DELL	**PowerEdge 6650** **Client/Server w/3 PE1400 Front Ends**	TPC-C Rev 5.0 Report Date Jun 01, 2002
Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
$186,600	**34,819.03 tpmC**	**$5.36/ tpmC**	June 01, 2002

Processors	Database Manager	OS	Other Software	Number of Users
4 x Intel Xeon™ MP Processors 1.6 GHz 1MB 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++	28,080

PE6650

w/ 4 1.6 GHz Pentium® 4 CPUs w/ 1MB L2 cache, 8GB DDR RAM, 2 Mylex Extreme2000 and 2 Mylex AcceleRAID 352 RAID Controllers, 2 1GB NIC

11 PV220S Disk Pods
140 18GB 10K RPM U160 SCSI Disks
6 36GB 10K RPM U160 SCSI Disks

10/100 BT Switch

10/100 BT

3 PE1400SC Clients
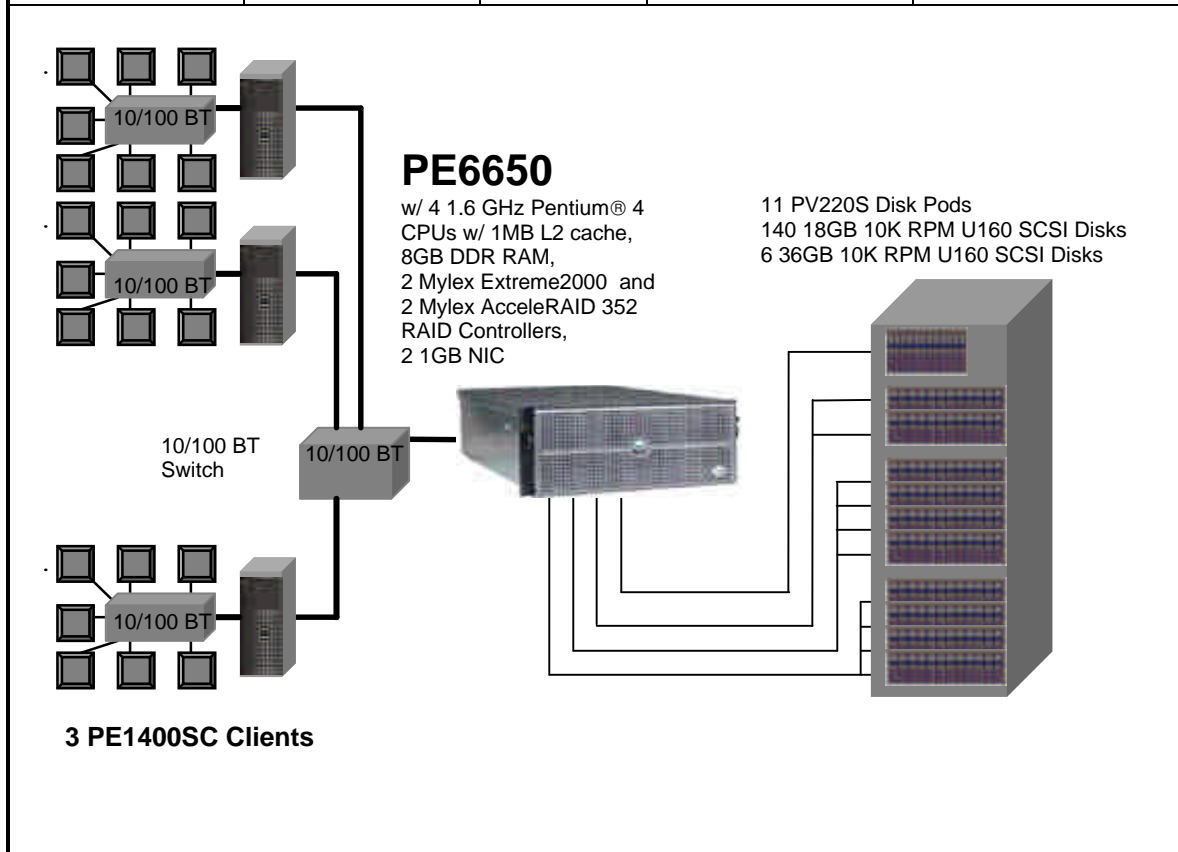
System Component		Server		Each Client
Processors Cache	4	Intel Xeon MP @ 1.6GHz 1MB L2 cache	1	Pentium® III w/ 256 KB L2 3 clients @ 1 GHz
Memory		8192 MB		512 MB
Disk Controllers	2 2 1	Mylex ExtremeRAID 2000 Mylex AcceleRAID 352 Adaptec On-Board	1	Adaptec On-Board
Disk Drives	140 6 1	18 GB SCSI 36 GB SCSI 9 GB SCSI	1	18 GB
Total Storage		2,609 GB		18 GB
Other	2 1 1	1GB NIC CD-ROM DAT	2 1	10/100 MB NIC

Description	Part Number	Third Party Brand	Pricing	Unit Price	Qty	Extended Price	3 yr. Maint. Price
Server Hardware							
Dell PowerEdge 6650	220-8594		1	7,642	1	7,642	1,299
Intel Xeon MP 1.6GHz / 1MB L2 - 4 processors	311-1528		1	14,999	1	14,999	-
8 GB,DDR, 16 x 512MB DIMMS	311-1548		1	7,184	1	7,184	-
18 GB U160M SCSI 10K RPM Hard Drive	340-2769		1	249	1	249	-
Tape Backup Unit	340-2932		1	1,099	1	1,099	-
Dell 15" Monitor	320-0960		1	149	1	149	-
Extreme RAID 2000 PCI SCSI 4 channel RAID controller***	08P3834	Mylex	3	1,320	4	5,280	-
AcceleRAID 352 PCI SCSI 2 Channel RAID controller***	08P2420	Mylex	3	598	2	1,196	-
					Subtotal	37,798	1,299
PowerVault Disk Subsystem							
PV220S, U3 SCSI, PS, Rack mount	220-4476, etc.		1	2,756	11	30,316	6,600
SCSI Cables	310-0679		1	99	6	594	-
18 GB SCSI 10K RPM Hard Drive *	340-2769		1	249	140	34,860	-
36 GB SCSI 10K RPM Hard Drive *	340-6762		1	499	6	2,994	-
42U Rack	220-4492		1	1,184	1	1,184	-
					Subtotal	69,948	6,600
Server Software							
SQL Server 2000 Ent Edition, Per processor licensing **	810-00846	Microsoft	2	16,541	4	66,164	5,850
Windows 2000 Advanced Server, 25 Client Licenses **	C10-00475	Microsoft	2	2,399	1	2,399	-
					Subtotal	68,563	5,850
Client Hardware							
Dell PowerEdge 1400SC, 1.13 GHz Pentium III w/ 256KB L2	220-2308		1	648	3	1,944	1,434
512MB RAM, 4 DIMMs	311-1194		1	408	3	1,224	-
18GB,U160,10K, SCSI Hard Drive,	340-1964		1	249	3	747	-
Ether Express PRO 100+ Ethernet Adapter	430-1970	Intel	1	59	6	354	-
Dell 15" Monitor	320-0960		1	149	3	447	-
					Subtotal	4,716	1,434
Client Software							
Windows 2000 Server, 5 Client Licenses **	C11-00821	Microsoft	2	738	3	2,214	-
Visual C++ Professional 6.0 Win32 **	048-00317	Microsoft	2	549	1	549	-
					Subtotal	2,763	-
User Connectivity							
16 Port Ethernet Switch	220-1499	Dell	1	129	1	129	105
					Subtotal	129	105
		Discounts****				(12,605)	-
					Total	171,312	15,288

Notes: * Maint. included in PowerVault 220S 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 - 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 83087169 as complex quotes.

Audited by Lorna Livingtree, Performance Metrics Inc.

Three-Year Cost of Ownership:	**$186,600**
tpmC Rating:	**34819.03**
$ / tpmC:	**5.36**

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.

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MQTh, computed Maximum Qualified Throughput					34819.03 tpmC

Response Times (in seconds)	Average	90th	Max
- Neworder	0.53	0.80	5.66
- Payment	0.34	0.59	2.64
- Order Status	0.41	0.66	5.33
- Delivery (interactive portion)	0.16	0.31	1.05
- Delivery (deferred portion)	0.58	0.99	2.09
- Stock-Level	2.20	3.69	9.45
- Menu	0.14	0.31	1.20

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	43.06%
- Order-Status	4.03 %
- Delivery	4.04 %
- Stock-Level	4.04 %

Keying/Think Times (in seconds),	Min		Average		Max	
- New-Order	18.01	0.0	18.03	12.04	18.24	120.44
- Payment	3.01	0.0	3.03	12.04	3.25	120.45
- Order-Status	2.01	0.0	2.03	10.07	2.18	100.42
- Delivery	2.01	0.0	2.03	5.06	2.21	50.41
- Stock-Level	2.01	0.0	2.03	5.05	2.18	50.41

Test Duration
- Ramp-up time	14 minutes
- Measurement interval	120 minutes
- Number of checkpoints	4
- Checkpoint interval	30 minutes
- Number of transactions (all types) completed in measurement interval	9,693,890