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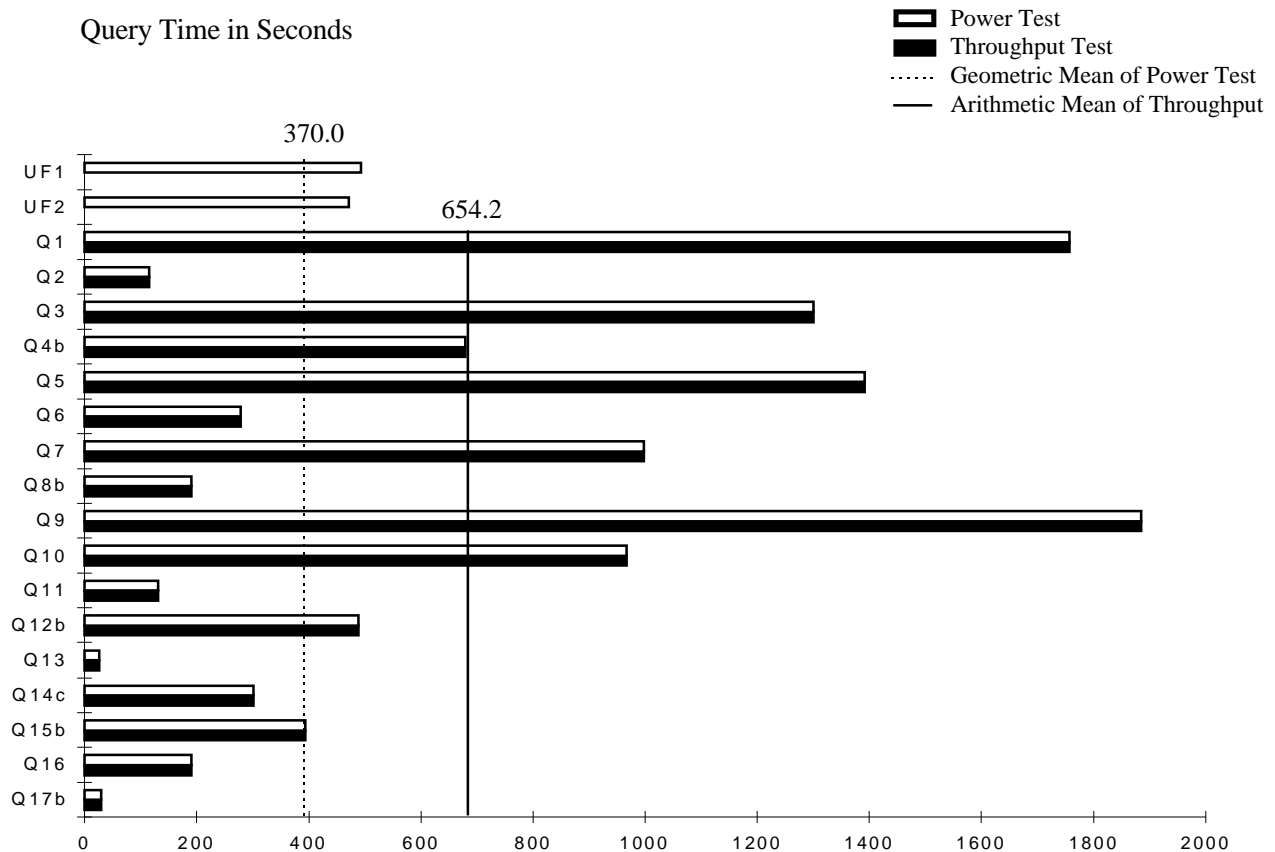
## Digital AlphaServer 8400 5/440 12 CPUs using Oracle7

TPC-D Rev. 1.2

Report Date:  
22 November 96

Total System Cost	TPC-D Power	TPC-D Throughput	Price/Performance	
\$1,347,538	972.9 QppD@ 100GB	506.4 QthD@ 100GB	\$1,920 QphD@ 100GB	
Database Size	Database Manager	Operating System	Other Software	Availability Date
100GB	Oracle7 v7.3.3	Digital UNIX V4.0A	None	Hardware - Now Software - 2/97

Query Time in Seconds



Database Load Time = 6 hours 13 minutes 56 seconds

Disk Size/Database Size = 3.61

RAID: No

Components	Qty	Type
Processors	12	437 Mhz DECchip 21164
Cache Memory		4 MB
Memory	2	2 GB per processor
Disk Controllers	29	PCI
Disks	84	4.3 GB Disks
<b>Total Disk Storage</b>	<b>361.2 GB</b>	



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	Part Number	Unit Price	Qty	Extended Price	5 Year Warranty	Total 5 Year Cost
<b>Server:</b>						
Digital AlphaServer 8400 5/440	DA-292FF-BA	\$260,928	1	\$260,928.00	\$67,601.00	\$328,529.00
Dual 8000 5/440 SMP Upg UNIX	756P2-AX	\$39,600	5	\$198,000.00	\$109,960.00	\$307,960.00
2.1GB AlphaServer 8xxx Memory	MS7CC-FA	\$72,288	1	\$72,288.00	\$15,129.00	\$87,417.00
48Volt PowerRegulator Option	H7263-AA	\$7,751	1	\$7,751.00	\$1,365.63	\$9,116.63
PCI PIU for 8400 for System Cab	DWLPB-AA	\$6,480	1	\$6,480.00	\$1,511.04	\$7,991.04
2nd 12 Slot PCI for DWLPB-AA	DWLPB-BA	\$6,480	2	\$12,960.00	\$3,022.08	\$15,982.08
PCI-Host Bus Adapter (FWD)	KZPSA-BB	\$865	29	\$25,085.00	\$10,788.00	\$35,873.00
SCSI Signal Convrt 16-bit SBB	DWZZB-VW	\$521	16	\$8,336.00	\$5,952.00	\$14,288.00
SCSI Signal Convrt 16-bit A/C	DWZZB-AA	\$475	15	\$7,125.00	\$5,580.00	\$12,705.00
Shelf, 7-dev, 16-bit SCSI	BA356-SB	\$536	15	\$8,040.00	\$5,580.00	\$13,620.00
5 m Cable, SCSI-3 "P" 1S/1R	BN21K-05	\$136	43	\$5,848.00	\$ -	\$5,848.00
White, North American, No Key	VT510-AA	\$330	1	\$330.00	\$ -	\$330.00
108 KB, Olivetti, US/UK	LK411-RA	\$63	1	\$63.00	\$ -	\$63.00
4.3GB Wide W/Snap in Carrier**	RZ29B-VW	\$1,650	87	\$143,550.00	\$ -	\$143,550.00
4.3GB Disk W/Snap in Carrier**	RZ29B-VA	\$1,571	7	\$10,997.00	\$ -	\$10,997.00
Digital UNIX Alpha Operating System	QA-MT4AA-H8	\$284	1	\$284.00	\$ -	\$284.00
Digital UNIX Support	FM-84DON-60	\$17,059	1		\$17,059.00	\$17,059.00
Digital UNIX Support Addtl Processors	FM-84DUP-60	\$16,281	5		\$81,405.00	\$81,405.00
<b>Server Total:</b>				<b>\$768,065.00</b>	<b>\$324,952.75</b>	<b>\$1,093,017.75</b>
<b>Database Software:</b>						
Oracle License	Oracle		1	\$107,640.00	\$146,880.00	<b>\$254,520.00</b>
<b>Subtotal</b>				<b>\$875,705.00</b>	<b>\$471,832.75</b>	
** 10% or minimum of 2 spares are added in place of on site service. These products have 5 years return to Vendor Warranty.					<b>Total Cost</b>	<b>\$1,347,537.75</b>
					<b>QphD</b>	<b>701.9</b>
					<b>\$/QphD</b>	<b>\$1,919.84</b>
Audited BY: Francois Raab						
Information Paradigm 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. 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](mailto:pricing@tpc.org). Thank you.



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**Digital AlphaServer 8400 5/440  
12 CPUs using Oracle 7**

TPC-D Rev. 1.2

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**Numeric Quantity Summary**

**AlphaServer 8400 5/440 12 CPUs**

**Measurement Results:**

Database Scaling (SF/Size)	100
Total Data Storage/Database Size	3.61
Database Load Time	6 hours, 13 minutes, and 56 seconds
Query Streams for Throughput Test	0
TPC-D Power Metric (QppD@100GB)	972.9
TPC-D Throughput Metric (QthD@100GB)	506.4
Composite QphD@100GB	701.9
Total System Price Over 5 Years	\$1,432,900.80
TPC-D Price/Performance Metric	\$2,041.50

**Measurement Intervals:**

Measurement Interval in Throughput Test (Ts)	3:21:26 hours, minutes, seconds
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**Duration of Stream Execution:**

Stream ID	Seed	Start Date	Start Time	End Date	End Time
Stream 00	443123831	Wed, Oct 30	01:15:23	Wed, Oct 30	04:36:49
UF1		Wed, Oct 30	01:15:23	Wed, Oct 30	1:23:37
UF2		Wed, Oct 30	4:28:58	Wed, Oct 30	4:36:49

**TPC-D Timing Intervals (in seconds)**

Q1	Q2	Q3	Q4b	Q5	Q6	Q7	Q8b	Q9	Q10
1756.4	115.0	1300.3	678.9	1390.3	278.7	998.7	189.6	1884.9	966.5

Q11	Q12b	Q13	Q14c	Q15b	Q16	Q17b	UF1	UF2
132.4	488.8	26.1	300.4	393.6	190.4	29.7	493.6	471.1