# Unisys Enterprise Server ES3040

UNISYS

The Unisys Enterprise Server ES3040 is designed specifically for customers deploying business-critical enterprise systems both inside and outside of the data center, delivering the ultimate in scalability, power, throughput, and proven technological advancements.

The Unisys ES3040 also provides an extended suite of high availability features that are mandatory for enterprise-class servers. 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.

The new electronic and mechanical designs deliver higher levels of availability, scalability, performance, and serviceability features than previously available in the 4-way space. The ES3040 is available in a tower or rack mount version, addressing a wider range of application requirements with a consistent platform. And, with a 7U chassis, up to six servers fit in a single 42U rack enclosure.

**Product highlights**

- High performance leveraging Intel® Xeon™ processors MP at 1.4, 1.5, and 1.6 GHz with 256K L2 cache, 512K L3 cache, and up to 1MB L3 cache on the 1.6GHz processor
- Supports up to 16GB of memory with ChipKill / spare row / mirroring memory technologies
- A potential 876GB of internal storage is possible by its support for up to 12 internal hard drives
- 11 PCI-X and PCI slots provide room to grow
- Flexible tower and rack mount configurations

## Innovative Design

The Unisys ES3040 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 MP will function with the Microsoft Windows.NET OS 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 sharing a single execution resource (often idle in servers today) that will allow more efficient server utilization, support more users, and process more transactions.

**Memory**
The maximum memory capacity of the ES3040 is especially high for a 4-way server - up to 16 gigabytes - and it takes advantage of the latest memory technologies such as ChipKill, spare row, and memory mirroring. (Contact Unisys for more information.) And the availability of dual embedded Broadcom gigabit NICs, USB support and new and improved mechanical features make this server's memory design truly state of the art.

**Input/output**
The availability of up to 11 input/output slots - both PCI and PCI-X - provides a great deal of potential for expansion using new PCI-X input/output technology, while retaining the ability to continue running legacy applications that use a PCI I/O adapter.

**Bandwidth and throughput**
The ServerWorks Grand Champion High End (GCHE) chipset architecture and 4-way interleaving DRAM capability that simultaneously addresses twice as many memory DIMMS together deliver an unprecedented 3.2 gigabytes of memory bandwidth. And with four independent PCI-X bus segments and one 32-bit PCI bus, the ES3040 will push up to 5 gigabytes of I/O throughput.

**Internal Storage**
The ES3040 server can be configured with up to 876 gigabytes of internal storage utilizing up to 12 hard drives, more of this capacity than ever before offered with a Unisys 4-way server.

**Backplane**
And, for even greater performance and flexibility, the ES3040 offers a 2x4 split backplane option.

**Availability**
High availability depends to a great extend on server design. The ES3040 features three hot-plug and redundant (2+1) power supplies, redundant hot-plug fans, and hot-plug hard drives. Ultra160 SMART drives notify you if a hard drive is going to fail so you can proactively replace it. And, you can use the embedded dual Broadcom Gigabit NICs in a redundant, load-balancing scenario, while at the same time increasing system throughput.

**Clustering and storage**
The optimization of ES3040 servers and the option of using either fibre channel or SCSI external storage devices makes it ideal for Unisys clustering and storage solutions. It's just the right building block for networked and clustered configurations, storage area networks (SANs), and scalable enterprise computing (SEC) environments.

## Unisys ES3040 Server Specifications

**Processors**
- Up to four 1.4GHz Intel® Xeon™ processors MP with 256K L2 cache, 512K L3 cache
- Up to four 1.5GHz Intel® Xeon™ processors MP with 256K L2 cache, 512K L3 cache
- Up to four 1.6GHz Intel® Xeon™ processors MP with 256K L2 cache, 1MB L3 cache

**Memory**
- Double Data Rate (DDR) SDRAM doubles the rate to 1.6 GB/sec by transferring data on both the rising and falling edges of the clock
- Support for up to 16GB of 4-way interleaved memory (DIMMs installed in sets of four) can provide peak memory bandwidth of 6.4 GB/sec
- Spare bank memory and memory mirroring

**Bus architecture**
- Delivers an unprecedented 3.2 GB/sec memory bandwidth
- Up to 5 GB/sec I/O throughput
- Supports a maximum seven (7) peer-to-peer buses, six (6) independent PCI-X 100MHz bus segments, and one (1) traditional 32-bit 33MHz PCI bus segment

**Expansion slots**
- 10 hot-plug 64-bit/100Mhz PCI-X
- 1 hot-plug 32-bit/33MHz PCI

**Video controller**
- Integrated ATI-Rage XL controller with 8MB of SDRAM

**Disk controller**
- Integrated Adaptec AIC-7892 Ultra3 (Ultra 160) LVD SCSI controller
- 160 Mbytes/sec performance

- 68-pin cable connector on the legacy I/O card
- Industry-leading compatibility, reliability

**Networking controller**
- Dual Embedded Broadcom Gigabit NICs will auto-negotiate to the correct speed (10/100/1000) and embedded NIC supports load balancing configurations
- Intel® Dual Port 10/100
- Intel® Pro 100S
- Intel® Pro 1000F (Gbit fibre)
- Broadcom NetXtreme (Gbit copper)
- Intel Pro 1000XT (Gbit copper)
- Broadcom SSL Accelerator

**Ten (10) peripheral bays**
- One slim floppy drive
- One CD-DVD ROM drive
- Up to 12 x 1.0-inch hard drives (8x1.0-inch in drive bay and 4x1.0-inch in media bay)

**Internal hard drive options**
- Optional 4-disk media bay
- Optional split backplane (2x4)
- 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**
- Battery backup for embedded RAID
- PERC3/DC dual channel, Ultra3 SCSI RAID, 128MB cache
- PERC3/QC quad channel Ultra3 SCSI RAID, 128MB cache

**Fibre channel controller options**
- PCI-64 switch-enabled controller (copper) 2Gbit
- PCI-64 switch-enabled controller (optical) 2Gbit

**High availability features**
- Hot-swap PCI-X or PCI
- Spare bank and memory mirror architectures
- Hot-swap disk drives and optional split backplane
- Performance RAID Controller (PERC)
- ECC protected DDR SDRAM memory
- Redundant, hot-plug power supply
- Redundant, hot-plug cooling fans

**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® Window® 2000 Advanced Server

**Interface ports**
- One (1) 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**
- Standard 600 Watt redundant power 2+1 (total of 3 power supplies)
- Optional AC switch

**Agency approvals**
- FCC (U.S. only) Class B
- DOC (Canada) Class B)
- CE EN 55022,
- IEC 801-2,
- EN50082-1,
- ICE 801-3,
- ICE801-4
- VCCI Class II
- UL 1950
- CSA 950
- EN 60950
- IEC 60950
- CE

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