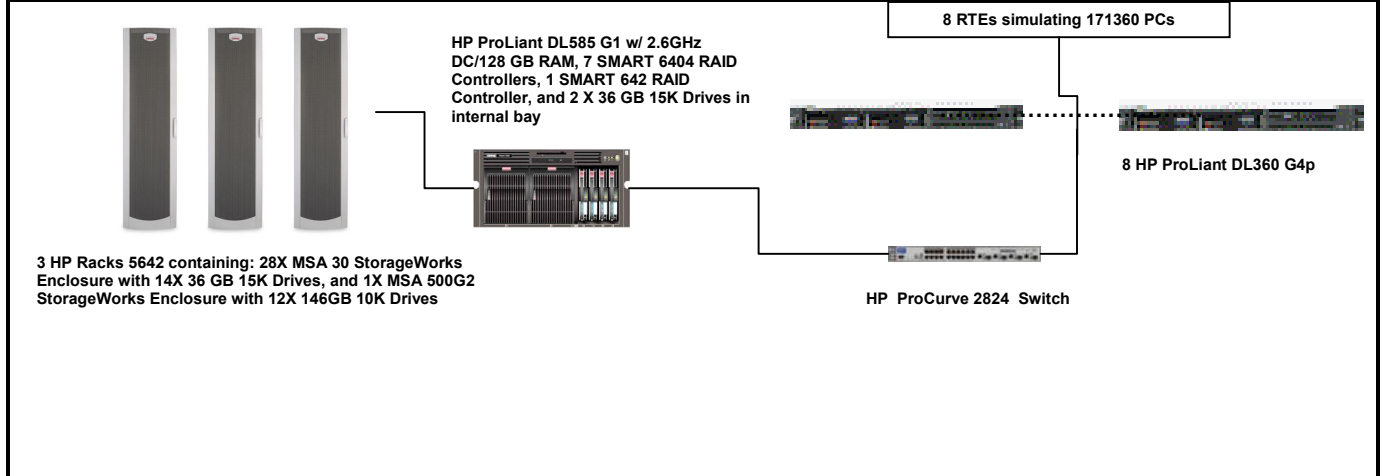


<b>Hewlett-Packard</b>  <b>Company</b>	HP ProLiant DL585-G1 2.6GHz Dual Core	TPC-C Rev. 5.6
	C/S with 8 HP ProLiant DL360G4	<b>Report Date: March 20, 2006</b>

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
<b>USD \$454,000</b>	<b>213,986</b>	<b>USD \$2.13</b>	<b>May 5, 2006</b>

Database Server Processors /Cores/Threads	Database Manager	Operating System	Other Software	Number of Users
4/8/8 AMD Opteron 2.6 GHz DC	Microsoft SQL Server 2005 Enterprise (x64) Edition SP1	Windows Server 2003, Enterprise (X64) Edition	Microsoft Visual C++ Microsoft COM+	<b>171360</b>



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processors/Cores/Threads	4/8/8	2.6 GHz DC AMD Opteron w/ 1M Cache	2/2/4	3.6 GHz Intel Xeon w/ 2MB cache
Memory	16	8 GB DDR (2 X 4 GB)	2	512MB
Disk Controllers	1	Integrated Smart 5i Controller	1	Integrated SMART 6i Controller
	7	SMART 6404 Array Controllers		
	1	SMART 642 Array Controller		
Disk Drives	12	146GB SCSI Drive	2	36 GB SCSI Drive
	394	36 GB SCSI Drive		
Total Storage		15,005.24 GB		33.9 GB

Hewlett-Packard		HP ProLiant DL585-G1 2.6GHz DC			TPC-C Rev. 5.6		
Company		Client/Server			Report Date:	20-Mar-06	
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
<b>Server Hardware</b>		<b>Brand Pricing</b>					
DL585 2.6GHz dual core (2P) PC2700/Dual port gigabit NIC/Smart 5i controller	407658-421	1	12,999	1	12,999		
DL585 2.6GHz/2700 dual core Processor Option Kit	407660-B21	1	4,999	2	9,998		
HP 8GB Reg PC2700 2x4GB Memory	395409-B21	1	7,299	16	116,784		
HP StoraGeworks MSA 30 SB Storage	302969-B21	1	2,829	28	79,212		
HP Modular Smart Array 500 G2 Storage includes 2 Smart Array 642 Adapters	335880-B21	1	4,499	1	4,499		
HP Modular Smart Array 500 G2 Controller	335881-B21	1	2,499	1	2,499		
HP Smart Array 6404/256MB Controller	273914-B21	1	1,899	7	13,293		
HP s7540 17in. CRT Monitor	PF997AA#ABA	1	139	1	139		
HP PS/2 Scroll Mouse carbonite	DG169AV	1	5	1	5		
HP Enhanced Keyboard	DG170AV#ABA	1	10	1	10		
HP 5642 Pallet Unassembled Rack	358254-B21	1	689	2	1,378		
UPS R1500 XR Low Voltage US	204404-001	1	866	1	866		
36GB 15K U320 Pluggable Hard Drive	286776-B22	1	269	394	105,986		
36GB 15K U320 Pluggable Hard Drive (10% spares)	286776-B22	1	269	40		10,760	
HP 146GB U320 10K Hot Plug Hard Drive	371535-B21	1	419	12	5,028		
HP CP 3Y 4H 24x7 HW 500 Srs 4-Hour 24 Hour x 7 Day Coverage 3 Years	401782-002	1	1,795	1		1,795	
HP StoraGeworks MSA 30 SB Storage (10% spares)	302969-B21	1	2,829	3		8,487	
HP 3y 4h 24x7 MSA500 HW Support	U6456E	1	1,950	1		1,950	
					<b>Subtotal</b>	<b>352,696</b>	<b>22,992</b>
<b>Server Software</b>							
Microsoft SQL Server 2005 Enterprise X64 Edition(per processor)	810-03134	Microsoft	2	23,432	4	93,728	Incl Below
Microsoft Visual C++ Standard	254-00170	Microsoft	2	109	1	109	Incl Below
Microsoft Windows 2003 Server, Enterprise Edition X64	P72-00274	Microsoft	2	2,334	1	2,334	Incl Below
Microsoft Problem Resolution Services		Microsoft	2	245	1		245
					<b>Subtotal</b>	<b>96,171</b>	<b>245</b>
<b>Client Hardware</b>							
HP DL360G4p X3.6GHz/2MB/1GB SCSI US Srvr	376236-001	1	2,799	8	22,392		
Dual Integrated Gigabit NIC, Integrated Smart Array Controller 6i							
HP X3.6/800-2MB DL360 G4p Kit	376242-B21	1	999	8	7,992		
36GB 15K U320 Pluggable Hard Drive	286776-B22	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>34,688</b>	<b>4,792</b>
<b>Client Software</b>							
Windows Server 2000, Standard Edition	C11-00821	Microsoft	2	738	8	5,904	Incl. Above
					<b>Subtotal</b>	<b>5,904</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	
					<b>Subtotal</b>	<b>2,499</b>	<b>1,000</b>
Large Purchase and Cash discount (See Note 1)	16.0%	1				<b>(\$62,381)</b>	<b>(\$4,605)</b>
					<b>Total</b>	<b>\$429,577</b>	<b>\$24,424</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 \$454,000</b>  <b>tpmC Rating: 213,986</b>  <b>\$ / tpmC: USD \$2.13</b>		
Pricing: 1=HP Direct 2=Microsoft							
Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount.Applies to all lines with 1 in pricing column							
Note2: The benchmark results and test methodology were audited by Lorna Livingtree of Performance Metrics, Inc.							

## Numerical Quantities Summary

**MQTH, Computed Maximum Qualified Throughput**

**213,986 tpmC**

<b>Response Times (in seconds)</b>	<b>Average</b>	<b>90%</b>	<b>Maximum</b>
New-Order	0.31	0.53	12.88
Payment	0.29	0.52	12.30
Order-Status	0.31	0.53	12.44
Delivery (interactive portion)	0.11	0.11	1.83
Delivery (deferred portion)	0.16	0.22	2.69
Stock-Level	0.31	0.54	11.98
Menu	0.11	0.11	1.84

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

New-Order	44.93%
Payment	43.02%
Order-Status	4.01%
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	18.03/12.18	18.33/121.73
Payment	3.02/0.00	3.03/12.18	3.33/121.73
Order-Status	2.02/0.00	2.03/10.16	2.33/101.53
Delivery (interactive)	2.02/0.00	2.03/5.12	2.33/51.02
Stock-Level	2.02/0.00	2.03/5.12	2.33/51.03

### **Test Duration**

Ramp-up time	22 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	59,446,731
Ramp down time	5 minutes

### **Checkpointing**

Number of checkpoints	4
Checkpoint interval	30 minutes