TPC-C Rev 5.8 **HP Integrity rx6600 Hewlett-Packard** TPC-C Pricing **Rev 1.1.0** Company **TPC Throughput Report Date Total System Cost** Price/Performance **Availability Date** June 11, 2007 \$673,351 USD 372,140 tpmC \$1.81 USD per tpmC June 11, 2007 **DataBase Manager** Other Software Procs/Cores/Threads **Operating System** Number of Users Microsoft Visual C++ Srvr - 4/8/16 Dual Core Itanium 2 Microsoft Windows Server Microsoft SQL Server 2005 Processor 9050 @ 1.6GHz Client -Microsoft COM+ 297,840 2003, Enterprise Edition for Enterprise Itanium Edition 16 x 2/2/4 Intel Xeon @ 3.6 GHz Transaction Monitor Itanium-based Systems, SP1 HP Integrity rx6600 24 x HP Storage Works 70 6 x SAS cables Modular Smart Array 2 x Gigabit Lan HP Procurve 2848

1 x 2Gb Fiber Cable

16 x Gigabit Lan

16 x DL140 2 x 3.6 GHz Xeon

System Components		Server	Each Client		
	Qty	Туре	Qty	Туре	
Procs/Cores/Thrds	4/8/16	Dual Core Itanium 2 Processor 9050 CPUs	2/2/4	3.6 GHz Intel Xeon	
Cache Memory		24 MB L3 cache		512 KBYTE L2 Cache	
Memory	12	4 x 4 Gbyte	1	1024 MB	
Disk Controllers	6	HP Smart Array P600/256 Controller	1	ATA	
	1	FC-HBA 4GB, FC2143			
Disk Drives	576 12 2	36GB, 15K SAS HDD HP 300GB 10 KRPM U320 HP 36 GB 10 KRPM SAS	1	80 Gbyte disk	
Total Storage		22711.00		80 Gbyte	
Tape Drives	1	HP TA5300			
Terminals	1	Console Terminal	1	Console Terminal	

MSA1000 (DB Log)

Hewlett Packard Company		HP rx6600			TPCC Rev 5.8 February 2007		
					11-Jun-07		
	Price	Part	Unit	Qty	Extended	3 Yr Maint	
Description	Key	Numbr	Price	V ()	Price	Price	
HP Integrity rx6600 with (4) 1.6GHz/24MB Processor							
includes dual port 10/100/1000GbE adapter and 1 power							
supply	1	AD134A#180	\$43,845	1	\$43,845		
I/O backplane	1	AD296A	\$0	1	\$0		
core I/O: 8-port SAS Smart Array RAID Controller Card	1	AB036A #100	\$500	1	\$500		
HP Smart Array P600/256 BBWC Controller	1	337972-B21	\$729	6	\$4,374		
192GB - 16GB DDR2 memory quad (4x4GB)	1	AB566A	\$18,977	12	\$227,724		
48 DIMM Carrier Board	1	AD127A	\$4,495	1	\$4,495		
36GB, 10K SAS HDD	1	AD140A	\$356	2	\$712		
Racked form factor kit	1	AD053A	\$150	1	\$150	00.555	
3 Year Support (Hardware and Software)	1	HA110A3	4220		****	\$8,577	
DVD-ROM	1	AD142A	\$230	1	\$230		
FC-HBA 4GB, FC2143	1	AD167A	\$1,225	1	\$1,225		
HP 36GB 3G SAS 15K SFF SP HDD	1	431933-B21	\$369	576	\$212,544		
HP 36GB 3G SAS 15K SFF SP HDD (10% Spares)	1	431933-B21	\$369	58	\$21,402		
HP StorageWorks 70 Modular Smart Array	1	418800-B21	\$3,199	24	\$76,776		
HP StorageWorks 70 Modular Smart Array (10% Spares)	1	418800-B21	\$3,199	3	\$9,597		
HP Rack 5642	1	358254-B21	\$865	3	\$2,595		
UPS - HP R1500 XR Low Voltage US	1	204404-001	\$866	1	\$866		
HP 16A High Voltage Modular PDU	1	252663-B24	\$299	6	\$1,794		
Modular Storage Array 1000	1	201723-B22	\$6,499	1	\$6,499		
MSA1000 Controller, with 256 MB cache	1	218231-B22	\$4,290	1	\$4,290		
300 GB Ultra320 10K Universal Hard Drive	1	350964-B22	\$839	12	\$10,068		
300 GB Ultra320 10K Universal Hard Drive (10% Spares)	1	350964-B22	\$839	2	\$1,678		
5M LC to LC Cable Kit	1 1	221692-B22	\$82	1 1	\$82		
TA5300 Enclosure for DAT tape	1	C7508B C7497C	\$729 \$899	1	\$729 \$899		
DAT Tape		r Subtotal	\$099	1	\$633,074	\$8,577	
Windows Server 2003	1	T2373A	\$3,602	1	\$3,602	ψ0,577	
SQL Server 2005	2	810-03134	\$23,432	4	\$93,728		
	Serve	r Software Subtotal			\$97,330	\$0	
					<u> </u>		
DL140 G2 X3.6/2MB NHP SCSI US Rck Svr	1	383503-001	\$2,799	16	\$44,784		
2nd 3.6GHz Xeon Processor for DL140	1	378283-B21	\$1,079	16	\$17,264		
3 Year Support (ProLiant Hardware)	1	HA110A3	\$468	16		\$7,488	
HP Mouse	1	P5304M	\$28	1	\$28		
HP Enhanced Keyboard (USB/PS2)	1	DC852A#ABA	\$25	1	\$25		
HP ProCurve 2824 port switch	1	J4903A	\$2,499	1	\$2,499	***	
3 Year Support (ProCurve Hardware and Software)	1	HA110A3	\$1,298	1		\$1,298	
S7540 17in CRT Monitor	1	PF997AA	\$139	1	\$139		
D-Link 16-Port Rackmountable KVM Switch with Cables	3	DKVM-16-B	\$599	1	\$599	. 	
		Subtotal	4=10		\$65,338	\$8,786	
Microsoft Windows Server 2003 Standard Edition	2	P73-00295	\$719	16	\$11,504		
Microsoft Visual C++ Standard	2	254-00170	\$109	1	\$109		
Microsoft Problem Resolution	2 Cliana	Coftman Cubtatal	\$245	1	¢11 <i>(</i> 12	\$245	
		Software Subtotal			\$11,613	\$245	
HP's Large Configuration Discount *		l Extended Price: l Discount:				\$824,963 -\$151,612	
Price Key: 1=HP, 2=Microsoft, 3=KVMS.com	3 year cost of ownership:				\$673,351 USD		
* A 21.09% discount was based on the overall value of the specific components from HP (Price Key 1) in this single quotation. Discounts for similarly sized configurations will be similar to those quoted here, but may vary based on the	1		tpmC:			372,140	
components in the configuration			\$/tpmC:			\$1.81 USD	

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 section of the TPC benchmark specification. If you find that the state prices are not available to these terms, please inform the TPC at pricing@tpc.org. Thank you

Numerical Quantities Summary for HP Integrity rx6600

MQTH, Computed Maximum Qualified Throughput

372140 tpmC

Response Times (in seconds)

	90th %-ile	Maximum	Average
New-Order	0.50s	5.28s	0.31s
Payment	0.47s	4.41s	0.28s
Order-Status	0.50s	5.28s	0.30s
Delivery (interactive portion)	0.11s	2.67s	0.11s
Delivery (deferred portion)	0.18s	4.24s	0.12s
Stock-Level	0.77s	3.47s	0.52s
Menu	0.11s	2.69s	0.11s

Response time delay added for emulated components 0.1 seconds

Transaction Mix, in percent of total transactions

New-Order	44.96%
Payment	43.02%
Delivery	4.01%
Stock-Level	4.01%
Order-Status	4.00%

Keying/Think Times

	Keying Time			Think Time		
	Min	Avg	Max	Min	Avg	Max
New-Order	18.00s	18.02s	18.63s	0.00s	12.06s	120.55s
Payment	3.00s	3.02s	3.63s	0.00s	12.07s	120.54s
Order-Status	3.00s	3.02s	3.58s	0.00s	10.07s	100.53s
Delivery (interactive)	3.00s	3.02s	3.61s	0.00s	5.07s	50.53s
Stock-Level	3.00s	3.02s	3.61s	0.00s	5.06s	50.53s

Test Duration

Ramp up time	25 minutes
Measurement interval	120 minutes
Transactions during measurement interval	103318188
Ramp down time	5 minutes

Checkpointing

Number of checkpoints in measurement interval	4
Checkpoint Interval	29.67 minutes