

# Netra™ t 1400 and 1405



**Sun's Next High-Performance,  
Carrier-Grade Server**

# Design Goals

**High Performance  
4 Processor SMP  
Network Server**

**Rack-mountable  
Cabinet  
Relay Racks**

**Carrier-Grade Packaging  
NEBS Level 3–Certified**

**Enhanced RAS**



# Overview: 4 Processor Netra t Network Server

## Product Highlights

- 4 processor highly available Netra server with improved processor density
- Packaging and RAS provide a high-performance platform for mission-critical applications

## For Application in

- ISP enabling infrastructure
- Platform component in network system integration
- Telco IN and wireless infrastructure

# Architecture

## Hardware Architecture

- Ultra Port Architecture
- UltraSPARC II
- Dual PCI Bus (66 and 33MHz)
- Operating environment
- Solaris™ 2.6 and 7



# Processing

**1 to 4 UltraSPARC-II**

**Second Generation  
of 64-bit CPU**

**440MHz/4MB E-Cache**

# Memory

- 256MB — 4GB
- 64, 256 DIMMs size
- Must be installed in groups of 4 DIMMs
- Memory type: ECC
- DRAM speed: 60ns
- Bus width: 2\*288 bit



# Storage

## Internal Disks

- One to four 1" bays
- 18GB/10K rpm drives
- Front accessible and easily maintained
- 40MBs maximum throughput
- Range of options, including NEBS

## Removable Media

- CD-ROM and/or DAT op



# Storage

## External Data Storage

- **Can be connected via a differential ULtraSCSI port**
- **Support for RAID and JBOD**
- **Support for Netra st A1000, D130 amd D1000**
- **All UltraSCSI devices**



# Input/Output

Four full-size slots conforming to PCI specification 2.1

- One slot @ 64 bit, 33/66MHz, 5V/3.3V supply, 3.3V signaling
- Two slots @ 32/64 bit, 33MHz, 5V/3.3V supply, 5V signaling
- One slot @ 32 bit, 33MHz, 5V/3.3V supply, 5V signaling



# Input/Output

## Other I/O

- UltraSCSI
- Two RS-232C/RS-423 serial ports
- One Centronics-compatible parallel port
- Connector for alarm
- Serial port for remote management
- 10/100 Ethernet, STP



# System Enclosure

- **Carrier-grade/rack-mountable**
- **6U and 19" deep**
- **19", 23", 24", 600 mm mount options**
- **Corner and central mount points**
- **Front-to-back airflow**
- **NEBS Level 3-compliant**
- **Location points for industry-standard rails**
- **Plastic parts for OEM branding replacement in the field**

# Benefits and Value

## Propositions NEBS Features

- Environmental compatibility
- Electrostatic discharge
- Electromagnetic immunity
- Electrical safety
- Bonding and grounding
- Thermal

- Fire resistance
- Earthquake and office vibration
- Transportation and handling
- Acoustic noise
- Illumination
- Airborne contaminants

# Power Supply

- **Redundant hot-swap (2+1)**
- **Can be removed from the rear without having to unplug any cables**
- **DC/AC option: no need for DC to AC converter**
- **DC — dual feed -48/-60V DC**
- **AC — dual 110/240V AC**
- **Total 660W needed**
- **Remote management**

# System Management

## Telco Alarms

- Three programmable alarms
- Lights-out management (LOM)
  - Mechanism that allows control of remotely deployed servers
  - Monitors components status even when Solaris™ software is not running
  - Remote power on/off and power cycle via serial port
  - System reset on OS/application failure
  - Fans, power supply, temperature monitoring
  - Event reporting through the Solaris operating environment



# Serviceability

- Serviceable from the front panel
- CD-ROM and tape are mounted in a cradle, which allows easy installation and removal
- The system can be rack-mounted with no vertical gaps since cables are all connected at the rear
- Processors, memory, I/O and fans are directly accessible through the top cover
- Variable-speed fans help ensure the air flows through the system from front to rear where it is expelled



# PCI Options — NEBS Certified

- Dual differential UltraSCSI controller
- SunFastEthernet adapter
- QuadFastEthernet adapter
- ATM-155 adapter
- SunHSI high-speed serial interface
- SunSAI serial asynchronous interface
- Sun PCI adapter
- Sun FDDI
- Sun token ring

