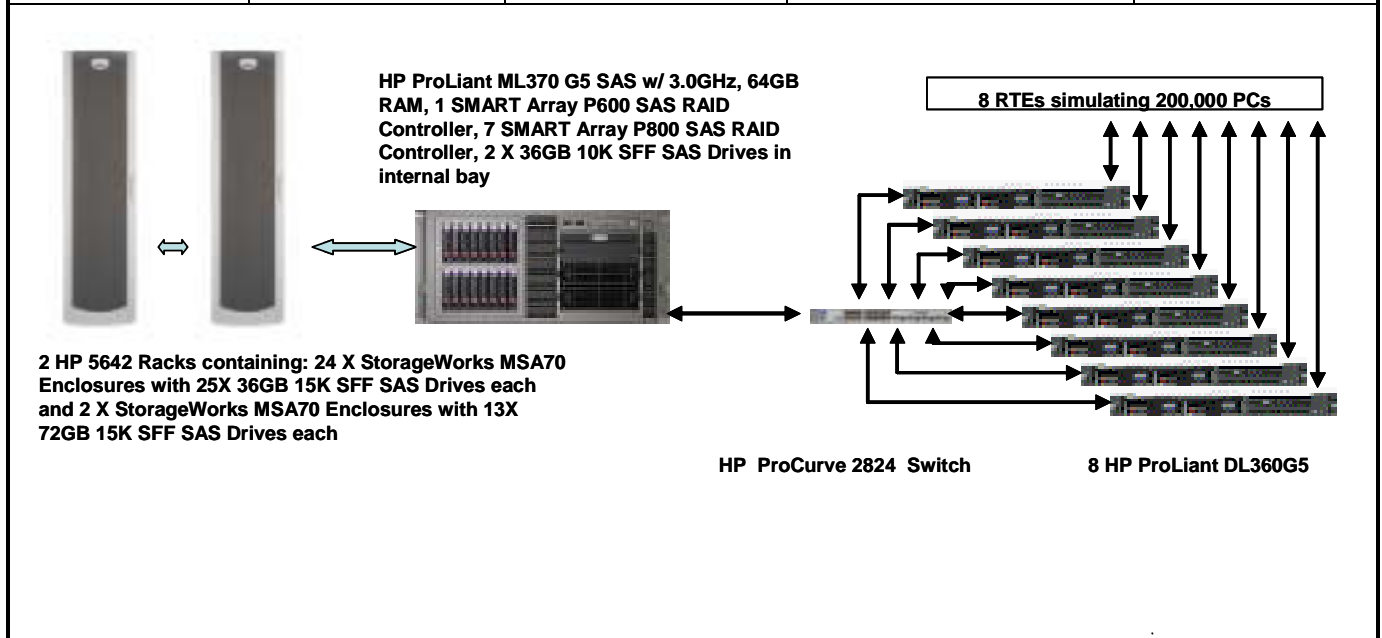


<b>Hewlett-Packard</b>  <b>Company</b>	HP ProLiant ML370 G5 SAS Intel X5365 QC	TPC-C Rev. 5.9
	C/S with 8 HP ProLiant DL360G5	Report Date: Sept. 5, 2007

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
<b>USD \$408,116</b>	<b>251,300</b>	<b>USD \$1.63</b>	<b>Sept. 5, 2007</b>

Database Server Processors /Cores/Threads	Database Manager	Operating System	Other Software	Number of Users
2/8/8 Intel X5365 3.0GHz QC	Microsoft SQL Server 2005 Enterprise x64 Edition SP2	Windows Server 2003 R2 Enterprise x64 Edition SP1	Microsoft Visual C++ Microsoft COM+	<b>200,000</b>



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processors/Cores/Threads	2/8/8	3.0GHz Intel X5365 QC w/ 8M Cache	1/2/2	1.6 GHz Intel X5110
Memory	8	8 GB DDR (2 X 4 GB)	2	1024 MB
Disk Controllers	1	Smart P600 Controller	1	Integrated Smart Array P600 Controller
	7	Smart P800 Controller		
Disk Drives	26	72GB 15K SFF SAS Drives (log)	2	36 GB SCSI Drive
	600	36 GB 15K SFF SAS Drives (data)		
	2	36 GB 10K SFF SAS Drives (internal, O/S)		
Total Storage		22,128 GB		72 GB

Hewlett-Packard Company	HP ProLiant ML370 G5 SAS Intel X5365 QC Client/Server			TPC-C Rev. 5.9		
				Report Date	5-Sep-06	
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price
<b>Server Hardware</b>						
<b>Brand Pricing</b>						
HP ML370 G5 Rack SAS MOD-FX Svr	400606-B21	1	1,643	1	1,643	
HP 3.0GHz/1333MHz X5365, 120W processor kit	450321-B21	1	1,699	2	3,398	
8GB FBD PC2-5300 2 x 4GB Kit	397415-B21	1	2,399	8	19,192	
HP ML370 G5 Mem. Board Kit	403766-B21	1	179	1	179	
HP Smart Array P800/512MB SAS Controller	381513-B21	1	1,099	7	7,693	
HP Smart Array P600 3G SAS/SATA RAID Controller	337972-B21	1	729	1	729	
HP s7540 17in. CRT Monitor	PF997AA#ABA	1	139	1	139	
HP PS/2 Scroll Mouse	AH036AV	1	5	1	5	
HP PS/2 Standard Keyboard	DZ204AV#ABA	1	5	1	5	
HP 5642 Pallet Unassembled Rack	358254-B21	1	865	2	1,730	
HP R/T2200 5-20P NA UPS	AF409A	1	849	1	849	
HP 36GB 15k 2.5 Single Port HP SAS Drive	431933-B21	1	369	600	221,400	
HP 36GB 15k 2.5 Single Port HP SAS Drive (10% Spares)	431933-B21	1	369	60		22,140
HP 72GB 15k 2.5 Single Port HP SAS Drive	431935-B21	1	499	26	12,974	
HP 72GB 15k 2.5 Single Port HP SAS Drive (10% Spares)	431935-B21	1	499	3		1,497
HP 36GB 10K SAS 2.5 Hot Plug Hard Drive	375859-B21	1	269	2	538	
HP StorageWorks MSA-70 Storage	418800-B21	1	3,199	26	83,174	
HP StorageWorks MSA-70 Storage (10% Spares)	418800-B21	1	3,199	3		9,597
HP CPe 3Y 4H 24x7 HW ProLiant ML370	U4529E	1	853	1		853
<b>Subtotal</b>					<b>353,648</b>	<b>34,087</b>
<b>Server Software</b>						
Microsoft SQL Server 2005 Enterprise X64 Edition(per processor)	810-03150	Microsoft	23,911	2	47,822	Incl Below
Microsoft Visual Studio Standard 2005	127-00012	Microsoft	250	1	250	Incl Below
Microsoft Windows 2003 Server R2, Enterprise Edition X64	P72-01684	Microsoft	2,334	1	2,334	Incl Below
Microsoft Problem Resolution Services		Microsoft	245	1		245
<b>Subtotal</b>					<b>50,406</b>	<b>245</b>
<b>Client Hardware</b>						
HP DL360G5 X5110 1GB, iLo2	416559-001	1	2,089	8	16,712	
Dual Integrated Gigabit NIC, Integrated Smart Array Controller						
HP 1GB FBD PC2-5300 2x512 Kit	397409-B21	1	199	8	1,592	
HP 36GB 10K SAS 2.5 Hot Plug Hard Drive	375859-B21	1	269	16	4,304	
HP CP 3Y 4H 24x7 HW Entry300 4-Hour 24 Hour x 7 Day Coverage 3 Years	162675-002	1	599	8		4,792
<b>Subtotal</b>					<b>22,608</b>	<b>4,792</b>
<b>Client Software</b>						
Windows Server 2003 R2, Standard Edition	P73-01972	Microsoft	719	8	5,752	Incl. Above
<b>Subtotal</b>					<b>5,752</b>	<b>0</b>
<b>User Connectivity</b>						
HP ProCurve Switch 2824	J4903A#ABA	1	2499	1	2,499	
HP CP for HP ProCurve Networking products 3 Yr 4 hr/24x7	U2856E	1	1000	1		1,000
5 foot Cat5E Non Booted Network Patch Cables	cb1c5enb5gn	3	3	18	54	
5 foot Cat5E Non Booted Network Patch Cables (plus 10% spares)	cb1c5enb5gn	3	3	2		6
<b>Subtotal</b>					<b>2,553</b>	<b>1,006</b>
Large Purchase and Net 30 discount (See Note 1)	16.0%	1			<b>(\$60,601)</b>	<b>(\$6,381)</b>
<b>Total</b>					<b>\$374,366</b>	<b>\$33,749</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: USD \$408,116</b>		
				<b>tpmC Rating: 251,300</b>		
				<b>\$ / tpmC: USD \$1.63</b>		
Pricing: 1=HP Direct 800-203-6748 2= Microsoft 3= LanAdapters.com						
Note 1 = Discount based on HP Direct guidance applies to all lines where pricing = 1						

## Numerical Quantities Summary

**MQTH, Computed Maximum Qualified Throughput**

**251,300 tpmC**

<b>Response Times (in seconds)</b>	<b>Average</b>	<b>90%</b>	<b>Maximum</b>
New-Order	0.30	0.61	5.28
Payment	0.27	0.58	4.15
Order-Status	0.29	0.60	5.32
Delivery (interactive portion)	0.12	0.13	1.81
Delivery (deferred portion)	0.11	0.15	4.66
Stock-Level	0.30	0.62	2.35
Menu	0.12	0.14	1.81

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

New-Order	44.95%
Payment	43.01%
Order-Status	4.00%
Delivery	4.01%
Stock-Level	4.03%

### **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	18.02/0.00	18.03/12.06	18.77/120.54
Payment	3.02/0.00	3.03/12.06	3.77/120.54
Order-Status	2.02/0.00	2.03/10.04	2.77/100.53
Delivery (interactive)	2.02/0.00	2.03/5.07	2.75/50.52
Stock-Level	2.02/0.00	2.03/5.07	2.74/50.53

### **Test Duration**

Ramp-up time	37 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	69,476,607
Ramp down time	11 minutes

### **Checkpointing**

Number of checkpoints	4
Checkpoint interval	30 minutes