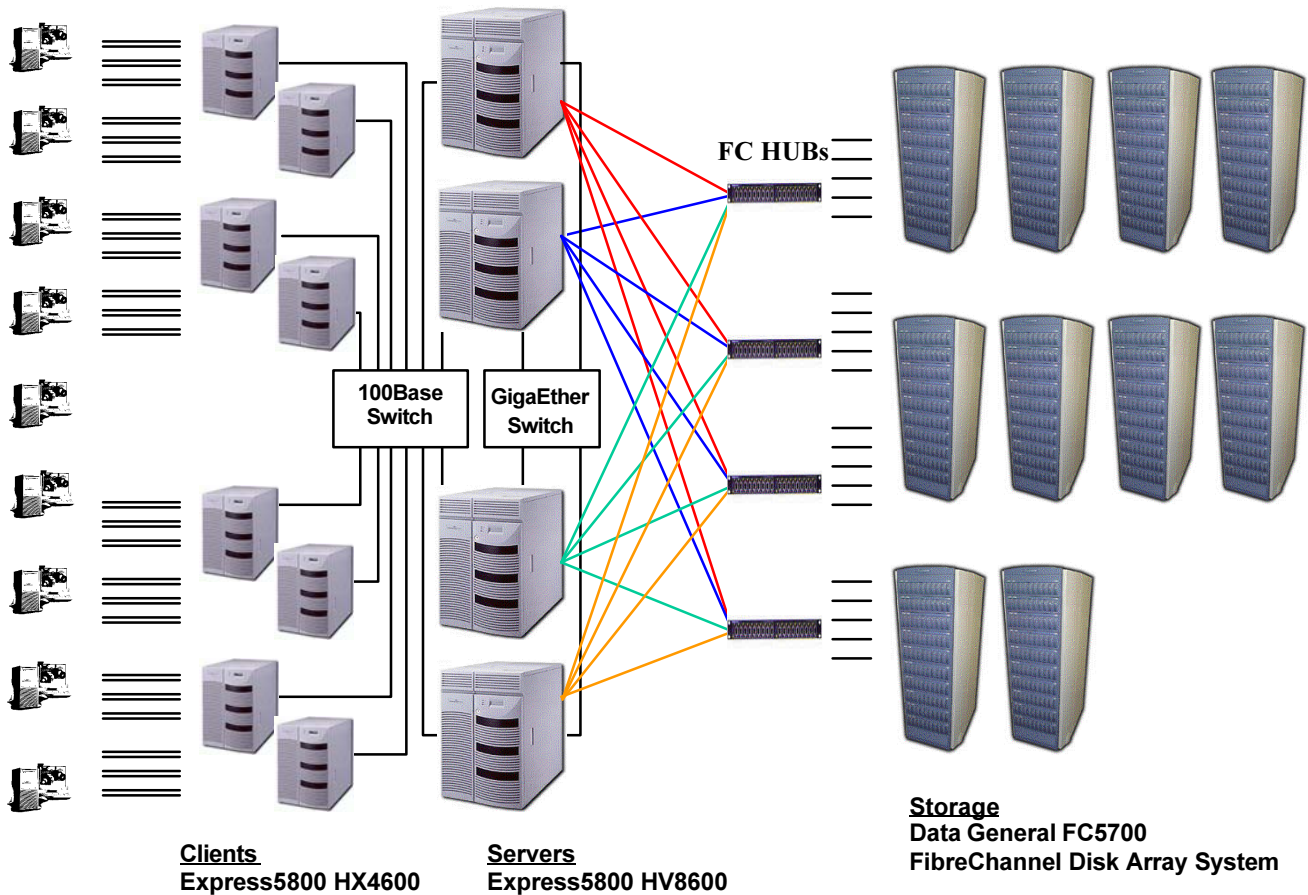
		EXPRESS5800 HV8600 C/S		TPC-C Rev.3.4 Reported Date June 29, 1999
Total System Cost		TPC-C Throughput	Price/Performance	Availability Date
\$4,723,164		50,208.43 tpmC	\$ 94.05per tpmC	November 30,1999
Processors	DBMS	Operating System	Other Software	Number of Users
32 x Pentium ® III Xeon 500MHz 2MB L2 cache	Oracle8i Enterprise Edition v8.1.6.0	Microsoft Windows NT4.0 Enterprise Edition	Microsoft IIS3.0 BEA Tuxedo 6.4 CFS VC++, MKS Tool Kit	48,000

48,000 user connections to 8 clients
(6 segments per client)



System Component	Servers		Each Client	
Processors	32	Pentium ® III Xeon 500MHz	2	Pentium ® III Xeon 500MHz
Cache		2MB		2MB
Memory	4	4096MB	1	1024 MB
Disk Controllers	16	Qlogic ql2100 Fibre HBA	1	Integrated SCSI
	4	Integrated SCSI		
Disk Drives	740	9GB disk (8.339GB usable)	1	9GB
	44	18GB disk (16.936GB usable)		
Total Storage		6916 GB		
Others	1	CD-ROM Drive	1	CD-ROM Drive
	1	DAT Drive		



NEC Express 5800 HV8600

TPC-C REV 3.4

C/S

Report Date: June 29, 1999

Description	Part Number	Third Party Brand	Pricing	Unit Price	Qty	Extended Price	5-year Maint. Price
Server Hardware							
Express5800 HV8600	850131020	NEC	1	29,629	4	118,516	28,444
Integrated SCSI, Ether. 1 CD-ROM							
8x Pentium III Xeon 500MHz/2MB Option	062-01602-000	NEC	1	63,249	4	252,996	60,720
512MB(4x 128MB) Memory Option	062-01544-000	NEC	1	1,449	32	46,368	89,027
9GB 10Krpm HDD Option	203497	NEC	1	799	4	3,196	768
12/24GB SCSI DDS-3 4mm DAT Drive	203117	NEC	1	1,099	4	4,396	0
Qlogic QLA2100(+2spares)	QLA2100	Qlogic	5	774	18	13,932	0
Alteon ACEnic(+2spares)	ACEnic PCI	Alteon	6	995	6	5,970	0
Alteon ACEswitch 180(+2spares)	Alteon 180	Alteon	6	14,995	3	44,985	0
NEC 15" Multisync Monitor	JC-1576VMA	NEC	1	299	4	1,196	288
Disk Subsystem							
39U rack, dual AC inlet	C7661G-F7B	DG	2	6,500	10	65,000	0
HA Model,C5701 10 drive DPE	C5701R-A	DG	2	60,500	10	605,000	25,200
HA Model,C5051 10 drive DAE	C5051D-A	DG	2	8,300	62	514,600	30,008
Cabinet Mounting Kit for DAE	C7680G-A	DG	2	100	62	6,200	0
8.8GB 10Krpm HDD Option(+10%spares)	C8810FLG-A	DG	2	1,850	740	1,369,000	0
18GB 10Krpm HDD Option(+10%spares)	C1710FG-A	DG	2	2,850	44	125,400	0
1024MB Cache Option(+2spares)	C77512G-A	DG	2	14,000	12	168,000	0
Dual Rackmount SPS Option(+2spares)	C7714G-A	DG	2	4,200	12	50,400	0
Single 9-port copper FC Hub	C5H01D-V1	DG	2	4,400	4	17,600	1,936
10m Cable(+10%spares)	154950E033	DG	2	200	22	4,400	0
(Storage Volume Discount)	(40%)	DG	2			(1,170,240)	
						Subtotal	2,246,915
							236,391
Server Software							
Microsoft Windows NT Server,Enterprise Edition 4.0 (included in Express5800 HV8600)		Microsoft	1	0	4	0	0
Oracle 8i v8.1.6.0 Bronze Level support		Oracle	3	808,889	1	808,889	808,889
MKS Toolkit 6.1 for Win32	20014552	MKS	7	252	8	2,016	0
						Subtotal	810,905
							808,889
Client Hardware							
Express5800 HX4600	850125020	NEC	1	11,699	8	93,592	22,463
2x Pentium III Xeon 500MHz/2MB Option	062-01539-000	NEC	1	14,929	8	119,432	28,664
512MB(4x 128MB) Memory Option	062-01577-000	NEC	1	1,449	16	23,184	11,129
9GB 10Krpm HDD Option	203497	NEC	1	799	8	6,392	1,535
Adaptec ANA-6944A/TX(+2spares)	ANA-6944A/TX	Adaptec	10	517	18	9,306	0
NEC 15" Multisync Monitor	JC-1576VMA	NEC	1	299	8	2,392	576
						Subtotal	254,298
							64,367
Client Software							
Microsoft Windows NT Server 4.0 (included in Express5800 HX4600)		Microsoft	1	0	8	0	0
Visual C++ Professional 6.0	20002203	Microsoft	7	364	1	364	0
Tuxedo 6.4 Core functionality Services for NT		BEA	4	3,000	8	24,000	18,000
						Subtotal	24,364
							18,000
User Connectivity							
Cisco Catalyst2912-XL-A (+2 spares)	WS-C2912-XL-A	Cisco	8	1,245	3	3,735	0
Compex 16-prt 10Mbps HUB (+10% spares)	TP1016C	Compex	9	77	3300	254,100	0
						Subtotal	257,835
							0
						TOTAL	3,594,317
							1,127,647

Notes:

Pricing: 1-NEC 2-DG 3-Oracle 4-BEA 5-Unique technologies 6-Alteon 7-BYSOFT.COM
8--Bottom Line Telecom 9-CCI 10-NECX
2: offers volume discount 5,6,8,9,10 : 5-year warranty

Five-Year Cost of Ownership: **\$4,721,964**
tpmC Rating: **50208.43**
\$ / tpmC: 94.05

Audited by Francois Raab of Info Sizing , 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

MQTh, Computed Maximum Qualified Throughput		50208.43tpmC	
%throughput difference ,reported & reproducibility runs		0.13 %	
<u>Response Times(in seconds)</u>	<u>90%</u>	<u>Average</u>	<u>Maximum</u>
New-Order	2.36	0.99	93.86
Payment	2.07	0.78	63.61
Order-Status	1.88	0.71	16.83
Delivery(interactive portion)	1.35	0.56	6.75
Delivery(deferred portion)	1.50	0.66	6.13
Stock-Level	3.15	1.88	9.61
Menu	0.35	0.28	5.99
Response time delay added for emulated components		0.1	
<u>Transaction Mix , in percent of total transaction</u>			
New-Order			44.77%
Payment			43.09%
Order-Status			4.05%
Delivery			4.05%
Stock-Level			4.04%
<u>Keying/Think Times (in seconds)</u>	<u>Min.</u>	<u>Average</u>	<u>Max</u>
New-Order	21.05 0.00	21.05 14.04	21.74 140.40
Payment	3.50 0.00	3.51 14.04	3.97 140.43
Order-status	2.35 0.00	2.35 11.71	2.71 116.94
Delivery	2.35 0.00	2.35 5.83	2.75 58.41
Stock-level	2.35 0.00	2.35 5.86	2.63 58.43
<u>Test Duration</u>			
Ramp-up time			21.6 minutes
Measurement interval			30 minutes
Number of checkpoints			1
Checkpoint interval			30 minutes
Number of transactions (all types) completed in measurement interval			3,362,812