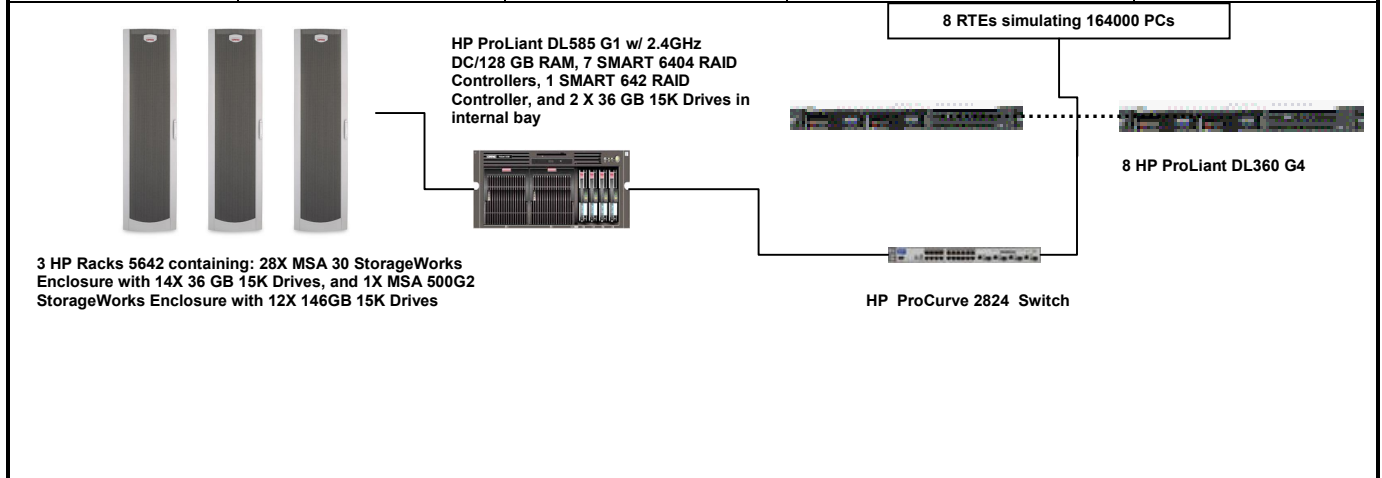


|  |  |                                   |
|--|--|-----------------------------------|
| <b>Hewlett-Packard</b><br><br><b>Company</b> | HP ProLiant DL585-G1 2.4GHz<br>Dual Core 4P/8 core | TPC-C Rev. 5.4                    |
|  | C/S with 8 HP ProLiant DL360G4                     | <b>Report Date: Sept 30, 2005</b> |

|                      |                  |                   |                    |
|----------------------|------------------|-------------------|--------------------|
| Total System Cost    | TPC-C Throughput | Price/Performance | Availability Date  |
| <b>USD \$484,822</b> | <b>202,551</b>   | <b>USD \$2.40</b> | <b>Nov 8, 2005</b> |

|   |  |   |  |                 |
|---|--|---|--|-----------------|
| Processors  | Database Manager                                   | Operating System                              | Other Software                         | Number of Users |
| 4 AMD Opteron<br><br>2.4 GHz DC – Server<br><br>16 Intel Xeon 3.6 GHz – Clients | Microsoft SQL Server 2005 Enterprise (x64) Edition | Windows Server 2003, Enterprise (X64) Edition | Microsoft Visual C++<br>Microsoft COM+ | <b>164000</b>   |



|                          | Server   |                                    | Each Client |                                 |
|--------------------------|----------|------------------------------------|-------------|---------------------------------|
| <b>System Components</b> | Quantity | Description                        | Quantity    | Description                     |
| Processor                | 4        | 2.4 GHz DC AMD Opteron w/ 1M Cache | 2           | 3.6 GHz Intel Xeon w/ 1MB cache |
| Memory                   | 16       | 8 GB DDR (2 X 4 GB)                | 2           | 512MB                           |
| Disk Controllers         | 1        | Integrated Smart 5i Controller     | 1           | Integrated SMART 6i Controller  |
|                          | 7        | SMART 6404 Array Controllers       |             |                                 |
|                          | 1        | SMART 642 Array Controller         |             |                                 |
| Disk Drives              | 12       | 146GB SCSI Drive                   | 2           | 36 GB SCSI Drive                |
|                          | 394      | 36 GB SCSI Drive                   |             |                                 |
| Total Storage            |          | 15,005.24 GB                       |             | 36 GB                           |

| Hewlett-Packard<br>Company   | HP ProLiant DL585-G1 2.4GHz DC-4P/8C |             |            | TPC-C Rev. 5.4       |  |                    |                  |
|--|--------------------------------------|-------------|------------|----------------------|--|--------------------|------------------|
|  | Client/Server                        |             |            | Report Date:         | 30-Sep-05                                |                    |                  |
| Description  | Part Number                          | Third Party | Unit Price | Qty                  | Extended Price                           | 3 yr. Maint. Price |                  |
| <b>Server Hardware</b>   |                                      |             |            |                      |  |                    |                  |
|  |                                      |             |            | <b>Brand Pricing</b> |  |                    |                  |
| DL585 2.4GHz dual core (2P) 2GB PC2700/Dual port gigabit NIC/Smart 5i controller   | 397841-001                           | 1           | 15,999     | 1                    | 15,999                                   |                    |                  |
| DL585 2.4GHz/2700 dual core Processor Option Kit   | 397843-B21                           | 1           | 5,699      | 2                    | 11,398                                   |                    |                  |
| HP 8GB Reg PC2700 2x4GB Memory   | 395409-B21                           | 1           | 7,499      | 16                   | 119,984                                  |                    |                  |
| HP Storageworks MSA 30 SB Storage  | 302969-B21                           | 1           | 2,829      | 28                   | 79,212                                   |                    |                  |
| HP Modular Smart Array 500 G2 Storage includes 2 Smart Array 642 Adapters  | 335880-B21                           | 1           | 4,499      | 1                    | 4,499                                    |                    |                  |
| HP Modular Smart Array 500 G2 Controller   | 335881-B21                           | 1           | 2,499      | 1                    | 2,499                                    |                    |                  |
| HP Smart Array 6404/256MB Controller   | 273914-B21                           | 1           | 1,899      | 7                    | 13,293                                   |                    |                  |
| HP s7540 17in. CRT Monitor   | PF997AA#ABA                          | 1           | 149        | 1                    | 149                                      |                    |                  |
| HP PS/2 Scroll Mouse carbonite   | DG169AV                              | 1           | 5          | 1                    | 5  |                    |                  |
| HP Enhanced Keyboard   | DG170AV#ABA                          | 1           | 10         | 1                    | 10                                       |                    |                  |
| HP 5642 Pallet Unassembled Rack  | 358254-B21                           | 1           | 689        | 3                    | 2,067                                    |                    |                  |
| UPS R1500 XR Low Voltage US  | 204404-001                           | 1           | 866        | 1                    | 866                                      |                    |                  |
| 36GB 15K U320 Pluggable Hard Drive   | 286776-B22                           | 1           | 299        | 394                  | 117,806                                  |                    |                  |
| HP 146GB U320 10K Hot Plug Hard Drive  | 371535-B21                           | 1           | 499        | 12                   | 5,988                                    |                    |                  |
| HP CP 3Y 4H 24x7 HW 500 Srs 4-Hour 24 Hour x 7 Day Coverage 3 Years  | 401782-002                           | 1           | 1,795      | 1                    |  | 1,795              |                  |
| MSA30 Carepaq 3yr 4hr 24x7   | U8130E                               | 1           | 1,827      | 28                   |  | 51,156             |                  |
| HP 3y 4h 24x7 MSA500 HW Support  | U6456E                               | 1           | 1,950      | 1                    |  | 1,950              |                  |
|  |                                      |             |            |                      | <b>Subtotal</b>                          | <b>373,775</b>     | <b>54,901</b>    |
| <b>Server Software</b>   |                                      |             |            |                      |  |                    |                  |
| Microsoft SQL Server 2005 Enterprise X64 Edition(per processor)  | 810-00846                            | Microsoft   | 2          | 19,909               | 4  | 79,636             | Incl Below       |
| Microsoft Visual C++ Standard  | 254-00170                            | Microsoft   | 2          | 109                  | 1  | 109                | Incl Below       |
| Microsoft Windows 2003 Server, Enterprise Edition X64  | P73-00295                            | Microsoft   | 2          | 2,334                | 1  | 2,334              | Incl Below       |
| Microsoft Problem Resolution Services  |                                      | Microsoft   | 2          | 245                  | 1  |                    | 245              |
|  |                                      |             |            |                      | <b>Subtotal</b>                          | <b>82,079</b>      | <b>245</b>       |
| <b>Client Hardware</b>   |                                      |             |            |                      |  |                    |                  |
| HP DL360G4 X3.6GHz \ 1GB SCSI US Rack Server   | 360528-001                           | 1           | 2,799      | 8                    | 22,392                                   |                    |                  |
| Dual Integrated Gigabit NIC, Integrated Smart Array Controller 6i  |                                      |             |            |                      |  |                    |                  |
| Intel Xeon 3.6GHz 1MB DL360G4 Processor  | 354583-B21                           | 1           | 999        | 8                    | 7,992                                    |                    |                  |
| 36GB 15K U320 Pluggable Hard Drive   | 286776-B22                           | 1           | 299        | 16                   | 4,784                                    |                    |                  |
| HP CP 3Y 4H 24x7 HW Entry300 4-Hour 24 Hour x 7 Day Coverage 3 Years   | 162675-002                           | 1           | 599        | 8                    |  | 4,792              |                  |
|  |                                      |             |            |                      | <b>Subtotal</b>                          | <b>35,168</b>      | <b>4,792</b>     |
| <b>Client Software</b>   |                                      |             |            |                      |  |                    |                  |
| Windows Server 2000, Standard Edition  | C11-00821                            | Microsoft   | 2          | 738                  | 8  | 5,904              | Incl. Above      |
|  |                                      |             |            |                      | <b>Subtotal</b>                          | <b>5,904</b>       | <b>0</b>         |
| <b>User Connectivity</b>   |                                      |             |            |                      |  |                    |                  |
| HP ProCurve Switch 2824  | J4903A#ABA                           | 1           | 2499       | 1                    | 2,499                                    |                    |                  |
| HP CP for HP ProCurve Networking products 3 Yr 4 hr/24x7   | U2856E                               | 1           | 1000       | 1                    |  | 1,000              |                  |
|  |                                      |             |            |                      | <b>Subtotal</b>                          | <b>2,499</b>       | <b>1,000</b>     |
| Large Purchase and Cash discount (See Note 1)  | 16.0%                                | 1           |            |                      |  |                    |                  |
|  |                                      |             |            |                      | <b>Total</b>                             | <b>\$433,594</b>   | <b>\$51,227</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 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. |                                      |             |            |                      | <b>Three-Year Cost of Ownership: USD</b> |                    | <b>\$484,822</b> |
|  |                                      |             |            |                      | <b>tpmC Rating:</b>                      |                    | <b>202,551</b>   |
|  |                                      |             |            |                      | <b>\$ / tpmC: USD</b>                    |                    | <b>\$2.40</b>    |
| Pricing: 1=HP Direct 2= Microsoft  |                                      |             |            |                      |  |                    |                  |
| Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount. Applies to all lines with 1 in pricing col  |                                      |             |            |                      |  |                    |                  |
| Note2: The benchmark results and test methodology were audited by Lorna Livingtree of Performance Metrics,   |                                      |             |            |                      |  |                    |                  |

## Numerical Quantities Summary

**MQTH, Computed Maximum Qualified Throughput**

**202,551 tpmC**

| <b>Response Times (in seconds)</b> | <b>Average</b> | <b>90%</b> | <b>Maximum</b> |
|------------------------------------|----------------|------------|----------------|
| New-Order                          | 0.69           | 1.08       | 6.68           |
| Payment                            | 0.67           | 1.06       | 6.64           |
| Order-Status                       | 0.69           | 1.07       | 5.65           |
| Delivery (interactive portion)     | 0.10           | 0.11       | 0.38           |
| Delivery (deferred portion)        | 0.18           | 0.24       | 4.77           |
| Stock-Level                        | 0.69           | 1.08       | 6.01           |
| Menu                               | 0.10           | 0.11       | 0.45           |

### **Transaction Mix, in percent of total transaction**

|              |        |
|--------------|--------|
| New-Order    | 44.95% |
| Payment      | 43.02% |
| Order-Status | 4.00%  |
| Delivery     | 4.01%  |
| Stock-Level  | 4.01%  |

### **Emulation Delay (in seconds)**

|                        | <b>Resp.Time</b> | <b>Menu</b> |
|------------------------|------------------|-------------|
| 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)**

|                        | <b>Min.</b> | <b>Average</b> | <b>Max.</b>  |
|------------------------|-------------|----------------|--------------|
| New-Order              | 18.01/0.00  | 18.03/12.06    | 18.31/120.53 |
| Payment                | 3.02/0.00   | 3.03/12.06     | 3.31/120.53  |
| Order-Status           | 2.02/0.00   | 2.03/10.06     | 2.30/100.53  |
| Delivery (interactive) | 2.02/0.00   | 2.03/5.07      | 2.31/50.52   |
| Stock-Level            | 2.02/0.00   | 2.03/5.07      | 2.30/50.53   |

### **Test Duration**

|  |             |
|--|-------------|
| Ramp-up time   | 88 minutes  |
| Measurement interval   | 120 minutes |
| Transactions (all types) completed during measurement interval | 56,239,433  |
| Ramp down time   | 5 minutes   |

### **Checkpointing**

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