

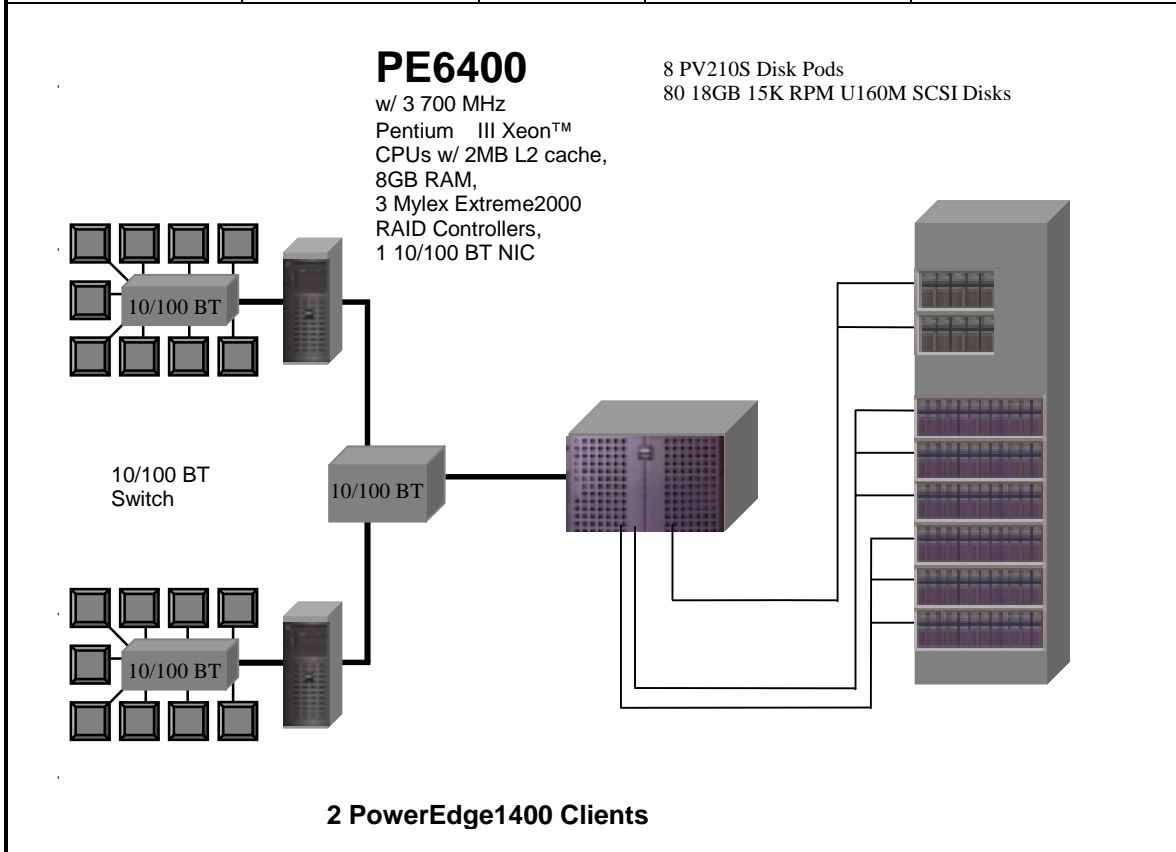


PowerEdge 6400

Client/Server w/2 PE1400 Front Ends
 Upgrade Date
 March 19, 2001

TPC-C Rev 5.0
 Upgrade
 from V3.5
 Report Date
 Dec 19, 2000

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$182,457	24925.43 tpmC	\$7.33/ tpmC	Dec 19, 2000
Processors	Database Manager	OS	Other Software
3 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++
Number of Users			
19,840			



System Component	Server		Each Client	
Processors	3	Pentium III Xeon™ @ 700MHz	1	Pentium III @866MHz
Cache		2MB		w/ 256 KB L2
Memory		8192 MB		512 MB
Disk Controllers	3	Mylex ExtremeRAID 2000	1	Adaptec On-Board
	2	Adaptec On-Board		
Disk Drives	80	18 GB SCSI (16.758GB useable)	1	9 GB
	1	9 GB SCSI (8.195GB useable)		
Total Storage		1,348.95 GB		9 GB
Other	1	10/100 BT NIC	1	
	1	Internal 10/100 BT NIC	1	
	1	CD-ROM	1	
	1	Internal DAT		

Dell		PowerEdge 6400			TPC-C REV 5.0 EXECUTIVE SUMMARY UPGRADE FROM REV 3.5 PAGE 2 OF 2		
Upgrade Date:19-March-01		Client/Server			Report Date: 19-Dec-00		
Description	Part Number	Third Party		Unit Price	Qty	Extended Price	3 yr. Maint. Price
Server Hardware							
		Brand	Pricing				
Dell PowerEdge 6400	220-0660		1	6,133	1	6,133	1,299
Pentium III Xeon 700 MHz / 2MB L2 - 2 processors	311-0834		1	2,785	1	2,785	0
Pentium III Xeon 700 MHz / 2MB L2 - Customer kit	311-0893		1	2,785	1	2,785	0
8 GB RAM, 16 x 512MB DIMMS	311-4118		1	14,337	1	14,337	0
6 Bay HD Back Plane	311-0485		1	249	1	249	0
9 GB U160M SCSI 10K RPM Hard Drive	340-8805		1	269	1	269	0
Intel Pro 100+ NIC	430-4937	Intel	1	59	1	59	0
Tape Backup Unit	340-7467		1	799	1	799	0
Dell 15" Monitor	320-0077		1	199	1	199	0
Extreme RAID 2000 PCI SCSI 4 channel RAID controller***	E2000-4-32NB	Mylex	3	1,872	5	9,360	0
Back-UPS Office 650	001332	APC	1	200	10	2,000	392
					Subtotal	38,975	1,691
PowerVault Disk Subsystem							
PV210S, U3 SCSI, PS, Rack mount	220-4099, etc.		1	2,399	8	19,192	6,112
SCSI Cables	310-0313		1	49	8	392	0
18 GB U160M SMIRT SCSI 15K RPM Hard Drive *	340-3232		1	739	80	59,120	0
42U Rack	220-0605		1	1,682	1	1,682	0
					Subtotal	80,386	6,112
Server Software							
SQL Server 2000 Ent Edition, Per processor licensing **		Microsoft	2	17,279	3	51,837	6,285
Windows 2000 Advanced Server, 25 Client Licenses **		Microsoft	2	2,399	1	2,399	0
					Subtotal	54,236	6,285
Client Hardware							
Dell PowerEdge 1400, 866 MHz Pentium III w/ 256KB L2	220-1012		1	824	2	1,648	996
512MB RAM, 4 DIMMs	311-1194		1	587	2	1,174	0
9GB U160M SCSI Hard Drive,	340-1960		1	214	2	428	0
Ether Express PRO 100+ Ethernet Adapter	430-0222	Intel	1	59	2	118	0
Dell 15" Monitor	320-1502		1	199	2	398	0
					Subtotal	3,766	996
Client Software							
Windows 2000 Server, 5 Client Licenses **		Microsoft	2	738	2	1,476	0
Visual C++ Professional 6.0 Win32 **		Microsoft	2	549	1	549	0
					Subtotal	2,025	0
User Connectivity							
8 Port Ethernet Switch ***	CT2208D3	ArkPC	4	61	3	183	0
					Subtotal	183	0
					Other Discounts	(\$12,198)	0
					Total	\$167,373	\$15,084
Notes: * Maint. included in PowerVault 210S disk pod or PV650F/630F fibre channel disk pod					Three-Year Cost of Ownership:		\$182,457
** All Microsoft maintenance is covered by the maintenance costs of Microsoft SQL Server					tpmC Rating:		24925
*** 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					\$ / tpmC:		7.33
Audited by Tom Sawyer, Performance Metrics Inc.							
<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		24925.43	
		tpmC	
% throughput difference, reported & reproducibility runs		0.11%	
Response Times (in seconds)	Average	90th	Max
- Neworder	0.30	0.43	2.82
- Payment	0.20	0.32	2.81
- Order Status	0.24	0.36	1.55
- Delivery (interactive portion)	0.12	0.15	1.21
- Delivery (deferred portion)	0.24	0.38	0.99
- Stock-Level	1.14	1.77	5.17
- Menu	0.13	0.15	1.21
Response time delay added for emulated components		Menu 0.1 Resp 0.1	
Transaction Mix , in percent of total transactions			
- New-Order	44.86%		
- Payment	43.00 %		
- Order-Status	4.04 %		
- Delivery	4.04 %		
- Stock-Level	4.05 %		
Keying/Think Times (in seconds),	Min	Average	Max
- New-Order	18.01 0.0	18.02 12.03	18.04 120.40
- Payment	3.01 0.0	3.02 12.04	3.04 120.41
- Order-Status	2.01 0.0	2.02 10.06	2.03 100.40
- Delivery	2.01 0.0	2.02 5.05	2.03 50.40
- Stock-Level	2.01 0.0	2.02 5.05	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	1,734,129		