



hp server rx5670 Client/Server

TPC-C Revision
5.0

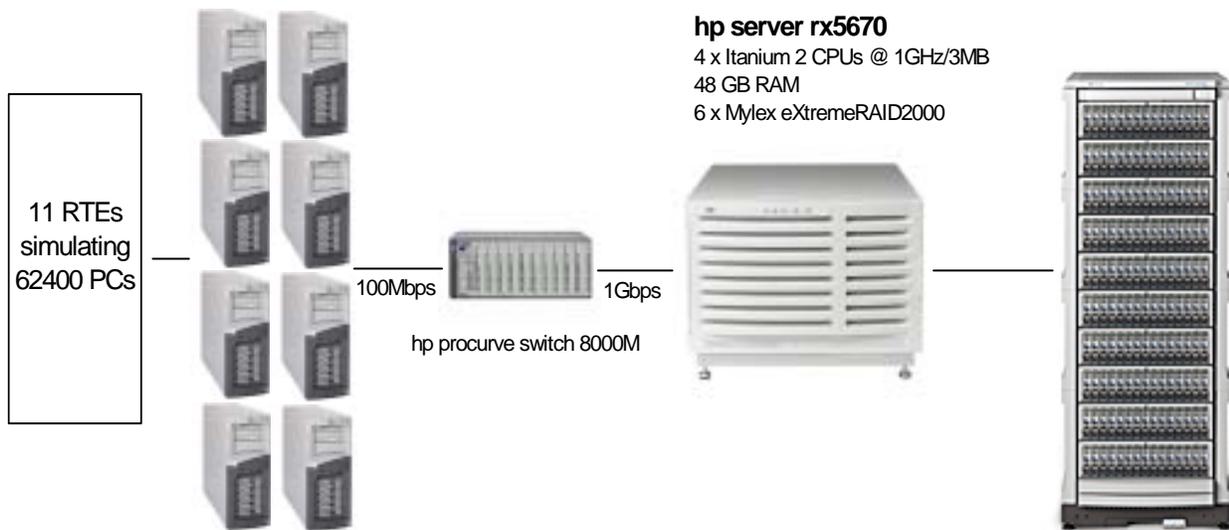
Total System Cost	TPC Throughput	Price/Performance	Report Date	Availability Date
\$404,694	78454.76 tpmC	\$5.16 per tpmC	August 5, 2002	December 31, 2002
Processors	Database Manager	Operating System	Other Software	Number of Users
4 Intel Itanium 2 CPUs at 1 GHz 3 MB iL3 Cache	Microsoft SQL Server 2000 Enterprise Edition 64-bit	Microsoft Windows Advanced Server LE 1.2	Microsoft Visual C++ Microsoft COM+ Transaction Monitor	62,400

8 x hp server tc3100

1 x Intel Pentium III at 1.26GHz
1024 MB RAM

17 X hp disk system 2300

238 18GB 15kRPM disk drives



System Components	Server		Each Client	
	Qty	Type	Qty	Type
Processors	4	Intel Itanium 2 CPUs at 1 GHz	1	1.26GHz Pentium III
Cache Memory		3 MB iL3 cache		512kbyte L2 Cache
Memory	48	1 Gbyte	4	256 Mbyte
Disk Controllers	6	Mylex eXtremeRAID 2000	1	HP SCSI-2 Controller
Disk Drives	238	HP Hot-swap 18GB 15KRPM SCSI	1	18 Gbyte disk
	2	HP Hot-swap 36GB U320		
Total Storage		4089.8 Gbyte		16.8 Gbyte
Tape Drives	1	HP Surestore DAT40x6		
Terminals	1	Console Terminal	1	Console Terminal

 Hewlett Packard Company		hp server rx5670 client/server		TPC-C Rev. 5.0 Report Date: 5 August, 2002		
Description	Price Key	Part Numbr	Unit Price	Qty	Extended Price	3 Yr Maint Price
1GHz Itanium 2 w/ 3MB iL3 cache, 0 MB RAM, 0 disk	1	A6838A	\$26,494	1	\$26,494	
CPU upgrade Itanium 2, 1GHz w/3MB iL3 cache	1	A6958A	\$8,250	3	\$24,750	
4GB PC2100 DDR-SDRAM (4x1GB DIMMs)	1	A6834A	\$8,000	12	\$96,000	
Memory Carrier Board	1	A6747A	\$1,981	2	\$3,962	
HP 36GB, 15krpm Ultra320 hot-swap disk	1	P7049A	\$996	2	\$1,992	
HP Rackmount Kit Factory	1	A5580A	\$134	1	\$134	
DVD Rom drive	1	A5557B	\$450	1	\$450	
Graphics USB Card	1	A6869A	\$349	1	\$349	
HP USB keyboard and mouse	1	A7861A	\$32	1	\$32	
Mylex eXtreme 2000 RAID controller (08P3834)	3	e2000-4-32bd	\$1,280	6	\$7,680	
Intel Pro/1000XT Server adaptor/Gigabit NIC	2	PWLA8490XT	\$140	1	\$140	
15" color monitor Proview PS-508M	2	311706	\$107	1	\$107	
HP Rack System/E41	3	J1500B	\$1,649	2	\$3,298	
HP Power Distribution Unit 120-240V	2	E7671A	\$146	3	\$438	
APC Smart-UPS 700 XL (SU700XLNET)	2	SU700XLNET	\$497	3	\$1,491	
HP Hardware Support 3 yr, 24x7, 4 hr rx5670	1	H4405Y#6BO	\$7,052	1		\$7,052
HP Hardware Support 3 yr, 24x7, 4 hr add'l CPU	1	H4405Y#6BP	\$1,153	3		\$3,459
Server Hardware Subtotal					\$167,317	\$10,511
HP disk system 2300	1	A6490AE	\$3,940	17	\$66,980	
HP 18GB, 15krpm Ultra3 Wide disk	1	A6540A	\$800	238	\$190,400	
System/E Rack Rail Acc Kit	1	A6209A	\$120	17	\$2,040	
HP Hardware Support 3 yr, 24x7, 4hr DS2300	1	H4405Y#8AY	\$1,578	17		\$26,826
HP scsi cable, vhdts68, m/m 2m	1	C2373A	\$175	17	\$2,975	
Storage Subtotal					\$262,395	\$26,826
Microsoft Windows Advanced Server LE 2.1	1	B8479A	\$3,602	1	\$3,602	
Microsoft SQL Server 2000 Enterprise Edition 64 bit	4	810-00560	\$16,541	4	\$66,164	
HP Support for Windows Advanced Server 3 yr 24x7	1	H4405Y#6BR	\$7,302	1		\$7,302
MS Software Support (3 yrs)	4		\$5,850	1		\$5,850
Server Software Subtotal					\$69,766	\$13,152
tc3100 1.26GHz	3	P5408A	\$1,205	8	\$9,640	
256MB SDRAM	3	D8266A	\$285	32	\$9,120	
HP 10/100 NIC	3	A8032A	\$62	8	\$496	
15" color monitor Proview PS-508M	2	311706	\$107	8	\$856	
Spacesaver 104 key keyboard	2	KFK-EA4XT	\$15	8	\$120	
3 button PS/2 mouse PC concepts	2	98209	\$7	8	\$56	
HP Hardware Support Pack 3 yrs, 24x7, 4 hr	3	H5514VV	\$875	8		\$7,000
Client Subtotal					\$20,288	\$7,000
Microsoft Windows 2000 Server	4	C11-00821	\$738	8	\$5,904	
Microsoft Visual C++ Professional 6.0	4	048-00317	\$549	1	\$549	
Client Software Subtotal					\$6,453	
HP Procurve switch 8000M	3	J4110A	\$1,149	3	\$3,447	
HP Procurve switch 10/100Base-T module	3	J4111A	\$349	3	\$1,047	
HP Procurve switch Gigabit-SX module	3	J4113A	\$804	3	\$2,412	
Connectivity Subtotal					\$6,906	
HP's Large Configuration Discount *	* Discounts:				-\$168,064	-\$17,856
Total:					\$365,061	\$39,633
Price Key: 1-HP, 2-CDW as of June 30, 2002, 3-Software House International, 4-Microsoft					3 year cost of ownership: \$404,694	
					tpmC: 78454.76	
* All discounts are based on US list prices and for similar quantities and configurations					\$/tpmC: \$5.16	
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 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.						

Numerical Quantities Summary for hp server rx5670

MQTH, Computed Maximum Qualified Throughput

78454.76 tpmC

Response Times (in seconds)

	90th %-ile	Maximum	Average
New-Order	0.51s	15.76s	0.30s
Payment	0.46s	13.44s	0.26s
Order-Status	0.49s	10.78s	0.28s
Delivery (interactive portion)	0.11s	1.20s	0.10s
Delivery (deferred portion)	0.16s	3.83s	0.12s
Stock-Level	0.86s	11.05s	0.53s
Menu	0.11s	1.20s	0.10s

Response time delay added for emulated components 0.1 seconds

Transaction Mix, in percent of total transactions

New-Order	44.89%
Payment	43.03%
Delivery	4.01%
Stock-Level	4.03%
Order-Status	4.03%

Keying/Think Times

	Keying Time			Think Time		
	Min	Avg	Max	Min	Avg	Max
New-Order	18s	18.02s	19.1s	0s	12.05s	121.57s
Payment	3s	3.02s	4.12s	0s	12.05s	120.5s
Order-Status	2s	2.02s	3.1s	0s	10.04s	100.5s
Delivery (interactive)	2s	2.02s	3.1s	0s	5.06s	50.5s
Stock-Level	2s	2.02s	3.1s	0s	5.05s	50.5s

Test Duration

Ramp up time	34 minutes
Measurement interval	120 minutes
Transactions during measurement interval	21812418
Ramp down time	9 minutes

Checkpointing

Number of checkpoints in measurement interval	4
Checkpoint Interval	30 minutes