

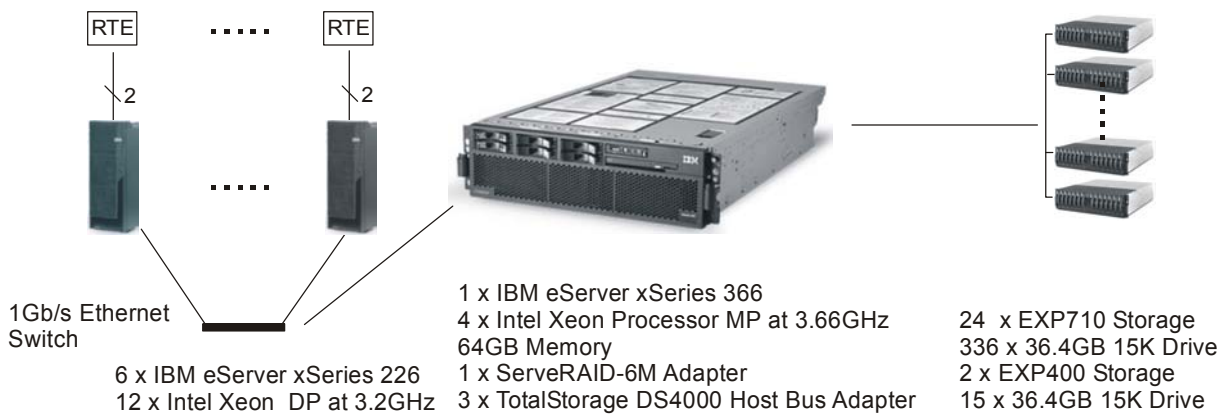
**IBM® eServer® xSeries® 366c/s  
and  
DB2® UDB 8.2**

TPC-C Rev. 5.3

Report Date: March 28, 2005

Total System Cost		TPC-C Throughput	Price/Performance	Availability Date
<b>\$903,089 USD</b>		<b>150,704 tpmC</b>	<b>\$5.99 USD / tpmC</b>	<b>Aug. 20, 2005</b>
Processors	Database Manager	Operating System	Other Software	Number of Users
<b>Server: 4 64-Bit Intel® Xeon™ Processor MP at 3.66GHz Clients: 12 Intel Xeon at 3.2GHz</b>	<b>DB2 UDB 8.2</b>	<b>Microsoft Windows® Server 2003 Enterprise x64 Edition</b>	<b>Microsoft Visual C++ 6.0 Microsoft COM+</b>	<b>120,000</b>

6 RTEs emulating 120,000 Users



System Component	Qty	Server:	Qty	Each of Six Clients:
Processors	4	Intel Xeon Processor MP at 3.66GHz/1MB L2 Cache	2	Intel Xeon DP at 3.2GHz
Cache				1MB L2 Cache
Memory	16	4GB ECC RDIMM	4	512MB
			2	256MB
Disk Controllers	1	ServeRAID-6M Adapter	1	Ultra320 SCSI Interface
Disk Drives	351	36.4GB (15000 rpm)	1	36.4GB (15000 rpm)
Total Storage		11662GB		

IBM Corporation	IBM @server xSeries 366 c/s			TPC-C Revision 5.3			
	DB2 UDB 8.2			Report Date: March 28, 2005			
Description	Part Number	Third Party Brand	Pricing	Unit Price	Quantity	Extended Price	3-Yr. Maint. Price
<b>Server Hardware</b>							
xSeries 366 with 1 x 3.6GHz/1MB L2 Cache Intel Xeon Processor MP	8863-2RU	IBM	1	9,999	1	9,999	
xSeries 3.6GHz/1MB L2 Cache Intel Xeon Processor MP	13N0695	IBM	1	1,999	3	5,997	
8GB (2x4GB) PC2-3200 CL3 2RX4 ECC DDR2 SDRAM RDIMM	30R5145	IBM	1	17,879	8	143,032	
Active Memory™ 4-Slot Memory Expansion Card	13M7409	IBM	1	499	3	1,497	
ServeRAID-6M Ultra320 SCSI Adapter	32P0033	IBM	1	999	1	999	
E54 15" (13.8" Viewable) Color Monitor	633147N	IBM	1	139	1	139	
IBM Preferred Pro Full-Size Keyboard PS/2	31P7415	IBM	1	29	1	29	
IBM Sleek 2-Button Mouse	28L3673	IBM	1	15	1	15	
ServicePac for 3-Year 24x7x4 Support (x366)	96P2253	IBM	1	900	1		900
ServicePac for 3-Year 24x7x4 Support (Monitor)	30L9183	IBM	1	90	1		90
Discount on xSeries Hardware (15%)						24,256	
Discount on ServicePacs (20%)							198
					<b>Subtotal</b>	<b>137,451</b>	<b>792</b>
<b>Server Storage</b>							
IBM TotalStorage DS4000 Host Bus Adapter	24P0960	IBM	1	1,485	3	4,455	
IBM TotalStorage DS4500 Disk Subsystem	174290U	IBM	1	66,500	3	199,500	
IBM DS4000 Mini Hub	19K1269	IBM	1	899	6	5,394	
IBM Short Wave SFP Module	19K1271	IBM	1	499	103	51,397	
IBM 1m LC-LC Fibre Channel Cable	19K1247	IBM	1	79	48	3,792	
IBM 5m LC-LC Fibre Channel Cable	19K1248	IBM	1	129	9	1,161	
IBM TotalStorage DS4000 EXP710 Storage Exp. Unit	1740710	IBM	1	6,000	24	144,000	
IBM TotalStorage SAN Fibre Channel Switch Model H16	2005H16	IBM	1	11,755	1	11,755	
2Gbps FC 36.4GB 15K Hot-Swap HDD	06P5772	IBM	1	1,115	336	374,640	
IBM EXP400 Rack Storage Exp. Enclosure	17331RU	IBM	1	3,099	2	6,198	
36.4GB 15K Ultra320 SCSI Drive	90P1318	IBM	1	349	15	5,235	
Netfinity 4.2M Ultra2 SCSI Cable	03K9310	IBM	1	75	2	150	
IBM UPS 750TLV	21301TX	IBM	1	299	1	299	
IBM S2 42U Standard Rack	93074SX	IBM	1	1,489	3	4,467	
ServicePac for 3-Year 24x7x4 Support (EXP710)	41L2768	IBM	1	760	24		18,240
ServicePac for 3-Year 24x7x4 Support (DS4500)	96P2062	IBM	1	1,087	3		3,261
ServicePac for 3-Year 24x7x4 Support (EXP400)	41L2768	IBM	1	760	2		1,520
ServicePac for 3-Year 24x7x4 Support (Rack)	41L2760	IBM	1	300	3		900
ServicePac for 3-Year 24x7x4 Support (Switch)	29R5130	IBM	1	2,460	1		2,460
Discount on Fibre Channel Disks (30%)						112,392	
Discount on Fibre Channel Storage (20%)						84,291	
Discount on xSeries Storage (15%)						2,452	
Discount on ServicePacs (20%)							5,276
					<b>Subtotal</b>	<b>613,308</b>	<b>21,105</b>
<b>Server Software</b>							
DB2 UDB ESE 8.2 for Windows Operating Systems on 64-Bit Extended Systems - SW License and Maintenance 12 Months		IBM	1	22,260	4	89,040	
SW Maintenance Renewal - 1 Year		IBM	1	1,060	8		8,480
Microsoft Windows Server 2003 Enterprise x64 Edition*	P72-00264	Microsoft	2	2,399	1	2,399	
Microsoft Problem Resolution Services		Microsoft	2	245	1		245
					<b>Subtotal</b>	<b>91,439</b>	<b>8,725</b>
<b>Client Hardware</b>							
x226 with 3.2GHz/1MB Xeon DP, 512MB (2x256MB) Memory	8648-2AU	IBM	1	1,515	6	9,090	
3.2GHz/1MB Xeon DP Processor Upgrade	13N0673	IBM	1	799	6	4,794	
1GB (2x512MB) PC-3200 DDR2 ECC SDRAM RDIMM	73P3522	IBM	1	399	12	4,788	
36.4GB 15K Ultra320 SCSI Drive	90P1318	IBM	1	349	6	2,094	
PRO/1000 MT Dual-Port Server Adapter	73P2701	Intel	1	249	18	4,482	
E54 15" (13.8" Viewable) Color Monitor	633147N	IBM	1	139	6	834	
ServicePac for 3-Year 24x7x4 Support (x226)	96P2250	IBM	1	586	6		3,516
ServicePac for 3-Year 24x7x4 Support (Monitor)	30L9183	IBM	1	90	6		540
Discount on xSeries Hardware (15%)						3,912	
Discount on ServicePacs (20%)							811
					<b>Subtotal</b>	<b>22,170</b>	<b>3,245</b>
<b>Client Software</b>							
Microsoft Windows 2000 Server with COM+*	C11-00821	Microsoft	2	738	6	4,428	
Microsoft Visual C++ Professional 6.0	254-00170	Microsoft	2	109	1	109	
					<b>Subtotal</b>	<b>4,537</b>	
<b>Network Components</b>							
NETGEAR 8-Port Gigabit Ethernet Switch	GS108		3	100	3	300	
14ft Ethernet Cable (including 2 spares)			3	2	9	18	
					<b>Subtotal</b>	<b>318</b>	
					<b>Total</b>	<b>869,223</b>	<b>33,867</b>
Pricing: 1- IBM; 2 - Microsoft (*See Quote for Discounts); 3 - www.newegg.com				<b>Three-Year Cost of Ownership USD:</b> \$903,089			
Notes: Volume Discounts Based on IBM Direct Guidance (Call 1-919-254-0367 for price verification.)				<b>tpmC:</b> 150,704			
Audited by Bradley J. Askins of InfoSizing, Inc.				<b>\$ USD/tpmC:</b> \$5.99			
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.							

<b>Numerical Quantities Summary</b>			
MQTh, Computed Maximum Qualified Throughput: <b>150,704 tpmC</b>			
<b>Response Times (in seconds)</b>	<b>90th Percentile</b>	<b>Average</b>	<b>Maximum</b>
New-Order	0.30	0.20	1.58
Payment	0.40	0.30	3.45
Delivery	0.30	0.29	1.06
Stock Level	0.64	0.41	1.94
Order Status	0.30	0.23	1.72
Delivery (Deferred)	0.58	0.33	3.53
Menu	0.29	0.20	1.16
Response Time Delay Added for Emulated Components: 0.1 Seconds			
<b>Transaction Mix (in percent of total transactions)</b>			<b>Percent</b>
New-Order			44.94
Payment			43.03
Delivery			4.01
Stock-Level			4.01
Order Status			4.01
<b>Keying/Think Times (in seconds)</b>	<b>Minimum</b>	<b>Average</b>	<b>Maximum</b>
New Order	18.00 / 0.00	18.00 / 12.03	18.00 / 120.31
Payment	3.00 / 0.00	3.00 / 12.04	3.02 / 120.31
Delivery	2.00 / 0.00	2.00 / 5.04	2.00 / 50.31
Stock Level	2.00 / 0.00	2.00 / 5.04	2.00 / 50.31
Order Status	2.00 / 0.00	2.00 / 10.03	2.00 / 100.31
<b>Test Duration</b>			
Ramp-up time			42 minutes 30 seconds
Measurement interval			120 minutes
Number of checkpoints			NA
Checkpoint interval			NA
Number of transactions (all types) completed in measurement interval			40,239,816