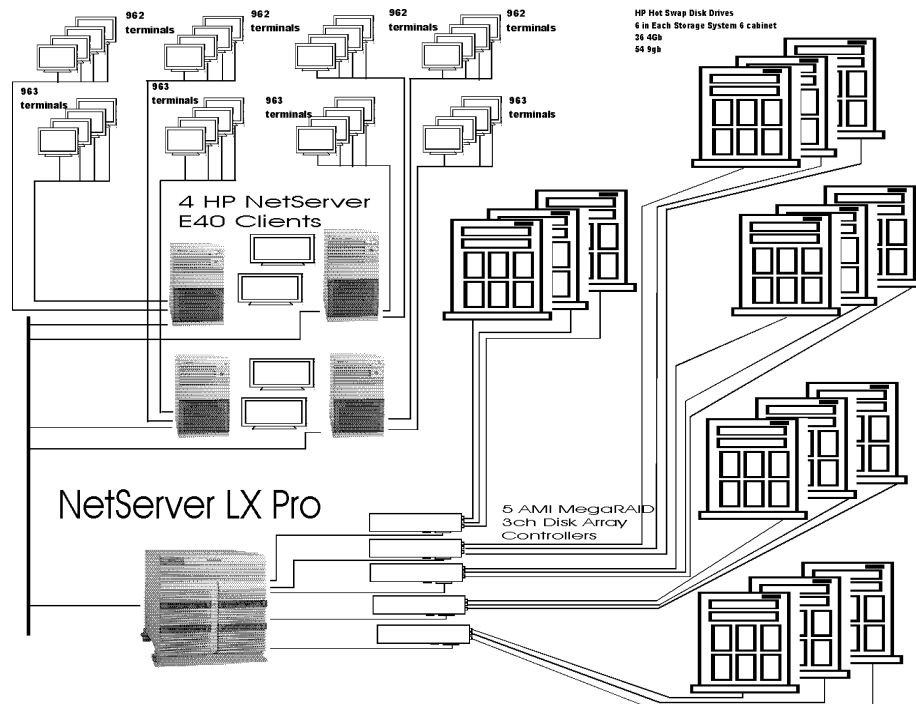


<b>Hewlett-Packard Co.</b>	<b>NetServer LX Pro 6/200 SMP</b> Client/Server with 4 NetServer E-40 front-ends		TPC-C® Rev 3.3
			Report Date: September 9, 1997
Total System Cost	TPC-C® Throughput		Price/Performance
<b>\$463,178</b>	<b>9198.37 tpmC®</b>		<b>\$50.35 / tpmC®</b>
Processors	Database Manager	Operating System	Other Software
4 Intel Pentium Pro 200MHz	Microsoft SQL Server v. 6.5 Enter- prise Edition	Microsoft NT Server 4.0 Enter- prise Edition	Microsoft C++ Compiler <b>TUXEDO</b> Transaction Monitor
			Number of Users
			<b>7,850</b>



<i>System Components</i>	<i>Server (LX Pro)</i>		<i>Each Client (E40)</i>	
	<i>Qty</i>	<i>Type</i>	<i>Qty</i>	<i>Type</i>
Processors	4	200 MHz Intel Pentium Pro	1	200 MHz Intel Pentium Pro
Cache memory	<i>each</i>	512KB cache		256 KB cache
Memory	4	GB	256	MB
Disk Array Con- trollers	5	HP NetRaid Controllers	1	HP SCSI-2 Controller
Disk Drives	60	HP Hot-Swap 9G SCSI	1	2 GB Disk
	36	HP Hot-Swap 4G SCSI		
Total Storage (GB)	684	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	\$				
<b>Server Hardware</b>							
HP NetServer LX Pro 6/200 SMP M1 Array Dual Pentium Pro	D4311B	HP	1	11,305	1	11,305	
3 year, on-site, next day warranty	included						
2 200MHz Pentium Pro processors, 64MB memory	included						
12 Hot swap disk bays	included						
Integrated dualPCI F/W SCSI-2cntrlrs&IDEcntrller	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	825	1	825	
NetServer LX 6/200 Pentium Pro chip	D4867A	HP	1	2,145	3	6,435	
4GB memory board with 512MB	D4967A	HP	1	8,025	1	8,025	
512 MByte ECC DIMM Memory Module	D4968A	HP	1	8,350	7	58,450	
SupportPack-NetServer(upgd wrnty to same day,4hr)	H5520A	HP	2				5,396
14" VGA Monitor	D2813A	HP	1	245	1	245	168
HP 10/100 PCI Network Adaptor	J3171A	HP	1	72	1	72	
<b>Server Hardware Subtotal:</b>						<b>85,357</b>	<b>5,564</b>
<b>Server Storage</b>							
AMI MegaRAID Ultra GT F/W SCSI Ctr 3chnl inc. spare	432110000	AMI	1	1,795	6	10,770	
InternalSCSicable(int68-pin-ext68pin)+10% spare	5182-6740	HP	1	30	4	120	
ExternalSCSicable(ext68pin-to SS/6) + 10% spare	5182-6737	HP	1	55	17	935	
HP Storage System/6 + 10% spare	D3604A	HP	1	995	17	16,915	
HP 9GB SCSI-2 hot swap drives + 10% spares	D4289A	HP	1	2,045	66	134,970	
HP 4.2 GB SCSI-2hot swap drive+10% spares	D3583B	HP	1	1,140	40	45,600	
HP 9GB SCSI-2 disk drive (common tray)	D4911A	HP	2	1,450	1	1,450	
HP SureStore Tape 6000i 8Gb Internal DAT	C1528F	HP	1	905	1	905	
<b>Server Storage Subtotal:</b>						<b>211,665</b>	
<b>Server Software</b>							
Microsoft Windows NT Server 4. Enterprise Edition0		MS	3	3,999	1	3,999	
Microsoft SQL Server 6.5 Enterprise Edition		MS	3	24,300	1	24,300	10,475
<b>Server Software Subtotal:</b>						<b>28,229</b>	<b>10,475</b>
<b>Client Hardware</b>							
HP Netserver E40 incl 2.1GB disk & 10/100 NIC	D4933A	HP	1	1,885	4	7,540	
64MB SIMMs	D4290A	HP	1	865	16	13,840	
HP 10/100 PCI Network Adaptor	J3171A	HP	1	72	8	576	
14" VGA Monitor	D2813S	HP	1	245	4	980	
5 Yr Support - 14" VGA Monitor		HP	2				672
5 Yr Support - E40 SPU w/internal components	H5517A	HP	2				5,144
<b>Client Hardware Subtotals:</b>						<b>22,936</b>	<b>5,816</b>
<b>Client Software</b>							
Windows NT 4.0 Server	Z50001	MS	1	587	4	2,348	
SQL Svr Programmer's toolkit	Z5002	MS	1	129	1	129	
Tuxedo Run Tlme		BEA	4	3,000	4	12,000	9,000
Tuxedo Developers Kit		BEA	4	2,495	1	2,495	1,871
Microsoft C++ v. 4.0	Z5003	MS	1	425	1	425	
<b>Client Software Subtotals:</b>						<b>17,397</b>	<b>10,871</b>
<b>Communications</b>							
Allied 24-Port 10Base-T EtherNet Hubs + spares	347465		1	179	362	64,798	
<b>Communications Subtotals:</b>						<b>64,798</b>	
<b>Total</b>						<b>430,452</b>	<b>32,726</b>
<b>Notes:</b>						<b>Five Year Cost:</b>	<b>463,178</b>
1.Support pack H5520A upgrades NetServer 3yr warranty to same day, 4hr response, includes SPU internal components (CPUs, mem, NIC, DAT, etc).						<b>tpmC Rating:</b>	<b>9198.37</b>
2. NetServer support for yrs 4-5 via HP contract support 02A includes all HP components in SPU, \$7 per month for monitors							
3. Pricing Key: 1=Software House, 2=HP Corporate Price List, 3=Microsoft, 4=BEA Systems						<b>\$/tpmC:</b>	<b>50.35</b>
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 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.							

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

## Numerical Quantities Summary for NetServer LX Pro 6/200 SMP

**MQTH, Computed Maximum Qualified Throughput** **9198.37 tpmC®**

<b>Response Times (in seconds)</b>	<b>90th %-ile</b>	<b>Maximum</b>	<b>Average</b>
New-Order	1.69	4.77	1.18
Payment	1.55	4.58	1.04
Order-Status	2.20	5.22	1.51
Delivery (interactive portion)	1.22	3.98	0.72
Delivery (deferred portion)	0.85	6.00	0.65
Stock-Level	3.85	7.44	2.56
Menu	1.3	5.42	0.69

### **Transaction Mix, in percent of total transactions**

New-Order	44.88%
Payment	43.00%
Order-Status	4.04%
Delivery	4.05%
Stock-Level	4.03%

### **Keying/Think Times (in seconds)**

	<b>Keying Time</b>			<b>Think Time</b>		
	<b>Min.</b>	<b>Avg.</b>	<b>Max.</b>	<b>Min.</b>	<b>Avg.</b>	<b>Max.</b>
New-Order	18.01	18.02	18.10	0.01	12.10	169.09
Payment	3.01	3.02	3.10	0.01	12.15	140.37
Order-Status	2.01	2.02	2.09	0.01	10.16	134.27
Delivery (interactive)	2.01	2.02	2.09	0.01	5.18	49.60
Stock-Level	2.01	2.02	2.09	0.01	5.16	47.53

**Numerical Quantities Summary for  
NetServer LX Pro 6/200 SMP, continued**

**Test Duration**

Ramp-up time	67.6 minutes
Measurement interval	30 minutes
Transactions during measurement interval	614,877
Ramp down time	22.4 minutes

**Checkpointing**

Number of checkpoints in measurement interval	1
Checkpoint interval	30 minutes

<b>Reproducibility Run</b>	9152.07 tpmC	-0.5%
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