

COMPAQ**SYBASE**

AlphaServer GS60E
Model 6/700
6 CPU Client Server System

TPC-C Rev. 3.4

Report Date: August 10, 1999

Total System Cost

TPC-C Throughput

Price/Performance

Availability Date

\$1,689,258**32,515.03****\$51.95****October 18, 1999**

Processors

Database

Operating System

Other Software

Number Users

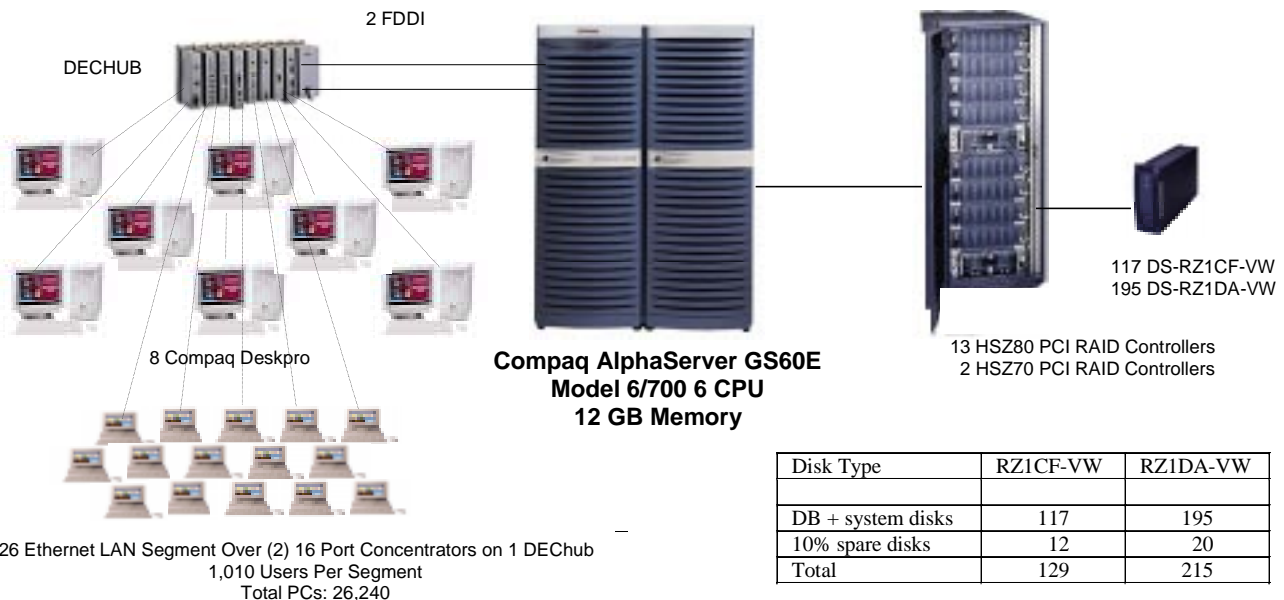
6 700MHz
Alphachip
21264A

Sybase
Adaptive Server
Enterprise
11.9.3

Compaq Tru64
UNIX V4.0F

Application Optimizer
WNT Server Edition

26,240

**System Components**

	Server Qty	Type	Client (each of 8) Qty	Type
Database Nodes	1	Compaq AlphaServer GS60E Model 6/700	1	Compaq Deskpro
Processors	6	700 MHz Alphachip 21264A	1	400 MHz Intel
Cache Memory	8	MB		512KB
Memory	3	4096 MB	3	128MB
Total Memory	12	GB	1	384MB
Disk Controllers	14	PCI		
Disks	195	9.1 GB Disks		
	117	4.3 GB Disks		
Total Disk Storage	2277.6	GB		



**AlphaServer GS60E
Model 6/700
6 CPU C/S System**

TPC-C REV 3.4 EXECUTIVE SUMMARY
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Description	Part Number	Third Party	Unit Price	Qty	Extended Price	5 yr. Maint. Price
Server Hardware						
		Brand	Pricing			
Compaq AlphaServer EV67 2 CPU 4GB, GS60E	DA-484GG-AA	1	116,830	1	116,830	39,312
PCI Rkmt for GS60E System Cabinet	DWLPB-DA	1	10,500	2	21,000	Inc.
GS60E Expander Cab. USA/Japan	3X-H9A22-BA	1	42,000	1	42,000	Inc.
Dual SMP CPU Module UNIX EV67	3X-764P2-AX	1	31,500	2	63,000	25,748
4 GB AlphaServer 8xxx Memory	MS7CC-GA	1	34,440	2	68,880	34,560
PCI TO FDDI Adptr SAS,MMF,SC	DEFPA-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	14	8,092	2,884
ULTRA 68VHD 10M CABLE ASSBLY	BN37A-10	1	175	14	2,450	0
VHDCI Female to 68HD Male	BN38E-0B	1	98	14	1,372	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	2	7,700	2,430
12 Port UTP concentrator	DEFHU-MX	1	4,305	2	8,610	2,430
RA7000 DUAL 24SBB Pedestal	DS-SWXRA-HA	1	29,683	1	29,683	11,534
RA8000 Dual Pedestal 24SBB	400552-B21	1	29,617	1	29,617	14,212
RA8000 Single Pedestal 24SBB	400554-B21	1	18,360	1	18,360	9,194
E12K UL 2CHS Z80, ESA 12000 Ultra Storage Array	DS-SWXES-EA	1	38,520	5	192,600	101,350
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	129	62,178	Spared
9.1GB 7200RPM UltraSCSI 16bit**	DS-RZ1DA-VW	1	636	215	136,740	Spared
UPS 120V 1500VA W/EXT BAT OPT**	4N-AEABF-AB		958	10	9,580	Spared
Subtotal					824,413	246,245
Server Software						
5YR AS82/GS60 DUAL UNIX BRZ9X5	FM-D82U9-60	1	26,987	1		26,987
5YR S/W,82,/8400 DUAL SMP UPGRADE	FM-824DP-60	1	4,243	2		8,486
HSZ70 SW U/A LIC/MCD/No DOC	QB-5SBAB-SB	1	525	2	1,050	
HSZ80 SW U/A LIC/MCD/DOC	400566-001	1	3,488	13	45,344	
5YR 5x9 HS*80 SW Dual Controller	FM-DBAL3-60	1	12,543	7		87,801
5YR 5x9 HS*80 Platform SW	FM-PBAT1-60	1	1,363	7		9,541
cVISN MC MG MUL SYS 1 LIC	QM-MQDAA-BA	1	697	1	697	
clearVISN MUL CDRM KIT	QA-5FVAB-H8		69	1	69	
Digital 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	141,980	1	141,980	
1 Yr Sybase Maintenance	Sybase	2	25,663.2	5		128,316
Subtotal					199,017	261,131
Client Hardware						
Compaq Deskpro	326450-002	1	2,219	8	17,752	3,952
64-MB Mem Kit 6400	166617-B21	1	(\$140)	8	(\$1,120)	Inc.
128MB EDO Memory Option	166618-B21	1	325	24	7,800	Inc.
PCI TO FDDI Adptr SAS,MMF,SC	DEFPA-UB	1	487	8	3,896	Inc.
V700 15" Color Monitor	325900-001		268	8	2,144	Inc.
XOVER CABLE FOR DEFEA-UA	BN25H-03	1	5	8	40	Inc.
Subtotal					30,512	3,952
Client Software						
Application Optimizer WNT Server Edition	QB-641AA-SA	1	315	8	2,520	
Application Optimizer WNT Server Service	QT-641AA-XA	1	65	5		2,600
Sybase Open Client/DB Lib	Sybase	2	795	1	795	
Subtotal					3,315	2,600
User Connectivity						
Complex Micro Hub/8-8 Port Hub	DEH2924	3	32.5	3633	118,073	Spared
Subtotal					118,073	
Total					\$1,175,330	\$513,928
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=MicroWarehouse						
Audited by InfoSizing						
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.						
Five-Year Cost of Ownership:					\$1,689,258	
					tpmC Rating:	32,515.03
					\$ / tpmC:	\$51.95

Numeric Quantities Summary
Alphaserver GS60E Model 6/700 6 CPU Client Server System

MQTH

MQTH, computed Maximum Qualified Throughput	32515.03
% throughput difference, reported and reproducibility runs	.0046%

Response Times in seconds

Transaction	90th percentile	Average	Maximum
New-Order	1.103	0.593	19.996
Payment	1.020	0.532	20.003
Order-Status	1.188	0.626	19.800
Delivery (interactive)	0.301	0.245	2.504
Delivery (deferred)	1.202	0.631	11.608
Stock-Level	1.995	0.868	15.996
Menu	0.300	0.220	2.841

Transaction Mix in percent of total transactions

Transaction	Total Occurrences	Percentage
New-Order	975451	44.980%
Payment	932595	43.004%
Order-Status	86823	4.004%
Delivery (interactive)	86857	4.005%
Stock-Level	86899	4.007%

Keying/Think Times in seconds

Transaction	Minimum	Average	Maximum
New-Order	18.000/0.000	18.001/12.004	18.059/119.557
Payment	3.000/0.000	3.002/12.007	3.031/119.912
Order-Status	2.000/0.000	2.001/10.000	2.036/ 98.458
Delivery (interactive)	2.000/0.000	2.001/ 5.002	2.050/ 49.453
Stock-Level	2.000/0.000	2.001/ 5.000	2.059/ 49.998

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	45 minutes
Measurement interval	30:00.00 minutes
Number of checkpoints	1
Number of New Order transactions	975451
Number of transactions (all types) completed in measurement interval	2168625