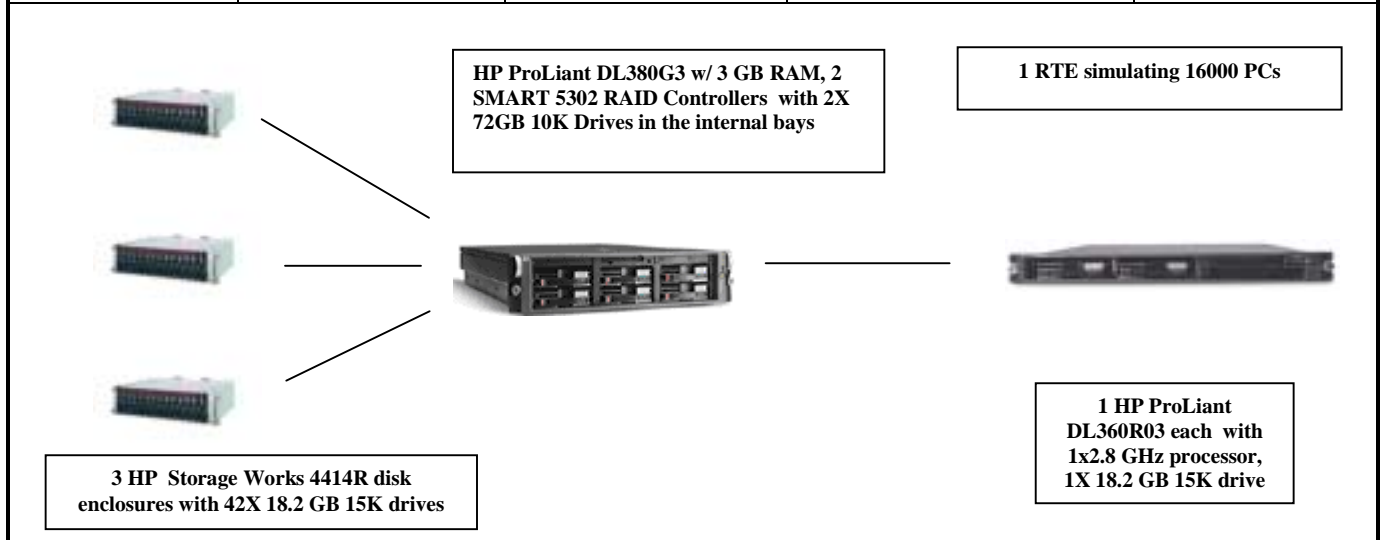


Hewlett Packard Company	ProLiant DL380-G3-1M 1P	TPC-C Rev. 5.1
	C/S with ProLiant DL360R02	Report Date: Nov. 24, 2003

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$44,296	19,814.35	\$2.24	Nov. 24, 2003

Processors	Database Manager	Operating System	Other Software	Number of Users
1 Intel Xeon 3.20 GHz – 1M L3 cache – Server 1 Intel Xeon 2.8 GHz – Clients	Microsoft SQL Server 2000 Standard Edition SP3	Microsoft Windows Server 2003, Standard Edition	Microsoft Visual C++ Microsoft COM+	16000



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processor	1	3.20 GHz Intel Xeon w/ 1M Cache	1	2.8 GHz Pentium III Xeon w/ 256K cache
Memory	6	512 MB DDR	1	1 GB (4x 256 MB)
Disk Controllers	1	Integrated SMART 5i Array Controller	1	Integrated SMART Array Controller
	2	SMART 5302 Array Controller		
Disk Drives	2	72.8 GB SCSI Drives	1	18 GB SCSI Drive
	42	18.2 GB SCSI Drives		
Total Storage		910 GB		18 GB
Backup Storage	1	DVD+R/DVD+RW drive		

Hewlett-Packard	HP ProLiant DL380 G3 1P		TPC-C Rev. 5.1			
Company	Client/Server		Report Date:	24-Nov-03		
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price
Server Hardware						
Brand Pricing						
DL380G3 X3.2GHz/533 1MB 1GB 1P Rck US	333705-001	1	3,899	1	3,899	
1GB PC2100 DDR (2x512MB)	300679-B21	1	550	2	1,100	
StorageWorks MSA30 Storage Enclosure - Rack-mountable	302969-B21	1	2,978	3	8,934	
Smart Array 5302/128 Controller	283552-B21	1	1,299	2	2,598	
S5500 15 carbon / silver monitor	261602-001	1	129	1	129	
Standard 2 button mouse	402366-B22	1	5	1	5	
PS/2 Easy Access Keyboard	304788-001	1	10	1	10	
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	299	42	12,558	
18.2GB 15Krpm U320 UNI HDD (10% spares)	286775-B22	1	299	5		1,495
72.8GB 10Krpm U320 UNI HDD (internal log)	286714-B22	1	489	2	978	
HP CP 3Y 4H 24x7 HW 300 Srs 4-Hour 24 Hour x 7 Day Coverage 3 Year	162657-002	1	949	1		949
FM-4E724-36 3YR 24X7/4HR EMPTY DISK ENCL	171242-002	1	157	3		471
Subtotal					30,357	2,915
Server Software						
Database Server Support Package	HP-PRORS-16U-01	Microsoft	2	1,950	3	5,850
SQL Server 2000 Standard Edition 32-bit	228-01079	Microsoft	2	4,999	1	Incl Above
Visual C++ .Net Standard	254-00170	Microsoft	2	109	1	Incl Above
Windows Server 2003 Standard Edition	P73-00295	Microsoft	2	738	1	Incl Above
Subtotal					5,846	5,850
Client Hardware						
ProLiant DL360 G3 1x2.8GHz, 512MB (2x256MB) , Two integrated Gigabit NIC, Integrated Smart Array Controller	292889-001	1	2,299	1	2,299	
512MB PC2100 DDR SDRAM DIMM 2x256	300678-B21	1	298	1	298	
18.2GB 15Krpm U320 UNI HDD	286775-B22	1	299	1	299	
HP Carepaq 3YR 24X7/4HR ENTRY 300 SVR	162675-002	1	599	1		599
Subtotal					2,896	599
Client Software						
Windows 2000 Server 32-bit	C11-00821	Microsoft	2	738	1	Incl. Above
Subtotal					738	0
User Connectivity and Server Backup Device						
7 ft. CAT5e Patch cable	CBLC57	LanAdapter	3	1	3	
HP DVD Writer dvd300xe (external, USB)	460898		4	240	1	240
Subtotal					243	0
Large Purchase and Net 30 discount (See Note 1)	14.0%		1			
Total					\$35,424	\$8,872
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.				Three-Year Cost of Ownership: \$44,296		
Pricing: 1=HP 2=Microsoft 3=LanAdapters.com 4=CDW.com				tpmC Rating: 19814.35		
Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount.				\$ / tpmC: \$2.24		
Note: The benchmark results and test methodology were audited by Lorna Livingtree of Performance Metrics, Inc.						

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput

19,814.35 tpmC

Response Times (in seconds)	Average	90%	Maximum
New-Order	0.57	0.80	7.10
Payment	0.22	0.32	3.42
Order-Status	0.37	0.52	5.51
Delivery (interactive portion)	0.10	0.11	0.12
Delivery (deferred portion)	1.26	1.77	3.86
Stock-Level	4.50	5.68	12.93
Menu	0.10	0.11	0.32

Transaction Mix, in percent of total transaction

New-Order	44.89%
Payment	43.03%
Order-Status	4.03%
Delivery	4.01%
Stock-Level	4.03%

Emulation Delay (in seconds)

	Resp.Time	Menu
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)

	Min.	Average	Max.
New-Order	18.00/0.00	18.02/12.11	18.05/121.11
Payment	3.00/0.00	3.02/12.11	3.04/121.12
Order-Status	2.00/0.00	2.02/10.10	2.03/101.00
Delivery (interactive)	2.00/0.00	2.02/5.09	2.04/50.81
Stock-Level	2.00/0.00	2.02/5.07	2.03/50.81

Test Duration

Ramp-up time	35 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	5,485,379
Ramp down time	36 minutes

Checkpointing

Number of checkpoints	4
Checkpoint interval	30 minutes