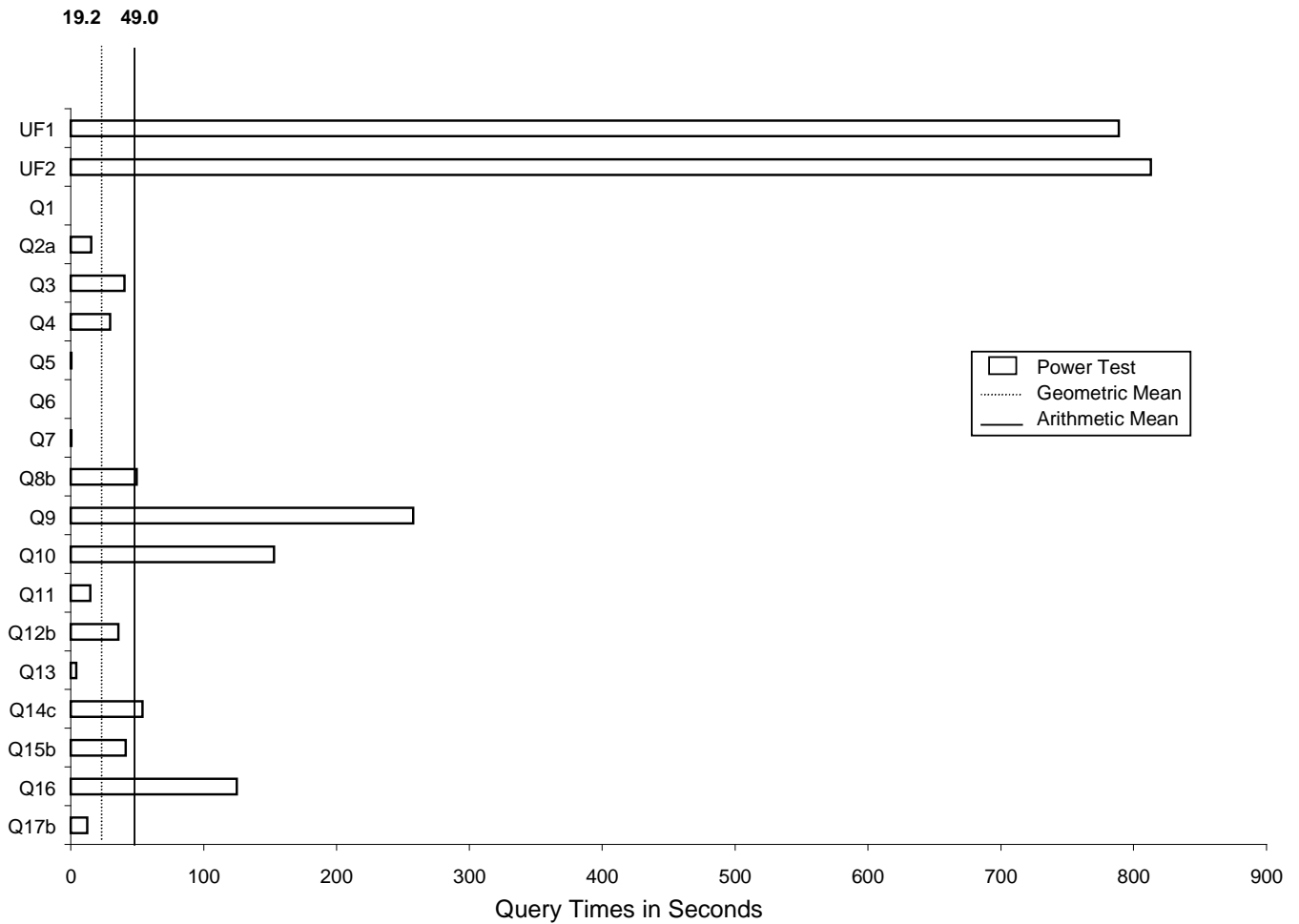
	<h2 style="text-align: center;">HP 9000 V2500 Enterprise Server</h2>		TPC-D Rev 1.3.1	
			Report Date: April 16, 1999	
Total System Cost	TPC-D Power	TPC-D Throughput	Price/Performance	
\$4,282,971	56,243.7 QppD@300GB	7,540.0 QthD@300GB	\$208 QphD@300GB	
Database Size	Database Manager	Operating System	Other Software	Availability Date
300 GB	Oracle8i v8.1.5.1	HP-UX 11.00 64-bit Extension Pack 9903	None	August 1, 1999



Database Load Time = 17:03:00

Total Data Storage/Database Size = 20.76

RAID = Y

System Components

Number of Nodes	1
Processors	32 PA-RISC 8500 440MHz
Memory	32 GB
Disk	1 18.1 LVD Ultra2-SCSI GB disks + 1 Storage System Rack Enclosure (with 5 x 4.3 GB disks) + 12 High Availability Disk Array Model 60/FC (680 9.1 GB total disks)
Total Disk Storage	6,227.60 GB
Lan Controllers	1 HP D5013 10/100 TX Network Card

 	HP 9000 V2500 Enterprise Server	TPC-D Rev 1.3.1
		Report Date: April 16, 1999

Description	Part Number	Brand	Price Key	Unit Price	Qty	Extended Price	5 yr. Maint. Price
Server Hardware							
HP 9000 V2500 Enterprise Server	A5074A			198,000	1	198,000	200,558
Add'l Dual 440 MHz PARISC 8500 CPU's	A5492A Opt. 0D1			65,000	16	1,040,000	221,760
8 Drive Disk Tray	A4805A, Opt. 0D1			2,400	1	2,400	
System Mgmt. Station	A4802B			11,480	1	11,480	3,931
Memory Controller Board	A5078A, Opt. 0D1			10,000	4	40,000	
256 MB DIMM for a total of 2 GB	A5082A, Opt. 0D1			35,000	16	560,000	
PCI FWD SCSI-2 Card	A4800A, Opt. 0D1			1,200	2	2,400	
PCI LVD ULTRA2 SCSI Card	A5149A, Opt. 0D1			1,495	1	1,495	
PCI Single Port Fibre Channel Adapter/V2500	A5566A, Opt. 0D1			4,200	25	105,000	
100 Base-T Lan	A3738A, Opt. 0D1			695	1	695	
Subtotal						1,961,470	426,249
Server Software							
Oracle8i Enterprise Database Server				401,280	1	401,280	533,120
HP-UX 11.0 Instant Ignition	B3920EA, Opt 0D1			195	1	195	
HP-UX 11.0 Unlimited License for V-Class	B3919EA, Opt B9V			0	1	0	
Subtotal						401,475	533,120
Storage							
1.6 M Cabinet	C2786A			1,805	12	21,660	
High Availability Disk Array Model 60FC	A5277A			4,400	12	52,800	144,528
Dual Controllers	Opt. 204			28,600	12	343,200	
Base Conf. W/Disk Enclosures	A5294A			8,000	72	576,000	
9.1 GB 10,000 RPM LVD disk	A5276A			1,800	680	1,224,000	
1.5 VHDCI SCSI Cable	A5306A			140	72	10,080	
18 GB LVD Ultra2-SCSI Disk Drive	A5084A Opt. 0D1			4,300	1	4,300	
Storage System Rack Enclosure	A3312A			1,600	1	1,600	605
1x4.3 GB FWD Disk Module	A3312A, Opt 147			1,150	5	5,750	7,056
Internal LVD SCSI-3 Cable	A5520A, Opt 0D1			200	1	200	
2.5m 68-pin High-density Cable	A3312A, Opt 802			140	1	140	
16M Fibre Channel Cable	A3661B, Opt AFY			160	24	3,840	
Subtotal						2,243,570	152,189
Sun Data volume discount						(1,261,571)	(173,531)
Total						3,344,945	938,027

Notes:	5-yr Cost of Ownership: \$	4,282,971
1=Sun Data, =Oracle	QphD@300GB:	20,593.2
Audited by François Raab for Information Paradigm	\$/QphD@300GB: \$	208

Prices used in TPC benchmarks reflect 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.

	HP 9000 V2500 Enterprise Server	TPC-D Rev 1.3.1
		Report Date: April 16, 1999

Measurement Results

Database Scaling (SF/size)	=	300
Total Data Storage/Database Size	=	20.76
Database Load Time	=	17:03:00
Query Streams for Throughput Test (S)	=	0
TPC-D Power Metric (QppD@300GB)	=	56243.7
TPC-D Throughput Metric (QthD@300GB)	=	7540.0
Composite Metric (QphD@300GB)	=	20593.2
Total System Price Over 5 Years	=	\$4,282,972
TPC-D Price/Performance Metric (\$/QphD@300GB)	=	\$208

Measurement Intervals

Measurement Interval in Throughput Test (Ts)	=	2,435 seconds
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Duration of Stream Execution:

Stream ID	Seed	Start Date	Start Time	End Date	End Time	Duration
Stream 00	126154527	1/26/99	16:48:00	1/26/99	17:28:35	0:40:35
UF1		1/26/99	16:48:00	1/26/99	17:01:09	0:13:09
UF2		1/26/99	17:15:02	1/26/99	17:28:35	0:13:35

TPC-D Timing Intervals (in Sec.)

Q1	Q2a	Q3	Q4	Q5	Q6	Q7	Q8b
0.1	15.4	40.5	29.6	0.4	0.1	0.4	49.5
Q9	Q10	Q11	Q12b	Q13	Q14c	Q15b	Q16
257.6	152.8	14.5	35.7	4.1	54.0	41.4	124.8
Q17b	UF1	UF2					
12.3	788.8	812.9					