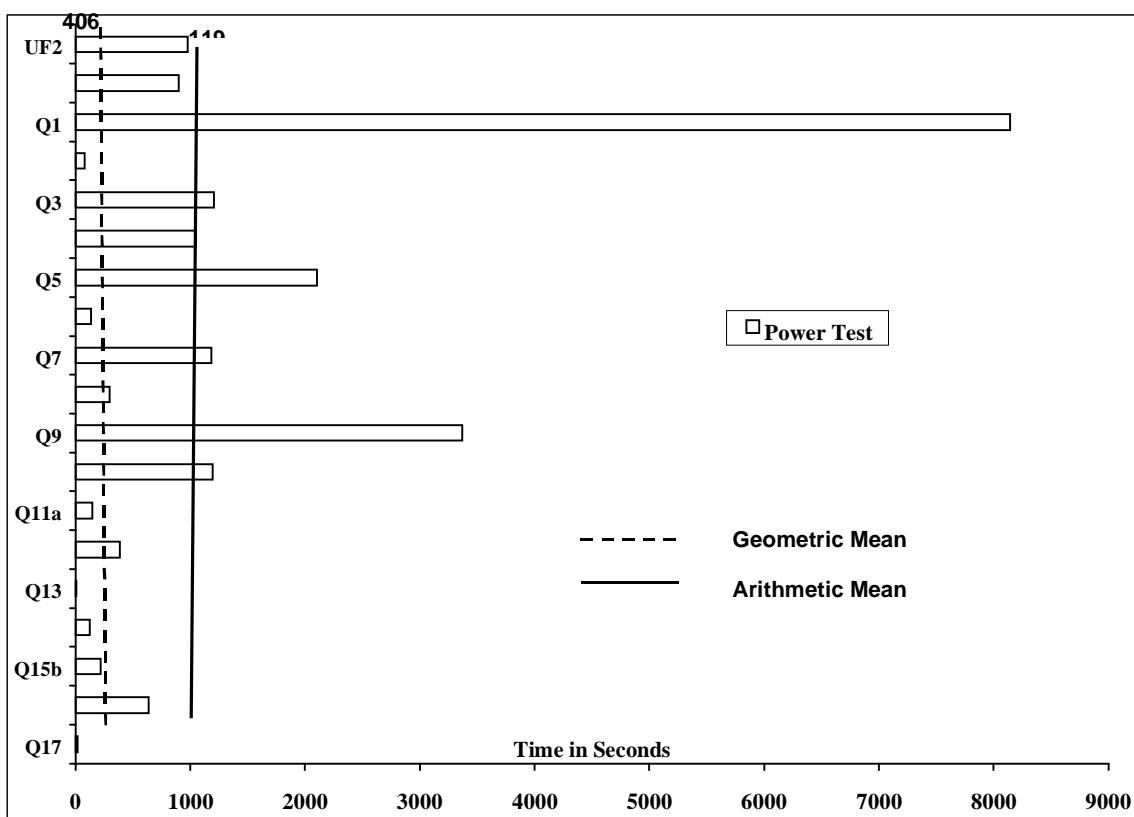


NEC & Oracle Corporation	Express5800	TPC-D REV 1.2.3
	with Oracle 8.04	Report Date: 26-Nov-97

TOTAL SYSTEM COST	TPC-D POWER	TPC-D THROUGHPUT	PRICE/PERFORMANCE
397,571	885.6 QppD @ 100GB	276.2 QthD @ 100GB	803.82 \$ per QphD @ 100GB

DATABASE SIZE	DATABASE MANAGER	OPERATING SYSTEM	OTHER SOFTWARE	AVAILABILITY DATE
100GB	Oracle Version 8.0.4	Microsoft Windows NT 4.0 SP3	MKS Toolkit NT Resource Kit Visual C++	15-Jan-98



DATABASE LOAD TIME = 44:03:00	DISK SIZE/DATABASE SIZE = 3.95	RAID: N
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SYSTEM COMPONENTS	DESCRIPTION
NUMBER OF NODES	EXPRESS5800 HX4000
PROCESSORS	4 x 200MHz PentiumPro, 1MB Cache
MEMORY	4 GB
DISK DRIVES	43 x 9 GB and 2 x 4 GB
TOTAL GB OF STORAGE	395 GB

NEC & Oracle Corporation	Express5800 with Oracle 8.04		TPC D REV 1.2.3			
					Report Date: 26-Nov-97	
Description	Part Number	Source	Unit Price	Qty	Extended Price	5 yr. Maint. Price
Server Hardware						
NEC EXPRESS 5800 HX4000 4*200/1MB/CPU AND 4 GB ECC MEM & 2*4GB ULTRA WIDE HDD & SMC 9332 10/100 UTP PCI NIC	850,097,277	1	70,278	1	70,278	16,867
Qlogic Fibre Channel Adapter	QLA2100	2	950	2	1,900	0
Subtotal:					72,178	16,867
Server Software						
ORACLE8 FOR NT	ORACLE NT	3	50,160	1	50,160	66,640
WIN NT EE PRE-INSTALL LMD	Q139AG21CD	1	3,999	1	3,999	10,560
Windows NT Resource Kit	NT RESRC KIT	1	499	1	499	0
MKS Toolkit for NT	MKS NT	5	499	1	499	0
Microsoft Visual C++ v. 4.0	VISUAL C++ 4.0	1	499	1	499	2,852
Subtotal:					55,656	80,052
Storage Devices						
CLARiiON DAE	C5001R-A	6	4,275	5	21,375	8,448
9GB 7200 RPM DISK	C0972FG-A	6	2,550	43	109,650	27,245
CABLES	15496010	6	100	2	200	0
CABINET	C7661G-F7B	6	5,900	1	5,900	0
Subtotal:					137,125	35,693
Total:					264,959	132,612
Five Year Cost of Ownership:					397,571	
Audited By: Francois Raab of Information Paradigm, Inc.						
<p>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 not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark specifications.</p> <p>Source: 1-NEC, 2-Qlogic, 3-Oracle, 5-Mortice Kern Systems, 6-Clariion</p> <p>If you find that the stated prices are not available according to these terms, please inform the TPC at pricing@tpc.org. Thank you.</p>						

NEC & Oracle Corporation	Express5800 with Oracle 8.04	TPC-D REV 1.2.3
		Report Date: 26-Nov-97

Numerical Quantities

Measurement Results:

Database Scaling (SF/Size)	=	100
Total Data Storage / Database Size	=	3.95
Database Load Time	=	44 hours 3 minutes
Query Streams for Throughput Test	=	0
TPC-D Power Metric (QppD@100GB)	=	885.6
TPC-D Throughput Metric (QthD@100GB)	=	276.2
TPCD Composite Query/hr rating (QphD@100GB=)	=	494.6
Total System Price Over 5 Years	=	\$397,571
TPC-D Price Performance Metric (\$/QphD@100GB)	=	803.82

Measurement Intervals

Measurement interval in Throughput Test (TS)	=	22159 seconds
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Duration of Stream Execution:

Stream ID	Seed	Start Date	Start Time	End Date	End Time	Total Time
UF1		11/12/97	17:44:53	11/12/97	17:59:53	0:15:00
Stream 00	704555583	11/12/97	17:59:53	11/12/97	23:57:37	5:57:44
UF2		11/12/97	23:37:57	11/12/97	23:54:12	0:16:15

Timing Intervals (in Seconds)

Query	Q1	Q2a	Q3	Q4b	Q5	Q6	Q7	Q8b	Q9
Stream 00	8139.5	78.1	1204.1	1050.5	2101.4	134.0	1183.4	298.1	3366.8

Query	Q10	Q11a	Q12b	Q13	Q14c	Q15b	Q16	Q17	UF1	UF2
Stream 00	1196.8	147.8	384.7	3.7	123.3	218.2	634.7	16.8	900.4	975.0