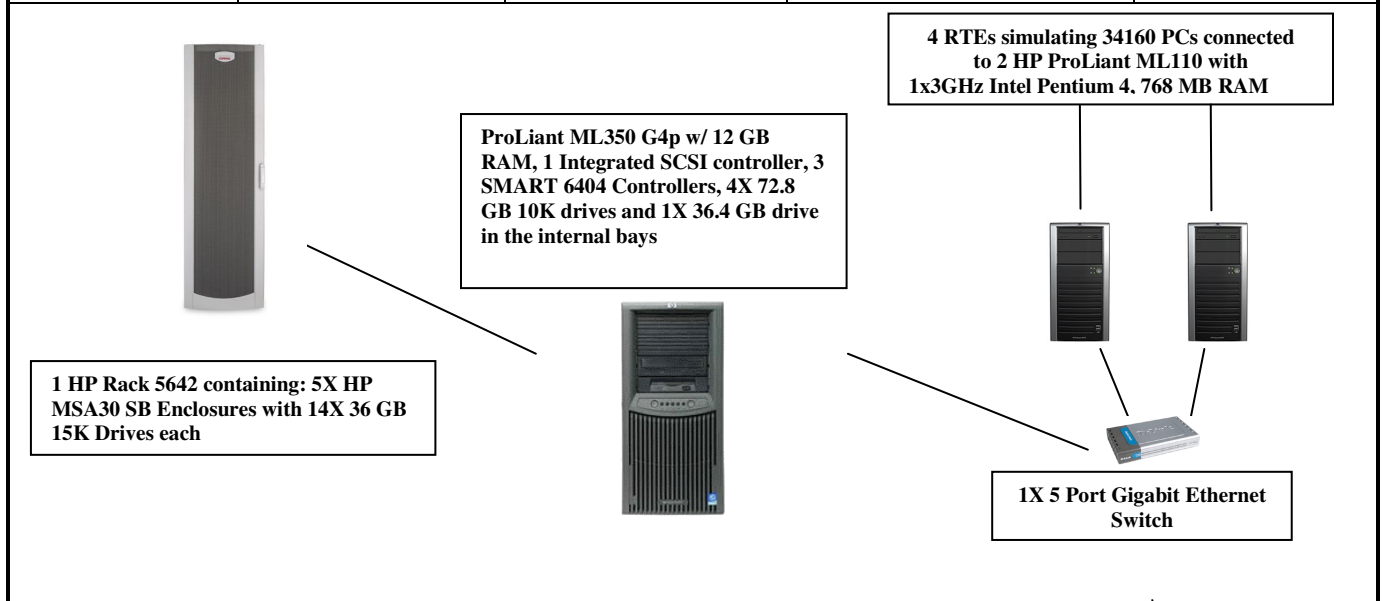


Hewlett-Packard Company	HP ProLiant ML350G4p - 1P	TPC-C Rev. 5.3
	C/S with 2 HP ProLiant ML110	Report Date: March 28, 2005

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$82,815 USD	42,432	\$1.96 USD	March 29, 2005

Processors	Database Manager	Operating System	Other Software	Number of Users
1 Intel Xeon 3.4 GHz (2MB) Server 2 Intel Pentium 4 3 GHz – Clients	Microsoft SQL Server 2000 Enterprise Edition SP3	Windows Server 2003, Enterprise Edition	Microsoft Visual C++ Microsoft COM+	34160



	Server		Each Client	
System Components	Quantity	Description	Quantity	Description
Processor	1	Intel Xeon 3.4 GHz w/ 2MB Cache	1	3 GHz Intel Pentium 4 w/ 512K cache
Memory	6	2 GB DDR	1	256 MB
Disk Controllers	1	Integrated SCSI Controller	1	512 MB
	3	HP SMART 6404 Array Controllers	1	Integrated IDE Controller
Disk Drives	4	72.8 GB SCSI Drive	1	80 GB IDE Drive
	71	36.4 GB SCSI Drive		
Total Storage		2875.6 GB		80 GB

Hewlett-Packard		ProLiant ML350-G4p-2M/3.4GHz 1P			TPC-C Rev. 5.3		
Company		Client/Server			Report Date:	28-Mar-05	
Description	Part Number	Third Party	Unit Price	Qty	Extended Price	3 yr. Maint. Price	
Server Hardware		Brand Pricing					
ML350G4p 1 x 3.4GHz (2MB) - emb. Gigabit NIC, emb. SCSI contr.	380172-001	1	2,179	1	2,179		
4GB PC3200 DDR SDRAM (2x2GB)	343057-B21	1	5,799	3	17,397		
HP s7540 17in. CRT Monitor	PF997AA#ABA	1	149	1	149		
HP Storaeworks MSA 30 SB Storage	302969-B21	1	2,978	5	14,890		
HP 5642 Pallet Unassembled Rack	358254-B21	1	689	1	689		
HP Smart Array 6404/256MB Controller	273914-B21	1	1,899	3	5,697		
36GB 15Krpm U320 UNI HDD (OS)	286776-B22	1	299	1	299		
36GB 15Krpm U320 UNI HDD	286776-B22	1	299	70	20,930		
36GB 15Krpm U320 UNI HDD (10% spares)	286776-B22	1	299	7		2,093	
HP 72GB 10K U320 Pluggable Hard Drive	286714-B22	1	389	4	1,556		
HP T500 Uninterruptible Power System	361475-001	1	99	1	99		
CarePaq Service - 300 Series Servers 3Yr,7x24,4hr	162657-002	1	949	1		949	
FM-4E724-36 3YR 24X7/4HR EMPTY DISK ENCL	171242-002	1	157	5		785	
ML3xx Two Bay Hot Plug SCSI Drive Cage	244059-B21	1	370	1	370		
Subtotal					64,255	3,827	
Server Software							
Microsoft SQL Server 2000 Enterprise Edition(per processor)	810-00845	Microsoft	2	17,279	1	17,279	
Visual C++ .Net Standard	254-00170	Microsoft	2	109	1	109	Incl below
Microsoft Windows 2003, Enterprise Edition	P72-00264	Microsoft	2	2,399	1	2,399	Incl below
Microsoft Problem Resolution Services (1 incident)		Microsoft	2	245	1		245
Subtotal					19,787	245	
Client Hardware							
ML110 P3.0 512KB 256MB 80GB ATA TWR US	359661-001	1	729	2	1,458		
512 UNREG PC3200 1X512 ML110 WW	354560-B21	1	259	2	518		
NC1020 PCI Gigabit NIC 10/100/1000 WOL	353377-B21	1	99	2	198		
HP CP 3Y 4H 24x7 HW TC2120 4-Hour 24 Hour x 7 Day Coverage 3 Years	321653-002	1	328	2		656	
Subtotal					2,174	656	
Client Software							
Microsoft Windows 2000 Server	C11-00821	Microsoft	2	738	2	1,476	Incl. Above
Subtotal					1,476	0	
User Connectivity							
DLink DGS-1005D Switch 5-PORT 10/100/1000MBPS	DGS-1005D	Dlink	3	52	1	52	
DLink DGS-1005D Switch 5-PORT 10/100/1000MBPS (10% spares)	DGS-1005D	Dlink	3	52	2		105
15 ft. CAT5E cable	cblc5EMSB15	LanAdapters	4	3	3	9	
15 ft. CAT5E cable (10% spares)	cblc5EMSB15	LanAdapters	4	3	2		6
IOGEAR 4-port KVM Switch PS/2 (with cables)	IOGR00P	Provantage	5	50	1	50	
IOGEAR 4-port KVM Switch PS/2 (with cables) (spares)	IOGR00P	Provantage	5	50	2		100
Subtotal					111	211	
Large Purchase and Net 30 discount (See Note 1)		14.0%	1			(\$9,300)	(\$628)
Total					\$78,503	\$4,311	
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: \$82,815 USD			
Pricing: 1=HP 2= Microsoft 3=PageComputers.com 4=LanAdapters.com 5=Provantage.com				tpmC Rating: 42,432			
Note 1 = Discount based on HP Direct guidance with large purchase and Net 30 discount.				\$ / tpmC: \$1.96 USD			
Note:The benchmark results and test methodology were audited by Lorna Livingtree of Performance Metrics, Inc.							

Numerical Quantities Summary

MQTH, Computed Maximum Qualified Throughput

42,432 tpmC

Response Times (in seconds)	Average	90 %	Maximum
New-Order	0.57	0.84	5.40
Payment	0.48	0.73	4.89
Order-Status	0.49	0.74	5.31
Delivery (interactive portion)	0.10	0.11	0.14
Delivery (deferred portion)	0.28	0.40	1.03
Stock-Level	1.46	1.85	5.37
Menu	0.10	0.11	0.94

Transaction Mix, in percent of total transaction

New-Order	44.93%
Payment	43.04%
Order-Status	4.00%
Delivery	4.02%
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	18.02/12.06	18.07/120.63
Payment	3.00/0.00	3.02/12.06	3.08/120.63
Order-Status	2.00/0.00	2.02/10.08	2.07/100.62
Delivery (interactive)	2.00/0.00	2.02/5.07	2.04/50.62
Stock-Level	2.00/0.00	2.02/5.04	2.06/50.61

Test Duration

Ramp-up time	24 minutes
Measurement interval	120 minutes
Transactions (all types) completed during measurement interval	23,071,631
Ramp down time	56 minutes

Checkpointing

Number of checkpoints	4
Checkpoint interval	30 minutes