



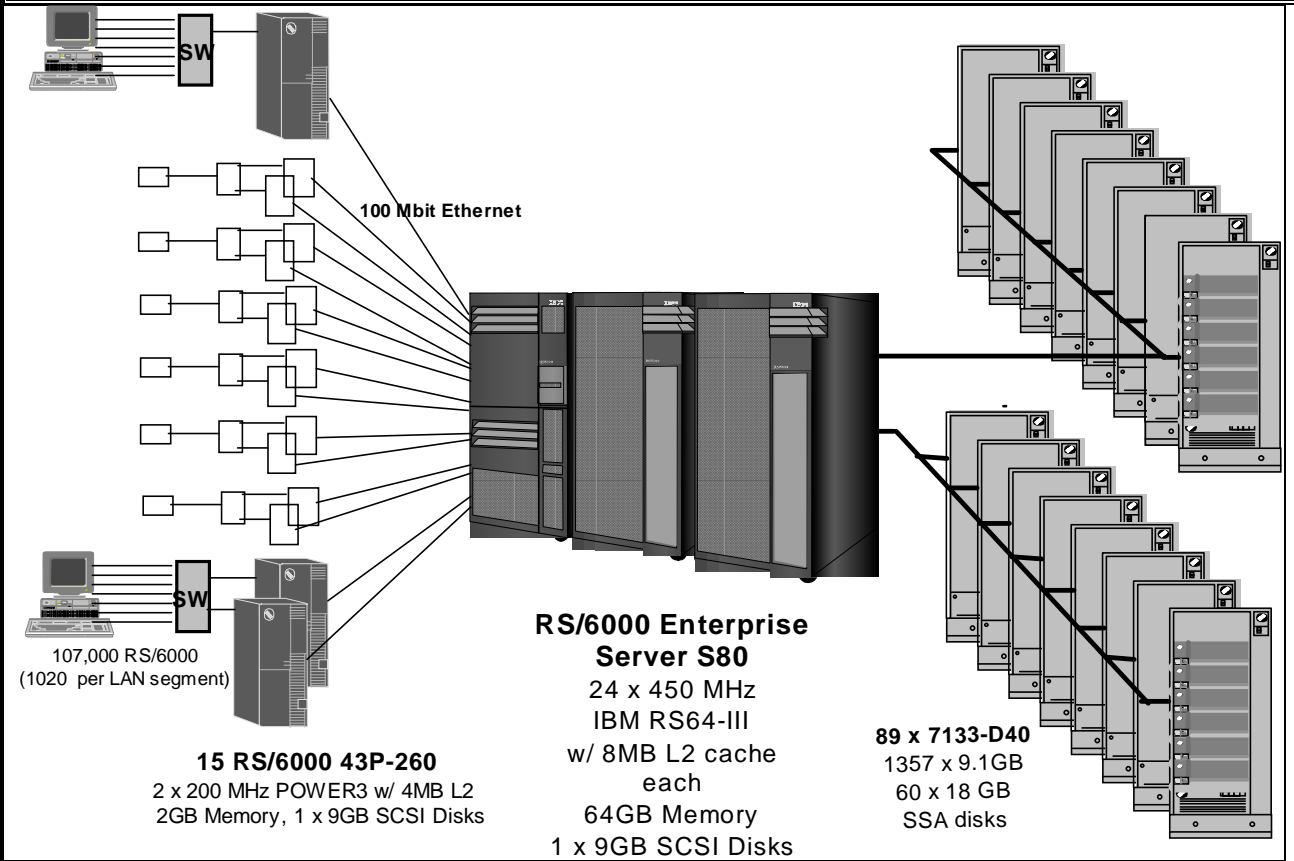
IBM RS/6000 Enterprise Server S80 c/s

TPC-C Rev. 3.4

ORACLE

Report Date:
Oct. 29, 1999

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date	
\$7,067,644	135,815.7 tpmC	\$52.04/tpmC	March 1, 2000	
Processors	Database Manager	Operating System	Other	No. Users
24 x IBM RS64-III	Oracle8 Enterprise Edition 8.1.6	AIX 4.3.3 +APAR IY05431	TXSeries 4.2 for AIX	107,000



System Components	Clients		Server	
	Quantity	Description	Quantity	Description
Processor	15	2 x 200 MHz POWER3 w/ 4MB L2 cache each	24	450 MHz IBM RS64-III w/ 8MB L2 cache each
Memory		2 GB		64 GB
Disk Controllers	15	SCSI-2 Adapters	2	SCSI-2 Adapters
			18	SSA Adapters
Disk Drives	15	9.1 GB SCSI	1,357	9.1 GB SSA Disks
			60	18 GB Disk
			1	9.1 GB SCSI Disk
Total Storage		9.1 GB each client		12,358.4 GB
Terminals	15	System Console	1	System Console
Term. Connect	13,440	8-Port Ethernet Hubs		



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Description	Part No.	Source	Unit Price	Qty	Ext Price	Maint Price
Server Hardware						
RS/6000 Server Model S80	7017-S80		11,538	1	11,538	45,168
16bit PCISCSI cables	2447		75	1	75	0
32x CD-ROM drive	2624		375	1	375	0
9.1 GB 1" Ultra SCSI Hot Swap	2913		1,260	1	1,260	0
Async/Terminal Cable	2934		45	1	45	0
10/100 Mbps Ethernet PCI Adapter	2968		275	16	4,400	0
Remote I/O Cable (3142, 3143) set	3142		4,170	1	4,170	0
16384 MB (4x4096) R1 Memory	4194		147,456	4	589,824	0
6way RS64 III 450 Mhz, 8MB L2	5318		200,000	4	800,000	297,408
I/O Power Cable set (6006,7,8)	6000		685	1	685	0
1000 Watt AC Power Supply	6193		765	1	765	0
Power Regulators (6194, 6195)	6194		2,505	1	2,505	0
Ultra SCSI PCI-Bus Adapter	6206		395	2	790	0
Advanced Serial RAID Adapter	6225		3,000	18	54,000	0
32 MB FastWrite Cache Option	6235		575	3	1,725	0
SCSI I/O Drawer, 10 EIA	6320		23,766	4	95,064	0
Primary I/O Drawer Group	6321		600	1	600	0
Secondary I/O Drawer Group	6323		734	3	2,202	0
Support Processor Group	6326		2,700	1	2,700	0
Remote I/O Hub, Dual Loop	6503		8,000	1	8,000	0
SCSI 6-pack Hot Swap Back Plane	6547		600	1	600	0
I/O Rack	7000		3,500	2	7,000	0
Prestige 6000VA, 208-240V UPS	9910-EP8		5,505	1	5,505	0
Prestige EXT UPS, Rack Mount	9910-U33		3,822	2	7,644	0
System Rack Model S00	7014-S00		3,500	1	3,500	1,536
System Rack Model T00	7014-T00		3,550	10	35,500	15,360
Additional Power Distribution Unit	6171		1,000	21	21,000	0
SSA Disk Subsystem, Black Cover	7133-D40		13,000	89	1,157,000	786,048
50/60 Hz AC, 300 VDC Power Supply	8022		2,000	89	178,000	0
9.1 GB Disk Drive Modules	8209		2,760	1,357	3,745,320	0
18 GB Disk Drive Modules	8209		4,500	60	270,000	0
SSA Cables	8802		65	178	11,570	0
			Subtotal		7,023,362	1,145,520
Server Software						
AIX 4.3.3 for S80	5765-C34		50	1	50	40,920
IBM C for AIX V4.4	5765-C64		799	1	799	30,480
Oracle8 Enterprise Edition 8.1.6 64bit		1	695,970	1	695,970	695,970
			Subtotal		696,819	767,370
Client Hardware						
RS/6000 Model 43P-260	7043-260		3,762	15	56,430	101,520
32x CD-ROM	2624		375	15	5,625	0
Async Terminal/Printer Cable	2934		45	15	675	0
10/100 Mbps Ethernet Adapter, PCI	2968		275	30	8,250	0
9.1 GB SCSI Hard Disk	3029		1,260	30	37,800	0
Memory Expansion Feature	4098		1,038	15	15,570	0
512MB SDRAM DIMM Memory	4119		5,760	60	345,600	0
200 MHz Power3 Processor, 4MB L2	4342		8,000	30	240,000	0
IBM ASCII Terminal, Keyboard, Cable	3153-BG3		577	16	9,232	9,728
			Subtotal		719,182	111,248
Client Software						
AIX 4. Unlimited Users	5756-C34		50	15	750	24,900
IBM Websphere Application Server	41L3462		10,500	15	157,500	25,513
			Subtotal		158,250	50,413
User Connectivity						
8port Ethernet Switch + 2 Spare	ES-3108P	2	79	20	1,580	6,240
Ethernet Hub (8port) + 10% Spares	CT1008D/P	3	18.00	14,784	266,112	0
			Subtotal		267,692	6,240
			Discounts		(3,555,739)	(322,713)
			Total		5,309,566	1,758,078

Notes:

Pricing Sources:

Five-Year Cost of Ownership:

7,067,644

1= Oracle, 2= PC Connection, 3= NetCruiser Technologies, Inc

tpmC 135,815.70

Audited by: Francois Raab, Info Sizing

\$/tpmC 52.04

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. Thank you

Numerical Quantities Summary for the IBM RS/6000 S80

MQTH, computed Maximum Qualified Throughput: 135,815.70 tpmC

Repeatability Run: 135,537.07 tpmC 0.2% difference

<u>Response Times (in seconds)</u>	<u>90th %</u>	<u>Average</u>	<u>Maximum</u>
New Order	0.54	0.26	7.55
Payment	0.48	0.22	7.29
Order-Status	0.55	0.26	5.11
Delivery (interactive portion)	0.19	0.11	1.61
Delivery (deferred portion)	0.22	0.13	3.52
Stock-Level	0.85	0.52	7.55
Menu	0.01	0.01	3.59

Transaction Mix, in percent of total transactions

	<u>Percent</u>
New Order	44.96%
Payment	43.00%
Order-Status	4.01%
Delivery	4.00%
Stock-Level	4.01%

<u>Keying/Think Times (in seconds)</u>	<u>Min.</u>	<u>Average</u>	<u>Max.</u>
New Order	18.00/0.01	18.01/12.01	18.18/120.11
Payment	3.00/0.01	3.01/12.00	3.19/120.11
Order-Status	2.00/0.01	2.01/10.01	2.16/100.10
Delivery	2.00/0.01	2.01/5.02	2.17/50.10
Stock-Level	2.00/0.01	2.01/5.00	2.17/50.10

Test Duration

Ramp-up Time	52 min 14 sec
Measurement interval	30 minutes
Transactions during measurement interval (all types)	9,061,152
Ramp-down time	15 minutes

Checkpointing

Number of checkpoints	1
Checkpoint interval	29 min 51 sec
