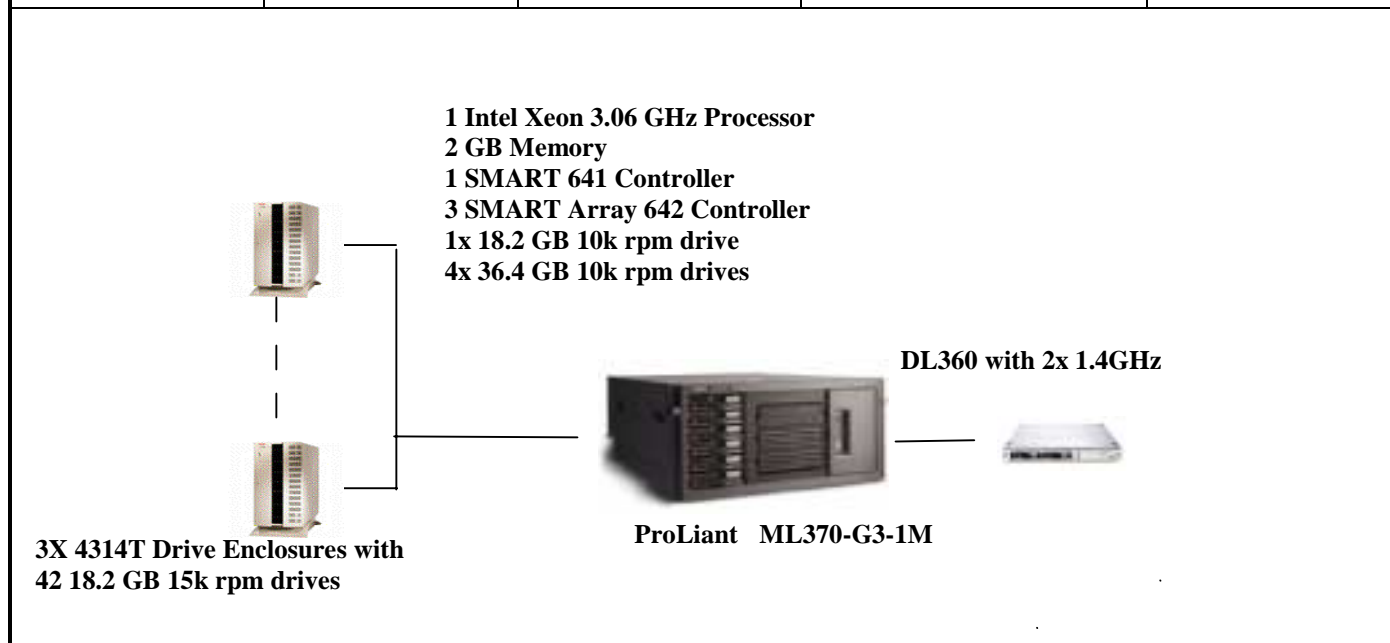


Hewlett-Packard Company	ProLiant ML370-G3-1M-1P	TPC-C Rev. 5.1
	C/S with 1 ProLiant DL360R	Report Date: July 15, 2003

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$45,478	19,718.01	\$2.31	July 15, 2003

Processors	Database Manager	Operating System	Other Software	Number of Users
1 Intel Xeon processor 3.06 GHz – Server 2 Pentium III 1.4 GHz – Clients	Microsoft SQL Server 2000 Standard Edition SP3	Microsoft Windows Server 2003, Standard Edition	Microsoft Visual C++ Microsoft COM+	15800



System Components	Server		Each Client	
	Quantity	Description	Quantity	Description
Processor	1	3.06 GHz Intel Xeon w/ 1MB Cache	2	1.4GHz Pentium III w/ 512K cache
Memory	4	512 MB DDR	2	512MB
Disk Controllers	1	HP SMART 641 Array Controller	1	Integrated SMART 5i Array Controller
	3	HP SMART 642 Array Controller		
Disk Drives	42	18.2 GB SCSI Drive 15k	1	36.4 GB SCSI Drive
	4	36.4 GB SCSI Drive 10k		
	1	36.4 GB SCSI Drive 10k		
Total Storage		862 GB		36.4 GB
Tape Drives	1	12/24 GB DAT		

Hewlett-Packard		HP ProLiant ML370-G3-1M 1P			TPC-C Rev. 5.1		
Company		Client/Server			Report Date:		15-Jul-03
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
Server Hardware							
Brand Pricing							
ProLiant ML370G3T 1GB 1P 3.0GHz-1M, Integrated Gigabit NIC	333701-001	1	2,949	1	2,949		
512MB x 1 PC2100 DDR	287496-B21	1	275	2	550		
StorageWorks Enclosure Model 4314T- Tower	190210-001	1	3,182	3	9,546		
2x1 Drive Cage with fan (ML530 G2)	244058-B21	1	370	1	370		
Smart Array 642 Controller	291967-B21	1	699	3	2,097		
Battery Backed Cache Enabler	255514-B21	1	194	3	582		
Smart Array 641 Controller	291966-B21	1	549	1	549		
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	299	42	12,558		
18.2GB 15Krpm U320 UNI HDD (10% spares)	286775-B22	1	299	5		1,495	
36.4GB 10Krpm U320 UNI HDD (OS)	286713-B22	1	339	1	339		
36.4GB 10Krpm U320 UNI HDD (log)	286713-B22	1	339	4	1,356		
HP CP 3Y 4H 24x7 HW 300 Srs 4-Hour 24 Hour x 7 Day Coverage 3 Yee	162657-002	1	949	1		949	
FM-4E724-36 3YR 24X7/4HR EMPTY DISK ENCL	171242-002	1	157	3		471	
Subtotal					31,487	2,915	
Server Software							
Database Server Support Package	PRO-PRORS-16	Microsoft	2	1,950	3	5,850	
SQL Server 2000 Standard Edition 32-bit	228-01079	Microsoft	2	4,999	1	4,999	Incl Above
Visual C++ Standard	254-00170	Microsoft	2	109	1	109	Incl Above
Microsoft Windows Server 2003, Standard Edition		Microsoft	2	738	1	738	Incl Above
Subtotal					5,846	5,850	
Client Hardware							
ProLiant DL360R02 P1.4/133-512K 256MB	233271-001	1	1,759	1	1,759		
Two integrated Gigabit NIC, Integrated Smart Array Controller							
1.40GHz PIII Processor Option Kit (DL360 G2)	233273-B21	1	717	1	717		
1GB 133MHz SDRAM DIMM Memory (2x512MB)	201694-B21	1	600	1	600		
36.4GB 10Krpm U320 UNI HDD	286713-B22	1	339	1	339		
FM-EL724-36 3YR 24X7 4HR ENTRY 300 SVR	162675-002	1	599	1		599	
Subtotal					3,415	599	
Client Software							
Windows 2000 Server 32-bit	C11-00821	Microsoft	2	738	1	738	Incl. Above
Subtotal					738	0	
User Connectivity							
15 ft. CAT5e Patch cable	CBLC515	LanAdapters	3	2	3	6	
Subtotal					6	0	
Large Purchase and Net 30 discount (See Note 1)	14.0%		1			(\$4,886)	(\$492)
Total					\$36,606	\$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: \$45,478		
Pricing: 1=HP 2=Microsoft 3=LanAdapters.com					tpmC Rating: 19718.01		
Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount.					\$ / tpmC: \$2.31		
Note: The benchmark results and test methodology were audited by Lorna Livingtree of Performance Metrics, Inc.							

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput

19,718.01 tpmC

Response Times (in seconds)	Average	90%	Maximum
New-Order	0.52	0.76	5.49
Payment	0.26	0.42	4.90
Order-Status	0.38	0.59	5.77
Delivery (interactive portion)	0.10	0.11	0.14
Delivery (deferred portion)	1.10	1.58	2.95
Stock-Level	3.35	4.60	7.55
Menu	0.10	0.11	0.32

Transaction Mix, in percent of total transaction

New-Order	44.94%
Payment	43.03%
Order-Status	4.00%
Delivery	4.01%
Stock-Level	4.02%

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	18.02/12.01	18.03/120.11
Payment	3.00/0.00	3.02/12.00	3.03/120.11
Order-Status	2.00/0.00	2.02/10.00	2.02/100.11
Delivery (interactive)	2.00/0.00	2.02/5.06	2.02/50.11
Stock-Level	2.00/0.00	2.02/5.01	2.02/50.11

Test Duration

Ramp-up time	20 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	5,241,833
Ramp down time	5 minutes

Checkpointing

Number of checkpoints	4
Checkpoint interval	30 minutes