

COMPAQ

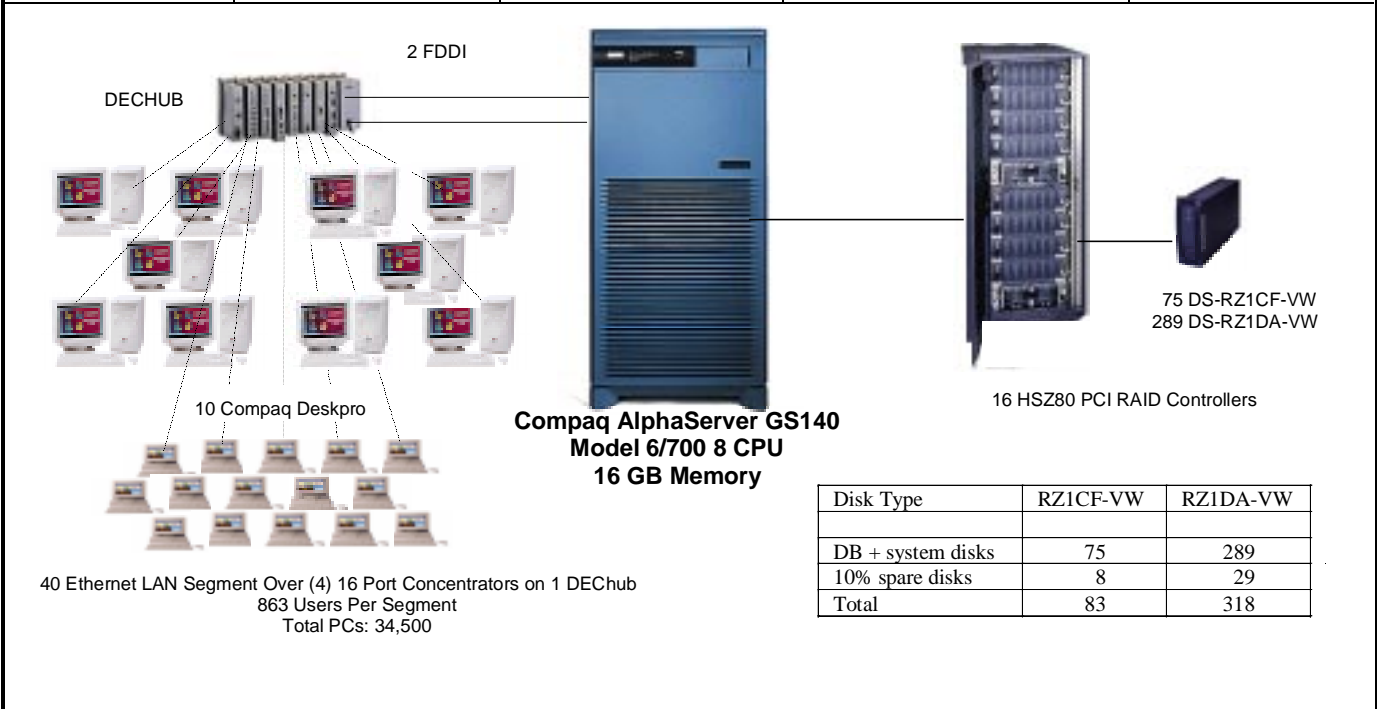
SYBASE

AlphaServer GS140
Model 6/700
8 CPU Client Server System

TPC-C Rev. 3.4

Report Date: August 24, 1999

Total System Cost		TPC-C Throughput		Price/Performance		Availability Date	
\$2,353,597		42,437.3		\$55.46		October 18, 1999	
Processors	Database	Operating System	Other Software		Number Users		
8 700MHz Alphachip 21264A	Sybase Adaptive Server Enterprise 11.9.3	Compaq Tru64 UNIX V4.0F	Application Optimizer WNT Server Edition		34,500		



System Components	Server		Client (each of 10)	
	Qty	Type	Qty	Type
Database Nodes	1	Compaq AlphaServer GS140 Model 6/700	1	Compaq Deskpro
Processors	8	700 MHz Alphachip 21264A	1	400 MHz Intel
Cache Memory	8	MB		512KB
Memory	4	4096 MB	3	128MB
Total Memory	16	GB	1	384MB
Disk Controllers	17	PCI		
Disks	289	9.1 GB Disks		
	75	4.3 GB Disks		
Total Disk Storage	2952.4	GB		



**AlphaServer GS140
Model 6/700
8 CPU C/S System**

TPC-C REV 3.4 EXECUTIVE SUMMARY
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Report Date: August 24, 1999

Description	Part Number	Third Party	Unit Price	Qty	Extended Price	5 yr. Maint. Price
		Brand	Pricing			
Server Hardware						
Compaq AlphaServer GS140 Model 6/700	DA-393GG-AA		1 300,300	1	300,300	43,546
AS GS60/GS60E/140 6/700 SMP Unix	3X-764P2-AX		1 31,500	3	94,500	38,622
4 GB AlphaServer 8xxx Memory	MS7CC-GA		1 34,440	3	103,320	51,840
PCI PIU for 8400 System Cab	DWLPA-AA		1 10,500	1	10,500	1,166
2nd 12 Slot PCI for DWLPB-AA	DWLPA-BA		1 10,500	2	21,000	2,332
PCI TO FDDI Adptr SAS,MMF,SC	DEFFA-UB		1 487	2	974	456
XOVER CABLE FOR DEFEA-UA	BN25H-03		1 5	2	10	0
PCI to SCSI UWD, Adapter	KZPBA-CB		1 578	16	9,248	3,296
ULTRA 68VHD 10M CABLE ASSBLY	BN37A-10		1 175	7	1,225	0
VHDCI Female to 68HD Male	BN38E-0B		1 98	7	686	0
4/8GB 4MM SCSI DAT Tape Drive	TLZ09-VA		1 882	1	882	1,147
DEChub 900 MultiSwitch,US/JA	DMHUB-AA		1 2,863	1	2,863	760
DEChub 900 Power Supply	H7894-MA		1 711	1	711	228
PORTswitch 900CP;Docs;No Pwr	DECPM-MA		1 3,850	4	15,400	4,860
12 Port UTP concentrator	DEFHU-MX		1 4,305	2	8,610	2,430
RA8000 Dual Pedestal 24SBB	400552-B21		1 29,617	1	29,617	14,212
E12,2CHS,2-Z80,BLU 60HZ Ultra Storage Array	DS-SWXES-EA		1 38,520	7	269,640	141,890
VT510,WHITE,NORTH AMER,NO KEY	VT510-AA		1 263	1	263	0
US/CANADA W95 KYBD WHIT	PCXLA-NA		1 18	1	18	0
4.3GB 7200RPM UltraSCSI HDD**	DS-RZ1CF-VW		1 482	82	39,524	Spared
9.1GB 7200RPM UltraSCSI 16bit***	DS-RZ1DA-VW		1 636	318	202,248	Spared
UPS 120V 1500VA W/EXT BAT OPT**	4N-AEABF-AB		1 958	16	15,328	Spared
					Subtotal	1,126,867
						306,785
Server Software						
5YR,AS 8400 DUAL UNIX BRZ5X9	FM-D84U9-60		1 27,906	1		27,906
5YR S/W,8400 DUAL INCAB UPGD	FM-84DUP-60		1 4,243	3		12,729
HSZ80 S/W U/A LIC/MCD/DOC	400566-001		1 3,488	16	55,808	
5YR 5x9 HS*80 SW Dual Controller	FM-DBAL3-60		1 12,543	8		100,344
5YR 5x9 HS*80 Platform SW	FM-PBAT1-60		1 1,363	8		10,904
cVISN MC MG MUL SYS 1 LIC	QM-MQDAA-BA		1 697	1	697	
clearVISN MUL CDRM KIT	QA-5FVAB-H8		1 69	1	69	
Dig UNIX Alpha CDRM	QA-MT4AA-H8		1 277	1	277	
Sybase Development Pricing (License)	Sybase		2 9,600	1	9,600	
Sybase Adaptive Server	Sybase		2 264,460	1	264,460	244,316
					Subtotal	330,911
						396,199
Client Hardware						
Compaq DeskPro En Model 6400x9100 MiniTower	326450-002		1 2,219	10	22,190	4,940
64MB Mem Kit 6400	166617-B21		1 (\$140)	10	(\$1,400)	Inc.
128MB EDO memory Option	166618-B21		1 325	30	9,750	Inc.
PCI to FDDI Adapter SAS, MMF, SC	DEFFA-UB		1 487	10	4,870	Inc.
V700 15" Color Monitor	325900-001		1 268	10	2,680	Inc.
MONITOR,14"(13.2"V)NH,54KHZ	BN25H-03		1 5	10	50	Inc.
					Subtotal	38,140
						4,940
Client Software						
Sybase Open Client/DB Lib	Sybase		2 795	1	795	
Application Optimizer WNT Server Edition	QB-641AA-SA		1 315	10	3,150	3,250
					Subtotal	3,945
						3,250
User Connectivity						
Complex Micro Hub/8-8 Port Hub***	DEH2924		3 30.00	4752	142,560	Spared
					Subtotal	142,560

Notes:** 10% Spares

ICS Discount: 30% on Server Hardware/Software based on volume.

ICS Discount: 10% on FM and FR numbers based on volume.

Sybase Discount: 10%

1=IC System Solutions, 2=Sybase, 3= DataComm Warehouse

Audited by Information Paradigm, Inc.

Five-Year Cost of Ownership: \$2,353,597

tpmC Rating: 42,437.30

\$ / tpmC: \$55.46

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.

Numeric Quantities Summary
Alphaserver GS140 Model 6/700 8 CPU Client Server System

MQTH

MQTH, computed Maximum Qualified Throughput	42437.3
% throughput difference, reported and reproducibility runs	.0004

Response Times in seconds

Transaction	90th percentile	Average	Maximum
New-Order	1.416	0.745	13.297
Payment	1.411	0.698	13.897
Order-Status	1.563	0.788	7.902
Delivery (interactive)	0.302	0.246	1.609
Delivery (deferred)	1.472	0.776	10.124
Stock-Level	1.901	0.919	7.976
Menu	0.310	0.229	1.597

Transaction Mix in percent of total transactions

Transaction	Total Occurrences	Percentage
New-Order	1273119	44.978%
Payment	1217178	43.002%
Order-Status	113402	4.006%
Delivery (interactive)	113415	4.007%
Stock-Level	113417	4.007%

Keying/Think Times in seconds

Transaction	Minimum	Average	Maximum
New-Order	18.000/0.000	18.001/12.004	18.056/119.848
Payment	3.000/0.000	3.003/12.004	3.054/119.855
Order-Status	2.000/0.000	2.001/10.003	2.047/ 99.626
Delivery (interactive)	2.000/0.000	2.001/ 5.000	2.060/ 49.681
Stock-Level	2.000/0.000	2.001/ 5.003	2.061/ 49.256

Emulation Delay in seconds

Transaction	Response Time	Menu Response Time
New-Order	0.10	0.10
Payment	0.10	0.10
Order-Status	0.10	0.10
Delivery (interactive)	0.10	0.10
Stock-Level	0.10	0.10

Test Duration

Ramp up time	40 minutes
Measurement interval	30:00.00 minutes
Number of checkpoints	1
Number of New Order transactions	1273119
Number of transactions (all types) completed in measurement interval	2830531