



# PowerEdge 6600

Client/Server w/ 4 PE1600SC Front Ends

TPC-C Rev 5.2  
Report Date  
**MAY 27 2004**

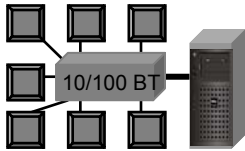
Total System Cost		TPC-C Throughput	Price/Performance	Availability Date
<b>\$266,260</b>		<b>94,172 tpmC</b>	<b>\$2.83 / tpmC</b>	<b>MAY 27, 2004</b>
Processors	Database Manager	OS	Other Software	Number of Users
4 x Intel Xeon™ MP Processors 3.0 GHz 4MB L3 Cache	Microsoft SQL Server 2000 Enterprise Edition	Microsoft Windows 2003 Server Enterprise	Windows 2003 Server w/ COM+ Internet Information Server 6.0 Microsoft Visual C++	<b>76,200</b>



## PE6600

w/ 4 3.0 GHz Intel Xeon MP CPUs  
w/ 4MB L3 cache,  
32GB RAM,  
1 PERC4-DC Controller and  
6 LSI 320-4X MegaRAID Controllers  
1 18GB 15K RPM U320 SCSI disk

26 PV220S Disk Pods  
336 18GB 15K RPM U320 SCSI Disks  
16 36GB 15k RPM U320 SCSI Disks



## 4 PowerEdge 1600SC Client

2 Intel Xeon DP @ 3.06GHz  
w/ 512 KB L2  
1024 MB RAM  
1 36 GB Disk  
2 Intel Pro100+ Ethernet NICs

System Component	Server		Each Client	
Processors	4	Intel Xeon MP @ 3.0GHz	2	Intel Xeon w/ 512 KB L2 Client @ 2.4 GHz
Cache		4MB L3 cache		
Memory		32768MB		1024 MB
Disk Controllers	1	PERC4-DC	1	Adaptec On-Board
	6	LSI 320-4X MegaRAID		
Disk Drives	337	18 GB SCSI	1	36 GB
	16	36 GB SCSI		
Total Storage		6642 GB		36 GB
Other	2	2GB NIC	2	10/100MB BT NIC
	1	CD-ROM		

Dell		PowerEdge 6600			TPC-C REV 5.2 EXECUTIVE SUMMARY PAGE 2 OF 3			
		Client/Server			Report Date: 27-May-04			
Description	Part Number	Third Party Brand	Pricing	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
<b>Server Hardware</b>								
Dell PowerEdge 6600	221-4646		1	6,382	1	6,382	1,100	
Intel Xeon MP3.0GHz / 4 MB - 4 processors	311-3526		1	14,999	1	14,999	-	
32 GB,DDR, 16 x 2048MB DIMMS	311-2352		1	27,899	1	27,899	-	
18GB SCSI 15K HDD U320	340-8723		1	249	1	249	-	
Dell 15" Monitor	320-0960		1	129	1	129	-	
MegaRAID series 320-4X SCSI RAID controller	A0171598	LSI	1	1,183	6	7,098	0	
PERC4/DC	340-8157		1	999	1	999	0	
						<b>Subtotal</b>	<b>56,756</b>	<b>1,100</b>
<b>PowerVault Disk Subsystem</b>								
PV220S, U3 SCSI, PS, Rack mount	220-4476, etc.		1	2,054	26	53,404	10,426	
2 SCSI Cables	310-0679		1	99	13	1,287	-	
18 GB SCSI 15K RPM U320 Hard Drive *	340-9472		1	249	336	83,664	-	
36 GB SCSI 15K RPM Hard Drive *	340-9371		1	349	16	5,584	-	
42U Rack	220-4492		1	964	2	1,928	-	
						<b>Subtotal</b>	<b>145,867</b>	<b>10,426</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 2003 Server Enterprise Edition **	P72-00264	Microsoft	2	2,399	1	2,399	-	
						<b>Subtotal</b>	<b>68,563</b>	<b>5,850</b>
<b>Client Hardware</b>								
Dell PowerEdge 1600SC, 3.06 GHz Xeon w/ 512KB L3	221-3218		1	576	4	2,304	1,160	
2nd Proc 3.06GHz/512K/533 Xeon	311-3069		1	799	4	3,196	-	
1024MB RAM, 2 DIMMs	311-1940		1	548	4	2,192	-	
36GB U320M SCSI 10K RPM Hard Drive	340-7546			249	4	996	-	
Dell 15" Monitor	320-0960		1	129	4	516	-	
						<b>Subtotal</b>	<b>9,204</b>	<b>1,160</b>
<b>Client Software</b>								
Windows 2003 Server Standard **	P73-00295	Microsoft	2	738	4	2,952	-	
Visual C++ **	254-00170	Microsoft	2	109	1	109	-	
						<b>Subtotal</b>	<b>3,061</b>	<b>-</b>
<b>User Connectivity</b>								
PowerConnect 2616	221-3984		1	329	1	329	40	
Cat5E cables	506168		1	11	5	55	-	
						<b>Subtotal</b>	<b>384</b>	<b>40</b>
						<b>Other Discounts</b>	<b>(36,151)</b>	<b>-</b>
						<b>Total</b>	<b>247,684</b>	<b>18,576</b>
Notes: * Maint. included in PowerVault 220S disk pod or PV650F/630F fibre channel disk pod						<b>Three-Year Cost of Ownership:</b>		<b>266,260</b>
** All Microsoft maintenance is covered by the maintenance costs of Microsoft SQL Server						<b>tpmC Rating:</b>		<b>94172</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								
**** 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 as complex quotes.								
<b>Audited by Tom Sawyer, Performance Metrics Inc.</b>						<b>\$/ tpmC:</b>		<b>2.83</b>
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> .								

**MQTh**, computed Maximum Qualified Throughput

94,172 tpmC

**Response Times** (in seconds)

	Average	90 <sup>th</sup>	Max
- Neworder	0.64	0.87	5.94
- Payment	0.54	0.75	5.35
- Delivery (interactive portion)	0.11	0.12	2.48
- Stock-Level	1.35	1.71	6.67
- Order Status	0.85	1.28	6.68
- Delivery (deferred portion)	0.54	0.77	1.91
- Menu	0.11	0.12	4.56

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	43.02 %
- Delivery	4.05 %
- Stock-Level	4.05 %
- Order-Status	4.04 %

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

	Min		Average		Max	
- New-Order	18.02	0.0	18.04	12.05	22.85	120.62
- Payment	3.01	0.0	3.04	12.04	7.85	121.03
- Delivery	2.01	0.0	2.04	5.05	6.60	50.41
- Stock-Level	2.01	0.0	2.04	5.06	6.83	50.41
- Order-Status	2.01	0.0	2.04	10.04	6.77	101.74

**Test Duration**

- Ramp-up time	51 minutes
- Measurement interval	120 minutes
- Number of checkpoints	4
- Checkpoint interval	30 minutes
- Number of transactions (all types) completed in measurement interval	26,223,808