



# Express5800/320Lb

High Density Fault Tolerant Server

Continuous Availability

Windows® 2000 Compatibility

Industry-Standard Components

Optimized Total Cost of Ownership

Simplified Maintenance

Investment Protection



# NEC Express5800/320Lb

NEC's first 2.4 GHz Intel®Xeon® processor-based servers are designed to provide continuous availability for mission-critical Windows® applications. These high density servers raise the bar in performance while meeting space and budget constraints. With second generation fault tolerant technology, the Express5800/320Lb supports faster processors, faster PCI throughput and more memory than previous models. Their unique redundant modules are easy to manage and operate in lockstep to ensure high reliability.

## Advanced Technology for Superior Performance

To achieve optimal performance in a small footprint, NEC leverages Intel's latest Xeon chip architecture with next generation fault tolerant technology. The NEC Express5800/320Lb features redundant CPU modules that contain Hyper-Threading enabled 2.4GHz Intel Xeon processors which can be configured as 1-way or 2-way systems. Hyper-Threading is Intel's simultaneous multi-threading design and allows a single processor to manage data as if it were two processors by handling data instructions in parallel rather than one at a time. This technology allows a single processor to handle greater workloads, offer faster response times and ultimately provide better performance.



NEC Express5800/320Lb compact pedestal version



NEC Express5800/320Lb-R 4U rack-mount version

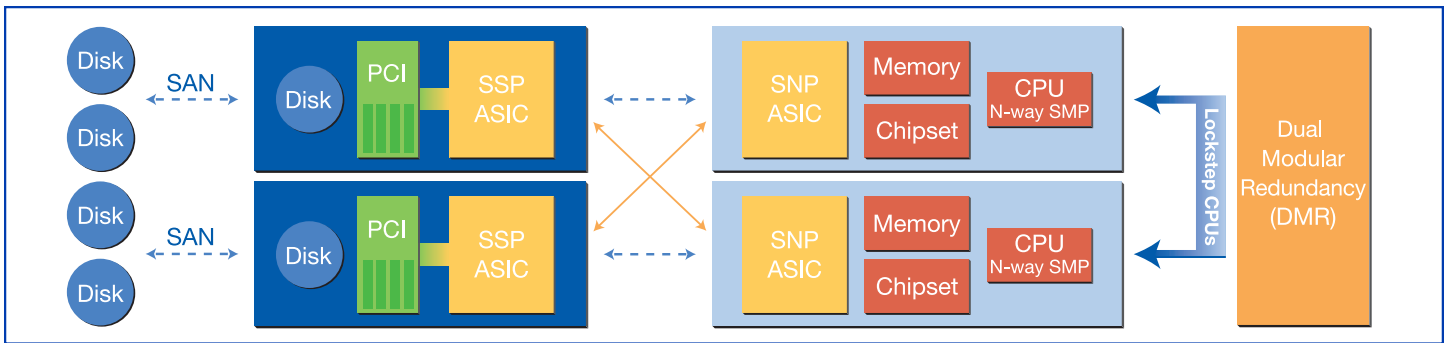
## High Density Design for Efficiency and Manageability

The NEC Express5800/320Lb's computing power is available in an extremely compact and efficient design. The rack-mount (4U) platform option easily accommodates low space requirements without foregoing performance or reliability.

With a total chassis height of 7 inches (4U x 1.75") and standard 19 inch rack width, the Express320/Lb-R is an impressive combination of density, performance and reliability. As many as eight 2-way fault tolerant servers can be configured into a single 42U standard 19 inch rack.



The Express 5800/320Lb is ideally designed to provide the continuous availability required by high-end mission critical applications.



Dual Modular Redundancy (DMR) Design operates in Lockstep to achieve true fault tolerance.

## Affordable Continuous Availability for Windows

The Express5800/320Lb delivers the highest levels of system availability for Microsoft® Windows 2000 environments where critical business continuity depends on system reliability. NEC's lockstep technology uses duplicated, fault-tolerant hardware components that process the same instructions and computations at the same time. These redundant components include CPUs, memory and I/O. In the event of a hardware fault, the duplicated component acts as an active spare and continues normal operation without any downtime.

By combining 24x7 fault tolerant technology with industry-standard architecture, NEC's solution is an affordable answer for continuous availability. In addition to competitive system pricing, these servers offer long term investment advantages over traditional cluster solutions. Software applications run right out-of-the-box without the need for modification. Duplicate software licenses are also eliminated because the Express5800/320Lb operates as a single-system.

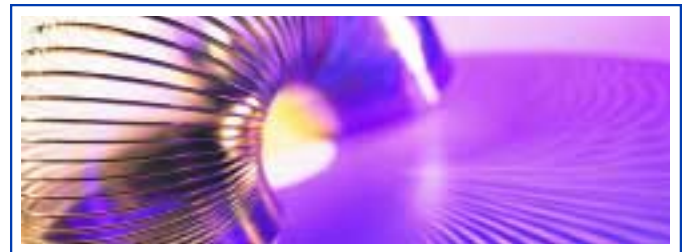
## Enhanced Value through Innovative Software

In addition to the hardware, the NEC Express5800/320Lb delivers continuous availability through enhanced software. Hardened drivers detect and prevent writing beyond physical memory allocated. They also contain instrumentation and diagnostic capabilities for monitoring and maintenance and provide support for duplex and hot-swap operations. These drivers are certified for compliance and digitally signed for authenticity using Microsoft procedures and tools. The NEC Express5800/ft series comes with software and applications for easy setup and system management.

- EXPRESSBUILDER installation software provides utilities that assist in setting up the operating system, drivers, and user accounts.
- ESMPRO® is a suite of software tools to monitor, analyze, and manage all NEC servers.

## FT Storage Expansion

To expand the memory in the NEC Express5800/320Lb, NEC offers the S1200 Fibre Channel (FC) disk array. This storage option uses FC HBAs to connect to as many as two 3U disk arrays. Each array holds up to 15 FC disk drives, accommodating three to thirty, 36GB or 73GB drives with a maximum capacity of 2TB. The S1200 employs a 2Gbps FC interface and supports RAID levels 0, 1, 5 and 10. It includes a dual cache, power supply, fan, battery backup and controllers with a maximum cache capacity of 512MB per controller.



## KEY FEATURES

- Fault Tolerant architecture featuring replicated, hot-swap, CPU and I/O modules
- Intel Xeon 2.4GHz processors: 1 or 2-way logical configurations, 512KB L2 cache
- Six DIMM slots supporting up to 3GB of SDRAM
- Integrated 1x 10/100 & 1x 1000 Base-T Ethernet ports
- Dual redundant power supply in CPU & I/O modules
- Redundant hot swappable, hard drive subsystem supports up to 210GB of mirrored storage. External support of up to 2TB with the NEC S1200 fibre channel RAID array
- EXPRESSBUILDER setup and configuration software for easy system installation
- ESMPRO® SNMP-based management suite software
- Choice of pedestal or rack (4U)

# SPECIFICATIONS

NEC Express5800/320Lb and Express5800/320Lb-R				
CPU MODULE	CPU	Processor	1 or 2 Intel Xeon 2.4GHz	
		L2 Cache	512KB	
		Front Side Bus	400MHz	
	Chipset		ServerWorks GC-LE + CSB5	
	Memory	Maximum	3 GB	
		DIMM	Low Profile DDR200 SDRAM (registered)	
		ECC	Yes	
	LED		Front 2	
Fan		3 x Fixed Fan		
Power Supply		350W Fixed		
I/O MODULE	LAN		1 x 10/100/BASE-TX, 1 x 1000/BASE-T	
	I/O Slots	Slot	Total 3 slots [2] (VGA card used 1 slot)	
		64bit/33MHz PCI x 2, 32bit/33MHz x 1		
	Device Bays	3.5"	3 (1" height)	
		5.25"	1 CD-ROM	
	HDD	Maximum	SCSI I/F: 3 x 73GB or more	
			U160 36GB/73GB 10Krpm	
			U160 18GB 15Krpm	
	SCSI I/F	Hot Plug	Yes	
		Non RAID	1 ch x Ultra 160	
	Graphics (VRAM)		640 x 480, 1280 x 1024 (2MB)	
LED		Front 4 Rear 5		
Fan		5 x Fixed Fan		
Power Supply		250W Fixed		
COMMON MODULE (BACK PLANE AND INCLUDED IN I/O MODULE)	FDD		1 x External USB 3.5" FDD	
	External I/O Interconnect	Rear	1 x CRT, 2 x USB (KB/M, FDD)	
			2 x Serial (DB9)	
	Switch		Power, Dump	
	Front Key		Yes	
	LED	Front	Power, System Status, HDD	
		Rear	PCI Slot	
	Chassis Type (W x D x H)		Pedestal: 222 x 795 x 560mm Rack: 19" 4U Rack (480 x 790 x 177mm)	
Power Supply		In Each Module		
WARRANTY	Standard Warranty		Standard 3 year warranty. Optional warranty extension	
REGULATORY & SAFETY	Safety		UL950, CSA22.2, CE EN60950, EN55022a, EN50082-1	
	Emissions		FCC Class	



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