UNISYS	**Aquanta HS/6 Server C/S**		TPC-C Rev. 3.3
			Report Date: 06-Aug-1997
Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
$446,698	**10,665.53 tpmC**	**$41.88 per tpmC**	**30-Nov-1997**
Processors	Database Manager	Operating System	Other Software	Number of Users
6 Pentium® Pro 200 MHz 512KB L2 cache	Microsoft SQL Server 6.5 Enterprise Edition	Microsoft NT Server 4.0 Enterprise Edition	Microsoft IIS. Tuxedo 6.3 CFS	**9,000**

5 x Aquanta DM/6 Clients

Aquanta HS/6 Server

9,000 NetPC's

10mbit Ethernet

100 mbit Ethernet

1 Inbuilt SCSI Controller + 1 x 4GB Hot-Pluggable Internal SCSI Disk

7 x SCSI RAID Controllers

105 x 4GB + 30 x 9GB Hot-Pluggable External SCSI Disks
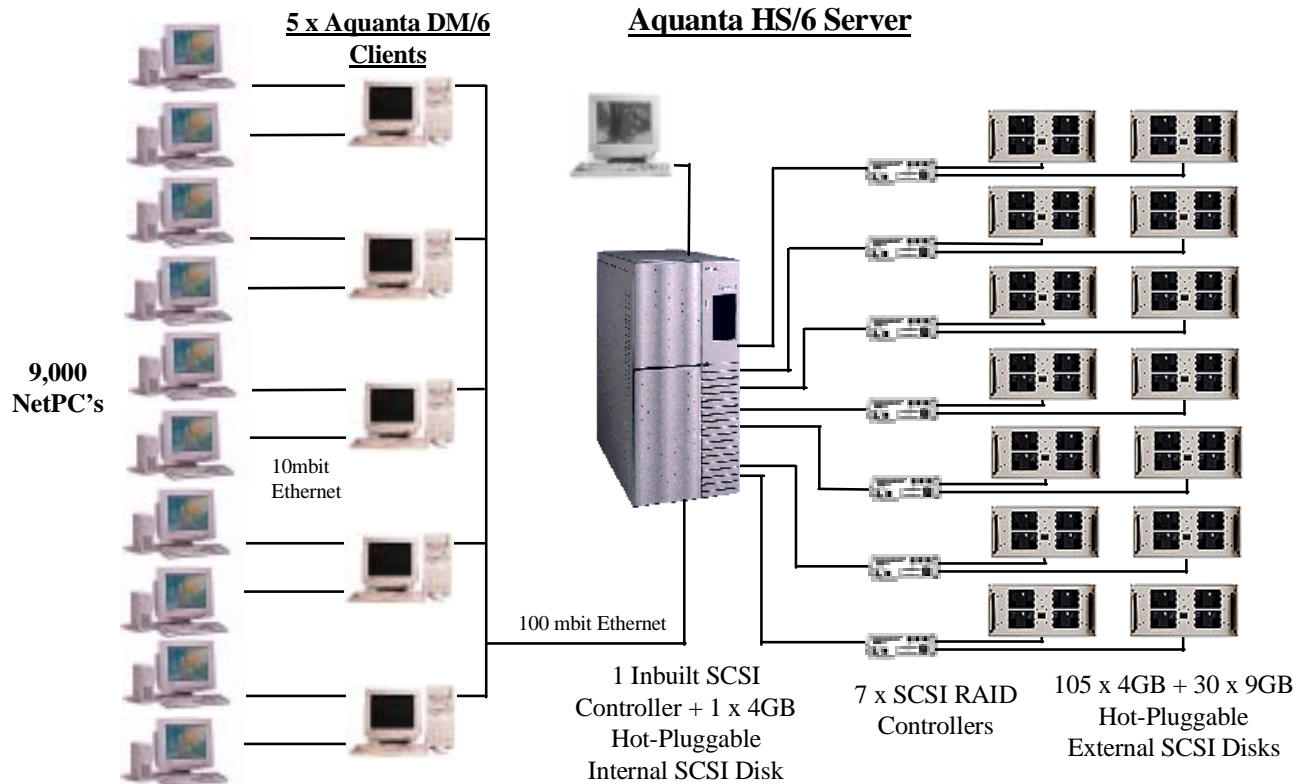
System Components	**Server**		**Clients**	
	Quantity	Type	Quantity	Type
Processors	6	200 MHz Pentium® Pro with 512KB Level 2 Cache	5	200MHz Pentium® Pro with 256KB Level 2 Cache
Memory	1	4096MB	5	256MB
Disk Controllers	7 1	SCSI RAID Inbuilt SCSI	5	Inbuilt IDE
Disk Drives	106 30	4GB 9GB	5	1.5GB
Total Storage		684 GB		7.5GB
CD-ROM / Tape	1	CD-ROM Drive	5	CD-ROM Drive

Unisys Corporation			Aquanta HS/6 Server C/S				TPC-C Rev 3.3 06-Aug-1997
Description	**Style**	**Third Party Brand Pricing**	**Unit Price**	**Qty.**		**Extended Price**	**5 Years Maint.**
Server Hardware							
SYS: Aquanta HS/6, 0 Proc, 0MB Mem	HS6000121-BAS	1	$11,839	1		$11,839	$1,008
PROC:3x200MHz PentiumPro/512KB Cache	HX36205-CPU	1	$3,274	2		$6,548	$3,984
CTRL: 3-CPU Riser Card	HX61-3CP	1	$297	1		$297	$72
MEM:ECC Memory Board, 0MB Mem	MEM641-DIM	1	$348	1		$348	$96
MEM:256 MB Memory Upgrade	DIM672-256	1	$3,210	16		$51,360	$5,376
CTRL:RAID Tri-SCSI-2 Ultra PCI	RAD3162-PCI	1	$1,304	7		$9,128	$3,360
CTRL: VGA, 16-bit ISA	VID11-ISA	1	$91	1		$91	
CDROM: Twelve Speed	CDR1200-SI	1	$170	1		$170	$120
ETHERNET: 100Mbit/sec, PCI 32-bit	SF1001-FET	1	$170	1		$170	$48
ACC: 3 SCA Drive Cage	CAG31-ADV	1	$241	1		$241	$72
DRW: Disk Drive Drawer, Hot Swap, 7U (+10% spares)	P/N 11910190	ALR 2	$1,795	16		$28,720	$6,896
DISK: 4GB Drive	HDS4000-WC7	1	$813	117		$95,121	spared
DISK: 9GB Drive	HDS9000-WC7	1	$1,391	33		$45,903	spared
MONITOR:14-inch Color	EVG142-COL	1	$210	1		$210	
KEYBD: 104 Key Spacesaver	PCK104-SKB	1	$29	1		$29	
MOUSE: 2 Button PS2	PWM1-PS2	1	$21	1		$21	
CAB: Rack Cabinet, 36U	CAB361-SXR	1	$1,310	3		$3,930	
CAB: Link kit for 36U cabinets	LNK361-SXR	1	$218	2		$436	
CAB: Bezel kit 36U	BEZ3611-CAB	1	$144	3		$432	
CAB: Stabilizer kit 0U	WGT39581-SXR	1	$103	3		$309	
PNL: L&R side panels 36U	PAN3621-SXR	1	$182	1		$182	
PNL: Filler panels (1U & 3U)	PAN31-SXR	1	$22	6		$132	
					Subtotal	**$255,617**	**$21,032**
Server Software							
Microsoft NT Server 4.0 Enterprise Edition, incl 25 CALs		Microsoft 3	$3,999	1		$3,999	$0
Microsoft SQL Server 6.5 Enterprise Edtion, unlimited users		Microsoft 3	$28,999	1		$28,999	$10,475
					Subtotal	**$32,998**	**$10,475**
Client Hardware							
SYS: Aquanta DM/6 II, 0 Proc, 0MB Mem	CMT60072-ZFA	1	$789	5		$3,945	$2,160
PROC:1x200MHz PentiumPro/256KB Cache	PRC6200-256	1	$639	5		$3,195	
MEM: 64 MB Memory Upgrade	MTP6-64M	1	$542	20		$10,840	$3,360
CTRL: VGA, 64-bit with 2MB	PCV102-PCI	1	$105	5		$525	
DISK: 1.6GB IDE 3.5 Internal	HDI1600-5	1	$200	5		$1,000	$600
CDROM: Twelve Speed IDE	CDR1200-AI	1	$108	5		$540	$600
ETHERNET: 100Mbit/sec, PCI 32-bit	ETH101007-PCI	1	$103	5		$515	
ETHERNET: 10Mbit/sec, PCI 32-bit	ETH101-PCI	1	$113	10		$1,130	
MONITOR:14-inch Color	EVG142-COL	1	$210	5		$1,050	
KEYBD: 104 Key Spacesaver	PCK104-SKB	1	$29	5		$145	
MOUSE: 2 Button PS2	PWM1-PS2	1	$21	5		$105	
					Subtotal	**$22,990**	**$6,720**
Client Software							
Microsoft Windows NT Server 4.0, incl 5 CALs		Microsoft 3	$809	5		$4,045	$0
Microsoft SQL Workstation w/ Programmer's Toolkit		Microsoft 3	$499	1		$499	$0
Microsoft Visual C++ 32-bit edition (subscription)		Microsoft 3	$499	1		$499	$0
TUXEDO Core Functional Services 6.3 for NT		BEA 4	$3,000	5		$15,000	$11,250
					Subtotal	**$20,043**	**$11,250**
User Connectivity							
Ethernet Hub, 8-Port 100TX TrueFast (+ 10% spares)	NX-H8TX	Netlux 5	$399	3		$1,197	Spared
Ethernet Hub, 8-Port 10Base-T + 1-Port BNC (+ 10% spares)	NX-H9+	Netlux 5	$52	1238		$64,376	Spared
					Subtotal	**$65,573**	**$0**
					Total	**$397,221**	**$49,477**

Notes:
1. Unisys provides HW Maintenance. 1st 36 months included in product costs. The next 24 months
   are at the level: Standard Performance-Gold. 5-year server disk warranty is by Western Micro.
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 = ALR, 3 = Microsoft, 4 = BEA, 5 = Netlux

Five Year Cost of Ownership	**$446,698**
TPC-C Throughput	**10,665.53**
$/tpmC	**$41.88**

The benchmark results and test methodology were audited by Richard Gimarc 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.

NUMERICAL QUANTITIES SUMMARY
Unisys Aquanta HS/6 Server
Microsoft SQL Server 6.5 Enterprise Edition

MQTh, Computed Maximum Qualified Throughput: **10665.53**

% throughput difference, reported & reproducibility runs: 0.04%

Transaction Mix

New Order	44.78%
Payment	43.03%
Delivery	4.06%
Stock-Level	4.07%
Order-Status	4.07%

Response Times

Transaction	Average	Maximum	90th %ile
New-Order	1.27	16.30	2.63
Payment	1.31	15.12	2.60
Delivery	0.45	6.61	0.70
Stock-Level	2.32	15.72	4.00
Order Status	1.62	17.61	3.01
Menu	0.20	1.40	0.30
Delivery (Deferred)	0.84	7.19	1.19

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	18.01/12.24	19.12/120
Payment	3.00/0	3.01/12.19	4.14/120
Delivery	2.00/0	2/5.07	3.08/50
Stock-Level	2.00/0	2/5.07	3.04/50
Order-Status	2.00/0	2/10.11	3.02/100

Test Duration

Ramp up time	33 minutes
Measurement interval (M)	30 minutes
Transactions (all types) completed during measurement interval	714574
Ramp-down time	16 minutes

Checkpointing:

Number of checkpoints	1
Checkpoint interval	30 minutes