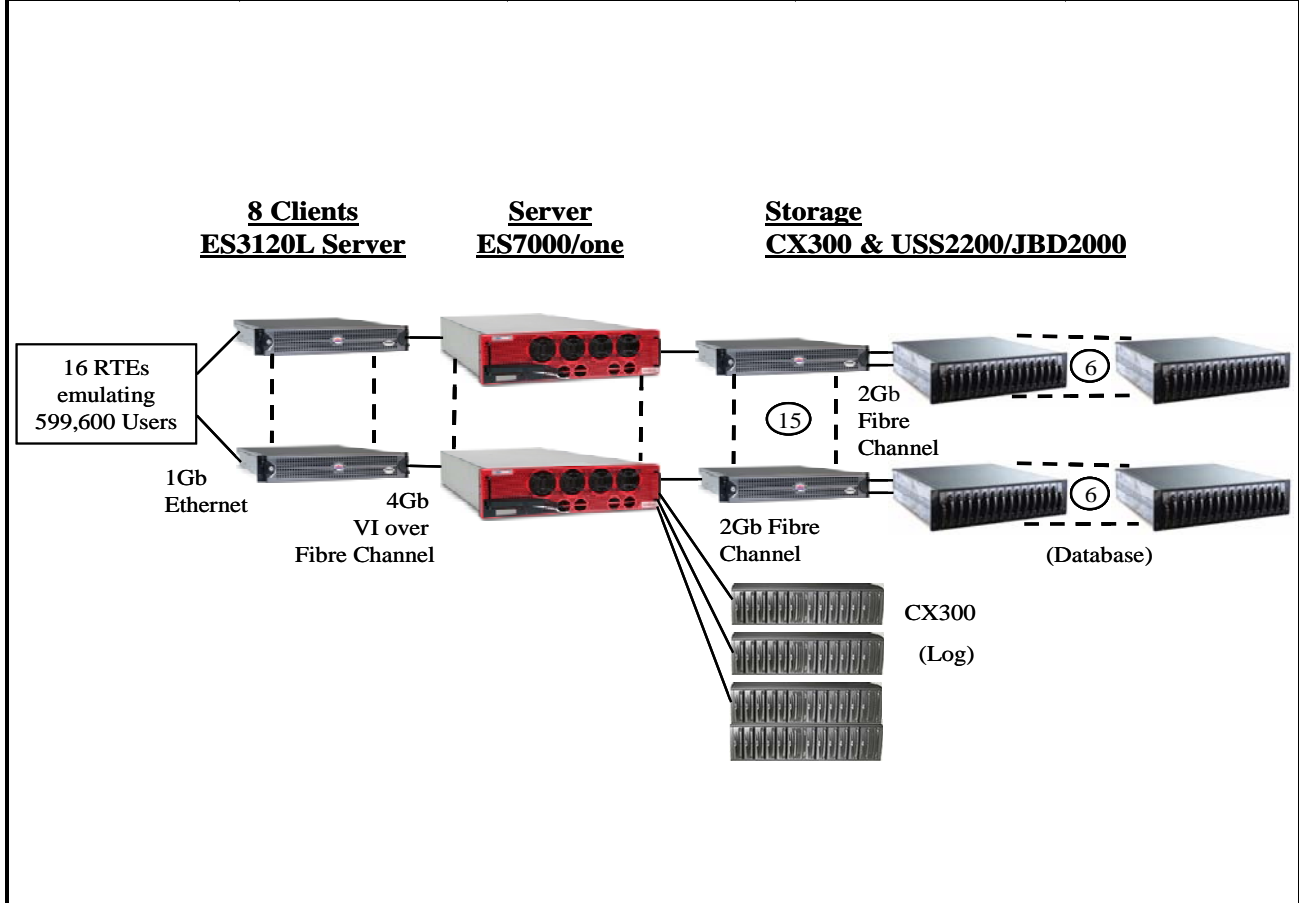


UNISYS	ES7000/one Enterprise Server (16P)		TPC-C Rev. 5.6
			Report Date May 8, 2006
Total System Cost	TPC-C Throughput	Price Performance	Availability Date
\$2,494,393 USD	749,839 tpmC	\$3.33 USD/tpmC	June 12, 2006
Processors/ Cores/Threads	Database Manager	Operating System	Other Software
16/32/64 Database 16/16/32 Clients	Microsoft SQL Server 2005 Enterprise x64 Edition	Microsoft Windows Server 2003, Datacenter x64 Edition	Windows Server 2003 w/ IIS 6.0 and COM+ Microsoft Visual C++
599,600			



System Components	Qty.	Server	Qty.	Each Client (8)
Processors/Cores/Threads Cache	16/32/64	Intel® Dual-Core Xeon® Processor 7041 3.0GHz, 2x2MB Lvl 2 Cache	2/2/4	Intel® 64-bit Xeon® Processor 3.4GHz , 2MB Lvl 2 Cache
Memory	1	512GB (4GB DIMMs)	1	2GB (1GB DIMMs)
Disk Controllers	17 1	PCI Fibre Channel PCI SAS RAID (boot)	1	Inbuilt SCSI
Disk Drives	1260 24 26 2	36GB FC 15K rpm 73GB FC 15K rpm 146GB FC 10K rpm 36GB SAS 10K rpm (boot media)	1	36GB SCSI 15K rpm
Total Storage		46.6 TB		34.3 GB
Other	8 8 8	Inbuilt 1Gb 2-Port NIC (0 used) PCI VI-over-FC Controller IDE DVD/CD R/RW (1 used)	2 1 1	Inbuilt 1Gb NIC (1 used) PCI VI-over-FC Controller IDE CD-ROM

UNISYS	ES7000/one Enterprise Server (16P)		TPC-C Rev. 5.6 TPC Pricing 1.0.1			
			Report Date May 8, 2006			
Description	Part Number	Price Source	Unit Price	Qty.	Extended Price	3-yr.Maint. Price
Server Hardware:						
SYS: ES7000/one, 16x 7041/3.0GHz, 64GB Mem. Service Processor & Server Mngmt SW	ES7112163-700		1	\$399,000	1	\$399,000 \$14,400
MEM: 8GB ES7/one Memory, 4GB DIMMs	FAC7102401-ICA		1	\$9,880	8	\$79,040
MEM: 64GB ES7/one Memory, 4GB DIMMs	FAC7116401-64G		1	\$59,584	6	\$357,504
CTRL: Fibre Channel HBA, 2-Port, 64-bit PCI	FC76222-P64		1	\$2,850	17	\$48,450
CTRL: VI-over-FC HBA, 4Gb 2-Port, 64-bit PCI	FCH7440231-PCX		1	\$1,900	8	\$15,200
KIT: 1x RAID Controller, 1x 36GB Disk (boot media)	FAC7100361-IDK		1	\$779	1	\$779
DISK: 1x 36GB 10Krpm SAS (boot media)	HDX4036101-X25		1	\$428	1	\$428
I/F: Monitor, 17-inch LCD, Kybrd, Mse & Cable	ES70006-UIF		1	\$546	1	\$546
Subtotal					\$900,947	\$14,400
Server Software:						
O/S: Windows 2003 Srvr, DC x64 Edtn, 16P, 1yr Lsub.	WNX6416-TSP		1	\$35,112	1	\$35,112 \$17,424
O/S: Windows 2003 Server, DC Lmtd Sbscrptn, 1yr.	DUS200316-TSP		1	\$3,173	2	\$6,346
APP: Microsoft SQL Server 2005 Enterprise x64 Edtn.	810-03134		2	\$23,432	16	\$374,912 ** Inc. below
SRVC: Microsoft Problem Resolution Services **			2	\$245	1	\$245
Subtotal					\$416,370	\$17,669
Storage Hardware:						
DISK: 3.0TB Pkg, 84x 36GB, 15Krpm *	JBD203615-P84		1	\$36,086	16	\$577,376 Spared
DISK: 1.5TB Pkg, 42x 36GB, 15Krpm *	JBD203615-P42		1	\$22,791	1	\$22,791 Spared
DISK: 73GB, 15Krpm, 2Gb FC	CXR7315-2GF		1	\$1,259	24	\$30,216
DISK: 146GB, 10Krpm, 2Gb FC	CXR14610-2GF		1	\$1,349	26	\$35,074
CTRL: DPE, 2 RAID Cntrl, 1GB Cache ea., 0 Disk	CX300-DPE		1	\$13,300	3	\$39,900 \$4,212
RCK: DAE Storage Enclosure, FC 2Gb Optical I/F	CXP2-FD		1	\$5,605	1	\$5,605
SYS MGT: Storage, Navisphere Manager	CXN300-WRK		1	\$2,138	1	\$2,138 \$1,008
RCK: Storage Enclosure, FC 2Gb Copper/Copper I/F	JBD2002-SA		1	\$3,197	60	\$191,820 \$30,240
RCK: Storage Enclosure, FC 2Gb Optical/Copper I/F	JBD2011-SA		1	\$3,413	30	\$102,390 \$16,200
CTRL: Symmetric Disk Virt. 2xCPU, 512MB Mem	RMM20103-ELS		1	\$4,559	15	\$68,385 \$18,180
CTRL: USS, Fibre Channel HBA, 1-Port, 64-bit PCI	RMM20701-TAR		1	\$1,805	45	\$81,225 \$21,600
APP: Unisys Storage Sentinel 2200 SDV Software	USS10300-SW		1	\$5,472	1	\$5,472 \$4,068
APP: Storage Sentinel SDV SW, 5TB License	USS20305-LIC		1	\$16,800	1	\$16,800
APP: Storage Sentinel SDV SW, 20TB License	USS20320-LIC		1	\$37,484	2	\$74,968
CBL: FC, Copper, HSDC2 Conn's, 0.3m	JBD20003-CCL		1	\$53	60	\$3,180
CBL: FC, Optical, LC->LC Conn's, 20m *	GCFAZLLM20-M		3	\$64	53	\$3,392 Spared
RCK: Rack Mount Kit, Disk Enclosure	JBD2001-RMK		1	\$190	90	\$17,100
SWTCH: KVM 16-Port PS/2-Cat5	KVM9163101-SWC		1	\$1,805	2	\$3,610
I/F: Monitor, 17-inch LCD, Kybrd, Mse & Cable	ES70004-UIF		1	\$665	2	\$1,330
ADPTR: Cat5 to PS/2	KVM9001301-CNV		1	\$114	23	\$2,622
CBL: Ethernet, Cat5e, RJ45 Conn's, 10ft *	GCPO888910-BK		3	\$2	29	\$58 Spared
PWR: Distribution Strip, 9-Plug, 220V	SFR9-PWR		1	\$162	30	\$4,860
CBL: Power, U.S. (Domestic), C20 - L6-20P	USE1936-LC6		1	\$86	30	\$2,580
CAB: 36U x 19" x 41" Open Front Cabinet	HRT361941-OFT		1	\$1,425	10	\$14,250
Subtotal					\$1,307,142	\$95,508
Client Hardware:						
SYS: ES3120L w/ 1x 3.4GHz Proc., 0MB Mem	ESL312002-340		1	\$1,859	8	\$14,872 \$5,184
PROC: 1x 3.4GHz Intel Xeon/2MB Cache	CPL3120342-2MB		1	\$1,063	8	\$8,504
MEM: 2GB, 2x 1GB DIMMs DDR SDRAM	DIM3120021-2GB		1	\$862	8	\$6,896
DISK: 36GB 15Krpm U320 3.5 Internal	HDP36115-DC4		1	\$332	8	\$2,656
RCK: ES3120L HSBP Modular & SCSI Cable	HBP3120101-MOD		1	\$264	8	\$2,112
RCK: ES3120L Universal Rack Kit	ESL3120-VRL		1	\$331	8	\$2,648
CTRL: VI-over-FC HBA, 4Gb 2-Port, 64-bit PCI	FCH7440231-PCX		1	\$1,900	8	\$15,200
CDR: 24x Slimline CD-ROM & Cable	CDR12243-AIS		1	\$41	8	\$328
Subtotal					\$53,216	\$5,184
Client Software:						
O/S: Windows Server 2003, Standard Edition	P73-00295		2	\$719	8	\$5,752 ** Inc. above
ACC: Microsoft Visual C++ Standard Edition	254-00170		2	\$109	1	\$109 ** Inc. above
Subtotal					\$5,861	\$0
Computer Resolutions Inc. 14% Volume Cash Discount (Ext.Price where Price Source=1)						(\$321,904)
Total USD					\$2,361,632	\$132,761
Notes:						
1. * 10% or minimum 2 spares are added in place of onsite service.				3-Year Cost of Ownership: \$2,494,393 USD tpmC Rating: 749,839 \$ / tpmC: \$3.33 USD		
2. HW & SW maintenance at 24 x 7 w/ 4 hr. max. response time for spares.						
3. Price Source: 1 = CRI Product Price, Unisys Maintenance Price 2 = Microsoft 3 = GoCables						
Benchmark results and test methodology 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 assumption 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 benchmarks 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.						

Numerical Quantities Summary

MQTh, Computed Maximum Qualified Throughput: 749,839 tpmC

Response Times, in seconds

Transaction	90th %ile	Average	Maximum
New-Order	0.45	0.30	13.27
Payment	0.43	0.29	11.16
Order-Status	0.45	0.30	7.83
Delivery (interactive portion)	0.37	0.23	3.89
Delivery (deferred portion)	0.17	0.13	7.70
Stock-Level	0.67	0.44	5.00
Menu	0.37	0.24	3.91

Response time delay added for emulated components, in seconds

RT Response time	0.1
Menu Response time	0.1

Transaction Mix, in percent of total transactions

New Order	44.92%
Payment	43.03%
Order-Status	4.01%
Delivery (interactive portion)	4.00%
Stock-Level	4.01%

Keying / Think Time Times, in seconds

Transaction	Minimum	Average	Maximum
New Order	18.01 / 0.00	18.01 / 12.03	18.03 / 120.31
Payment	3.01 / 0.00	3.01 / 12.03	3.03 / 120.31
Order-Status	2.01 / 0.00	2.01 / 10.07	2.03 / 100.70
Delivery (interactive portion)	2.01 / 0.00	2.01 / 5.06	2.03 / 50.61
Stock-Level	2.01 / 0.00	2.01 / 5.06	2.03 / 50.61

Test Duration

Ramp up time	91 minutes
Measurement interval (M)	120 minutes
Transactions (all types) completed during measurement interval	200,272,741
Ramp-down time	4 minutes

Checkpointing:

Number of checkpoints	4
Checkpoint interval	30 minutes