

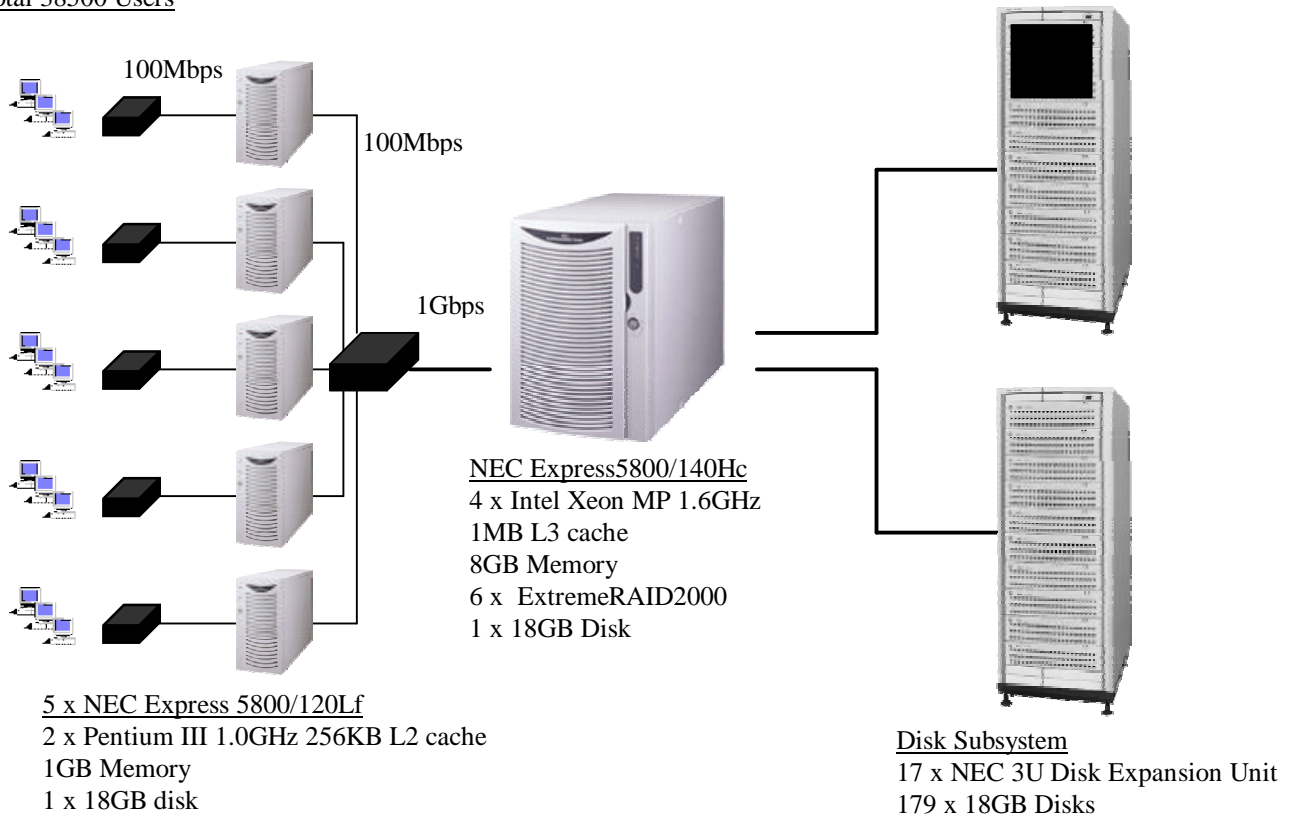


## Express5800/140Hc C/S with 5 Express5800/120Lf

**TPC-C Rev. 5.0**  
**Reported Date**  
**June 20, 2002**

<b>Total System Cost</b>	<b>TPC-C Throughput</b>	<b>Price/Performance</b>	<b>Availability Date</b>
<b>\$ 310,721</b>	<b>48,150.72 tpmC</b>	<b>\$6.45 per tpmC</b>	<b>July 31, 2002</b>
<b>Processors</b>	<b>Database Manager</b>	<b>Operating System</b>	<b>Other Software</b>
4 Intel Xeon MP 1.6GHz for Server 5 x 2 Intel Pentium III 1.0GHz for Client	Microsoft SQL Server 2000 Enterprise Edition	Microsoft Windows 2000 Advanced Server	Windows 2000 Server Microsoft VC++
<b>Number of Users</b>			
<b>38,500</b>			

Total 38500 Users



System Component	Server		Each Client	
<b>Processors</b>	4	Intel Xeon MP 1.6GHz	2	Intel Pentium III 1.0GHz
<b>Cache</b>		1MB L3 Cache		256KB L2 Cache
<b>Memory</b>		8GB		1GB
<b>Disk Controllers</b>	6 1	Mylex eXtremeRAID 2000 Onboard SCSI	1	On-board SCSI
<b>Disk Drives</b>	1 179	18GB 18GB	1	18GB
<b>Total Storage</b>		3,073 GB		18GB
<b>Others</b>	1 1	CD-ROM Drive On-board 1Gbps Ether NIC	1 2	CD-ROM Drive On-board Ether NIC



**NEC Express5800/140Hc  
C/S with 5 Express5800/120Lf**

**TPC-C REV 5.0**

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Description	Part Number	Third Party Brand	Pricing	Unit Price	Qty	Extended Price	3-yr Mnt. Price
<b>Server Hardware</b>							
Express5800/140Hc system							
Base system with 1 x Pentium Xeon 1.6GHz/1MB	NS240000255	NEC	1	8,900	1	8,900	2,136
Pentium Xeon 1.6GHz/1MB BTO Option	062-02066-000	NEC	1	5,499	3	16,497	3,959
4GB (4 x 1GB DDR200 DIMM) memory,	062-02070-000	NEC	1	3,600	2	7,200	1,728
18GB 10K rpm HDD,	062-02071-000	NEC	1	369	1	369	89
On-board Gbit Ether LAN	Included	NEC	1	0	1	0	0
CD-ROM, On-board LAN, KB/MS	Included	NEC	1	0	1	0	0
20/40GB SCSI DDS-4 DAT Internal Drive	ADT-4010-IN-00	NEC	1	949	1	949	228
NEC AccuSync50 (15" monitor)	AS50	NEC	3	145	1	145	35
<b>Subtotal</b>						34,060	8,174
<b>Disk Subsystem</b>							
Extreme RAID2000 4channel controller (+2 spares)	E2000-4-32NB	Mylex	3	1,427	8	11,416	0
3U Disk Expansion Unit ST1430(+2 spares)	NDE-1430-00-00	NEC	1	2,299	19	43,681	0
18GB 15k rpm HDD(+10% spares)	062-02118-000	NEC	1	486	197	95,742	0
42U Rackframe	050-01790-000	NEC	1	1,799	2	3,598	0
APC Smart UPS	050-01800-000	NEC	1	1,599	2	3,198	768
<b>Subtotal</b>						157,635	768
<b>Server Software</b>							
SQL Server2000 Ent. Edition, Unlimited Client Licenses	810-00846	Microsoft	2	16,541	4	66,164	5,850
Windows2000 Advanced Server, 25 Client Licenses	C10-00475	Microsoft	2	2,399	1	2,399	0
<b>Subtotal</b>						68,563	5,850
<b>Client Hardware</b>							
NEC Express5800/120Lf							
Base System with 1 x Pentium III 1GHz/256KB	850151001	NEC	1	1,899	5	9,495	2,279
1 x Pentium III 1GHz/256 BTO Option	062-02002-000	NEC	1	599	5	2,995	719
2 x 256MB memory,	062-02008-000	NEC	1	499	10	4,990	1,198
1 x 18GB 10K rpm HDD,	062-02011-000	NEC	1	369	5	1,845	443
CD-ROM, 2 x On-board LAN, KB/MS	Included	NEC	1	0	5	0	0
NEC AccuSync50 (15" monitor)	AS50	NEC	3	145	5	725	174
<b>Subtotal</b>						20,050	4,812
<b>Client Software</b>							
Windows2000 Server	C11-00821	Microsoft	2	738	5	3,690	0
Visual C++ Professional 6.0	048-00317	Microsoft	2	549	1	549	0
<b>Subtotal</b>						4,239	0
<b>User Connectivity</b>							
Allied Telesyn 6-prt Gigabit Switch (+2spare)	AT-9006T	Allied Telesyn	3	2,190	3	6,570	0
<b>Subtotal</b>						6,570	0
<b>TOTAL</b>						291,117	19,604

**Notes:**

All Microsoft maintenance is covered by the maintenance costs of Microsoft SQL Server  
Pricing: 1-NEC 2-Microsoft 3-CDW  
3 : with 3-year warranty

3-Yr. Cost of Ownership: **\$310,721**  
tpmC Rating: **48150.72**

**\$/tpmC: 6.45**

**Audited by Francois Raab and Bradley Askins, InfoSizing, 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 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

<b>MQTh, Computed Maximum Qualified Throughput</b>		48,150.72 tpmC	
<b><u>Response Times(in seconds)</u></b>	<b><u>90%</u></b>	<b><u>Average</u></b>	<b><u>Maximum</u></b>
New-Order	0.70	0.42	6.72
Payment	0.58	0.31	6.20
Stock-Level	2.30	1.63	7.77
Delivery(interactive portion)	0.11	0.10	1.09
Delivery(deferred portion)	1.08	0.58	3.95
Order-status	0.62	0.34	6.79
Menu	0.11	0.10	2.62
<b>Response time delay added for emulated components</b>			0.1
<b><u>Transaction Mix , in percent of total transaction</u></b>			
New-Order			44.93%
Payment			43.05%
Order-status			4.00%
Delivery			4.01%
Stock-level			4.01%
<b><u>Keying/Think Times (in seconds)</u></b>	<b><u>Min.</u></b>	<b><u>Average</u></b>	<b><u>Max</u></b>
New-Order	18.00 0.00	18.02 12.05	18.04 120.50
Payment	3.00 0.00	3.02 12.05	3.04 120.50
Stock-Level	2.00 0.00	2.02 5.05	2.04 50.50
Delivery	2.00 0.00	2.02 5.07	2.04 50.50
Order-status	2.00 0.00	2.02 10.05	2.04 100.50
<b><u>Test Duration</u></b>			
<b>Ramp-up time</b>			50 minutes
<b>Measurement interval</b>			120 minutes
<b>Number of checkpoints</b>			4
<b>Checkpoint interval</b>			30 minutes
<b>Number of transactions (all types) completed in measurement interval</b>			13,377,224