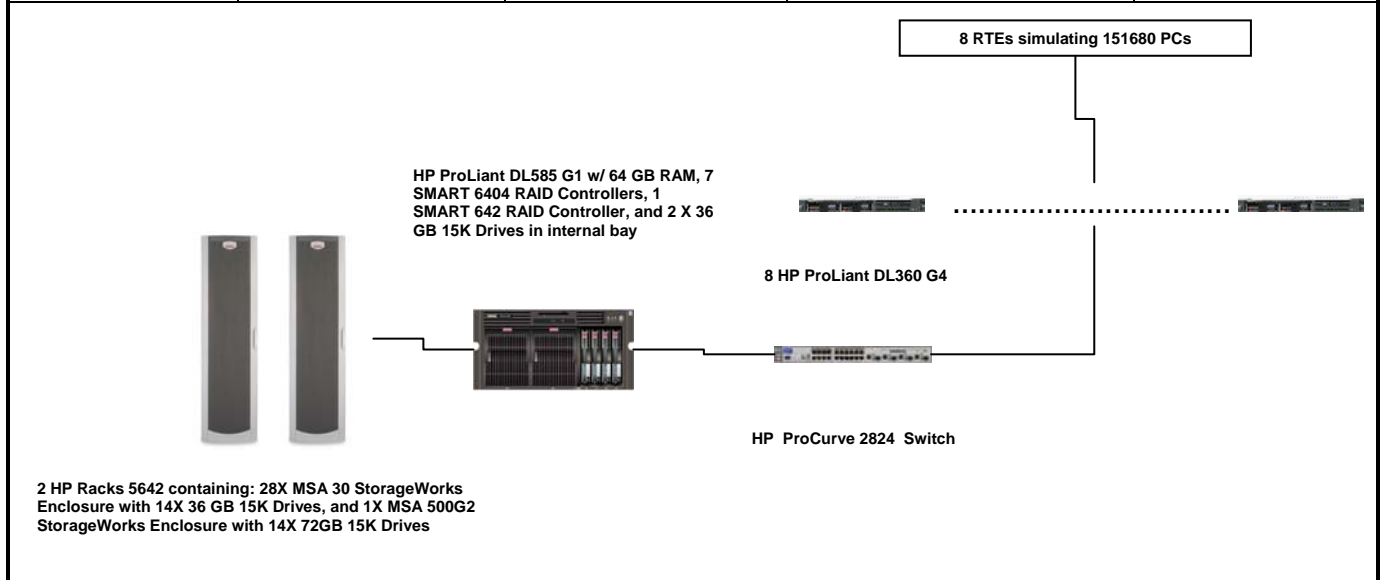


Hewlett-Packard Company	HP ProLiant DL585-G1 2.2GHz Dual Core 4P/8 core	TPC-C Rev. 5.3
	C/S with 8 HP ProLiant DL360G4	Report Date: April 21, 2005

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
USD \$381,466	187,296	USD \$2.04	May 31, 2005

Processors	Database Manager	Operating System	Other Software	Number of Users
4 AMD Opteron 2.2 GHz DC – Server 16 Intel Xeon 3.6 GHz – Clients	Microsoft SQL Server 2000 Enterprise Edition SP4	Windows Server 2003, Enterprise Edition SP1	Microsoft Visual C++ Microsoft COM+	151680



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processor	4	2.2 GHz DC AMD Opteron w/ 1M Cache	2	3.6 GHz Intel Xeon w/ 1MB cache
Memory	16	4 GB DDR (2 X 2 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	14	72 GB SCSI Drive	2	36 GB SCSI Drive
	394	36 GB SCSI Drive		
Total Storage		14,314.18 GB		36 GB

Hewlett-Packard Company	HP ProLiant DL585-G1 2.2GHz DC-4P/8C			TPC-C Rev. 5.3		
	Client/Server			Report Date:	21-Apr-05	
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price
Server Hardware						
		Brand Pricing				
DL585 2.2GHz dual core (2P) 2GB PC2700 with Dual port gigabit NIC	383357-001	1	15,999	1	15,999	
DL585 2.2GHz/2700 dual core Processor Option Kit	383391-B21	1	5,699	2	11,398	
4GB PC2100 DDR SDRAM DIMM 2x2048 WW	300682-B21	1	2,499	16	39,984	
HP StoraGeworks MSA 30 SB Storage	302969-B21	1	2,978	28	83,384	
HP Modular Smart Array 500 G2 Storage includes 2 Smart Array 642 Adapter	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	149	1	149	
HP PS/2 Scroll Mouse carbonite	DG169AV	1	5	1	5	
PS/2 Standard 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	299	394	117,806	
36GB 15K U320 Pluggable Hard Drive (10% Spares external drives)	286776-B22	1	299	40		11,960
72GB 15K U320 Pluggable Hard Drive	286778-B22	1	569	14	7,966	
72GB 15K U320 Pluggable Hard Drive (2 spares)	286778-B22	1	569	2		1,138
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
Carepaq 3YR 24X7/4HR "FM-4E724-36 3YR 24X7/4HR EMPTY DISK ENCL"	171242-002	1	157	28		4,396
HP 3y 4h 24x7 MSA500 HW Support	U6456E	1	1,950	1		1,950
				Subtotal	299,236	21,239
Server Software						
Microsoft SQL Server 2000 Enterprise Edition(per processor)	810-00846	Microsoft	2	16,541	4	66,164 Incl Below
Microsoft Visual C++ Standard	254-00170	Microsoft	2	109	1	109 Incl Below
Microsoft Windows 2003 Server, Enterprise Edition SP1	P72-00264	Microsoft	2	2,399	1	2,399 Incl Below
Microsoft Problem Resolution Services		Microsoft	2	245	1	245
				Subtotal	68,672	245
Client Hardware						
HP DL360G4 X3.6GHz \ 1GB SCSI US Rack Server	360528-001	1	2,799	8	22,392	
Dual Integrated Gigabit NIC, Integrated Smart Array Controller 6i						
Intel Xeon 3.6GHz 1MB DL360G4 Processor	354583-B21	1	1,139	8	9,112	
36GB 15K U320 Pluggable Hard Drive	286776-B22	1	299	16	4,784	
FM-EL724-36 3YR 24X7 4HR ENTRY 300 SVR	162675-002	1	599	8		4,792
				Subtotal	36,288	4,792
Client Software						
Windows Server 2000, Standard Edition	C11-00821	Microsoft	2	738	8	5,904 Incl. Above
				Subtotal	5,904	0
User Connectivity						
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
				Subtotal	2,499	1,000
Large Purchase and Cash discount (See Note 1)	16.0%	1			(\$54,084)	(\$4,325)
				Total	\$358,515	\$22,951
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.				Three-Year Cost of Ownership: USD \$381,466		
				tpmC Rating: 187296.00		
				\$ / tpmC: USD \$2.04		
Pricing: 1=HP Direct 2= Microsoft						
Note 1 = Discount based on HP Direct guidance and large cash purchase level.						
Note2: The benchmark results and test methodology were audited by Lorna Livingtree of Performance Metrics, Inc.						
Note3: For ordering information call 877.277.3366						

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput

187, 296 tpmC

Response Times (in seconds)	Average	90%	Maximum
New-Order	0.69	1.15	6.70
Payment	0.64	1.10	8.37
Order-Status	0.66	1.12	6.43
Delivery (interactive portion)	0.10	0.11	0.93
Delivery (deferred portion)	0.19	0.33	1.11
Stock-Level	1.34	1.94	7.01
Menu	0.10	0.11	0.93

Transaction Mix, in percent of total transaction

New-Order	44.93%
Payment	43.05%
Order-Status	4.01%
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	18.00/0.00	18.02/12.06	18.26/120.61
Payment	3.00/0.00	3.02/12.06	3.26/120.61
Order-Status	2.00/0.00	2.02/10.06	2.26/100.61
Delivery (interactive)	2.00/0.00	2.02/5.07	2.25/50.61
Stock-Level	2.00/0.00	2.02/5.06	2.25/50.61

Test Duration

Ramp-up time	34 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	52,033,964
Ramp down time	29 minutes

Checkpointing

Number of checkpoints	4
Checkpoint interval	30 minutes