

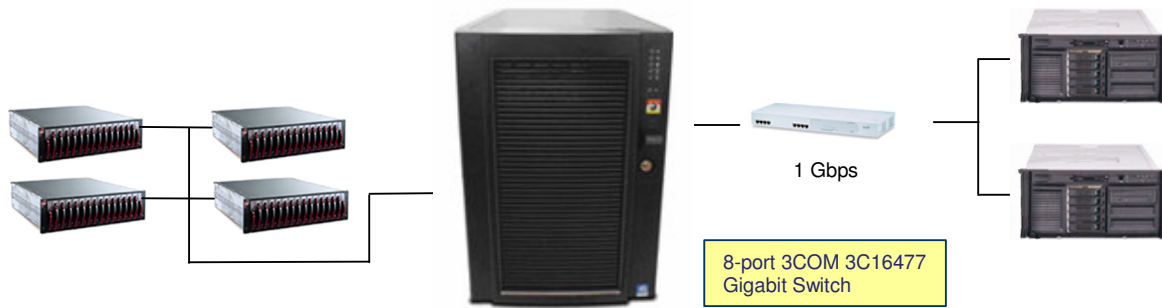


**Servidor Itautec 5450 1P C/S
with Servidor Itautec 3254**

TPC-C Rev. 5.2

Report Date: 08/13/2004

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
R\$ 601,552 BRL	34,349	R\$ 17.51 BRL	08/13/2004
Processors	Database Manager	Operating System	Other Software
1 Intel Xeon MP 2.8 GHz – Server 2 Intel Xeon 2.66 GHz – Client	Microsoft SQL Server 2000 Enterprise Edition SP3	Windows Server 2003 Enterprise Edition	Microsoft Visual C++ Microsoft COM+
Number of Users			
27,460			



Storage
4 x Itautec Storage S320
56 36.4GB 15 Krpm drives

Target Server
Servidor Itautec 5450 1P,
24 GB RAM,
1 x Intel Xeon MP 2.8 Ghz
3 x Mylex eXtremeRAID 2000 Disk Array
Controllers
9 36.4GB 15 Krpm drives in internal bay

Client
2 x Servidor Itautec 3254
2 x Intel Xeon 2.66GHz
1GB RAM

System Components	Server		Each Client	
	Quantity	Description	Quantity	Description
Processor	1	2.8 GHz Intel Xeon MP w/ 2 MB cache / 400 MHz frontside BUS	2	2.66 GHz Xeon w/ 512 KB cache / 533 MHz frontside BUS
Memory	12	2GB Register DDR ECC 266MHz	2	512 MB Register SDRAM ECC DIMM
Disk Controllers	3	Mylex eXtremeRAID 2000	1	Adaptec AIC-7899 Ultra2
Disk Drives	1	36.4 GB SCSI Drive 15 Krpm	1	36.4 GB 10Krpm SCSI Drive
	64	36.4 GB SCSI Drive 15 Krpm		
Total Storage	2366 GB		36.4 GB	
Tape Drives	1	20/40 GB DAT		

Numerical Quantities Summary

MQTh, Computed Maximum Qualified Throughput

34,349 tpmC

Response Times (in seconds)

	Average	90 th	Max
New Order	0.47	0.79	5.85
Payment	0.29	0.48	3.86
Order Status	0.33	0.53	5.86
Delivery (interactive)	0.10	0.11	0.87
Delivery (deferred)	0.33	0.57	1.66
Stock Level	0.98	1.59	4.21
Menu	0.10	0.11	2.84

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	43.00%
Order-Status	4.02%
Delivery	4.01%
Stock-Level	4.02%

Keying/Think Times (in seconds)

	Min		Average		Max	
New Order	18.00	0.00	18.01	12.06	18.03	120.71
Payment	3.00	0.00	3.01	12.05	3.03	120.71
Delivery	2.00	0.00	2.01	5.09	2.03	50.71
Stock Level	2.00	0.00	2.01	5.08	2.03	50.70
Order Status	2.00	0.00	2.01	10.05	2.03	100.70

Test Duration

Ramp-up time	31 minutes
Measurement interval	120 minutes
Number of checkpoints	4
Checkpoint interval	30 minutes
Number of transactions (all types) completed in measurement interval	9,573,861

 Itautec Philco		Servidor Itautec 5450 1P			TPC-C Rev. 5.2		
					Report Date: August 13, 2004		
Description	Part Number	Third Party Brand	Unit Price R\$	Quantity	Extended Price	3 yr. Maint. Price	
Server Hardware							
Servidor Itautec 5450 1P							
Base System with 1 x Xeon MP 2.8Ghz/2M	B7PWZ	Itautec	1	58.160	1	58.160	
2 GB DDR266 PC1600 ECC Reg memory	F7880	Itautec	1	10.099	12	121.188	
36GB Ultra320 15K rpm	F4637	Itautec	1	2.209	1	2.209	
DAT Drive (12/24 GB)	G4688	Itautec	1	2.738	1	2.738	
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	2803_04	Itautec	1	1.680	1	-	
Monitor 15" SYNC MASTER 551S	E9801	Itautec	1	450	1	450	
UPS SMART APC 1	92759	Itautec	1	3.469	1	3.469	
					Subtotal	188.214	1.680
Disk Subsystem							
Extreme RAID 2000 4 Channel Controller	A4805	Itautec	1	15.323	3	45.969	
Itautec Storage Ultrab SC2100CTR-AC	F1390	Itautec	1	20.283	4	81.132	
36GB Ultra320 15K rpm	F6853	Itautec	1	2.728	64	174.592	
36GB Ultra320 15K rpm (10% spare)	F6853	Itautec	1	2.728	7	-	
EXT SCSI Cable Eurou VHDCI68P	E8158	Itautec	1	611	4	2.444	
Kit Rack for Storage	F1781	Itautec	1	813	4	3.252	
Rack Itautec F2400	F2400	Itautec	1	5.175	1	5.175	
					Subtotal	312.564	19.096
Server Software							
Microsoft Windows 2003 Enterprise Edition	G1178	Microsoft	1	15.067	1	15.067	
SQL SVR 2000 ENT/1 PROCES LICENSE CD ING	H0138	Microsoft	1	80.355	1	80.355	
					Subtotal	95.422	-
Client Hardware							
Servidor Itautec 3254							
Base System with 1 x Xeon DP 2,66GHz	B7PLV	Itautec	1	10.790	2	21.581	
1 x Xeon 2,66Ghz BTO Option	F8273	Itautec	1	1.515	2	3.031	
2 x 512MB Memory	F9283	Itautec	1	1.679	2	3.358	
1 x 36GB 10K rpm	F3656	Itautec	1	1.063	2	2.126	
Intel 1000 Base TX Ethernet Controller	Included	Itautec	1	-	2	-	
CD-ROM, On-Board LAN	Included	Itautec	1	-	2	-	
Upgrade to 3-year / 4-hour response / 7days - 24hrs	2803_04	Itautec	1	532	2	-	
Monitor 15" SYNC MASTER 551S	E9801	Itautec	1	410	1	410	
					Subtotal	30.506	1.063
Client Software							
Microsoft Windows 2000 Server	C11-00821	Microsoft	1	3.956	2	7.911	
Visual C++ .NET 2003 CD Ing	254-00170	Microsoft	1	423	1	423	
					Subtotal	8.334	-
Network components							
SWITCH 8P BASELINE 10/100/1000	3C16477-ME	Itautec	1	2.148	1	2.148	
SWITCH 8P BASELINE 10/100/1000 (2 spares)	3C16477-ME	Itautec	1	2.148	2	-	
					Subtotal	2.148	4.296
					TOTAL	637.187	26.136
Large volume purchase with cash in advance Discount on Itautec Hardware (11.58%)						61.771	
					TOTAL	575.416	26.136
Pricing: 1 - Itautec					3-Yr. Cost of Ownership: R\$ 601.552 BRL		tpmC Rating: 34349
					R\$ / tpmC: R\$ 17,51 BRL		
Audited By Lorna Livingtree of Performance Metrics Inc.							

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.