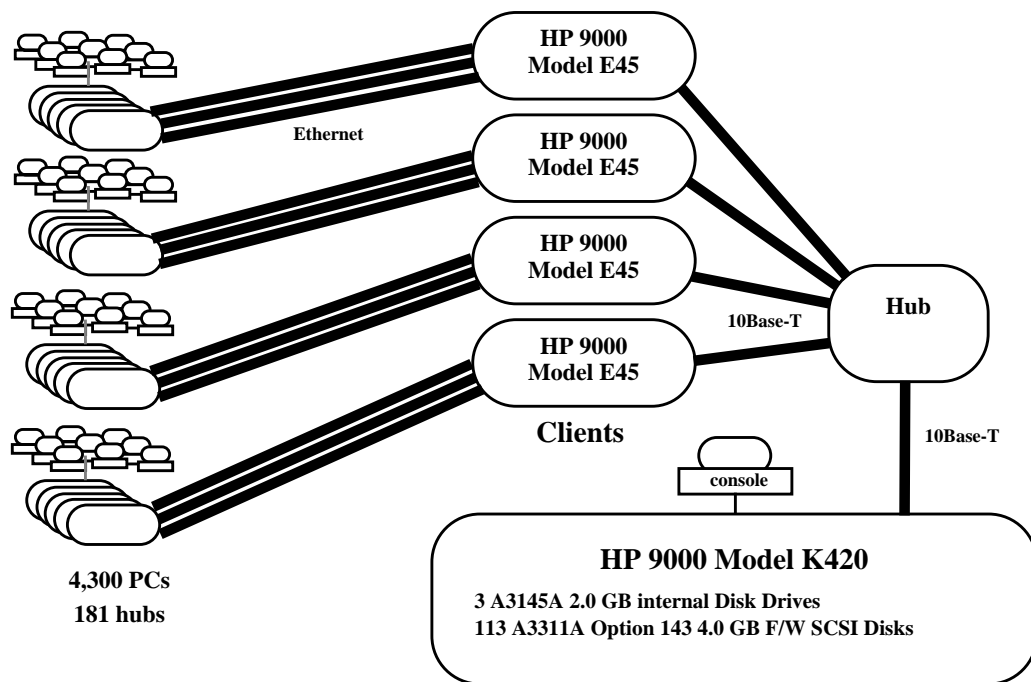


| | | | |
|---|--|------------------|---|
| Hewlett-Packard Co. & Oracle Corp. | HP 9000 Model K420 C/S with four Model E45 front-ends | | TPC-C Rev 3.0 |
| | | | Report Date: February 5, 1996 |
| Total System Cost | TPC-C Throughput | | Price/Performance |
| \$1,144,200 | 4,939.11 tpmC | | \$232 per tpmC |
| Processors | Database Manager | Operating System | Other Software |
| 4 PA-RISC 7200 120 MHz | Oracle7 v. 7.3 | HP-UX 10.01 | Tuxedo ETP /T Transaction Monitor version 4.1 |
| | | | Availability Date |
| | | | May 30, 1996 |
| | | | Number of Users |
| | | | 4,300 |



| <i>System Components</i> | <i>Server (K420)</i> | | <i>Each Client (E45) of 4</i> | |
|--------------------------|----------------------|------------------------------------|-------------------------------|---------------------------|
| | <i>Qty</i> | <i>Type</i> | <i>Qty</i> | <i>Type</i> |
| Processors | 4 | 120 MHz PA-RISC 7200 | 1 | 80 MHz PA-RISC 7100LC |
| Cache memory | each | 1,024 KB I-cache, 1,024 KB D-cache | each | 256 KB combined I/D-cache |
| Memory (MB) | 2,048 | MB | 256 | MB |
| Disk Controllers | 5 | HP-HSC FWD SCSI-2 | 1 | HP-PB SE SCSI-2 |
| | 3 | HP-PB FWD SCSI-2 | | |
| Disk Drives | 3 | 2.0 GB Internal Disks | 1 | 2.0 GB SE SCSI-2 Disk |
| | 113 | 4.0 GB Disks | | |
| Total Storage (GB) | 458 | GB | 2 | GB |
| Terminals | 1 | Console terminal | 1 | Console terminal |

Hardware and Software Pricing

| Description | Part Number | Unit Price | Quantity | Extended Price | 5-year Service |
|--|---------------------|------------|----------|----------------|----------------|
| Hewlett Packard 9000 Model K420 | A3454A | \$71,150 | 1 | \$71,150 | \$27,840 |
| Additional Processors | A3452A | 19,000 | 3 | 57,000 | 4,032 |
| Hardware & Software Support, Year 1 | Option 0S3 | | | | 5,100 |
| HP-UX System Media on CD-ROM, Mat'ls | B3920AA, Option AAF | 520 | 1 | 520 | |
| Add 128 MB ECC Memory Board | A3027A, Option 0D1 | 9,600 | 15 | 144,000 | |
| 2.0 GB DAT Storage System (internal) | C2478SZ, Option 0DZ | 1,750 | 1 | 1,750 | 1,344 |
| 700/96 Console | C1064GX | 539 | 1 | 539 | 336 |
| Memory Carrier | A2992A, Option 0D1 | 5,950 | 1 | 5,950 | |
| 4 HP-HSC slots | A2990A, Option 0D1 | 8,000 | 1 | 8,000 | |
| LAN/9000 Link | J2146A | 1,150 | 1 | 1,150 | |
| 2GB half-height FWD (internal) | A3145A | 1,870 | 3 | 5,610 | 4,032 |
| HP-HSC Fast/Wide Differential SCSI Int. | A2969A, Option 0D1 | 1,295 | 5 | 6,475 | |
| Fast/Wide Differential SCSI Int. | 28696A | 1,295 | 3 | 3,885 | |
| I/O Expansion slot upgrade for 4 HP-PB slots | A3185A Option 0DZ | 4,000 | 1 | 4,000 | |
| Mini-Tower Enclosure | A3311A | 1,000 | 29 | 29,000 | 13,920 |
| Support, Year 1 | Option 0S3 | | | | 3,480 |
| 4 GB Fast/Wide SCSI Disk, 12 spares | Option 143 | 2,400 | 125 | 300,000 | 84,000 |
| Fast/Wide SCSI Interface Cable | C2924A | 140 | 30 | 4,200 | |
| TOTAL SERVER COST | | | | \$643,229 | \$144,084 |
| Hewlett Packard 9000 Model E45 Client | A3061A | \$8,000 | 4 | \$32,000 | \$4,992 |
| Hardware & Software Support, Year 1 | Option 0S3 | | | | 2,304 |
| 650 MB CD-ROM | A3184A | 655 | 4 | 2,620 | 2,112 |
| Console | C1064GX | 539 | 4 | 2,156 | 1,344 |
| 2 GB internal disk | A3304A | 1,500 | 4 | 6,000 | 5,376 |
| HP C/ANSI C Compiler | B2412A, Option AH0 | 1,575 | 1 | 1,575 | 1,920 |
| Support, Year 1 | Option 0S3 | | | | 225 |
| HP-PB slot upgrade | A2943A option 0DZ | 2,000 | 4 | 8,000 | |
| LAN/9000 Interface Card | J2146A Option 0DM | 1,150 | 12 | 13,800 | |
| 128 MB Memory Module | A3131A, Option 0DZ | 8,960 | 8 | 71,680 | |
| TOTAL CLIENT COST | | | | \$137,831 | \$18,273 |
| HP HW/SW/Support Subtotal | | | | \$781,060 | \$162,357 |
| 9% volume Disc. 20% Support Prepay Disc. | | | | (70,295) | (32,471) |
| TOTAL HP HW/SOFTWARE/SUPPORT | | | | \$710,765 | \$129,886 |
| HTI Ultra Slimline 24 Port Hub, 19 spares | DEH1477 | 280 | 200 | 56,000 | |
| Oracle RDBMS | | 108,361 | 1 | 108,361 | 86,689 |
| iTi Tuxedo 4.1 | | 7,500 | 4 | 30,000 | 22,500 |
| TOTAL THIRD-PARTY COST | | | | \$194,361 | \$109,189 |
| TOTAL HW/SOFTWARE/SUPPORT | | | | \$905,126 | \$239,075 |
| Five (5) Year Cost of Ownership | \$1,144,200 | | | | |
| tpmC | 4939.11 | | | | |
| \$/tpmC | \$232 | | | | |

Notes:

audited by Tom Sawyer and Richard Gimarc, of Performance Metrics, Incorporated