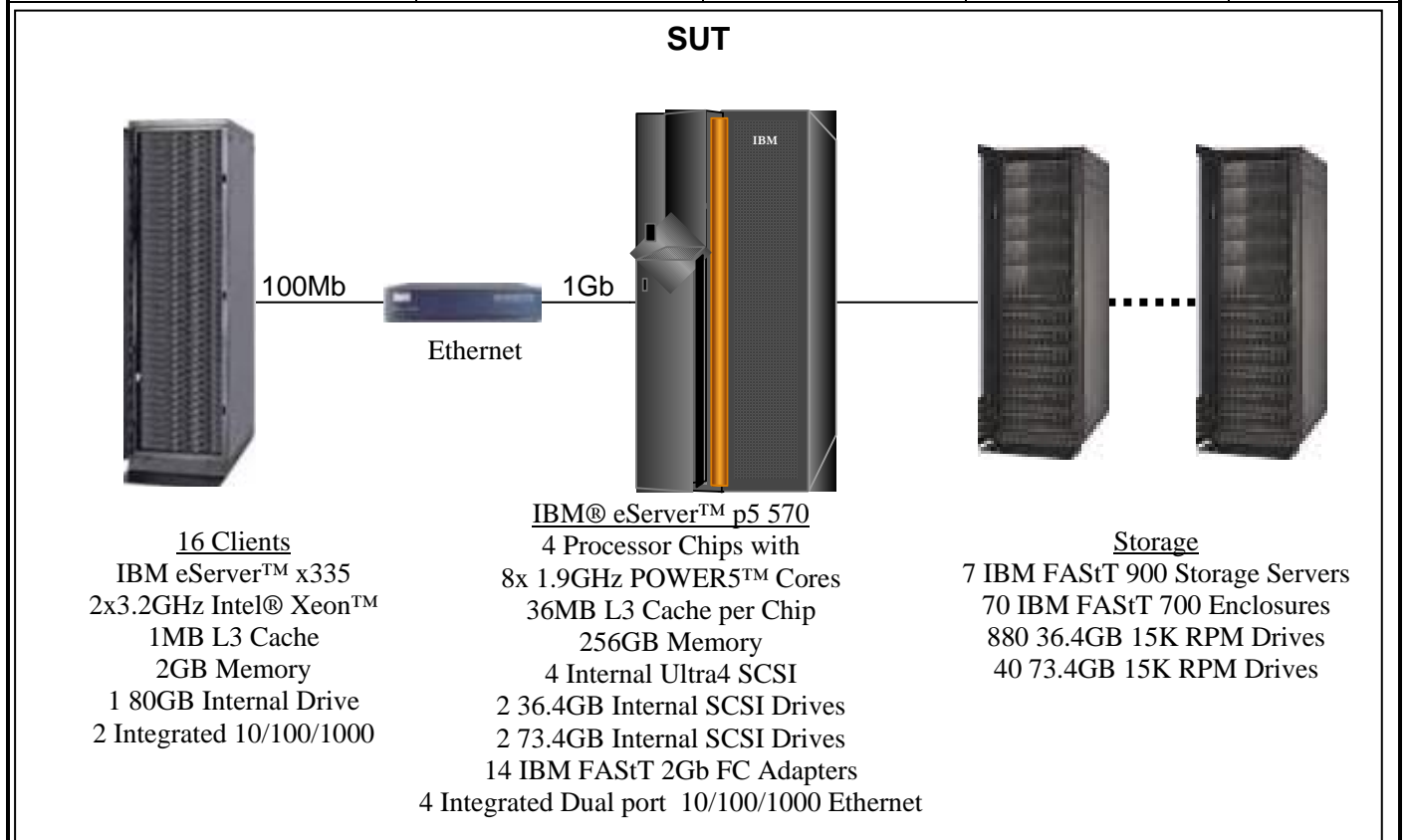


**IBM eServer p5 570
Model 9117-570**

TPC-C Rev. 5.3

Report Date: 25-Aug-2004

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date	
\$2,146,040 USD	429,899.7	\$4.99 USD	September 30, 2004	
Processor Chips/Cores/Threads	Database Manager	Operating System	Other Software	No. Users
4/8/16	DB2 UDB 8.1	AIX 5L V5.3	Microsoft COM+	342,080



System Components	Each of the 16 Clients		Server	
	Quantity	Description	Quantity	Description
Processor Chips/Cores/Threads	2/2/2	3.2GHz 1MB L3 Xeon Processor	4/8/16	1.9GHz POWER5™
Memory	4	512 MB	8	32GB
Disk Controllers	1	EIDE	4 14 7	Integrated Ultra4SCSI FAST 2Gb FC IBM FAST900 Controllers
Disk Drives	1	80 GB	880 40 2 2	36.4GB 15K RPM FC 73.4GB 15K RPM FC 36.4GB 10K RPM SCSI 73.4GB 10K RPM SCSI
Total Storage		1280 GB		35,188 GB
Terminals	1	System Console	1	System Console

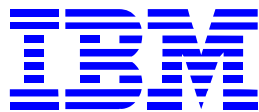


IBM eServer p5 570 Model 9117-570

TPC-C Rev. 5.3

Report Date: 25-Aug-2004

Description	Part No.	Source	Unit Price	Qty	Ext Price	Maint Price
Server Hardware						
IBM eServer p5 570 Anchor Card VPD	9117-570	1	1,000	1	1,000	49,578
Headless Enclosure	7879	1	350	2	700	
I/O Backplane	7866	1	4,100	2	8,200	
System Midplane	7867	1	500	2	1,000	
SCSI disk backplane	7868	1	1,200	2	2,400	
Power Distribution Backplane	7870	1	200	2	400	
Serial Port Riser Card	7878	1	100	2	200	
Power Supply	7888	1	800	4	3,200	
L4 1.9 Processor 0/2Way	7832	1	10,900	4	43,600	
1-way Activation for 7832	7898	1	21,800	4	87,200	
1-way Activation for 7832 - \$0 Priced Value Pack	8454	1		4		
Media Backplane	7869	1	140	1	140	
CEC Backplane	7865	1	1,200	2	2,400	
L4 CPU Regulator	7875	1	1,100	6	6,600	
L4 FSP Card	7881	1	650	1	650	
IDE DVDROM, Slim Line	2640	1	378	1	378	
32GB (4x8000MB)	4492	1	103,000	8	824,000	
DASD 73.4 10K rpm	3274	1	1,400	2	2,800	
DASD 36.4 10K rpm	3273	1	750	2	1,500	
Line Cords	6458	1	14	4	56	
Op Panel	1846	1	150	1	150	
SMP Flex Cable - 4 encl	1847	1	2,000	1	2,000	
FSP Flex Cable - 4 encl	1857	1	1,000	1	1,000	
Hardware Management Console	7315-C03	1	2,535	1	2,535	144
HMC Cable	8121	1	62	1	62	
Quiet Touch Keyboard	8800	1	83	1	83	
Mouse	8841	1	62	1	62	
Model D11 I/O Drawer	7311-D11	1	4,461	2	8,922	5,568
Remote I/O Cable, 1.2M	3146	1	417	2	834	
SPCN 2m Cable: Drawer to Drawer	6001	1	25	3	75	
AC Power Supply, 250W	6278	1	375	4	1,500	
RIO-2 Ports to I/O Planar Riser Card	6431	1	900	1	900	
Rack Mount enclosure	7311	1	417	1	417	
2 Gigabit Fibre Channel PCI-X Adapter	5716	1	2,267	14	31,738	
Rack Model T00 - 6098, 6107	7014-T00	1	3,370	1	3,370	768
			Subtotal		1,040,072	56,058
Storage						
FAST EXP 700	1740-1RU	1	6,000	70	420,000	
Short Wave SFP	2210	1	499	211	105,289	
2Gb FC, 36.4GB/15K Drive	5212	1	1,115	880	981,200	
2Gb FC, 73.4GB/15K Disk Module	5213	1	2,099	40	83,960	
FASTt900 Storage Server	1742-90U	1	66,500	7	465,500	
Fiber Cable 25m	5625	1	189	14	2,646	
Fiber Cable 1m	5601	1	79	130	10,270	
Fiber Cable 5m	5605	1	129	10	1,290	



IBM eServer p5 570 Model 9117-570

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2Gb Mini HUB	3507	1	899	14	12,586	
FASTT Storage Manager V8.4 upgrade	1742-7109	1	2,999	1	2,999	
3 Year Warranty Service Upgrade 1740-1RU 24x7x4	6942-25B-1813	1	760	70		53,200
3 Year Warranty Service Upgrade 1742-90U 24x7x4	6942-25B-1915	1	1,087	7		7,609
			Subtotal		2,085,740	60,809

Server Software

AIX 5.3 (media only)	5962-A5L	1	50	1	50	
AIX Software	5765-AIX	1	1,225	8	9,800	
AIX Software Maintenance (3Y)	5773-SM3	1	1,958	8		15,664
AIX Software Maintenance 24x7 Upgrade (3Y)	0468	1	496	8		3,968
HMC Software SUB	5639-SB1	1	275	3	33	825
HMC Software Support	5639-ST1	1	525	3		1,575
C for AIX user Lic+SW maint 12 MO	D5A1DLL	1	515	1	515	
C for AIX user annual SW maint renewal	E1A1FLL	1	103	2		206
DB2 Enterprise Server Edition Proc Lic/1 yr Maint.	D518GLL	1	19,755	8	158,040	
DB2 Enterprise Server Ed Proc Maint Renew	E00BILL	1	940	16		15,040
			Subtotal		168,438	37,278

Client Hardware and Software

x335 w 3.2GHz/1024KB Xeon DP, one 80GB drive	864762X	1	2,679	16	42,864	7,200
3.2GHz 533 MHz 1MB L3 Cache Xeon Processor	13N0661	1	1,549	16	24,784	
512MB PC2100 CL2.5 ECC DDR SDRAM RDIMM	33L5038	1	219	32	7,008	
Microsoft Windows 2000 Server (Preloaded)	09N9982	1	799	16	12,784	
IBM ServicePac for xSeries	29R5396	1	1,375	16		22,000
NetBay42 Standard Rack	9306-421	1	1,439	6	8,634	1,008
xSeries Cable Chain Technology Cable Kit	06P4792	1	54	1	54	
IBM Sleek 2-Button Mouse - (PS/2)	28L3673	1	15	1	15	
Preferred Pro Full Size PS/2 Keyboard	31P7415	1	29	1	29	
E54 15" monitor	W9SP47N	1	119	1	119	
			Subtotal		96,291	30,208

Third Party Hardware/Software

Visual Studio .NET Professional	528577	2	1,016	1	1,016	
NETGEAR 16PT 10/100/1000MBPS-GIG SW	638864	3	320	3	959	
			Subtotal		1,975	

Total 3,392,516 184,353

IBM Total System Discounts* -1,430,006

Three-Year Cost of Ownership 2,146,863

tpmC 429,899.7

\$/tpmC 4.99

*Discounts are based on US list prices for similar quantities & configurations including pre-payment for maintenance

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

Pricing Sources:

1 IBM: Bill Casey, eServer pSeries Offering Manager, wr Casey@us.ibm.com, 512-838-1422

1 IBM DB2: Paul Rivot, Director Database Servers Business Intelligence Software, email privot@us.ibm.com, phone 914-766-1325

2. CDW.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 eServer p5 570 Model 9117-570

MQTH, computed Maximum Qualified Throughput: 429,899.7 tpmC

<u>Response Times (in seconds)</u>	<u>90th %</u>	<u>Average</u>	<u>Maximum</u>
New Order	0.26	0.18	3.48
Payment	0.24	0.17	3.08
Order-Status	0.23	0.17	2.38
Delivery (interactive)	0.17	0.14	1.10
Delivery (deferred)	0.70	0.28	3.94
Stock-Level	0.33	0.20	2.52
Menu	0.33	0.26	11.6

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	44.90%
Payment	43.03%
Order-Status	4.01%
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	19.19/121.54
Payment	3.00/0.01	3.01/12.02	4.06/124.92
Order-Status	2.00/0.01	2.01/10.01	3.02/100.18
Delivery	2.00/0.01	2.01/5.03	2.82/50.31
Stock-Level	2.00/0.01	2.01/5.02	2.81/50.28

Test Duration

Ramp-up Time	44m 24s
Measurement interval	2h 30m
Transactions during measurement interval (all types)	143,596,649
Ramp-down time	20m

Checkpoints

Number of checkpoints	N/A
Checkpoint interval	N/A