



PRIMERGY T850
C/S with 4 PRIMERGY C200

TPC-C REV 5.0
 EXECUTIVE SUMMARY

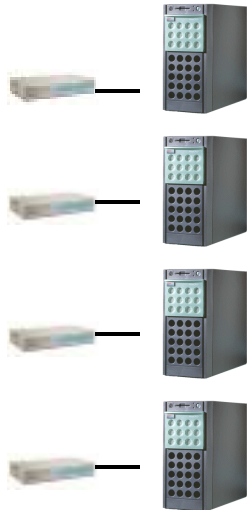
Report Date: October 7, 2002

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date	
€589,195	84,598.42 tpmC	€6.96/tpmC	April 6, 2003	
Processors	Database Manager	Operating System	Other Software	Number of Users
Server 8 Intel Xeon™ MP 1.60 GHz with 1 MB SLC Client 4 x 2 Intel Pentium® III 1400 MHz with 512 KB SLC	Microsoft SQL Server 2000 Enterprise Edition SP3	Microsoft Windows .NET Server 2003 Enterprise Edition	Windows 2000 Server, IIS 5.0 and COM+	68000

Terminals:
68000 User



Client:
4 x PRIMERGY C200
17000 users per client



100 Mbs

Server:
PRIMERGY T850 and
PCI Extension Box
7 SCSI Controller



Storage:
25 x PRIMERGY S30
288 disk 18GB
14 disks 36 GB

2 Gb/s FC Switch

System Components	Qty/Srv.	1 PRIMERGY T850	Qty/Client	4 PRIMERGY C200
Processors	8	Intel Xeon™ MP 1.60 GHz with 1 MB SLC	2	Intel Pentium® III 1400 MHz with 512 KB SLC
Memory	32	GB	768	MB
Disk Controller	7	Mylex eXtremeRAID 2000	1	SCSI Controller
Disk Drives	288	18 GB	1	18 GB
	15	36 GB		
Total GB of Storage	1	4,865 GB		
Tape Drive	1	20 GB DAT		



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Description	Part Number	Third Party	Unit Price	Qty.	Extended Price	3yr Maint. Price
		Brand Pricing				
PRIMERGY T850 GE RH 8way 2x Xeon 1.6 GHz	S26361-K846-V103	1	38,960 Euro	1	38,960 Euro	
Xeon MP Processor 1.6 GHz/1MB	S26361-F2740-E161	1	7,460 Euro	6	44,760 Euro	
Mountingkit 19" Racks f. Server	SNP:SY-F1647E301-P	1	120 Euro	1	120 Euro	
PRIMERGY T850 PCI Extension Box	S26361-K874-V406	1	6,240 Euro	1	6,240 Euro	
Main memory 4GB SDRAM 133MHz	S26361-F2741-E144	1	4,620 Euro	8	36,960 Euro	
Tape DAT DDS4 20GB	S26361- F2233- E3	1	784 Euro	1	784 Euro	
Disk 36GB, 10k, U160, hot plug, 1"	SNP: SY- F2336L136- P	1	472 Euro	1	472 Euro	
Mylex eXtremeRAID 2000 4x U160 SCSI, BBU	S26361- F2190- E128	1	2,544 Euro	7	17,808 Euro	
Keyboard KBPC S	S26381-K252-L120	1	18 Euro	1	18 Euro	
Monitor 151E	S26361- K819- V150	1	159 Euro	1	159 Euro	
PRIMERGY S30 GE RH 2-Channel U160 SCSI	SNP: SY- K638V210- P	1	2,900 Euro	1	2,900 Euro	
Mountingkit 19" Racks f. S30 / S60	S26361-F2734-E20	1	140 Euro	1	140 Euro	
SCSI Cable UHD68(S)	SNP: SY- F2365L20- P	1	104 Euro	2	208 Euro	
3 Year Maintenance Server, 7x24, 4hr Resp.	FSP:G3SP94HUFPSRH	1	7,200 Euro			7,200 Euro
Server Hardware Subtotal					149,529 Euro	
DataCenter Rack 46 HU	SNP: SY- K614V104- P	1	1,920 Euro	2	3,840 Euro	
3 Year Maintenance Rack, 7x24, 4hr Resp.	FSP:G3SP94HUFPSRI		160 Euro			160 Euro
APC-USV 3000VA Rack	SNP: PS- E421E1- P	1	1,740 Euro	2	3,480 Euro	
18GB, 15k, U160, Hot plug, 1" (spared)	S26361-F2336-E518	1	440 Euro	317	139,480 Euro	
36GB, 15k, U160, Hot plug, 1" (spared)	S26361-F2336-E536	1	768 Euro	16	12,288 Euro	
PRIMERGY S30 GE RH 1-Ch	SNP:SY-K638V230-P	1	2,900 Euro	24	69,600 Euro	
Mountingkit 19" Racks f. S30 / S60	S26361-F2734-E20	1	140 Euro	24	3,360 Euro	
SCSI Cable UHD68 (S)	SNP: SY- F2365L20- P	1	104 Euro	24	2,496 Euro	
3 Year Maintenance Storage, 7x24, 4hr Resp.	FSP:G3SP94HUFPSAS	1	4,448 Euro			4,448 Euro
Storage Subtotal					234,544 Euro	
Maint. Server + Storage						11,648 Euro
PRIMERGY C200 GE FS PIII 1.4GHz/512KB	S26361-K836-V134	1	1,180 Euro	4	4,720 Euro	
Pentium III Processor 1.4GHz 512kB	S26361-F2599-E140	1	700 Euro	4	2,800 Euro	
Memory 512MB SDRAM PC133 ECC	S26361-F2306-E523	1	460 Euro	4	1,840 Euro	
Memory 256MB SDRAM PC133 ECC	S26361-F2306-E522	1	220 Euro	4	880 Euro	
Hard Disk 18GB, 10k, U160, hot plug, 1"	SNP:SY-F2336E118-P	1	328 Euro	4	1,312 Euro	
CD- ROM, ATAPI	SNP:SY-F2240E1-A	1	40 Euro	4	160 Euro	
Monitor 151E	S26361- K819- V150	1	159 Euro	4	637 Euro	
Tastatur KBPC S	S26381-K252-L120	1	18 Euro	4	70 Euro	
3 Year Maintenance, 7x24, 4hr Resp.	FSP:G3SP94HUFPSFS	1	2,128 Euro	4		8,512 Euro
Client Hardware Subtotal					12,419 Euro	8,512 Euro
Windows .NET Enterprise Server 2003 (open program no level)	N/A	1	2,998 Euro	1	2,998 Euro	
MS SQL-Server 2000 Ent.Edit. Per Proc Lic. (open program level C)	MSO:810-00846	1	16,381 Euro	8	131,044 Euro	
Server Software Subtotal					134,042 Euro	
Windows Svr 2000 (open program no level)	MSO:C11-00821	1	672 Euro	4	2,688 Euro	
VC++ Pro 6.0 Win32	MSO:048-00426	1	368 Euro	1	368 Euro	
Client Software Subtotal					3,056 Euro	
Microsoft Software Support (all above)	SNP:10901600012					10,353 Euro
FC Switch 8 Port, 2GBit	D:FCSW-8P2GB01	1	6,672 Euro	1	6,672 Euro	
FC GBIC SFP Multi Mode 2 GB	D:FCGBIG-MM2G-01	1	358 Euro	6	2,146 Euro	
FC Kabel MMF 10m, Connector DLC-DLC	D:FCKAB-MM-C10L	1	107 Euro	6	640 Euro	
3 Year Maintenance FC, 7x24, 4hr Resp.	FSP:G3SP94HUFPSG2		2,720 Euro			2,720 Euro
Qlogic 2350 (spared)		2	1,845 Euro	7	12,915 Euro	
User Connectivity Subtotal					22,372 Euro	
Total					555,962 Euro	33,233 Euro

1=Fujitsu-Siemens, 2=Atlantik Elektronik

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 section 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.

3 -Year Cost of Ownership: €589,195
 tpmC Rating: 84,598.42
 €/ tpmC: 6.96

Note: The benchmark results and test methodology were audited by Bradley Askins of InfoSizing

Numerical Quantities Summary

MQTh, computed Maximum Qualified Throughput		84,598.42 tpmC	
Response Times (in seconds)	90th percentile	Average	Maximum
- New-Order	0.89	0.53	5.73
- Payment	0.85	0.49	4.75
- Order-Status	0.83	0.48	4.94
- Delivery (interactive portion)	0.12	0.11	1.40
- Delivery (deferred portion)	0.29	0.18	1.80
- Stock-Level	1.37	0.91	5.15
- Menu	0.12	0.11	1.40
Transaction Mix, in percent of total transactions			
- New-Order			44.91 %
- Payment			43.03 %
- Order-Status			4.02 %
- Delivery			4.01 %
- Stock-Level			4.02 %
Emulation Delay (in seconds)		Response Time	Menu
- New-Order		0.1	0.1
- Payment		0.1	0.1
- Order-Status		0.1	0.1
- Delivery (interactive)		0.1	0.1
- Stock-Level		0.1	0.1
Keying/Think Times (in seconds)	Minimum	Average	Maximum
- New-Order	18.00/0.000	18.02/12.05	18.04/120.51
- Payment	3.00/0.000	3.02/12.05	3.04/120.51
- Order-Status	2.00/0.000	2.02/10.02	2.04/100.51
- Delivery (interactive)	2.00/0.000	2.02/ 5.04	2.04/ 50.51
- Stock-Level	2.00/0.000	2.02/ 5.06	2.04/ 50.51
Test Duration and Checkpointing			
- Ramp-up time		47 minutes	
- Measurement interval		120 minutes	
- Number of checkpoints		4	
- Checkpoint interval		30 minutes	
- Transactions during measurement interval (all types)		23,510,232	