

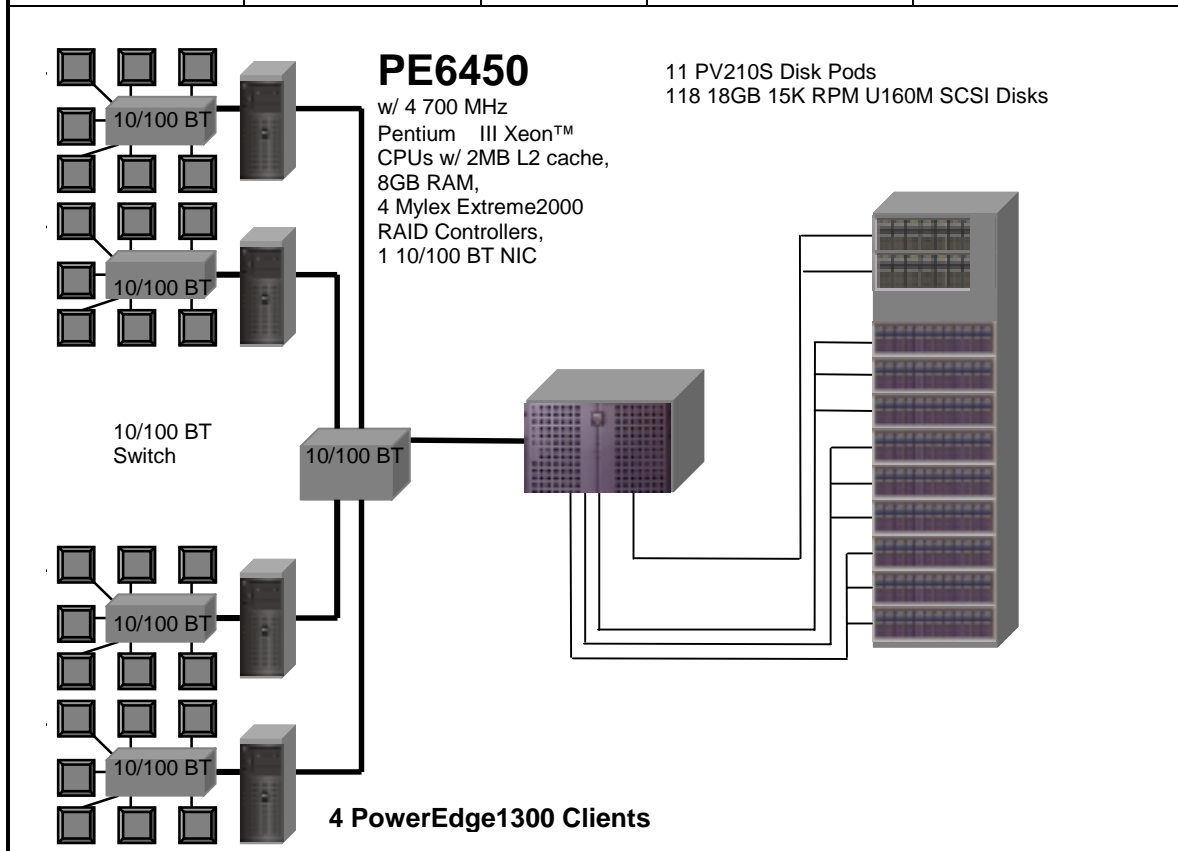


PowerEdge 6450

Client/Server w/4 PE1300 Front Ends

TPC-C Rev 3.5
Report Date
Apr 20, 2000

Total System Cost		TPC-C Throughput	Price/Performance	Availability Date
\$314,645		30,231.37 tpmC	\$10.41/ tpmC	Oct 20, 2000
Processors	Database Manager	OS	Other Software	Number of Users
4 x Pentium III Xeon™ Processors 700 MHz 2MB L2 Cache	Microsoft SQL Server 2000 Enterprise Edition	Microsoft Windows 2000 Advanced Server	Windows 2000 Server w/ COM+ Internet Information Server 5.0 Microsoft Visual C++	24,320



System Component	Server		Each Client	
Processors	4	Pentium III Xeon™ @ 700MHz	1	Pentium III w/ 512 KB L2
Cache		2MB		3 clients @ 600MHz, 1 @ 550
Memory		8192 MB		512 MB
Disk Controllers	4	Mylex ExtremeRAID 2000	1	Adaptec On-Board
	2	Adaptec On-Board		
Disk Drives	118	18 GB SCSI (16.758GB useable)	1	9 GB
	1	9 GB SCSI (8.195GB useable)		
Total Storage		2,102 GB		9 GB
Other	1	10/100 BT NIC	1	
	1	CD-ROM	1	
	1	External DAT	1	

Dell		PowerEdge 6450			TPC-C REV 3.5 EXECUTIVE SUMMARY			
		Client/Server			PAGE 2 OF 2			
					Report Date: 20-Apr-01			
Description	Part Number	Third Party		Unit Price	Qty	Extended Price	5 yr. Maint. Price	
Server Hardware								
Dell PowerEdge 6450	220-0663	Brand	Pricing					
Pentium III Xeon 700 MHz / 2MB L2 - 4 processors	311-0834			5,933	1	5,933		1,999
8 GB RAM, 16 x 512MB DIMMS	311-4118			8,355	1	8,355		0
9 GB U160M SCSI 10K RPM Hard Drive	340-8805			14,337	1	14,337		0
Intel Pro 100+ NIC	430-0222	Intel		249	1	249		0
Tape Backup Unit	340-2362			59	1	59		0
Dell 15" Monitor	320-0077			999	1	999.00		0
Extreme RAID 2000 PCI SCSI 4 channel RAID controller***	E2000-4-32NB	Mylex		149	1	149		0
Back-UPS Office 650	001332	APC		1,872	6	11,232		0
				200	13	2,600		935
						Subtotal	43,913	2,934
PowerVault Disk Subsystem								
PV210S, U3 SCSI, PS, Rack mount	220-4099, etc.			2,399	11	26,389		15,554
SCSI Cables	310-0313			49	11	539		0
18 GB U160M SMRT SCSI 15K RPM Hard Drive *	340-3232			739	122	90,158		0
42U Rack	220-0605			1,683	1	1,683		0
						Subtotal	118,769	15,554
Server Software								
SQL Server 2000 Ent Edition, Per processor licensing **		Microsoft		16,541	4	66,164		10,475
Windows 2000 Advanced Server, 25 Client Licenses **		Microsoft		2,399	1	2,399		0
						Subtotal	68,563	10,475
Client Hardware								
Dell PowerEdge 1300, 600 MHz Pentium III w/ 512KB L2****	220-2331			804	3	2,412		5,055
Dell PowerEdge 1300, 550 MHz Pentium III w/ 512KB L2****	220-2331			804	1	804		1,685
512MB RAM, 2 DIMMs	311-1194			587	4	2,348		0
9GB LVD SCSI Hard Drive,	340-1963			249	4	996		0
Ether Express PRO 100+ Ethernet Adapter	430-0222	Intel		59	8	472		0
Dell 15" Monitor	320-1502			149	4	596		0
						Subtotal	7,628	6,740
Client Software								
Windows 2000 Server, 5 Client Licenses **		Microsoft		738	4	2,952		0
Visual C++ Professional 6.0 Win32 **		Microsoft		549	1	549		0
						Subtotal	3,501	0
User Connectivity								
8 Port Ethernet Switch ***	CT2208D2	ArkPC		61	7	427		0
ARK 17 port 10Mbps 16ij45 + 1 BNC ***	CT1017D1	ArkPC		31	1,690	52,390		0
						Subtotal	52,817	0
						Other Discounts	(\$16,249)	0
						Total	\$278,942	\$35,703
Notes: * Maint. included in PowerVault 210S disk pod or PV650F/630F fibre channel disk pod						Five-Year Cost of Ownership:		\$314,645
** 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 - Mylex 4 - ArkPC 5 - MicroBarr						tpmC Rating:		30231.00
**** Substituted with PE1400SC/866Mhz/P3/256KB L2								
Audited by Tom Sawyer, Performance Metrics Inc.						\$/ tpmC:		10.41
<i>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.</i>								

MQTh , computed Maximum Qualified Throughput							30,231.37
							tpmC
% throughput difference, reported & reproducibility runs							0.47%
Response Times (in seconds)			Average	90th			Max
- Neworder			0.48	0.86			5.54
- Payment			0.38	0.76			2.73
- Order Status			0.41	0.79			5.45
- Delivery (interactive portion)			0.16	0.34			1.30
- Delivery (deferred portion)			0.32	0.55			1.86
- Stock-Level			1.37	2.18			5.12
- Menu			0.17	0.35			1.32
Response time delay added for emulated components							Menu 0.1 Resp 0.1
Transaction Mix , in percent of total transactions							
- New-Order							44.84%
- Payment							43.02 %
- Order-Status							4.04 %
- Delivery							4.05 %
- Stock-Level							4.05 %
Keying/Think Times (in seconds),			Min	Average			Max
- New-Order	18.01	0.0	18.02	12.04	18.05		120.41
- Payment	3.01	0.0	3.02	12.04	3.02		120.41
- Order-Status	2.01	0.0	2.02	10.02	2.04		100.41
- Delivery	2.01	0.0	2.02	5.06	2.05		50.40
- Stock-Level	2.01	0.0	2.02	5.06	2.04		50.40
Test Duration							
- Ramp-up time							5 minutes
- Measurement interval							30 minutes
- Number of checkpoints							1
- Checkpoint interval							30 minutes
- Number of transactions (all types) completed in measurement interval							2,104,156