

DELL		PowerEdge 8450 Client/Server w/5 PE1300 Front Ends		TPC-C Rev 3.5 Report Date November 22, 1999	
Total System Cost		TPC-C Throughput		Price/Performance	
\$596,786		40,168.50 tpmC		\$14.86/ tpmC	
Availability Date		Processors		Database Manager	
Dec 31, 1999		8 x Pentium III Xeon™ Processors 550 MHz 2MB L2 Cache		Microsoft SQL Server 7.0 Enterprise Edition	
OS		Other Software		Number of Users	
Microsoft Windows NT Server4.0 Enterprise Edition		Windows 2000 Server w/ COM+ Internet Information Server 5.0 Microsoft Visual C++		32450	
<p>PE8450 w/ 8 550 MHz Pentium III Xeon™ CPUs, 4GB RAM, 9 AMI 1500H RAID Controllers</p> <p>36 PowerVault 210S Disk Pods 384 9GB 10K RPM LVD SCSI Disks 12 18GB 10K RPM LVD SCSI Disks</p> <p>5 PE1300 Clients</p>					
System Component		Server		Each Client	
Processors	8	Pentium III Xeon™ @ 550MHz	1	Pentium III @ 600MHz	
Cache		2MB		512 KB	
Memory		4096 MB		512 MB	
Disk Controllers	9	AMI MegaRAID 1500H	1	Adaptec On-Board	
	2	Adaptec On-Board			
Disk Drives	385	9 GB SCSI (8.479 GB useable)	1	9 GB	
	12	18 GB SCSI (16.958GB useable)			
Total Storage		3,468 GB		9 GB	
Other	1	CD-ROM	1	CD-ROM	
	1	PCI Ethernet NIC	2	PCI Ethernet NIC	
	1	External DAT			

Dell Computer Corporation	PowerEdge 8450 Client/Server		TPC-C REV 3.5 EXECUTIVE SUMMARY PAGE 2 OF 2 Report Date: 19-Nov-99				
Description	Part Number	Third Party		Unit Price	Qty	Extended Price	5 yr. Maint. Price
		Brand	Pricing				
Server Hardware							
Dell PowerEdge 8450	220-3091		1	18,583	1	18,583	2,914
Pentium III Xeon 550 / 2MB L2 - eight pack	311-1056		1	30,999	1	30,999	0
4 GB RAM, 8 x 512MB DIMMS	311-1496		1	9,830	1	9,830	0
1MB Cache Coherency Filter	311-1060		1	1,599	1	1,599	0
9 GB Ultra-2 LVD SCSI 10K RPM Disk	340-7759		1	449	1	449	0
Ether Express PRO 100+ PCI ENET Adapter	430-0111	Intel	1	69	1	69	0
Readyware fee for NIC	365-1234		1	15	1	15	0
External 24GB DDS3 DAT ***	12675-00	Sony	1	910	3	2,730	0
Dell M570 15" Monitor	320-1502		1	199	1	199	0
MegaRAID 1500-H, 4 Channel w/64MB ***		AMI	3	2,200	11	24,200	660
Subtotal						88,673	3,574
PowerVault Disk Subsystem							
PV210S			1	2,864	36	103,104	54,504
SCSI Cables	310-0313		1	69	36	2,484	0
9 GB Ultra-2 LVD SCSI 10K RPM Disk *	340-1394		1	449	384	172,416	0
18 GB Ultra-2 LVD SCSI 10K RPM Disk *	340-1395		1	799	12	9,588	0
42U Rack	220-0605		1	2,199	4	8,796	0
Subtotal						296,388	54,504
Server Software							
SQL Server 7.0 Enterprise Edition, Unlimited Client Licenses **		Microsoft	2	28,999	1	28,999	10,475
Windows NT Server 4.0 Enterprise Edition w/25 CAL **		Microsoft	2	3,999	1	3,999	0
Subtotal						32,998	10,475
Client Hardware							
Dell PowerEdge 1300, 600 MHz Pentium III w/ 512KB 220-8789			1	1,455	5	7,275	8,995
512MB RAM, 2 DIMMs	311-0441		1	1,101	5	5,505	0
9GB LVD SCSI Disk Drive,	340-1466		1	349	5	1,745	0
Ether Express PRO 100+ ENET Adapter	430-0111	Intel	1	69	10	690	0
Readyware fee for NIC (per machine)	365-1234		1	15	5	75	0
Dell M570 15" Monitor	320-1502		1	199	5	995	0
Subtotal						16,285	8,995
Client Software							
Windows 2000 Server w/ 25 CAL **		Microsoft	2	809	5	4,045	0
Visual C++ Professional 6.0 Wln32 **		Microsoft	2	549	1	549	0
Subtotal						4,594	0
User Connectivity							
8 Port Ethernet Switch ***	NX-SW8	Netlux	4	189	8	1,512	0
8+1 Port 10BaseT Ethernet Hub ***	HB-1009DX/P	NetCruiser	5	25	4,466	111,650	0
Subtotal						113,162	0
Other Discounts						(\$32,862)	0
Total						\$519,238	\$77,548
Notes: * Maint. included in PowerVault 210S disk pod ** All Microsoft maintenance is covered by the maintenance costs of Microsoft SQL Server *** 10% or minimum 2 spares are added in place of onsite service (products have a five year return-to-vendor warranty) Pricing: 1 - Dell 2 - Microsoft 3 - AMI 4 - Netlux 5 - Netcruiser Audited by Tom Sawyer, Performance Metrics Inc.						Five-Year Cost of Ownership: \$596,786 tpmC Rating: 40168.50 \$ / tpmC: 14.86	
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 the stated prices are not available according to these items, please inform the TPC at pricing@tpc.org .							

MQTh, computed Maximum Qualified Throughput 40,168.50
 tpmC
 % throughput difference, reported & reproducibility runs 0.61%

Response Times (in seconds)	Average	90th	Max
- Neworder	0.59	0.91	4.00
- Payment	0.43	0.75	3.23
- Order Status	0.44	0.76	2.06
- Delivery (interactive portion)	0.14	0.25	0.88
- Delivery (deferred portion)	0.95	1.68	5.13
- Stock-Level	2.37	2.87	5.91
- Menu	0.15	0.25	0.90

Response time delay added for emulated components Menu 0.1
 Resp 0.1

Transaction Mix, in percent of total transactions

- New-Order	44.83 %
- Payment	43.07 %
- Order-Status	4.05 %
- Delivery	4.02 %
- Stock-Level	4.03 %

Keying/Think Times (in seconds),	Min		Average		Max	
- New-Order	18.01	0.0	18.03	12.03	18.13	120.33
- Payment	3.01	0.0	3.03	12.01	3.13	120.34
- Order-Status	2.01	0.0	2.03	10.01	2.15	100.31
- Delivery	2.01	0.0	2.03	5.03	2.11	50.31
- Stock-Level	2.01	0.0	2.03	5.01	2.11	50.31

Test Duration

- Ramp-up time	58 minutes
- Measurement interval	20 minutes
- Number of checkpoints	1
- Checkpoint interval	20 minutes
- Number of transactions (all types) completed in measurement interval	1,864,471