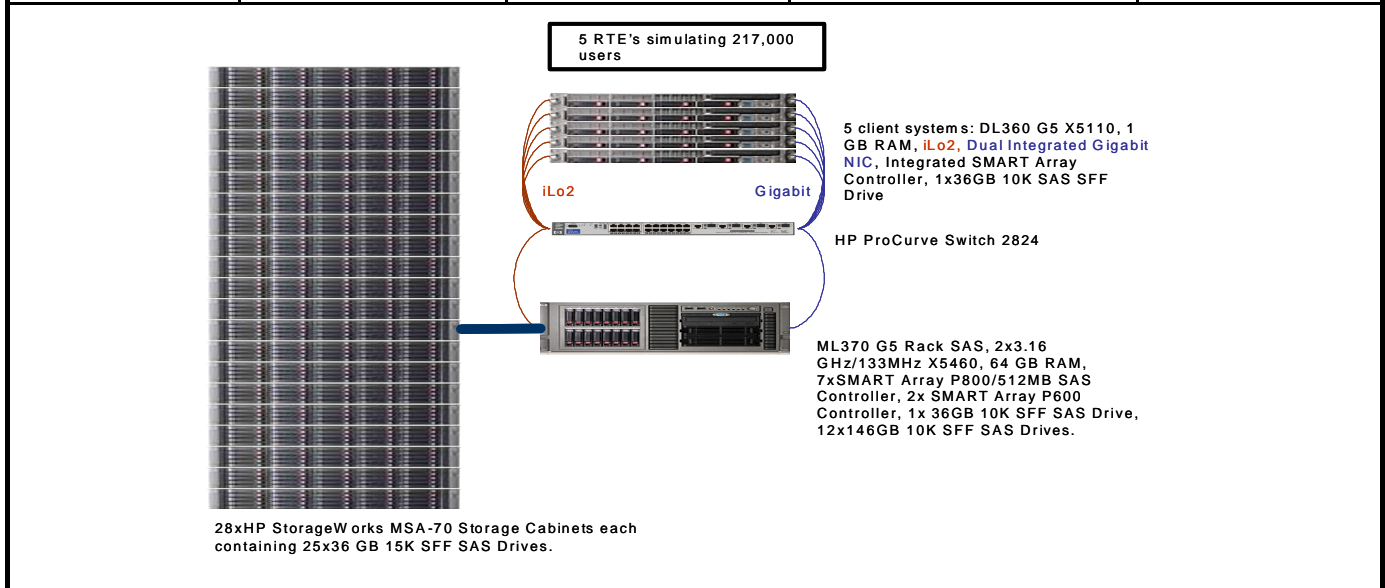


	<b>HP ProLiant ML370 G5</b> <b>3.16 GHz</b> <b>C/S with 5 ProLiant DL360G5</b>		<b>TPC-C Version 5.9</b> Report Date <b>November 9, 2007</b>
	Total System Cost	TPC-C Throughput	Price/Performance

<b>\$376,910 USD</b>	<b>273,666 tpmC</b>	<b>\$1.38 USD/ tpmC</b>	<b>November 12, 2007</b>
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Processors	Database Manager	Operating System	Other Software	Number of Users
2/8/8 Intel X5460 3.16 GHz QC	Oracle Database 10g Standard Edition One	Oracle Enterprise Linux	Microsoft COM+	<b>217,000</b>



System Components	Server		Each Client	
	Quantity	Description	Quantity	Description
Processor	2/8/8	Intel X5460 QC 3.16 GHz 12 MB L2 Cache	1/2/2	Intel Xeon 5130 DC@ 2.0GHz w/4 MB L2
Memory	64 GB	16x4GB	1.0 GB	2x512MB
Disk Controllers	7	Smart P800 Controller	1	Integrated IDE Controller
Disk Drives	2	Smart P600 Controller		
	12	146 GB 10K SFF SAS drives (log)	1	36 GB 10K SAS
	700	36 GB 15K SFF SAS drives (data)		
	1	36 GB 10K SFF SAS drives (OS)		
Total Storage	25334 GB			

Hewlett-Packard	HP ProLiant ML370 G5 SAS			TPC-C Rev. 5.9		
Company	Intel X5365 QC Client/Server			Report Date	9-Nov-07	
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price
<b>Server Hardware</b>						
		Brand	Pricing			
HP ML370 G5 Rack SAS MOD-FX Svr	400606-B21		1,643	1	1,643	
HP 3.16GHz/1333MHz X5460 120W processor kit	458408-B21		1,699	2	3,398	
8GB FBD PC2-5300 2 x 4GB Kit	397415-B21		2,149	8	17,192	
HP ML370 G5 Mem. Board Kit	403766-B21		179	1	179	
HP Smart Array P800/512MB SAS Controller	381513-B21		1,099	7	7,693	
HP Smart Array P600 3G SAS/SATA RAID Controller	337972-B21		729	2	1,458	
HP s7540 17in. CRT Monitor	PF997AA#ABA		139	1	139	
HP PS/2 Scroll Mouse	AH036AV		5	1	5	
HP PS/2 Standard Keyboard	DZ204AV#ABA		5	1	5	
HP 5642 Pallet Unassembled Rack	358254-B21		865	2	1,730	
HP R/T2200 5-20P NA UPS	AF409A		849	1	849	
HP 36GB 15k 2.5 Single Port HP SAS Drive	431933-B21		349	700	244,300	
HP 36GB 15k 2.5 Single Port HP SAS Drive (10% Spares)	431933-B21		349	70		24,430
HP 146GB 10K 2.5 Single Port HP SAS Drive	442819-B21		409	12	4,908	
HP 36GB 10K SAS 2.5 Hot Plug Hard Drive	375859-B21		269	1	269	
HP StorageWorks MSA-70 Storage	418800-B21		3,199	28	89,572	
HP StorageWorks MSA-70 Storage (10% Spares)	418800-B21		3,199	3		9,597
HP CPe 3Y 4H 24x7 HW ProLiant ML370	U4529E		853	1		853
					<b>Subtotal</b>	<b>373,340</b>
						<b>34,880</b>
<b>Server Software</b>						
Oracle Enterprise Linux (See note 3)		3	0	1	0	
Oracle Unbreakable Linux Support: Enterprise Linux Basic Limited for 3 years		3	1,197	1		1,197
Oracle Database 10g Standard Edition One, Unlimited Users, 3 years		3	2,498	2	4,996	
Oracle Database Server Support Package 3 years		3	2,000	3		6,000
					<b>Subtotal</b>	<b>4,996</b>
						<b>7,197</b>
<b>Client Hardware</b>						
HP DL360G5 5130 DC 3.0GHz, 1G RAM, Entry US Svr	416561-001		2,189	5	10,945	
Dual Integrated Gigabit NIC, Integrated Smart Array Controller						
HP 36GB 10K SAS 2.5 Hot Plug Hard Drive	375859-B21		269	5	1,345	
HP CP 3Y 4H 24x7 HW Entry300 4-Hour 24 Hour x 7 Day Coverage 3 Years	162675-002		599	5		2,995
					<b>Subtotal</b>	<b>12,290</b>
						<b>2,995</b>
<b>Client Software</b>						
Microsoft Problem Resolution Services		Microsoft	245	1		245
Visual Studio Standard 2005	127-00012	Microsoft	250	1	250	
Windows Server 2003 R2, Standard Edition	P73-02509	Microsoft	999	5	4,995	Incl. Above
					<b>Subtotal</b>	<b>5,245</b>
						<b>245</b>
<b>User Connectivity</b>						
HP ProCurve Switch 2624	J4903A#ABA		2499	1	2,499	
HP CP for HP ProCurve Networking products 3 Yr 4 hr/24x7	U2856E		1000	1		1,000
IOGEAR GCS78KIT 8-Port KVM Switch Kit, PS/2, w/KVM Cables (w/ spares)	N82E16817107458		199	3	597	
5 foot Cat5E Non Booted Network Patch Cables	cb1c5enb5gn		3	12	36	
5 foot Cat5E Non Booted Network Patch Cables (plus 10% spares)	cb1c5enb5gn		3	2		6
					<b>Subtotal</b>	<b>3,132</b>
						<b>1,006</b>
Large Purchase and Net 30 discount (See Note 1)	16.0%					
					<b>Total</b>	<b>\$336,807</b>
						<b>\$40,103</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 <a href="mailto:pricing@tpc.org">pricing@tpc.org</a> . Thank you.				Three-Year Cost of Ownership: USD		\$376,910
				tpmC Rating:		273,666
				\$ / tpmC: USD		\$1.38
Pricing: 1=HP Direct 800-203-6748 2=Microsoft 3=Oracle 4=LanAdapters.com 5=Newegg.com						
Note 1 = Discount based on HP Direct guidance applies to all lines where pricing = 1						
Note 2 = The benchmark results were audited by Lorna Livingtree of Performance Metrics						
Note 3 = Oracle Enterprise Linux is available as a free download						

## Numerical Quantities Summary

**MQTH, Computed Maximum Qualified Throughput**

**273,666 tpmC**

<b>Response Times (in seconds)</b>	<b>Average</b>	<b>90%</b>	<b>Maximum</b>
New-Order	0.210	0.300	2.412
Payment	0.190	0.274	2.992
Order-Status	0.207	0.289	2.660
Delivery (interactive portion)	0.148	0.152	2.409
Delivery (deferred portion)	0.029	0.062	2.548
Stock-Level	0.438	0.607	3.176
Menu	0.151	0.162	2.412

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

New-Order	44.995%
Payment	43.002%
Order-Status	4.001%
Delivery	4.001%
Stock-Level	4.001%

### **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	18.005/0.00	18.005/12.099	18.014/120.990
Payment	3.010/0.00	3.010/12.010	3.031/120.092
Order-Status	2.010/0.00	2.010/10.011	2.016/100.069
Delivery (interactive)	2.010/0.00	2.010/5.020	2.026/50.186
Stock-Level	2.010/0.00	2.010/5.011	2.017/50.094

### **Test Duration**

Ramp-up time	0:56:26
Measurement interval	2:00:00
Transactions (all types) completed during measurement interval	72,985,657
Ramp down time	0:59:34

### **Checkpointing**

Number of checkpoints	4
Checkpoint interval (average)	27:51