

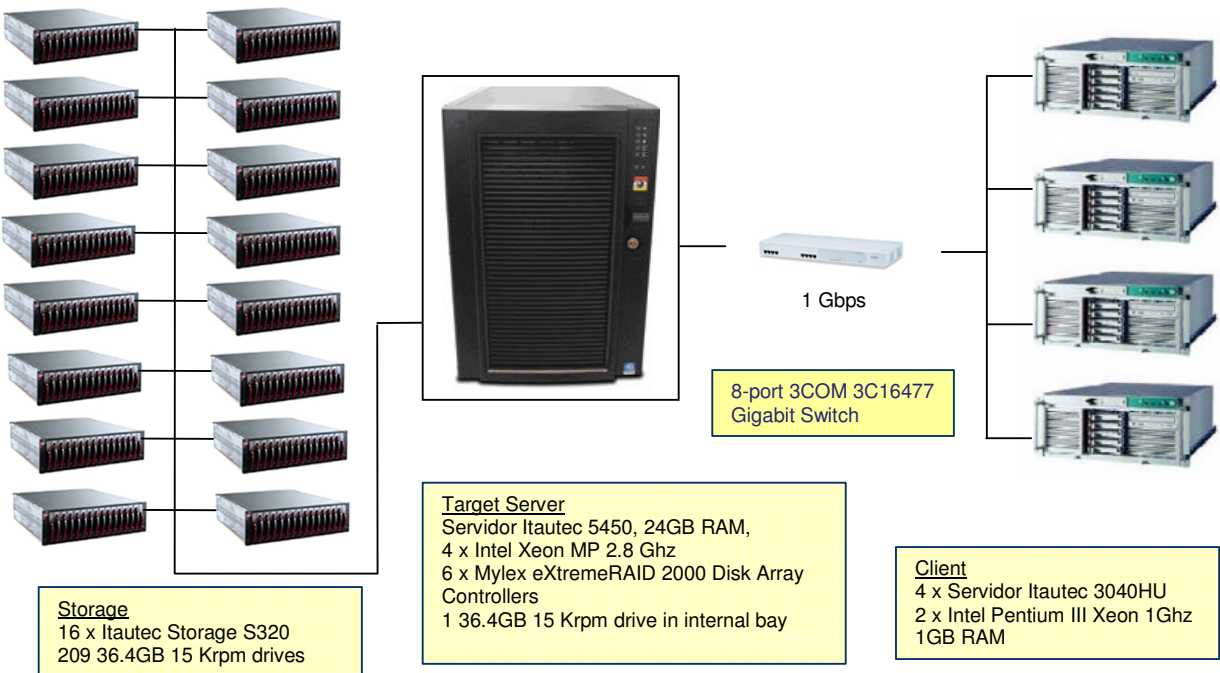


**Servidor Itautec 5450 4P C/S
with Servidor Itautec 3040HU**

TPC-C Rev. 5.1

Report Date: 11/03/2003

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
R\$ 1,554,274.02	58,161.52	R\$ 26.72	11/03/2003
Processors	Database Manager	Operating System	Other Software
4 Intel Xeon MP Processor 2.8 GHz – Server 2 Intel Pentium III Xeon Processor 1.0 GHz - Client	Microsoft SQL Server 2000 Enterprise Edition SP3	Windows Server 2003 Enterprise Edition	Microsoft Visual C++ Microsoft COM+
Number of Users			
47,000			



System Components	Server		Each Client	
	Quantity	Description	Quantity	Description
Processor	4	2.8 GHz Intel Xeon MP w/ 2 MB cache / 400 MHz frontside BUS	2	1.0 GHz Pentium III Xeon w/ 256 KB cache / 133 MHz frontside BUS
Memory	12	2GB Register DDR ECC 266MHz	2	512 MB Register SDRAM ECC DIMM
Disk Controllers	6	Mylex eXtremeRAID 2000	1	Adaptec AIC-7899 Ultra2
Disk Drives	1	36.4 GB SCSI Drive 15 Krpm	1	18.2 GB 10Krpm SCSI Drive
	209	36.4 GB SCSI Drive 15 Krpm		
Total Storage	7644 GB		18.2 GB	
Tape Drives	1	20/40 GB DAT		

Numerical Quantities Summary

MQTh, Computed Maximum Qualified Throughput

58,161.52 tpmC

Response Times (in seconds)

	Average	90 th	Max
New Order	0.67	1.10	12.12
Payment	0.59	1.00	14.12
Order Status	0.62	1.04	7.79
Delivery (interactive)	0.10	0.11	1.09
Delivery (deferred)	0.26	0.46	1.47
Stock Level	1.05	1.90	8.17
Menu	0.10	0.11	9.51

Response time delay added for emulated components

Menu 0.1
Resp. 0.1

Transaction Mix, in percent of total transactions


New-Order	44.95%
Payment	43.02%
Order-Status	4.02%
Delivery	4.01%
Stock-Level	4.00%

Keying/Think Times (in seconds)

	Min		Average		Max	
New Order	18.00	0.00	18.02	12.07	18.03	120.71
Payment	3.00	0.00	3.02	12.06	3.03	120.71
Order Status	2.00	0.00	2.02	10.04	2.03	100.70
Delivery	2.00	0.00	2.02	5.07	2.03	50.71
Stock Level	2.00	0.00	2.02	5.08	2.03	50.71

Test Duration

Ramp-up time	58 minutes
Measurement interval	120 minutes
Number of checkpoints	4
Checkpoint interval	30 minutes
Number of transactions (all types) completed in measurement interval	16,149,100

 Itautec Philco		Servidor Itautec 5450			TPC-C Rev. 5.1		
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Description	Part Number	Third Party Brand	Pricing	Unit Price	Quantity	Extended Price	3 yr. Maint. Price
Server Hardware							
Servidor Itautec 5450							
Base System with 1 x Xeon MP 2.8Ghz/2M	F5094	Itautec	1	34.869	1	34.869	-
Intel Xeon MP 2.8Ghz/2M BTO Option	G0463	Itautec	1	22.177	3	66.532	-
2 GB DDR266 PC1600 ECC Reg memory	F7880	Itautec	1	12.764	12	153.168	-
36 GB 15K HDD	F4637	Itautec	1	1.849	1	1.849	-
On-Board Intel PRO1000XT LAN	Included	Itautec	1	-	1	-	-
On-Board Intel PRO100+ LAN	Included	Itautec	1	-	1	-	-
CD-ROM, Internal SCSI Adapter	Included	Itautec	1	-	1	-	-
Upgrade to 3-year / 4-hour response / 7days - 24hrs	1994/2003_03	Itautec	1	27.002	1	-	27.002
Monitor 15" SYNC MASTER 551S	E9801	Itautec	1	450	1	450	-
Subtotal						256.869	27.002
Disk Subsystem							
Extreme RAID 2000 4 Channel Controller (+ 2 spare)	A4805	Itautec	1	7.759	8	62.072	-
Itautec Storage Ultrab SC2100CTR-AC (+ 2 spare)	F1390	Itautec	1	21.185	18	381.331	-
36GB Ultra320 15K rpm (+10% spare)	F6853	Itautec	1	2.527	230	581.320	-
EXT SCSI Cable Eurou VHDCI68P (+2 spare)	E8158	Itautec	1	722	12	8.666	-
EXT SCSI Cable HD68/VHD68 (+ 1 spare)	86610	Itautec	1	239	7	1.673	-
Kit Rack for Storage	F1781	Itautec	1	750	16	11.999	-
Rack Itautec F2400	F2400	Itautec	1	4.195	3	12.584	-
Subtotal						1.059.644	-
Server Software							
Microsoft Windows 2003 Enterprise Edition	P72-00264	Microsoft	1	8.611	1	8.611	-
SQL Server 2000 Ent. Edition (per processor)	810-00848	Microsoft	1	70.557	4	282.228	-
Subtotal						290.839	-
Client Hardware							
Servidor Itautec 3040HU							
Base System Wwith 1 x Pentium III 1Ghz/256KB	B4G6Q	Itautec	1	6.509	4	26.036	-
1 x Pentium III 1GHz/512KB BTO Option	A9347	Itautec	1	1.369	4	5.476	-
2 x 512MB Memory	F0251	Itautec	1	1.300	4	5.200	-
1 x 18GB 10K rpm	F0555	Itautec	1	620	4	2.480	-
Intel Pro/1000 T Server Adapter	F3608	Itautec	1	1.849	8	14.792	-
CD-ROM, On-Board LAN	Included	Itautec	1	-	4	-	-
Upgrade to 3-year / 4-hour response / 7days - 24hrs	1994/2003_03	Itautec	1	2.166	4	-	8.664
Monitor 15" SYNC MASTER 551S	E9801	Itautec	1	450	1	450	-
Subtotal						54.434	8.664
Client Software							
Microsoft Windows 2000 Server	C11-00821	Microsoft	1	2.985	4	11.940	-
Microsoft Visual C++ Professional 6.0	254-00257	Microsoft	1	393	1	393	-
Subtotal						12.333	-
Network components							
SWITCH 8P BASELINE 10/100/1000	3C16477-ME	Itautec	1	2.148	1	2.148	-
Subtotal						2.148	-
TOTAL						1.676.267	35.666
Large volume purchase with cash in advance Discount on Itautec Hardware (11.5%)						157.659	
TOTAL						1.518.608	35.666
Pricing: 1 - Itautec						3-Yr. Cost of Ownership: R\$	1.554.274,02
						tpmC Rating:	58.161,52
R\$ / tpmC:						26,72	
Audited By Lorna Livingtree							

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 specifications. If you find that the stated prices are not available according to these items, please inform the TPC at pricing@tpc.org.