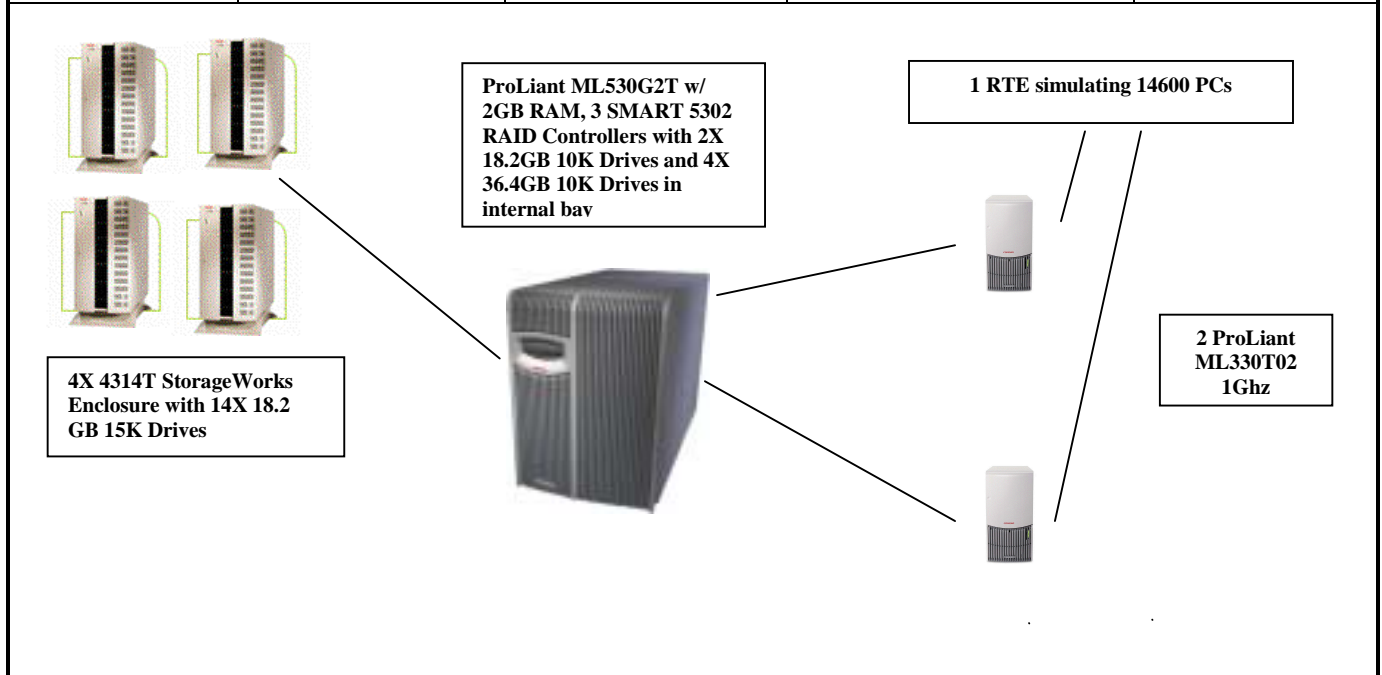


Hewlett Packard Company	ProLiant ML530G2T 1P	TPC-C Rev. 5.0
	C/S with 2 ProLiant ML330T	Report Date: July 25, 2002

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
<b>\$67,574</b>	<b>17,659.53</b>	<b>\$3.84</b>	<b>July 25, 2002</b>

Processors	Database Manager	Operating System	Other Software	Number of Users
1 Intel Xeon 2.4 GHz – Server 2 Pentium III 1GHz – Clients	Microsoft SQL Server 2000 Standard Edition	Windows 2000 Server	Microsoft Visual C++ Microsoft COM+	<b>14600</b>



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processor	1	2.4 GHz Intel Xeon w/ 512K Cache	1	1GHz Pentium III w/ 256K cache
Memory	1	2 GB DDR (2x1GB)	4	128MB (Total of 512MB per client)
Disk Controllers	1	Integrated Ultra-3 SCSI Controller	1	Integrated Wide Ultra2 SCSI Adapter
	3	SMART 5302 Array Controller		
Disk Drives	2	18.2 GB SCSI Drive	1	9.1GB SCSI Drive
	4	36.4GB SCSI Drive		
	56	18.2 GB SCSI Drive		
Total Storage		1115.88 GB		8.473 GB
Tape Drives	1	12/24 GB DAT		

Hewlett-Packard		ProLiant ML530G2T-2400X 1P			TPC-C Rev. 5.0		
Company		Client/Server			Report Date:	25-Jul-02	
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
<b>Server Hardware</b>		<b>Brand Pricing</b>					
ProLiant ML530G2T 1GB 2P 2.4GHz	180285-001	1	5,199	1	5,199		
1GB (2x512MB) DDR 200MHz Memory	187419-B21	1	839	1	839		
StorageWorks Enclosure Model 4314T- Tower	190210-001	1	3,182	4	12,728		
Smart Array 5302 Controller	124992-B21	1	1,399	3	4,197		
S5500 15 carbon / silver monitor	261602-001	1	139	1	139		
12/24-Gigabyte DAT Drive (Internal)	295513-B22	1	682	1	682		
UPS T700	204015-001	1	333	1	333		
18.2GB Pluggable Ultra3 SCSI 15K 1" Universal HDD	188122-B22	1	459	56	25,704		
18.2GB Pluggable Ultra3 SCSI 15K 1" Universal HDD (10% spares)	188122-B22	1	459	6		2,754	
18.2GB Pluggable Ultra3 SCSI 10K 1" Universal HDD	142673-B22	1	319	2	638		
36.4-GB Pluggable 1" Universal WideUltra3 10K HDD	176496-B22	1	534	4	2,136		
NC3123 Fast Ethernet NIC PCI 10/100 Wake on LAN	174830-B21	1	98	1	98		
FM-MI724-36 3YR 24X7 4HR 500 SERIES SVR	401782-002	1	1,795	1		1,795	
FM-4E724-36 3YR 24X7/4HR EMPTY DISK ENCL	171242-002	1	157	4		628	
					<b>Subtotal</b>	<b>52,693</b>	<b>5,177</b>
<b>Server Software</b>							
Microsoft SQL Server 2000 Standard Edition(per processor)	228-01079 Microsoft	2	4,999	1	4,999	5,850	
Microsoft Visual C++ 6.0	048-00317 Microsoft	2	549	1	549	Incl Above	
Microsoft Windows 2000 Server	C11-00821 Microsoft	2	738	1	738	Incl Above	
					<b>Subtotal</b>	<b>6,286</b>	<b>5,850</b>
<b>Client Hardware</b>							
ProLiant ML330T02 1000/133-256K 128MB 18GB SCSI	234665-002	1	1,099	2	2,198		
128 Reg 133MHz SDRAM DIMM	128277-B21	1	122	6	732		
NC3123 Fast Ethernet NIC PCI 10/100 Wake on LAN	174830-B21	1	98	4	392		
S5500 15 carbon / silver monitor	261602-001	1	139	2	278		
FM-EL724-36 3YR 24X7 4HR ENTRY 300 SVR	162675-002	1	750	2		1,500	
					<b>Subtotal</b>	<b>3,600</b>	<b>1,500</b>
<b>Client Software</b>							
Microsoft Windows 2000 Server	C11-00821 Microsoft	2	738	2	1,476	Incl. Above	
					<b>Subtotal</b>	<b>1,476</b>	<b>0</b>
<b>User Connectivity</b>							
10 ft. CAT5e Crossover Patch cable	45CROSS10RD Startech	3	4	4	18		
					<b>Subtotal</b>	<b>18</b>	<b>0</b>
Large Purchase and Net 30 discount (See Note 1)		14.0%	1				
					<b>Total</b>	<b>\$56,192</b>	<b>\$11,592</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 pricing 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.				<b>Three-Year Cost of Ownership: \$67,784</b>			
				<b>tpmC Rating: 17659.53</b>			
				<b>\$ / tpmC: \$3.84</b>			
Pricing: 1=HP 2=Microsoft 3=PC Connection							
Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount.							
Note: The benchmark results and test methodology were audited by Lorna Livingtree of Performance Metrics, Inc.							

## Numerical Quantities Summary

**MQTH, Computed Maximum Qualified Throughput**

**17,659.53 tpmC**

<b>Response Times (in seconds)</b>	<b>Average</b>	<b>90%</b>	<b>Maximum</b>
New-Order	0.67	1.23	20.03
Payment	0.42	0.85	19.48
Order-Status	0.48	0.90	17.90
Delivery (interactive portion)	0.11	0.11	10.95
Delivery (deferred portion)	0.74	1.07	11.39
Stock-Level	4.19	6.38	25.75
Menu	0.11	0.11	13.11

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

New-Order	44.88%
Payment	43.04%
Order-Status	4.03%
Delivery	4.02%
Stock-Level	4.02%

### **Emulation Delay (in seconds)**

	<b>Resp.Time</b>	<b>Menu</b>
New-Order	0.10	0.10
Payment	0.10	0.10
Order-Status	0.10	0.10
Delivery (interactive)	0.10	0.10
Stock-Level	0.10	0.10

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

	<b>Min.</b>	<b>Average</b>	<b>Max.</b>
New-Order	18.00/0.00	18.02/12.52	18.03/125.31
Payment	3.00/0.00	3.02/12.52	3.03/125.31
Order-Status	2.00/0.00	2.02/10.45	2.02/104.50
Delivery (interactive)	2.00/0.00	2.02/5.27	2.02/52.50
Stock-Level	2.00/0.00	2.02/5.26	2.02/52.50

### **Test Duration**

Ramp-up time	48 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	4,890,315
Ramp down time	78 minutes

### **Checkpointing**

Number of checkpoints	4
Checkpoint interval	30 minutes