



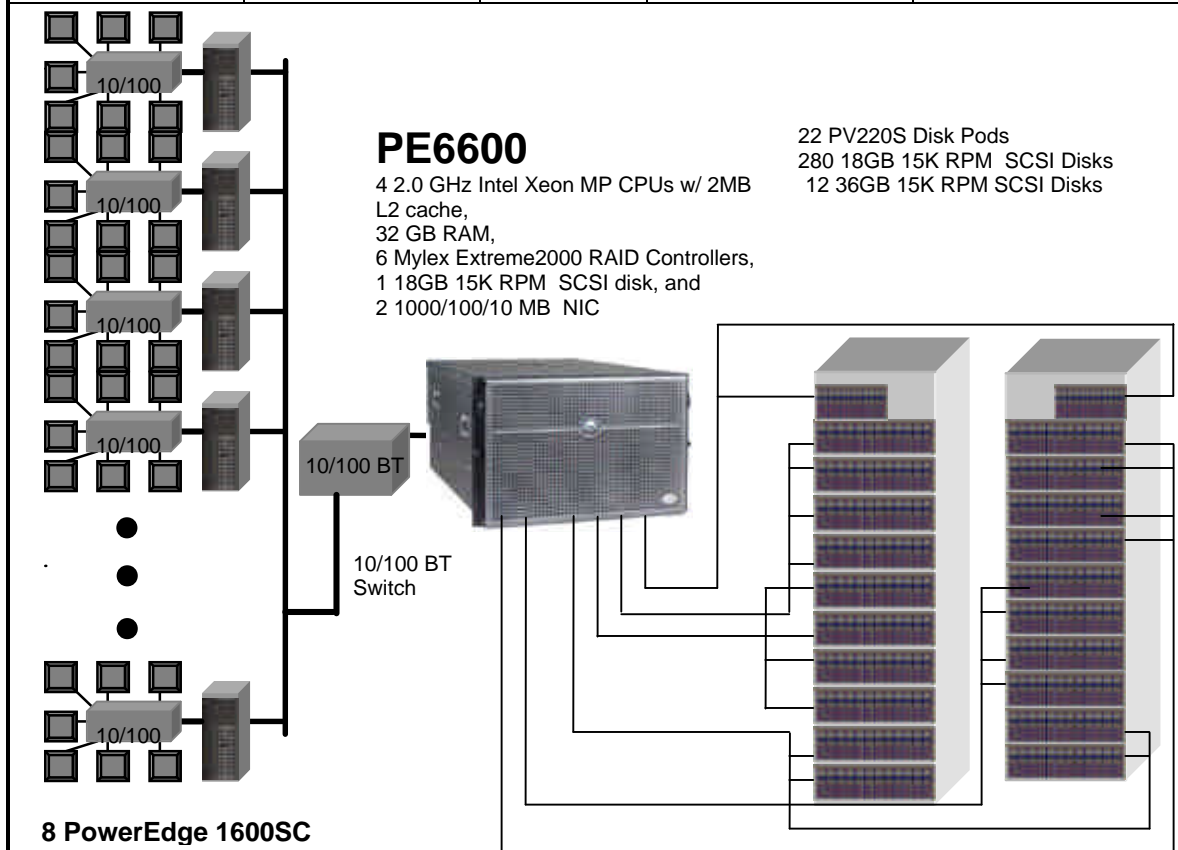
PowerEdge 6600

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 |
| \$365,317 | 71,313.19 tpmC | \$5.13/ 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++ | 58,000 |



| 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 | | |

| Description | Part Number | Third Party | Unit Price | Qty | Extended Price | 3 yr. Maint. Price |
|---|----------------|--------------------|------------|------------------------|----------------|----------------------------|
| | | Brand Pricing | | | | |
| Server Hardware | | | | | | |
| Dell PowerEdge 6600 | 220-1828 | | 1 | 8,126 | 1 | 8,126 1,299 |
| Intel Xeon MP 2.0GHz / 1MB L2 - 4 processors | 311-2348 | | 1 | 14,999 | 1 | 14,999 - |
| 32 GB,DDR, 16 x 2048MB DIMMS | 311-2352 | | 1 | 71,000 | 1 | 71,000 - |
| 18 GB U160M SCSI 10K RPM Hard Drive | 340-1937 | | 1 | 249 | 1 | 249 - |
| Tape Backup Unit | 340-6507 | | 1 | 699 | 1 | 699 - |
| Dell 15" Monitor | 320-0960 | | 1 | 149 | 1 | 149 - |
| Extreme RAID 2000 PCI SCSI 4 channel RAID controller*** | 08P3834 | Mylex | 3 | 1,228 | 8 | 9,824 - |
| | | | | Subtotal | | 105,046 1,299 |
| PowerVault Disk Subsystem | | | | | | |
| PV220S, U3 SCSI, PS, Rack mount | 220-4476, etc. | | 1 | 2,756 | 22 | 60,632 13,200 |
| SCSI Cables | 310-0679 | | 1 | 99 | 11 | 1,089 - |
| 18 GB SCSI 15K RPM Hard Drive * | 340-6865 | | 1 | 399 | 280 | 111,720 - |
| 36 GB SCSI 15K RPM Hard Drive * | 340-3088 | | 1 | 399 | 12 | 4,788 - |
| 42U Rack | 220-4492 | | 1 | 1,264 | 2 | 2,528 - |
| | | | | Subtotal | | 180,757 13,200 |
| Server Software | | | | | | |
| 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 - |
| | | | | Subtotal | | 68,863 5,850 |
| Client Hardware | | | | | | |
| Dell PowerEdge 1600SC, 1.8 GHz Pentium III w/ 512KB L2***** | 221-0916 | | 1 | 1,467 | 8 | 11,736 6,384 |
| 512MB RAM, 4 DIMMs | 311-1833 | | 1 | 408 | 8 | 3,264 - |
| 18GB,U160,10K, SCSI Hard Drive, | 340-9450 | | 1 | 249 | 8 | 1,992 - |
| Ether Express PRO 100+ Ethernet Adapter | 430-0369 | Intel | 1 | 59 | 8 | 472 - |
| Dell 15" Monitor | 320-0960 | | 1 | 149 | 8 | 1,192 - |
| | | | | Subtotal | | 18,656 6,384 |
| Client Software | | | | | | |
| 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 - |
| | | | | Subtotal | | 6,013 - |
| User Connectivity | | | | | | |
| 16 Port Ethernet Switch | 220-1499 | Dell | 1 | 119 | 1 | 119 65 |
| | | | | Subtotal | | 119 105 |
| | | | | Other Discounts | | (40,871) - |
| | | | | Total | | 338,583 26,838 |

| | |
|--|--|
| <p>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 99098172 as complex quotes. ***** Substitutes for PE1500SC. Meets TPC Substitution requirements</p> <p>Audited by Lorna Livingtree, Performance Metrics Inc.</p> | <p>Three-Year Cost of Ownership: \$365,421</p> <p>tpmC Rating: 71313.19</p> <p>\$/tpmC: 5.13</p> |
|--|--|

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

71,313.19
tpmC

Response Times (in seconds)

| | Average | 90th | Max |
|----------------------------------|---------|------|------|
| - Neworder | 0.73 | 1.12 | 6.71 |
| - Payment | 0.60 | 0.98 | 4.91 |
| - Order Status | 0.62 | 0.99 | 5.95 |
| - Delivery (interactive portion) | 0.19 | 0.41 | 1.42 |
| - Delivery (deferred portion) | 0.29 | 0.39 | 1.34 |
| - Stock-Level | 1.28 | 1.75 | 4.57 |
| - Menu | 0.19 | 0.41 | 1.41 |

Response time delay added for emulated components

Menu 0.1
Resp 0.1

Transaction Mix, in percent of total transactions

| | |
|----------------|---------|
| - New-Order | 44.85% |
| - Payment | 43.04 % |
| - 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 | 18.02 | 12.04 | 18.17 | 120.45 |
| - Payment | 3.01 | 0.0 | 3.02 | 12.03 | 3.17 | 120.45 |
| - Order-Status | 2.01 | 0.0 | 2.02 | 10.03 | 2.16 | 100.42 |
| - Delivery | 2.01 | 0.0 | 2.02 | 5.05 | 2.16 | 50.44 |
| - Stock-Level | 2.01 | 0.0 | 2.02 | 5.05 | 2.18 | 50.42 |

Test Duration

| | |
|---|-------------|
| - 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 | 19,853,145 |