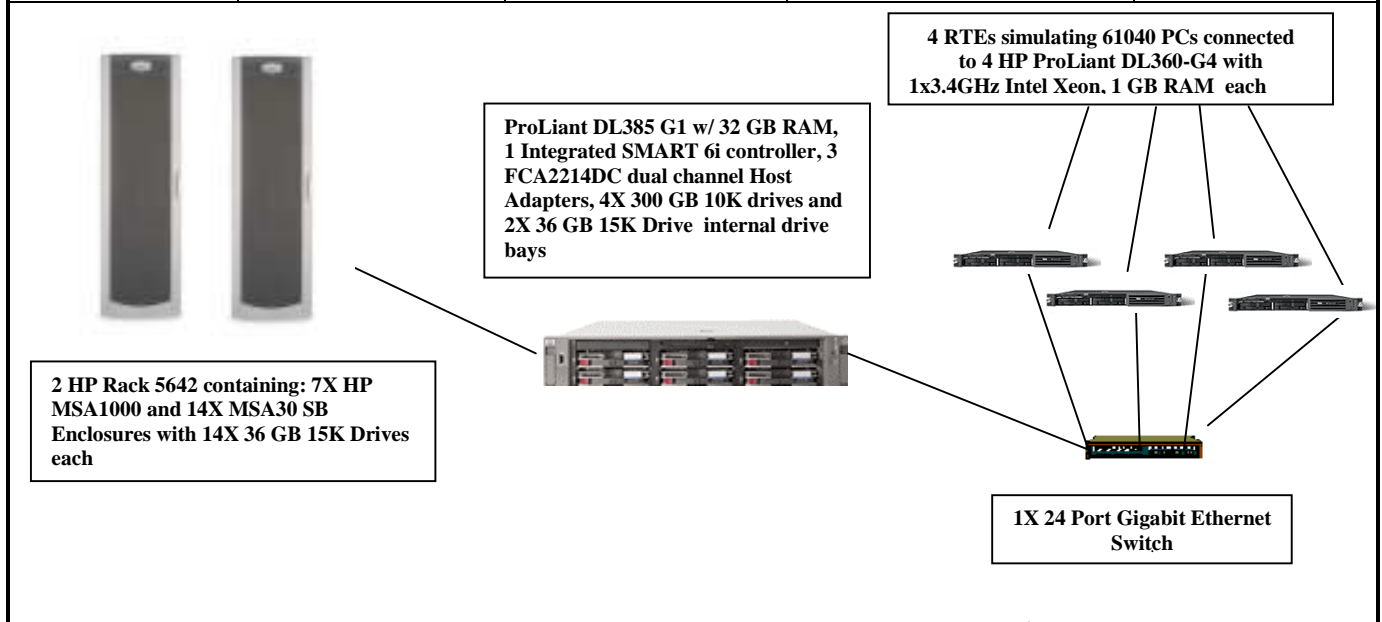


<b>Hewlett-Packard</b>  <b>Company</b>	HP ProLiant DL385 G1 2.8GHz /2P	TPC-C Rev. 5.4
	C/S with 4 HP ProLiant DL360R	<b>Report Date: Sept. 30, 2005</b>

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
<b>\$297,460 USD</b>	<b>76,214</b>	<b>\$3.91 USD</b>	<b>Nov. 8, 2005</b>

Processors	Database Manager	Operating System	Other Software	Number of Users
2 Opteron 254 2 processors 2.8 GHz (1MB) Server 4 Intel Xeon 3.06 GHz – Clients	Microsoft SQL Server 2005 Enterprise Edition	Windows Server 2003, Enterprise Edition	Microsoft Visual C++ Microsoft COM+	<b>61040</b>



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processor	2	Opteron 254 2.8GHz w/ 1MB Cache	1	3.4 GHz Intel Xeon w/ 1MB L2 cache
Memory	8	4 GB DDR	2	512MB
Disk Controllers	1	Integrated SMART 6i Controller	1	Integrated SMART 6i Array Controller
	3	FCA2214DC dual channel Host Adapters		
Disk Drives	4	300 GB SCSI Drive	2	36.4 GB SCSI Drive
	296	36.4 GB SCSI Drive		
Total Storage		11,157.88 GB		72.8 GB

Hewlett-Packard		HP ProLiant DL385/G1/32GB/2.8GHz			TPC-C Rev. 5.4		
Company		Client/Server			Report Date:		30-Sep-05
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
<b>Server Hardware</b>							
<b>Brand Pricing</b>							
HP DL385G1 2800 US Svr/integrated 6i controller/2 gigabit NICs	398370-001	1	3,199	1	3,199		
HP 2.0/1000-1M DL385G1 Kit	399087-B21	1	1,099	1	1,099		
HP 8GB Reg PC2700 2x4GB Memory	395409-B21	1	7,499	4	29,996		
HP Storageworks MSA 30 5B Storage	302969-B21	1	2,829	14	39,606		
MSA SAN Switch 2/8	288247-B21	1	4,149	1	4,149		
Modular SAN Array 1000	201723-B22	1	6,995	7	48,965		
FCA2214DC dual channel Host Adapter	321835-B21	1	2,250	3	6,750		
HP 5642 Unassembled Rack	358254-B21	1	689	2	1,378		
UPS R1500 XR Low Voltage US	204404-001	1	866	1	866		
36GB 15Krpm U320 UMI HDD	286776-B22	1	299	296	88,504		
HP 300GB 10K U320 Pluggable Hard Drive	350964-B22	1	989	4	3,956		
HP 3y 4h 24x7 ProLiant DL38x HW Support	U4545E	1	949	1		949	
MSA1000 Carepaq 3yr 4hr 24x7	402164-002	1	3,538	7		24,768	
MSA30 Carepaq 3yr 4hr 24x7	U8130E	1	1,827	14		25,578	
Storage Works LC/LC 15m Fibre Cable	221692-B23	1	103	8	824		
Storage Works LC/LC 15m Fibre Cable (10% spares)	221692-B23	1	103	2		206	
HP s7540 17in. CRT Monitor	PF997AA#ABA	1	149	1	149		
HP PS2 Scroll Mouse carbonite	DG169AV	1	5	1	5		
HP Enhanced Keyboard	DG170AV#ABA	1	10	1	10		
<b>Subtotal</b>					<b>229,456</b>	<b>51,499</b>	
<b>Server Software</b>							
SQL Server 2005 Enterprise (x86) Edition	810-00845	Microsoft	2	19,909	2	39,818	
Visual C++ .Net Standard	254-00170	Microsoft	2	109	1	109	Incl below
Microsoft Windows Server 2003, Enterprise Edition	P72-00264	Microsoft	2	2,334	1	2,334	Incl below
Microsoft Problem Resolution Services (1 incident)		Microsoft	2	245	1		245
<b>Subtotal</b>					<b>42,261</b>	<b>245</b>	
<b>Client Hardware</b>							
HP DL360G4 X3 4GHz 1P 1GB SCSI US Rck Server - Dual Integrated Gigabit NIC, Integrated Smart Array Controller 5i	354571-001	1	2,599	4	10,396		
HP s7540 17in. CRT Monitor	PF997AA#ABA	1	149	4	596		
HP PS2 Scroll Mouse carbonite	DG169AV	1	5	4	20		
HP Enhanced Keyboard	DG170AV#ABA	1	10	4	40		
36GB 15K U320 Pluggable Hard Drive	286776-B22	1	299	8	2,392		
FM-EL724-36 3YR 24X7 4HR ENTRY 300 SVR	162675-002	1	599	4		2,396	
<b>Subtotal</b>					<b>13,444</b>	<b>2,396</b>	
<b>Client Software</b>							
Microsoft Windows 2000 Server	C11-00621	Microsoft	2	738	4	2,952	Incl. Above
<b>Subtotal</b>					<b>2,952</b>	<b>0</b>	
<b>User Connectivity</b>							
HP ProCurve Switch 2824	J4903A#ABA	1	2,499	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>	
<b>Total</b>					<b>\$251,348</b>	<b>\$46,112</b>	
<p>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.</p> <p>Pricing: 1=HP Direct; 600-203-6748=Microsoft</p> <p>Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount Applies to all lines with 1 in pricing column.</p> <p>Note The benchmark results and test methodology were audited by Loma Livingtree of Performance Metrics, Inc.</p>					<b>Three-Year Cost of Ownership: \$297,460 USD</b>  <b>tpmC Rating: 76,214</b>  <b>\$ / tpmC: \$3.91 USD</b>		

## Numerical Quantities Summary

**MQTH, Computed Maximum Qualified Throughput**

**76,214 tpmC**

<b>Response Times (in seconds)</b>	<b>Average</b>	<b>90%</b>	<b>Maximum</b>
New-Order	0.43	0.70	6.33
Payment	0.41	0.69	8.84
Order-Status	0.41	0.69	5.91
Delivery (interactive portion)	0.10	0.11	0.25
Delivery (deferred portion)	0.15	0.18	3.47
Stock-Level	0.41	0.69	5.68
Menu	0.10	0.11	0.45

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

New-Order	44.89%
Payment	43.05%
Order-Status	4.04%
Delivery	4.01%
Stock-Level	4.01%

### **Emulation Delay (in seconds)**

**Resp.Time      Menu**

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)**

**Min.      Average      Max.**

New-Order	18.02/0.00	18.03/12.06	18.19/120.53
Payment	3.02/0.00	3.03/12.06	3.19/120.53
Order-Status	2.02/0.00	2.03/10.07	2.19/100.62
Delivery (interactive)	2.02/0.00	2.03/5.07	2.19/50.51
Stock-Level	2.02/0.00	2.03/5.06	2.19/50.53

### **Test Duration**

Ramp-up time	25 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	20,280,540
Ramp down time	30 minutes

### **Checkpointing**

Number of checkpoints	4
Checkpoint interval	30 minutes