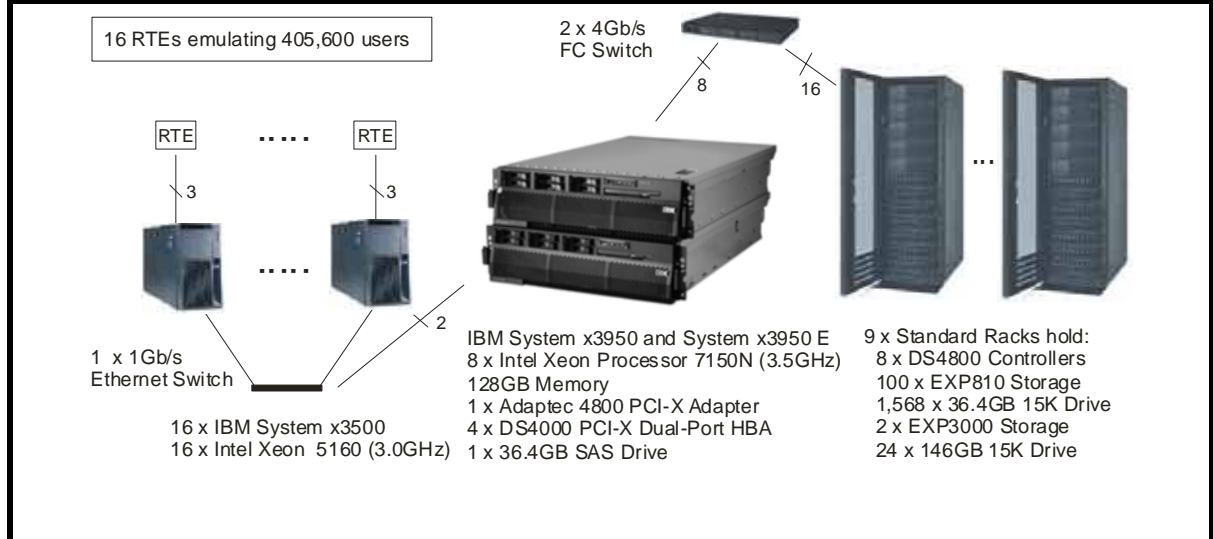


IBM Corporation	IBM® System x3950 c/s Microsoft® SQL Server 2005 (SP1)		TPC-C Rev. 5.8	
			Report Date 02/28/07	
Total System Cost	TPC-C Throughput	Price/Performance	Availability Date	
\$2,463,913 USD	510,822 tpmC	\$4.82 USD /tpmC	Apr. 1, 2007	
Database Server Processors/Cores/Threads	Database Manager	Operating System	Other Software	Number Of Users
8/16/32 Intel® Xeon® Processor 7150N 3.5GHz	Microsoft SQL Server 2005 Enterprise x64 Edition (SP1)	Microsoft Windows® Server 2003 Enterprise x64 Edition	Microsoft Visual C++ Standard Edition Microsoft COM+	405,600



System Component	Qty	Server	Qty	Each of 16 Clients
Processors/Cores/Threads	8/16/32	Intel Xeon Processor 7150N 3.5GHz	1/2/2	Dual-Core Intel Xeon Processor 5160 at 3.0GHz
Cache		2x1MB L2, 1x16MB L3		1x4MB L2 Cache
Memory	32	4GB ECC RDIMM	4	512MB PC2-5300 FBD
Disk Controllers	8 4	IBM System Storage DS4800 IBM DS4000 4Gbps FC PCI-X Host Bus Adapter Adaptec 4800 PCI-X SAS		Integrated SAS Interface
Disk Drives	1,568 24	36.4GB 15K 4Gbps FC Drive 146GB 15K SAS Drive	1	73.4GB 15K SAS
Total Storage		55689.81GB		

**IBM
Corporation**

**IBM® System x3950 c/s
Microsoft® SQL Server 2005 (SP1)**

TPC-C Rev. 5.8

**Report Date
02/28/07**

Description	Part Number	Third Party Brand	Pricing	Unit Price	Quantity	Extended Price	3-Yr. Maint. Price
Server Hardware							
IBM System x3950 (2 x Intel Xeon Processor 7150N 3.5GHz 667MHz, 2 x 1 MB L2 Cache and 16MB L3 Cache)	8878-5RU	IBM	1	21,265	1	21,265	
Intel Xeon Processor 7150N 3.5GHz/2x1MB L2, 16MB L3	43V4553	IBM	1	5,699	6	34,194	
x3950 E (0 Processors, 0 Memory, 2 Memory Cards)	8879-1RU	IBM	1	6,999	1	6,999	
Scalability Cable 2.3.M	13M7414	IBM	1	299	2	598	
8GB (2x4GB) PC2-3200 CL3 2RX4 ECC DDR2 SDRAM RDIM	30R5145	IBM	1	5,569	16	89,104	
Active Memory 4-Slot Memory Expansion Card	41Y5000	IBM	1	499	2	998	
Adaptec 4800 PCI-X SAS Adapter (2 spares)	2183100-R	Adaptec	3	790	3	2,370	
IBM 36.4GB 10K 2.5 inch SAS Drive	40K1051	IBM	1	279	1	279	
IBM T115 15-inch TFT Display	494215U	IBM	1	259	1	259	
IBM Preferred Pro USB Keyboard	40K9584	IBM	1	29	1	29	
IBM 3-Button Optical Mouse - Black - USB	40K9201	IBM	1	19	1	19	
ServicePac for 3-Year 24x7x4 Support (x3950)	96P2688	IBM	1	3,390	1		3,390
ServicePac for 3-Year 24x7x4 Support (x3950 E)	10N3059	IBM	1	1,695	1		1,695
ServicePac for 3-Year 24x7x4 Support (Display)	30L9183	IBM	1	90	1		90
				Subtotal		156,114	5,175
Server Storage							
IBM DS4000 FC 4Gbps - PCI-X Dual Port HBA	39M5895	IBM	1	2,485	4	9,940	
IBM TotalStorage DS4800 Midrange Disk Subsystem	1815-82H	IBM	1	65,245	8	521,960	
IBM Short Wave SFP Module (4 Pack)	22R0483	IBM	1	550	39	21,450	
IBM 1m LC-LC Fibre Channel Cable	39M5696	IBM	1	79	196	15,484	
IBM 5m LC-LC Fibre Channel Cable	39M5697	IBM	1	129	24	3,096	
IBM TotalStorage DS4000 EXP810 Storage Exp. Unit	1812-81H	IBM	1	6,000	100	600,000	
36.4GB 15K 4Gbps FC E-DDM Hot-Swap HDD	40K6812	IBM	1	1,115	1568	1,748,320	
IBM TotalStorage SAN16B-2	2005-16B	IBM	1	3,450	2	6,900	
B16 4-Port Activation	22R4901	IBM	1	1,570	2	3,140	
IBM System Storage EXP3000	1727-01X	IBM	1	3,599	2	7,198	
IBM Hot-Swap 3.5-inch 15K 146GB SAS HDD	40K1044	IBM	1	669	24	16,056	
IBM SAS 1m Cable	39R6471	IBM	1	119	1	119	
IBM EXP3000 1m Cable	39R6529	IBM	1	119	1	119	
IBM UPS 750TLV	2130R1X	IBM	1	545	1	545	
IBM S2 42U Standard Rack	93074RX	IBM	1	1,489	9	13,401	
ServicePac for 3-Year 24x7x4 Support (EXP810)	41L2768	IBM	1	760	100		76,000
ServicePac for 3-Year 24x7x4 Support (DS4800)	96P2062	IBM	1	1,087	8		8,696
ServicePac for 3-Year 24x7x4 Support (EXP3000)	41L2768	IBM	1	760	2		1,520
ServicePac for 3-Year 24x7x4 Support (Rack)	41L2760	IBM	1	300	9		2,700
				Subtotal		2,967,728	88,916
Server Software							
Microsoft SQL Server 2005 Enterprise x64 Edition	810-03134	Microsoft	2a	23,432	8	187,456	
Microsoft Windows Server 2003 Enterprise x64 Edition	P72-00981	Microsoft	2b	2,334	1	2,334	
Microsoft Problem Resolution Services		Microsoft	2	245	1		245
				Subtotal		189,790	245
Client Hardware							
x3500 with 3.0GHz/2x2MB Xeon 5160, 1GB (2x512) Memory	797792U	IBM	1	3,129	16	50,064	
1GB (2x512MB) PC2-5300 CL5 ECC DDR2 FBD 667MHz	39M5782	IBM	1	445	16	7,120	
73GB 15K Hot Swap SAS	40K1043	IBM	1	379	16	6,064	
PRO/1000 PT Dual-Port Server Adapter	39Y6126	IBM	1	249	32	7,968	
ServicePac for 3-Year 24x7x4 Support (x3500)	96P2250	IBM	1	586	16		9,376
				Subtotal		71,216	9,376
Client Software							
Microsoft Windows Server 2003 Standard x86 Edition	P73-00295	Microsoft	2c	719	16	11,504	
Microsoft Visual C++ Standard Edition	254-00170	Microsoft	2	109	1	109	
				Subtotal		11,613	0
Network Components							
NetGear 24-Port Ethernet Switch (2 spares)	JGS524		4	246	3	738	
Ethernet Cable (2 spares)	A3L791-10-BLK		4	3	22	66	
				Subtotal		804	
				Total		3,397,265	103,712
Large Purchase Discount (See Note 1.)	31.46%		1			\$1,037,064	
Pricing: 1 - IBM - 1-888-SHOP-IBM, ext. 5821; 2 - Microsoft, 2a = 6.26%; 2b = 41.64%; 2c = 28% discount; 3 - cdw.com; 4 - newegg.com				Three-Year Cost of Ownership USD:		\$2,463,913	
Note 1: Discount based on IBM Direct guidance applies to all line items where Pricing=1. Pricing is for this system or one of similar size.				tpmC:		510,822	
Audited by Francois Raab, InfoSizing, Inc. (www.sizing.com)				\$ USD/tpmC:		\$4.82	

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 stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org.

IBM Corporation	IBM® System x3950 c/s Microsoft® SQL Server 2005 (SP1)	TPC-C Rev. 5.8	
		Report Date 02/28/07	
Numerical Quantities Summary			
MQTh, Computed Maximum Qualified Throughput: 510,822 tpmC			
Response Times (in seconds)	90th Percentile	Average	Maximum
New Order	0.48	0.28	5.44
Payment	0.44	0.26	4.95
Delivery	0.12	0.12	1.38
Stock Level	0.94	0.68	2.97
Order Status	0.48	0.28	5.39
Delivery (Deferred)	0.13	0.10	4.34
Menu	0.11	0.12	1.36
Response Time Delay Added for Emulated Components: 0.1 Seconds			
Transaction Mix (in percent of total transactions)			Percent
New Order			44.96
Payment			43.02
Delivery			4.01
Stock Level			4.01
Order Status			4.01
Keying/Think Times (in seconds)	Minimum	Average	Maximum
New Order	18.00 / 0.00	18.00 / 12.04	18.02 / 120.31
Payment	3.00 / 0.00	3.00 / 12.03	3.02 / 120.31
Delivery	2.00 / 0.00	2.00 / 5.04	2.02 / 50.31
Stock Level	2.00 / 0.00	2.00 / 5.04	2.02 / 50.31
Order Status	2.00 / 0.00	2.00 / 10.03	2.02 / 100.31
Test Duration			
Ramp-up Time			52 minutes 6 seconds
Measurement Interval			120 minutes
Number of Checkpoints			4
Checkpoint Interval			30 minutes
Number of transactions (all types) completed in measurement interval			141,824,038