



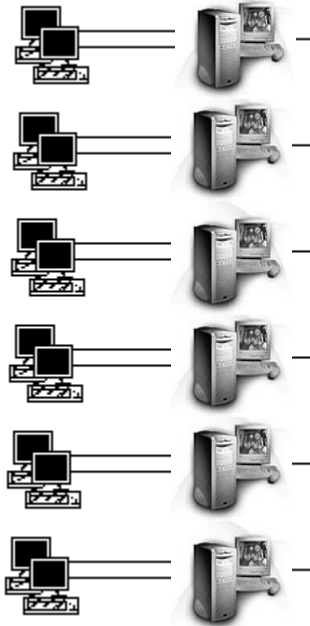
Express5800 HX6100

C/S

TPC-C Rev. 3.3.2
Reported Date
March 18, 1998

Total System Cost		TPC-C Throughput	Price/Performance	Availability Date
\$466,765		14,144.27 tpmC	\$33.00 per tpmC	April 15, 1998
Processors	Database Manager	Operating System	Other Software	Number of Users
6 x PentiumPro 200MHz 1MB cache	Microsoft SQL Server 6.5 Enterprise Edition	Microsoft Windows NT4.0 Enterprise Edition	Microsoft IIS 3.0 BEA Tuxedo 6.3CFS Microsoft VC++	11,400

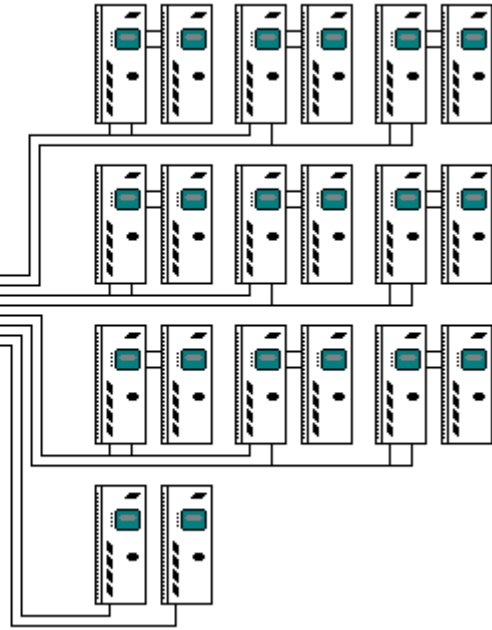
Total of 11,400 PCs



6 x PowerMate Enterprise 8000-233

Server : Express5800 HX6100

6 x PPro200MHz/1MB,
 4096MB Mem,
 1 x Internal 4GB disk,
 1 x Integrated SCSI ,
 8 x Mylex DAC960-PJ,
 Win NT4.0 EE
 SQL6.5 EE



Storage: Disk Expansion Box

85 x 9GB disks
 38 x 4GB disks

System Component	Server		Each Client	
	Processors	6	Pentium Pro ® 200MHz	1
Cache		1MB L2		512KB
Memory	1	4096MB	1	256MB
Disk Controllers	8 1	Mylex DAC960-PJ Integrated Adaptec	1	Integrated IDE
Disk Drives	85 39	9GB (8.47GB usable) 4GB (4.24 GB usable)	1	3.2GB
Total Storage		885.31MB		3.2GB
Others	1 1	CD-ROM Drive DAT Drive	1	CD-ROM Drive



NEC Express 5800 HX6100

TPC-C REV 3.3.2

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Description	Part Number	Third Party Brand	Pricing	Unit Price	Qty	Extended Price	5-year Maint. Price	
Server Hardware								
HX6100 base system, 2x200/1M PPro, integrated dual w ide ultra SCSI, 3x4 drive hot sw ap disk bays, 3x420W pow er supply, 24x CD-ROM, keyboard, mouse	850116058	NEC	1	19,899	1	19,899	4,776	
1 x PentiumPro/200Mhz/1MB CPU	203229	NEC	1	4,339	4	17,356	0	
512MB ECC (2x256MB)	203238	NEC	1	4,609	8	36,872	0	
10/100 NIC	203121	NEC	1	79	1	79	0	
12/24GB SCSI DDS-3 4mm DAT Drive	203117	NEC	1	1,099	1	1,099	0	
4GB 7,200 HDD	203235	NEC	1	599	1	599	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	10	18,450	500	
Mylex Intelligent Battery Backup Unit (+2spares)	DBBPG-MYL	Mylex	4	345	4	1,380	0	
ST8000 DEU Tow er Model	203269	NEC	1	3,099	20	61,980	14,875	
9GB Hard Disk Drives	203283	NEC	1	899	85	76,415	0	
4GB Hard Disk Drives	203281	NEC	1	599	38	22,762	0	
VHD SCSI-3 14-inch Jumper cable	203291	NEC	1	199	18	3,582	0	
3-meter 68-pin VHD SCSI-3 data cable	203277	NEC	1	199	14	2,786	0	
3-meter 68-pin WIDE SCSI to VHD SCSI-3 data cable	203273	NEC	1	199	6	1,194	0	
Single Bus Option Module	203331	NEC	1	89	2	178	0	
						Subtotal	264,930	20,223
Server Software								
Microsoft Windows NT Server,Enterprise Edition 4.0		Microsoft	2	3,999	1	3,999	0	
Microsoft SQL Server,Enterprise Edition 6.5 Unlimited		Microsoft	2	28,999	1	28,999	10,475	
						Subtotal	32,998	10,475
Client Hardware								
PowerMate Enterprise 8000-233 Pentium II 233MHz, 32MB, 3.2GB HDD CD-ROM, KB,Mouse, integrated Intel Pro 100	P8001T2HT	NEC	1	1,499	6	8,994	2,159	
128MB DIMM	238-00205	NEC	1	900	12	10,800	0	
EtherExpress Pro/100B NIC 20 pack (including spares)	PILA8465B	Intel	5	1,289	1	1,289	0	
NEC 15" Multisync Monitor	JC-1576VMA	NEC	1	299	6	1,794	72	
						Subtotal	22,877	2,231
Client Software								
Microsoft Windows NT Server 4.0 w/5 cal		Microsoft	2	809	6	4,854	0	
Microsoft Visual C++ 32-bit edition(subscription)		Microsoft	2	499	1	499	0	
Microsoft SQL Workstation(includes program's toolkit)		Microsoft	2	499	1	499	0	
Tuxedo 6.3 Core functionality Services for NT		BEA	3	3,000	6	18,000	13,500	
						Subtotal	23,852	13,500
User Connectivity								
Linksys 16-port 100Mbps HUB (+2 spares)	FEHUB16W	Linksys	5	289	3	867	0	
Linksys 20-prt 10Mbps HUB (+10% spares)	EW20HUB	Linksys	5	118	634	74,812	0	
						Subtotal	75,679	0
						TOTAL	420,336	46,429

Notes:

All Microsoft maintenance is covered by the maintenance costs of Microsoft SQL Server
Pricing: 1-NEC 2-Microsoft 3-BEA 4-Mylex 5-CDW
Intel offers a lifetime warranty free of charge:
Linksys offers standard with 5-year warranty

Five-Year Cost of Ownership: **\$466,765**
tpmC Rating: **14144.27**
\$ / tpmC: 33.00

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			14144.27 tpmC
%throughput difference ,reported & reproducibility runs			0.01%
<u>Response Times(in seconds)</u>	<u>90%</u>	<u>Average</u>	<u>Maximum</u>
New-Order	0.55	0.41	32.67
Payment	0.35	0.26	28.93
Stock-Level	3.91	2.44	17.72
Delivery(interactive portion)	0.30	0.30	0.70
Delivery(deferred portion)	0.91	0.60	5.46
Order-status	1.50	0.90	26.33
Menu	0.30	0.20	0.89
Response time delay added for emulated components			0.1
<u>Transaction Mix , in percent of total transaction</u>			
New-Order			44.82%
Payment			43.05%
Order-status			4.05%
Delivery			4.05%
Stock-level			4.03%
<u>Keying/Think Times (in seconds)</u>	<u>Min.</u>	<u>Average</u>	<u>Max</u>
New-Order	18.01 0.00	18.01 12.07	18.03 120.71
Payment	3.00 0.00	3.01 12.07	3.03 120.70
Stock-Level	2.00 0.00	2.01 5.09	2.02 50.70
Delivery	2.00 0.00	2.01 5.07	2.02 49.65
Order-status	2.00 0.00	2.01 10.00	2.02 100.70
<u>Test Duration</u>			
Ramp-up time			33 minutes
Measurement interval			30 minutes
Number of checkpoints			1
Checkpoint interval			30 minutes
Number of transactions (all types) completed in measurement interval			946,643