Itautec	**Servidor Itautec ZX400 1P C/S with Servidor Itautec MX200 1P**	**TPC-C Rev. 5.6**
		Report Date: 04/12/2006

Total System Cost	**TPC-C Throughput**	**Price/Performance**	**Availability Date**
R$ 675,661 BRL	**57,552**	**R$ BRL / tpmC: 11.74**	**04/12/2006**

Processors	**Database Manager**	**Operating System**	**Other Software**	**Number of Users**
1 Intel Xeon EM64T, 2 Cores, 4 Threads @ 3GHz - Server 1 Intel Xeon EM64T 3.06 GHz - Client	Microsoft SQL Server 2005 Standard Edition	Windows Server 2003 Enterprise Edition	Microsoft Visual C++ Microsoft COM+	**46,000**

8-port 3COM 3C16477 Gigabit Switch

Storage
8+1 Storage S320
112 36.4GB 15 Krpm drives
8 73 GB 15 Krpm drives

Target Server
Servidor Itautec ZX400, 32GB RAM,
1 x Dual Core Intel Xeon EM64T 2+2M @
3GHz, LSI 53C1030 SCSI 3 Ultra320
controllers w/ 2 36.4GB 15Krpm drives in
internal bays

Client
Servidor Itautec MX200
Intel Pentium Xeon @ 3.06GHz
1GB RAM
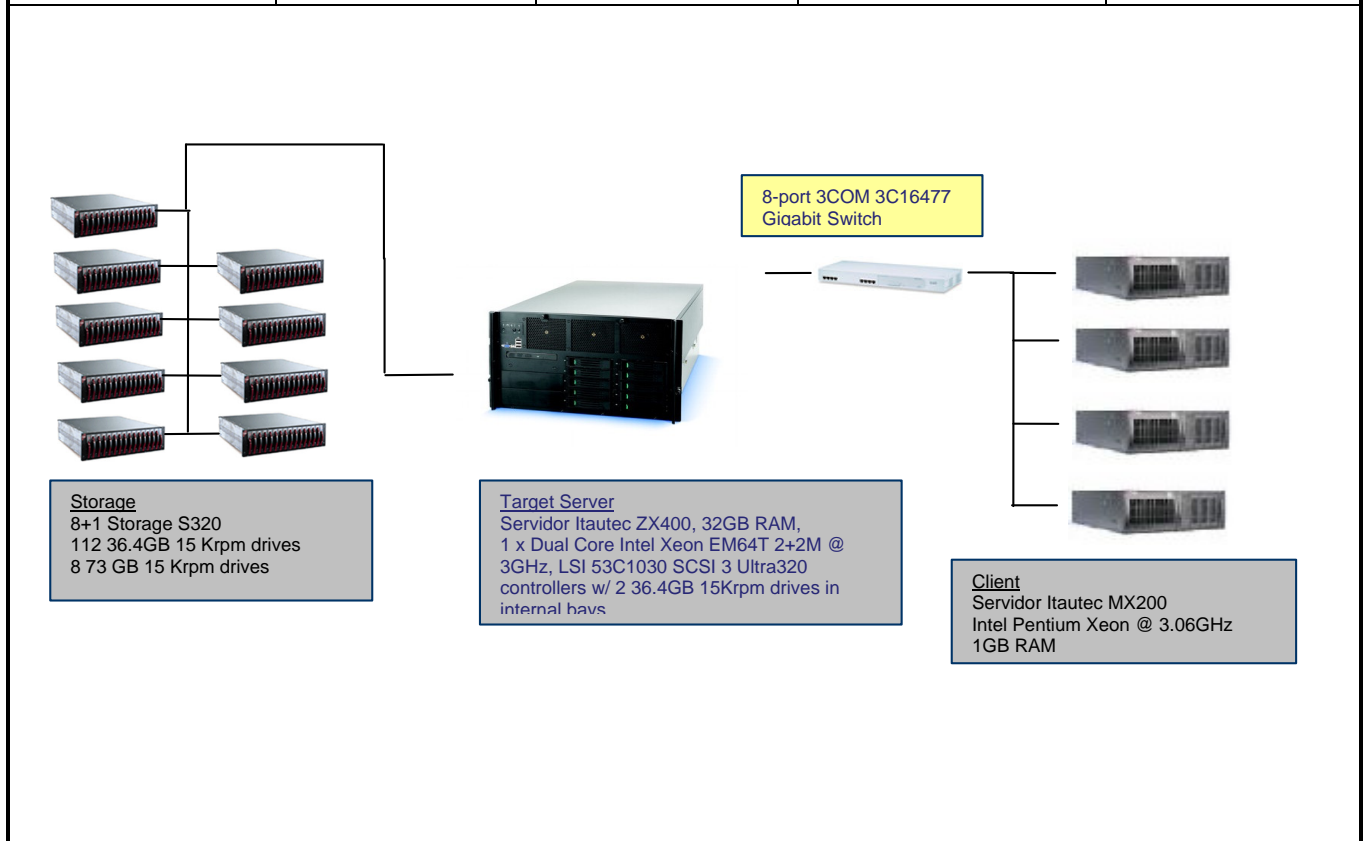
System Components	**Server**		**Each Client**	
	Quantity	Description	Quantity	Description
Processor/ Cores/Threads	1/2/4	3.0 GHz Intel Xeon EM64T 2+2M w/ 2 MB cache / 800 MHz FSB	1/1/2	3.06 GHz Intel Xeon EM64T w/1MB cache
Memory	16	2GB Register DDR2 @ 400MHz	2	512 MB Register ECC DDR DIMM @ 266 MHz
Disk Controllers	4 1	LSI Logic MegaRAID SCSI 320-2E LSI Logic MegaRAID SCSI 320-2X	1	Intel® 82801EB I/O Controller Hub 5
Disk Drives	114 8	36.4 GB SCSI Drive 15 Krpm 73 GB SCSI Drive 15Krpm	1	80 GB 7200 SATA Drive
Total Storage		4733.6 GB		80 GB

Numerical Quantities Summary

MQTh, Computed Maximum Qualified Throughput   **57,552 tpmC**

Response Times (in seconds)

	Average	**90 th**	**Max**
New Order	0.39	0.63	5.40
Payment	0.35	0.59	4.53
Order Status	0.37	0.61	5.40
Delivery (interactive)	0.11	0.11	1.76
Delivery (deferred)	0.25	0.40	1.08
Stock Level	0.59	0.92	2.60
Menu	0.11	0.11	1.76

Response time delay added for emulated components

Menu 0.1
Resp. 0.1

Transaction Mix, in percent of total transactions

New Order	44.93%
Payment	43.02%
Order-Status	4.01%
Delivery	4.02%
Stock-Level	4.02%

Keying/Think Times (in seconds)

	Min		**Average**		**Max**	
New Order	18.02	0.00	18.03	12.07	18.07	120.54
Payment	3.02	0.00	3.03	12.06	3.07	120.54
Delivery	2.02	0.00	2.03	5.06	2.07	50.52
Stock Level	2.02	0.00	2.03	5.07	2.07	50.52
Order Status	2.02	0.00	2.03	10.06	2.06	100.53

Test Duration

Ramp-up time	19 minutes
Measurement interval	120 minutes
Number of checkpoints	4
Checkpoint interval	30 minutes
Number of transactions (all types) completed in measurement interval	15.988.092

| Itautec | Servidor Itautec ZX400 1P | TPC-C Rev. 5.6 |
| | | Report Date: Apr 04, 2006 |

Description	Part Number	Third Party Brand	Pricing	Unit Price R$	Quantity	Extended Price	3 yr. Maint. Price
Server Hardware							
Servidor Itautec **ZX400** 1P							
Base System with 1 x **Xeon MP 3.0 GHz/2x2MB 667**	**C18GX**	Itautec	1	**123,966**	1	123,966	-
2 GB DDR2-400 SDRAM	I2393	Itautec	1	-	16	-	-
36 GB Ultra320 15Krpm HDD	Included	Itautec	1	-	2	-	-
On-Board LAN Broadcom NetXtreme 1000Gbps	Included	Itautec	1	-	2	-	-
CD-ROM, Internal SCSI Adapter	Included	Itautec	1	-	1	-	-
Upgrade to 3-year / 4-hour response / 7days - 24hrs	2106_05	Itautec	1	12,345	1	-	12,345
Monitor 15" Sync Master 591S	I1555	Itautec	1	330	1	330	-
UPS SMART APC 1	F2643	Itautec	1	1,621	1	1,621	-
					Subtotal	125,917	12,345
Disk Subsystem							
SCSI RAID Controller U320 2-channel PCI-E	I1710	Itautec	1	4,110	4	16,440	-
SCSI RAID Controller U320 2-channel PCI-X	G7622	Itautec	1	3,810	1	3,810	-
36 GB Ultra320 15K rpm	F6853	Itautec	1	2,420	112	271,040	-
73 GB Ultra320 15K rpm	F4641	Itautec	1	3,453	8	27,624	-
36 GB Ultra320 15K rpm (10% spare)	F6853	Itautec	1	2,420	12	-	29,040
73 GB Ultra320 15K rpm (10% spare)	F4641	Itautec	1	3,453	2	-	6,906
Storage Itautec S320	F1390	Itautec	1	20,321	9	182,892	-
Kit Rack for Storage	F1781	Itautec	1	345	9	3,105	-
Rack Itautec F2400	F2400	Itautec	1	5,281	3	15,843	-
					Subtotal	520,754	35,946
Server Software							
Microsoft Windows 2003 Server Enterprise Edition x86	P72-00981	Microsoft	1	-	1	-	-
SQL Server 2005 Standard Edition 32 bits	81852	Microsoft	1	4,115	1	4,115	-
					Subtotal	4,115	-
Client Hardware							
Servidor Itautec MX-200							
Base System with 1 x Xeon EM64T 3.06GHz/1MB	C0V4F	Itautec	1	8,657	4	34,628	-
2 x 512MB Memory	Included	Itautec	1	-	4	-	-
1 x 80GB SATA 7200rpm	Included	Itautec	1	-	4	-	-
2 x Intel Pro/1000 Server Adapter	Included	Itautec	1	-	4	-	-
CD-ROM, On-Board LAN	Included	Itautec	1	-	4	-	-
Upgrade to 3-year / 4-hour response / 7days - 24hrs	001839	Itautec	1	467	4	-	1,868
Monitor 15" SYNC MASTER 551S	E9801	Itautec	1	404	4	1,616	-
					Subtotal	36,244	1,868
Client Software							
Microsoft Windows 2003 Server Standard Edition 32 bits	H0085	Microsoft	1	3,376	4	13,504	-
Visual C++ .NET Standard	254-00257	Microsoft	1	336	1	336	-
					Subtotal	13,840	-
Network components							
Switch 16P Baseline 10/100/1000	G9949	Itautec	1	2,100	2	4,200	-
Switch 16P Baseline 10/100/1000 (spares)	G9949	Itautec	1	2,100	2	4,200	-
					Subtotal	4,200	-
					TOTAL	705,070	50,159
Large volume purchase with cash in advance Discount on Itautec Hardware (11.58%)						79,568	
					TOTAL	625,502	50,159

	3-Yr. Cost of Ownership:	R$ 675,661 BRL
Pricing: 1 - Itautec	tpmC Rating:	57,552
	R$ / tpmC:	11.74

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.