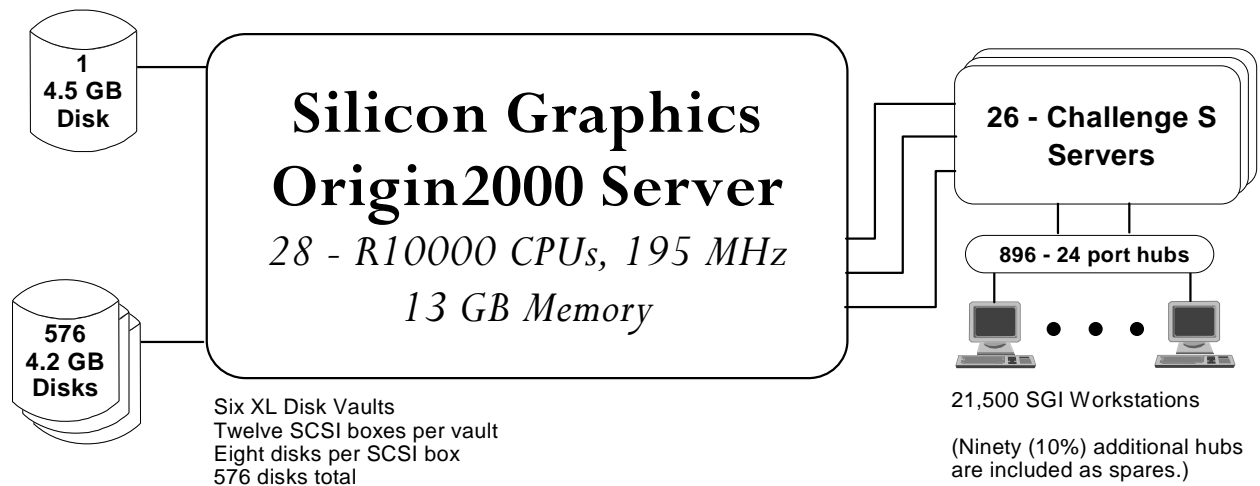


Silicon Graphics Informix Software	Silicon Graphics Origin2000 Server C/S Configuration - 26 Challenge S front-ends		TPC-C Rev 3.3
Total System Cost	TPC-C Throughput	Price/Performance	Report Date: 30 April 1997
\$3,519,011.50	25,309.20 tpmC	\$139.04 per tpmC	Availability Date 29 Oct 97
Processors	Database Manager	Operating System	Other Software
28 R10000 195 MHz	INFORMIX- OnLine Dynamic Server version 7.3.UC1	IRIX 6.4 S2MP	BEA Tuxedo 6.1 CFS
			Number of Users 21,500



System Components	Server		Client(s)	
	Quantity	Type	Quantity	Type
Processors	28	R10000 195 MHz	1	R4400 200 MHz per client
Cache Memory		32 KB Instruction/Data each 4 MB Secondary		16 KB Instruction/Data each 1 MB Secondary
Memory		13 GB		256 MB per client
Disk Adapters	18	SCSI Adapters	1	SCSI adapter per client
	72	SCSI bus		
Disk Drives	576	4.2 GB SCSI	1	2.0 GB per client
	1	4.5 GB SCSI		
Total Storage		2,423.7 GB		
Transfer Media	1	CD-ROM		
Terminals	1	System Console	1	System Console per client
			21,500	SGI Workstations total
Connectivity	1	4-port FastEthernet Adapter	986	24-port hubs (includes 10% spares)

Part Number	Description	Quantity	Unit Price	Extended Price	Five Year Maintenance
RI-H64002-4	Origin2000 Rack (2 CPUs) 64 MB memory, CD-ROM, IRIX for 2 CPUs	1	70,000.00	70,000.00	
HUI-RL6402-4	Origin2000 Expansion Rack (2 CPUs) 64 MB memory, IRIX for 2 CPUs	1	59,500.00	59,500.00	
HUI-ML6402-4	Origin2000 Insert Module (2 CPUs/module) 64 MB memory, IRIX for 2 CPUs	2	45,500.00	91,000.00	
HUI-H6402-4	Dual R10000 CPUs	10	39,900.00	399,000.00	
OPN-64U1GB-8	Base Memory - 1 GB	12	53,760.00	645,120.00	
H4-N128	Additional Memory - 128 MB	6	7,168.00	43,008.00	
OPN-64U128-1	Additional Memory - 128 MB	2	3,584.00	7,168.00	
CR-64U1GB-8	Standard memory program	12	(13,440.00)	(161,280.00)	
CR-N128	Standard memory program	6	(1,792.00)	(10,752.00)	
CR-64U128-1	Standard memory program	2	(896.00)	(1,792.00)	
XT-SCSI-4P	4-port Ultra SCSI XIO Card	18	2,100.00	37,800.00	
XT-FE-4TX-6A	XIO 4-port Fast Ethernet Adapter	1	4,200.00	4,200.00	
HU-IC-XP-32	Upgrade Xpress Links - 32 CPU config	1	7,000.00	7,000.00	
HU-IC-17TO32	Upgrade CrayLink cables for 17-32 CPUs	1	10,500.00	10,500.00	
DK-LR2-003	Rack system and expansion destination kit	1	0.00	0.00	
P-S-2TB	6 Full Vault XL (576 disks, 4.2 GB)	1	887,880.00	887,880.00	
FTO-4GB	4.5 GB SE Ultra SCSI system disk	1	0.00	0.00	
WY-55	Wyse 55 terminal (system console)	1	589.00	589.00	
FC-EW5	Full Care Extended Warranty - 5 years	1			245,294.00
Origin2000 Subtotal: (pricing from IDIRECT)				2,088,941.00	245,294.00
CH-S200-2G64N	Challenge S	26	11,130.00	289,380.00	
CR-CHS-SC4PC	Standard credit for Challenge S	26	(4,340.00)	(112,840.00)	
HU-M128S	128 MB memory upgrade	26	2,800.00	72,800.00	
HU-M64A	64 MB memory upgrade	26	1,400.00	36,400.00	
WY-55	Wyse 55 terminal (system console)	26	589.00	15,314.00	
FC-EW5	Full Care Extended Warranty - 5 years				4,497.50
Challenge S Subtotal: (pricing from IDIRECT)				301,054.00	4,497.50
Hardware Subtotal:				2,389,995.00	249,791.50
AL-HUB24L	Acculan 24 port HUB-Ultra	986	212.50	209,525.00	
SC4-IRIX64-6.4	IRIX 6.4 S2MP operating system	1	0	0.00	
	INFORMIX-OnLine Dynamic Server 7.3	1	310,000.00	310,000.00	223,200.00
	BEA Tuxedo 6.1 CFS	26	3,000	78,000.00	58,500.00
Software Subtotal:				388,000.00	281,700.00
Total Product and Maintenance Cost:				2,987,520.00	531,491.50
Total Five Year Configuration Cost:					\$ 3,519,011.50
tpmC					25,309.20
Price (U.S. dollars) per tpmC:					\$ 139.04

Notes: Audited by Richard Gimarc of Performance Metrics, Inc.

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.

Numerical Quantities Summary
Silicon Graphics Origin2000 Server
INFORMIX-OnLine Dynamic Server version 7.3 UC1

MQTh, Computed Maximum Qualified Throughput: 25,309.20

Transaction Mix
(% of Total Transactions)

New-Order	44.66%
Payment	43.17%
Order-Status	4.06%
Delivery	4.05%
Stock-Level	4.06%

Response Time (seconds)

Transaction	Average	90th Percentile	Maximum
New-Order	1.62	1.70	52.19
Payment	1.38	1.94	62.91
Order-Status	0.91	0.95	41.10
Delivery (interactive)	0.32	0.42	0.74
Delivery (deferred)	16.38	47.01	144.00
Stock-Level	1.57	3.06	44.55
Menu:			
New Order	0.34	0.41	20.09
Payment	0.34	0.41	5.84
Order Status	0.34	0.41	2.95
Delivery	0.34	0.41	0.72
Stock Level	0.34	0.41	2.28

Keying/Think Times (seconds)

	Minimum	Average	Maximum
New-Order	18.00 / 0.10	18.00 / 12.05	18.00 / 120.00
Payment	3.00 / 0.10	3.00 / 12.03	3.00 / 120.00
Order-Status	2.00 / 0.10	2.00 / 10.06	2.00 / 100.00
Delivery (interactive)	2.00 / 0.10	2.00 / 5.06	2.00 / 50.00
Stock-Level	2.00 / 0.10	2.00 / 5.05	2.00 / 50.00

Test Duration:	
Ramp-up time	19 minutes
Measurement interval (MI)	30 minutes
Transactions completed during MI	1,700,064
Ramp-down time	7 minutes
Checkpointing:	
Number of checkpoints	1
Checkpoint interval	30 minutes
Reproducibility:	
Reported measurement	25,309.20
Reproducibility measurement	25,211.50
Difference	0.39%