



# PowerFrame ES5000

## ENTERPRISE SERVER

The PowerFrame ES Series of Enterprise Servers provides unmatched performance, scalability and availability in a range of models to meet a wide variety of enterprise-level networking applications. Tricord's premier enterprise server, the PowerFrame ES5000, is the ideal network computing platform for corporate-wide client/server applications. It allows enterprise-wide access to corporate data, applications and services to satisfy your business-critical computing requirements.

The PowerFrame ES5000's balanced architecture is optimized for application serving environments. The four-channel Intelligent Storage Subsystem offloads the main CPU from disk processing tasks, so it has more CPU power dedicated to compute-intensive applications. This coupled with the ability to scale to up to six IntelDX2™/66MHz or Pentium™ processors enables the ES5000 to provide consistent, high performance as an application server.



**High-performance enterprise server designed to be highly available for corporate-wide, mission-critical client/server applications with performance and scalable capacity rivaling more-expensive mainframe computers**

In addition to its performance, the PowerFrame ES5000 offers the high-availability features required for mission-critical applications. Support for RAID 0, 1, 4, 5 and 10, disk hot sparing, disk hot replacement, disk mirroring and controller duplexing ensures data integrity, minimizes downtime and optimizes performance. A 1500 Watt redundant power supply allows continued operation of the system, even in the event of a power supply failure. Other high-availability features include ECC memory, error checking on all data paths and thermal protection.

Another equally important feature for enterprise serving is system management. The Intelligent Management Subsystem (IMS) is integrated on the PowerFrame ES5000 to provide fault, configuration and performance management, enhancing the overall availability of the system. Patterned after the management, modeling and performance tuning tools found on mainframe systems, the IMS provides alerts to SNMP managers and allows administrators to monitor such things as an application's impact on each component in the system. The IMS's

Windows-based management interface provides a variety of reporting functions, even allowing you to manage your assets down to the board revision level.

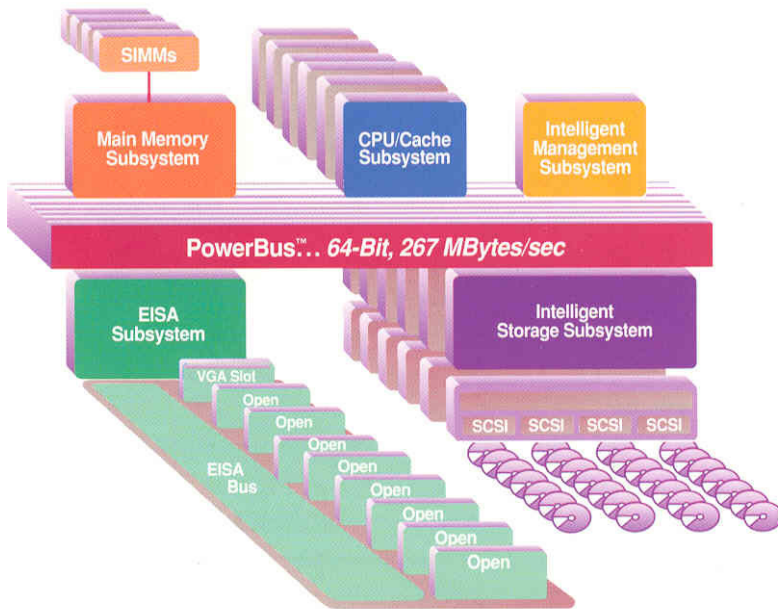
The PowerFrame ES5000 combines high-performance symmetrical multiprocessing, disk I/O, network I/O and communications capabilities in a highly available, highly scalable open system design. At a time when many companies are downsizing mission-critical applications or resizing networks to reduce costs, the ES5000 enterprise server offers a system balanced for optimum price/performance.

# ES5000 SERIES FEATURES

CPU/CACHE SUBSYSTEM	
IntelDX2™/66MHz or Pentium™ 66MHz w/256 KBytes SLC, or Pentium 100MHz w/512KBytes SLC	1 to 6 <sup>1</sup>
MAIN MEMORY SUBSYSTEM	
Memory, ECC	64 MBytes to 1.0 GByte
INTELLIGENT STORAGE SUBSYSTEM	
ISS Type	Four channel
ISSs	1 to 6 <sup>1</sup>
Internal Fast SCSI Devices	16 full height or 32 half height
PowerFile Disk Expansion Cabinets	0 to 13
Fast SCSI Devices with PowerFile	Up to 168
EISA BRIDGE SUBSYSTEM	
EISA Bridge Subsystem with 9 Slots	Standard <sup>2</sup>
VGA Card and Keyboard	Standard
Half-height Peripheral Slots	4
3.5" or 5.25" Floppy Drive	Standard <sup>3</sup>
INTELLIGENT MANAGEMENT SUBSYSTEM	
IMS	Standard
POWER AND COOLING SUBSYSTEM	
Main Cabinet Power Supplies	1500W redundant
PowerFile Power Supplies	500W redundant

<sup>1</sup> Up to a combined total of 7 CPU Cache Subsystems and Intelligent Storage Subsystems. <sup>2</sup> VGA card uses 1 of the 9 EISA slots.  
<sup>3</sup> Floppy drive uses 1 of the peripheral slots.

## ES5000 ARCHITECTURE



## SPECIFICATIONS

### BASE CABINET DIMENSIONS

Height:	37 in (70 cm)
Width:	34 in (86 cm)
Depth:	34 in (86 cm)
Weight:	300 lbs (136 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:	220-240 VAC, 10 A, 60 Hz
CSA:	220-240 VAC, 10 A, 60 Hz
TUV:	220-240 VAC, 10 A, 50 Hz

#### Power Outlet Type:

220-240 VAC (U.S.)	NEMA 16-20R
220-240 VAC International	IEC 309
Maximum Power	2400W
Heat Generated	8000 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
- Banyan ENS for SCO UNIX

### AGENCY CERTIFICATIONS

- FCC
- TUV
- UL
- CSA
- CE Mark

## Benefits

- Four-channel Intelligent Storage Subsystem offloads 90 percent of I/O processing from the main CPUs, enabling high-performance file and application serving.
- Scalable design supports up to 1.0 GByte of system memory and up to 168 SCSI devices for resource-intensive environments.
- Up to six IntelDX2™/66MHz or Pentium™ CPUs tightly coupled on the high-speed PowerBus provide high-performance for multiprocessing operating systems and CPU-intensive applications.
- 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, disk hot sparing, disk hot replacement, disk duplexing, controller duplexing, live CPU fault recovery, redundant power supplies and the Intelligent Management Subsystem.

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