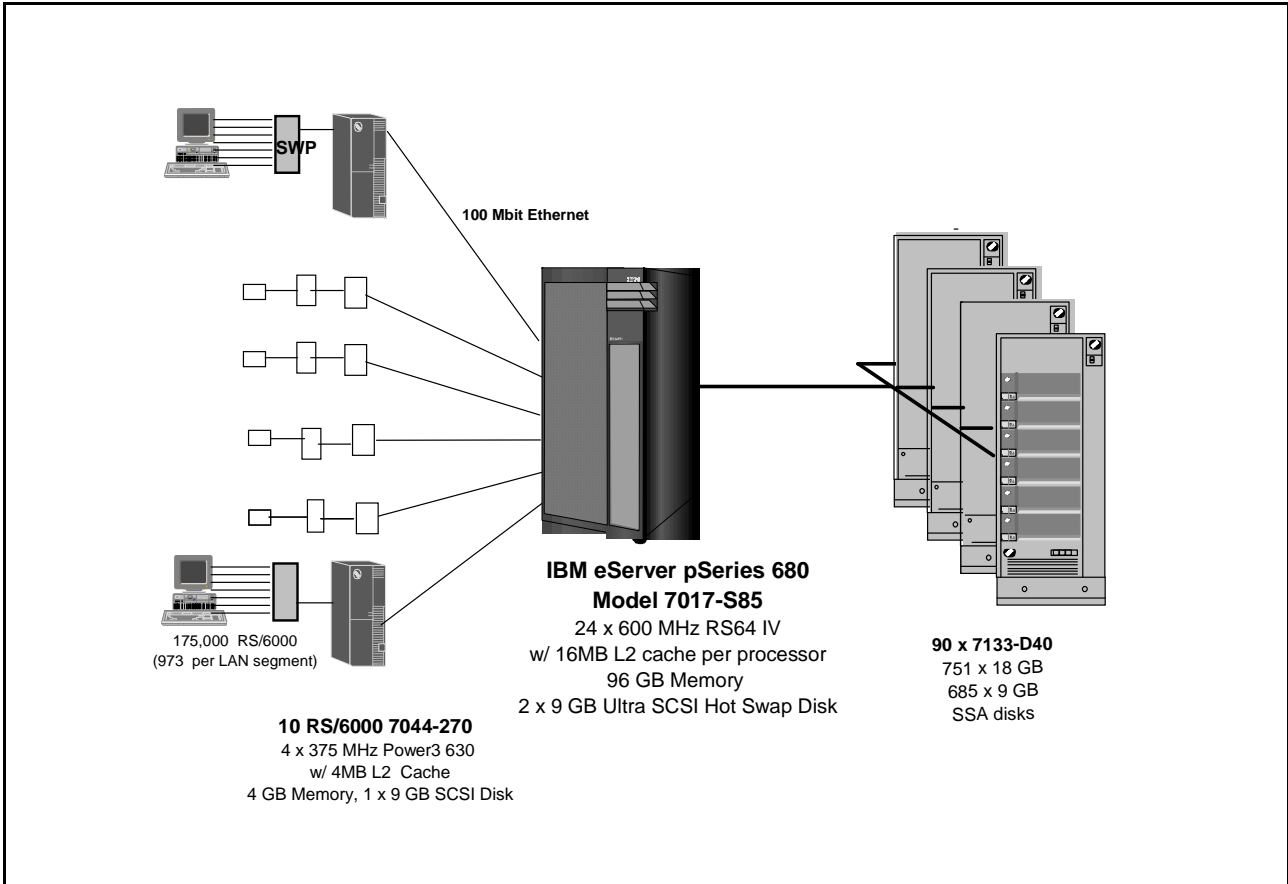
	IBM eserver pSeries 680 Model 7017-S85		TPC-C Rev. 5 Upgrade from TPC-C Rev. 3.5	
			Report Date January 28, 2002 October 13, 2000 (original)	
Total System Cost	TPC-C Throughput	Price/Performance	Availability Date	
\$6,469,929	220,807.27 tpmC	\$29.30/tpmC	April 13, 2001	
Processors	Database Manager	Operating System	Other Software	No. Users
24 x IBM RS64-IV	Oracle8i™ Enterprise Edition(64-bit) Release 3 (8.1.7) for AIX - Based System	AIX 4.3.3 +APAR IY13076	Websphere Application Server Enterprise Edition Version 3.0	175,000



System Components	Clients		Server	
	Quantity	Description	Quantity	Description
Processor	10	4 x 375 MHz Power3 w/ 4MB L2 cache each	1	24 x 600 MHz IBM RS64 IV w/ 16 MB L2 cache each
Memory		4 GB		96 GB
Disk Controllers	1	SCSI-2 (Integrated)	1	SCSI-2 (Integrated)
Disk Drives	1	9 GB SCSI each client	19	SSA Adapters
			751	18 GB SSA disk
			685	9 GB SSA disk
			2	9 GB SCSI Disk
Total Storage		8.4 GB each client		18,451.40 GB
Terminals	10	System Console	1	System Console



IBM eserver pSeries 680

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

ORACLE

Model 7017-S85

Report Date: January 28, 2002
October 16, 2000 (original)

Description	Part No.	Source	Unit Price	Qty	Ext Price	Maint Price
Server Hardware						
IBM eserver pSeries 680	7017-S85	1	25,524	1	25,524	22,584
16bit PCI SCSI cables	2447	1	75	1	75	0
32x CD-ROM drive	2624	1	375	1	375	0
9.1 GB 1" Ultra SCSI Hot Sw ap	2913	1	1,260	0	0	0
Async/Terminal Cable	2934	1	45	1	45	0
8-port Async Adapter, EIA-232/422	2943	1	1,395	1	1,395	0
10/100 Mbs Ethernet PCI Adapter	2968	1	275	0	0	0
9.1 GB 10K RPM 1" Ultra SCSI Hot Sw ap Disk	3002	1	1,260	2	2,520	0
Remote I/O Cable (3142, 3143) set	3142	1	4,170	1	4,170	0
16384 MB (4x4096) R1 Memory	4194	1	114,688	2	229,376	0
32768 MB (4x8192) R1 Memory	4195	1	163,840	2	327,680	0
10/100 Mbs Ethernet PCI Adapter-II	4962	1	275	14	3,850	0
6w ay 600Mhz RS64 IV Proc, 16MB L2	5320	1	180,000	1	180,000	55,776
6w ay 600Mhz RS64 IV Proc, 16MB L2	5321	1	180,000	3	540,000	167,328
I/O Pow er Cable set (1-6000 & 5-6008) set	6000	1	625	1	625	0
1000 Watt AC Pow er Supply	6193	1	765	1	765	0
Pow er Regulators (6194, 6195)	6194	1	2,505	1	2,505	0
Ultra SCSI PCI-Bus Adapter	6206	1	395	2	790	0
Advanced SerialRAID Adapter	6230	1	3,000	19	57,000	0
32 MB Fast-Write Cache Option	6235	1	575	3	1,725	0
SCSI I/O Draw er, 10 EIA	6320	1	23,766	4	95,064	0
Primary I/O Draw er Group	6321	1	600	1	600	0
Secondary I/O Draw er Group	6323	1	734	3	2,202	0
Support Processor Group	6326	1	2,700	1	2,700	0
Remote I/O Hub, Dual Loop	6503	1	8,000	1	8,000	0
SCSI 6-pack Hot Sw ap Back Plane	6547	1	600	1	600	0
I/O Rack(6098, 6107)	7036	1	3,100	2	6,200	1,536
Prestige 6000VA, 208-240V UPS	9910-EP8	1	6,625	1	6,625	0
Prestige EXT UPS, Rack Mount	9910-U33	1	3,822	2	7,644	0
System Rack Model S00(6098,6107)	7014-T00	1	3,550	10	35,500	7,680
Additional Pow er Distribution Unit	6171	1	1,000	20	20,000	0
SSA Disk Subsystem, Black Cover	7133-D40	1	13,000	90	1,170,000	397,440
50/60 Hz AC, 300 VDC Pow er Supply	8022	1	2,000	90	180,000	0
18 GB Disk Drive Modules	8518	1	4,500	751	3,379,500	0
9 GB Disk Drive Modules	8509	1	2,760	685	1,890,600	0
SSA Cables (8801,8802)	8802	1	125	90	11,250	0
				Subtotal	8,194,905	652,344
Server Software						
AIX 4.3.S for S85(Media only)	5765-C34	1	50	1	50	33,156
IBM C for AIX V5	D5A1ELL	1	104	1	104	559
Oracle8i (TM) Enterprise Edition Release 3 (8.17)		2	395,520	1	395,520	506,880
				Subtotal	395,674	540,595
Client Hardware						
RS/6000 Model 44P-270 w/ CD-ROM	7044-270	1	4,030	10	40,300	16,800
9.1 GB 10K RPM Ultra SCSI Enhanced Disk	2906	1	1,260	10	12,600	0
Async Terminal/Printer Cable	2934	1	45	10	450	0
10/100 Mbps Ethernet Adapter, PCI	2968	1	0	40	0	0
9.1 GB SCSI Hard Disk	3029	1	0	10	0	0
Serial Port Converter Cable	3925	1	25	10	250	0
Memory Expansion Feature	4098	1	1,038	10	10,380	0
512MB SDRAM DIMM Memory	4120	1	2,048	80	163,840	0
2-w ay 375 MHz Pow er3 , 4MB L2	4362	1	11,000	20	220,000	33,600
10/100 Mbps Ethernet Adapter, PCI	4962	1	275	40	11,000	0
IBM ASCII Terminal, Keyboard, Cable	3153-BG3	1	577	11	6,347	3,344
				Subtotal	465,167	53,744
Client Software						
AIX 4. Unlimited Users(Media only)	5765-C34	1	50	10	500	16,740
IBM Websphere Application Server Enterprise Edition Version 3.0	D5ALCLL	1	25,356	10	253,560	23,480
				Subtotal	254,060	40,220
				Discounts	(4,011,429)	(115,351)
				Total	5,298,377	1,171,552
Notes:						
Pricing Sources:			Three-Year Cost of Ownership		\$6,469,929	
1=IBM, 2=Oracle			tpm C		220,807.27	
Audited by: Francois Raab , Info Sizing			\$/tpm C		\$29.30	

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 eserver pSeries 680

MQTH, computed Maximum Qualified Throughput: 220,807.27 tpmC

Repeatability Run: 220,405.93 tpmC 0.18% difference

<u>Response Times (in seconds)</u>	<u>90th %</u>	<u>Average</u>	<u>Maximum</u>
New Order	0.78	0.37	11.90
Payment	0.73	0.33	12.67
Order-Status	0.76	0.35	10.81
Delivery (interactive)	0.19	0.11	1.87
Delivery (deferred)	0.27	0.15	2.63
Stock-Level	1.14	0.70	10.93
Menu	0.00	0.00	2.54

Transaction Mix, in percent of total transactions

Percent

New Order	44.91%
Payment	43.02%
Order-Status	4.01%
Delivery	4.01%
Stock-Level	4.02%

Keying/Think Times (in seconds)

Min.

Average

Max.

New Order	18.00/0.01	18.01/12.02	18.13/120.21
Payment	3.00/0.01	3.01/12.02	3.13/120.21
Order-Status	2.00/0.01	2.01/10.01	2.12/100.11
Delivery	2.00/0.01	2.01/5.02	2.11/50.21
Stock-Level	2.00/0.01	2.01/5.02	2.12/50.20

Test Duration

Ramp-up Time	37 min 40 sec
Measurement interval	30 minutes
Transactions during measurement interval (all types)	14,747,794
Ramp-down time	10 minutes

Checkpointing

Number of checkpoints	1
Checkpoint interval	29 min 54 sec