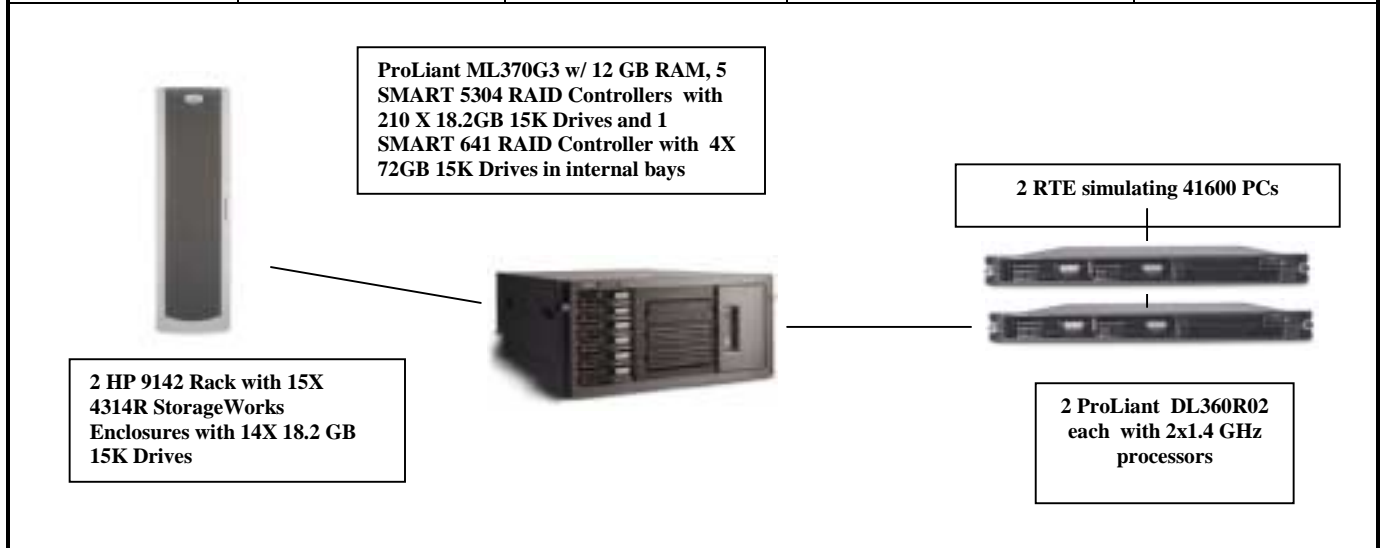


Hewlett Packard Company	ProLiant ML370-G3-1M 2P	TPC-C Rev. 5.1
	C/S with ProLiant DL360R02	Report Date: July 15, 2003

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
<b>\$200,301</b>	<b>52,468.48</b>	<b>\$3.82</b>	<b>July 15, 2003</b>

Processors	Database Manager	Operating System	Other Software	Number of Users
2 Intel Xeon 3.06 GHz – 1M L3 cache – Server 4 Pentium III 1.4 GHz – Clients	Microsoft SQL Server 2000 Enterprise Edition SP3	Microsoft Windows Server 2003, Enterprise Edition	Microsoft Visual C++ Microsoft COM+	<b>41600</b>



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processor	2	3.06 GHz Intel Xeon w/ 1M Cache	1	1.4 GHz Pentium III Xeon w/ 256K cache
Memory	6	2 GB DDR	1	1 GB (2x 512 MB)
Disk Controllers	1	Integrated Ultra-3 SCSI Controller	1	Integrated SMART Array Controller
	5	SMART 5304 Array Controller		
	1	SMART 641 Array Controller		
Disk Drives	1	18.2 GB SCSI Drive	1	18.2 GB SCSI Drive
	4	72 GB SCSI Drive		
	210	18.2 GB SCSI Drive		
Total Storage		3856.45 GB		16.9 GB
Tape Drives	1	12/24 GB DAT		

Hewlett-Packard	ProLiant ML370G3T-1M- 2P		TPC-C Rev. 5.1				
Company	Client/Server		Report Date:	15-Jul-03			
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
<b>Server Hardware</b>							
<b>Brand Pricing</b>							
ProLiant ML370G3T 1M 1P 3.0GHz, Integrated Gigabit NIC	333701-001	1	3,099	1	3,099		
X3.06GHz /533MHz Processor Option Kit - ML370G3	333713-B21	1	1,499	1	1,499		
2GB x 1 PC2100 DDR	301044-B21	1	3,190	6	19,140		
2-Bay Hot Plug Wide Ultra2/Ultra3 SCSI Drive Cage	244059-B21	1	370	1	370		
S5500 15 carbon / silver monitor	261602-001	1	129	1	129		
Scroll Mouse-Carbon	231947-B21	1	5	1	5		
PS/2 Easy Access Internet Keyboard	265977-001	1	12	1	12		
StorageWorks Enclosure Model 4314R - Rack-mountable	190209-001	1	2,955	15	44,325		
Rack Model 9142 (42U - Opal) - Flat Pallet	120663-B21	1	1,321	2	2,642		
Side Panel Kit - 9142 Rack	120670-B21	1	207	1	207		
Smart Array 641 Controller	291966-B21	1	549	1	549		
Smart Array 5304/256 Controller	283551-B21	1	2,247	5	11,235		
12/24-Gigabyte DAT Drive (Internal)	295513-B22	1	682	1	682		
UPS T700	204015-001	1	325	1	325		
18.2GB 15Krpm U320 UNI HDD	286775-B22	1	359	210	75,390		
18.2GB 15Krpm U320 UNI HDD (10% spares)	286775-B22	1	359	21		7,539	
36GB 10K U320 Pluggable Hard Drive WW (OS)	286713-B22	1	339	1	339		
72GB 15K U320 UNI HDD ALL (internal log drives)	286778-B22	1	999	4	3,996		
CarePaaS Service - 300 Series Servers 3Yr,7x24,4hr	162657-002	1	949	1		949	
FM-4E724-36 3YR 24X7/4HR EMPTY DISK ENCL	171242-002	1	157	15		2,355	
<b>Subtotal</b>					<b>163,944</b>	<b>10,843</b>	
<b>Server Software</b>							
Microsoft SQL Server 2000 Enterprise Edition(per processor)	810-00845	Microsoft	2	17,279	2	34,558	5,850
Visual C++ .Net Standard	254-00170	Microsoft	2	109	1	109	Incl Above
Microsoft Windows 2003, Enterprise Edition	N/A	Microsoft	2	2,399	1	2,399	Incl Above
<b>Subtotal</b>					<b>37,066</b>	<b>5,850</b>	
<b>Client Hardware</b>							
ProLiant DL360 Model DL360R02 P1400-512K 256MB	233271-001	1	1,759	2	3,518		
Two integrated Gigabit NIC, Integrated Smart Array Controller							
1GB 133MHz SDRAM DIMM Memory (2x512MB)	201694-B21	1	600	2	1,200		
P1400/133-512 DL360G2 Processor Option Kit (DL360 G2)	233273-B21	1	717	2	1,434		
S5500 15 carbon / silver monitor	261602-001	1	129	2	258		
Scroll Mouse-Carbon	231947-B21	1	5	2	10		
PS/2 Easy Access Internet Keyboard	265977-001	1	12	2	24		
36GB 10K U320 Pluggable Hard Drive WW (OS)	286713-B22	1	339	2	678		
HP CP 3Y 4H 24x7 HW 300 Srs 4-Hour 24 x 7 Coverage 3 Years	162657-002	1	949	2		1,898	
<b>Subtotal</b>					<b>7,122</b>	<b>1,898</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>							
Netgear GS508T 8 port Copper Gigabit Switch	1058966	Netgear	3	502	3	1,506	
7ft CAT 5e Network Patch Cables	CBLC57	LanAdapters	4	1	5	5	
<b>Subtotal</b>					<b>1,511</b>	<b>0</b>	
Large Purchase and Net 30 discount (See Note 1)	16.0%	1					
<b>Total</b>					<b>\$183,748</b>	<b>\$16,552</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: \$200,301</b>		
					<b>tpmC Rating: 52,468.48</b>		
					<b>\$ / tpmC: \$3.82</b>		
Pricing: 1=HP 2=Microsoft 3=Compuplus.com 4=LanAdapters.com							
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**

**52,468.48 tpmC**

<b>Response Times (in seconds)</b>	<b>Average</b>	<b>90%</b>	<b>Maximum</b>
New-Order	0.28	0.43	5.58
Payment	0.22	0.36	4.59
Order-Status	0.24	0.38	4.90
Delivery (interactive portion)	0.10	0.11	0.17
Delivery (deferred portion)	0.15	0.27	0.70
Stock-Level	0.94	1.27	4.38
Menu	0.10	0.11	0.34

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

New-Order	44.96%
Payment	43.01%
Order-Status	4.01%
Delivery	4.01%
Stock-Level	4.01%

### **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	18.02/12.02	18.15/120.21
Payment	3.00/0.00	3.02/12.01	3.15/120.21
Order-Status	2.00/0.00	2.01/10.01	2.10/100.20
Delivery (interactive)	2.00/0.00	2.01/5.02	2.15/50.20
Stock-Level	2.00/0.00	2.01/5.03	2.09/50.20

### **Test Duration**

Ramp-up time	30 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	13,940,407
Ramp down time	5 minutes

### **Checkpointing**

Number of checkpoints	4
Checkpoint interval	30 minutes