



Express5800 HX4500 C/S

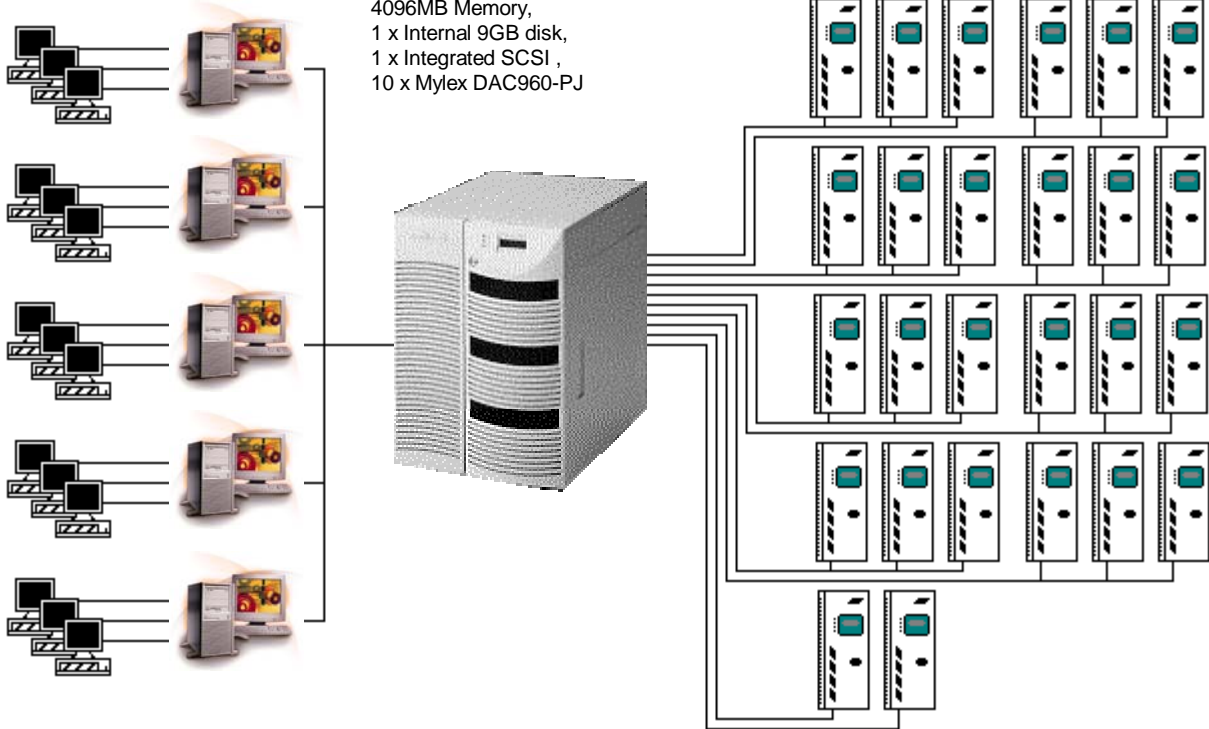
TPC-C Rev.3.3
Reported Date
August 5, 1998

Total System Cost		TPC-C Throughput	Price/Performance	Availability Date
\$614,908		18,322.67 tpmC	\$33.55 per tpmC	December 29,1998
Processors	Database Manager	Operating System	Other Software	Number of Users
4 x Pentium ® II Xeon 400MHz 1MB L2 cache	Microsoft SQL Server 7.0 Enterprise Edition	Microsoft Windows NT4.0 Enterprise Edition	Microsoft IIS 3.0 BEA Tuxedo 6.3CFS Microsoft VC++	14,780

Total of 14,780 PCs

Server : Express5800 HX4500

4 x Pentium ® II Xeon 400MHz/1MB,
4096MB Memory,
1 x Internal 9GB disk,
1 x Integrated SCSI ,
10 x Mylex DAC960-PJ



5 x PowerMate Professional 9000-

333SP4M64N4

Storage: Disk Expansion Box

204 x 9GB disks

System Component	Server		Each Client	
Processors	4	Pentium ® II Xeon 400MHz	2	Pentium ® II 333MHz
Cache		1MB L2 Cache		512KB
Memory	1	4096MB	1	512MB
Disk Controllers	10 1	Mylex DAC960-PJ Integrated SCSI	1	ULTRA WIDE SCSI
Disk Drives	205	9GB (8.47GB usable)	1	4.5GB
Total Storage		1736GB		
Others	1 1	CD-ROM Drive DAT Drive	1	CD-ROM Drive



NEC Express 5800 HX4500

TPC-C REV 3.3

C/S

Report Date: August 5, 1998

Description	Part Number	Third Party		Unit Price	Qty	Extended Price	5-year Maint. Price
		Brand	Pricing				
Server Hardware							
HX4500 system, 4xPentium II Xeon 400MHz/1MB , 4GB ECC Memory, integrated wide ultra SCSI, 3x4 drive hot swap disk bays, 3x420W power supply, 32x CD-ROM, keyboard, mouse	850127700	NEC	1	37,140	1	37,140	8,914
12/24GB SCSI DDS-3 4mm DAT Drive	203117	NEC	1	1,099	1	1,099	0
9GB 7,200 HDD	203283	NEC	1	899	1	899	0
NEC 15" Multisync Monitor	JC-1576VMA	NEC	1	299	1	299	72
Disk Subsystem							
Mylex DAC960-PJ 3 channel w/ 8MB EDO (+2spares)	DACPJ-3-8E-MY1	Mylex	4	1,845	12	22,140	500
Mylex Intelligent Battery Backup Unit (+2spairs)	DBBPG-MYL	Mylex	4	345	4	1,380	0
ST8000 DEU Tower Model	203269	NEC	1	3,999	26	103,974	24,954
9GB 10Krpm Hard Disk Drives	203350	NEC	1	999	204	203,796	0
68-pin VHD SCSI-3 data cable	203277	NEC	1	149	26	3,874	0
68-pin WIDE SCSI to VHD SCSI-3 data cable	203273	NEC	1	149	8	1,192	0
Single Bus Option Module	203330	NEC	1	89	26	2,314	0
Subtotal						378,107	34,439
Server Software							
Microsoft Windows NT Server, Enterprise Edition 4.0		Microsoft	2	3,999	1	3,999	0
Microsoft SQL Server, Enterprise Edition 7.0 Unlimited		Microsoft	2	28,999	1	28,999	10,475
Subtotal						32,998	10,475
Client Hardware							
PowerMate Professional 9000-333SP4M64N4 2 x Pentium II 333MHz, 512MB, 4.3GB HDD CD-ROM, KB, Mouse, Intel Pro 100	P9006P4M64N4	NEC	1	4,798	5	23,990	5,758
EtherExpress Pro/100+ NIC	203254	NEC	1	79	15	1,185	0
NEC 15" Multisync Monitor	JC-1576VMA	NEC	1	299	5	1,495	72
Subtotal						26,670	5,830
Client Software							
Microsoft Windows NT Server 4.0 w/5 cal		Microsoft	2	809	5	4,045	0
Visual C++ Professional 5.0		Microsoft	2	499	1	499	0
Tuxedo 6.3 Core functionality Services for NT		BEA	3	3,000	5	15,000	11,250
Subtotal						19,544	11,250
User Connectivity							
Linksys 16-port 100Mbps HUB (+2 spares)	FEHUB16W	Linksys	5	240	3	720	0
Linksys 20-prt 10Mbps HUB (+10% spares)	EW20HUB	Linksys	5	115	825	94,875	0
Subtotal						95,595	0
TOTAL						552,914	61,994

Notes:

All Microsoft maintenance is covered by the maintenance costs of Microsoft SQL Server
Pricing: 1-NEC 2-Microsoft 3-BEA 4-Mylex 5-BuyComp LLC
Linksys offers standard with 5-year warranty

Five-Year Cost of Ownership: **\$614,908**
tpmC Rating: **18322.67**

\$/tpmC: 33.55

Audited by Francois Raab of Information Paradigm, Inc

Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on assumptions about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you.

Numerical Quantities Summary

MQTh, Computed Maximum Qualified Throughput		18322.67 tpmC	
%throughput difference ,reported & reproducibility runs		0.17 %	
<u>Response Times(in seconds)</u>	<u>90%</u>	<u>Average</u>	<u>Maximum</u>
New-Order	0.70	0.46	17.01
Payment	0.56	0.32	9.35
Stock-Level	2.92	2.40	8.28
Delivery(interactive portion)	0.30	0.29	0.57
Delivery(deferred portion)	0.89	0.58	17.63
Order-status	0.63	0.40	11.78
Menu	0.31	0.20	1.02
Response time delay added for emulated components		0.1	
<u>Transaction Mix , in percent of total transaction</u>			
New-Order		44.87%	
Payment		43.01%	
Order-status		4.03%	
Delivery		4.06%	
Stock-level		4.02%	
<u>Keying/Think Times (in seconds)</u>	<u>Min.</u>	<u>Average</u>	<u>Max</u>
New-Order	18.00 0.00	18.01 12.05	18.03 120.71
Payment	3.00 0.00	3.01 12.08	3.03 120.71
Stock-Level	2.00 0.00	2.01 5.07	2.03 48.46
Delivery	2.00 0.00	2.01 5.08	2.02 50.70
Order-status	2.00 0.00	2.01 10.08	2.03 100.70
<u>Test Duration</u>			
Ramp-up time		52 minutes	
Measurement interval		30 minutes	
Number of checkpoints		1	
Checkpoint interval		30 minutes	
Number of transactions (all types) completed in measurement interval		1,224,984	