

UNISYS ENTERPRISE SERVER ES3020

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The ES3020 is a well-balanced workgroup server for both small- and medium-size businesses as well as for large corporate users. Small- and medium-size businesses can use the ES3020 server as a mainstream system with enough power, expansion, and scalability to meet their needs today and well into the future. Corporate workgroup clients will find the ES3020 a perfect solution for network infrastructure (PDC/BDC, DNS, DHCP), file/print, and/or communications servers, and for a variety of other applications.

The Unisys ES3020 server is designed to deliver competitive performance with support for up to two Intel® Xeon™ processors DP. This platform supports a 400MHz front side bus and up to 6GB of 200MHz Double Data Rate (DDR) memory. Such fast bus performance provides maximum available bandwidth between the processor(s) and memory.

The ES3020 server also provides an extended suite of high availability features that are mandatory for enterprise computing environments. From the chipset's error correcting code (ECC), which avoids errors that once brought systems down, to the fully redundant and hot-plug cooling fans, this system is built to keep your business going strong.

Product highlights

- ▶ High-performance, dual Intel® Xeon™ processors DP at 1.8, 2.0, 2.2 or 2.4GHz includes higher performance memory to 6GB and PCI-X I/O slots to handle the most sophisticated business applications
- ▶ All the reserve capacity needed to continue operations even with failed major components, which are all hot-replaceable
- ▶ Supports up to 6GB of SDRAM memory (PC2100 Registered Double Data Rate (DDR))
- ▶ New PCI-X technology that is supported by three separate peer-to-peer buses and seven I/O channels to provide 3.2GB per second of I/O bandwidth, significant capacity for a 2-way server platform
- ▶ Dual embedded Broadcom Gigabit network interface cards (NICs)

- ▶ Supports up to 8 x 1-inch SCSI drives with up to 584GB maximum internal storage with dual embedded channel Ultra3 (U160) SCSI controllers
- ▶ Standard hot-plug hard drives, redundant cooling, and optional redundant power
- ▶ Tool-less chassis access and internal hardware componentry for easy entry and reduced service efforts

Innovative Design

The Unisys ES3020 server offers many new and intelligent design innovations that take advantage of the latest technologies available today.

Hyper Threading

The Hyper-Threading Technology of Intel® Xeon™ processors DP will function with the future Microsoft® Windows.NET® Server 2003 operating systems to allow a single physical processor to be viewed as two logical processors. Rather than two completely separate processors on one die, each has duplicate architectural states that share a single execution resource (often idle in servers today), allowing for more efficient server utilization and support for more users, as well as the ability to process more transactions.

Memory

The ServerWorks GC LE chipset performs memory control and error correction (ECC and ChipKill technology) and supports five PCI buses (three of which are PCI-X-capable), enabling 2-way interleaved memory configurations to reduce latency between processors and memory. An online spare bank memory option enables the ES3020 server to fail over to a spare set of pre-installed dual in-line memory modules (DIMMs) should a single-bit error threshold be exceeded,

Input/output

Three open I/O slots enable expansion beyond the embedded I/O feature set using both PCI and PCI-X technology, which can co-exist with no degradation of performance.

Embedded RAID, SCSI, and NIC support

Read-ahead and write-back cache allows faster data access than read-through and write-through cache, preventing bottlenecks at the RAID processor. The dual-channel Adaptec controller (for up to five internal SCSI hard drives) routes both channels internally; combined with an optional split backplane, this enables disk subsystems to be separated. Dual embedded Gigabit NICs on a separated channel provide failover support and maximized NIC I/O throughput.

Availability

Hot-plug redundant power (1+1) and hot-plug SCSI drives allow replacement while the ES3020 server is running. Optional dual-channel RAID on the motherboard allows a low-cost way to protect data. Battery-backed cache preserves cache contents should power be lost. Ample cooling provides enough airflow to cool all components should a single (hot-plug redundant) fan fail. ECC memory with ChipKill technology allows the ES3020 server to tolerate multi-bit memory errors with a memory chip on a DIMM, including failure of an entire chip. And, the embedded systems management detects system events such as fan failures and voltage problems, and can generate alerts that allow systems administrators to detect and remedy problems before they bring the server down. A yellow caution light appears in the active bezel should a server problem arise.

Unisys ES3020 Specifications

Processors

- ▶ Up to two Intel® Xeon™ processors DP with 1.8GHz/512K cache processors
- ▶ Up to two Intel® Xeon™ processors DP with 2.0GHz/512K cache processors
- ▶ Up to two Intel® Xeon™ processors DP with 2.2GHz/512K cache processors
- ▶ Up to two Intel® Xeon™ processors DP with 2.4GHz/512K cache processors

Memory

- ▶ 128MB/6GB PC200 DDR RAM
- ▶ Six (6) DIMM sockets for expansion to 6GB of memory
- ▶ 2-way interleaved memory configurations

Bus architecture

- ▶ 400MHz front side bus interface between processors and memory
- ▶ Five (5) PCI buses

Expansion slots

- ▶ Seven (7) total: 6 x full length PCI-X slots
- ▶ 2x64-bit/133MHz
- ▶ 4x64-bit/100MHz)
- ▶ Plus 2x10/100/1000 embedded NICs

Video controller

- ▶ Integrated ATI-Rage XL PCI video controller with 8MB of SDRAM

Disk controller

- ▶ Integrated Adaptec AIC-7899 dual-channel Ultra3 (Ultra 160) LVD SCSI controller
- ▶ 160MB/sec. performance on two separate channels
- ▶ 128MB cache with battery backup
- ▶ Industry-leading compatibility and reliability
- ▶ CRC (cyclical redundancy checking) improves data integrity
- ▶ Domain validation intelligently verifies system configuration for improved reliability

Networking controller

- ▶ Dual embedded Broadcom Gigabit NICs for higher availability and failover NIC support will auto-negotiate to the correct speed (10/100/1000)

Optional add-ins:

- ▶ Intel® PRO/1000+ (copper)
- ▶ Broadcom Gigabit NICs (copper)
- ▶ Intel® PRO/1000 (fibre)
- ▶ Intel® PRO/100+ dual-port NIC Intel® PRO/1000+ (copper)
- ▶ Broadcom (copper)

Peripheral bays

- ▶ One floppy drive
- ▶ One CD-ROM drive
- ▶ Bays for eight 1-inch hot-plug SCSI drives

Internal hard drive options

- ▶ 18GB, 36GB and 73GB (1-inch) Ultra3 (Ultra160), SCSI, 10,000 RPM
- ▶ 18GB (1-inch) Ultra3 (Ultra160), SCSI, 15,000 RPM

Performance RAID controller options

- ▶ PERC3/Di embedded dual-channel, Ultra3 SCSI RAID, 128MB cache (battery backup)
- ▶ PERC3/DC dual-channel, Ultra3 SCSI RAID, 128MB cache (battery backup)
- ▶ PERC3/QC quad-channel, Ultra3 SCSI RAID, 128MB cache (battery backup)

Fibre channel controller options

- ▶ PCI-64 switch-enabled controller (optical) 2Gbit

High availability features

- ▶ Hot-swap disk drives
- ▶ Performance RAID controller (PERC)
- ▶ Battery backup for embedded RAID
- ▶ Error correcting code (ECC) memory
- ▶ Optional redundant, hot-plug power supply
- ▶ Redundant hot-plug cooling fans
- ▶ Embedded NIC to support load-balancing configurations

Clustering options

- ▶ Microsoft Cluster Server®, Windows 2000®

System management

- Server Assistant software CD included with every server provides:
- ▶ Server Management for added ease of set-up and installation of system and drivers
 - ▶ IT Assistant for complete network event, configuration, and asset management
 - ▶ Array Manager for RAID-mode disk array management

Operating systems support

- ▶ Microsoft® Windows 2000® Server
- ▶ Microsoft® Windows 2000® Advanced Server

Interface ports

- ▶ Two (2) 9-pin 16550 serial
- ▶ Two (2) USB ports
- ▶ One (1) PS/2 mouse port
- ▶ One (1) PS/2 keyboard port (6-pin mini-DIN)

Power

- ▶ One (1) standard or two (2) redundant 730 Watt power supplies

Dimensions and weights

- ▶ Chassis: 17.5" (h) x 10.5" (w) x 23.5" (d)
- ▶ Weight 90 lb.
- ▶ 5U form factor

Agency approvals

- ▶ FCC (U.S. only) Class B
- ▶ DOC (Canada) Class B
- ▶ CE Mark (EN 55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, EN60950)
- ▶ VCCI Class II
- ▶ UL 1950
- ▶ CSA 950
- ▶ EN 60950

For more information about Unisys Enterprise Servers, please contact your local Unisys representative, or visit us on the Web at www.unisys.com

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