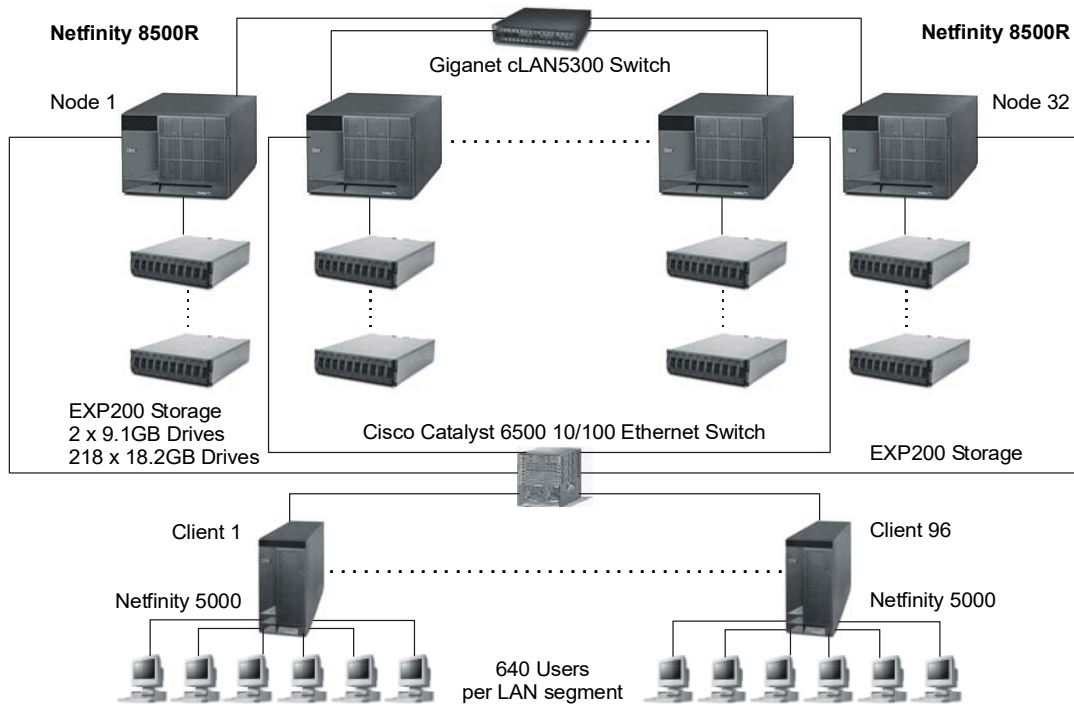


**IBM Netfinity<sup>®</sup> 8500R c/s  
with DB2 UDB 7.1**

TPC-C Rev 3.5

Report Date: July 3, 2000

Total System Cost		TPC-C Throughput	Price/Performance	Availability Date
<b>\$14,232,696</b>		<b>440,879.95 tpmC</b>	<b>\$32.28/tpmC</b>	<b>Dec. 7, 2000</b>
Processors	Database Manager	Operating System	Other Software	Number of Users
<b>128 Intel<sup>®</sup> Pentium<sup>®</sup> III Xeon™ 700MHz 2MB L2 Cache</b>	<b>DB2<sup>®</sup> UDB 7.1</b>	<b>Microsoft<sup>®</sup> Windows<sup>®</sup> 2000 Advanced Server</b>	<b>Microsoft COM+ Microsoft Visual C++ 6.0</b>	<b>368,640</b>



System Component	Qty	Each of 32 Server Nodes	Qty	Each of 96 Clients
Processors	4	700MHz Pentium III Xeon w/2MB L2 Cache	2	600MHz Pentium III w/512KB L2 Cache
Cache				
Memory	8	512MB SDRAM ECC	4	128MB
Disk Controllers	8	Netfinity ServerRAID-3HB Ultra2 SCSI Adapter	1	Wide Ultra SCSI Onboard
Disk Drives	2	9.1GB (10000 rpm)	1	9.1GB Hard Disk
	218	18.2GB (10000 rpm)		
Total Storage	1	Giganet cLAN-1000 Adapter		
Other		116TB (59.58TB online)		
Tape Drive	1	3502-108 DLT Tape Autoloader		
Interconnect	2	Giganet cLAN5300 Switch		

IBM Corporation	Netfinity 8500R c/s with DB2 UDB 7.1		TPC-C Revision 3.5					
			Report Date: July 3, 2000					
Description	Order Number	Third-Party Brand	Third-Party Pricing	Unit Price	Qty	Ext. Price	5-Yr. Maint.*	
<b>Server Hardware</b>								
Netfinity 8500R 700MHz/2MB Pentium III Xeon*	86818RY	IBM	1	\$18,372	32	\$587,904	\$329,440	
700MHz/2MB L2 Cache Processor Upgrade	10K2166	IBM	1	5,460	96	524,160	0	
8500R Memory Expansion Card	28L4454	IBM	1	557	32	17,824	0	
8500 >4X Accelerator Filter	10K2335	IBM	1	1,113	32	35,616	0	
512MB ECC SDRAM RDIMM Memory Kit	20L0249	IBM	1	2,168	256	555,008	0	
Netfinity ServeRAID-3HB Ultra2 SCSI Adapter	37L6086	IBM	1	1,602	256	410,112	0	
Netfinity Ultra2 SCSI 4m Cable	03K9311	IBM	1	110	736	80,960	0	
EtherJet 10/100 PCI Management Adapter	34L1210	IBM	1	58	32	1,856	0	
E54 15" (13.8" Viewable) Color Monitor*	6331B2N	IBM	1	165	32	5,280	14,400	
3502-108 DLT Tape Autoloader*	3502108	IBM	1	8,017	1	8,017	2,650	
IBM Smart-UPS Model 3000RMB	94G6676	IBM	2	1,690	32	54,080	0	
Netfinity Rack*	9306900	IBM	1	1,536	78	119,808	98,280	
Side Panel Kit	94G6669	IBM	1	175	12	2,100	0	
Giganet cLAN-1000 Host Adapter (incl. 10%)	cLAN-1000	Giganet	4	795	35	27,825	75,000	
Giganet cLAN5300 30-Port Switch (incl. 10%)	cLAN5300	Giganet	4	6,250	4	25,000	incl. above	
Giganet cLAN-A1011 10M Cable (incl. 10%)	cLAN-A1011	Giganet	4	135	35	4,725	incl. above	
<b>Storage Hardware</b>								
Netfinity EXP200 Rack Storage Enclosure*	35301RU	IBM	1	2,311	704	1,626,944	1,253,120	
9.1GB 10K Ultra160 SCSI Drive	00N8207	IBM	1	356	64	22,784	0	
18.2GB 10K Ultra160 SCSI Drive	00N8208	IBM	1	534	6,976	3,725,184	0	
<b>Subtotal</b>						<b>\$7,835,187</b>	<b>\$1,772,890</b>	
<b>Server Software</b>								
DB2 UDB EEE V7.1 Program Pack	11K7641	IBM	2	22,600	1	\$22,600	\$0	
DB2 UDB EEE V7.1 Processor Ent.	11K8164	IBM	2	22,500	127	2,857,500	0	
5-Year Maintenance (included w/software)	11K8164	IBM	2				0	
Microsoft Windows 2000 Advanced Server		Microsoft	3	3,999	32	127,968	0	
5-Year Maintenance for Software		Microsoft	3	8,425	1		8,425	
<b>Subtotal</b>						<b>\$3,008,068</b>	<b>\$8,425</b>	
<b>Client Hardware</b>								
Netfinity 5000 / 600MHz/512KB Pentium III*	86596RY	IBM	1	2,783	96	\$267,168	\$546,720	
600MHz/512KB Pentium III Upgrade	33L5106	IBM	1	398	96	38,208	0	
9.1GB 10K Ultra160 SCSI Drive	00N8207	IBM	1	356	96	34,176	0	
128MB DIMMs	01K7262	IBM	1	373	288	107,424	0	
Intel Pro/100+ Dual-Port Ethernet Adapter**	8472	Intel	1	219	288	63,072	0	
E54 15" (13.8" Viewable) Color Monitor*	6331B2N	IBM	1	165	96	15,840	43,200	
<b>Subtotal</b>						<b>\$525,888</b>	<b>\$589,920</b>	
<b>Client Software</b>								
Microsoft Windows 2000 Server with COM+		Microsoft	3	999	96	95,904	incl. above	
Microsoft Visual C++ Professional 6.0		Microsoft	3	549	1	549	incl. above	
<b>Subtotal</b>						<b>\$96,453</b>	<b>\$0</b>	
<b>User Connectivity</b>								
8-Port 10Mbps Hub** (10% spares***)	DEH2924	Generic	1	25	50,688	\$1,267,200	\$0	
Cisco Catalyst 6500 48-Port 10/100 RJ-45	WSX6248RJ45	Cisco	5	55,399	1	55,399	52,500	
<b>Subtotal</b>						<b>\$1,322,599</b>	<b>\$52,500</b>	
IBM Software Revenue Discount 34%							(979,234)	
<b>Total</b>						<b>\$12,788,195</b>	<b>\$2,423,735</b>	
Notes: * The standard 3-year warranty and the extended warranty on IBM hardware is for 7x24, 4-hour response. ** 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)						<b>Five-Year Cost of Ownership:</b> \$14,232,696		
Pricing: 1 - Software House International; 2 - IBM; 3 - Microsoft Corp.; 4 - Giganet; 5 - Cisco						<b>tpmC Rating:</b> 440,879.95		
<b>Audited by Francois Raab of InfoSizing, Inc.</b>						<b>\$ / tpmC:</b> \$32.28		
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.								

<b>Numerical Quantities Summary</b>			
MQTh, Computed Maximum Qualified Throughput: % throughput difference, reported and reproducibility runs:			440,879.95 tpmC 0.0099%
<b>Response Times (in seconds)</b>	<b>90%</b>	<b>Average</b>	<b>Maximum</b>
New-Order	2.00	1.25	315.39
Payment	2.64	1.19	787.71
Order-Status	1.07	0.53	126.20
Delivery (Interactive)	0.66	0.25	84.08
Delivery (Deferred)	1.69	0.93	32.44
Stock-Level	1.38	0.80	52.91
Menu	0.67	0.26	262.60
<b>Transaction Mix (in percent of total transactions)</b>		<b>Total Occurrences</b>	<b>Percent</b>
New-Order		8,817,599	44.66
Payment		8,518,739	43.15
Order-Status		800,948	4.06
Delivery		803,890	4.07
Stock-Level		801,588	4.06
<b>Emulation Delay (in seconds)</b>		<b>Response Time</b>	<b>Menu</b>
New-Order		0.1	0.1
Payment		0.1	0.1
Order-Status		0.1	0.1
Delivery		0.1	0.1
Stock-Level		0.1	0.1
<b>Keying/Think Times (in seconds)</b>	<b>Minimum</b>	<b>Average</b>	<b>Maximum</b>
New-Order	18.00 / 0.00	18.01 / 12.04	18.05 / 120.51
Payment	3.00 / 0.00	3.01 / 12.04	3.05 / 120.50
Order Status	2.00 / 0.00	2.01 / 10.04	2.05 / 100.50
Delivery	2.00 / 0.00	2.01 / 5.06	2.05 / 50.50
Stock-Level	2.00 / 0.00	2.01 / 5.05	2.05 / 50.50
<b>Test Duration</b>			
Ramp-up time			65 minutes
Measurement interval			20 minutes
Number of transactions (all types) completed in measurement interval			19,742,764
Ramp-down time			7 minutes
Number of checkpoints in measurement interval			N/A
Checkpoint interval			N/A