

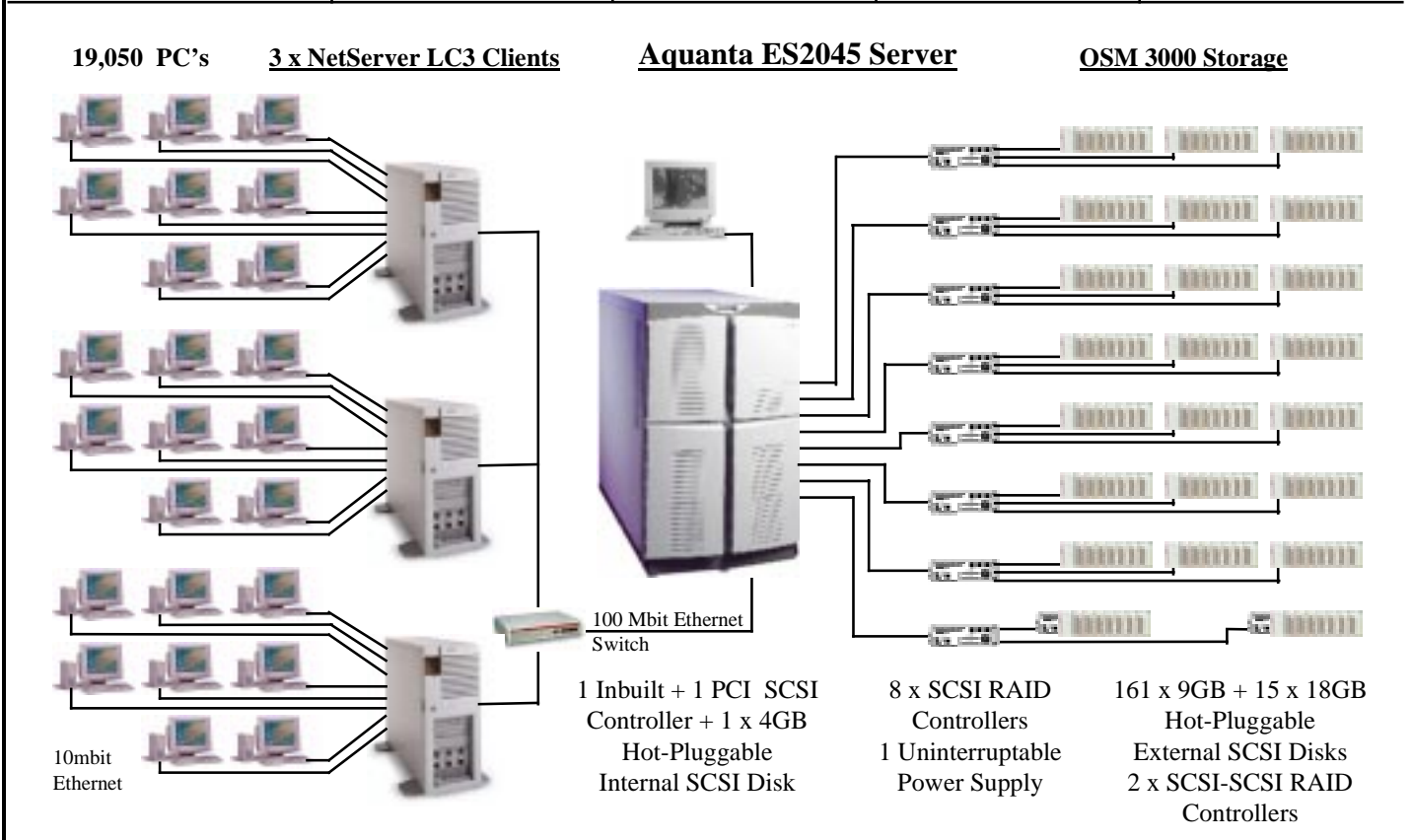


Aquanta ES2045 Server (4P 500MHz/2MB)

TPC-C Rev. 3.4

Report Date: 31-Mar-1999
Reprice Date: 10-Aug-1999

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$430,592	23,852.10 tpmC	\$18.05 per tpmC	31-Mar-1999
Processors	Database Manager	Operating System	Other Software
4 Pentium® III Xeon 500 MHz 2MB L2 cache	Microsoft SQL Server Enterprise Edition 7.0	Microsoft NT Server 4.0 Enterprise Edition	Microsoft IIS 3.0 Tuxedo 6.3 CFS
19,050			



System Components	Server		Clients	
	Quantity	Type	Quantity	Type
Processors	4	500 MHz Pentium® III Xeon with 2MB Level 2 Cache	3	2 x 450MHz Pentium® II with 512KB Level 2 Cache
Memory	1	4096MB	3	512MB
Disk Controllers	8 + 2 1 + 1	SCSI RAID Inbuilt + PCI SCSI	3	Inbuilt SCSI
Disk Drives	1 161 15	4.24 GB 8.54 GB 17.09 GB	3	3.97 GB
Total Storage		1635.79 GB		11.91 GB
CD-ROM / Tape	1	SCSI CD-ROM Drive	3	CD-ROM Drive

Unisys Corporation		Aquanta ES2045 Server (4P 500MHz/2MB)					TPC-C Rev 3.4 10-Aug-1999	
Description	Style	Third Party		Unit	Qty.	Extended Price	5 Years Maint.	
		Brand	Pricing	Price				
Server Hardware								
SYS: Aquanta ES2045, w/ CDROM, 0 Proc, 0MB Mem	ES204151-GZN			1	1	\$5,525	\$3,060	
PROC: 500MHz Pentium III Xeon /2MB Cache	XEO3500-2MB			1	4	\$5,893	\$9,888	
ACC:Voltage Regulator Module	XEO24001-VRM			1	6	\$44	\$264	
MEM:ECC Memory Board, 0MB Mem	MEM241-MBD			1	1	\$398	\$132	
MEM: 128 MB Memory Upgrade	DIM5072-128			1	32	\$398	\$8,448	
DISK: 4GB Drive, Ultra SCSI SCA	HDS417-CX1			1	1	\$406	\$264	
ETHERNET: 100Mbit/sec, PCI 32-bit	ETH1010051-PCI			1	1	\$99	\$99	
ACC: HBA, SCSI w/ VHD Connector	PCI300-SUW			1	1	\$273	\$132	
MONITOR:15-inch Color	EVG2100-P			1	1	\$221	\$221	
KEYBD: 104 Key Spacesaver	PCK104-SKB			1	1	\$26	\$26	
MOUSE: 2 Button PS2	PWM1-PS2			1	1	\$15	\$15	
CTRL: RAID 3-Ch PCI w/ 16MB Mem +10% spares	AMI 438-H	AMI		2	10	\$1,395	\$620	
					Subtotal	\$57,485	\$22,544	
Storage Hardware								
DISK: 9GB Drive, 10K SCSI LVD, SCA + 10% spares	OSD9205-W45			1	178	\$618	spared	
DISK: 18GB Drive, 10K SCSI LVD, SCA + 10% spares	OSD18205-W45			1	17	\$1,153	spared	
CAB: Disk, 8 SCA w/ IOL & IOR I/F cards, 0 Disks, 3U	OSM310300-L05			1	21	\$2,118	\$20,160	
CAB: Disk, 7 SCA w/ 100 I/F, 0MB, 0 Disks, 3U	OSM310100-U05			1	2	\$2,735	\$3,456	
MEM: 32MB OSM cache	OSM1032-MEM			1	2	\$187	\$216	
PWR: 2nd Power Supply Upgrade, OSM	OSM3000-BPF			1	2	\$392	\$264	
PWR: 3000 VA UPS, 3U	UPD30001-SXR			1	1	\$1,897	\$936	
PWR: Distribution Unit, 6 OSM Cabinets	RM1-PDU			1	4	\$379	\$2,400	
CBL: SCSI 68-pin VHD Conn's, 5 meter	CBL134-5			1	21	\$142	\$2,982	
CBL: SCSI 68-pin HD->VHD Conn's	CBL2210-OSM			1	2	\$96	\$192	
CAB: Rackmount Kit for Disk Cages	OSM3000-RMK			1	23	\$84	\$1,932	
CAB: Rack Cabinet, w/ fill pnls, 36U	CAB361-SXR			1	2	\$1,694	\$3,388	
CAB: Bezel kit 36U	BEZ3611-CAB			1	2	\$295	\$590	
CAB: Stabilizer kit 0U	WGT39581-SXR			1	1	\$206	\$206	
PNL: L&R side panels 36U	PAN3621-SXR			1	2	\$283	\$566	
					Subtotal	\$193,980	\$27,432	
Server Software								
Microsoft NT Server Enterprise Edition 4.0, incl 25 CALs		Microsoft		3	1	\$3,999	\$0	
Microsoft SQL Server Enterprise Edition 7.0, unlimited user license		Microsoft		3	1	\$28,999	\$10,475	
					Subtotal	\$32,998	\$10,475	
Client Hardware								
SYS: NetServer LC3, w/1 450MHz Proc & CDROM, 0MB Mem	D7029-AV			1	3	\$1,660	\$3,600	
PROC:1x450MHz Pentium II/512KB Cache UPG	D7032-AV			1	3	\$993	\$1,512	
MEM: 128 MB SDRAM Memory Upgrade	D6098-AV			1	12	\$255	\$3,060	
DISK: 4GB SCSI 3.5 Internal	D4910-AV			1	3	\$303	\$1,764	
ETHERNET: 10/100TX Mbit/sec, PCI 32-bit	D5013-AV			1	15	\$68	\$1,020	
ETHERNET: 100Mbit/sec, PCI 32-bit, Quad	SF1001-ET4			1	3	\$958	\$1,188	
MONITOR:15-inch Color	EVG2100-P			1	3	\$221	\$663	
					Subtotal	\$16,485	\$8,064	
Client Software								
Microsoft Windows NT Server 4.0, incl 5 CALs		Microsoft		3	3	\$809	\$0	
Microsoft Visual C++ Professional 5.0		Microsoft		3	1	\$499	\$0	
TUXEDO Core Functional Services 6.3 for NT		BEA		4	3	\$3,000	\$7,200	
					Subtotal	\$11,926	\$7,200	
User Connectivity								
Ethernet Switch, 4-Port 100TX TrueFast + 10% spares	NX-SW8	Netlux		5	3	\$229	spared	
Ethernet Hub, 8-Port 10Base-T (8+1 ports) + 10% spares	Z85094	General		6	2621	\$28	spared	
					Subtotal	\$74,075	\$0	
					Total	\$386,949	\$75,715	
Unisys Service Pre-Pay Discount							(\$6,672)	
Western Micro discount				1			(\$25,400)	
Notes:								
1. HW Maintenance - First 36 months that are included in Unisys warranty are upgraded to service level: Standard Performance-Gold. Last 24 months are also at service level: Standard Performance-Gold.								
2. All Microsoft maintenance is covered by the maintenance cost of Microsoft SQL Server.								
3. 10% or minimum 2 spares are added in place of onsite service (products have a five year return-to-vendor warranty)								
4. Pricing: 1 = Western Micro, 2 = AMI, 3 = Microsoft, 4 = BEA, 5 = Netlux, 6 = Software House Int'l								
The benchmark results and test methodology were 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.								
						Five Year Cost of Ownership TPC-C Throughput \$/tpmC	\$430,592 23,852.10 \$18.05	

NUMERICAL QUANTITIES SUMMARY
for
Unisys Aquanta ES2045 Server

MQTh, Computed Maximum Qualified Throughput: **23,852.10**
% throughput difference, reported & reproducibility runs: 0.04%

Transaction Mix

New Order	44.87%
Payment	43.00%
Delivery	4.06%
Stock-Level	4.04%
Order-Status	4.03%

Response Times

Transaction	Average	Maximum	90th %ile
New-Order	0.38	5.04	0.55
Payment	0.23	5.03	0.37
Delivery	0.11	0.75	0.11
Stock-Level	2.33	4.75	3.09
Order Status	0.28	2.79	0.42
Menu	0.11	3.45	0.11
Delivery (Deferred)	0.53	2.28	0.79

Response time delay added for emulated components (seconds)

RT Response time	0.1
Menu Response time	0.1

Keying/Think Time Times (seconds)

Transaction	Minimum	Average	Maximum
New-Order	18.00/0	18.01/12.05	18.04/120.3
Payment	3.00/0	3/12.03	3.03/120.3
Delivery	2.00/0	2/5.07	2.03/49.29
Stock-Level	2.00/0	2/5.06	2.02/50.6
Order-Status	2.00/0	2/10.11	2.01/100.71

Test Duration

Ramp up time	70 minutes
Measurement interval (M)	30 minutes
Transactions (all types) completed during measurement interval	1,594,715
Ramp-down time	361 minutes

Checkpointing:

Number of checkpoints	1
Checkpoint interval	30 minutes