Silicon Graphics, Inc. Sybase, Inc.	Silicon Graphics Origin2000™ with 2 Origin200™ clients	TPC-C® 3.3
		REPORT DATE: **April 23, 1998**

TOTAL SYSTEM COST	TPC-C THROUGHPUT	PRICE/PERFORMANCE	AVAILABILITY DATE
$736,822	**6040.33 tpmC®**	**$121.98/tpmC®**	**July 31, 1998**

PROCESSORS	DATABASE MANAGER	OPERATING SYSTEM	OTHER SOFTWARE	NUMBER OF USERS
2 MIPS R10000 250 MHz	**Sybase Adaptive Server Enterprise 11.5.1**	**IRIX™ 6.5**	**BEA TUXEDO Transaction Monitor 6.3**	**5050**

Silicon Graphics Origin200

Silicon Graphics Origin200

Silicon Graphics Origin2000 Deskside

2 250 MHz R10000 2 GB Memory

Silicon Graphics Fibre Channel Vault

80 9.1GB disks

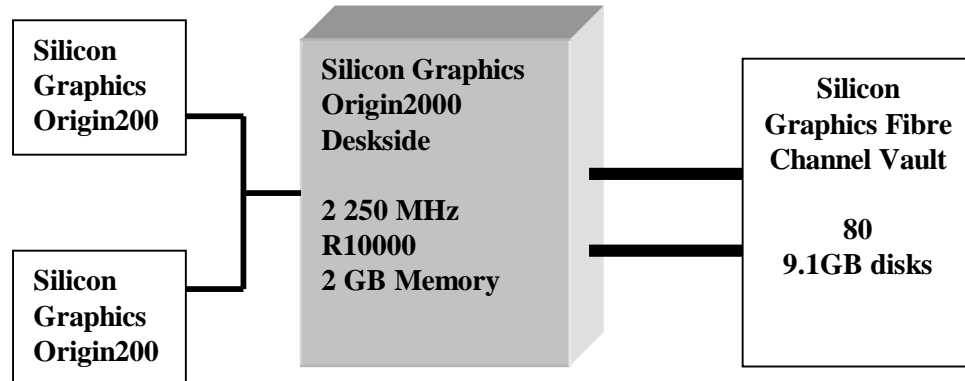| SYSTEM COMPONENTS	SERVER SYSTEM	EACH CLIENT
Processors	2 250 MHz MIPS R10000 each with 32 KB I Cache, 32 KB D Cache and 4 MB Unified Secondary Cache	2 180 MHz MIPS R10000 32 KB I Cache 32 KB D Cache and 1 MB Unified Secondary Cache
Memory	2 GB	2 GB
Disk Controllers	1 Integral SCSI Adapters 2 2 port Fibre Channel Adapters	1 Integral SCSI Adapter
Disk Drives	1 9.1 GB SCSI Internal Disk 80 9.1 GB Fibre Channel Disks	1 4.5 GB SCSI Internal Disk
Total GB of Storage	686.88 GB	4.24 GB

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Description	Part Number	Third Party		Unit Price	Qty	Extended Price	5 yr. Maint. Price
		Brand	Notes				
Origin2000 Server Hardware							
O2000 DS 2xR10000 250Mhz,4MB Cache,10/100BaseT port, CDROM	D1-H6502-4	SGI	2	$46,427	1	$46,427	$17,304
Internal Disk Drives - 9GB Capacity	FTO-9GB	SGI	2	$0	1	$0	$0
Origin2000 Destination Kit	DK-LD1-001	SGI	2	$0	2	$0	$0
First 512MB in One Bank	OPN-512-D1	SGI	2	$6,050	1	$6,050	$638
Additional 512MB in One Bank	H4-N512-D1	SGI	2	$6,050	3	$18,150	$1,920
2 Port Fibre Channel XIO Adapters for O2000	XT-FC-2P	SGI	2	$3,150	2	$6,300	$728
10-Meter Copper Fibre Channel Cables	X-F-COP-10M	SGI	2	$100	4	$400	$0
0.3-Meter Copper Fibre Channel Cables	X-F-COP-0.3M	SGI	2	$50	4	$200	$0
Empty Fibre Channel Rack	P-F-RACK	SGI	2	$5,900	1	$5,900	$634
Rackmount FibreVault w/10x9.1GB Fibre Channel Disk Drives	P-F-B10X9-R	SGI	2	$22,070	8	$176,560	$18,684
4-port 100 Mbps FAST Ethernet Hub (incl. 2 spares)	NX-DH4	Netlux	3	$85	3	$255	$0
100 BaseT ethernet cable for client connectivity	9360005-10ft	SGI	2	$35	3	$105	$0
					Subtotal	$260,347	$39,908
Origin2000 Server Software							
IRIX Operating System (incl. In hardware quote)	SC4-IRIX-6.5	SGI	2	$0	1	$0	$0
CD-ROM Update Media Required (support only)	MO5-CD	SGI	2	$0	1	$0	$1,042
Data Base Accel. (incl. With IRIX 6.5)	SC4-DBA-2.0	SGI	2	$0	1	$0	$0
Sybase Open Client		Sybase		$755	1	$755	$636
Sybase SQL Server 11.5.1		Sybase		$142,500	1	$142,500	$120,000
					Subtotal	$143,255	$121,678
Origin200 Client Hardware							
2x180mhz cpu O200, 128MB memory, 1x100BaseT	L1-S6302-1	SGI	2	$14,158	2	$28,316	$12,980
Internal Disk Drives - 4GB Capacity	FTO-4GB	SGI	2	$0	2	$0	$0
Skins for free standing tower configuration	FTO-S1-TMOD	SGI	2	$0	2	$0	$0
Origin200 Destination Kit	DK-SL1-001	SGI	2	$0	2	$0	$0
First 512MB Memory in One Bank	OPN-512-D1	SGI	2	$6,052	2	$12,104	$638
Additional 512MB Memory in One Bank	H4-N512-D1	SGI	2	$6,052	6	$36,312	$3,840
PCI 1-Port Fast Ethernet Adapter	PCI-FE-TX-MK	SGI	2	$825	6	$4,950	$441
					Subtotal	$81,682	$17,899
Origin200 Client Software							
IRIX Operating System (bundled w/ hardware)	SC4-IRIX-6.5	SGI	2	$0	2	$0	$0
CD-ROM Update Media Required (support only)	MO5-CD	SGI	2	$0	2	$0	$1,042
Development option (compiler and development environment)	SC4-C-7.2	SGI	2	$570	1	$570	$441
BEA Tuxedo/CFS Version 6.3 Runtime/Unlimited User	6051033-01	BEA	1	$12,000	2	$24,000	$18,000
					Subtotal	$24,570	$19,483
User Connectivity							
Netlux 10 Base-T 8+A33+1 Port Hub (incl. 10% spares)	NX-H9+	Netlux	3	$40	700	$28,000	$0
					Subtotal	$28,000	$0
					Total	**$537,854**	**$198,968**

Notes:				Five-Year Cost of Ownership:	**$736,822**
1=BEA Systems., 2=Access Graphics, 3=Netlux				tpmC Rating:	**6040.33**
Audited by Performance Metrics Inc.				$ / tpmC:	**$121.98**

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.

Silicon Graphics, Inc. Sybase, Inc.	Numerical Quantities Summary	TPC-C™ Rev 3.3 Report Date: April 23, 1998

MQTh, Computed Maximum Qualified Throughput: 6040.33 tpmC

Response Times (in seconds):

Transaction	90th %ile	Max	Avg.
New-Order	2.37	6.73	1.06
Payment	0.89	5.21	0.67
Order-Status	1.04	2.82	0.75
Delivery (interactive portion)	0.49	0.74	0.30
Delivery (deferred portion)	2.19	116.24	1.39
Stock-Level	9.00	16.23	4.00
Menu	0.42	1.35	0.33

Transaction Mix (% of Total Transactions):

New-Order	44.75
Payment	43.15
Order-Status	4.04
Delivery	4.02
Stock-Level	4.04

Keying/Think Times (seconds):

	Keying Time			Think Time		
	Min	Avg.	Max	Min.	Avg.	Max
New-Order	18.01	18.02	18.10	0.10	12.13	120.00
Payment	3.00	3.02	3.05	0.10	12.07	120.00
Order-Status	2.00	2.05	2.06	0.10	10.05	90.20
Delivery	2.00	2.05	2.05	0.10	5.05	43.00
Stock-Level	2.01	2.05	2.05	0.10	5.07	50.00

Test Duration:

Ramp-up time	50 minutes
Measurement interval	30 minutes
Transactions during measurement interval	404902
Ramp down time	3 minutes

Checkpoints:

Number of checkpoints in measurement interval	1
Checkpoint interval	30 minutes

Reproducibility:

Reported measurement (tpmC)	6040.33 tpmC
Reproducibility measurement (tpmC)	6018.17 tpmC
Reproducibility (%)	0.37 %