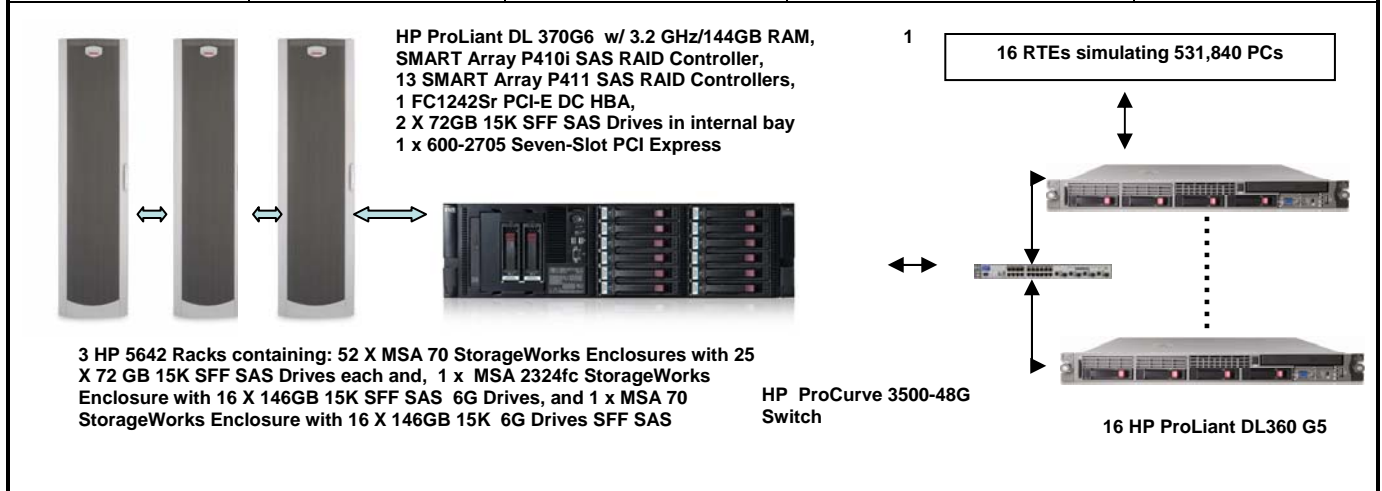


Hewlett-Packard Company	HP ProLiant DL370G6 3.2 GHz 8MB L2	TPC-C Rev. 5.10.1
	C/S with 16 HP ProLiant DL360 G5	Report Date: Feb 1, 2010

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
USD \$767,082	661,475	USD \$1.16	Feb 1, 2010

Database Server Processors /Cores/Threads	Database Manager	Operating System	Other Software	Number of Users
2/8/16 Intel Xeon 3.2 GHz 8MB L2 cache	Microsoft SQL Server 2005 Enterprise x64 Edition SP2	Windows Server 2008 SP2 Enterprise x64 Edition	Microsoft Visual C++ Microsoft COM+	531,840



System Components	Server		Each Client	
	Quantity	Description	Quantity	Description
Processors/Cores/Threads	2/8/16	Intel Xeon 3.2GHz 8MB L2 cache	1/4/4	2.83 GHz Intel Xeon w/ 12MB L2 cache
Memory	144GB	(18 x 8GB) DDR3	1GB	1024 MB
Disk Controllers	1 13 1	Smart P410i Controller Smart P411 Controller FC1242SR PCI-E HBA	1	Integrated Smart Array 400i Controller
Disk Drives	32 1300 2	146GB 15K SFF SAS 6G 72 GB 15K SFF SAS 72 GB 15K SFF SAS	2	72 GB 15K SFF SAS
Total Storage		92,389.60 GB		72 GB

Hewlett-Packard Company	HP ProLiant DL370G6			TPC-C Rev. 5.10.1			
				Report Date	1-Feb-10		
Description	Part Number	Brand	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
Server Hardware							
HP ProLiant DL370 G6 SFF CTO Chassis	483874-B21	1	1,662	1	1,662		
W5580 3.20 GHz, 8MB L3 Cache, 130W	495928-L21	1	2,299	1	2,299		
W5580 3.20 GHz, 8MB L3 Cache, 130W	495928-B21	1	2,299	1	2,299		
HP 8GB 2Rx4 PC3-8500R-7 Kit	516423-B21	1	990	18	17,820		
HP 750W CS HE Gold Power Supply	512327-B21	1	299	2	598		
HP P411/512 BBWC Smart Array Controller	462832-B21	1	649	13	8,437		
HP StorageWorks FC1242 Dual Channel 4Gb PCI-e HBA	AE312A	1	1,780	1	1,780		
2 m LC-LC Multi-Mode Fibre Channel Cable	221692-B21	1	75	2	150		
2 m LC-LC Multi-Mode Fibre Channel Cable	221692-B21	1	75	2		150	
HP NC364T PCI-E Quad Port Gigabit Server Adapter	435508-B21	1	529	1	529		
HP StorageWorks 2324fc G2 Dual Controller Modular Smart Array (SFF)	AJ797A	1	8,900	1	8,900		
HP LE1851w 18.5-Inch wide Monitor	NK033AA#ABA	1	159	1	159		
HP PS/2 Keyboard And Mouse Bundle	RC464AA#ABA	1	39	1	39		
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 72GB 15k 2.5 dual Port HP SAS Drive	418371-B21	1S	349	1300	453,700		
HP 72GB 15k 2.5 dual Port HP SAS Drive (10% Spares)	418371-B21	1S	349	130		45,370	
HP 146GB 6G SAS 15K SFF DP ENT HDD	512547-B21	1	579	32	18,528		
HP 146GB 6G SAS 15K SFF DP ENT HDD (10% Spares)	512547-B21	1	579	4		2,316	
HP 72GB 15k 2.5 dual Port HP SAS Drive	418371-B21	1S	349	2	698		
HP StorageWorks MSA-70 Storage	418800-B21	1	3,199	53	169,547		
HP StorageWorks MSA-70 Storage (10% Spares)	418408-B21	1	3,199	6		19,194	
600-2705 System: Low Latency Seven-Slot PCI Express	600-2705-1-SH	4	1,524	1	1,524		
600-2705 System: Low Latency Seven-Slot PCI Express 10% spares	600-2705-1-SH	4	1,524	2		3,048	
HP 3y 4h 24x7 ProLiant DL370 HW Support ,ProLiant Server DL370	UM753E	1	931	1		931	
Subtotal					692,003	71,009	
Server Software							
Microsoft SQL Server 2005 Enterprise X64 Edition(per processor)	810-03134	2	23,432	2	46,864	Incl Below	
Visual Studio Standard 2005	127-00012	2	250	1	250	Incl Below	
Microsoft Windows Server 2008 Enterprise Edition (x64)	P72-03168	2	2,301	1	2,301	Incl Below	
Microsoft Problem Resolution Services		2	245	1		245	
Subtotal					49,415	245	
Client Hardware							
HP DL360R05 E5440 2G US Svr	457923-001	1	2,899	16	46,384		
Dual Integrated Gigabit NIC, HP Smart Array P400i/256MB Controller							
HP 72GB 15k 2.5 dual Port HP SAS Drive	418371-B21	1S	349	32	11,168		
HP LE1851w 18.5-Inch wide Monitor	NK033AA#ABA	1	159	16	2,544		
HP PS/2 Keyboard And Mouse Bundle	RC464AA#ABA	1	39	16	624		
HP CP 3Y 4H 24x7 HW Entry300 4-Hour 24 Hour x 7 Day Coverage 3 Years	U4497E	1	698	16		11,168	
Subtotal					60,720	11,168	
Client Software							
Windows Server 2003 R2 Standard Edition	P73-01972	2	719	16	11,504	Incl. Above	
Subtotal					11,504	0	
User Connectivity							
HP ProCurve Switch 3500-48G	J9472A#ABA	1	4,099	1	4,099		
3-year, 4-hour onsite, 24x7 coverage for hardware	H2893E	1	1,307	1		1,307	
CAT 6 7 Foot Gray Patch Cable	CB242-7G	3	2	34	54		
CAT 6 7 Foot Gray Patch Cable	CB242-7G	3	2	4		6	
Subtotal					4,153	1,313	
Large Purchase and Net 30 discount (See Note 1)	16.0%	1				(\$121,092) (\$13,357)	
Total					\$696,704	\$70,378	
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		\$767,082
					tpmC Rating:		661,475
					\$/ tpmC: USD		\$1.16
Pricing: 1=HP Direct 800-203-6748 2= Microsoft 3= deepsurplus.com 4= Cyclone Microsystems							
Note 1 = Discount based on HP Direct guidance applies to all lines where pricing = 1							
Note 2= (S) One or more component of the measured configuration have been substituted in the priced configuration. See FDR for details.							
Note 3 = The benchmark results were audited by Lorna Livingtree of Performance Metrics							

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput

661,475 tpmC

Response Times (in seconds)	Average	90%	Maximum
New-Order	0.52	1.11	8.39
Payment	0.48	1.07	4.65
Order-Status	0.51	1.10	8.41
Delivery (interactive portion)	0.11	0.11	2.70
Delivery (deferred portion)	0.14	0.22	4.63
Stock-Level	0.56	1.19	4.29
Menu	0.11	0.11	3.07

Transaction Mix, in percent of total transaction

New-Order	44.93%
Payment	43.04%
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	18.02/0.00	18.03/12.06	19.18/120.53
Payment	3.02/0.00	3.03/12.06	4.19/121.48
Order-Status	2.02/0.00	2.03/10.06	3.15/100.53
Delivery (interactive)	2.02/0.00	2.03/5.07	3.18/50.53
Stock-Level	2.02/0.00	2.03/5.06	3.16/50.53

Test Duration

Ramp-up time	44 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	183,754,059
Ramp down time	38 minutes

Checkpointing

Number of checkpoints	4
Checkpoint interval	30 minutes