

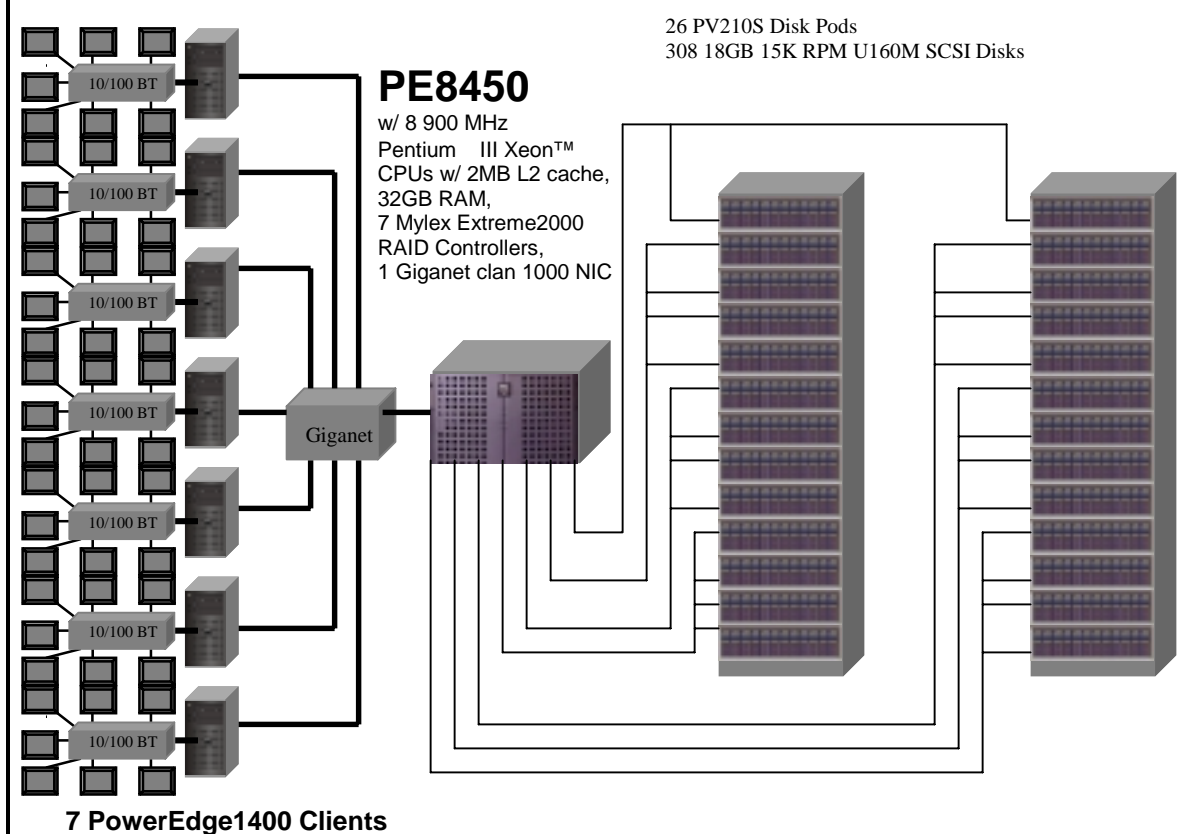


# PowerEdge 8450

Client/Server w/7 PE1400 Front Ends

TPC-C Rev 5.0  
Report Date  
Aug 22, 2000

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
<b>\$591,071</b>	<b>69,901.74 tpmC</b>	<b>\$8.46/ tpmC</b>	<b>Nov 15, 2001</b>
Processors	Database Manager	OS	Other Software
8 x Pentium III Xeon™ Processors 900 MHz 2MB L2 Cache	Microsoft SQL Server 2000 Enterprise Edition	Microsoft Windows 2000 Datacenter Server	Windows 2000 Server w/ COM+ Internet Information Server 5.0 Microsoft Visual C++
<b>55,860</b>			



System Component	Server		Each Client	
Processors	8	Pentium III Xeon™ @ 900MHz	1	Pentium III w/ 256 KB L2 @ 1GHz
Cache		2MB		
Memory		32768 MB		512 MB
Disk Controllers	7	Mylex ExtremeRAID 2000	1	Adaptec On-Board
	2	Adaptec On-Board		
Disk Drives	308	18 GB SCSI (16.758GB useable)	1	9 GB
	1	9 GB SCSI (8.195GB useable)		
Total Storage		5,169.66 GB		9 GB
Other		10/100 BT NIC	1	
	1	Giganet cLAN 1000 NIC	1	
	1	CD-ROM	1	
	1	Internal DAT		

Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price
		Brand    Pricing				
<b>Server Hardware</b>						
Dell PowerEdge 8450 + Windows 2000 DataCenter Server	220-9900		134,378.00	1	134,378.00	49,996.00
Includes :						
Pentium III Xeon 900 / 2MB L2 - eight pack						
32 GB RAM, 32 x 1GB DIMMS						
1MB Cache Coherency Filter						
9 GB Ultra-2 LVD SCSI 10K RPM Disk						
cLAN 1000 NIC, PCI 32/64-bit						
cLAN Giganet 10m Cable						
Dell M570 15" Monitor						
DDS4 External TBU	340-7420		999.00	1	999.00	0.00
ExtremeRAID 2000 ***	E2000-4-32NB	Mylex	1,849.00	9	16,641.00	0.00
Back-UPS Office 500	001332	APC	200.00	28	5,600.00	1,274.00
<b>Subtotal</b>					<b>157,618.00</b>	<b>51,270.00</b>
<b>PowerVault Disk Subsystem</b>						
PV210S,ESEM,PS,Rack mount	220-4099 etc		2,399.00	26	62,374.00	22,464.00
SCSI Cables	310-0313		49.00	26	1,274.00	0.00
18 GB,U160, SCSI 15K RPM Disk *	340-2769		499.00	308	153,692.00	0.00
42U Rack	220-0605		1,294.00	2	2,588.00	0.00
<b>Subtotal</b>					<b>219,928.00</b>	<b>22,464.00</b>
<b>Server Software</b>						
SQL Server 2000 Version 8, Ent. Ed., Per Processor Licensing		Microsoft	16,541.00	8	132,328.00	6,285.00
<b>Subtotal</b>					<b>132,328.00</b>	<b>6,285.00</b>
<b>Client Hardware</b>						
Dell PowerEdge 1400, 1 GHz Pentium III w/ 256KB L2****	220-2333		741.00	7	5,187.00	3,486.00
512MB RAM, 2 DIMMs	311-1194		439.00	7	3,073.00	0.00
9GB LVD SCSI Disk Drive,	340-1963		249.00	7	1,743.00	0.00
Intel PRO 100+ Adapter	430-4937	Intel	59.00	7	413.00	0.00
cLAN 1000 NIC, PCI 32/64-bit	430-0302	Giganet	695	7	4,865	0
cLAN Giganet 2m Cable	310-0497	Giganet	99	7	693	0
Dell M570 15" Monitor	320-1502		137.00	7	959.00	0.00
<b>Subtotal</b>					<b>16,933.00</b>	<b>3,486.00</b>
<b>Client Software</b>						
Windows 2000 Server w/ 25 CAL **		Microsoft	738.00	7	5,166.00	0.00
Visual C++ Professional 6.0 Win32 **		Microsoft	549.00	1	549.00	0.00
<b>Subtotal</b>					<b>5,715.00</b>	<b>0.00</b>
<b>User Connectivity</b>						
cLAN Giganet Switch	220-4191	Giganet	5,848.00	1	5,848.00	3,600.00
<b>Subtotal</b>					<b>5,848.00</b>	<b>3,600.00</b>
<b>Other Discounts</b>					<b>(34,404.00)</b>	<b>0.00</b>
<b>Total</b>					<b>503,966.00</b>	<b>87,105.00</b>

<p>Notes: * Maintenance included in PowerVault 210S disk pod</p> <p>** All Microsoft maintenance is covered by the maintenance costs of Microsoft SQL Server</p> <p>*** 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</p> <p>**** Client substitution. See auditor's note and FDR for details.</p> <p><b>Audited by Tom Sawyer, Performance Metrics Inc.</b></p>	<p><b>Five-Year Cost of Ownership: 591,071.00</b></p> <p><b>tpmC Rating: 69,901.74</b></p> <p><b>\$ / tpmC: 8.46</b></p>
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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

69901.74  
tpmC

**Response Times** (in seconds)

	Average	90 <sup>th</sup>	Max
- New order	0.36	0.71	7.23
- Payment	0.30	0.65	6.93
- Order Status	0.32	0.67	6.42
- Delivery (interactive portion)	0.14	0.16	4.13
- Delivery (deferred portion)	0.12	0.16	4.03
- Stock-Level	0.64	1.08	8.80
- Menu	0.14	0.17	4.14

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	43.04 %
- 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	12.04	18.06	120.41
- Payment	3.01	0.0	3.02	12.04	3.06	120.42
- Order-Status	2.01	0.0	2.02	10.06	2.05	100.41
- Delivery	2.01	0.0	2.02	5.04	2.05	50.41
- Stock-Level	2.01	0.0	2.02	5.03	2.05	50.41

**Test Duration**

- Ramp-up time	24 minutes
- Measurement interval	120 minutes
- Number of checkpoints	4
- Checkpoint interval	30 minutes
- Number of transactions (all types) Completed in measurement interval	19,464,368