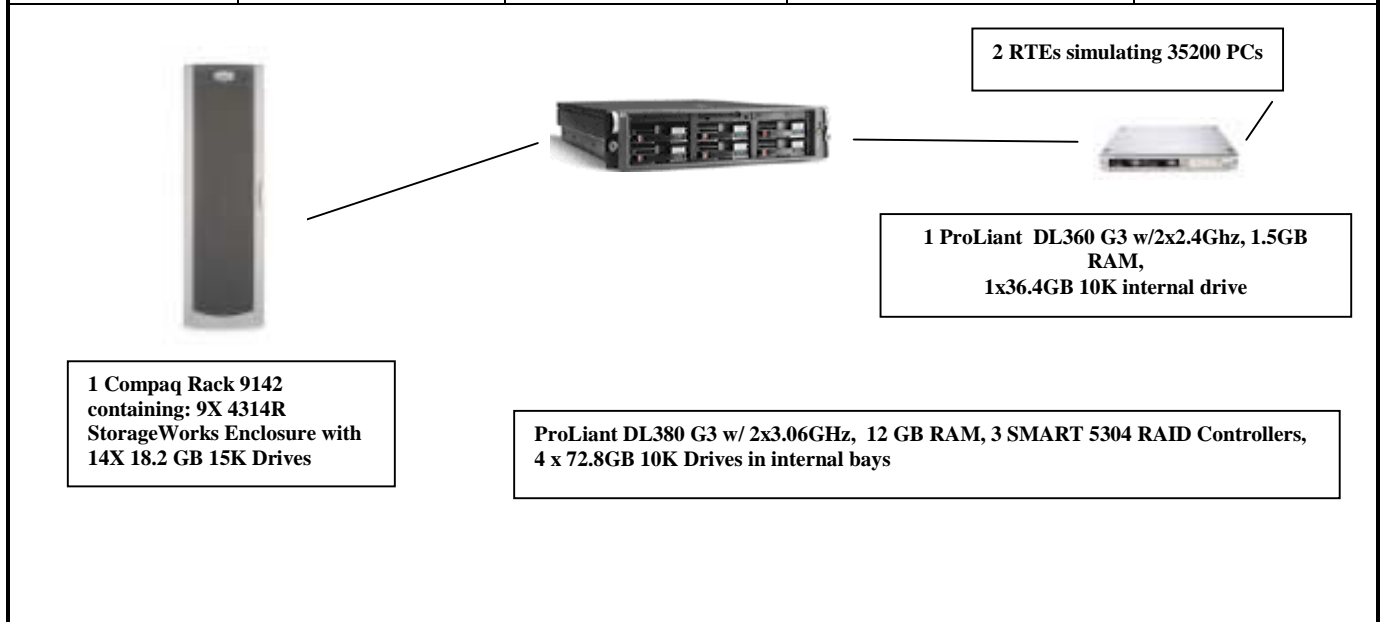


Hewlett-Packard Company	ProLiant DL380 G3 2P	TPC-C Rev. 5.1
	c/s with 1 ProLiant DL360 G3	Report Date: May 29, 2003

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
<b>\$160,353</b>	<b>43,230.66</b>	<b>\$3.71</b>	<b>May 27, 2003</b>

Processors	Database Manager	Operating System	Other Software	Number of Users
2 Intel Xeon 3.06GHz – Server  2 Intel Xeon 2.4GHz – Client	Microsoft SQL Server 2000 Enterprise Edition (SP3)	Microsoft Windows Server 2003 Enterprise Edition	Microsoft Visual C++ Microsoft COM+	<b>35200</b>



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processor	2	3.06 GHz Intel Xeon w/ 512K Cache	2	2.4 GHz Intel Xeon w/ 512K cache
Memory	3	4GB DDR (2x2GB)	1	512MB (2x256MB)
Disk Controllers	1	Integrated SMART Array Controller	1	1024MB (2X512MB)
	3	SMART 5304 Array Controller	1	Integrated SMART Array Controller
Disk Drives	126	18.2 GB SCSI Drive	1	36.4GB SCSI Drive
	4	72.8 GB SCSI Drive		
Total Storage		2584.4 GB		36.4 GB
Tape Drives	1	12/24 GB DAT		

Hewlett-Packard		HP ProLiant DL380 G3 2P		TPC-C Rev. 5.1			
Company		Client/Server		Report Date:		29-May-03	
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
<b>Server Hardware</b>							
<b>Brand Pricing</b>							
ProLiant DL380 G3 1x3.06GHz/533MHz FSB (512KB L2), 512MB (2x256MB), Two integrated Gigabit NIC, Integrated Smart Array Controller	310587-001		3,699	1	3,699		
3.06/533MHz Xeon 2nd processor DL380		1	1,159	1	1,159		
4G Reg PC2100 (2 x 2Gb)	300682-B21	1	11,404	3	34,212		
StorageWorks Enclosure Model 4314R - Rack-mountable	190209-001	1	2,955	9	26,595		
Rack Model 9142 (42U - Opal) - Flat Pallet	120663-B21	1	1,321	1	1,321		
Side Panel Kit - 9142 Rack	120670-B21	1	207	1	207		
Smart Array 5304/128 Controller	158939-B21	1	2,052	3	6,156		
S5500 15 carbon / silver monitor	261602-001	1	129	1	129		
3-Button Mouse-Carbon	231947-B21	1	5	1	5		
PS/2 Easy Access Internet Keyboard	265977-001	1	12	1	12		
TR5 10/20-Gigabyte Tape Drive - Carbon	294243-B22	1	299	1	299		
Pro UPS 500 (500VA/300 Watts; 110-127 VAC, 60Hz)	136386-001	1	146	1	146		
18.2GB 15Krpm U320 UNI HDD	286775-B22	1	399	126	50,274		
18.2GB 15Krpm U320 UNI HDD (10% spares)	286775-B22	1	399	13		5,187	
72.8GB 10Krpm U320 UNI HDD (internal OS & log drives)	286714-B22	1	649	4	2,596		
FM-EL724-36 3YR 24X7 4HR ENTRY 300 SVR	162675-002	1	599	1		599	
FM-4E724-36 3YR 24X7 4HR EMPTY DISK ENCL	171242-002	1	157	9		1,413	
<b>Subtotal</b>					<b>126,810</b>	<b>7,199</b>	
<b>Server Software</b>							
Database Server Support Package	PRO-PRORS-161	Microsoft	2	1,950	3		5,850
SQL Server 2000 Enterprise Edition (per processor)	810-00845	Microsoft	2	17,279	2	34,558	Incl Above
Visual C++ .Net Standard	254-00170	Microsoft	2	109	1	109	Incl Above
Windows Server 2003, Enterprise Edition	P72-00264	Microsoft	2	2,399	1	2,399	Incl Above
<b>Subtotal</b>					<b>37,066</b>	<b>5,850</b>	
<b>Client Hardware</b>							
ProLiant DL360 G3 1x2.4GHz, 512MB (2x256MB), Two integrated Gigabit NIC, Integrated Smart Array Controller	292887-001		2,599	1	2,599		
2.4GHz Xeon Processor Option Kit - DL360G3	292891-B21	1	729	1	729		
1GB PC2100 DDR (2x512MB)	300679-B21	1	649	1	649		
36.4GB 10Krpm U320 UNI HDD (internal OS drive)	286713-B22	1	339	1	339		
FM-EL724-36 3YR 24X7 4HR ENTRY 300 SVR	162675-002	1	599	1		599	
<b>Subtotal</b>					<b>4,316</b>	<b>599</b>	
<b>Client Software</b>							
Windows 2000 Server 32-bit	C11-00821	Microsoft	2	738	1	738	Incl. Above
<b>Subtotal</b>					<b>738</b>	<b>0</b>	
<b>User Connectivity</b>							
7 ft. CAT5e Patch cable	CBLC57	LanAdapters	3	1	3	3	
<b>Subtotal</b>					<b>3</b>	<b>0</b>	
Large Purchase and Net 30 discount (See Note 1)	16.0%		1			(\$20,980)	(\$1,248)
<b>Total</b>					<b>\$147,953</b>	<b>\$12,400</b>	
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 pricing 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.					<b>Three-Year Cost of Ownership: \$160,353</b>		
					<b>tpmC Rating: 43230.66</b>		
					<b>\$ / tpmC: \$3.71</b>		
Pricing: 1=HP 2=Microsoft 3=LanAdapters.com							
Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount.							
Note: The benchmark results and test methodology were audited by Loma Livingtree of Performance Metrics, Inc.							

## Numerical Quantities Summary

**MQTH, Computed Maximum Qualified Throughput**

**43,230.66 tpmC**

<b>Response Times (in seconds)</b>	<b>Average</b>	<b>90%</b>	<b>Maximum</b>
New-Order	0.69	1.02	8.47
Payment	0.58	0.91	4.47
Order-Status	0.61	0.93	9.94
Delivery (interactive portion)	0.13	0.20	0.76
Delivery (deferred portion)	0.23	0.35	0.95
Stock-Level	1.56	2.03	4.38
Menu	0.13	0.21	0.87

### **Transaction Mix, in percent of total transaction**

New-Order	44.88%
Payment	43.03%
Order-Status	4.04%
Delivery	4.03%
Stock-Level	4.03%

### **Emulation Delay (in seconds)**

	<b>Resp.Time</b>	<b>Menu</b>
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

### **Keying/Think Times (in seconds)**

	<b>Min.</b>	<b>Average</b>	<b>Max.</b>
New-Order	18.00/0.00	18.01/12.17	18.69/122.71
Payment	3.00/0.00	3.02/12.16	3.72/122.71
Order-Status	2.00/0.00	2.01/10.15	2.69/101.50
Delivery (interactive)	2.00/0.00	2.01/5.12	2.71/51.00
Stock-Level	2.00/0.00	2.01/5.10	2.48/51.00

### **Test Duration**

Ramp-up time	20 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	12,026,116
Ramp down time	2 minutes

### **Checkpointing**

Number of checkpoints	4
Checkpoint interval	30 minutes