



# PowerEdge 6650

Client/Server w/8 PE1600 Front Ends

TPC-C Rev 5.0  
Report Date  
Jan 06, 2003

Total System Cost

TPC-C Throughput

Price/Performance

Availability Date

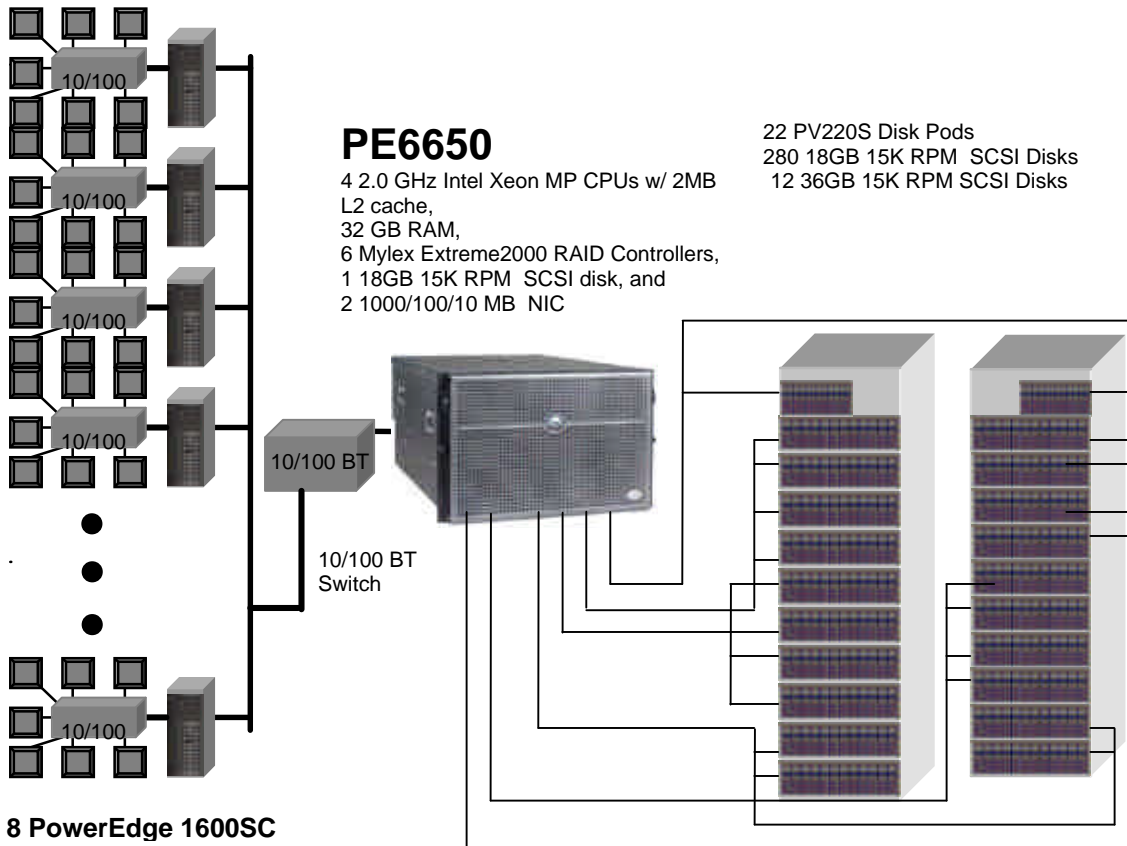
**\$364,887**

**71,586.49 tpmC**

**\$5.10/ tpmC**

**Mar 31, 2003**

Processors	Database Manager	OS	Other Software	Number of Users
4 x Intel Xeon™ MP Processors 2.0 GHz 2MB L2 Cache	Microsoft SQL Server 2000 Enterprise Edition SP3	Microsoft Windows .NET Enterprise Server	Windows 2000 Server w/ COM+ Internet Information Server 5.0 Microsoft Visual C++	<b>58,000</b>



System Component	Server		Each Client	
Processors	4	Intel Xeon MP @ 2.0GHz	1	Pentium® III w/ 512 KB L2
Cache		2MB cache		8 clients @ 1.13 GHz
Memory		32,768 MB		512 MB
Disk Controllers	6	Mylex ExtremeRAID 2000	1	Adaptec On-Board
	1	Adaptec On-Board		
Disk Drives	280	18 GB SCSI	1	18 GB
	12	36 GB SCSI		
Total Storage		5,126.03 GB		18 GB
Other	2	1GB NIC	2	10/100MB BT NIC
	1	CD-ROM	1	
	1	DAT		

# Appendix E – Price Quotations

Dell		PowerEdge 6650		TPC-C REV 5.0 EXECUTIVE SUMMARY PAGE 2 OF 2			
		Client/Server		Report Date: 06-Jan-03			
Description	Part Number	Third Party Brand	Pricing	Unit Price	Qty	Extended Price	3 yr. Maint. Price
<b>Server Hardware</b>							
Dell PowerEdge 6650	220-8592			7,626	1	7,626	1,299
Intel Xeon MP 2.0GHz / 1MB L2 - 4 processors	311-2348			14,999	1	14,999	-
32 GB,DDR, 16 x 2048MB DIMMS	311-2352			71,000	1	71,000	-
18 GB U160M SCSI 10K RPM Hard Drive	340-1937			249	1	249	-
Tape Backup Unit	340-6507			699	1	699	-
Dell 15" Monitor	320-0960			149	1	149	-
Extreme RAID 2000 PCI SCSI 4 channel RAID controller***	08P3834	Mylex		1,228	8	9,824	-
<b>Subtotal</b>						<b>104,546</b>	<b>1,299</b>
<b>PowerVault Disk Subsystem</b>							
PV220S, U3 SCSI, PS, Rack mount	220-4476, etc.			2,756	22	60,632	13,200
SCSI Cables	310-0679			99	11	1,089	-
18 GB SCSI 15K RPM Hard Drive *	340-6865			399	280	111,720	-
36 GB SCSI 15K RPM Hard Drive *	340-3088			399	12	4,788	-
42U Rack	220-4492			1,264	2	2,528	-
<b>Subtotal</b>						<b>180,757</b>	<b>13,200</b>
<b>Server Software</b>							
SQL Server 2000 Ent Edition, Per processor licensing **	810-00846	Microsoft	2	16,541	4	66,164	5,850
Windows .NET Enterprise Server 2003 **		Microsoft	2	2,699	1	2,699	-
<b>Subtotal</b>						<b>68,863</b>	<b>5,850</b>
<b>Client Hardware</b>							
Dell PowerEdge 1600SC, 1.8 GHz Pentium III w/ 512KB L2*****	221-0916			1,467	8	11,736	6,384
512MB RAM, 4 DIMMs	311-1833			408	8	3,264	-
18GB,U160,10K, SCSI Hard Drive,	340-9450			249	8	1,992	-
Ether Express PRO 100+ Ethernet Adapter	430-0369	Intel	1	59	8	472	-
Dell 15" Monitor	320-0960			149	8	1,192	-
<b>Subtotal</b>						<b>18,656</b>	<b>6,384</b>
<b>Client Software</b>							
Windows 2000 Server, 5 Client Licenses **	C11-00821	Microsoft	2	738	8	5,904	-
Visual C++ .Net Standard **	254-00170	Microsoft	2	109	1	109	-
<b>Subtotal</b>						<b>6,013</b>	<b>-</b>
<b>User Connectivity</b>							
16 Port Ethernet Switch	220-1499	Dell	1	119	1	119	65
<b>Subtotal</b>						<b>119</b>	<b>105</b>
<b>Other Discounts</b>						<b>(40,801)</b>	<b>-</b>
<b>Total</b>						<b>338,153</b>	<b>26,838</b>
Notes: * Maint. included in PowerVault 220S disk pod or PV650F/630F fibre channel disk pod						<b>Three-Year Cost of Ownership: \$364,991</b>	
** All Microsoft maintenance is covered by the maintenance costs of Microsoft SQL Server						<b>tpmC Rating: 71586.49</b>	
*** 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 - Computer Giants							
**** Discount based upon total system cost as purchased by a regular customer. Pricing may be verified by calling 1-800-BUY-DELL referencing quote numbers 99098172 as complex quotes.							
***** Substitutes for PE1500SC. Meets TPC Substitution requirements							
<b>Audited by Lorna Livingtree, Performance Metrics Inc.</b>						<b>\$/tpmC: 5.10</b>	
<p><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 <a href="mailto:pricing@tpc.org">pricing@tpc.org</a>.</i></p>							

## Appendix E – Price Quotations

<b>MQTh</b> , computed Maximum Qualified Throughput		71,586.49 tpmC	
<b>Response Times</b> (in seconds)	Average	90th	Max
- Neworder	0.67	1.08	6.75
- Payment	0.54	0.94	3.41
- Order Status	0.55	0.95	10.66
- Delivery (interactive portion)	0.17	0.38	1.48
- Delivery (deferred portion)	0.28	0.38	1.11
- Stock-Level	1.20	1.68	8.42
- Menu	0.18	0.38	1.48
Response time delay added for emulated components		Menu 0.1 Resp 0.1	
<b>Transaction Mix</b> , in percent of total transactions			
- New-Order			44.86%
- Payment			43.03 %
- Order-Status			4.04 %
- Delivery			4.04 %
- Stock-Level			4.03 %
<b>Keying/Think Times</b> (in seconds),	Min	Average	Max
- New-Order	18.01 0.0	18.02 12.04	18.11 120.43
- Payment	3.01 0.0	3.02 12.03	3.10 120.42
- Order-Status	2.01 0.0	2.02 10.05	2.09 100.42
- Delivery	2.01 0.0	2.02 5.05	2.09 50.42
- Stock-Level	2.01 0.0	2.02 5.05	2.08 50.41
<b>Test Duration</b>			
- Ramp-up time			15 minutes
- Measurement interval			120 minutes
- Number of checkpoints			4
- Checkpoint interval			30 minutes
- Number of transactions (all types) completed in measurement interval			19,924,180