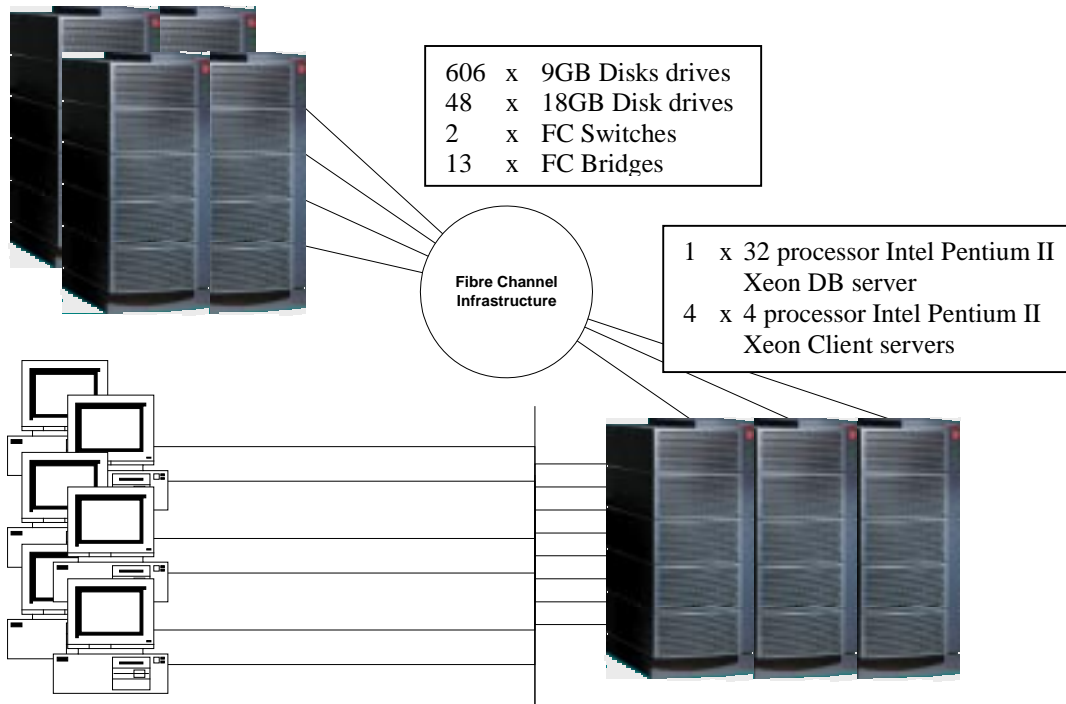


<b>SEQUENT</b>		<b>NUMA Center 2000</b>		TPC-C Rev 3.4 Report Date 13-Oct-1998	
<b>ORACLE</b>		<b>(C/S)</b>			
<b>Total System Cost</b>		<b>TPC-C Throughput</b>		<b>Price/Performance</b>	
<b>\$6,222.683</b>		<b>48,793.40</b>		<b>\$127.53/tpmC</b>	
				<b>Availability Date</b>	
				<b>March 15<sup>th</sup> 1999</b>	
<b>Processors</b>		<b>Database Manager</b>		<b>OS</b>	
<b>Other Software</b>		<b>Number of Users</b>			
32 x Intel Pentium II Xeon Processors 405MHz		Oracle 8.0.4 Enterprise Edition		DYNIX/ptx 4.4.4	
				Tuxedo 6.3 CFS Microsoft Internet Information Server Microsoft Visual C++	
				<b>40320</b>	



System Component	Server		Each Client	
Processors	32	Intel Pentium II Xeon® 405MHz	2	Intel Pentium II Xeon® 400MHz
Cache		2MB		512 KB
Memory	1	32GB	1	1GB
Disk Controllers	16	Fiber controllers		
	16	SCSI controllers	1	Adaptec On-Board
Disk Drives	606	9 GB (8.473 GB useable)	1	9GB
	48	18GB disks (17.1 useable)		
Total Storage		5905GB		9GB
Other	9	PCI 1-port Ethernet	1	CD-ROM
	1	Tape Drive	3	PCI Ethernet NIC



# NUMACenter 2000

TPC-C Rev 3.4  
Report Date  
13-Oct-1998

Description	Part Number	Brand <sup>1</sup>	Unit Price	Qty	Extended Price	5 yr. Maint. Price
<b>Console</b>						
NUMA-Q Console the ethernet	CON-0000	1	6,500	1	6,500	
<b>Server Hardware</b>						
Enterprise (large) NUMA-Q cabinet	CABE-0000-00	1	6,500	2	13,000	
Boot Pbay	EXP-PBAY-04	1	3,900	1	3,900	
SCSI Pbay cable	CBL-0300-RL	1	59	17	1,003	
PCI SCSI Adapter	IOC-0120-51	1	500	17	8,500	
Xeon Quad w/ IQ-LINK 405MHz 2MB	QUAD-0301	1	159,250	8	1,274,000	
IQ Plus-IQ Link interconnect cable	CBL-PLUS-03	1	455	8	3,640	
8G Addon Memory for Xeon Quad	MEM-1100-00	1	127,000	3	381,000	
Single port ether	COM-0041-50	1	650	9	5,850	
Fibre Channel PCI Host adapter	IOC-0210-52	1	715	16	11,440	
<b>Server Hardware total</b>					<b>1,708,833</b>	
<b>Storage Subsystem</b>						
48 x 9GB disk Storage unit - Includes 1 FC Bridge, 4 PBAYs, Cables, Cabinet	DSK-0948-40	1	84,500	12	1,014,000	
48 x 18GB disk Storage unit - Includes 1 FC Bridge, 4 PBAYs, Cables, Cabinet	DSK-1848-40	1	123,500	1	123,500	
9gb Add-on disk drive	DSK-0009-40	1	1,380	30	41,400	
Add-on PBAY	EXP-PBAY-00	1	3,900	6	23,400	
Fibre Channel Switch	FCS-0016-02	1	32,450	2	64,900	
<b>Storage Subsystem total</b>					<b>1,267,200</b>	
<b>Server Hardware total</b>					<b>2,976,033</b>	<b>595,207</b>
<b>Server Software</b>						
DYNIX/ptx V4.4.2 CD-ROM Media (NAO)	PTX-C440-00	1	0	1	0	
Sequent Volume Manager for Base Quad	SVM-4100-001	1	2,500	1	2,500	
Sequent Volume Manager for Additional Quads	SVM-4100-ADD	1	2,430	7	17,010	
<b>Server software subtotal</b>					<b>19,510</b>	<b>3,902</b>
Oracle8 DataBase licenses	ORA8.0.4	2	1,071,372	1	1,071,372	1,071,372
<b>Server Software total</b>					<b>1,090,882</b>	<b>1,075,274</b>
<b>Client Hardware</b>						
Xeon 4x 400MHz 512K cache 1G mem	NTM-NODE-20	1	40,860	4	163,440	
4-port Ether	COM-0040-50	1	435	12	5,220	
<b>Client Hardware Subtotal</b>					<b>168,660</b>	<b>33,732</b>
<b>Client Software</b>						
MS Windows NT Server 4.0 w/5 CAL	OS-NT4-00	1	\$809	4	3,236	970
Tuxedo 6.3 Core Functionality Services for NT		3	\$12,000	4	48,000	36,000
Visual C++ 32 bit Edition	Microsoft		\$499	1	499	150
<b>Client Software subtotal</b>					<b>51,735</b>	<b>37,120</b>
<b>User Connectivity</b>						
COMPEX MicroHub/8 8+1 A11Port 10BaseT Hub <sup>2</sup>	DEH2924	Compex	\$35	5,544	194,040	
<b>User Connectivity subtotal</b>					<b>194,040</b>	
<b>Total cost of hardware and software</b>					<b>4,481,350</b>	<b>1,741,333</b>
	<b>Five-Year Cost of Ownership:</b>				<b>\$6,222,683</b>	
	<b>TPM-C rating</b>				<b>48,793.40</b>	
	<b>\$ / tpmC:</b>				<b>\$127.53</b>	

**Audited by Tom Sawyer, Performance Metrics**

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 terms, please inform the TPC at [pricing@tpc.org](mailto:pricing@tpc.org). Thank you.

<sup>1</sup> Pricing sources – 1=Sequent, 2=Oracle, 3=BEA

<sup>2</sup> Includes 10% spares

## Numerical Quantities Summary for the Sequent NUMACentre 2000 NE300

<b>MQTh, computed Maximum Qualified Throughput</b>		<b>48,793.4tpm-C</b>	
% throughput difference, reported & reproducibility runs		<1%	
<b>Response Times</b> (in seconds)	Average	90th	Max
- Neworder	0.96	1.800	463.29
- Payment	0.74	1.500	1038.51
- Order Status	0.78	1.500	8.22
- Delivery (interactive portion)	0.78	1.280	6.97
- Delivery (deferred portion)	0.96	1.409	735.26
- Stock-Level	1.00	1.900	8.11
- Menu	0.28	0.690	6.23
Response time delay added for emulated components			Menu 0.1 Resp 0.1
<b>Transaction Mix</b> , in percent of total transactions			
- New-Order			44.80%
- Payment			43.05%
- Order-Status			4.03%
- Delivery			4.04%
- Stock-Level			4.05%
<b>Keying/Think Times</b> (in seconds),	Min	Average	Max
- New-Order	18.00 0.01	18.01 12.01	18.08 120.03
- Payment	3.00 0.01	3.01 12.04	3.07 120.24
- Order-Status	2.00 0.01	2.01 10.14	2.06 102.02
- Delivery	2.00 0.01	2.01 5.02	2.05 50.01
- Stock-Level	2.00 0.01	2.01 5.00	2.06 50.02
<b>Test Duration</b>			
- Ramp-up time			60 minutes
- Measurement interval			120 minutes
- Number of checkpoints			4
- Checkpoint interval			30 minutes
- Number of transactions (all types) completed in measurement interval			13068161