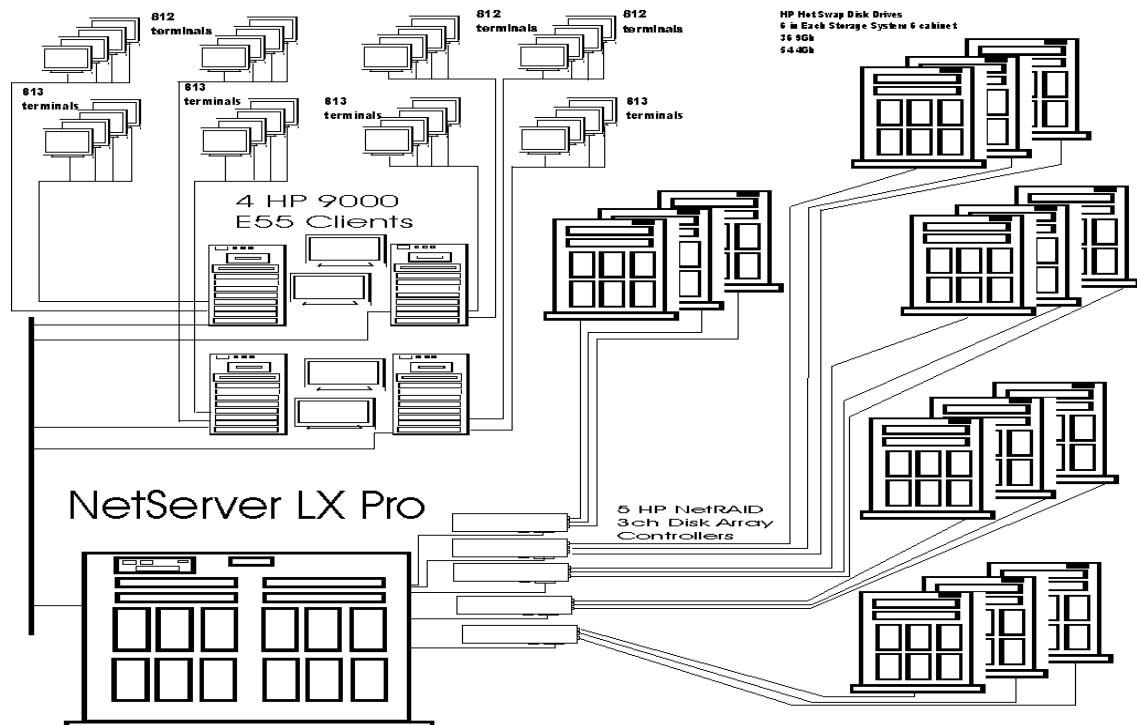


Hewlett-Packard Co.	NetServer LX Pro Client/Server with 4 HPUX Model E55 front-ends		TPC-C® Rev 3.2
			Report Date: April 3, 1997
Total System Cost	TPC-C® Throughput	Price/Performance	Availability Date
\$581,896	8028.07 tpmC®	\$72.48 / tpmC®	April 3, 1997
Processors	Database Manager	Operating System	Other Software
4 Intel Pentium Pro 200MHz	Microsoft SQL Server v. 6.5.SP3	Microsoft NT Server 4.0 HPUX 10.01	Microsoft C++ Compiler Visigenic ODBC Library TUXEDO Transaction Monitor
			Number of Users
			6,500



System Components	Server (LX Pro)		Each Client (E55)	
	Qty	Type	Qty	Type
Processors	4	200 MHz Intel Pentium Pro	1	96 MHz PA-RISC 7100LC
Cache memory	each	512KB cache		256 KB combined external cache
Memory	2	GB	512	MB
Disk Array Controllers	5	HP NetRaid Controllers	1	HP-PB SE SCSI-2
Disk Drives	38	HP Hot-Swap 9G SCSI	1	1 GB Disk
	61	HP Hot-Swap 4G SCSI		
Total Storage (GB)	591	GB		
Tape Drives	1	DAT Storage System		
Terminals	1	Console terminal	1	Console terminal

Hardware and Software Pricing

Description	Part Number	3d Party		Unit Price	Qty.	Extended Price	5 Year Maint. \$
		Brand	\$				
Server Hardware							
HP NetServer LX Pro 6/200 SMP M1 Array Dual Pentium Pro	D4958B	HP	1	25,909	1	25,909	
3 year, on-site, next day warranty	included						
2 200MHz Pentium Pro processors, 512 MB memory	included						
12 Hot swap disk bays	included						
HP NetRaid Disk Array Controller - F/W SCSI-2	included						
Integrated dualPCI F/W SCSI-2cntrlrs&IDEcntrlr	included						
Integrtd1024x768 16color 512KB video memory	included						
CD-ROM drive, 3.5-inch, 1.44MB floppy drive	included						
1 parallel, 2 serial ports, keyboard & mouse	included						
3 410W hot-swap power modules & redundant fans	included						
HP NetServer Navigator, HP NetServer Assistant	included						
HP Open View for Windows.	included						
NetServer LX 6/200 Dual Processor card	D4866A	HP	1	856	1	856	
NetServer LX 6/200 Pentium Pro chip	D4867A	HP	1	2532	2	5,064	
128Mbyte SIMM Module Memory Upgrade	D4893A	HP	3	2697	12	32,364	
SupportPack-NetServer(upgd wrnty to same day,4hr)	H5520A	HPnote1	3	2900	1		5,396
15" VGA Monitor	D2808A	HP	1	372	1	372	168
HP 10/100 PCI Network Adaptor	J3171A	HP	1	121	1	121	
HP 3-Channel NetRAID PCI Array controller	D4349A	HP	1	2117	4	8,468	
HP 4. GB SCSI-2 disk drive (common tray)	D4956A	HP	1	1039	1	1,039	
HP SureStore Tape 6000i 8Gb Internal DAT	C1528F	HP	1	946	1	946	
Server Hardware Subtotals:						64,686	5,564
InternalSCSicable(int68-pin-ext68pin)+10% spare	5182-6740	HP	3	65	4	260	
ExternalSCSicable(ext68pin-to SS/6) + 10% spare	5182-6737	HP	3	100	17	1,700	
HP Storage System/6 + 10% spare	D3604A	HP	1	897	17	15,249	
HP 9GB SCSI-2 hot swap drives + 10% spares	D4289A	HP	1	2337	42	98,154	
HP 4.2 GB SCSI-2hot swap drive+10% spares	D3583B	HP	1	1281	68	87,108	
Server Storage Subtotals:						212,924	
Microsoft Windows NT Server 4.0	Runtime	Microsoft	1	714	1	714	10,475
Microsoft SQL Server 6.5, unlimited license		Microsoft	4	24999	1	24,999	
Server Software Subtotals:						25,713	10,475
Client Hardware							
HPseries9000mIE55(with2UserHPUNIX LTUbundled)	A3194AWopt OS3	HPnote2	8	8,900	4	35,600	6,984
MUX Personality card for base system I/O	A2442A opt 001	HP	8	150	4	600	
1 GB SE SCSI2 disk drive with HPUNIX v10.01	A3349A opt OD1	HP	8	300	4	1,200	4,224
650Mb CDROM	A3184A opt ODZ	HP	8	250	4	1,000	1,920
Lan/9000 Link for HP-PB based servers	C1064WX	HP	8	750	8	6,000	
System Console	J2146A Opt. 0DM	HP	8	200	4	800	960
128 MB Memory Module	A3131A opt ODZ	HP	8	1,450	16	23,200	
Client Hardware Subtotals:						68,400	14,088
Visigenic ODBC MS SQL Server Driver		Visigenic	6	9,975	4	39,900	39,900
Visigenic ODBC SDK		Visigenic	6	995	1	995	
Tuxedo 6.2		Bea Sys.	7	3,000	4	12,000	9,000
HP/C ANSI Compiler, LTU	B2412A opt AHO	HP	8	1,575	1	1,575	1,125
Client Software Subtotals:						54,470	50,025
Communications							
NetLux 24-Port 10Base-T EtherNet Hub	DEH1487	NetLux.	5	251	301	75,551	
Communications Subtotals:						75,551	
Total						501,744	80,152
Notes:						Five Year Cost:	581,896
1a.Support pack H5520A (\$2900/3yrs) upgrades NetServer 3yr warranty to same day, 4hr response, includes SPU internal components (CPUs, mem, NIC, DACs, DAT, etc);						tpmC Rating:	8028.07
1b. NetServer support for yrs 4-5 via HP contract support 02A (\$104/mo)							
2a. Series 9000 model E55 option OS3 (648/yr) upgrades 1 yr warranty hardware support to 4 hour response for all SPU components for 1 year; 2b. support for years 2 to 5, order service contract O2A (\$33/mo) which includes: personaliyt card, LAN link and memory modules.						\$/tpmC:	72.48
Pricing Key: 1=Metropolitan, 3=HP Corporate Price List, 4=Microsoft, 5=NETLUX, 6=Visigenic Software, 7=BEA Systems, 8=Forsythe Solutions							
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 reflect standard pricing policies for the listed components. For complete details, see the pricing sections fo 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.							

Note: audited by Richard Gimarc of Performance Metrics, Inc,

Numerical Quantities Summary for NetServer LX Pro

MQTH, Computed Maximum Qualified Throughput **8028.07 tpmC®**

Response Times (in seconds)	90th %-ile	Maximum	Average
New-Order	1.24	10.57	0.72
Payment	0.91	14.40	0.77
Order-Status	1.67	8.20	1.64
Delivery (interactive portion)	0.22	0.38	0.12
Delivery (deferred portion)	1.30	9.00	1.18
Stock-Level	4.68	14.57	3.45
Menu	0.04	0.17	0.01

Transaction Mix, in percent of total transactions

New-Order	44.80%
Payment	43.08%
Order-Status	4.03%
Delivery	4.03%
Stock-Level	4.05%

Keying/Think Times (in seconds)

	Keying Time			Think Time		
	Min.	Avg.	Max.	Min.	Avg.	Max.
New-Order	18.01	18.02	18.18	0.01	12.12	159.59
Payment	3.01	3.02	3.07	0.01	12.05	144.83
Order-Status	2.01	2.02	2.07	0.01	10.21	153.70
Delivery (interactive)	2.01	2.02	2.07	0.01	5.09	43.63
Stock-Level	2.01	2.02	2.07	0.01	5.08	49.88

**Numerical Quantities Summary for
NetServer LX Pro, continued**

Test Duration

Ramp-up time	34.9 minutes
Measurement interval	30 minutes
Transactions during measurement interval	537,563
Ramp down time	87 minutes

Checkpointing

Number of checkpoints in measurement interval	1
Checkpoint interval	30 minutes

Reproducibility Run

7972.10 tpmC -0.7%