

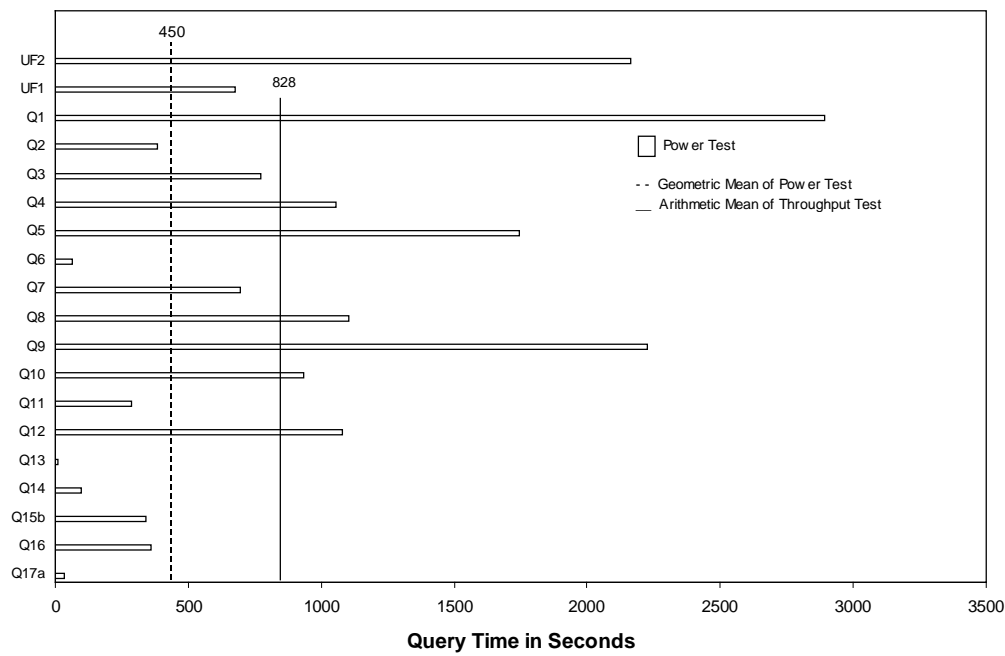


Executive Summary

 		Silicon Graphics Origin2000 running Oracle 8.0.3.2		TPC-D™ 1.2.3 REPORT DATE: January 31, 1998					
TOTAL SYSTEM COST		TPC-D POWER		TPC-D THROUGHPUT		PRICE/PERFORMANCE			
\$883,430		799.9 QppD@100GB		361.7 QthD@100GB		\$1,642 \$/QphD@100GB			
DATABASE SIZE		DATABASE MANAGER		OPERATING SYSTEM		OTHER SOFTWARE		AVAILABILITY DATE	
100GB		Oracle 8.0.3.2		IRIX 6.5		MIPSpro™ C Compiler, XFS™ Plexing		June 30, 1998	
 <p style="text-align: center;">Query Time in Seconds</p>									
Database Load Time: 16 Hours 29 Minutes 59 Seconds				DISK SIZE/DATABASE SIZE = 5.43			RAID: N		
The tested system was an Origin2000 with: <ul style="list-style-type: none"> • Eight 250 MHz MIPS R10000 64-bit CPUs, each with 4MB of L2 cache • 4GB of main memory • One Base IO card, which includes internal SE Ultra SCSI, external SE Ultra SCSI, 100Base-Tx ethernet port & two 460kbps serial ports. • Four 4.5 GB internal SCSI disk drives. • 6 2-port fibre channel adapters. • 62 9.1 GB fibre channel disk drives • Total GB of Storage = 542.72 									



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**SILICON
GRAPHICS
Origin2000**

TPC-D™ 1.2.3

**Report Date:
January 31, 1998**

Hardware and Software Pricing

Description	Part Number	Unit Price	Qty	Extended Price	5 yr. Maint. Price
Origin2000 Server Hardware					
Origin2000 Deskside,8xR10000 195Mhz,4MB Cache,10/100BaseT port,CDROM	D4-H6408-4	\$163,510	1	\$163,510	\$92,572
256 MB/Memory per Node Board	OPN-256-NC	\$0	4	\$0	\$1,018
250Mhz Node Board Upgrade	OPN-ESS-250	\$11,620	4	\$46,480	\$0
Standard Internal System Disk Drive - 9.0GB Capacity	FTO-9GB	\$0	1	\$0	\$0
Origin2000 Deskside Destination Kit (Power cords 220VAC/1PH, Manuals)	DK-LD1-003	\$0	1	\$0	\$0
Additional Internal Disk Drives - 4.5GB Capacity	P-S-4	\$996	4	\$3,984	\$1,068
Upgrade to Total 4GB of Memory (Fat Boy Bundle + 3GB)	OPNX4-HIUP4GB- D2X4	\$63,744	1	\$63,744	\$26,597
2 Port Fibre Channel XIO Adapters for O2000	XT-FC-2P	\$3,735	6	\$22,410	\$2,940
10-Meter Copper Fibre Channel Cables	X-F-COP-10M	\$125	8	\$1,000	\$0
			Subtotal	\$301,128	\$124,195
Origin2000 Server Software					
IRIX Operating System (bundled w/ hardware)	SC4-IRIX-6.5	\$0	1	\$0	\$0
CD-ROM Update Media Required (support only)	MO5-CD	\$0	1	\$0	\$1,164
Data Base Accel. (Oracle & Informix) including nsort	SC4-DBA-2.0	\$830	1	\$830	\$766
RTU for XFS Volume Plexing Including Mirroring	SR4-PLEX-2.0	\$3,316	1	\$3,316	\$3,279
MIPSpro C Compiler 7.2, Single User on <= 8CPU System.	SCN4-C-7.2-8	\$1,743	1	\$1,743	\$1,722
Oracle8 Sever - Enterprise Edition (v. 8.0.3) w/ Partitioning Option	Oracle8.0.3.2 IRIX	\$100,320	1	\$100,320	\$133,280
			Subtotal	\$106,209	\$140,211
Storage Devices					
Empty Fibre Channel Rack	P-F-RACK	\$6,225	1	\$6,225	\$848
Rackmount FibreVault w/10x9.1GB Fibre Channel Disk Drives	P-F-B10X9-R	\$27,390	6	\$164,340	\$22,261
Rackmount FibreVault w/ No Disks	P-F-BOX-R	\$4,150	2	\$8,300	\$1,407
9.1GB Fibre Channel Disks	P-F-9	\$2,490	2	\$4,980	\$970
4mm DAT 4GB/8GB Tape Drive	P-S-DDS2-IPC	\$2,075	1	\$2,075	\$281
			Subtotal	\$185,920	\$25,767
			Other Discounts	0	0
			Total	\$593,257	\$290,173
			Five-Year Cost of Ownership:		\$883,430
			Price/Performance @ 537.9 QphD		1,642

No Discounts on SGI Quotes.

Audited by: Lorna Livingtree, 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 items, please inform the TPC at pricing@tpc.org. Thank you.



Numerical Quantities

TPC-D™ Rev. 1.2.3

Report Date:
January 31, 1998

Measurement Results:

Database Scaling (SF/Size)	=	100
Total Data Storage/Database Size	=	5.43
Database Load Time	=	16 Hrs, 29 M, 59 S
Query Streams for Throughput Test (S)	=	0
TPC-D Power Metric (QppD@100GB)	=	799.9
TPC-D Throughput Metric (QthD@100GB)	=	361.7
Total System Price Over five years	=	\$883,430
TPC-D Power Throughput Metric (\$/QphD@100GB)	=	\$1,642

Measurement Intervals:

Measurement Interval in Throughput Test (Ts)	=	16,922 sec
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Duration of Stream Execution:

Stream ID	Seed	Start Date	Start Time	End Date	End Time	Total Time
Stream 00	357352446	1/24/98	21:07:45	1/25/98	01:49:47	4:42:02
UF1		1/24/98	21:07:45	1/24/98	21:19:03	0:11:18
UF2		1/25/98	01:13:45	1/25/98	01:49:47	0:36:02

TPC-D Timing Intervals (in seconds):

Q1	Q2a	Q3	Q4b	Q5	Q6	Q7	Q8b	Q9
2894.0	385.2	772.2	1054.8	1746.8	62.9	696.7	1102.9	2226.3

Q10	Q11	Q12b	Q13	Q14c	Q15b	Q16	Q17	UF1	UF2
935.5	284.9	1076.8	8.9	96.2	342.7	360.9	34.0	678.1	2161.8

