

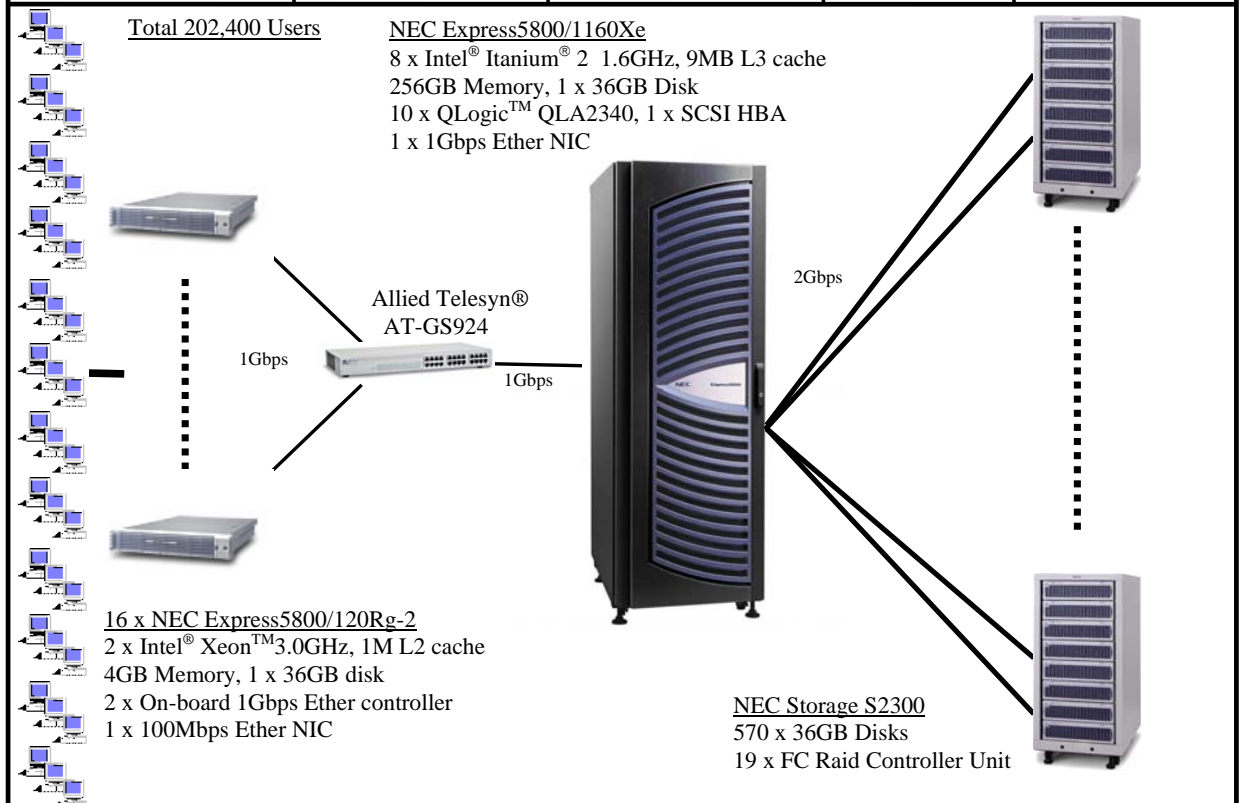


NEC Express5800/1160Xe C/S with Express5800/120Rg-2

TPC-C Rev.5.5

Report Date
18-Jan-2006

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$1,352,709 (USD)	254,471 tpmC	\$5.32 per tpmC	17-Feb-2006
Database Server Processors/Cores/Threads	Database Manager	Operating System	Other Software
8/8/8 Intel® Itanium® 2 1.6GHz for Server	Oracle® Database 10g Enterprise Edition	Red Hat Enterprise Linux AS 4	BEA Tuxedo 8.1
Number of Users			
202,400			



System Component	Server		Each Client	
Processors/Cores/Threads Cache	8/8/8	Intel® Itanium® 2 1.6GHz 9MB L3 Cache	2/2/4	Intel® Xeon™ 3.0GHz 1MB L2 Cache
Memory		256GB		4GB
Disk Controllers	10 1	QLogic™ QLA2340 SCSI HBA	1	On-board SCSI controller
Disk Drives	1 570	36GB 36GB	1	36GB
Total Storage		20,556GB		36GB
Others	1 1	DVD-ROM Drive 1Gbps Ether NIC	1 2 1	CD-ROM Drive On-board Ether controller 100Mbps Ether NIC



**NEC Express5800/1160Xe
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Description	Part Number	Third Party		Unit Price	Qty	Extended Price	3-yr Mnt. Price
		Brand	Pricing				
Server Hardware							
Express5800/1160Xe system (8way model)	850200719	NEC	1	449,130	1	449,130	107,791
Base Original 16(Express5800/1160Xe base system)					1		
Itanium2 1.6GHz/9M cache					8		
Cell Card Original					4		
8GB Memory Option (4 x 2GB DIMMs)					32		
Core PCI box					1		
Base PCI box					1		
PCI Cable					4		
36GB Ultra 320/m SCSI HDD (1") 10000RPM					1		
10/100/1000Mb Ether card					1		
SCSI card					1		
NEC AccuSync500 (15" monitor, +2 spares)	573757	NEC	5	120	3	360	-
FC HBA QLA2340 (+2 spares)	408081	QLogic	5	952	12	11,424	-
Fast Ether Cable 25' RJ45-RJ45 (+10% spares)	324516	Tripp Lite	5		7	157	
Subtotal						461,071	107,791
Disk Subsystem							
NEC Storage S2300 Basic Unit	850171001	NEC	1	33,999	19	645,981	-
2 RAID_Cntrl, 1GB Cache, 1DE, w/o drives							
1GB(2 x 512MB) PC133 SDRAM memory	062-02301-000	NEC	1	1,999	57	113,943	-
S2300 DE (+10% spares)	062-02402-000	NEC	1	7,999	21	167,979	-
36GB 15K rpm FC HDD (+10% spares)	062-02431-000	NEC	1	579	627	363,033	-
3 yr Telephone Upgrade Hdw & Storage	IS-THSU-1095-0724	NEC	1	1499	19		28,481
Manager SW Support; 7days/ 24hours per day							
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						1,304,131	28,481
Server Software							
Red Hat Enterprise Linux AS (Standard)		Red Hat	3	1,499	3	4,497	
Oracle Database 10g Enterprise Edition, Processor License for 3 years		Oracle	2	20,000	8	160,000	
Oracle Database Server Support Package for 3 years		Oracle	2	6,000	1		6,000
Subtotal						164,497	6,000
Client Hardware							
NEC Express5800/120Rg-2							
120Rg-2 base rack svr, one Xeon Processor 3.0GHz/1MB cache	850174001	NEC	1	3,799	16	60,784	-
Xeon 3.0GHz/1MB ECC Processor Kit	062-01777-000	NEC	1	799	16	12,784	-
1GB LP DDR SDRAM (2 x 512MB)	062-02264-000	NEC	1	599	32	19,168	-
2GB LP DDR SDRAM (2 x 1GB)	062-02265-000	NEC	1	1,599	16	25,584	-
36.4GB SCSI HDD (1")	062-02398-000	NEC	1	549	16	8,784	-
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
NEC AccuSync500 (15" monitor, +2 spares)	573757	NEC	5	120	3	360	-
42U Rackframe	050-01790-000	NEC	1	1,799	1	1,799	-
Intel PRO/100+ Adapter, 20-pack (+10% spares)	191126	Intel	5	644	1	644	-
Fast Ether Cable 25' RJ45-RJ45 (+10% spares)	324527	Tripp Lite	5		36	233	-
Subtotal						130,140	25,584
Client Software							
Red Hat Enterprise Linux ES (Standard)		Red Hat	3	799	48	38,352	
BEA Tuxedo Core Functionality Services (CFS-R)		BEA	4	1,140	16	18,240	12,096
Subtotal						56,592	12,096
Connectivity							
Gigabit Ethernet Switch 24port (+2 spares)	806699	Allied Telesyn	5	345	3	1,035	
Subtotal						1,035	0
TOTAL						2,117,466	179,952
Oracle Mandatory E-Business Discount						-24,900	
NEC brand total(Pricing 1-NEC)						1,882,164	161,856
NEC brand Large Purchase Cash Prepay Discount	-45%					-846,974	-72,835
Notes:					3-Yr. Cost of Ownership: \$1,352,709 tpmC Rating: 254471		
Pricing: 1-NEC 2-Oracle 3-RedHat 4-BEA 5-CDW Oracle pricing contact: MaryBeth Pierantoni, mary.beth.pierantoni@oracle.com, 916-315-5081.							
Results and methodology audited by Francois Raab of InfoSizing, Inc. (www.sizing.com)					\$ / tpmC: \$5.32		
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		254,471 tpmC				
<u>Response Times(in seconds)</u>	<u>Average</u>	<u>Maximum</u>	<u>90%</u>			
New-Order	0.23	117.21	0.25			
Payment	0.23	117.25	0.25			
Delivery(interactive portion)	0.11	0.19	0.11			
Stock-Level	0.21	97.14	0.24			
Order-status	0.22	93.50	0.25			
Delivery(deferred portion)	0.02	0.48	0.05			
Menu	0.11	0.24	0.11			
Response time delay added for emulated components			0.1			
<u>Transaction Mix , in percent of total transaction</u>						
New-Order			44.81%			
Payment			43.07%			
Delivery			4.04%			
Stock-Level			4.04%			
Order-Status			4.04%			
<u>Keving/Think Times (in seconds)</u>	<u>Average</u>		<u>Min</u>	<u>Max</u>		
New-Order	18.01	12.08	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	10.08	2.01	0.00	2.01	100.7
<u>Test Duration</u>						
Ramp-up time			9557 seconds			
Measurement interval			7230 seconds			
Number of checkpoints			4			
Checkpoint interval			1753 seconds			
Number of transactions (all types) completed in measurement interval			68443399			