

# NCR S2600 Entry Level Server

“Powered by Dell™ and customized for NCR”

The NCR S2600 is NCR’s newest Workgroup Server and replaces the NCR S29. The NCR S2600 introduces a new level of functionality and performance into the Entry Level Server space by offering Xeon™ processors, a SAF-TE compliant SCSI backplane, onboard RAID, PCI-X, and DDR memory. The NCR S2600 is a server product that delivers a combination of performance, availability and expandability.

Featuring up to two 2.8GHz Intel® Xeon processors with 512K cache, the NCR S2600 is designed to deliver *unprecedented* levels of performance in its product class. The Intel Xeon processor incorporates revolutionary advancements in dual processor server technology, such as hyper-threading, to allow multiple tasks to run simultaneously on the same processor.

Also contributing to the performance of the NCR S2600 is the:

- Intel E7500 server chipset, which provides a 400MHz system bus boosting performance of multithreaded applications or multitasking environments
- PC2100 ECC DDR SDRAM memory
- Next generation I/O PCI-X slots that provides high bandwidth, low latency and dedicated hardware interfaces between internal chips and peripherals cards
- Embedded Gigabit Ethernet NIC, and
- 15K RPM Hot-Plug SCSI disk drives.

The net result is exceptional performance boosts over previous servers, in every major component and bus interconnect in the server! Upon availability from Intel of processors capable of greater bus speed, the system bus will increase to 533MHz.

Many high availability features help minimize server downtime. The NCR S2600 server includes an Active ID Bezel indicator that signifies the overall health of the system. The NCR S2600 also features hot-plug/redundant hard drives, power supplies and cooling fans for increased availability. Another feature is the SCSI backplane, which is SAF-TE (SCSI Accessed Fault-Tolerance Enclosure) compliant. SAF-TE aspects include alert and status signaling on the presence and state of drives, allowance for

hot-pluggable insertion and removal of drives, and provision of LED identification for drive activity and fault conditions.

The NCR S2600 server is designed to provide the user with the flexibility necessary to keep up with changing demands. It is scalable to 6GB of PC2100 DDR SDRAM. With seven I/O slots and up to six hot-pluggable hard drives, the user has room for additional functionality and future expansion. What’s more, the NCR S2600 has the potential for up to 438GB of internal hard disk storage.

## The NCR S2600 standard features are:

- Intel E7500 chipset
- Single or Dual Intel Xeon processor with 512KB L2 cache and a 400MHz Front Side Bus
- Hyper-Threading Technology
- Six (6) DDR DIMM sockets for support of up to 6GB of main memory with 2-way interleaving
- Two external 5.25” bays
- Standard external hard drive bays to support up to six 1” Ultra 320 SCSI hard drives (max of up to 438GB)
- Slim line Floppy and CD-ROM combination
- I/O Architecture supports 7 PCI and PCI-X slots
- Embedded Intel Gigabit Ethernet controller
- Embedded LSI Logic 53C1030 Dual Integrated PCI Ultra320 LVD SCSI controller
- Integrated ATI-Rage XL PCI video controller with 8MB of SDRAM
- RAID support with PERC4/Di(embedded Dual Channel), PERC3/QC(Quad Channel), or PERC3/DC(Dual Channel)
- Support for ERA/O SAF-TE processor card (does not consume a slot)
- Redundant/Hot Plug fans and power supply
- Embedded Server Management III
- External interface ports
- Floor-standing Tower 5U chassis form factor with a 5U chassis option

For more detailed product information on the NCR S2600 please contact your NCR Salesperson.

## NEW TECHNOLOGY

FEATURE	FUNCTION
<b>Hyper-Threading</b>	Hyper-threading technology enables a single physical processor to execute two separate code streams (called threads) concurrently. Hyper-threading provides two logical processors that can execute different tasks simultaneously using shared hardware resources. It offers an average improvement in CPU resource utilization of 40% (per Intel) which yields higher processing throughput and allows the processor to use internal resources that would have otherwise been idle.
<b>PCI-X</b>	PCI eXtended is the next generation local I/O standard that provides high bandwidth, low latency, and dedicated hardware interfaces between internal chips and peripheral cards. With its 64-bit/133MHz architecture, PCI-X provides total I/O bandwidth up to 1GB/s at its peak. This is 8 times more bandwidth than the 32-bit/33MHz implementation that allows for only 133MB/s peak bandwidth and 2 times more bandwidth than the 64-bit/133MHz and 4 x 64bit/100MHz slots.
<b>DDR Memory</b>	DDR (Double Data Rate) is the next generation SDRAM standard using a double data rate clocking technique running at 200MHz data rate for a maximum bandwidth of 3.2GB/s.

System Scalability	Connectivity
<p><b>Chipset</b></p> <ul style="list-style-type: none"> <li>Intel E7500</li> </ul> <p><b>Available Processors</b></p> <ul style="list-style-type: none"> <li>Max of 2 Intel Xeon processors</li> <li>1.8GHz and higher processor speeds (2.0GHz, 2.2GHz, 2.4GHz, etc.)</li> <li>512KB ECC L2 cache running at full processor speed</li> <li>400MHz Front Side, processor to memory, Bus (FSB)</li> </ul> <p><b>Memory</b></p> <ul style="list-style-type: none"> <li>6 DDR SDRAM DIMM sockets support up to 6GB of main memory</li> <li>128MB/256MB/512MB/1GB Registered PC2100 DDR SDRAM in pairs for Interleaving</li> <li>Integrated ATI<sup>®</sup> video controller – RAGE XL 8MB PC100 SDRAM</li> </ul> <p><b>Expansion Slots</b></p> <ul style="list-style-type: none"> <li>Seven PCI slots <ul style="list-style-type: none"> <li>2 x 64-bit/133MHz PCI-X (supports 3.3v cards)</li> <li>4 x 64-bit/100MHz PCI-X (supports 3.3v cards)</li> <li>1 x 32-bit/33MHz (supports legacy 5V cards)</li> </ul> </li> </ul> <p><b>I/O Connections</b></p> <ul style="list-style-type: none"> <li>PS/2 Keyboard and mouse ports</li> <li>2 Serial ports / 1 parallel port / 2 USB ports</li> <li>1 video port</li> <li>2 x RJ-45 connectors <ul style="list-style-type: none"> <li>Gigabit Ethernet port</li> <li>Optional ERA/O Ethernet port</li> </ul> </li> </ul> <p><b>Internal Backup Devices and Storage</b></p> <ul style="list-style-type: none"> <li>Two 5.25" peripheral bays: <ul style="list-style-type: none"> <li>Optional tape backup unit support</li> </ul> </li> <li>1 x dedicated slim line floppy and IDE CD-ROM combination</li> <li>Six internal hard drive bays <ul style="list-style-type: none"> <li>Std. internal hard drive bays to support up to six 1" Ultra320 SCSI hard drives with hot-plug drives</li> <li>Std 1 x 6 backplane</li> </ul> </li> <li>Hard Drives: 18, 36, and 73GB 10K hot-plug Ultra320 SCSI Disk Drives / 18GB and 36GB 15K hot-plug Ultra320</li> <li>Max of 438GB SCSI – 6 x 73GB = 438GB</li> <li>Tape Backup options (Internal): <ul style="list-style-type: none"> <li>20/40GB DDS-4 DAT SCSI Tape Drive</li> <li>40/80GB DLT VS80 SCSI Tape Drive</li> <li>35/70GB DLT7000 SCSI Tape Drive</li> <li>100/200GB LTO SCSI Tape Drive</li> <li>110/220GB SDLT SCSI Tape Drive</li> </ul> </li> </ul>	<p><b>Connectivity</b></p> <ul style="list-style-type: none"> <li>Embedded Intel single channel Intel 10/100/1000 Gigabit NIC; optional Intel 10/100/1000 Copper Pro 1000XT; optional Intel 10/100/1000 Fiber pro 1000F; optional 10/100 Security Ethernet Pro 100 with IPSEC; optional 10/100 Dual Port Pro 100 Dual Port</li> <li>Embedded LSI Logic 53C1030 dual integrated PCI Ultra320 LVD SCSI controller; optional 39160 SCSI controller</li> <li>Optional embedded PERC4/Di (dual channel Ultra320 RAID with 128MB of battery-backup cache) optional PERC3/DC (dual-channel PCI RAID controller); optional PERC3/QC (quad-channel PCI RAID controller)</li> </ul> <p><b>Specifications</b></p> <p><b>Physical dimensions</b></p> <p><b>Tower</b></p> <ul style="list-style-type: none"> <li>Height: 17.5 inches</li> <li>Width: 9.125 inches</li> <li>Depth: 24.75 inches</li> </ul> <p><b>Rack</b></p> <ul style="list-style-type: none"> <li>Height: 8.56 inches</li> <li>Width: 18.9 inches</li> <li>Depth: 24.85 inches</li> </ul> <p><b>Weight:</b> 85-90lbs. (average configuration)</p> <p><b>Temperature</b></p> <ul style="list-style-type: none"> <li>Operating: 10 degrees C (50 degrees F to 95 degrees F)</li> <li>Non-Operating: -40 degrees C to 65 degrees C (-40 degrees F to 149 degrees F)</li> </ul> <p><b>Cooling</b></p> <ul style="list-style-type: none"> <li>Five hot-plug/redundant fans</li> </ul> <p><b>Operating Environment</b></p> <ul style="list-style-type: none"> <li><b>Certified Server Operating Systems</b> <ul style="list-style-type: none"> <li>Microsoft Windows<sup>®</sup> 2000 Server and</li> <li>Microsoft Windows<sup>®</sup> 2000 Advance Server</li> <li>NCR UNIX SVR4 MP-RAS 3.02.00.60 Edition 13</li> <li>Red Hat Linux<sup>™</sup> 7.3 Professional &amp; 7.2</li> <li>Novell NetWare 5.1 and 6.0</li> <li>Windows<sup>®</sup> NT 4.0</li> </ul> </li> <li><b>Factory Installed Choices</b> <ul style="list-style-type: none"> <li>Microsoft Windows<sup>®</sup> 2000 Server and</li> <li>Microsoft Windows<sup>®</sup> 2000 Advance Server</li> <li>Red Hat Linux<sup>™</sup> 7.3 Professional (US only)</li> </ul> </li> </ul> <p><b>System Management</b></p> <ul style="list-style-type: none"> <li>Add-in ERA/O (Optional Embedded Remote Access) SAF-TE processor card</li> <li>OpenManage Server Management Software</li> <li>Embedded Server Management (ESM III)</li> </ul> <p><b>Global Support</b></p> <ul style="list-style-type: none"> <li>20,000 service personnel, 1,100 service locations, 120 countries</li> <li>24 hours x 365 days availability</li> <li>Upgradeable to 4 hour response</li> </ul>

NCR continually improves products as new technologies and components become available. NCR reserves the right to change specifications without prior notice. All features, functions and operations described herein may not be marketed by NCR in all parts of the world. Consult your NCR representative or NCR office for the latest information.

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