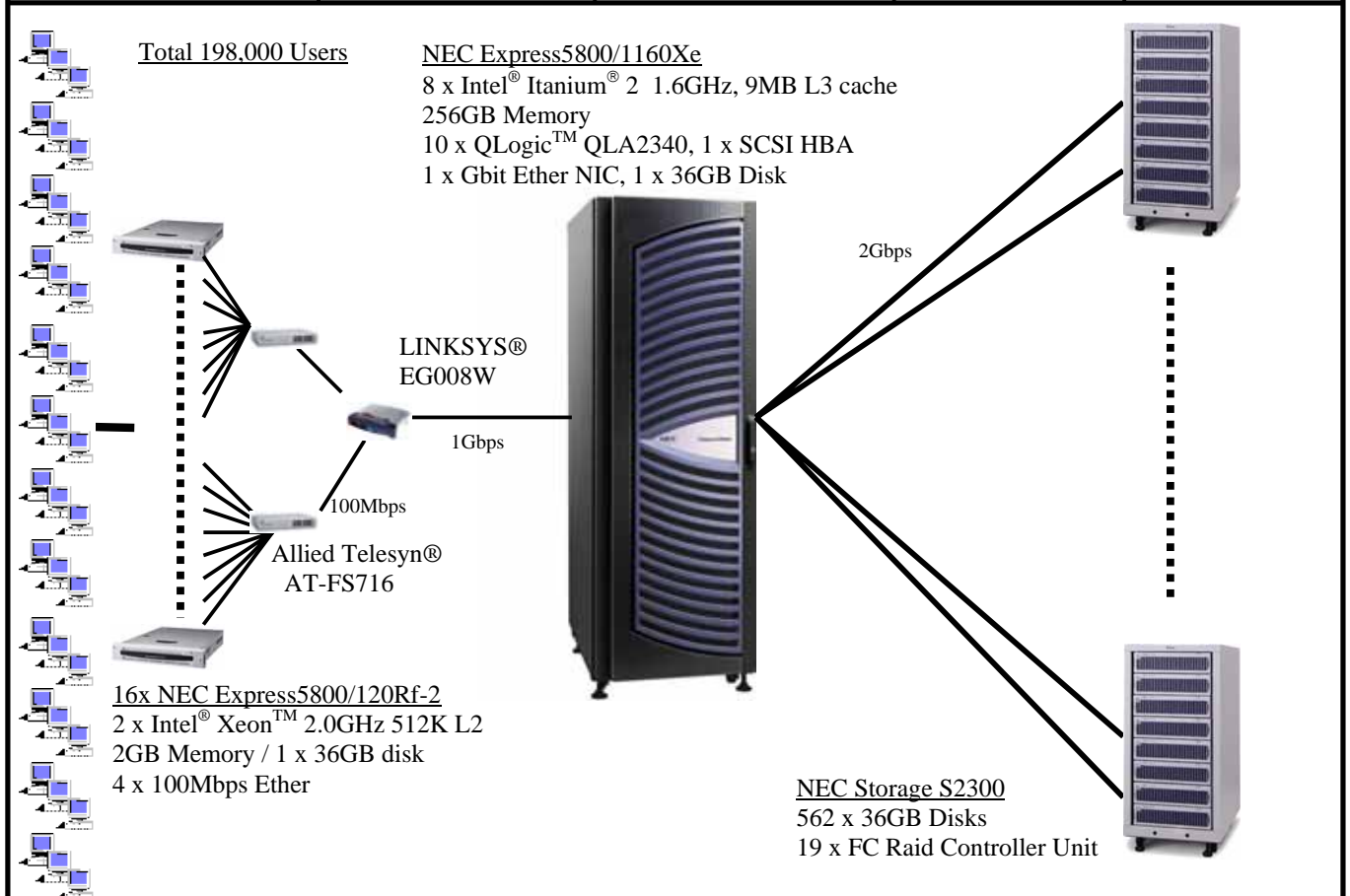


NEC	NEC Express5800/1160Xe (8 SMP) C/S with Express5800/120Rf-2		TPC-C Rev.5.3 Reported Date January 25, 2005
Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$1,356,338 (USD)	247,650 tpmC	\$5.48 per tpmC	July 24, 2005
Processors	Database Manager	Operating System	Other Software
8 Intel® Itanium® 2 1.6GHz for Server 32 Intel® Xeon™ 2.0GHz for Clients	IBM DB2 UDB 8.2	Microsoft® Windows® Server 2003, Datacenter Edition for 64-bit Itanium-based Systems	Windows® 2000 Server Microsoft® VC++ Microsoft® COM+
			Number of Users
			198,000



System Component	Server		Each Client	
Processors	8	Intel® Itanium® 2 1.6GHz	2	Intel® Xeon™ 2.0GHz
Cache		9MB L3 Cache		512KB L2 Cache
Memory		256GB		2GB
Disk Controllers	10 1	QLogic™ QLA2340 SCSI HBA	1	On-board SCSI
Disk Drives	1 562	36GB 36GB	1	36GB
Total Storage		18,426GB		36GB
Others	1 1	DVD-ROM Drive 1Gbps Ether NIC	1 2 2	CD-ROM Drive On-board Ether controller 100Mbps Ether NIC



NEC Express5800/1160Xe (8way model)
C/S with Express5800/120Rf-2

TPC-C REV 5.3

Report Date: **01/25/2005**

Description	Part Number	Third Party		Unit Price	Qty	Extended Price	3-yr Mnt. Price
		Brand	Pricing				
Server Hardware							
Express5800/1160Xe system (8way model)	850201005	NEC	1	449,130	1	449,130	107,791
Express5800/1160Xe base system					1	-	-
Itanium2 1.6GHz/9M cache					8	-	-
Cell Card Original					4	-	-
8GB (4x2GB ECC SDRAM DIMM) memory kit					32	-	-
Core PCI box					1	-	-
Base PCI box					1	-	-
PCI Cable (2.5m)					4	-	-
36GB Ultra 320/m SCSI HDD 10000RPM					1	-	-
10/100/1000Mb Either card (Intel Pro1000XT)					1	-	-
Ultra160 SCSI card (Adaptec 39160)					1	-	-
Windows Server 2003, Data Center Edition					8	-	-
NEC Express5800/120Rf-2 (for System Management)							
Base System with 1 x Xeon Processor 2.0GHz/512KB	850166001	NEC	1	3,499	1	3,499	-
1GB(2 x 512MB) DDR266 SDRAM memory,	062-02264-000	NEC	1	599	1	599	-
1 x 36GB 10K rpm HDD,	062-02012-000	NEC	1	459	1	459	-
CD-ROM, 2 x On-board LAN, KB/MS	Included	NEC	1	-	1	-	-
3 years of warranty service to 4-hour response, 7x24	DE-0000-1095-7244	NEC	1	1,599	1	-	1,599
VL501B 15in CRT Monitor Black	VL501B-1	CTX	4	78	2	155	-
FC HBA QLA2340 (+2 spares)	QLA2340-CK	QLogic	5	880	12	10,560	-
Fast Ether Cable 25' RJ45-RJ45 (+10% spares)	N002-025-GY	Tripp Lite	4	4	21	75	-
					Subtotal	464,477	109,390
Disk Subsystem							
NEC Storage S2300 Basic Unit	850177001	NEC	1	39,932	19	758,708	-
2 RAID_Cntrl, 1GB Cache, 1DE, w/o drives							
1GB(2 x 512MB) PC133 SDRAM memory	062-02301-000	NEC	1	1,999	38	75,962	-
S2300 DE (+10% spares)	062-02556-000	NEC	1	7,045	21	147,945	-
36GB 15K rpm FC HDD (+10% spares)	062-02557-000	NEC	1	579	619	358,401	-
3 yr Telephone Upgrade Hdw & Storage	IS-THSU-1095-0724	NEC	1	1,499	19	-	28,481
42U Rackframe	050-01790-000	NEC	1	1,799	5	8,995	-
FC Cable 10M LC-LC (+10% spares)	062-02304-000	NEC	1	200	21	4,200	-
					Subtotal	1,354,211	28,481
Server Software							
DB2 UDB 8.2 Enterprise Server Edition Proc Lic/1 yr Maint.	D518GLL	IBM	2	22,260	8	178,080	-
DB2 SW Mtce Renewal one year	E00BILL	IBM	2	1,060	16	-	16,960
					Subtotal	178,080	16,960
Client Hardware							
NEC Express5800/120Rf-2							
Base System with 1 x Xeon Processor 2.0GHz/512KB	850166001	NEC	1	3,499	16	55,984	-
1 x Xeon Processor 2.0GHz/512KB BTO Option,	062-02259-000	NEC	1	499	16	7,984	-
1GB(2 x 512MB) DDR266 SDRAM memory,	062-02264-000	NEC	1	599	32	19,168	-
1 x 36GB 10K rpm HDD,	062-02012-000	NEC	1	459	16	7,344	-
CD-ROM, 2 x On-board LAN, KB/MS	Included	NEC	1	-	16	-	-
3 years of warranty service to 4-hour response, 7x24	DE-0000-1095-7244	NEC	1	1,599	16	-	25,584
VL501B 15in CRT Monitor Black	VL501B-1	CTX	4	78	16	1,241	-
42U Rackframe	050-01790-000	NEC	1	1,799	1	1,799	-
Intel PRO/100+ Adapter	PILA8460B	Intel	5	14	36	504	-
Fast Ether Cable 10' RJ45-RJ45 (+10% spares)	N010-010-GY	Tripp Lite	4	5	53	253	-
					Subtotal	94,276	25,584
Client Software							
Windows2000 Server, Server License	C11-00821	Microsoft	3	738	17	12,546	(Included)
Visual C++ Standard	254-00170	Microsoft	3	109	1	109	(Included)
Microsoft Problem Resolution Service		Microsoft	3	245	1	245	-
					Subtotal	12,900	
User Connectivity							
Linksys Gigabit 8-port Workgroup Switch (+2 spares)	EG008W	Linksys	4	114	3	342	-
16-port Fast Ether Switch (+2 spares)	AT-FS716	Allied Telesyn	4	68	4	270	-
					Subtotal	612	
TOTAL						2,104,557	180,415

NEC brand total(Pricing 1-NEC)						1,900,177	163,455
NEC brand Large Purchase Cash Prepay Discount	-45%					-855,080	-73,555

Notes:
Pricing: 1-NEC 2-IBM 3-Microsoft 4-Provantage 5-Compuvview Microsystems

3-Yr. Cost of Ownership: **\$1,356,338**
tpmC Rating: **247650.67**
\$ / tpmC: \$5.48

Results and methodology audited by Francois Raab of InfoSizing, Inc. (www.sizing.com)
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 reflects 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		247,650 tpmC				
<u>Response Times(in seconds)</u>	<u>Average</u>	<u>Maximum</u>	<u>90%</u>			
New-Order	0.35	29.44	0.94			
Payment	0.34	21.94	0.93			
Delivery(interactive portion)	0.12	3.57	0.11			
Stock-Level	0.33	17.64	0.91			
Order-status	0.35	16.07	0.93			
Delivery(deferred portion)	0.15	12.66	0.19			
Menu	0.12	73.29	0.11			
Response time delay added for emulated components			0.1			
<u>Transaction Mix , in percent of total transaction</u>						
New-Order			44.80%			
Payment			43.08%			
Delivery			4.04%			
Stock-Level			4.04%			
Order-Status			4.04%			
<u>Keying/Think Times (in seconds)</u>	<u>Average</u>		<u>Min</u>		<u>Max</u>	
New-Order	18.01	12.07	18.01	0.00	18.01	120.7
Payment	3.01	12.07	3.01	0.00	3.01	120.7
Delivery	2.01	5.07	2.01	0.00	2.01	50.7
Stock-Level	2.01	5.08	2.01	0.00	2.01	50.7
Order-Status	2.01	10.09	2.01	0.00	2.01	100.7
<u>Test Duration</u>						
Ramp-up time			5400 seconds			
Measurement interval			9000 seconds			
Number of checkpoints			N/A			
Checkpoint interval			N/A			
Number of transactions (all types) completed in measurement interval			82,934,549			