

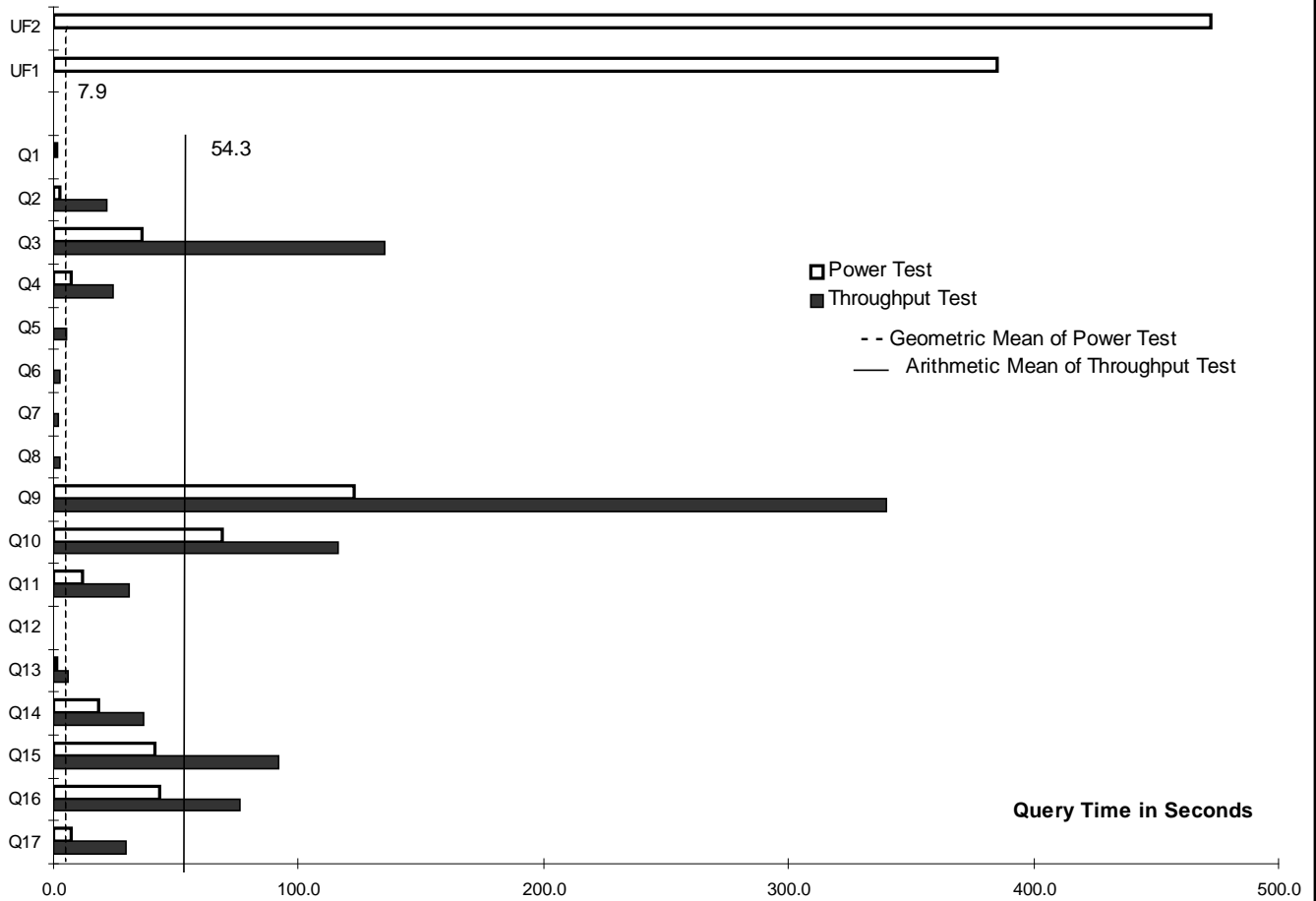


WorldMark 5200 Using Teradata V2R3.0

TPC-D Rev 1.3.1

**Report Date:
June 18, 1999**

Total System Cost	TPC-D Power	TPC-D Throughput	Price/Performance
\$4,845,846	45,691.9 QppD@100GB	5,087.3 QthD@100GB	\$318 per QphD@100GB
Database Size	Database Manager	Operating System	Other Software Availability Date
100GB	Teradata V2R3.0	UNIX SVR4 MP-RAS 03.02.00	None HW: 4-16-99 SW: 8-10-99



Database Load Time = 6 Hrs 39 Mins Total Data Storage / Database Size = 29.0 RAID = Y

8 WorldMark Nodes (4800/5200):

- 4 Intel Pentium II Xeon 450 MHz CPUs 1 MB Cache
- 2 GB Memory
- 2 Ultra SCSI Adapters
- 1 CD-ROM Unit, Floppy Drive & Tape Drive
- 1 Network card
- 3 9GB internal drives
- 2 Modularized Arrays, each with 20 x 9 GB drives

Total GB of Storage = 2902



WorldMark 5200 Teradata DBS V2R3.0

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PRODUCT ID	DESCRIPTION	QTY	UNIT PRICE	EXT PRICE	5 -YR MAINT
9100-5202-8090	WM 5200 System Cab w/BV2	1	\$371,250	\$371,250	\$153,600
9100-5200-8090	WM 5200 System Expansion Cabinet	3	\$371,250	\$1,113,750	\$427,680
9100-F118	Memory DIMM 1 GB	8	\$8,250	\$66,000	\$0
9100-F281	PQS - Shared Adapter Board w/Cable Assembly	16	\$2,096	\$33,540	\$0
3426-9004-8090	AWS Console/4 (6+ Nodes)	1	\$10,500	\$10,500	\$5,280
3498-2293-8090	21" Color Monitor [AWS]	1	\$1,388	\$1,388	\$2,011
3426-F147	Ethernet Adapter, Fast PCI	2	\$94	\$188	\$0
6000-K930	NSC Accessories Kit	4	\$0	\$0	\$0
9100-F936	Side Panels, Stabilizers, Manuals	1	\$1,125	\$1,125	\$0
Server Hardware				\$1,597,740	\$588,571
6000-9101-8090	NCR Storage Cabinet	6	\$26,520	\$159,120	\$0
6285-1220-8900	Modular Array (MA) 1220	16	\$13,313	\$213,000	\$110,592
6285-F101	MA Single Controller 32MB Cache	32	\$8,010	\$256,320	\$0
6285-F409	MA (4) 9GB 7200K RPM disk drive	80	\$4,275	\$342,000	\$0
6000-F900	Raid Manager for UNIX	6	\$0	\$0	\$0
9100-K931-	NSC Cables & Terminators Kit	6	\$923	\$5,535	\$0
Storage Devices				\$975,975	\$110,592
F601-7730-0000	EOE/MPP 8 nodes	1	\$18,750	\$18,750	\$46,616
F601-7811-0000	S40 AWS Operating Environment [AWS]	1	\$3,000	\$3,000	\$17,350
F784-5030-0000	Teradata CLI for MPP Node	1	\$3,000	\$3,000	\$3,484
F784-5031-0000	Teradata BTEQ for MPP Node	1	\$375	\$375	\$436
F784-5032-0000	Teradata FastLoad for MPP Node	1	\$3,000	\$3,000	\$6,062
F784-1425-0000	Teradata V2R3.0 4800/5200 first node	1	\$37,500	\$37,500	\$58,044
F784-1426-0000	Teradata V2R3.0 4800/5200 Nodes (2-4)	3	\$112,500	\$337,500	\$174,131
F784-1427-0000	Teradata V2R3.0 4800/5200 nodes 5+	4	\$146,250	\$585,000	\$278,721
Software Subtotal				\$988,125	\$584,843
TOTAL				\$3,561,840	\$1,284,006
FIVE YEAR COST OF OWNERSHIP					\$ 4,845,846

(1) Each cabinet contains 2 nodes (4 x 450 MHz CPU and 1 GB memory per node)

"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."

Audited by: Francois Raab
Information Paradigm



WorldMark 5200 Teradata DBS V2R3.0

TPC-D Rev. 1.3.1

Report Date:
June 18, 1999

Numerical Quantity Summary

Measurement Results:

Scale Factor	= 100
Total Data Storage / Database Size	= 29
Database Load Time	= 6 Hrs 39 Min
Query Streams for Throughput Test	= 3
Geometric Mean of Power Test	= 7.9
TPC-D Power Metric (QppD@100GB)	= 45,691.9
TPC-D Throughput Metric (QthD@100GB)	= 5,087.3
Composite QphD@100GB	= 15,246.2
Total System Price Over 5 Years	= \$4,845,846
TPC-D Price/Performance Metric	= \$318

Measurement Intervals:

Measurement Interval in Throughput Test (Ts) =3,609 seconds

Duration of stream execution:

Stream ID	Seed	Start-Date	Start-Time	End-Date	End-Time	Total Time
Stream00	982856712	2/2/99	19:30:08	2/2/99	19:50:30	1,222
Stream01	982856713	2/2/99	19:50:30	2/2/99	20:05:44	914
Stream02	982856714	2/2/99	19:50:30	2/2/99	20:06:16	946
Stream03	982856715	2/2/99	19:50:30	2/2/99	20:05:38	908
Updates		2/2/99	19:50:30	2/2/99	20:50:39	3,609

TPC-D Timing Intervals (in seconds):

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Stream0	1.5	2.7	36.4	7.0	0.6	0.3	0.7	0.7	123.0	68.8
Stream01	0.6	31.1	109.6	43.6	8.0	0.5	2.1	4.2	372.6	107.0
Stream02	0.6	30.7	157.3	17.4	3.8	6.0	0.8	1.3	295.9	142.7
Stream03	0.4	2.7	139.2	11.9	3.9	0.7	3.5	1.5	351.9	99.0
Minimum	0.4	2.7	109.6	11.9	3.8	0.5	0.8	1.3	295.9	99.0
Average	0.5	21.5	135.3	24.3	5.2	2.4	2.1	2.3	340.1	116.2
Maximum	0.6	31.1	157.3	43.6	8.0	6.0	3.5	4.2	372.6	142.7

	Q11	Q12	Q13	Q14	Q15	Q16	Q17	UF1	UF2
Stream0	11.5	0.3	1.0	18.1	41.3	43.2	6.9	385.4	472.6
Stream01	19.1	0.6	2.3	38.4	82.3	67.1	24.9	1337.0	484.9
Stream02	30.7	0.9	4.1	25.1	139.8	45.1	43.9	406.0	487.5
Stream03	43.6	0.5	11.6	47.4	53.2	116.6	19.8	403.3	489.5
Minimum	19.1	0.5	2.3	25.1	53.2	45.1	19.8	403.3	484.9
Average	31.1	0.7	6.0	37.0	91.8	76.3	29.5	715.4	487.3
Maximum	43.6	0.9	11.6	47.4	139.8	116.6	43.9	1337.0	489.5