

Netra™ CT 820 Blade Server



A highly available CompactPCI server built for packet switching applications in Telecommunications networks, Defense and Manufacturing

Key feature highlights

Industry standards compliant: A LAN backplane (PICMG 2.16) enables nearly cable-free networking of server blades, unlimited scalability, and use of standard blades

Exceptional Manageability and Fault-tolerance: Reduced software development of OAM through comprehensive management tools and increased service availability through application controlled failovers

Telco-hardened software from Sun including Solaris, Manageability and HA:

Provides proven stability in the call path, guaranteed patches and investment-protection on new hardware and new SAF HA standards

OEM Business Practices: Assurance of long-term supply and long-term product stability through pro-active management of the supply chain, Worldwide integration services and Worldwide Spares depots

Rugged: NEBS Level 3-certified for reliable operation under the most severe environments heightened temperatures, humidity, pollutants, shock and electrical hazards

Highly Serviceable: Front-accessible FRUs (field replacement units), Hotswap Processor blades, fans, switches, system management cards and power supplies

High Density: The Netra CT 820 server provides an exceptional balance of I/O and computing density with up to 18 processor blades and 36 PMC cards in a 12U chassis. It also fits into a standard 19-inch rack with adapters for 23-inch, 24-inch and 600 mm racks

Maximize utilization. Minimize complexity.

The Sun Netra™ CT 820 server is designed to meet the highest availability, manageability and serviceability requirements of Network Equipment Providers deploying wireless, wireline and internet services in a communications network. In these environments, the Netra CT 820 server reduces Total Cost of Ownership by simplifying manageability, conforming to industry standards, and supporting OEM business practices.

Most Manageable cPCI system

To ensure continuous uptime, Telco Operators use sophisticated software for the Operations, Administration and Maintenance (OAM) of their Networks. The Netra CT 820 server greatly reduces the cost and time to develop this software and simplifies its own administration and maintenance by providing the most comprehensive management and high availability middleware in the industry. This is no small achievement, given that the CT 820 server can process thousands of telephone calls by networking together up to eighteen computing blades internally as well as linking to other CT 820 servers and network equipment.



Netra™CT 820 Blade Server

The Netra CT 820 server capabilities include:

- Redundant alarming
- Redundant management bus
- A standards compatible hierarchical object model for representing all associated FRUs, blades, peripherals and software
- Remote Fault detection and Recovery through standard interfaces including SNMP and RMI
- Inventory, Configuration and repair history for components in the chassis
- Configurable alarms and automated recovery based on various processor events
- Subsecond failure detection and cluster management

This combination of capabilities helps dramatically reduce the software development effort for Operations, Administration and Maintenance (OAM) of the Network elements being managed.

Industry Standards

The CT 820 blade server takes full advantage of standards that increase availability, serviceability and scalability while reducing costs. These standards include the family of PICMG specifications for CompactPCI (cPCI) and cPCI packet-switching backplane (CPSB). To further enhance availability, the CT 820 server goes beyond these standards by providing redundant management controllers and power supplies.

OEM Business Practices

The CT 820 blade server is backed by Sun's OEM practices that avoid the need for a customer to build-up a large organization to manage supply chain, ensure product stability, ensure fast worldwide repair and perform local integration. These OEM business practices greatly simplify OEM solution planning and include:

- Extended product lifecycle
- Early Product change notification (PCN)
- Extended product roadmap and EOL view
- OEM product engineering support including detailed documentation
- Extended availability program
- World-wide integration services
- World-wide Sparing and Support

The Netra CT 820 server combines the advantages of standards with the the reliable Sun Solaris™ Operating System, comprehensive management and HA software and OEM business practices to reduce costs and complexity and increase availability. It meets the I/O density, HA manageability, and serviceability needs of network and service provider environments, while enabling customers and partners to use a single, scalable, standards-based systems architecture for both voice and data. This makes the Netra CT 820 server an ideal and flexible solution for communications and service provider infrastructures.

Architecture

| | |
|-----------------|------------------------------------|
| Processor | One 64-bit UltraSPARC® Ili 650-MHz |
| Cache Primary | 16 KB data and 16 KB instruction |
| Cache Secondary | 512 KB on-board |

Main Memory

512MB soldered on board
2 SODIMM expansion modules up to 1GB per module

Mass Storage and Media

Internal Disk One PMC HDD at 40GB. Additional Storage would require a PMC I/O card connected to an external storage solution.

Standard Interfaces

| | |
|---------|-----------------------------|
| Network | Dual 10, 100, Mbps Ethernet |
| Serial | Two RS-232, USB 1.1 |

Expansion

PICMG 2.16 cPSB 18 Standard CompactPCI cSPB 6U hot-swap slots
All cPCI slots conform to PICMG specification: 2.0 Rev 3 (power and mechanical), 2.1 Rev 2, 2.9 Rev 1, and 2.14 Rev 1, 2.16 Rev 1. PICMG 2.15 compatible PMC slots

Software

| | |
|------------------|--|
| Operating System | Solaris 8 (2/02) and 9 Sun HA Suite 2.0 and Foundation Services 2.1 |
| Languages | All standard Sun-supported languages |
| Management | Lights Out Management, element management, processor management services |

Environment

| | |
|---------------------------|---|
| Dual Power Supplies | -48/60 V DC nominal, 250 W per power supply, 110/240 V |
| Power Input | Four AC or DC input filters, rear |
| Operating Temperature | 5° C to 40° C (41° F to 104° F), 5% to 85% relative humidity non-condensing, subject to a maximum humidity of 0.024 kg water/kg dry air |
| Short-term Operating | -5° C to 55° C, 5% to 90% relative humidity |
| Short-term Temperature | non-condensing |
| Non-operating Temperature | -40° C to 70° C, 5% to 90% relative humidity |
| Elevation Operating | -300 m to 1800 m |
| ETSI | 300-19-2-3, table 3.1 climatic |
| Acoustic Noise | Less than 60 dBA (GR-63 CORE) |
| Seismic | Meets GR-63-CORE requirements for earthquake risk zone 4, Meets ETSI 300 19-2-3, A1 operating requirements |

Regulations

| | |
|---------------------------------|---|
| Meets or exceeds the following: | |
| Safety | UL1950/CSA c22.2 No.950, EN60950 (72/73/EEC) IEC950 |
| Emissions | CFR Title 47 FCC Part 15, EN55022 (89/336/EDC) |
| Immunity | EN55024: 1998Short-term Temperature non-condensing |
| Telecommunications | Telcordia: GR-63-CORE, GR-1089-CORE |
| Safety | CULus Mark, TUV, CE Mark |
| EMC | CE Mark (93/68/EEC) FCC Class A |

Certification

Telcordia SR-3580 NEBS Level 3-certified

Dimensions

| | |
|------------|---|
| Height | 533 mm (21 in.) |
| Depth | 431 mm (17 in.) |
| Width | 436 mm (17.2 in.) |
| Weight | 97 lb. (44.1 kg) base configuration |
| Rack Mount | Fits into 19-, 23-, 24-in., 600 mm (requires mounting kit, 19-in. flanges supplied with product, others available as options) |

Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 USA Phone 650 960-1300 or 800 555-9SUN Web www.sun.com



Sun Worldwide Sales Offices: Africa (North, West and Central) +33-13-067-4680, Argentina +54-11-4317-5600, Australia +61-2-9844-5000, Austria +43-1-60563-0, Belgium +32-2-704-9000, Brazil +55-11-5187-2100, Canada +905-477-6745, Chile +56-2-3724500, Colombia +571-629-2323, Commonwealth of Independent States +7-502-935-8411, Czech Republic +420-2-3300-9311, Denmark +45 4556 5000, Egypt +202-570-9442, Estonia +372-6-308-900, Finland +358-9-525-561, France +33-134-03-00-00, Germany +49-89-46008-0, Greece +30-1-618-8111, Hungary +36-1-489-8900, Iceland +354-563-3010, India-Bangalore +91-80-2298989/2295454; New Delhi +91-11-6106000; Mumbai +91-22-697-8111, Ireland +353-1-8055-6666, Israel +972-9-9710500, Italy +39-02-641511, Japan +81-3-5717-5000, Kazakhstan +7-3272-465774, Korea +82-2-193-5114, Latvia +371-750-3700, Lithuania +370-729-8468, Luxembourg +352-49 11 33 1, Malaysia +603-21161888, Mexico +52-5-258-6100, The Netherlands +00-31-33-45-15-000, New Zealand-Auckland +64-9-976-6800; Wellington +64-4-462-0780, Norway +47 23 36 96 00, People's Republic of China-Beijing +86-10-6803-5588; Chengdu +86-28-619-9333; Guangzhou +86-20-8755-5900; Shanghai +86-21-6466-1228; Hong Kong +852-2202-6688, Poland +48-22-8747800, Portugal +351-21-4134000, Russia +7-502-935-8411, Singapore +65-6438-1888, Slovak Republic +421-2-4342-9485, South Africa +27 11 256-6300, Spain +34-91-596-9900, Sweden +46-8-631-10-00, Switzerland-German 41-1-908-90-00; French 41-22-999-0444, Taiwan +886-2-8732-9933, Thailand +662-344-6888, Turkey +90-212-335-22-00, United Arab Emirates +9714-3366333, United Kingdom +44-1-276-20444, United States +1-800-555-9SUN or +1-650-960-1300, Venezuela +58-2-905-3800

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