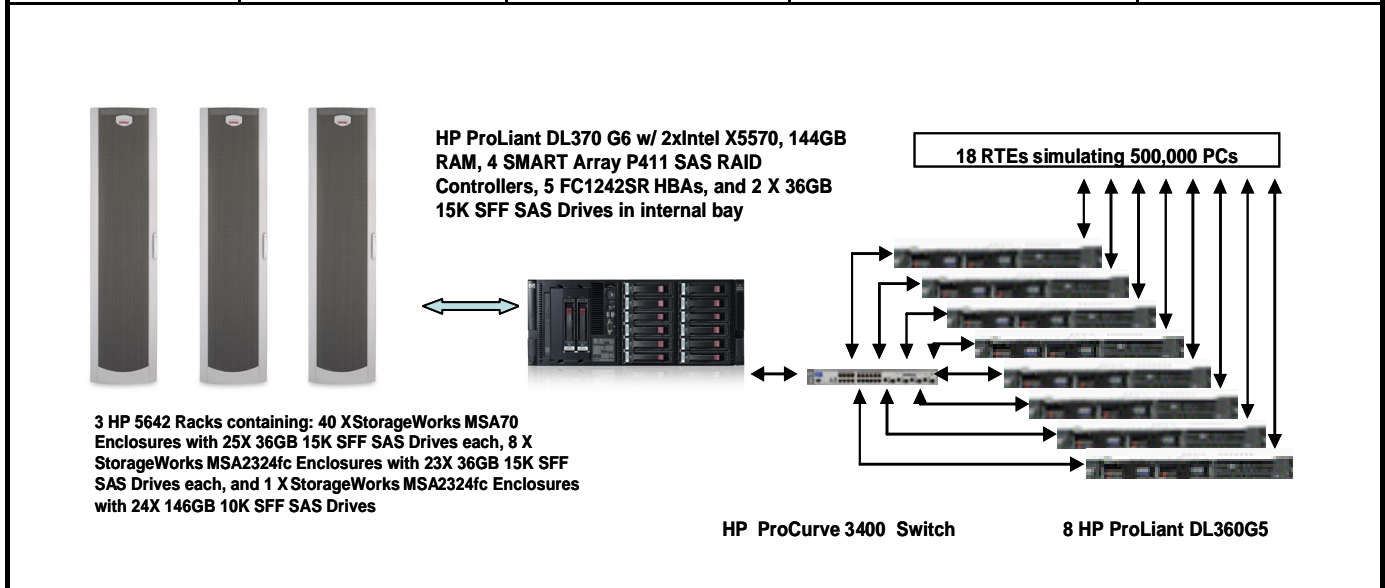
	<b>HP ProLiant DL370 G6</b> <b>2.93 GHz 8 MB L2</b> <b>C/S with 8 ProLiant DL360G5</b>		<b>TPC-C Version 5.10</b> Report Date <b>March 30, 2009</b>
	Total System Cost	TPC-C Throughput	Price/Performance

<b>\$678,231 USD</b>	<b>631,766 tpmC</b>	<b>\$1.08 USD/ tpmC</b>	<b>March 30, 2009</b>
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Processors	Database Manager	Operating System	Other Software	Number of Users
2/8/16 Intel Xeon X5570 2.93 GHz 8MB L2 cache	Oracle Database 11g Standard Edition One	Oracle Enterprise Linux	Microsoft COM+	<b>500,000</b>



System Components	Server		Each Client	
	Quantity	Description	Quantity	Description
Processor	2/8/16	Intel Xeon 2.93 GHz 8MB L2cache	1/4/4	2.83 GHz Intel Xeon w/ 12MB L2 Cache
Memory	144 GB	18x8GB	2.0	2x1024 MB
Disk Controllers	4	HP P411 BBWC Smart Array Controllers	1	Integrated Smart Array 400i Controller
Disk Drives	9	MSA2324fc		
	24	146 GB 10K SFF SAS drives (log)	1	36 GB 15K SAS
	1184	36 GB 15K SFF SAS drives (data)		
	2	36 GB 15 SFF SAS drives (OS)		
Total Storage	60,045 GB			

Hewlett-Packard Company		HP ProLiant DL370G6			TPC-C Rev. 5.10		
					Report Date	30-Mar-09	
Description	Part Number	Brand	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
<b>Server Hardware</b>							
HP ProLiant DL370G6 SFF CTO Chassis	483874-B21	1	1,469	1	1,469		
HP X5570 ML/DL370 G6 FIO Kit	495930-L21	1	1,799	1	1,799		
HP X5570 ML/DL370 G6 Kit	495930-B21	1	1,799	1	1,799		
HP Slim 12.7mm SATA DVD Optical Kit	449998-B21	1	149	1	149		
HP 512MB P-Series Battery Backed Write Cache Upgrade	462967-B21	1	379	1	379		
HP NC364T PCI-E Quad Port Gigabit Server Adapter	435508-B21	1	529	1	529		
HP 8GB 2Rx4 PC3-8500R-7 Kit	516423-B21	1	891	18	16,038		
HP w17e 17-inch Widescreen LCD Monitor	GV537AA#ABA	1	179	1	179		
HP PS/2 Keyboard And Mouse Bundle	RC464AA#ABA	1	39	1	39		
HP 36GB 15k 2.5 Single Port HP SAS Drive	431933-B21	1	349	2	698		
HP 5642 Pallet Unassembled Rack	358254-B21	1	865	3	2,595		
HP R1.5 kVA 1U NA UPS	AF419A	1	739	1	739		
HP P411/512 BBWC Smart Array Controller	462832-B21	1	649	4	2,596		
HP 36GB 15k 2.5 Single Port HP SAS Drive	431933-B21	1	349	1184	413,216		
HP 36GB 15k 2.5 Single Port HP SAS Drive (10% Spares)	431933-B21	1	349	119		41,531	
HP 146GB 10K rpm Hot Plug SAS 2.5 Dual Port Hard Drive	418367-B21	1	319	24	7,656		
HP 146GB 10K rpm Hot Plug SAS 2.5 Dual Port Hard Drive (10% Spares)	418367-B21	1	319	3		957	
HP StorageWorks FC1242SR 4Gb PCI-E DC HBA	AE312A	1	1,620	5	8,100		
HP 2324fc DC Modular Smart Array	AJ797A	1	8,900	9	80,100		
HP StorageWorks MSA-70 Storage	418800-B21	1	3,199	40	127,960		
HP StorageWorks MSA-70 Storage (10% Spares)	418800-B21	1	3,199	4		12,796	
HP 3y 4h 24x7 MSA2000 Array HWSupp	UJ675E	1	1,513	9		13,617	
HP 3y 4h 24x7 ProLiant ML/DL370 HW Support ,ProLiant Server DL58x	UP723E	1	1,009	1		1,009	
					<b>Subtotal</b>	<b>666,040</b>	<b>69,910</b>
<b>Server Software</b>							
Oracle Database 11g Standard Edition One, Unlimited Users , 3 years		4	2,900	2	5,800		
Database Server Support		4	2,300	3		6,900	
Oracle Enterprise Linux Basic Limited - System 3 Year		4	3,597	1		3,597	
					<b>Subtotal</b>	<b>5,800</b>	<b>10,497</b>
<b>Client Hardware</b>							
HP DL360R05 E5440 2G US Svr	457923-001	1	2,749	8	21,992		
Dual Integrated Gigabit NIC, HP Smart Array P400i/256MB Controller							
HP 36GB 15k 2.5 Single Port HP SAS Drive	431933-B21	1	349	8	2,792		
HP w17e 17-inch Widescreen LCD Monitor	GV537AA#ABA	1	179	1	179		
HP PS/2 Keyboard And Mouse Bundle	RC464AA#ABA	1	39	1	39		
HP CAT5 0x2x16 KVM Server Console Switch	336045-B21	1	1,099	1	1,099		
HP CAT5 0x2x16 KVM Server Console Switch (spares)	336045-B21	1	1,099	2		2,198	
HP IP Console 8 pack Interface Adapter	262587-B21	1	709	1	709		
HP IP Console 1 pack Interface Adapter ( spares)	262588-B21	1	99	2		198	
HP CP 3Y 4H 24x7 HW Entry300 4-Hour 24 Hour x 7 Day Coverage 3 Years	U4497E	1	596	8		4,768	
					<b>Subtotal</b>	<b>26,810</b>	<b>7,164</b>
<b>Client Software</b>							
Windows Server 2003 R2 Standard Edition x64	P73-01675	2	999	8	7,992	Incl. Below	
Microsoft Problem Resolution Services		2	245	1		245	
Microsoft Visual Studio Standard 2005	127-00012	2	250	1	250	Incl. Above	
					<b>Subtotal</b>	<b>8,242</b>	<b>245</b>
<b>User Connectivity</b>							
HP ProCurve Switch 3400cl-48G	J4906A#ABA	1	6,899	1	6,899		
HP CP for HP ProCurve Networking products 3 Yr 4 hr/24x7	U2856E	1	1,000	1		1,000	
CAT 6 7 Foot Gray Patch Cable	GC-100705GY	3	4	18	68		
CAT 6 7 Foot Gray Patch Cable (Spares)	GC-100705GY	3	4	2		8	
					<b>Subtotal</b>	<b>6,967</b>	<b>1,008</b>
<b>Discounts</b>							
Large Purchase and Net 30 discount (See Note 1)	16.0%	1				<b>(\$111,960)</b>	<b>(\$12,492)</b>
					<b>Total</b>	<b>\$601,899</b>	<b>\$76,332</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.					<b>Three-Year Cost of Ownership: USD \$678,231</b>		
Pricing: 1=HP Direct 800-203-6748 2= Microsoft 3= graycables.com 4=Oracle					<b>tpmC Rating: 631,766</b>		
Note 1 = Discount based on HP Direct guidance applies to all lines where pricing = 1					<b>\$ / tpmC: USD \$1.08</b>		
= 1 these components are not immediately orderable. See the FDR for more information.							
Note 2 = The benchmark results were audited by Lorna Livingtree of Performance Metrics							

## Numerical Quantities Summary

**MQTH, Computed Maximum Qualified Throughput**

**631,766 tpmC**

<b>Response Times (in seconds)</b>	<b>Average</b>	<b>90%</b>	<b>Maximum</b>
New-Order	0.177	0.255	4.209
Payment	0.156	0.230	4.170
Order-Status	0.181	0.258	1.866
Delivery (interactive portion)	0.119	0.170	0.534
Delivery (deferred portion)	0.043	0.077	3.985
Stock-Level	0.687	0.924	2.691
Menu	0.119	0.171	0.539

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

New-Order	44.950
Payment	43.02%
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	18.01/0.00	18.01/12.10	18.01/121.00
Payment	3.01/0.00	3.01/12.01	3.02/120.09
Order-Status	2.01/0.00	2.01/10.01	2.02/99.99
Delivery (interactive)	2.01/0.00	2.01/5.02	2.02/50.18
Stock-Level	2.01/0.00	2.01/5.01	2.02/50.07

### **Test Duration**

Ramp-up time	0:51:00
Measurement interval	2:00:00
Transactions (all types) completed during measurement interval	168,657,491
Ramp down time	0:19:22

### **Checkpointing**

Number of checkpoints	4
Checkpoint interval (average)	27:35