PowerFrame ES3000
ENTERPRISE SERVER

The PowerFrame ES Series of Enterprise Servers provides unmatched performance, availability and scalability in a range of models to meet a wide variety of enterprise-level networking applications. The ES Series begins with the PowerFrame ES3000. Engineered to support compute- and I/O-intensive network applications in remote offices and small departments, the ES3000 provides value and scalable performance well beyond conventional superserver levels.

The PowerFrame ES3000 ensures high availability for business-critical networks with standard features including RAID technology, disk hot sparing and redundant network interface card (NIC) capability, plus optional disk hot replacement, redundant power supplies and an Intelligent Management Subsystem.

Available in a uniprocessor configuration and scalable to four Intel Pentium™ processors, the PowerFrame ES3000 easily accommodates file serving and compute-intensive tasks. Its balanced design, featuring the Intelligent Storage Subsystem (ISS), provides high performance for file serving applications, including multimedia and imaging. The ES3000 breaks the I/O bottleneck by offloading disk processing tasks from the main CPU and EISA bus onto its ISS, an independent two-channel SCSI controller dedicated to disk I/O processing tasks. While other servers are slowed by I/O bottlenecks as more disk space and users are added, the ES3000's performance remains robust, protecting the network investment.
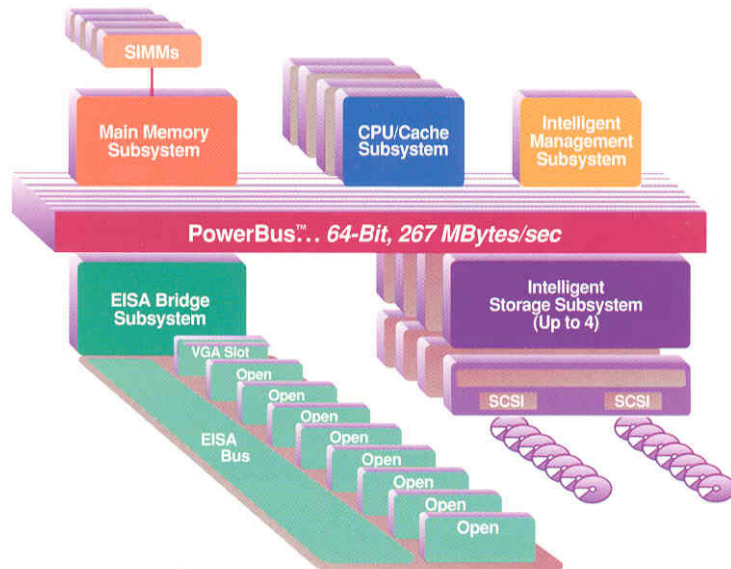
Enterprise server engineered for remote offices and small departments requiring network-based application support and connectivity to centralized data

For CPU-intensive tasks, such as relational databases and decision support applications, the ES3000's multiple Pentium CPUs, combined with a symmetrical multiprocessing network operating system, provide outstanding performance with room to grow. The ES3000 further increases performance with special processor-to-processor and processor-to-memory optimization techniques. Combine that performance with an attractive price and the ES3000 is the ultimate platform for a small office or department running multiprocessing operating systems and applications.

The PowerFrame ES3000's subsystems can scale independently, enabling users to add performance and capacity selectively as compute, disk and communications demands increase. With a price point and package attractive for smaller networks, the ES3000 brings enterprise server benefits to the remote office and small department, allowing you to economically grow your system as your needs change.

ES3000 SERIES FEATURES

CPU/CACHE SUBSYSTEM	
IntelDX2™/66MHz or Pentium™ 66MHz w/256 KBytes SLC, or Pentium 100MHz w/512KBytes SLC	1 to 4 [1]

MAIN MEMORY SUBSYSTEM	
Memory, ECC	32 MBytes to 1.0 GByte

INTELLIGENT STORAGE SUBSYSTEM	
ISS Type	Two channel
ISSs	1 to 4 [1]
Internal Fast SCSI Devices	4 full height or 9 half height
PowerFile Disk Expansion Cabinets	0 to 5
Fast SCSI Devices with PowerFile	Up to 56

EISA BRIDGE SUBSYSTEM	
EISA Bridge Subsystem with 9 Slots	Standard [2]
VGA Card and Keyboard	Standard
Half-height Peripheral Slots	3
3.5" or 5.25" Floppy Drive	Standard [3]

INTELLIGENT MANAGEMENT SUBSYSTEM	
IMS	Optional

POWER AND COOLING SUBSYSTEM	
Main Cabinet Power Supplies	500W to 1000W redundant
PowerFile Power Supplies	500W redundant

[1] Up to a combined total of 5 CPU/Cache Subsystems and Intelligent Storage Subsystems. [2] VGA card uses 1 of the 9 EISA slots. [3] Floppy drive uses 1 of the peripheral slots.

ES3000 ARCHITECTURE

Benefits

- Two-channel Intelligent Storage Subsystem enables high-performance serving by offloading main CPU and EISA of disk processing tasks.
- Scalable design supports up to 1.0 GByte of system memory and up to 56 half-height SCSI devices for resource-intensive environments.
- Up to four IntelDX2™/66MHz or Pentium™ CPUs tightly coupled on the high-speed PowerBus provide high-performance for multiprocessing operating systems.
- Network Interface Card (NIC) load balancing and redundancy for Novell NetWare eliminates network I/O bottlenecks from saturated single NICs and ensures continued network operation, even if a NIC fails.
- Open system design lets you take advantage of new technologies without time-to-market delay.
- High-availability features include RAID 0, 1, 4, 5 and 10 and disk hot sparing, with optional disk hot replacement, redundant power supplies, disk duplexing, controller duplexing, live CPU fault recovery, redundant power supplies and the Intelligent Management Subsystem.

SPECIFICATIONS

BASE CABINET DIMENSIONS
Height:	37 in (70 cm)
Width:	22 in (56 cm)
Depth:	34 in (86 cm)
Weight:	250 lbs (113 kg) w/o SCSI devices

ENVIRONMENTAL SPECIFICATIONS
Temperature:
- Operating: 50 F (10 C) to 93 F (34 C)
- Non-Operating: -40 F (-40 C) to 140 F (60 C)

Humidity:
- Operating: 20% to 80% (non-condensing)
- Non-Operating: 8% to 90% (non-condensing)

POWER
Power Input Requirements:
- UL: • 100-120 VAC, 10 A, 60 Hz
      • 220-240 VAC, 5 A, 60 Hz
- CSA: • 100-120 VAC, 10 A, 60 Hz
       • 220-240 VAC, 5 A, 60 Hz
- TUV: • 220-240 VAC, 5 A, 50 Hz

Power Outlet Type:
- 100-120 VAC (U.S.) NEMA L5-20R
- 220-240 VAC (U.S.) NEMA L6-20R
- 220-240 VAC International IEC 309

Maximum Power
    1200W
Heat Generated
    4096 BTU/hr

OPERATING SYSTEMS
The PowerFrame ES Series is fully certified with the following environments and their multiprocessor versions where applicable:
- SCO UNIX OpenServer
- SunSoft Solaris 2.x
- Novell NetWare 3.x and NetWare 4.x
- Novell NetWare SFT III
- Novell UnixWare
- IBM OS/2 2.x
- Microsoft Windows NTAS
- Banyon ENS for SCO UNIX

AGENCY CERTIFICATIONS
- FCC
- TUV
- UL
- CSA
- CE Mark

TRICORD