

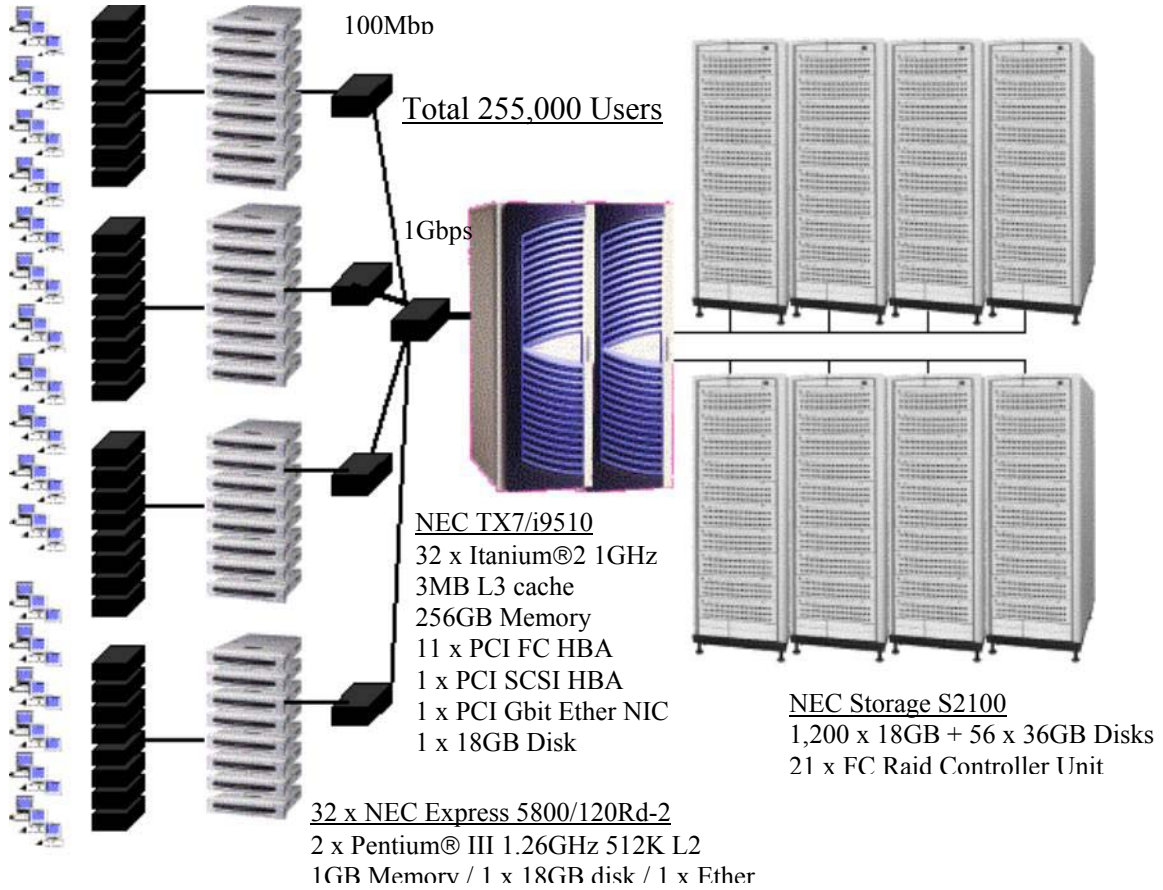


NEC TX7/i9510


C/S with Express5800/120Rd-2

TPC-C Rev.5.0
Reported Date
Sep 9, 2002

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$ 4,619,992	308,620.82 tpmC	\$14.96 per tpmC	Dec 31, 2002
Processors	Database Manager	Operating System	Other Software
32 Intel Itanium®2 1GHz for Server 64 Intel Pentium®III 1.26GHz for Client	Microsoft SQL Server 2000 Enterprise Edition(64-bit)	Microsoft Windows .NET Server 2003 Datacenter Edition	Windows 2000 Server Microsoft VC++ Microsoft COM+
Number of Users			
255,000			



System Component	Server		Each Client	
Processors	32	Itanium®2 1GHz	2	Pentium® III 1.26GHz
Cache		3MB L3 Cache		512KB L2 Cache
Memory		1 GB x 256		512MB x 2
Disk Controllers	11 1	QLA2200F Adaptec 39160	1	On-board SCSI
Disk Drives	1 1,200 56	18GB (16.6GB Usable) 18GB (16.6GB Usable) 36GB (33.2GB Usable)	1	18GB
Total Storage		23,634GB		18GB
Others	1 1	DVD-ROM Drive 1Gbps Ether NIC	1 1	CD-ROM Drive On-board Ether controller

		NEC TX7/i9510 C/S with Express5800/120Rd-2			TPC-C REV 5.0 Report Date: 09/09/02			
		Description	Part Number	Third Party Brand	Pricing	Unit Price	Qty	Extended Price
Server Hardware								
IX/i9510 system	050-02170-000	NEC	1		1,397,152	1	1,397,152	983,965
Itanium2 1GHz/3MB - 32 pack	Included	NEC	1		0	1	0	0
256GB (256 x 1GB) Memory	Included	NEC	1		0	1	0	0
18GB 10K rpm HDD	Included	NEC	1		0	1	0	0
Gbit Ether NIC	Included	NEC	1		0	1	0	0
DVD-ROM, KB/MS	Included	NEC	1		0	1	0	0
Windows .NET Datacenter Server	Included	Microsoft	2		0	1	0	0
NEC AccuSync50 (15" monitor)	AS50	NEC	3		140	1	140	0
FC HBA QLA2200 (+2 spares)	QLA2200F-CK	Qlogic	3		1,060	13	13,780	0
Fibre Optic Cable 10M SC-SC (+2 spares)	050-02059-000	NEC	1		200	3	600	0
Subtotal							1,411,672	983,965
Disk Subsystem								
NEC Storage S2100 Basic Unit	050-02055-000	NEC	1		44,021	21	924,431	221,864
2 RAID_Cntrl, 512MB Cache, 1DE, 3 x 18GB Drive								
1GB(2 x 512MB) PC133 SDRAM memory,	062-02029-000	NEC	1		999	4	3,996	0
S2100 DE (including 2 FC DB9-DB9 cables) (+2 spares)	050-02056-000	NEC	1		6,016	65	391,054	0
18GB 10K rpm FC HDD (+10% spares)	050-02057-000	NEC	1		450	1254	563,961	0
36GB 10K rpm FC HDD (+10% spares)	050-02058-000	NEC	1		815	62	50,538	0
42U Rackframe	050-01790-000	NEC	1		1,799	11	19,789	0
FC Cable 10M SC-SC (+2 spares)	050-02059-000	NEC	1		200	23	4,600	0
Subtotal							1,958,370	221,864
Server Software								
SQL Server2000 Ent. Edition(64-bit) ,Processor License	810-00560	Microsoft	2		16,541	32	529,312	5,850
Subtotal							529,312	5,850
Client Hardware								
NEC Express5800/120Rd-2								
Base System with 1 x Pentium III 1.26GHz/512KB	850156001	NEC	1		2,349	32	75,168	0
1 x Pentium III 1.26GHz/512KB BTO Option	062-02025-000	NEC	1		699	32	22,368	0
1GB(2 x 512MB) PC133 SDRAM memory,	062-02029-000	NEC	1		999	32	31,968	0
1 x 18.2GB 10K rpm Ultra160 HDD,	062-02011-000	NEC	1		339	32	10,848	0
CD-ROM, 2 x On-board LAN, KB/MS	Included	NEC	1		0	32	0	0
3 years of warranty service to 4-hour response, 7x24	EN-0000-1095-72	NEC	1		1,399	32	0	44,768
NEC AccuSync50 (15" monitor)	AS50	NEC	3		140	32	4,480	0
42U Rackframe	050-01790-000	NEC	1		1,799	2	3,598	0
Fast Ether Cable 25' RJ45-RJ45 (+2 spares)	C5E-114GY-25FT	AESP	3		11	34	374	0
Subtotal							148,804	44,768
Client Software								
Windows2000 Server, Server License	C11-00821	Microsoft	2		738	32	23,616	(Included)
Visual C++ Professional 6.0 Win32	048-00317	Microsoft	2		549	1	549	(Included)
Subtotal							24,165	
User Connectivity								
24-port Fast Ether Switch w/ 2 optional uplink (+2 spares)	AT-8224XL-10	Allied Telesyn	3		749	3	2,247	0
1-port 1000BASE-SX expansion module (+2 spares)	AT-A15/SX	Allied Telesyn	3		378	6	2,268	0
Subtotal							4,515	0
TOTAL							4,076,838	1,256,447
NEC brand total(Pricing 1-NEC)							3,504,692	1,250,597
NEC brand Large Purchase Cash Prepay Discount(-15%)							(525,704)	(187,590)
Notes:						3-Yr. Cost of Ownership: \$4,619,992		
Client software maintenance is covered by the maintenance costs of Microsoft SQL Server Pricing: 1-NEC 2-Microsoft 3-CDW : with 3-year warranty						tpmC Rating: 308620.82		
Results and methodology audited by Francois Raab of InfoSizing, Inc. (www.sizing.com)						\$ / tpmC: 14.96		
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		308,620.82 tpmC	
<u>Response Times(in seconds)</u>	<u>90%</u>	<u>Average</u>	<u>Maximum</u>
New-Order	2.59	1.11	177.99
Payment	2.47	1.01	172.56
Stock-Level	2.80	1.22	176.19
Delivery(interactive portion)	0.11	0.14	93.52
Delivery(deferred portion)	0.27	0.37	169.42
Order-status	2.59	1.05	166.44
Menu	0.11	0.15	139.74
Response time delay added for emulated components			0.1
<u>Transaction Mix , in percent of total transaction</u>			
New-Order			44.87%
Payment			43.04%
Order-Status			4.03%
Delivery			4.04%
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	18.02 120.72
Payment	3.00	0.00	3.02 120.08
Order-Status	2.00	0.00	2.02 100.09
Delivery	2.00	0.00	2.02 50.08
Stock-Level	2.00	0.00	2.02 50.06
<u>Test Duration</u>			
Ramp-up time			104 minutes
Measurement interval			120 minutes
Number of checkpoints			4
Checkpoint interval			30 minutes
Number of transactions (all types) completed in measurement interval			85,917,350