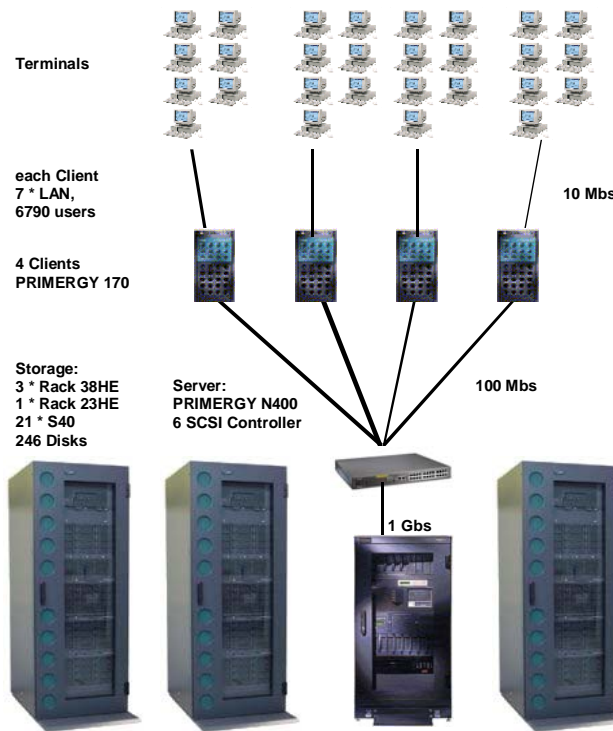


PRIMERGY N400

C/S with 4 PRIMERGY 170

Report Date: September 5, 2000

| | | | |
|--|---|---|--|
| Total System Cost | TPC-C Throughput | Price/Performance | Availability Date |
| € 608,226 | 34,150.87 tpmC | €17.81/tpmC | November 1, 2000 |
| Processors | Database Manager | Operating-System | Other Software |
| 4 Intel Pentium® III Xeon 700 MHz | Microsoft SQL Server 2000 Enterprise Edition | Microsoft Windows 2000 Advanced Server | Windows 2000 Server, IIS 5.0 and COM+ |
| Number of Users | | | |
| 27,160 | | | |



| System Components | Qty/Srv. 1 PRIMERGY N400 | Qty/Client 4 PRIMERGY 170 |
|----------------------------|---|--|
| Processors | 4 Intel Pentium® III Xeon 700 MHz with 2 MB SLC | 1 Intel Pentium® III 750 MHz with 256 KB SLC |
| Memory | 8 GB | 256 MB |
| Disk Controller | 6 Mylex eXtremeRAID 2000 | 1 SCSI Controller |
| Disk Drives | 145 9 GB | 1 9 GB |
| | 96 18 GB | |
| | 6 36 GB | |
| Total GB of Storage | 1 2,789 GB | 1 9 GB |

| Description | Part Number | Third Party | Unit Price | Qty. | Extended Price | 5yr Maint. Price |
|---|--------------------|---------------|-------------|----------|---------------------|-------------------------|
| | | Brand Pricing | | | | |
| PRIMERGY N400 GE Rack 700MHz 2MB | SNP:SY-K596V202-P | 1 | 10.530 Euro | 1 | 10.530 Euro | |
| Pentium III Xeon Processor 700MHZ/2MB | SNP:SY-F2327E702-P | 1 | 6.615 Euro | 3 | 19.845 Euro | |
| Memory 2 GB SDRAM 100MHZ (4 Mod.) | SNP:SY-F2174E545-P | 1 | 7.680 Euro | 4 | 30.720 Euro | |
| Gigabit Ethernet PCI 32/64 | D:RM6T5-CL18 | 1 | 3.107 Euro | 1 | 3.107 Euro | |
| Tape Drv SLR50 , 25GB | SNP:SY-F1835E2-A | 1 | 1.575 Euro | 1 | 1.575 Euro | |
| 9GB/10K LVD-SCSI, Hot Plug | SNP:SY-F1899E109-P | 1 | 480 Euro | 1 | 480 Euro | |
| 23 HE Rack | SNP:SY-K476V201-P | 1 | 1.800 Euro | 1 | 1.800 Euro | |
| Primergy S40 ES 1 channel | SNP:SY-K538V501-P | 1 | 2.655 Euro | 1 | 2.655 Euro | |
| S40 3 channels kit | SNP:SY-F2015E3-P | 1 | 414 Euro | 1 | 414 Euro | |
| 36GB/10K, Hot Plug | SNP:SY-F1899E136-P | 1 | 1.643 Euro | 6 | 9.858 Euro | |
| RAID-Ctrl, PCI, 4-Ch, BBU | SNP:SY-F2190-E128 | 1 | 3.150 Euro | 6 | 18.900 Euro | |
| APC USV 3000VA | SNP:PS-E399L1-P | 1 | 1.598 Euro | 1 | 1.598 Euro | |
| CD-ROM ATAPI 1/2" | SNP:SY-2313E1-P | 1 | 135 Euro | 1 | 135 Euro | |
| Power Supply Module 500W (add) | SNP:PS-F596E1-P | 1 | 405 Euro | 1 | 405 Euro | |
| Tastatur KBPC B Light Basic (D) | S26381-K271-V320 | 1 | 29 Euro | 1 | 29 Euro | |
| Country Pack | SNP:SY-F1699B831-P | 1 | 40 Euro | 1 | 40 Euro | |
| Monitor 154V | S26361-K605-V150 | 1 | 240 Euro | 1 | 240 Euro | |
| Server Hardware Subtotal | | | | | 102.331 Euro | 20.604 Euro |
| Data Center Rack 38 HE | SNP:SY-K614V102-P | 1 | 1.755 Euro | 3 | 5.265 Euro | 5.675 Euro |
| 18GB/10K, Hot Plug (+10% spares) | SNP:SY-F1899E118-P | 1 | 840 Euro | 106 | 89.040 Euro | |
| 9GB/10K, Hot Plug (+10% spares) | SNP:SY-F1899E109-P | 1 | 480 Euro | 159 | 76.320 Euro | |
| Primergy S40 ES 1 channel (+ 10% spares) | SNP:SY-K538V501-P | 1 | 2.655 Euro | 22 | 58.410 Euro | |
| SCSI Cable UHD-HD 5m (+10% spares) | SNP:SY-F1947L50-A | 1 | 135 Euro | 22 | 2.970 Euro | |
| Storage Subtotal | | | | | 232.005 Euro | |
| PRIMERGY 170 GE F, PIII 750, SCSI | SNP:SY-K549V146-A | 1 | 1.463 Euro | 4 | 5.852 Euro | 5.400 Euro |
| Keyboard KBPC | S26381-K271-V320 | 1 | 29 Euro | 4 | 116 Euro | |
| Country Pack | SNP:SY-F1699B401-A | 1 | 40 Euro | 4 | 160 Euro | |
| Memory 128 MB SDRAM ECC | S26361-F1840E515 | 1 | 428 Euro | 8 | 3.424 Euro | |
| HD 9GB, U2W | SNP:SY-F2069E9-A | 1 | 428 Euro | 4 | 1.712 Euro | |
| Fast Ethernet 2x 10/100 Duralink64 PCI | SNP:SY-F2217E1-P | 1 | 405 Euro | 16 | 6.480 Euro | |
| Monitor 154V | S26361-K605-V150 | 1 | 240 Euro | 4 | 960 Euro | 440 Euro |
| Client Hardware Subtotal | | | | | 18.704 Euro | |
| Microsoft Windows 2000 Adv. Server, 25 CAI | C10-00164 | 1 | 2.737 Euro | 1 | 2.737 Euro | |
| MS SQL-Server 2000 Ent.Edit. Per Proc Lic. | 810-00845 | 1 | 19.718 Euro | 4 | 78.872 Euro | |
| Server Software Subtotal | | | | | 81.609 Euro | 17.260 Euro |
| Microsoft Windows 2000 Server, incl. 25 CAL | C11-00313 | 1 | 843 Euro | 4 | 3.372 Euro | |
| Microsoft Visual C++ Professional 6.0 | 048-00426 | 1 | 482 Euro | 1 | 482 Euro | |
| Client Software Subtotal | | | | | 3.854 Euro | Incl. Above(svr) |
| 8xTP, 1x Coax 10Mbit Hub | Artk-Nr 354 | K&M | 2 | 31 Euro | 3758 | 116.498 Euro |
| 8x10/0100Mbit Switch | DES-3226G | D-Link | 3 | 876 Euro | 3 | 2.628 Euro |
| Gigabit Uplink (+10% spare) | DES-3251G | D-Link | 3 | 406 Euro | 3 | 1.218 Euro |
| User Connectivity Subtotal | | | | | 120.344 Euro | |
| Total | | | | | 558.847 Euro | 49.379 Euro |

Five-Year Cost of Ownership 608.226 Euro
 tpmC Rating 34.150,87
 Euro / tpmC 17,81 Euro

1=Fujitsu-Siemens, 2=K&M Elektronik, 3=D-Link

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 section 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.

Five-Year Cost of Ownership: €608,226
 tpmC Rating: 34,150.87
 € / tpmC: 17.81

Note: The benchmark results and test methodology were audited by Bradley J. Askins of InfoSizing

Numerical Quantities Summary

| | | | |
|---|------------------------|----------------------|----------------|
| MQTh, computed Maximum Qualified Throughput | | 34,150.87 tpmC | |
| % throughput difference, reported & reproducibility runs 0.16 % | | | |
| Response Times (in seconds) | 90th percentile | Average | Maximum |
| - New-Order | 0.40 | 0.28 | 6.86 |
| - Payment | 0.31 | 0.20 | 2.00 |
| - Order-Status | 0.34 | 0.22 | 8.82 |
| - Delivery (interactive portion) | 0.12 | 0.11 | 0.79 |
| - Delivery (deferred portion) | 0.35 | 0.20 | 0.86 |
| - Stock-Level | 1.48 | 1.02 | 2.81 |
| - Menu | 0.12 | 0.11 | 0.90 |
| Transaction Mix, in percent of total transactions | | | |
| - New-Order | | | 44.83 % |
| - Payment | | | 43.00 % |
| - Order-Status | | | 4.06 % |
| - Delivery | | | 4.05 % |
| - Stock-Level | | | 4.06 % |
| Emulation Delay (in seconds) | | Response Time | Menu |
| - New-Order | | 0.1 | 0.1 |
| - Payment | | 0.1 | 0.1 |
| - Order-Status | | 0.1 | 0.1 |
| - Delivery (interactive) | | 0.1 | 0.1 |
| - Stock-Level | | 0.1 | 0.1 |
| Keying/Think Times (in seconds) | Minimum | Average | Maximum |
| - New-Order | 18.00/0.00 | 18.01/12.05 | 18.04/120.50 |
| - Payment | 3.00/0.00 | 3.01/12.04 | 3.04/120.50 |
| - Order-Status | 2.00/0.00 | 2.01/10.01 | 2.03/100.50 |
| - Delivery (interactive) | 2.00/0.00 | 2.01/ 5.09 | 2.03/ 50.49 |
| - Stock-Level | 2.00/0.00 | 2.01/ 5.04 | 2.03/ 50.50 |
| Test Duration and Checkpointing | | | |
| - Ramp-up time | | 27 minutes | |
| - Measurement interval | | 30 minutes | |
| - Number of checkpoints | | 1 | |
| - Checkpoint interval | | 30 minutes | |
| - Transactions during measurement interval (all types) | | 2,378,050 | |