

|   |  |  |  |  |                                  |
|---|--|--|--|--|----------------------------------|
| Compaq Computer Corporation   |  | ProLiant 8500-550-64P Client/Server          |  | TPC-C Rev. 3.5   |                                  |
|   |  |  |  | Report Date: Feb 17,2000                               |                                  |
| Total System Cost   |  | TPC-C Throughput                             |  | Price/Performance                                      |                                  |
| <b>\$2,880,431</b>  |  | <b>152207.95</b>                             |  | <b>\$18.93</b>   |                                  |
| Availability Date   |  | <b>Aug 1, 2000</b>                           |  |  |                                  |
| Processors  |  | Database                                     |  | Operating System                                       |                                  |
| 64 Pentium III Xeon 550 MHz   |  | Microsoft SQL Server 2000 Enterprise Edition |  | Windows 2000 Advanced Server                           |                                  |
|   |  |  |  | Microsoft Visual C++ MKS Toolkit for NT Microsoft COM+ |                                  |
|   |  |  |  | <b>144000</b>  |                                  |
| <p>14 X StorageWorks Enclosure 4214R<br/>172 X 9.1GB + 8 X 18GB 10K drives</p> <p>14 X StorageWorks Enclosure 4214R<br/>172 X 9.1GB + 8 X 18GB 10K drives</p> <p>14 X StorageWorks Enclosure 4214R<br/>172 X 9.1GB + 8 X 18GB 10K drives</p> <p>Node 1 8-Port 10/100 Switch</p> <p>Node 2 8-Port 10/100 Switch</p> <p>Node 8 8-Port 10/100 Switch</p> <p>Clients1-3</p> <p>Clients4-6</p> <p>Clients22-24</p> |  |  |  |  |                                  |
|   |  | <b>Server</b>                                |  | <b>Clients</b>   |                                  |
| <b>System Components</b>  |  | Quantity                                     | Description                            | Quantity   | Description                      |
| Processor   |  | 64   | 550MHz Pentium III Xeon w/ 2MB Cache   | 34   | Pentium III 600Mhz/512K          |
|   |  |  |  | 12   | Pentium III 550Mhz/512K          |
|   |  |  |  | 2  | Pentium III 733Mhz/512K          |
| Memory  |  | 128  | 256MB                                  | 96   | 128MB                            |
| Disk Controllers  |  | 40   | SMART SCSI Array Controller 4200       | 23   | Integrated Ultra SCSI Controller |
|   |  | 8  | Integrated SCSI RAID Controller        | 1  | Integrated SCSI RAID Controller  |
| Disk Drives   |  | 1376   | 9.1GB 10K Ultra2 Universal SCSI Drives | 24   | 9.1GB 10K Ultra2 SCSI Drives     |
|   |  | 64   | 18GB 10K Ultra2 Universal SCSI Drives  |  |                                  |
| Total Storage   |  |  | 12.47028TeraBytes                      |  | 218.4 GB                         |
| Tape Drives   |  | 1  | 4/16 TurboDAT                          |  |                                  |

| Compaq Computer Corporation  | ProLiant 8500-550-64P |                   | TPC-C Rev. 3.5 |   |                    |                    |
|--|-----------------------|-------------------|----------------|---|--------------------|--------------------|
|  | Client/Server         |                   | Report Date:   |   | 17-Feb-00          |                    |
| Description  | Part Number           | Third Party Brand | Unit Price     | Qty   | Extended Price     | 5 yr. Maint. Price |
| <b>Server Hardware</b>   |                       |                   |                |   |                    |                    |
| ProLiant 8500-550-8  | 323400-001            |                   | 78,400         | 8   | 627,200            |                    |
| - 8 Pentium III Xeon/550MHz 2MB Cache  |                       |                   |                |   |                    |                    |
| - 4 GB SD RAM Memory   |                       |                   |                |   |                    |                    |
| - CD-ROM 24X - 10/100 Ethernet Controller  |                       |                   |                |   |                    |                    |
| NC3122 PCI Dual 10/100 Controller  | 317450-B21            |                   | 263            | 16  | 4,211              |                    |
| Compaq SMART Array Controller 4200   | 295636-B21            |                   | 2,218          | 40  | 88,704             |                    |
| StorageWorks Enclosure Model 4214R   | 103381-001            |                   | 2,576          | 112   | 288,512            |                    |
| Compaq V500 Color Monitor  | 325900-001            |                   | 203            | 8   | 1,622              |                    |
| 4/8GB DAT Drive  | 295353-B21            |                   | 703            | 1   | 703                |                    |
| Compaq Rack Model 7142   | 165753-001            |                   | 1,680          | 10  | 16,800             |                    |
| Compaq Rack Coupling Kit   | 165664-001            |                   | 152            | 9   | 1,371              |                    |
| Compaq Rack Sidewall Kit   | 165652-001            |                   | 208            | 1   | 208                |                    |
| ServerNet II PCI Adapter   | 422869-001            |                   | 890            | 8   | 7,123              |                    |
| ServerNet II 12 Port Switch  | 452219-001            |                   | 4,984          | 1   | 4,984              |                    |
| LinkSys 16 Port 10/100 Switch DSSX16   | DEH4324 Linksys       |                   | 500            | 3   | 1,500              | See Note 1         |
| 9.1 GB Hot-Plug Wide U2 10K 1"   | 328939-B22            |                   | 503            | 1376  | 691,963            |                    |
| 18.2 GB Hot-Plug Wide U2 10K 1"  | 128418-B22            |                   | 940            | 64  | 60,140             |                    |
| ProLiant Enterprise Server - Parts Exchange - 1 Year   | FM-HEPRT-12           |                   | 597            | 16  |                    | 9,552              |
| ProLiant Storage System - Parts Exchange - 1 Year  | FM-STPRT-12           |                   | 255            | 224   |                    | 57,120             |
| Onsite 5x8 4 Hr Service Upgrade from Compaq Standard Service   | Allstar               |                   |                |   |                    | 143,603            |
| <b>Subtotal</b>  |                       |                   |                |   | <b>1,795,041</b>   | <b>210,275</b>     |
| <b>Server Software</b>   |                       |                   |                |   |                    |                    |
| Microsoft SQL Server 2000 Enterprise   |                       | Microsoft         | 28,999         | 8   | 231,992            | 83,800             |
| Microsoft Visual C++ 6.0   |                       | Microsoft         | 549            | 1   | 549                | Incl Above         |
| Microsoft Windows 2000 Advance Server  |                       | Microsoft         | 3,999          | 8   | 31,992             | Incl Above         |
| <b>Subtotal</b>  |                       |                   |                |   | <b>264,533</b>     | <b>83,800</b>      |
| <b>Client Hardware</b>   |                       |                   |                |   |                    |                    |
| ProLiant 1600 6/600 - 128MB,100TX Nic  | 153552-001            |                   | 2,688          | 17  | 45,696             |                    |
| Pentium III 600 MHz Processor Option   | 153555-B21            |                   | 1,007          | 17  | 17,117             |                    |
| ProLiant 1850R 6/550 128MB,100TX Nic   | 123740-001            |                   | 4,032          | 6   | 24,192             |                    |
| ProLiant DL380 733/133 128MB, TX NIC   | 157829-001            |                   | 4,816          | 1   | 4,816              |                    |
| 128-Megabyte SD DIMM Kit   | 313615-B21            |                   | 409            | 69  | 28,207             |                    |
| 128 MB 133 DIMM  | 128277-B21            |                   | 409            | 3   | 1,226              |                    |
| Pentium III 550 512KB Processor  | 153555-B21            |                   | 671            | 6   | 4,025              |                    |
| Pentium III 733/133 Processor  | 159756-B21            |                   | 1,343          | 1   | 1,343              |                    |
| NC3122 PCI Dual 10/100 Controller  | 317450-B21            |                   | 263            | 32  | 8,422              |                    |
| Compaq V500 Color Monitor  | 325900-001            |                   | 203            | 24  | 4,865              |                    |
| 9.1GB Wide U2 10K  | 328939-B22            |                   | 503            | 24  | 12,069             |                    |
| ProLiant Workgroup Server - Parts Exchange - 1 Year  | FM-LOPRT-12           |                   | 259            | 48  |                    | 12,432             |
| Onsite 5x8 4 Hr Service Upgrade from Compaq Standard Service   | Allstar               |                   |                |   |                    | 12,158             |
| <b>Subtotal</b>  |                       |                   |                |   | <b>151,980</b>     | <b>24,590</b>      |
| <b>Client Software</b>   |                       |                   |                |   |                    |                    |
| Microsoft Windows 2000 Server  |                       | Microsoft         | 809            | 24  | 19,416             | Incl. Above        |
| <b>Subtotal</b>  |                       |                   |                |   | <b>19,416</b>      | <b>0</b>           |
| <b>User Connectivity</b>   |                       |                   |                |   |                    |                    |
| LinkSys 8 Port 10/100 Switch EZX#88R   | DEH4162 LinkSys       |                   | 160            | 27  | 4,320              | See Note 1         |
| 8-port 10BaseT hub   | Generic               |                   | 29.00          | 19827   | 574,983            | See Note 1         |
| <b>Subtotal</b>  |                       |                   |                |   | <b>579,303</b>     | <b>0</b>           |
| Large Purchase and Cash discount   | 9.0%                  |                   |                |   | (\$227,369)        | (\$21,138)         |
| <b>Total</b>   |                       |                   |                |   | <b>\$2,582,903</b> | <b>\$297,528</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>Five-Year Cost of Ownership: \$2,880,431</b> |                    |                    |
|  |                       |                   |                | <b>tpmC Rating: 152207.95</b>                   |                    |                    |
|  |                       |                   |                | <b>\$/ tpmC: \$18.93</b>                        |                    |                    |
| Pricing: 1=Allstar Systems 2=Microsoft 3=MicroWAREHOUSE  |                       |                   |                |   |                    |                    |
| Note 1 = 5 Year warranty with 10% Spares -   |                       |                   |                |   |                    |                    |
| Note: The benchmark results and test methodology were audited by Lorna Livingtree of Performance Metrics, Inc.   |                       |                   |                |   |                    |                    |

## Numerical Quantities Summary

**MQTH, Computed Maximum Qualified Throughput** **152207.95 tpmC**

% throughput difference, reported & reproducibility runs 0.00%

| <b>Response Times (in seconds)</b> | <b>Average</b> | <b>90%</b> | <b>Maximum</b> |
|------------------------------------|----------------|------------|----------------|
| New-Order                          | 0.37           | 0.49       | 7.15           |
| Payment                            | 0.22           | 0.29       | 7.87           |
| Order-Status                       | 0.22           | 0.24       | 6.68           |
| Delivery (interactive portion)     | 0.10           | 0.11       | 0.92           |
| Delivery (deferred portion)        | 0.56           | 0.72       | 22.91          |
| Stock-Level                        | 1.85           | 2.16       | 7.75           |
| Menu                               | 0.10           | 0.11       | 1.05           |

### Transaction Mix, in percent of total transaction

|              |        |
|--------------|--------|
| New-Order    | 44.76% |
| Payment      | 43.09% |
| Order-Status | 4.05%  |
| Delivery     | 4.05%  |
| Stock-Level  | 4.05%  |

### 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              | 18.00/0.00  | 18.02/15.98    | 18.04/160.01 |
| Payment                | 3.00/0.00   | 3.02/15.99     | 3.04/160.01  |
| Order-Status           | 2.00/0.00   | 2.02/14.01     | 2.04/140.00  |
| Delivery (interactive) | 2.00/0.00   | 2.02/9.02      | 2.03/90.01   |
| Stock-Level            | 2.00/0.00   | 2.02/9.00      | 2.03/90.00   |

### Test Duration

|  |            |
|--|------------|
| Ramp-up time   | 85 minutes |
| Measurement interval   | 20 minutes |
| Transactions (all types) completed during measurement interval | 7,075,786  |
| Ramp down time   | 18 minutes |

### Checkpointing

|                       |            |
|-----------------------|------------|
| Number of checkpoints | 1          |
| Checkpoint interval   | 20 minutes |