



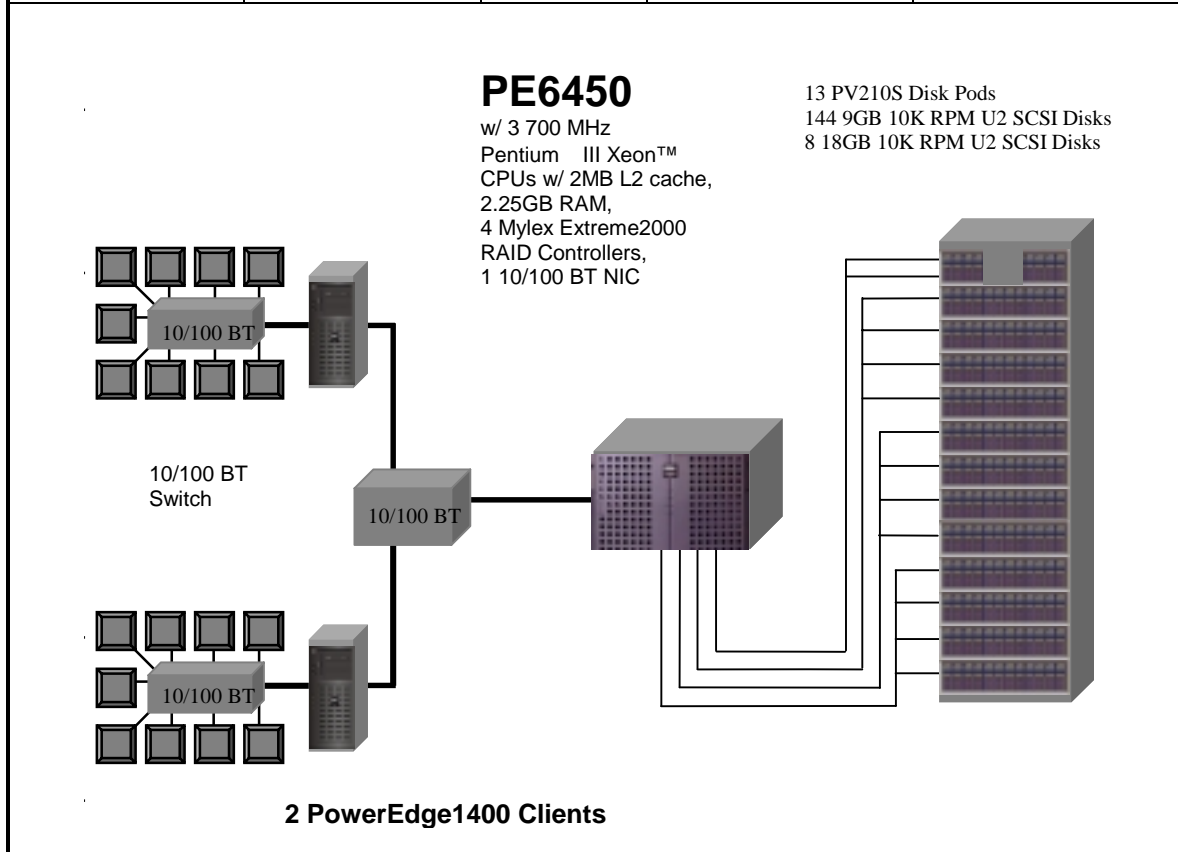
# PowerEdge 6450

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

TPC-C Rev 5.0  
 Upgrade  
 from V3.5  
 Report Date  
 FEB 2, 2001

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
<b>\$134,392</b>	<b>20,320.70 tpmC</b>	<b>\$6.62/ tpmC</b>	<b>FEB 2, 2001</b>

Processors	Database Manager	OS	Other Software	Number of Users
3 x Pentium III Xeon™ Processors 700 MHz 2MB L2 Cache	Microsoft SQL Server 2000 Standard Edition	Microsoft Windows 2000 Server	Windows 2000 Server w/ COM+ Internet Information Server 5.0 Microsoft Visual C++	16,280



System Component	Server		Each Client	
Processors	3	Pentium III Xeon™ @ 700MHz	1	Pentium III @800MHz
Cache		2MB		w/ 256 KB L2
Memory		2304 MB		512 MB
Disk Controllers	4	Mylex ExtremeRAID 2000	1	Adaptec On-Board
	2	Adaptec On-Board		
Disk Drives	8	18 GB SCSI	1	9 GB
	145	9 GB SCSI		
Total Storage		1,396 GB		9 GB
Other	1	10/100 BT NIC	1	
	1	10/100 BT Internal NIC	1	
	1	CD-ROM	1	
	1	Tape Backup Unit		

Description	Part Number	Third Party		Unit Price	Qty	Extended Price	3 yr. Maint. Price
		Brand	Pricing				
<b>Server Hardware</b>							
Dell PowerEdge 6450	220-0663		1	5,933	1	5,933	1,299
Includes Pentium III Xeon 700 MHz / 2MB L2							
Pentium III Xeon 700 MHz / 2MB L2 - 2nd processor	311-0833		1	2,785	1	2,785	0
Pentium III Xeon 700 MHz / 2MB L2 - Customer kit (3rd Processor)	311-0893		1	2,785	1	2,785	0
2.0GB RAM, 8 x 256MB DIMMS	311-4112		1	2,566	1	2,566	0
256MB RAM, 4 x 64MB DIMMS, CUS	311-0968		1	294	1	294	0
9 GB U160M SCSI 10K RPM Hard Drive	340-6647		1	269	1	269	0
Intel Pro 100+ NIC	430-0222	Intel	1	59	1	59	0
Tape Backup Unit	340-7420		1	999	1	999	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	6	11,232	0
Back-UPS Office 650	001332	APC	1	200	15	3,000	637
<b>Subtotal</b>						<b>30,121</b>	<b>1,936</b>
<b>PowerVault Disk Subsystem</b>							
PV210S, U3 SCSI, PS, Rack mount	220-4099, etc.		1	2,399	13	31,187	9,932
SCSI Cables	310-0313		1	49	13	637	0
9GB HD,10K RPM,PVault 20XS	340-1394		1	269	144	38,736	0
18GB HD,10K RPM,PVault 20XS	340-1395		1	389	8	3,112	0
42U Rack	220-0605		1	1,682	1	1,682	0
<b>Subtotal</b>						<b>75,354</b>	<b>9,932</b>
<b>Server Software</b>							
SQL Server 2000 Standard Edition, Per processor licensing **		Microsoft	2	4,271	3	12,813	6,285
Windows 2000 Server, 25 Client Licenses **		Microsoft	2	738	1	738	0
<b>Subtotal</b>						<b>13,551</b>	<b>6,285</b>
<b>Client Hardware</b>							
Dell PowerEdge 1400, 866 MHz Pentium III w/ 256KB L2	220-1017		1	824	2	1,648	996
512MB RAM, 4 DIMMs	311-0440		1	587	2	1,174	0
9GB U160M SCSI Hard Drive,	340-2990		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
<b>Subtotal</b>						<b>3,766</b>	<b>996</b>
<b>Client Software</b>							
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
<b>Subtotal</b>						<b>2,025</b>	<b>0</b>
<b>User Connectivity</b>							
8 Port Ethernet Switch ***	CT2208D3	ArkPC	4	61	7	427	0
<b>Subtotal</b>						<b>427</b>	<b>0</b>
<b>Other Discounts</b>						<b>(\$10,001)</b>	<b>0</b>
<b>Total</b>						<b>\$115,243</b>	<b>\$19,149</b>

Notes: * Maint. included in PowerVault 210S disk pod or PV650F/630F fibre channel 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 - Mylex 4 - ArkPC <b>Audited by Lorna Livingtree, Performance Metrics Inc.</b>	<b>Three -Year Cost of Ownership: \$134,392</b>  <b>tpmC Rating: 20321</b>  <b>\$ / tpmC: 6.62</b>
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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

20320.70

tpmC

% throughput difference, reported & reproducibility runs

0.23%

**Response Times** (in seconds)

	Average	90th	Max
- Neworder	0.43	0.68	2.20
- Payment	0.27	0.51	1.89
- Order Status	0.32	0.56	1.84
- Delivery (interactive portion)	0.16	0.30	1.37
- Delivery (deferred portion)	0.71	1.21	2.98
- Stock-Level	1.83	2.97	6.83
- Menu	0.16	0.30	1.39

Response time delay added for emulated components

Menu 0.1

Resp 0.1

**Transaction Mix**, in percent of total transactions

- New-Order	44.90%
- Payment	43.01 %
- Order-Status	4.02 %
- Delivery	4.04 %
- Stock-Level	4.03 %

**Keying/Think Times** (in seconds),

	Min		Average		Max	
- New-Order	18.02	0.0	18.02	12.02	18.28	120.41
- Payment	3.01	0.0	3.02	12.03	3.27	120.40
- Order-Status	2.01	0.0	2.02	10.05	2.26	100.40
- Delivery	2.01	0.0	2.02	5.04	2.16	50.40
- Stock-Level	2.01	0.0	2.02	5.06	2.26	50.40

**Test Duration**

- Ramp-up time	5 minutes
- Measurement interval	20 minutes
- Number of checkpoints	1
- Checkpoint interval	20 minutes
- Number of transactions (all types) completed in measurement interval	941,738