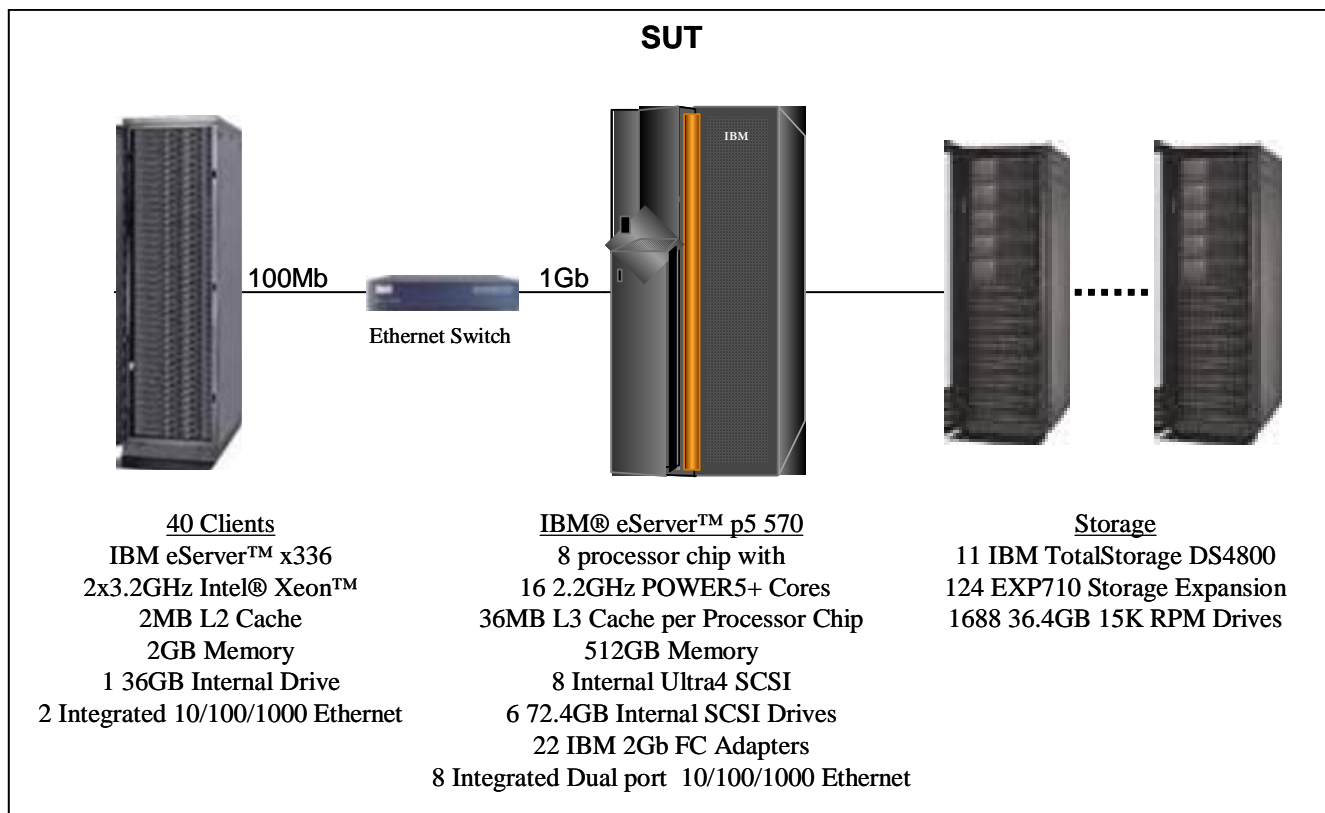


**IBM System p5 570
Model 9117-570**

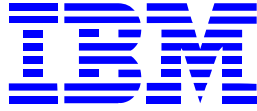
TPC-C Rev. 5.6

Report Date: February 14, 2006

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date	
\$4,528,937 USD	1,025,169.69	\$4.42 USD	May 31, 2006	
Database Server Processor Chip/Core/Thread	Database Manager	Operating System	Other Software	No. Users
8/16/32 POWER5+ 2.2GHz	DB2 UDB 8.2	AIX 5L V5.3	Microsoft Visual C++ Microsoft COM+	816,000



System Components	Each of the 40 Clients		Server	
	Quantity	Description	Quantity	Description
Processors Chip/Core/Threads	2/2/4	3.2GHz 1MB L3 Xeon Processor	8/16/32	2.2GHz POWER5+™
Memory	2	1024 MB	16	32 GB
Disk Controllers	1	Ultra320 SCSI	2 22 11	Integrated dual Ultra3SCSI 2Gb FC Adapters IBM DS4800 Controllers
Disk Drives	1	36GB	1688 6	36.4GB 15K RPM FC 72.4GB 15K RPM SCSI
Total Storage		1,476 GB		61,877.6GB
Terminals	1	System Console	1	System Console

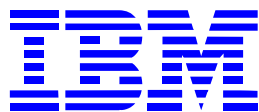


IBM System p5 570 Model 9117-570

TPC-C Rev. 5.6

Report Date: February 14, 2006

Description	Part No.	Source	Unit Price	Qty	Ext Price	Maint Price
Server Hardware						
Server 1:9117 Model 570	9117-570	1	3,867	1	3,867	7,146
Op Panel	1846	1	199	1	199	0
Processor Cable, Four-Drawer System	1849	1	17,868	1	17,868	0
SP Flex Cable, Four-Drawer System	1859	1	7,412	1	7,412	0
IDE Slimline DVD-ROM Drive	2640	1	274	1	274	0
73.4 GB 10,000 RPM Ultra320 SCSI Disk Drive	3274	1	599	6	3,594	0
32GB (4x8GB) DIMMS (533MHZ DELHI) DDR2	4498	1	175,000	16	2,800,000	0
IBM 10/100/1000 Base-TX Ethernet PCI-X Adapter	5701	1	699	0	0	0
2 Gigabit Fibre Channel PCI-X Adapter	5716	1	1,999	6	11,994	0
SPCN 2m Cable	6001	1	33	2	66	0
Power Cord (9-foot), Drawer to IBM PDU, 250V/10A	6671	1	19	8	152	0
IBM Rack-mount Drawer Rail Kit	7164	1	222	4	888	0
2-WAY 2.2GHZ GS DCM PROC, 36MB L3, 8 DDR2	8338	1	10,720	8	85,760	33,792
CEC Backplane	7865	1	1,588	4	6,352	0
I/O Backplane	7866	1	5,426	4	21,704	0
Midplane	7867	1	662	4	2,648	0
DASD Backplane	7868	1	1,588	4	6,352	0
Media Backplane	7869	1	185	1	185	0
Power Midplane	7870	1	265	4	1,060	0
PROCESSOR POWER REGULATOR	7768	1	675	12	8,100	0
Serial Port Riser Card	7878	1	132	4	528	0
System Drawer Enclosure	7879	1	463	4	1,852	0
AC Power Supply, 240V, 1400 W	7888	1	1,059	8	8,472	0
MODEL 570 PERMANENT PROCESSOR ACTIVATION FEATURE	7618	1	21,440	16	343,040	59,520
Service Processor Card (FSP)	7997	1	860	1	860	0
I/O Drawer 1:7311 Model D11	7311-D11	1	4,461	4	17,844	20,324
RIO-2 (Remote I/O-2) Cable, 3.5M	3147	1	728	4	2,912	0
2 Gigabit Fibre Channel PCI-X Adapter	5716	1	1,999	16	31,984	0
SPCN 3m Cable	6006	1	53	4	212	0
AC Power Supply, 288 W	6276	1	375	8	3,000	0
Rio-2 Remote I/O Loop Adapter	6438	1	900	4	3,600	0
Power Cord (12ft) 250V/10A, RA	6459	1	5	8	40	0
Planar Board, 6 PCI-X Slots	6582	1	500	4	2,000	0
Air Blower	6583	1	100	4	400	0
Dual I/O Unit Enclosure	7311	1	417	4	1,668	0
Rack Model T42	7014-T42	1	3,970	1	3,970	888
Front door (Black) for High Perforation (2m racks)	6069	1	550	1	550	0
Side Panel (Black)	6098	1	150	2	300	0
PDU to 14', 200-240V/24A, UTG0247, PT#12	6654	1	240	3	720	0
Power Dist Unit-Side Mount, Universal UTG0247	7188	1	1,200	2	2,400	0
HMC 1:7310-C04 Desktop Hardw.Mgmt.Console	7310-C04	1	1,830	1	1,830	1,344
IBM ThinkVision C170 17-inch Color Monitor	3631	1	250	1	250	0
Power Cord (6-foot), To Wall Plug Type #4	6470	1	14	2	28	0
Ethernet Cable, 6M, HMC to System Unit	7801	1	12	1	12	0
Keyboard - English, #103P	8800	1	83	1	83	0
Mouse - Attachment Cable	8841	1	62	1	62	0
			Subtotal		3,407,092	123,014



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Storage

DS4000 EXP710 Storage Expansion	1740-710	1	6,000	124	744,000	94,240
(19K1271) 2Gb Fibre Channel Short Wave GBIC	2210	1	499	518	258,482	0
(06P5772) 2Gb FC, 36.4GB/15K Drive	5212	1	1,115	1,688	1,882,120	0
(19K1247) 1m 50u Fiber Optic Cable (LC-LC)	5601	1	79	248	19,592	0
DS4800 Disk System Model 82 (4 GB Cache)	1815-82A	1	53,995	11	593,945	35,200
(22R4255) DS4800 AIX Host Kit	7711	1	7,000	1	7,000	0
DS4800 8-Storage Partitions	8870	1	10,000	11	110,000	0
(19K1248) Fiber Cable 5m Multimode (LC-LC)	5605	1	129	22	2,838	0
			Subtotal	3,617,977	129,440	

Server Software

AIX 5.3 (media only)	5692-A5L	1	50	1	50	0
AIX 5L V5.3	5765-G03	1	NC	1	0	0
Per Processor F5 AIX 5L V5.3	0005	1	1,225	16	19,600	
Software Maintenance for AIX, 3 Year	5773-SM3	1	NC	1		
F5 3 Yr SWMA for AIX per Processor Reg/Ren	0466	1	1,958	16		31,328
F5 3 yr Services 7x24 Support per Processor	0468	1	496	16	0	7,936
HMC Initial Software Support 3 Year	5773-RS3	1	NC	1		
Per Processor Software Support 3 Year	569	1	675	1		675
Per Processor 24x7 Software Support 3 Year	570	1	236	1	0	236
C for AIX user Lic+SW maint 12 MO	D5A1DLL	1	515	1	515	0
C for AIX user annual SW maint renewal	E1A1FLL	1	103	2	0	206
DB2 Enterprise Server Edition Proc Lic/1 yr Maint.		1	23,902	16	382,432	0
DB2 Enterprise Server Ed Proc Maint Renew	E00BILL	1	1,138	32		36,416
			Subtotal	402,597	76,797	

Client Hardware and Software

xSeries 336	8837E3U	1	3,319	40	132,760	18,000
36GB 15K U320 SCSI HS Express	30R5096	1	269	40	10,760	0
NetBay42 Standard Rack	93074SX	1	1,489	11	16,379	0
Optical 3-Button Mouse - USB	90P0744	1	15	1	15	
Preferred Pro Full Size PS/2 Keyboard	25R6968	1	29	1	29	0
IBM C117 17" CRT Monitor	49387NU	1	149	1	149	0
			Subtotal	160,092	18,000	

Third Party Hardware/Software

Visual C++ Standard Edition	254-00170	2	109	1	109	0
Microsoft Windows 2000 Server	C11-00821	2	738	40	4,428	
Microsoft Problem Resolution Services		2	245	1		245
NETGEAR GS116 16-port 10/100/1000Mbps Gigabit Switch	638864	3	200	6	1,200	0
			Subtotal	5,737	245	

Total 7,621,279 346,608
IBM Total System Discounts* -3,423,619

Three-Year Cost of Ownership 4,544,268

Notes:

For pricing details and contact information please see appendix E

Pricing Sources: 1) IBM 2) Microsoft 3) CDW

tpmC 1,025,170

\$/tpmC 4.43

*Discounts are based on US list prices for similar quantities & configurations including pre-payment for maintenance. The discount applies to the totality of all items with price source of "1".

Audited by: Francois Raab, Info Sizing (www.infosizing.com)

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 the IBM System p5 570 Model 9117-570

MQTH, computed Maximum Qualified Throughput: 1,025,169.69 tpmC

<u>Response Times (in seconds)</u>	<u>90th %</u>	<u>Average</u>	<u>Maximum</u>
New Order	0.50	0.31	3.23
Payment	0.50	0.31	3.45
Order-Status	0.50	0.32	3.21
Delivery (interactive)	0.25	0.17	2.84
Delivery (deferred)	0.80	0.40	3.70
Stock-Level	0.65	0.40	3.55
Menu	0.23	0.14	2.85

Response time delay added for emulated components was 0.1 seconds

<u>Transaction Mix, in percent of total transactions</u>	<u>Percent</u>
New Order	44.91%
Payment	43.03%
Order-Status	4.02%
Delivery	4.01%
Stock-Level	4.01%

<u>Keying/Think Times (in seconds)</u>	<u>Min.</u>	<u>Average</u>	<u>Max.</u>
New Order	18.00/0.01	18.01/12.02	18.05/120.20
Payment	3.00/0.01	3.01/12.02	3.05/120.21
Order-Status	2.00/0.01	2.01/10.01	2.04/100.10
Delivery	2.00/0.01	2.01/5.02	2.05/50.20
Stock-Level	2.00/0.01	2.01/5.02	2.05/50.20

Test Duration

Ramp-up Time	29 minutes
Measurement interval	2 hours 30 minutes
Transactions during measurement interval (all types)	342,405,437
Ramp-down time	20 minutes

Checkpoints

Number of checkpoints	N/A
Checkpoint interval	N/A