none"> <li>Memory access crossbar, two FB-DIMM DDR2 memory controllers, one FPU</li> <li>One floating-point unit per core, up to eight floating-point units per processor</li> <li>Onboard cryptography supporting 10 embedded security-standard ciphers: DES, 3DES, AES, RCA, SHA1, SHA256, MD5, RSA to 2048 key, ECC, CRC32</li> <li>One 10 GbE port, coherency link to interconnect multiple UltraSPARC T2 Plus processors</li> </ul>
<b>Standard Integrated Interfaces</b>
<ul style="list-style-type: none"> <li>Network: Four 10/100/1000 Mb/sec Ethernet; up to 2x optional 10 GbE XAUI connections</li> <li>Network management: One 10/100 Mb/sec Ethernet port</li> <li>Serial management: One TIA/EIA-232-F asynchronous RJ-45 port</li> <li>USB: Four 2.0 USB ports (two front, two rear)</li> <li>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</li> <li>Two PCIe slots for full-height, full-length cards—x8 electrical/x16 mechanical</li> <li>Two PCI-X slots for full-height, full-length cards—64-bit, 133 MHz</li> <li>Serial: One serial port—DB-9</li> <li>Alarms: Four fail-safe, dry contact alarms: critical, major, minor, and user—DB-15</li> </ul>
<b>Mass Storage and Media</b>
<ul style="list-style-type: none"> <li>Up to 12 300 GB SAS disk drives, depending on configuration; one slimline DVD-R/W drive</li> </ul>
<b>Operating Systems</b>
<ul style="list-style-type: none"> <li>Oracle Solaris</li> </ul>
<b>Virtualization</b>
<ul style="list-style-type: none"> <li>Integrated, open source, no-cost virtualization technology provides the flexibility and power of 128 virtual systems in a single server</li> </ul>
<b>Remote Management</b>
<ul style="list-style-type: none"> <li>Management: Integrated Lights Out Manager (ILOM)</li> </ul>
<b>Power Supplies</b>
<ul style="list-style-type: none"> <li>Four 2+2 redundant DC or AC hot-swappable power supplies</li> <li>Maximum power supply rating: 650 W</li> </ul>

<b>Environment</b>
<ul style="list-style-type: none"> <li>DC power: -48 V DC or -60 V DC</li> <li>AC power: 100–240 V AC, 50 Hz–60 Hz</li> <li>Operating temperature: 5°C to 40°C (41°F to 104°F), short-term -5°C to 55°C (23°F to 131°F)</li> <li>Operating relative humidity: 5%–85%, noncondensing</li> </ul>

- Short-term relative humidity: 5%–90%, noncondensing, but not to exceed 0.024 kg water/kg dry air (0.053 lb. water/2.205 lb. dry air)
- Operating altitude: Up to 3,000 m (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 12,000 m (40,000 ft.)
- Acoustic noise: Operating/idling 7.2 B (LwAd: 1 B = 10 dB)
- 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: 174.2 mm (6.86 in.)
- Width: 445 mm (17.5 in.) including bezel
- Depth: 530 mm (20.87 in.) max., to PSU handles
- Depth: 505mm (19.88 in.) max., to rear I/O
- Weight: 33 kg (72.6 lb.) fully configured without PCI cards

### Regulations

- 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

Visit [oracle.com/sun/warranty](http://oracle.com/sun/warranty) for Oracle's global warranty support information on Sun products.

### Services

Visit [oracle.com/sun/services](http://oracle.com/sun/services) for information on Oracle's service program offerings for Sun products.

### Contact Us

For more information about Oracle's Sun Netra T5440 server, please visit [oracle.com/goto/netra](http://oracle.com/goto/netra) or call +1.800.786.0404 to speak to an Oracle representative.



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