



Compaq AlphaServer ES40  
Model 6/667 4 CPU  
Client Server System

TPC-C Rev. 3.4

Report Date: February 9, 2000

Total System Cost

TPC-C Throughput

Price/Performance

Availability Date

**\$906,225**

**30,738**

**\$29.48**

**March 17, 2000**

Processors

Database

Operating System

Other Software

Number Users

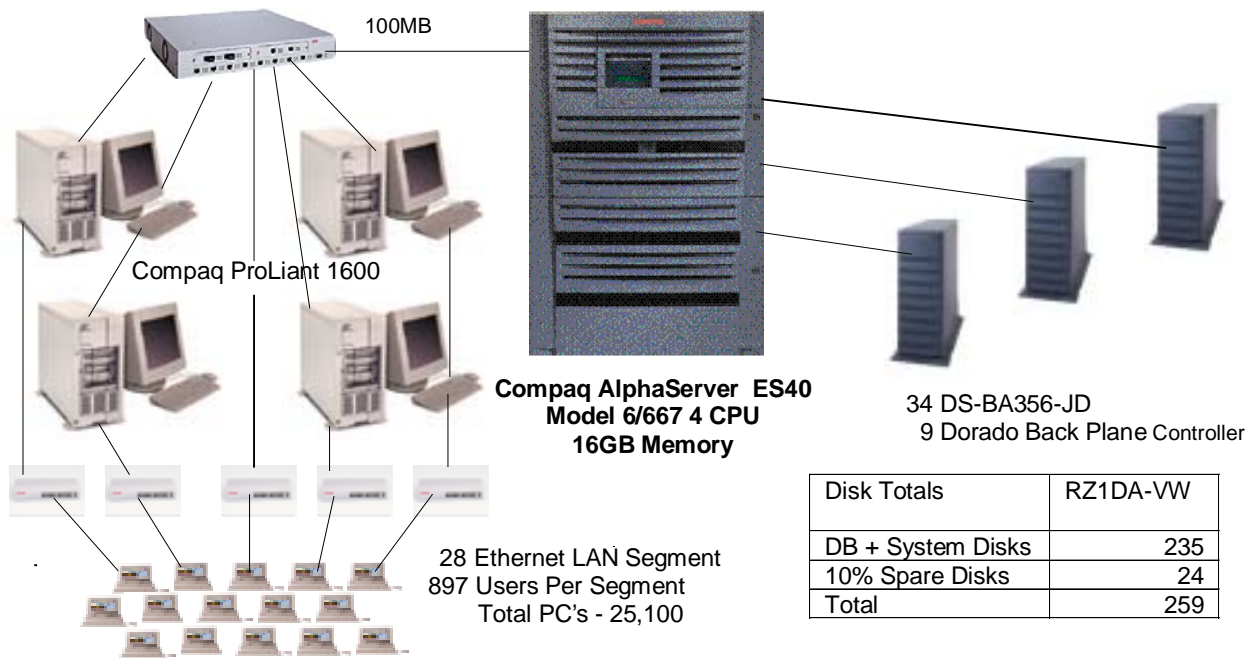
4 667MHz  
Alphachip  
21264

Sybase Adaptive  
Server Enterprise  
11.9.3

Compaq  
Tru64 UNIX V4.0G

Application Optimizer  
WNT Server Edition

25,100



**System Components**

Database Nodes  
Processors  
Cache Memory  
Memory  
Total Memory  
Disk Controllers  
Disks  
Total Disk Storage

**Server**

Qty	Type
1	Compaq AlphaServer ES40
4	667 MHz Alphachip 21264
8	MB
4	4 GB
16	GB
9	Backplane Raid Controller
235	9.1GB Disks
2138.5	GB

**Client (each of 4)**

Qty	Type
1	Compaq ProLiant 1600
1	600 MHz Intel
1	512KB
1	128MB
2	256MB



**AlphaServer ES40  
Model 6/667  
4 CPU C/S System**

TPC-C REV 3.4 EXECUTIVE SUMMARY  
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Report Date: February 2000

Description	Part Number	Third Party	Unit Price	Qty	Extended Price	5 yr. Maint. Price	
		Brand	Pricing				
<b>Server Hardware</b>							
Compaq AlphaServer ES40 Model 6/667	DA-64AAA-EA	1	48,803	1	48,803	19,165	
ES40 Tower Enclosure	BA61M-MT	1	350	1	350	0	
ES40 SMP CPU; 667 MHz;UNIX	KN610-BB	1	8,750	3	26,250	0	
ES40 2GB Memory Option	MS610-EA	1	19,354	7	135,47	37,884	
ES40 Power Supply	H7906-A9	1	875	2	1,750	0	
3 Chan. LVD 64Bit PCI Raid Controller 16MB Mem	DS-KZPCC-CC	1	2,660	9	23,940	1,854	
Combo Card; Ethernet SCSI	FR-PCTBZ-AA	1	504	1	504	76	
Ultra 68VHD 10M Cable Assembly	BN37A-10	1	175	34	5,950	0	
D Shf 180W 1 Doc BLW Metric Blue	DS-BA356-JD	1	990	34	33,660	7,004	
4/8GB 4MM SCSI DAT Tape Drive	TLZ09-VA	1	882	1	882	1,147	
VT510,WHITE,NORTH AMER,NO KEY	VT510-AA	1	277	1	277	0	
US/CANADA W95 KYBD WHIT	PCXLA-NA	1	18	1	18	0	
9.1GB 7200RPM UltraSCSI 16bit	DS-RZ1DA-VW	1	455	259	117,84	Spared	
17-03212-05 8MP-8MP Patch Cable	BN25G-07	1	6	6	36	0	
Linksys 8port 10baste T Switch	DEH3552	2	119	3	357	Spared	
					<b>Subtotal</b>	<b>396,100</b>	<b>67,130</b>
<b>Server Software</b>							
5YR AS ES40 UNIX	FM-62UN9-	1	9,457	1		9,457	
5YR As ES40 Unix	FM-62USM-	1	1,121	3		3,363	
cVISN MC MG MUL SYS 1	QM-MQDAA-	1	697	1	697		
clearVISN MUL CDRM	QA-5FVAB-	1	69	1	69		
Dig UNIX Alpha	QA-MT4AA-	1	277	1	277		
Sybase Development Pricing (License)	Sybase	3	9,600	1	9,600		
Sybase Adaptive Server	Sybase	3	141,98	1	141,98		
1 Yr Sybase Maintenance	Sybase	3	25,663.	5		128,31	
					<b>Subtotal</b>	<b>152,623</b>	<b>141,136</b>
<b>Client Hardware</b>							
Compaq ProLiant 1600	153552-001	1	3,036	4	12,144	1,976	
Ethernet Dual Channel	338456-B21	1	329	8	2,632	Inc.	
NC3132 Dual 10/100	338456-B22	1	263	8	2,104	Inc.	
256MB SDRAM Dimm Memory	313616-B21	1	1,132	8	9,056	Inc.	
18GB Drive	388144-B22	1	989	4	3,956	Inc.	
V700 17" Color Monitor	325900-001	1	185	4	740	Inc.	
					<b>Subtotal</b>	<b>30,632</b>	<b>1,976</b>
<b>Client Software</b>							
Application Optimizer WNT Server Edition	QB-641AA-SA	1	315	4	1,260		
Application Optimizer WNT Server	QT-641AA-XA	1	72	5		1,440	
Sybase Open Client/DB Lib	Sybase	3	795	1	795		
					<b>Subtotal</b>	<b>2,055</b>	<b>1,440</b>
<b>User Connectivity</b>							
Compex Micro Hub/8-8 Port Hub	DEH2924	2	32.5	3481	113,13	Spared	
					<b>Subtotal</b>	<b>113,133</b>	
<b>Notes:** 10% Spares</b>					<b>Total</b>	<b>\$694,543</b>	<b>\$211,682</b>
<b>ICS Discount: 30% on Server Hardware/Software based on</b>							
<b>ICS Discount: 10% on FM and FR numbers based on</b>							
<b>Sybase Discount: 10%</b>							
<b>1=IC System Solutions, 2=MicroWarehouse, 3=</b>							
<b>Audited by InfoSizing</b>							
					<b>Five-Year Cost of Ownership:</b>	<b>\$906,225</b>	
					<b>tpmC Rating:</b>	<b>30,738.97</b>	
					<b>\$/ tpmC:</b>	<b>\$29.48</b>	

Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. negotiated discounts are not permitted. Special prices based on assumptions about past or future purchases are not permitted. All reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark 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**  
**Compaq AlphaServer ES40 Model 6/667 4CPU C/S System**

**MQTH**

MQTH, computed Maximum Qualified Throughput	30,738
% throughput difference, reported and reproducibility runs	.001

**Response Times** in seconds

Transaction	90th percentile	Average	Maximum
New-Order	1.538	0.755	15.603
Payment	1.669	0.822	13.673
Order-Status	1.698	0.895	12.644
Delivery (interactive)	0.420	0.313	9.961
Delivery (deferred)	2.403	1.240	17.395
Stock-Level	2.070	0.957	14.476
Menu	0.380	0.257	10.100

**Transaction Mix** in percent of total transactions

Transaction	Total Occurrences	Percentage
New-Order	3688676	44.980%
Payment	3526881	43.007%
Order-Status	328386	4.004%
Delivery (interactive)	328423	4.005%
Stock-Level	328392	4.004%

**Keying/Think Times** in seconds

Transaction	Minimum	Average	Maximum
New-Order	18.000/0.000	18.005/12.006	18.159/119.999
Payment	3.000/0.000	3.011/12.005	3.564/119.825
Order-Status	2.000/0.000	2.005/10.009	2.305/ 99.119
Delivery (interactive)	2.000/0.000	2.005/ 5.006	2.381/ 49.986
Stock-Level	2.000/0.000	2.005/ 5.006	2.381/ 49.843

**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**

Rampup up time	30 minutes
Measurement interval	120 minutes
Number of checkpoints	4
Number of New Order transactions	3688676
Number of transactions (all types) completed in measurement interval	8200758