

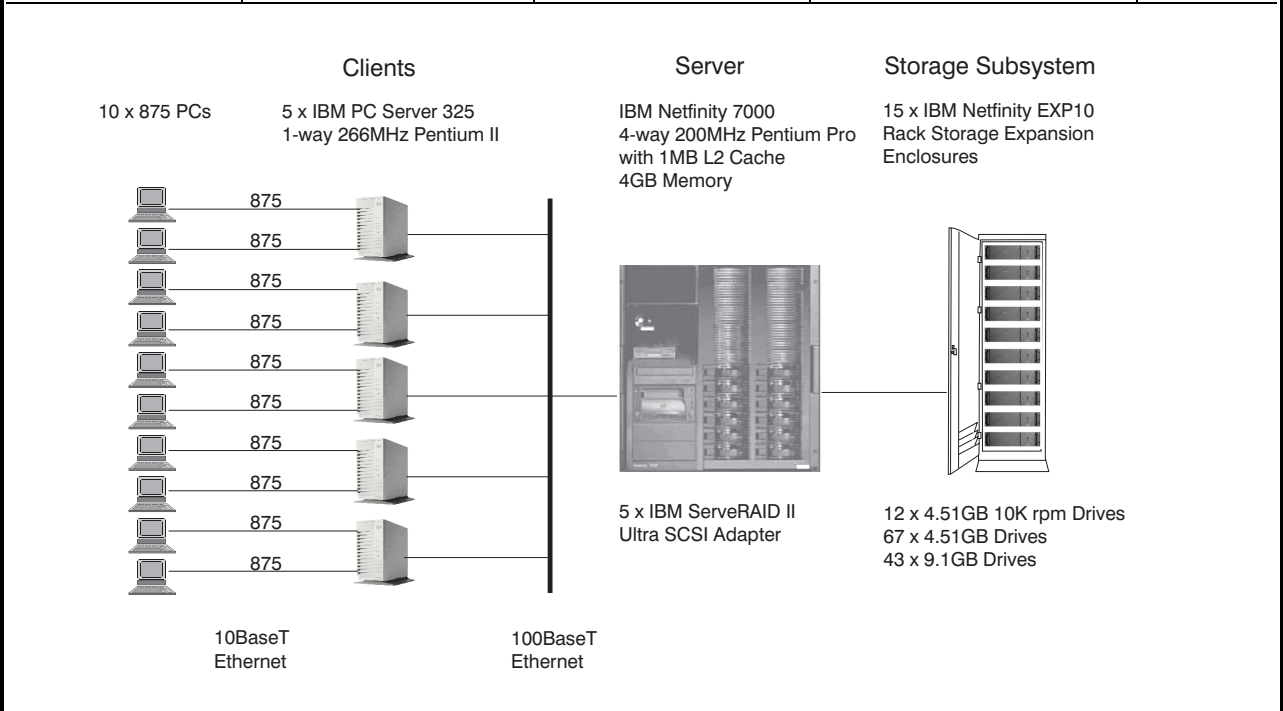


# IBM® Netfinity™ 7000 c/s

TPC-C Rev 3.3

Report Date: 18 Dec. 1997

Total System Cost		TPC-C Throughput	Price/Performance	Availability Date
<b>\$500,831</b>		<b>10,559.45 tpmC</b>	<b>\$47.43/tpmC</b>	<b>April 30, 1998</b>
Processors	Database Manager	Operating System	Other Software	Number of Users
<b>4 Pentium® Pro 200MHz 1MB L2 Cache</b>	<b>Microsoft® SQL Server 6.5 Enterprise Edition</b>	<b>Microsoft Windows® NT 4.0 Enterprise Edition</b>	<b>TOP END 2.04</b>	<b>8,750</b>



System Component	Qty	Server	Qty	Each of Five Clients
Processors	4	200MHz Pentium Pro	1	266MHz Pentium II
Cache		1MB L2 Cache		512KB L2 Cache
Memory	1	4096MB	1	256MB
Disk Controllers	5	IBM ServeRAID II Ultra		Wide Ultra SCSI Onboard
Disk Drives	12	4.51GB (10000rpm)	1	4.51GB
	67	4.51GB (7200rpm)		
	43	9.1GB (7200rpm)		
<b>Total Storage</b>		<b>696.38GB</b>		
Tape Drives	1	20/40GB SCSI Tape Drive		
Terminals	1	14-inch Display	1	14-inch Display
Terminal Conn.	1	NETLUX 8-Port 100Mbps Hub	1210	COMPEX 8-Port 10Mbps Ethernet Hub

<b>IBM Corporation</b>		<b>IBM Netfinity 7000 c/s</b>		<b>TPC-C Revision 3.3</b>			
				<b>Report Date: 18 Dec. 1997</b>			
<b>Description</b>	<b>Order Number</b>	<b>Third-Party Brand</b>	<b>Pricing</b>	<b>Unit Price</b>	<b>Qty</b>	<b>Ext. Price</b>	<b>5-Yr. Maint.*</b>
<b>Server Hardware</b>							
IBM Netfinity 7000 / 1MB L2 200MHz Pentium Pro	8651-RH0			18,525	1	18,525	5,985
PC Server SMP 200MHz / 1MB Processor Upgrade	94G7147			5,072	3	15,216	0
Netfinity 1024MB Memory Expansion Kit	94G7386			12,127	4	48,508	0
IBM ServeRAID II Ultra SCSI Adapter	76H3584			1,869	5	9,345	0
IBM 3M External .8mm SCSI Cable	01K8028			52	15	780	0
IBM Third SCSI Internal Channel Cable	76H5400			143	5	715	0
IBM EtherJet 100/10 PCI Adapter	86H2432			81	1	81	0
IBM G42 14" (13.2" Viewable) Color Monitor	654000N			277	1	277	408
20/40GB SCSI Tape Drive	76H0485			3,535	1	3,535	0
Netfinity Rack	9306900			1,775	2	3,550	0
Side Panel Kit	94G6669			205	2	410	0
<b>Server Storage</b>							
IBM Netfinity EXP10 Rack Storage Exp. Enclosure	35201RU			2,833	15	42,495	27,000
Netfinity EXP10 4.51GB Wide Ultra SCSI Drive	01K7956			994	67	66,598	0
Netfinity EXP104.51GB 10K Wide Ultra SCSI Drive	01K7960			1,238	12	14,856	0
Netfinity EXP10 9.1GB Wide Ultra SCSI Drive	01K7959			1,623	43	69,789	0
<b>Subtotal</b>						<b>294,680</b>	<b>33,393</b>
<b>Server Software</b>							
Microsoft SQL Server Enterprise Edition 6.5		Microsoft	2	28,999	1	28,999	0
Microsoft Windows NT Server Enterprise Edition 4.0		Microsoft	2	3,999	1	3,999	0
Microsoft Software Maintenance		Microsoft	2	2,095	5		10,475
<b>Subtotal</b>						<b>32,998</b>	<b>10,475</b>
<b>Client Hardware</b>							
IBM PC Server 325 / 266MHz Pentium II	8639-PB0			3,362	5	16,810	13,500
IBM Ultrastar 2XP 4.51GB Wide Ultra SCSI Drive	76H2687			770	5	3,850	0
128MB DIMMs	94G6475			1,541	10	15,410	0
IBM EtherJet 100/10 PCI Adapter	86H2432			81	10	810	0
IBM G42 14" (13.2" Viewable) Color Monitor	654000N			277	5	1,385	2,040
<b>Subtotal</b>						<b>38,265</b>	<b>15,540</b>
<b>Client Software</b>							
Microsoft Windows NT Server 4.0		Microsoft	2	809	5	4,045	0
Microsoft SQL Server Programmer's Toolkit		Microsoft	2	499	1	499	0
Microsoft Visual C++ Version 4.0		Microsoft	2	499	1	499	0
TOP END - Class 1 Server (V2.04)	ESC-TE-SERV-001	NCR	3	2,700	5	13,500	10,125
TOP END - Interactive System Definition	ESC-TE-ISD	NCR	3	1,000	1	1,000	750
<b>Subtotal</b>						<b>19,543</b>	<b>10,875</b>
<b>Terminal Connectivity</b>							
COMPEX MicroHub/8-Port 10Mbps Hub**	DEH2924	COMPEX	4	36.5	1,210	44,165	0
NetLUX 8-Port 100Mbps Hub**	NX-H8TX	Netlux	5	299	3	897	0
<b>Subtotal</b>						<b>45,062</b>	<b>0</b>
<b>Total</b>						<b>430,548</b>	<b>70,283</b>
<b>Notes: * The standard 3-year warranty and the extended warranty on all IBM hardware is for 7x24, on-site same day coverage. **10% or minimum 2 spares are added in place of on-site service (products have a 5-year return-to-vendor-warranty) Pricing: 1 - MicroAge; 2 - Microsoft Corp.; 3 - EnterSoft Systems Corp.; 4 - DataComm Warehouse; 5 - NETLUX</b>				<b>Five-Year Cost of Ownership: \$500,831</b> <b>tpmC Rating: 10,559.45</b> <b>\$ / tpmC: 47.43</b>			
<b>Audited by Francois Raab of Information Paradigm.</b>							
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

<b>MQTh, computed Maximum Qualified Throughput:</b>			10,559.45 tpmC
<b>% throughput difference, reported and reproducibility runs:</b>			0.88 %
<b>Response Times (in seconds)</b>	<b>90th Percentile</b>	<b>Average</b>	<b>Maximum</b>
New-Order	0.75	0.50	7.25
Payment	0.62	0.41	7.47
Order-Status	1.06	0.66	6.94
Delivery (Interactive)	0.22	0.17	2.62
Delivery (Deferred)	0.91	0.59	7.95
Stock Level	2.41	1.38	4.55
Menu	0.22	0.17	6.73
Response time delay added for emulated components is 0.1 seconds.			
<b>Transaction Mix, in percent of total transactions</b>			<b>Total Occurrences</b>
New-Order			211,189
Payment			205,339
Order-Status			19,733
Delivery			19,722
Stock-Level			20,155
<b>Percent</b>			
New-Order			44.35 %
Payment			43.12 %
Order-Status			4.14 %
Delivery			4.14 %
Stock-Level			4.23 %
<b>Keying/Think Times (in seconds)</b>	<b>Minimum</b>	<b>Average</b>	<b>Maximum</b>
New-Order	18.00 / 0.01	18.01 / 12.48	23.30 / 125.02
Payment	3.00 / 0.01	3.01 / 12.51	5.50 / 125.00
Order Status	2.00 / 0.01	2.01 / 10.50	3.44 / 103.34
Delivery	2.00 / 0.01	2.01 / 6.08	2.97 / 60.14
Stock-Level	2.00 / 0.01	2.01 / 5.52	4.33 / 51.45
<b>Test Duration</b>			
Ramp-up time			22 minutes, 15 seconds
Measurement interval			20 minutes
Number of checkpoints in measurement interval			1
Checkpoint interval			20 minutes
Number of transactions (all types) completed in measurement interval			476,138