	IBM @server xSeries 250 c/s with Microsoft SQL Server 2000	TPC-C Rev. 5.0
		Report Date: Nov. 5, 2001

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
$72,487	**15,533.72 tpmC**	**$4.67 / tpmC**	**Nov. 5, 2001**

Processors	Database Manager	Operating System	Other Software	Number of Users
Database Server = 2 **Client = 2**	**Microsoft® SQL Server 2000 Standard Edition**	**Microsoft Windows® 2000 Server**	**Microsoft Visual C++ 6.0 Win32 Microsoft COM+**	**12,480**

12,480PCs

xSeries 220
2 x 1GHz Pentium III

xSeries 250
2 x 700MHz Pentium III Xeon
 with 2MB L2 Cache
2GB Memory

5 x EXP300
Rack Storage Expansion
Enclosures

780 (×15)

5 x ServeRAID-4MX Adapter
1 x 9.1GB Drive

56 x 9.1GB Drives
12 x 18.2GB Drives
 2 x 73.4GB Drives

10BaseT
Ethernet

100BaseT
Ethernet
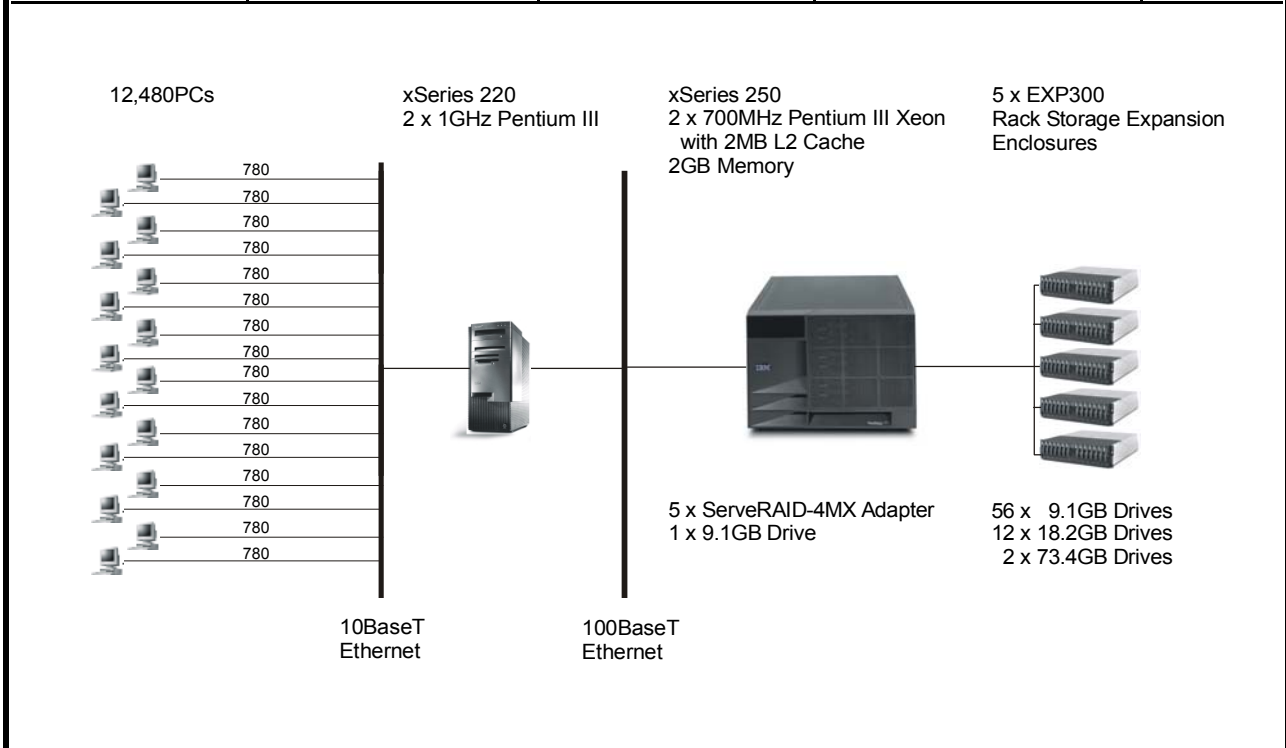
System Component	Qty	Server	Qty	Client
Processors **Cache**	**2**	**700MHz Pentium III Xeon w/2MB L2 Cache**	**2**	**1GHz Pentium III w/256KB L2 Cache**
Memory	**16**	**128MB ECC SDRAM RDIMM**	**1** **2**	**128MB** **256MB**
Disk Controllers	**5**	**ServeRAID-4MX Adapter**		
			1	**Ultra160 SCSI Interface**
Disk Drives	**57** **12** **2**	**9.1GB (10000 rpm)** **18.2GB (10000 rpm)** **73.4GB (10000 rpm)**	**1**	**9.1GB Hard Disk**
Total Storage **Tape Drive**	**1**	**753.40GB** **20/40GB SCSI Tape Drive**		

IBM Corporation	IBM @server xSeries 250 c/s with Microsoft SQL Server 2000	TPC-C Rev. 5.0
		Report Date: Nov. 5, 2001

Description	Order Number	Brand	Third-Party Pricing	Unit Price	Qty	Ext. Price	3-Yr. Maint.*
Server Hardware							
xSeries 250 / 700MHz/2MB Pentium III Xeon	8665-7RY		1	$6,799	1	$6,799	$1,495
700MHz/2MB Pentium III Xeon Processor	10K2332		1	2,879	1	2,879	0
128MB ECC SDRAM RDIMM Memory Kit	33L3113		1	109	12	1,308	0
ServeRAID-4MX Ultra160 SCSI Adapter	06P5736		1	999	5	4,995	0
Netfinity 4.2M Ultra2 SCSI Cable	03K9311		1	105	10	1,050	0
E54 14" (13.8" Viewable) Color Monitor*	6331N2N		1	149	1	149	90
20/40GB Internal SCSI Tape Drive	00N7991		1	769	1	769	0
NetBAY25 Rack*	9306250		1	1,295	1	1,295	300
Storage Hardware							
Netfinity EXP300 Rack Storage Enclosure*	35311RU		1	3,179	5	15,895	1,000
9.1GB 10K Ultra160 SCSI Drive	37L7204		1	275	57	15,675	0
18.2GB 10K Ultra160 SCSI Drive	37L7205		1	275	12	3,300	0
73.4GB 10K Ultra160 SCSI Drive	06P5756		1	1,099	2	2,198	0
					Subtotal	$56,312	$2,885
Server Software							
Microsoft SQL Server 2000 Standard Edition	228-01079	Microsoft	2	4,999	2	$9,998	$0
Microsoft Windows 2000 Server	C11-00821	Microsoft	2	738	1	738	0
Three-Year Maintenance for Software		Microsoft	2	2,095	3		6,285
					Subtotal	$10,736	$6,285
Client Hardware							
xSeries 220 / 1GHz/256KB Pentium III*	8642-21X		1	849	1	$849	$738
1GHz/256KB Pentium III Processor	10K0051		1	599	1	599	0
256MB 133MHz ECC SDRAM RDIMM	33L3144		1	245	2	490	0
9.1GB 10K Ultra160 SCSI Drive	37L7204		1	275	1	275	0
E54 15" (13.8" Viewable) Color Monitor*	6331N2N		1	149	1	149	90
					Subtotal	$2,362	$828
Client Software							
Microsoft Windows 2000 Server with COM+	C11-00821	Microsoft	2	738	1	738	0
Microsoft Visual C++ Professional 6.0 Win32	048-00317	Microsoft	2	549	1	549	0
					Subtotal	$1,287	$0
Connectivity							
7-Foot Crossover Cable (incl. 2 spares)			3	2	3	6	0
					Subtotal	$6	$0
					Total	$70,703	$9,998
Large volume discount of 14% on IBM hardware; prices will vary if purchased separately.						(8,214)	$0

Notes: * The standard 3-year warranties on IBM hardware have been upgraded to 7x24, 4-hour response time coverage. ** Five-year warranty. *** 10% or minimum 2 spares are added in place of on-site service (products have a 5-year return-to-vendor-warranty) Pricing: 1 - IBM Corp.; 2 - Microsoft Corp.; 3 - Ocsusa.com Audited by Bradley J. Askins of InfoSizing, Inc.	**Three-Year Cost of Ownership:** $72,487 **tpmC Rating:** 15,533.72 **$ / tpmC:** $4.67

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 specification. If you find that stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you.

Numerical Quantities Summary

MQTh, Computed Maximum Qualified Throughput:			15,533.72 tpmC

Response Times (in seconds)	Average	Maximum	90 %-tile
New-Order	0.46	5.11	0.67
Payment	0.29	4.31	0.48
Delivery	0.16	0.77	0.30
Stock Level	2.19	5.01	3.43
Order Status	0.33	4.91	0.53
Delivery (Deferred)	0.61	2.08	0.91
Menu	0.16	0.79	0.30

Transaction Mix (in percent of total transactions)		Total Occurrences	Percent
New-Order		1,864,047	44.87
Payment		1,787,404	43.02
Delivery		168,544	4.06
Stock-Level		167,841	4.04
Order Status		166,736	4.01

Emulation Delay (in seconds)		Response Time	Menu
New-Order		0.1	0.1
Payment		0.1	0.1
Delivery		0.1	0.1
Stock-Level		0.1	0.1
Order Status		0.1	0.1

Keying/Think Times (in seconds)	Average	Minimum	Maximum
New Order	18.01 / 12.05	18.00 / 0.00	18.07 / 120.50
Payment	3.01 / 12.05	3.00 / 0.00	3.07 / 120.50
Delivery	2.01 / 5.07	2.00 / 0.00	2.06 / 50.50
Stock Level	2.01 / 5.03	2.00 / 0.00	2.06 / 50.49
Order Status	2.01 / 10.04	2.00 / 0.00	2.06 / 100.50

Test Duration	
Ramp-up time	25 minutes
Measurement interval	120 minutes
Number of transactions (all types) completed in measurement interval	4,323,094
Ramp-down time	39 minutes
Number of checkpoints in measurement interval	4
Checkpoint interval	30 minutes