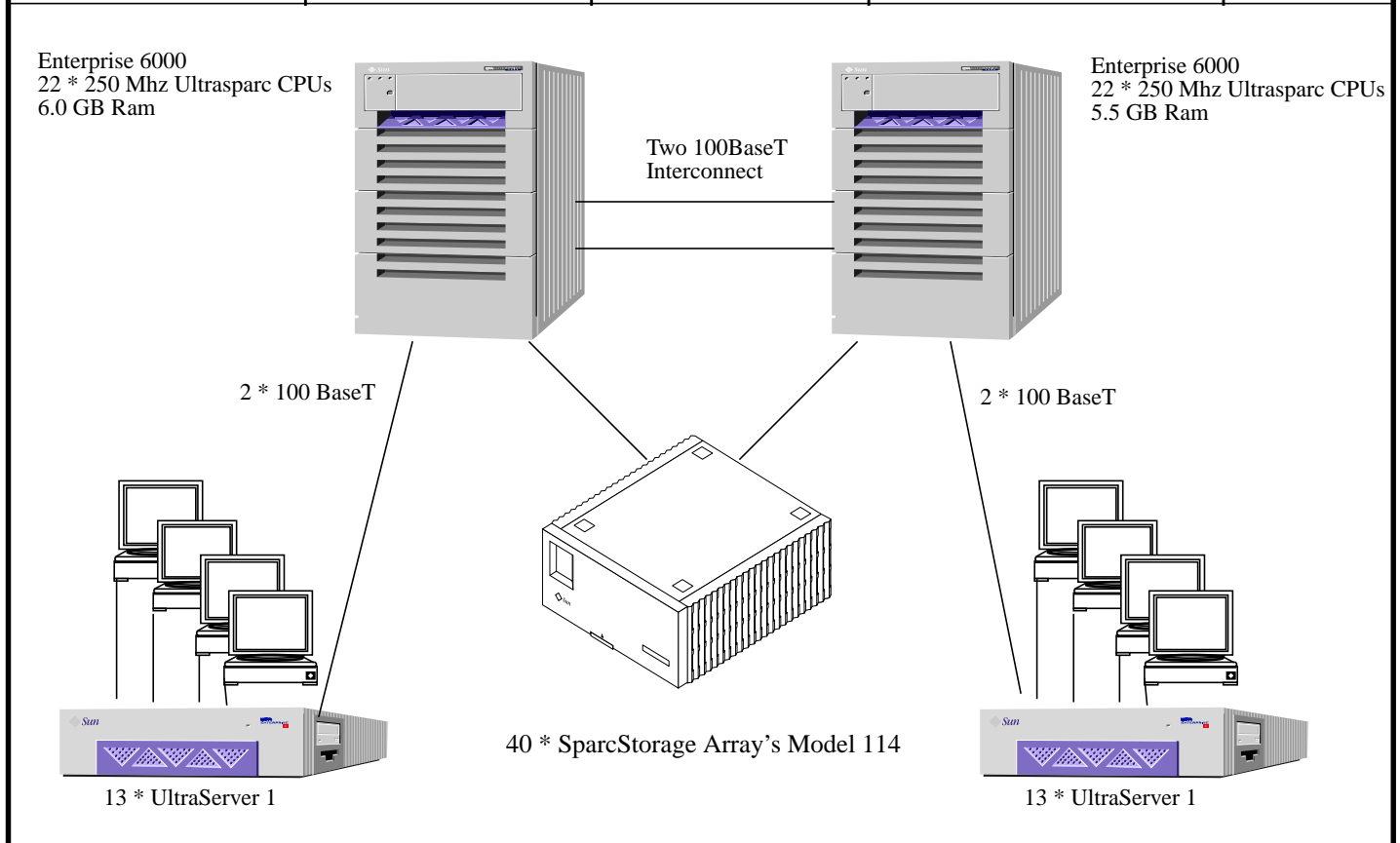


<b>Sun Microsystems</b>	<b>Sun Enterprise 6000 Cluster</b>		TPC-C Rev 3.3.2
<b>Oracle Corp.</b>	<b>C/S w/26 Front-Ends</b>		Report Date: October 3,1997
Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
<b>\$6,974,524</b>	<b>51871.62 tpmC</b>	<b>\$ 134.46per tpmC</b>	<b>February 23,1998</b>

<b>Processors</b>	<b>Database Manager</b>	<b>Operating System</b>	<b>Other Software</b>	<b>Number of Users</b>
<b>2*22 * 250 MHz UltraSPARC</b>	<b>Oracle8 Enterprise Edition 8.0.3</b>	<b>Solaris 2.6</b>	<b>BEA Tuxedo 4.2</b>	<b>44000</b>



<b>System Components</b>	<b>Server System</b>	<b>Front End Systems</b>
<b>Database Nodes:</b>	<b>2 Ultra Enterprise 6000</b>	<b>26 * UltraServer 1 Model 170</b>
<b>Processors</b>	<b>22 * 250 MHz UltraSPARC (per node)</b>	<b>1 * 167 MHz UltraSPARC each</b>
<b>Cache memory</b>	<b>32KB (D+I), 4MB external</b>	<b>32KB (D+I), 512KB external, each</b>
<b>Main memory</b>	<b>5.5 GB (node1), 6GB (node2)</b>	<b>512 MB each</b>
<b>Disk controllers</b>	<b>40 * FC25/S</b>	<b>1 * SCSI-2 each</b>
<b>Disk Drives</b>	<b>1188 * 4.2 GB SCSI</b>	<b>2.1GB SCSI-2 each</b>
<b>Total Disk Storage</b>	<b>4989.6 GB</b>	<b>2.1 GB each</b>
<b>Terminals</b>	<b>1 Console</b>	<b>1 Console each</b>
<b>10 BaseT Hubs</b>	<b>None</b>	<b>6064 x 8-Port Hubs</b>
<b>100 Base T Hubs</b>	<b>4 x 8-Port Hubs</b>	<b>None</b>

Description	Part Number	3rd Party Brand	Qty	Unit Price	Extended Price	Maintenance per Mo/Yr	5 Yr. Total Maintenance	
<b>Server Hardware</b>								
Enterprise Server 6000	E6002		1	2	131,250	262,500	2,448	275,400
CPU/Memory Board	2601A		1	22	6,750	148,500	153	189,552
SBUS I/O Board	2610A		1	10	4,875	48,750		
UltraSPARC 250Mhz 4MB cache	2550A		1	44	14,250	627,000		
Power Cooling Module	954A		1	12	1,350	16,200		
256MB for Ex000 (8* 32MB)	7022A		1	46	3,563	163,875		
Enterprise Expansion Cabinet	956A		1	10	6,000	60,000	163	88,080
Fibre Channel SBus Card	1057A		1	30	1,200	36,000		
Fibre Channel Module	595A		1	80	450	36,000		
Power Cord	3800A		1	10	0	0		
SSA Rackmount Acc. kit	959A		1	10	0	0		
SSA114 with 18 x 4.2GB Drives	6517AR5		1	1	31,125	31,125		
SSA114 with 30 x 4.2GB Drives	6519AR5		1	39	44,175	1,722,825		
15m FiberOptic Cable	X978A		1	40	131	5,250		
0.25" 2.5GB Tape	6104A		1	2	675	1,350		
Null Ethernet Cable Terminal	X3837A		1	2	94	188		
Terminal Concentrator Kit	X1310A		1	1	1,875	1,875		
SS5, 170Mhz, 32MB, 2.1GB disk	S5F24-170-32-P17		1	1	3,896	3,896	90	4,320
<b>Ultra Enterprise 6000 Subtotal:</b>						<b>3,165,334</b>		<b>557,352</b>
<b>Client Hardware</b>								
UltraServer 1 Model 170	A11-UBA1-9S-64CE		1	26	5,621	146,153	86	120,744
Ultra 1 - 167MHz, 64MB, 2.1GB,CD								
SBus Fast Ethernet	1059A		1	52	596	30,992		
128 Mb Simm for UltraServer	X7003A		1	104	1,500	156,000		
Wyse35 Terminal	SX-WY35-G-G35		1	26	295	7,670		
<b>UltraServer 1 Subtotal:</b>						<b>340,815</b>		<b>120,744</b>
<b>User Connectivity</b>								
8 Port 100Mbps Hub (incl. 2 spares)	NX-H8TX	NETLUX	2	6	299	1,794		
(8+1)9 Port 10Mbps Ethernet Hub with 10% spares	NX-H9+	NETLUX	2	6064	50	303,200		
<b>Connectivity Subtotal:</b>						<b>304,994</b>		
<b>ALL HARDWARE SUBTOTALS:</b>						<b>3,811,143</b>		<b>678,096</b>
<b>Server Software</b>								
Solaris Server Software on CD-ROM	SOLS-C		1	100	100			
SPARC Compiler C/C++ 4.2	WCC-4.2-S		1	995	995	17	969	
Sun Cluster 2.0 Software	CLUS-2.0-E6000		2	24,000	48,000	306	36,720	
Sun Cluster 2.0 OPS Agent	CLUS-2.0-OPS2-L		2	4,000	8,000	34	4,039	
Oracle8 Enterprise Edition 8.0.3 including Parallel Server & Partitioning	A55123	Oracle	3		1,139,520		1,139,520	
<b>Server Software Subtotal:</b>					<b>1,196,615</b>		<b>1,181,248</b>	
<b>Client Software</b>								
Tuxedo 4.2 Runtime		Bea Sys	4	26	4,200	109,200	16,380	81,900
<b>ALL SOFTWARE SUBTOTALS:</b>					<b>1,305,815</b>		<b>1,263,148</b>	
<b>Discount</b>								
Sun 3 year Maintenance Contract Discount (Hardware)				12%				-52,393
Yearly prepayment Discount				5%				-31,285
<b>TOTAL HARDWARE &amp; SOFTWARE COST (5YR)</b>								<b>6,974,524</b>
<b>PRICE PER TPMC</b>								<b>134.46</b>

NOTES:

1=CAT Technology , 2=NETLUX, 3=Oracle Corporation, 4=BEA Systems

Sun hardware has 1-year warranty bundled.

During the warranty period, maintenance is discounted 50%.

for parts that require an upgrade to their standard warranty

Maintenance prices for Oracle and Tuxedo are yearly rates.

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 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.

Note: The benchmark results and test methodology were audited by Tom Sawyer of Performance Metrics Inc.