



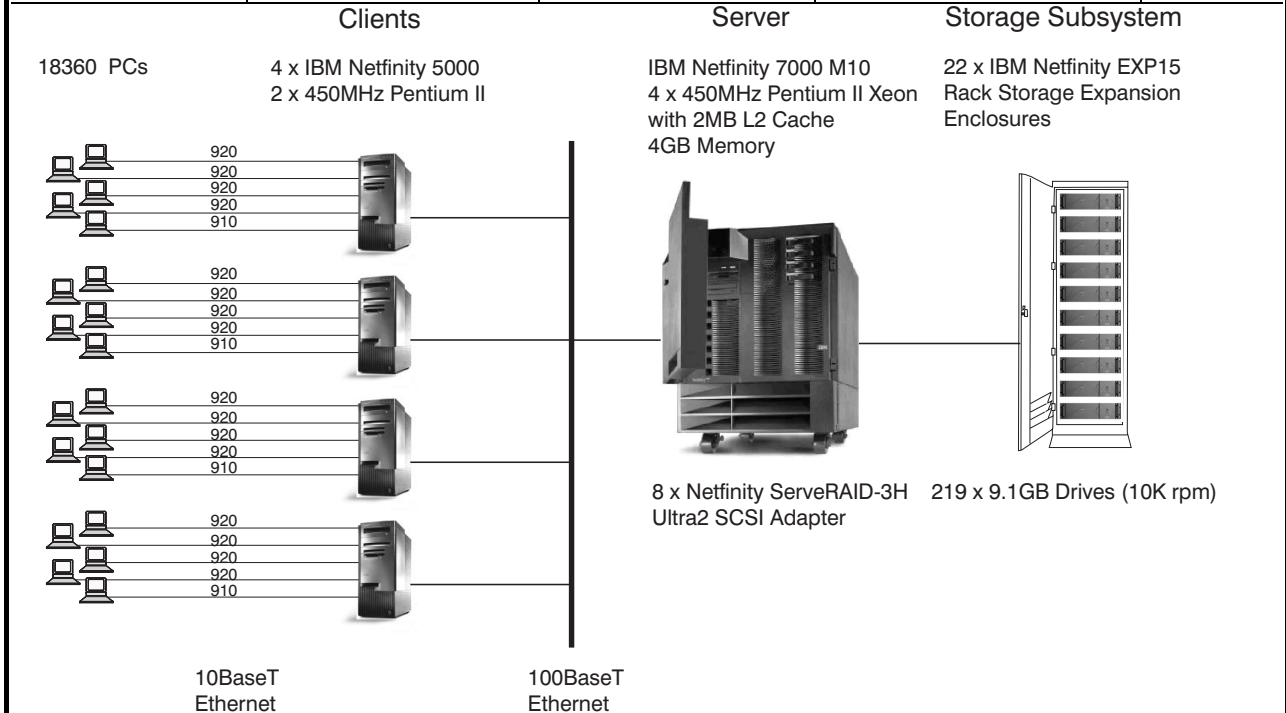
IBM Netfinity 7000 M10 C/S

TPC-C Rev 3.4

Report Date: 29 Jan. 1999

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$577,117	22,459.80 tpmC	\$25.70/tpmC	Jan. 19, 1999

Processors	Database Manager	Operating System	Other Software	Number of Users
4 Pentium® II Xeon 450MHz 2MB L2 Cache	Microsoft® SQL Server 7.0 Enterprise Edition	Microsoft Windows® NT 4.0 Enterprise Edition	TXSeries V4.2 for Windows NT Server	18,360



System Component	Qty	Server	Qty	Each of Four Clients
Processors	4	450MHz Pentium II Xeon	2	450MHz Pentium II
Cache		2MB L2 Cache		512KB L2 Cache
Memory	1	4096MB	1	384MB
Disk Controllers	8	ServeRAID-3H Ultra2	1	Wide Ultra SCSI Onboard
Disk Drives	219	9.1GB (10000 rpm)	1	4.51GB Hard Disk
Total Storage		1992.9GB		
Tape Drive	1	10/20GB SCSI Tape Drive		
Terminals	1	14-inch Display	1	14-inch Display
User Connectivity	1	NETLUX 8-Port 100Mbps Hub	2528	COMPEX 8-Port 10Mbps Ethernet Hub

IBM Corporation		Netfinity 7000 M10 C/S		TPC-C Revision 3.4				
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Description	Order Number	Third-Party Brand	Pricing	Unit Price	Qty	Ext. Price	5-Yr. Maint.*	
Server Hardware								
IBM Netfinity 7000 M10 / 450MHz Pentium II Xeon with 2MB L2 Cache*	86805RU		1	\$15,639	1	\$15,639	\$6,415	
450MHz / 2MB L2 Cache Processor Upgrade	10L5897		1	7,164	3	21,492	0	
Memory Card	01K8004		1	517	1	517	0	
Netfinity 512MB Memory Expansion Kit	01K8045		1	2,710	8	21,680	0	
Netfinity ServeRAID-3H Ultra2 SCSI Adapter	01K7207		1	1,742	8	13,936	0	
32MB Battery Backup Cache	28L1003		1	298	1	298	0	
Netfinity 4.2M Ultra2 SCSI Cable	03K9311		1	104	22	2,288	0	
IBM Third SCSI Internal Channel Cable	76H5400		1	29	7	203	0	
Ethernet 100/10 PCI Adapter	08L2565		1	76	1	76	0	
IBM G42 14" (13.2" Viewable) Color Monitor*	654000N		1	208	1	208	215	
10/20GB NS Internal SCSI Tape Drive	01K1319		1	629	1	629	0	
Netfinity Rack*	9306900		1	1,675	2	3,350	0	
Side Panel Kit	94G6669		1	200	1	200	0	
Server Storage								
Netfinity EXP15 Rack Storage (incl. 10% Spares)	35202RU		1	2,579	25	64,475	0	
APC Smart-UPS 1400RMB	94G6674		1	1,140	1	1,140	0	
Netfinity EXP10 9.1GB 10K Wide Ultra SCSI Drive (incl. 10% Spares)	01K8499		1	970	241	233,770	0	
						Subtotal	\$379,901	\$6,630
Server Software								
Microsoft SQL Server 7.0, Enterprise Edition, unlimited user license		Microsoft	3	28,999	1	\$28,999	\$0	
Microsoft Windows NT Server 4.0, Enterprise Edition, including 25 CALs		Microsoft	3	3,999	1	3,999	0	
Five-Year Maintenance for Software		Microsoft	3	10,475	1		10,475	
						Subtotal	\$32,998	\$10,475
Client Hardware								
IBM Netfinity 5000 / 450MHz Pentium II*	865931Y		1	2,612	4	\$10,448	10,140	
450MHz Upgrade with Pentium II	10L5900		1	1,248	4	4,992	0	
4.51GB Wide Ultra SCSI Drive	01K8009		1	625	4	2,500	0	
128MB DIMMs	01K7262		1	437	12	5,244	0	
Ethernet 100/10 PCI Adapter	08L2565		1	76	4	304	0	
Adaptec Quartet 4-Port Ethernet PCI Adapter**	ANA-6944ATX		1	456	4	1,824	0	
IBM G42 14" (13.2" Viewable) Color Monitor*	654000N		1	208	4	832	860	
						Subtotal	\$26,144	\$11,000
Client Software								
Microsoft Windows NT Server 4.0, incl. 5 CALs		Microsoft	3	809	4	3,236	0	
Microsoft Visual C++ Professional 5.0		Microsoft	3	499	1	499	0	
TXSeries V4.2 for Windows NT Server		IBM	2	2,877	4	11,508	5,872	
TXSeries Registered User		IBM	2	72	1	72	36	
						Subtotal	\$15,315	\$5,908
User Connectivity								
COMPEX MicroHub/8-Port 10Mbps Hub***	DEH2924	COMPEX	4	34.85	2,528	88,101	0	
NETLUX 8-Port 100Mbps Hub***	NX-H8TX	NETLUX	5	215	3	645	0	
						Subtotal	\$88,746	\$0
						Total	\$543,104	\$34,013
Notes: * The standard 3-year warranty and the extended warranty on IBM hardware is for 7x24, on-site same day 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 - CDW Computer Centers, Inc.; 2 - IBM; 3 - Microsoft Corp.; 4 - DataComm Warehouse; 5 - NetLUX				Five-Year Cost of Ownership:		\$577,117		
Audited by Francois Raab of Information Paradigm, Inc.				tpmC Rating:		22,459.80		
				\$ / tpmC:		25.70		
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:			22,459.80 tpmC
% throughput difference, reported and reproducibility runs:			0.159 %
Response Times (in seconds)	90th Percentile	Average	Maximum
New-Order	1.7	0.744	6.625
Payment	1.6	0.633	6.422
Order-Status	1.6	0.709	6.531
Delivery (Interactive)	0.4	0.298	58.610
Delivery (Deferred)	0.562	0.390	1.280
Stock Level	3.4	2.289	8.391
Menu	NA	0.211	1.203
Response time delay added for menu delay is 0.1 seconds.			
Response time delay added for response time delay is 0.1 seconds.			
Transaction Mix, in percent of total transactions			Total Occurrences
New-Order			449,196
Payment			430,077
Order-Status			40,102
Delivery			40,065
Stock-Level			40,031
Keying/Think Times (in seconds)			Minimum
New-Order			18.00 / 0.015
Payment			3.00 / 0.015
Order Status			2.00 / 0.015
Delivery			2.00 / 0.015
Stock-Level			2.00 / 0.015
Test Duration			
Ramp-up time			34 minutes, 56 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			999,471