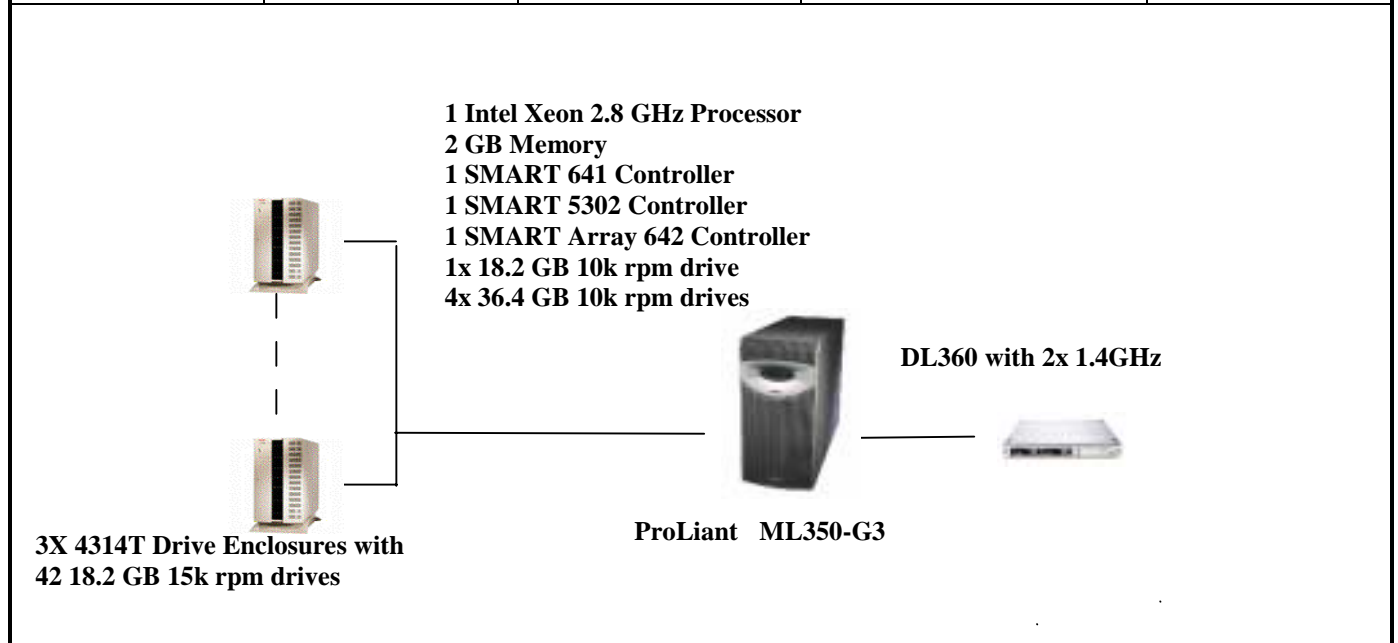


Hewlett-Packard Company	ProLiant ML350-G3-1P	TPC-C Rev. 5.1
	C/S with 1 ProLiant DL360R	Report Date: May 12, 2003

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$43,826	19,526.27	\$2.25	May 12, 2003

Processors	Database Manager	Operating System	Other Software	Number of Users
1 Intel Xeon processor 2.8 GHz – Server 2 Pentium III 1.4 GHz – Clients	Microsoft SQL Server 2000 SP3	Windows Server 2003	Microsoft Visual C++ Microsoft COM+	15800



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processor	1	2.8GHz Intel Xeon w/ 512MB Cache	2	1.4GHz Pentium III w/ 512K cache
Memory	4	512 MB DDR	2	512MB
Disk Controllers	1	HP SMART 5302 Array Controller	1	Integrated SMART 5i Array Controller
	1	HP SMART 641 Array Controller		
	1	HP SMART 642 Array Controller		
Disk Drives	42	18.2 GB SCSI Drive 15k	1	18.2 GB SCSI Drive
	4	36.4 GB SCSI Drive 10k		
	1	18.2 GB SCSI Drive 10k		
Total Storage		596 GB		18.2 GB
Tape Drives	1	12/24 GB DAT		

Hewlett-Packard Company	HP ProLiant ML350T-G3 1P		TPC-C Rev. 5.1			
	Client/Server		Report Date:	12-May-03		
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price
Server Hardware						
		Brand Pricing				
HP ProLiant ML350T 2.8 256MB	311523-001	1	1,499	1	1,499	
512MB x 1 PC2100 DDR	287496-B21	1	275	4	1,100	
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 5302/128 Controller	283552-B21	1	1,299	1	1,299	
Smart Array 642 Controller	291967-B20	1	699	1	699	
Smart Array 641 Controller	291966-B21	1	549	1	549	
S5500 15 carbon / silver monitor	261602-001	1	139	1	139	
3-Button Mouse-Carbon	231946-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	286713-B22	1	339	1	339	
36.4GB 10Krpm U320 UNI HDD	286713-B22	1	339	4	1,356	
CarePac Service - Entry 300 WG Servers 3Yr,7x24,4hr (FM-EL724	162675-002	1	599	1		599
FM-4E724-36 3YR 24X7/4HR EMPTY DISK ENCL	171242-002	1	157	3		471
				Subtotal	29,916	2,565
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++ .Net Standard	254-00170 Microsoft	2	109	1	109	Incl Above
Windows Server 2003 Standard Edition	P73-00295 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			(\$4,666)	(\$443)
				Total	\$35,255	\$8,571
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: \$43,826 tpmC Rating: 19526.27 \$ / tpmC: \$2.25		
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 Lorna Livingtree of Performance Metrics, Inc.						

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput

19,526.27 tpmC

Response Times (in seconds)	Average	90%	Maximum
New-Order	0.69	1.04	5.61
Payment	0.42	0.72	5.20
Order-Status	0.53	0.86	5.69
Delivery (interactive portion)	0.10	0.11	0.18
Delivery (deferred portion)	1.06	1.50	2.61
Stock-Level	3.92	4.98	8.78
Menu	0.10	0.11	0.32

Transaction Mix, in percent of total transaction

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

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	18.02/12.05	18.03/120.50
Payment	3.00/0.00	3.02/12.04	3.03/120.50
Order-Status	2.00/0.00	2.02/10.04	2.02/100.50
Delivery (interactive)	2.00/0.00	2.02/5.05	2.03/50.50
Stock-Level	2.00/0.00	2.02/5.04	2.03/50.50

Test Duration

Ramp-up time	15 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	5,190,984
Ramp down time	5 minutes

Checkpointing

Number of checkpoints	4
Checkpoint interval	30 minutes