

Numerical Quantities Summary for the Enterprise 6500 Server

MQTH, Computed Maximum Qualified Throughput **53,049.97 tpmC**
% throughput difference, reported & reproducibility runs < 0.5%

Response Times (in secs)	90th Percentile	Average	Maximum
Menu	0.50	0.25	2.26
New-Order	1.40	0.86	103.75
Payment	1.40	0.93	105.99
Order-Status	1.60	1.12	83.87
Delivery(interactive)	0.26	0.29	7.32
Delivery(deferred)	3.00	1.01	13.00
Stock-level	3.00	1.05	14.53

Transaction Mix, in percent of total transactions

New-Order	44.86%
Payment	43.02%
Order-Status	4.03%
Delivery	4.04%
Stock-level	4.05%

Keying/Think Times (in secs)	Average.	Min.	Maximum
New-Order	18.02/12.20	18.0/0	18.56/122.00
Payment	3.02/12.20	3.0/0	3.10/122.00
Order-Status	2.02/10.26	2.0/0	2.08/102.50
Delivery	2.02/5.20	2.0/0	2.09/52.00
Stock-level	2.02/5.20	2.0/0	2.10/52.00

Test Duration

Ramp-up time	28 minutes
Measurement Interval	30 minutes
Number of checkpoints	1
Checkpoint Interval	30 minutes
Number of transactions (all types) completed in measurement interval	3547399

**Sun Microsystems,
Sybase, Inc.**

**Enterprise 6500 Server
C/S w/16 Front-Ends**

TPC-C

Report Date: 10/27/1998

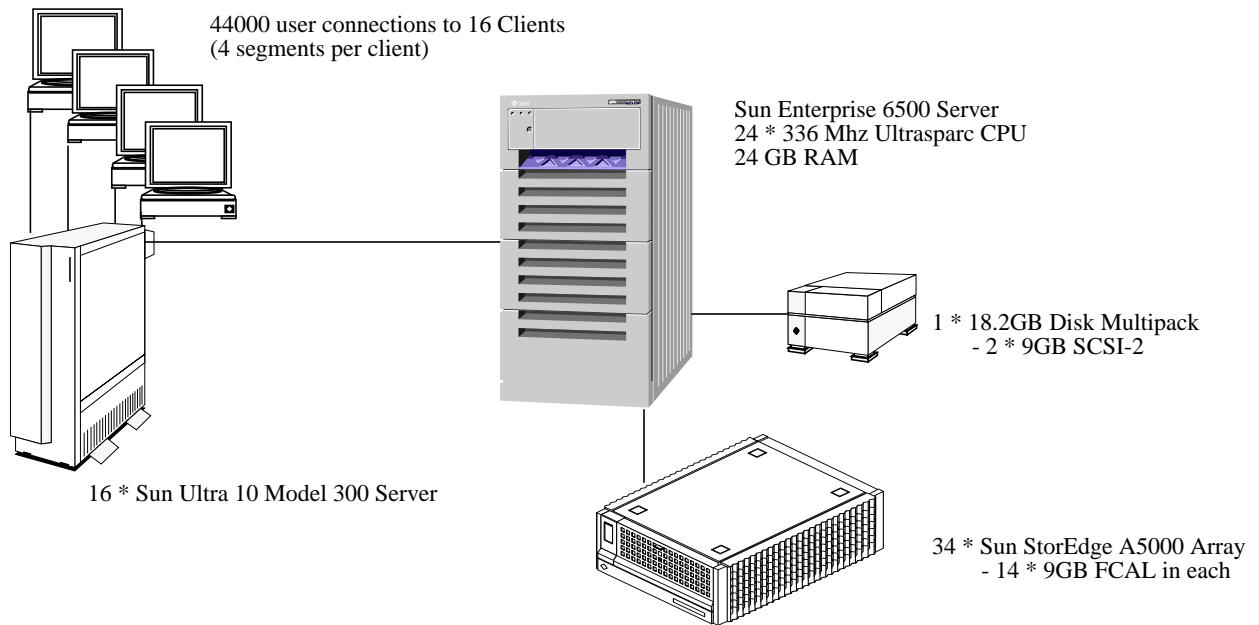
Description	Part Number	Source	Unit Price	Qty	DISC	EXT. PRICE	5 Yr. Maint.
Server Hardware							
Enterprise 6500 Server Base	E6500		2	112,500.00		112,500.00	132,480.00
CPU/Memory board	2602A		2	6,750.00		81,000.00	119,232.00
336MHz/4MB UltraSPARC II	2560A		2	12,000.00		288,000.00	
1GB memory (8 * 128MB)	7023A		2	9,375.00		225,000.00	
PS/300W for Ex000	954A		2	1,350.00		8,100.00	
SBus I/O board	2612A		2	4,875.00		19,500.00	
FCAL 100MB/S SBus Host Adapter	6730A		2	2,025.00		2,025.00	
FCAL GBIC Module	6731A		2	450.00		3,600.00	
127GB StorEdge A5000 Array	SG-ARY511A-127G		2	47,250.00		1,606,500.00	525,504.00
18.2GB Disk MultiPack	SG-XDSK020A-18G		2	2,657.20		2,657.20	
Wyse55 Terminal	WYSE-WY55-G		1	429.00		429.00	
12-24GB 4mm DDS-3 Tape Drive	6283A		2	1,132.50		1,132.50	
<i>Subtotal</i>						2,350,443.70	777,216.00
SunService Discount (10% Volume + 5% yearly prepayment)							(116,582.40)
<i>Server Hardware Subtotal</i>						2,350,443.70	660,633.60
Server Software							
Solaris Server Software	SOLS-C		1	100.00		100.00	
SPARC Compiler C/C++ 5.0	WCC-5.0-P		1	995.00		995.00	1,020.00
Sybase Adaptive Server Enterprise 11.9.3			3	295,000.00		295,000.00	236,000.00
Sybase Development			3	9,600.00		9,600.00	7,680.00
Sybase Open Client			3	795.00		795.00	636.00
Sybase discount					10%	(30,539.50)	
<i>Subtotal</i>						275,950.50	245,336.00
SunService Discount (10% Volume + 5% yearly prepayment)							(153.00)
<i>Server Software Subtotal</i>						275,950.50	245,183.00
Client Hardware							
Ultra 10 Model 300	A22UEA1A9J-A64CG		2	3,817.45		61,079.20	67,123.20
512MB Memory for Ultra 10	X7033A		2	2,634.45		84,302.40	
Quad FastEthernet Controler	1049A		2	1,496.25		23,940.00	
Wyse55 Terminal	WYSE-WY55-G		1	429.00		6,864.00	
<i>Subtotal</i>						176,185.60	67,123.20
SunService Discount (10% Volume + 5% yearly prepayment)							(10,068.48)
<i>Client Hardware Subtotal</i>						176,185.60	57,054.72
Client Software							
BEA Tuxedo CFS 6.3			4	3,000.00		48,000.00	36,000.00
<i>Client Software Subtotal</i>						48,000.00	36,000.00
User Connectivity							
8-port 10/100Mbps Fast Ethernet Hub	NX-SOHODH8		5	160.00	5	800.00	
8-port 10Mbps Ethernet Hub	NX-H8EZ		5	30.00	6055	181,650.00	
<i>User Connectivity Subtotal</i>						182,450.00	0.00
Total						3,033,029.80	998,871.32
Service for all Sun products is from Sun Microsystems, Inc.						5Yr. cost	4,031,901.12
Service for Sybase products is from Sybase Inc.						tpmC Rating	53,049.97
Service for Tuxedo is from BEA Systems, Inc.						\$/tpmC	\$76.00

Notes:

1. Sun Microsystems Inc.
2. CAT Technology Inc
3. Sybase Inc.
4. BEA Systems, Inc.
5. NETLUX

Note: Audited by Tom Sawyer of Performance Metrics, Inc.

Sun Microsystems,		Enterprise 6500 Server		TPC-C Rev 3.4
Sybase, Inc.		C/S w/16 Front-Ends		Report Date: 10/27/1998
Total System Cost		TPC-C Throughput	Price/Performance	Availability Date
\$4,031,901.12		53,049.97 tpmC	\$76.00 per tpmC	Jan 31, 1999
Processors	Database Manager	Operating System	Other Software	Number of Users
24 * 336 MHz UltraSPARC II	Sybase Adaptive Server Enterprise 11.9.3	Solaris 7	BEA Tuxedo CFS V6.3	44000



System Components	Server System	Front End Systems
Database Nodes:	1 Sun Enterprise 6500 Server	16 * Ultra 10 Model 300
Processors	24 * 336 MHz UltraSPARC II	1 * 300 MHz UltraSPARC III each
Cache memory	32KB (D+I), 4MB external	32KB (D+I), 512KB external, each
Main memory	24 GB	1 GB each
Disk controllers	9 * FCAL GBIC module	1 * SCSI-2 each
Disk Drives	476 * 9GB FCAL 2 * 9GB SCSI-2	1 * 4.2GB SCSI-2 each
Total Disk Storage	4302GB	4.2 GB each
Terminals	1 Console	1 Console each
10 BaseT Hubs	None	5504 x 8-Port Hubs
100 BaseT Hubs	3 x 8-Port Hub	