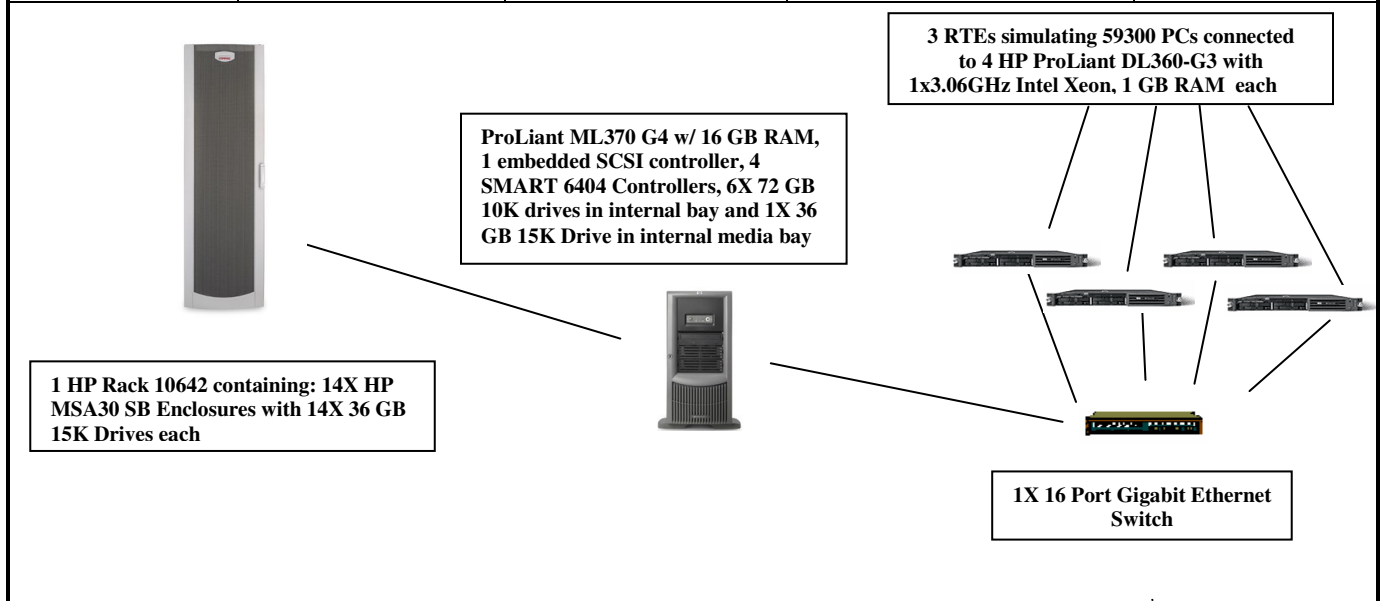


| | | |
|--|--|-----------------------------------|
| Hewlett-Packard Company | HP ProLiant ML370-G4 16GB/3.6GHz/2P | TPC-C Rev. 5.3 |
| | C/S with 4 HP ProLiant DL360R | Report Date: Feb. 11, 2005 |

| | | | |
|----------------------|------------------|-------------------|----------------------|
| Total System Cost | TPC-C Throughput | Price/Performance | Availability Date |
| \$178,291 USD | 74,298 | \$2.40 USD | Feb. 14, 2005 |

| | | | | |
|---|--|---|--|-----------------|
| Processors | Database Manager | Operating System | Other Software | Number of Users |
| 2 Intel Xeon 3.6 GHz (2MB) – Server 4 Intel Xeon 3.06 GHz – Clients | Microsoft SQL Server 2000 Enterprise Edition SP3 | Windows Server 2003, Enterprise Edition | Microsoft Visual C++ Microsoft COM+ | 59300 |



| | Server | | Each Client | |
|-------------------|----------|---------------------------------|-------------|--------------------------------------|
| System Components | Quantity | Description | Quantity | Description |
| Processor | 2 | 3.6 GHz Intel Xeon w/ 2MB Cache | 1 | 3.06 GHz Intel Xeon w/ 512K cache |
| Memory | 8 | 2 GB DDR | 2 | 512MB |
| Disk Controllers | 1 | Integrated SCSI Controller | 1 | Integrated SMART 5i Array Controller |
| | 4 | HP SMART 6404 Array Controllers | | |
| Disk Drives | 6 | 72.8 GB SCSI Drive | 1 | 36.4 GB SCSI Drive |
| | 197 | 36.4 GB SCSI Drive | | |
| Total Storage | | 7607.6 GB | | 36.4 GB |

| Hewlett-Packard | ProLiant ML370-G4-2M/3.6GHz 2P | | | TPC-C Rev. 5.3 | | |
|--|--------------------------------|--------------|----------------|----------------|--|--------------------|
| Company | Client/Server | | | Report Date: | | 11-Feb-05 |
| Description | Part Number | Third Party | Unit Price | Qty | Extended Price | 3 yr. Maint. Price |
| Server Hardware | | | | | | |
| | | Brand | Pricing | | | |
| ML370T04 X3.6/800-2M US | 379912-001 | | 1 | 3,079 | 1 | 3,079 |
| Intel X3.6GHz 2MB 370/380 G4 Processor | 378751-B21 | | 1 | 1,399 | 1 | 1,399 |
| 4GB PC3200 DDR SDRAM (2x2GB) | 343057-B21 | | 1 | 5,799 | 4 | 23,196 |
| HP s7540 17in. CRT Monitor | PF997AA#ABA | | 1 | 149 | 1 | 149 |
| HP Storaeworks MSA 30 SB Storage | 302989-B21 | | 1 | 2,978 | 14 | 41,892 |
| HP 5642 Pallet Unassembled Rack | 358254-B21 | | 1 | 689 | 1 | 689 |
| HP Smart Array 6404/256MB Controller | 273914-B21 | | 1 | 1,899 | 4 | 7,596 |
| 36GB 15Krpm U320 UNI HDD | 286776-B22 | | 1 | 299 | 196 | 58,604 |
| HP 36GB 10K U320 Non-Hot Plug Hard Drive (OS) | 271832-B21 | | 1 | 259 | 1 | 259 |
| 36GB 15Krpm U320 UNI HDD (10% spares) | 286776-B22 | | 1 | 299 | 20 | 5,980 |
| HP 72GB 10K U320 Pluggable Hard Drive | 286714-B22 | | 1 | 389 | 6 | 2,334 |
| HP T500 Uninterruptible Power System | 361475-001 | | 1 | 99 | 1 | 99 |
| CarePaaS Service - 300 Series Servers 3Yr,7x24,4hr | 162657-002 | | 1 | 949 | 1 | 949 |
| FM-4E724-36 3YR 24X7/4HR EMPTY DISK ENCL | 171242-002 | | 1 | 157 | 14 | 2,198 |
| | | | | | Subtotal | 139,096 |
| | | | | | | 9,127 |
| Server Software | | | | | | |
| Microsoft SQL Server 2000 Enterprise Edition(per processor) | 810-00845 | Microsoft | 2 | 17,279 | 2 | 34,558 |
| Visual C++ .Net Standard | 254-00170 | Microsoft | 2 | 109 | 1 | 109 |
| Microsoft Windows 2003, Enterprise Edition | P72-00264 | Microsoft | 2 | 2,399 | 1 | 2,399 |
| Microsoft Problem Resolution Services (1 incident) | | Microsoft | 2 | 245 | 1 | 245 |
| | | | | | Subtotal | 37,066 |
| | | | | | | 245 |
| Client Hardware | | | | | | |
| HP ProLiant DL360G3 1P 3.06GHz/533 (512KB L2, 1MB L3) - 1024 MB memory, embedded SMART 6i array controller - embedded dual channel Gigabit NIC | 322471-001 | | 1 | 2,599 | 4 | 10,396 |
| 36GB 15Krpm U320 UNI HDD | 286776-B22 | | 1 | 299 | 4 | 1,196 |
| HP s7540 17in. CRT Monitor | PF997AA#ABA | | 1 | 149 | 4 | 596 |
| HP PS/2 Scroll Mouse carbonite | DG169AV | | 1 | 5 | 4 | 20 |
| HP Enhanced Keyboard | DG170AV#ABA | | 1 | 10 | 4 | 40 |
| HP CP 3Y 4H 24x7 HW Support DL360 4-Hour 24 x 7 Coverage 3 Yrs | U4497E | | 1 | 550 | 4 | 2,200 |
| | | | | | Subtotal | 12,248 |
| | | | | | | 2,200 |
| Client Software | | | | | | |
| Microsoft Windows 2000 Server | C11-00821 | Microsoft | 2 | 738 | 4 | 2,952 |
| | | | | | Subtotal | 2,952 |
| | | | | | | 0 |
| User Connectivity | | | | | | |
| Netgear 16-port 10/100/1000BTX Gigabit Switch | 44508 | Netgear | 3 | 361 | 1 | 361 |
| Netgear 16-port 10/100/1000BTX Gigabit Switch (10% spares) | 44508 | Netgear | 3 | 361 | 2 | 723 |
| 3 year extended warranty from PC Universe | | PCUniverse | 3 | 100 | 3 | 300 |
| | | | | | Subtotal | 361 |
| | | | | | | 1,023 |
| Large Purchase and Net 30 discount (See Note 1) | 16.0% | | 1 | | | |
| | | | | | | |
| | | | | | Total | \$167,508 |
| | | | | | | (\$1,812) |
| 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 pricing specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org . Thank you. | | | | | | |
| Pricing: 1=HP 2= Microsoft 3=PCUniverse.com | | | | | Three-Year Cost of Ownership: \$178,291 USD | |
| Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount. | | | | | tpmC Rating: 74,298 | |
| Note:The benchmark results and test methodology were audited by Tom Sawyer of Performance Metrics, Inc. | | | | | \$ / tpmC: \$2.40 USD | |

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput

74,298 tpmC

| Response Times (in seconds) | Average | 90 % | Maximum |
|------------------------------------|----------------|-------------|----------------|
| New-Order | 0.31 | 0.47 | 10.44 |
| Payment | 0.24 | 0.39 | 4.75 |
| Order-Status | 0.25 | 0.40 | 10.63 |
| Delivery (interactive portion) | 0.10 | 0.11 | 0.47 |
| Delivery (deferred portion) | 0.21 | 0.35 | 1.11 |
| Stock-Level | 1.14 | 1.46 | 5.38 |
| Menu | 0.10 | 0.11 | 0.53 |

Transaction Mix, in percent of total transaction

| | |
|--------------|--------|
| New-Order | 44.88% |
| Payment | 43.03% |
| Order-Status | 4.03% |
| Delivery | 4.03% |
| Stock-Level | 4.03% |

Emulation Delay (in seconds)

Resp.Time Menu

| | | |
|------------------------|------|------|
| New-Order | 0.10 | 0.10 |
| Payment | 0.10 | 0.10 |
| Order-Status | 0.10 | 0.10 |
| Delivery (interactive) | 0.10 | 0.10 |
| Stock-Level | 0.10 | 0.10 |

Keying/Think Times (in seconds)

Min. Average Max.

| | | | |
|------------------------|------------|-------------|--------------|
| New-Order | 18.00/0.00 | 18.02/12.10 | 18.53/121.36 |
| Payment | 3.00/0.00 | 3.02/12.11 | 3.53/121.12 |
| Order-Status | 2.00/0.00 | 2.02/10.11 | 2.53/101.01 |
| Delivery (interactive) | 2.00/0.00 | 2.02/5.07 | 2.51/50.71 |
| Stock-Level | 2.00/0.00 | 2.02/5.07 | 2.45/50.70 |

Test Duration

| | |
|--|-------------|
| Ramp-up time | 71 minutes |
| Measurement interval | 120 minutes |
| Transactions (all types) completed during measurement interval | 20,575,405 |
| Ramp down time | 15 minutes |

Checkpointing

| | |
|-----------------------|------------|
| Number of checkpoints | 4 |
| Checkpoint interval | 30 minutes |