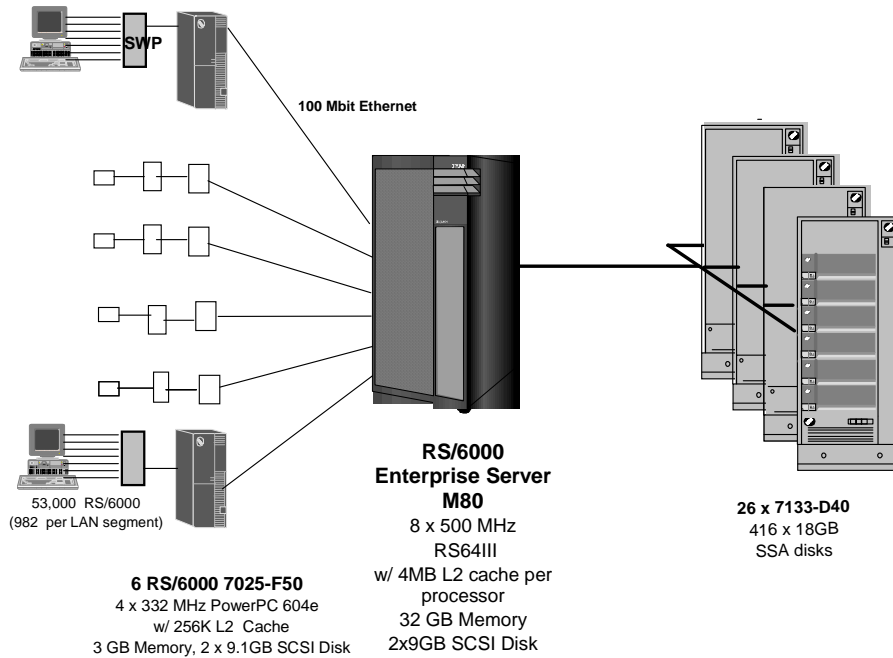
	IBM RS/6000 Enterprise Server M80 c/s		TPC-C Rev 5.0 Upgrade from TPC-C Rev 3.5	
			Report Date June 22, 2001 May 31, 2001 (Original)	
Total System Cost	TPC-C Throughput	Price/Performance	Availability Date	
\$2,523,482	66,750.27 tpmC	\$37.80/tpmC	September 30, 2000	
Processors	Database Manager	Operating System	Other Software	No. Users
8 x IBM RS64-III	Oracle Version 8.1.7	AIX 4.3.3 +APAR IY10778	Websphere Application Server Enterprise Edition Version 3.0	53,000



System Components	Clients		Server	
	Quantity	Description	Quantity	Description
Processor	6	4 x 332 MHz PowerPC 604e w/ 256K L2 cache each	1	8 x 500 MHz IBM RS64-III w/ 4MB L2 cache each
Memory		3 GB		32 GB
Disk Controllers	1	SCSI-2 (Integrated)	1	SCSI-2 (Integrated)
Disk Drives	2	9.1 GB SCSI each client	7	SSA Adapters
			416	18 GB SSA disk
			2	9.1 GB SCSI Disk
Total Storage		16.93 GB each client		7,031.21 GB
Terminals	6	System Console	1	System Console
Term. Connect	7,306	8-Port Ethernet Hubs + 10% spares		



IBM RS/6000

TPC-C Rev 5.0 Upgrade
from TPC-C Rev. 3.5



Enterprise Server M80 c/s

Report Date: June 22, 2001

May 31, 2000 (Original)

Description	Part No.	Source	Unit Price	Qty	Ext Price	Maint Price
Server Hardware						
RS/6000 Server Model M80	7026-M80	1	3,093	1	3,093	8,760
32x CD-ROM drive	2624	1	375	1	375	0
9.1 GB 1" Ultra SCSI Disk Drive	2908	1	0	2	0	0
Async Terminal/ Printer Cable (EIA-232)	2934	1	45	1	45	0
10/100 Mbs Ethernet PCI Adapter	2968	1	275	6	1,650	0
9.1 GB 10K RPM Ultra SCSI Disk Drive	3027	1	1,160	2	2,320	0
Remote I/O Cable - 3m	3142	1	595	3	1,785	0
Async Terminal Cable, 9-pin to 25-pin	3926	1	50	1	50	0
Memory Expansion Feature	4073	1	1,500	2	3,000	0
4096 MB (8x512) Memory	4135	1	36,864	8	294,912	0
4-way 500 Mhz, 4MB L2	5203	1	74,000	2	148,000	20,160
System Control & Initialization Cable	5992	1	75	1	75	0
Power Control Cable	6008	1	45	2	90	0
CEC to Primary drawer Power Cable	6132	1	95	1	95	0
190A Processor Power Regulators	6197	1	4,000	1	4,000	0
Advanced SerialRAID Plus Adapter	6230	1	3,000	7	21,000	0
32 MB Fast-Write Cache Option Card	6235	1	575	2	1,150	0
Redundant AC power, IO drawer	6283	1	725	2	1,450	0
Redundant AC power, CEC	6284	1	750	1	750	0
Primary I/O Drawer	6324	1	8,000	1	8,000	0
Secondary I/O Drawer	6325	1	7,000	1	7,000	0
IPL Disk Mounting Kit	6540	1	100	1	100	0
InfoWindow II ASCII Display Station	3153-BG3	1	577	1	577	304
System Rack Model T00 (6098,6107)	7014-T00	1	3,550	4	14,200	3,072
Additional Power Distribution Unit	6171	1	1,000	6	6,000	0
SSA Disk Subsystem (8031)	7133-D40	1	13,000	26	338,000	114,816
50/60 Hz AC, 300 VDC Power Supply	8022	1	2,000	26	52,000	0
18 GB Disk Drive Modules	8518	1	4,500	416	1,872,000	0
SSA Cables (8801, 8802)	8801	1	125	26	3,250	0
Prestige 3000VA, 208-240V 50/60Hz	9910-U33	1	3,822	1	3,822	0
			Subtotal		2,788,789	147,112
Server Software						
AIX 4.3.3 for M80	5765-C34	1	50	1	50	20,881
IBM C for AIX V4.4	5765-C64	1	799	1	799	15,554
Oracle8i (TM) Enterprise Edition (64-bit) Release 3 (8.1.7) for AIX		2	199,500	1	199,500	277,200
			Subtotal		200,349	313,635
Client Hardware						
RS/6000 Model F50	7025-F50	1	15,900	6	95,400	66,240
Intg SCSI-2 FW, Intg Enet, CDROM						
2 x 9.1 GB 1" Ultra SCSI Disk (2919)	2908	1	0	6	0	0
Async Terminal/ Cable	2934	1	45	6	270	0
10/100 Mbps Ethernet Adapter, PCI	2968	1	275	18	4,950	0
2 x 9.1 GB 10K RPM 1" Ultra SCSI Dis	3002	1	1,260	6	7,560	0
Memory Expansion Feature	4093	1	1,038	6	6,228	0
256MB SDRAM DIMM Memory	4106	1	1,024	6	6,144	0
256MB SDRAM DIMM Memory	4110	1	2,048	66	135,168	0
2-way 332MHz, 512KB L2	4357	1	3,000	6	18,000	7,344
2-way 332MHz, 512KB L2	4359	1	10,000	6	60,000	15,984
Media Bay Disk Drive Mounting Kit	6509	1	0	6	0	0
IBM ASCII Terminal, Keyboard, Cable	3153-BG3	1	577	6	3,462	1,824
			Subtotal		337,182	91,392
Client Software						
AIX 4. Unlimited Users	5756-C34	1	50	6	300	15,661
IBM Websphere Applicaton Server Enterprise Edition Version 3.0	41L3462	1	21,000	6	126,000	11,665
			Subtotal		126,300	27,327
			Discounts		(1,463,904)	(44,770)
				Total	1,988,716	534,766

Notes:

Pricing Sources:

1=IBM, 2=Oracle

Audited by: Brad Askins and Francois Raab, Info Sizing

Three-Year Cost of Ownership: \$2,523,482

tpm C 66,750.27

\$/tpm C \$37.80

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 M80

MQTH, computed Maximum Qualified Throughput: 66,750.27 tpmC

Repeatability Run: 66,738.70 tpmC 0.017% difference

<u>Response Times (in seconds)</u>	<u>90th %</u>	<u>Average</u>	<u>Maximum</u>
New Order	0.85	0.39	105.10
Payment	0.77	0.34	105.46
Order-Status	0.83	0.37	101.69
Delivery (interactive)	0.19	0.11	2.62
Delivery (deferred)	1.18	0.48	8.03
Stock-Level	1.19	0.66	106.34
Menu	0.01	0.00	2.47

<u>Transaction Mix, in percent of total transactions</u>	<u>Percent</u>
New Order	44.88%
Payment	43.01%
Order-Status	4.05%
Delivery	4.02%
Stock-Level	4.02%

<u>Keying/Think Times (in seconds)</u>	<u>Min.</u>	<u>Average</u>	<u>Max.</u>
New Order	18.00/0.01	18.01/12.03	18.12/120.21
Payment	3.00/0.01	3.01/12.01	3.15/120.21
Order-Status	2.00/0.01	2.01/10.00	2.14/100.11
Delivery	2.00/0.01	2.01/5.01	2.11/50.20
Stock-Level	2.00/0.01	2.01/5.01	2.10/50.21

Test Duration

Ramp-up Time	39 min 55 sec
Measurement interval	30 minutes
Transactions during measurement interval (all types)	4,461,742
Ramp-down time	10 minutes

Checkpointing

Number of checkpoints	1
Checkpoint interval	29 min 41 sec