



IBM Power Systems Performance Report

POWER8 and previous generation Results

October 06, 2014

Table of Contents

Performance of IBM UNIX, IBM i and Linux Operating System Servers	3
Section 1 - AIX SPEC CPU2006 Performance.....	4
Section 1a - AIX SPEC CPU2000 Performance.....	4
Section 2 - AIX Multiuser Performance (rPerf, SPEC CPU2006).....	5
Section 2a - AIX Multiuser Performance (rPerf, SPEC CPU2000, SPECweb99).....	10
Section 2b - Power Sytems Multiuser Performance using AIX 5L V5.2.....	12
Section 2c - AIX Capacity Upgrade on Demand Relative Performance Guidelines.....	14
Section 2d - POWER8 CPW Published Results	23
Section 2e - POWER 7 and POWER7+ CPW Published Results	23
Section 3- TPC-C Version 5 Published Results	28
Section 4 – TPC-H Published Results	28
Section 5 – AIX SPECsfs97_R1 Benchmark Results	28
Section 5a – AIX NotesBench Published Results	28
Section 6 – AIX Java Benchmarks (SPECjbb2013) Results.....	29
Section 6a – AIX Java Benchmarks (SPECjvm98, SPECjbb2000, SPECjbb2005) Results.....	29
Section 6b - IBM i Java Benchmarks (SPECjbb2005) Published Results.....	30
Section 6c - AIX SPECjAppServer2010 Published Results.....	31
Section 6d - AIX SPECjAppServer2004 Published Results.....	31
Section 7 – SAP Standard Application Benchmarks Published Results	32
Section 8 – AIX PeopleSoft Benchmarks Published Results.....	33
Section 9 – AIX Oracle e-Business Suite (eBS) Benchmarks Published Results.....	33
Section 10 – AIX Siebel Benchmarks Published Results.....	34
Section 11 – AIX Sybase Benchmarks Published Results.....	35
Section 12 – AIX Manugistics Benchmarks Published Results.....	35
Section 13 – Linux Published Benchmark Results.....	35
Section 14 – Historical Multiuser Performance.....	40
<u>Notes on Performance Benchmarks and Values</u>	<u>46</u>

Performance of IBM UNIX, IBM i and Linux Operating System Servers

October, 2014

This document contains performance and benchmark results for IBM servers and workstations running the UNIX® (AIX®), IBM i and Linux® operating systems. This includes the IBM Power™ Systems servers, IBM PowerLinux (System p™, System p5™, eServer™ p5, pSeries®, OpenPower® and IBM RS/6000®; BladeCenter® Power Architecture® technology-based blades) and IntelliStation® POWER™ workstations.

This document contains performance results for systems based on the POWER processor through Oct. 2014.

Section One of this report includes the SPEC CPU2006 results. SPEC CPU2000 results are presented in Section 1a.

Section Two is multiuser performance. The rPerf, CPW and SPEC_rate2006 are presented in this section. Multiuser Performance of SPEC CPU2000 along with rPerf and SPECweb99 are presented in Section 2a. Multiuser performance using AIX® V5.2 is presented in Section 2b. Capacity Upgrade on Demand relative performance guidelines are presented in Section 2c. Section 2d of this report includes CPW benchmark information provided for new POWER6 processor-based servers running the IBM i operating system.

Section Three presents the TPC-C version 5 results.

Section Four provides published TPC-H results.

Section Five reflects the published SPECsfs97 benchmark results. The NotesBench results to date are presented in Section 5a.

Section Six reflects the published SPECjvm98, SPECjbb2000 and SPECjbb2005 Java™ benchmarks.

Section Seven through Twelve include published application performance benchmarks for SAP, PeopleSoft, Oracle Applications, Seibel, Sybase and Manugistics.

Section Thirteen contains Linux operating system performance results.

Section Fourteen is a historical list of commercial performance estimates for IBM System p™, RS/6000 models and RS/6000 SP™ nodes that have been withdrawn from marketing. IBM has discontinued Relative OLTP results.

All performance measurements for the IBM Power™ Systems, IBM PowerLinux, IBM System p, IBM System p5, IBM eServer p5, IBM eServer pSeries, IBM RS/6000 servers, IntelliStation POWER workstations and BladeCenter blades were made with systems running the AIX operating system unless otherwise indicated to have used Linux. For new and upgraded systems, AIX Version 4.3, AIX 5 or AIX 6 were used. All other systems used previous versions of AIX.

Footnotes used in following tables:

- System has been announced as withdrawn from marketing; * - Submitted to SPEC, waiting review; e – estimate; n – new; u – upgrade; N/A – not available; P5 – IBM POWER5™; P5+ – IBM POWER5+™; P6 – IBM POWER6™; P6+ – IBM POWER6+™; P7 – POWER7™, IS – IntelliStation, OP – OpenPower, PPC – PowerPC®

Changes from September version are highlighted in yellow

Section 1 – AIX SPEC CPU2006 Performance

Model	Processor / # Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPEC int_2006	SPEC int_base_2006	SPEC fp_2006	SPEC fp_base_2006
520	P6/1	4.2	64/64	8/-	--	--	--	--
520	P6/4	4.2	64/64	16/-	--	--	--	--
550	P6/1	4.2	64/64	8/32	--	--	--	--
550	P6/8	4.2	64/64	32/128	--	--	--	--
570	P6/1	4.7	64/64	8/32	21.6	17.8	22.3	18.7
570	P6/4	4.7	64/64	16/64	--	--	--	--
570	P6/8	4.7	64/64	32/128	--	--	--	--
570	P6/16	4.7	64/64	64/256	--	--	--	--
575	P6/1	4.7	64/64	32/128	--	--	--	--
575	P6/32	4.7	64/64	128/512	--	--	--	--
595	P6/1	5.0	64/64	32/128	--	--	24.9	20.1
595	P6/64	5.0	64/64	256/1024	--	--	--	--
780	P7/16	3.86	32/32	4/64	--	--	71.5	44.5
780	P7/16	4.14	32/32	4/128	44.0	29.3	--	--

Section 1a – AIX SPEC CPU2000 Performance

Model	Processor / # Cores	MHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPEC int_2000	SPEC int_base_2000	SPEC Fp_2000	SPEC fp_Base_2000
JS20	PPC970/1	2200	64/32	0.5/-	1,040	986	1,241	1,178
JS20	PPC970/2	2200	64/32	1.0/-	--	--	--	--
JS21	PPC970+1	2500	64/32	1.0/-	1,587	1,509	2,119	1,936
JS21	PPC970+4	2500	64/32	4.0/-	--	--	--	--
JS21	PPC970+1	2700	64/32	1.0/-	1,706	1,623	2,259	2,060
JS21	PPC970+2	2700	64/32	2.0/-	--	--	--	--
#IS-285	P5+/1	1900	64/32	1.9/36	1,512	1,469	3,027	2,838
#IS-285	P5+/2	1900	64/32	1.9/36	--	--	--	--
IS-285	P5+/1	2100	64/32	1.9/36	1,747	1,670	3,324	3,100
IS-285	P5+/2	2100	64/32	1.9/36	--	--	--	--
#p5-505	P5/1	1650	64/32	1.9/0	1,297	1,259	2,528	2,390
#p5-505	P5/2	1650	64/32	1.9/36	--	--	--	--
p5-505	P5+/1	2100	64/32	1.9/36	1,704	1,617	3,301	3,057
p5-505Q	P5+/1	1650	64/32	1.9/72	1,371	1,311	2,610	2,442
#p5-510	P5/1	1650	64/32	1.9/36	1,260	1,203	2,236	2,071
#p5-510	P5/2	1650	64/32	1.9/36	--	--	--	--
#p5-510	P5+/1	1900	64/32	1.9/36	1,536	1,479	3,048	2,850
p5-510	P5+/1	2100	64/32	1.9/36	1,704	1,617	3,301	3,057
#p5-510Q	P5+/1	1500	64/32	1.9/72	1,231	1,164	2,377	2,217
p5-510Q	P5+/1	1650	64/32	1.9/72	1,371	1,311	2,610	2,442
#p5-520	P5/1	1500	64/32	1.9/0	--	--	2,041	1,909
#p5-520	P5/2	1500	64/32	1.9/36	--	--	--	--
#p5-520	P5/1	1650	64/32	1.9/36	1,248	1,201	2,138	2,034
#p5-520	P5/2	1650	64/32	1.9/36	--	--	--	--
#p5-520	P5+/1	1650	64/32	1.9/0	1,337	1,288	2,676	2,502
#p5-520	P5+/1	1900	64/32	1.9/36	1,513	1,470	3,030	2,839
#p5-520	P5+/2	1900	64/32	1.9/36	--	--	--	--
p5-520	P5+/1	2100	64/32	1.9/36	1,704	1,617	3,301	3,057
p5-520Q	P5+/1	1650	64/32	1.9/72	1,371	1,311	2,610	2,442

Model	Processor / # Cores	MHz	L1	L2/L3	SPEC	SPEC	SPEC	SPEC
			Cache (KB)	Cache (MB)	int_2000	base_2000	Fp_2000	fp_Base_2000
#p5-550	P5/1	1500	64/32	3.8/72	--	--	2,072	1,914
#p5-550	P5/4	1500	64/32	3.8/72	--	--	--	--
#p5-550	P5/1	1650	64/32	1.9/36	1,248	1,200	2,221	2,121
#p5-550	P5/4	1650	64/32	3.8/72	--	--	--	--
#p5-550	P5+/1	1650	64/32	1.9/36	1,336	1,288	2,657	2,483
p5-550	P5+/1	1900	64/32	1.9/36	1,510	1,467	3,007	2,815
p5-550	P5+/4	1900	64/32	3.8/72	--	--	--	--
p5-550	P5+/1	2100	64/32	1.9/36	1,743	1,669	3,321	3,125
p5-550	P5+/4	2100	64/32	3.8/72	--	--	4,051	3,210
#p5-550Q	P5+/1	1500	64/32	1.9/72	1,187	1,156	2,263	2,179
#p5-550Q	P5+/8	1500	64/32	7.6/144	--	--	--	--
p5-550Q	P5+/1	1650	64/32	1.9/72	1,367	1,307	2,612	2,458
p5-550Q	P5+/8	1650	64/32	7.6/144	--	--	--	--
p5-560Q	P5+/1	1500	64/32	1.9/72	1,204	1,160	2,360	2,197
p5-560Q	P5+/16	1500	64/32	15.2/288	--	--	--	--
p5-560Q	P5+/1	1800	64/32	1.9/72	--	--	--	--
p5-560Q	P5+/16	1800	64/32	15.2/288	--	--	--	--
#p5-570	P5/1	1900	64/32	1.9/36	1,452	1,398	2,702	2,576
#p5-570	P5/4	1900	64/32	3.8/72	--	--	--	--
#p5-570	P5/8	1900	64/32	7.6/144	--	--	--	--
#p5-570	P5/16	1900	64/32	15.2/288	--	--	--	--
#p5-575	P5/1	1500	64/32	1.9/36	1,143	1,087	2,185	2,050
#p5-575	P5/16	1500	64/32	15.2/288	--	--	--	--
#p5-575	P5/1	1900	64/32	1.9/36	1,456	1,385	2,600	2,413
#p5-575	P5/8	1900	64/32	15.2/288	--	--	--	--
p5-575	P5+/1	1900	64/32	1.9/36	1,526	1,473	3,042	2,830
p5-575	P5+/16	1900	64/32	15.2/288	--	--	--	--
p5-575	P5+/1	2200	64/32	1.9/36	1,765	1,705	3,513	3,271
p5-575	P5+/8	2200	64/32	15.2/288	--	--	--	--
#p5-590	P5/1	1650	64/32	1.9/144	1,259	1,200	2,450	2,276
#p5-590	P5/32	1650	64/32	30.4/576	--	--	--	--
#p5-595	P5/1	1900	64/32	1.9/144	1,452	1,392	2,796	2,585
#p5-595	P5/64	1900	64/32	60.8/1152	--	--	--	--
p5-595	P5+/1	2300	64/32	1.9/144	1,900	1,820	3,642	3,369

Section 2 – AIX Multiuser Performance (rPerf, SPEC CPU2006)

Note : up to 5% additional rPerf with Intelligent Energy Optimization enabled depending on the system

Model	Processor / # Cores	GHz	Cache L1 (KB)	Cache L2/L3/L4 (MB)	rPerf LPAR Size # cores	rPerf				SPECint_	SPECint_	SPECfp_	SPECfp_
						rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8	rate_2006	rate_base_2006	rate_2006	rate_base_2006
JS12	P6/2	3.8	64/64	8/-			14.71			--	--	--	--
JS22	P6/4	4.0	64/64	8/-			30.26			84.7	77.8	75.6	67.8
JS23	P6+/4	4.2	64/64	16/64			36.28			--	--	--	--
JS43	P6+/8	4.2	64/64	32/128			68.20			--	--	--	--
PS700	P7/4	3.0	32/32	1/16				45.13		--	--	--	--
PS701	P7/8	3.0	32/32	2/32				81.24		--	--	--	--
PS702	P7/16	3.0	32/32	4/64				154.36	520	456	434	417	
PS703	P7/16	2.4	32/32	4/64				134.11		--	--	--	--
PS704	P7/32	2.4	32/32	8/128				251.45		--	--	778	710
PFlex260	P7/8 (2x4c)	3.3	32/32	2/32				92.8		--	--	--	--
PFlex260	P7/16	3.22	32/32	4/64				163.8		--	--	--	--
PFlex260	P7/16	3.55	32/32	4/64				176.6		--	--	--	--
PFlex260	P7+/4 (2x2c)	4.08	32/32	1/40				61.2		--	--	--	--
PFlex260	P7+/8 (2x4c)	4.08	32/32	2/80				115.5		--	--	--	--

Model	Processor / # Cores	GHz	Cache L1 (KB)	Cache L2/L3/L4 (MB)	rPerf LPAR Size # cores	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8	SPECint_		SPECfp_	
										rate_ 2006	base 2006	rate_ 2006	base 2006
PFlex260	P7+/16	3.61	32/32	4/160				197.7		--	--	--	--
PFlex260	P7+/16	4.11	32/32	4/160				218.5		856	607	586	480
PFlex270	P7+/24	3.13	32/32	6/240				251.6		--	--	--	--
PFlex270	P7+/24	3.41	32/32	6/240				268.0		--	--	--	--
PFlex460	P7/16 (4x4c)	3.3	32/32	4/64				174.0		--	--	--	--
PFlex460	P7/32	3.22	32/32	8/128				307.0		--	--	--	--
PFlex460	P7/32	3.55	32/32	8/128				331.1		--	--	--	--
PFlex460	P7+/16 (4x4c)	4.08	32/32	4/160				225.0		--	--	--	--
PFlex460	P7+/32	3.61	32/32	8/320				372.6		--	--	--	--
PFlex460	P7+/32	4.11	32/32	8/320				411.7		1,720	1,230	1,150	946
710	P7/4	3.0	32/32	1/16				45.13		--	--	--	--
710	P7/4	3.7	32/32	1/16				52.93		--	--	--	--
710	P7/6	3.7	32/32	1.5/24				76.69		239	210	213	198
710	P7/8	3.55	32/32	2/32				91.96		289	255	248	229
710	P7+/4	3.6	32/32	1/40				53.9		--	--	--	--
710	P7+/6	4.2	32/32	1.5/60				90.6		--	--	--	--
710	P7+/8	4.2	32/32	2/80				115.5		--	--	--	--
520	P6/1	4.2	64/64	8/-		8.39				--	--	--	--
520	P6/2	4.2	64/64	8/-		15.95				--	--	--	--
520	P6/4	4.2	64/64	16/-		31.48				90.6	82.3	80.8	71.4
520	P6+/2	4.7	64/64	8/32		20.13				--	--	--	--
520	P6+/4	4.7	64/64	16/64		39.73				124	101	105	88.7
720	P7/4	3.0	32/32	1/16				45.13		--	--	--	--
720	P7/6	3.0	32/32	1.5/24				65.52		--	--	--	--
720	P7/8	3.0	32/32	2/32				81.24		--	--	--	--
720	P7+/4	3.6	32/32	1/40				53.9		--	--	--	--
720	P7+/6	3.6	32/32	1.5/60				79.5		--	--	--	--
720	P7+/8	3.6	32/32	2/80				102.4		--	--	--	--
730	P7/8	3.0	32/32	2/32				86.66		--	--	--	--
730	P7/8	3.7	32/32	2/32				101.62		--	--	--	--
730	P7/12	3.7	32/32	3/48				147.24		476	418	423	395
730	P7/16	3.55	32/32	4/64				176.57		575	507	482	448
730	P7+/4	4.3	32/32	1/40				61.7		--	--	--	--
730	P7+/8	4.3	32/32	2/80				120.4		--	--	--	--
730	P7+/6	4.2	32/32	1.5/60				90.6		--	--	--	--
730	P7+/12	4.2	32/32	3/120				176.6		--	--	--	--
730	P7+/8	3.6	32/32	2/80				102.4		--	--	--	--
730	P7+/16	3.6	32/32	4/160				197.7		--	--	--	--
730	P7+/8	4.2	32/32	2/80				115.5		--	--	--	--
730	P7+/16	4.2	32/32	4/160				223.1		874	615	591	483
S822	P8/6	3.8	32/64	3/48/128		59.9	86.9	112.9	120.8	--	--	--	--
S822	P8/10	3.4	32/64	5/80/128		88.2	127.8	166.2	177.8	--	--	--	--
S822	P8/12	3.8	32/64	6/96/256		116.8	169.4	220.2	235.6	--	--	--	--
S822	P8/20	3.4	32/64	10/160/256		171.9	249.3	324.0	346.7	--	--	--	--
740	P7/4	3.3	32/32	1/16				48.33		--	--	--	--
740	P7/4	3.7	32/32	1/16				52.93		--	--	--	--
740	P7/6	3.7	32/32	1.5/24				76.69		--	--	--	--
740	P7/8	3.3	32/32	2/32				92.79		--	--	--	--
740	P7/8	3.55	32/32	2/32				91.96		--	--	--	--
740	P7/8	3.7	32/32	2/32				101.62		--	--	--	--
740	P7/12	3.7	32/32	3/48				147.24		--	--	--	--
740	P7/16	3.55	32/32	4/64				176.57		577	510	481	450
740	P7+/6	4.2	32/32	1.5/60				90.6		--	--	--	--
740	P7+/12	4.2	32/32	3/120				176.6		--	--	--	--
740	P7+/8	3.6	32/32	2/80				102.4		--	--	--	--
740	P7+/16	3.6	32/32	4/160				197.7		--	--	--	--
740	P7+/8	4.2	32/32	2/80				115.5		--	--	--	--
740	P7+/16	4.2	32/32	4/160				223.1		884	626	602	491
S814	P8/4	3.0	32/64	2/32/128		33.2	48.1	62.5	66.9	--	--	--	--
S814	P8/6	3.0	32/64	3/48/128		48.3	70.1	91.1	97.5	--	--	--	--
S814	P8/8	3.7	32/64	4/64/128		71.4	103.5	134.5	143.9	--	--	--	--
S824	P8/6	3.8	32/64	3/48/128		59.9	86.9	112.9	120.8	--	--	--	--
S824	P8/8	4.1	32/64	4/64/128		82.3	119.3	155.1	166.0	--	--	--	--
S824	P8/12	3.8	32/64	6/96/256		116.8	169.4	220.2	235.6	--	--	--	--
S824	P8/16	4.1	32/64	8/128/256		160.4	232.7	302.4	323.6	--	--	--	--
S824	P8/24	3.5	32/64	12/192/256		209.1	303.2	394.2	421.8	1,750	1,280	1,370	1,180
550	P6/2	3.5	64/64	8/32				15.85		--	--	--	--

Model	Processor / # Cores	GHz	Cache L1 (KB)	Cache L2/L3/L4 (MB)	rPerf LPAR		rPerf SMT2	rPerf SMT4	rPerf SMT8	SPECint_		SPECfp_	
					# cores	rPerf ST				rate_2006	base_2006	rate_2006	base_2006
550	P6/4	3.5	64/64	16/64			31.27			--	--	--	--
550	P6/6	3.5	64/64	24/96			45.04			--	--	--	--
550	P6/8	3.5	64/64	32/128			58.80			179	152	154	135
550	P6/2	4.2	64/64	8/32			18.38			--	--	--	--
550	P6/4	4.2	64/64	16/64			36.28			--	--	--	--
550	P6/6	4.2	64/64	24/96			52.24			--	--	--	--
550	P6/8	4.2	64/64	32/128			68.20			212	179	178	156
550	P6+/2	5.0	64/64	8/32			21.18			--	--	--	--
550	P6+/4	5.0	64/64	16/64			41.81			--	--	--	--
550	P6+/6	5.0	64/64	24/96			60.20			--	--	--	--
550	P6+/8	5.0	64/64	32/128			78.60			263	215	222	188
560	P6+/4	3.6	64/64	16/64			31.32			--	--	--	--
560	P6+/8	3.6	64/64	32/128			57.32			--	--	--	--
560	P6+/16	3.6	64/64	64/256			100.30			363	289	263	226
750	P7/6	3.30	32/32	1.5/24				70.07		--	--	--	--
750	P7/12	3.30	32/32	3/48				134.54		--	--	--	--
750	P7/18	3.30	32/32	4.5/72				193.40		--	--	--	--
750	P7/24	3.30	32/32	6/96				252.26		--	--	--	--
750	P7/8	3.00	32/32	2/32				81.24		--	--	--	--
750	P7/16	3.00	32/32	4/64				155.99		--	--	--	--
750	P7/24	3.00	32/32	6/96				224.23		--	--	--	--
750	P7/32	3.00	32/32	8/128				292.47		--	--	--	--
750	P7/8	3.30	32/32	2/32				86.99		--	--	--	--
750	P7/16	3.30	32/32	4/64				167.01		--	--	--	--
750	P7/24	3.30	32/32	6/96				240.08		--	--	--	--
750	P7/32	3.30	32/32	8/128				313.15		1010	911	825	750
750	P7/8	3.55	32/32	2/32				91.96		--	--	--	--
750	P7/16	3.55	32/32	4/64				176.57		--	--	--	--
750	P7/24	3.55	32/32	6/96				253.82		--	--	--	--
750	P7/32	3.55	32/32	8/128				331.06		1060	949	851	776
750	P7/8	3.20	32/32	2/32				85.29		--	--	--	--
750	P7/16	3.20	32/32	4/64				163.75		--	--	--	--
750	P7/24	3.20	32/32	6/96				235.39		--	--	--	--
750	P7/32	3.20	32/32	8/128				307.03		--	--	--	--
750	P7/8	3.60	32/32	2/32				93.05		--	--	--	--
750	P7/16	3.60	32/32	4/64				178.65		--	--	--	--
750	P7/24	3.60	32/32	6/96				256.81		--	--	--	--
750	P7/32	3.60	32/32	8/128				334.97		1,150	1,010	985	909
750	P7/4	3.70	32/32	1/16				52.90		--	--	--	--
750	P7/8	3.70	32/32	2/32				101.57		--	--	--	--
750	P7/12(3x4c)	3.70	32/32	3/48				146.00		--	--	--	--
750	P7/16	3.70	32/32	4/64				190.44		--	--	--	--
750	P7/6	3.70	32/32	1.5/24				76.71		--	--	--	--
750	P7/12(2x6c)	3.70	32/32	3/48				147.27		--	--	--	--
750	P7/18	3.70	32/32	4.5/72				211.71		--	--	--	--
750	P7/24	3.70	32/32	6/96				276.14		--	--	--	--
750	P7+/8	3.5	32/32	2/80				104.5		--	--	--	--
750	P7+/16	3.5	32/32	4/160				197.0		--	--	--	--
750	P7+/24	3.5	32/32	6/240				275.9		--	--	--	--
750	P7+/32	3.5	32/32	8/320				354.9		1,600	1,150	1,130	946
750	P7+/8	4.0	32/32	2/80				117.1		--	--	--	--
750	P7+/16	4.0	32/32	4/160				220.7		--	--	--	--
750	P7+/24	4.0	32/32	6/240				309.2		--	--	--	--
750	P7+/32	4.0	32/32	8/320				397.7		1740	1230	1,200	995
755	P7/32	3.30	32/32	8/128				-		1010	911	825	750
755	P7/32	3.60	32/32	8/128				-		1,150	1,010	985	909
760	P7+/12	3.1	32/32	3/120				142.1		--	--	--	--
760	P7+/24	3.1	32/32	6/240				264.8		--	--	--	--
760	P7+/36	3.1	32/32	9/360				370.7		--	--	--	--
760	P7+/48	3.1	32/32	12/480				476.7		--	--	--	--
760	P7+/12	3.4	32/32	3/120				151.4		--	--	--	--
760	P7+/24	3.4	32/32	6/240				282.1		--	--	--	--
760	P7+/36	3.4	32/32	9/360				395.0		--	--	--	--
760	P7+/48	3.4	32/32	12/480				507.8		2,170	1,480	1,400	1,130
570	P6/2	3.5	64/64	8/32				15.85		--	--	--	--
570	P6/4	3.5	64/64	16/64				31.69		--	--	--	--
570	P6/8	3.5	64/64	32/128				58.95		--	--	--	--

Model	Processor / # Cores	GHz	Cache L1 (KB)	Cache L2/L3/L4 (MB)	rPerf LPAR				SPECint_		SPECfp_		
					# cores	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8	rate_2006	base_2006	rate_2006	base_2006
570	P6/12	3.5	64/64	48/192			83.35			--	--	--	--
570	P6/16	3.5	64/64	64/256			105.75			--	--	--	--
570	P6/2	4.2	64/64	8/32			18.38			--	--	--	--
570	P6/4	4.2	64/64	16/64			36.76			--	--	--	--
570	P6/8	4.2	64/64	32/128			68.38			--	--	--	--
570	P6/12	4.2	64/64	48/192			96.68			--	--	--	--
570	P6/16	4.2	64/64	64/256			122.67			--	--	--	--
570/32	P6+4	4.2	64/64	16/64			35.50			--	--	--	--
570/32	P6+8	4.2	64/64	32/128			64.96			--	--	--	--
570/32	P6+16	4.2	64/64	64/256			113.68			--	--	--	--
570/32	P6+24	4.2	64/64	96/384			153.46			--	--	--	--
570/32	P6+32	4.2	64/64	128/512			193.25		832	661	602	517	
570	P6+2	4.4	64/64	8/32			19.08			--	--	--	--
570	P6+4	4.4	64/64	16/64			38.16			--	--	--	--
570	P6+8	4.4	64/64	32/128			70.97			--	--	--	--
570	P6+12	4.4	64/64	48/192			100.35			--	--	--	--
570	P6+16	4.4	64/64	64/256			127.32			--	--	--	--
570	P6/2	4.7	64/64	8/32			20.13		60.9	53.2	58.0	51.5	
570	P6/4	4.7	64/64	16/64			40.26		122	106	115	102	
570	P6/8	4.7	64/64	32/128			74.89		240	206	213	189	
570	P6/12	4.7	64/64	48/192			105.89		--	--	--	--	
570	P6/16	4.7	64/64	64/256			134.35		478	410	426	379	
570	P6+2	5.0	64/64	8/32			21.16		--	--	--	--	
570	P6+4	5.0	64/64	16/64			42.32		--	--	--	--	
570	P6+8	5.0	64/64	32/128			78.71		--	--	--	--	
570	P6+12	5.0	64/64	48/192			111.3		--	--	--	--	
570	P6+16	5.0	64/64	64/256			141.21		542	466	544	465	
575	P6/32	4.7	64/64	128/512			--		934	812	839	730	
770	P7/6	3.50	32/32	1.5/24			72.55		--	--	--	--	
770	P7/12	3.50	32/32	3/48			140.75		--	--	--	--	
770	P7/24	3.50	32/32	6/96			261.19		--	--	--	--	
770	P7/36	3.50	32/32	9/144			377.28		--	--	--	--	
770	P7/48	3.50	32/32	12/192			493.37		1,930	1,740	1,760	1,560	
770	P7/6	3.7	32/32	1.5/24			76.0		--	--	--	--	
770	P7/12	3.7	32/32	3/48			147.5		--	--	--	--	
770	P7/24	3.7	32/32	6/96			273.7		--	--	--	--	
770	P7/36	3.7	32/32	9/144			395.4		--	--	--	--	
770	P7/48	3.7	32/32	12/192			517.0		--	--	--	--	
770	P7/8	3.10	32/32	2/32			85.20		--	--	--	--	
770	P7/16	3.10	32/32	4/64			165.30		--	--	--	--	
770	P7/32	3.10	32/32	8/128			306.74		--	--	--	--	
770	P7/48	3.10	32/32	12/192			443.06		--	--	--	--	
770	P7/64	3.10	32/32	16/256			579.39		2,140	1,930	1,900	1,710	
770	P7/8	3.30	32/32	2/32			89.2		--	--	--	--	
770	P7/16	3.30	32/32	4/64			173.1		--	--	--	--	
770	P7/32	3.30	32/32	8/128			321.2		--	--	--	--	
770	P7/48	3.30	32/32	12/192			464.0		--	--	--	--	
770	P7/64	3.30	32/32	16/256			606.8		--	--	--	--	
770	P7+6	4.22	32/32	1.5/60			94.5		--	--	--	--	
770	P7+12	4.22	32/32	3/120			184.2		--	--	--	--	
770	P7+24	4.22	32/32	6/240			345.1		--	--	--	--	
770	P7+36	4.22	32/32	9/360			478.9		--	--	--	--	
770	P7+48	4.22	32/32	12/480			612.7		2,800	2,170	2,280	2,000	
770	P7+8	3.80	32/32	2/80			112.5		--	--	--	--	
770	P7+16	3.80	32/32	4/160			219.3		--	--	--	--	
770	P7+32	3.80	32/32	8/320			410.8		--	--	--	--	
770	P7+48	3.80	32/32	12/480			570.1		--	--	--	--	
770	P7+64	3.80	32/32	16/640			729.3		--	--	--	--	
E870	p8/32	4.02	32/64	16/256/512	32	334.4	484.9	630.4	674.5	--	--	--	--
E870	p8/64	4.02	32/64	32/512/1024	32	668.8	969.8	1,260.8	1,349.0	--	--	--	--
E870	p8/40	4.19	32/64	20/320/512	40	424.4	615.4	800.0	856.0	--	--	--	--
E870	p8/80	4.19	32/64	40/640/1024	40	848.8	1,230.7	1,599.9	1,711.9	6,320	4,830	5,130	4,500
780	P7/8	3.86	32/32	2/32			100.75		--	--	--	--	
780	P7/16	3.86	32/32	4/64			195.45		652	586	586	531	
780	P7/32	3.86	32/32	8/128			362.70		--	--	--	--	
780	P7/48	3.86	32/32	12/192			523.89		--	--	--	--	
780	P7/64	3.86	32/32	16/256			685.09		2,530	2,300	2,240	2,030	

Model	Processor / # Cores	GHz	Cache L1 (KB)	Cache L2/L3/L4 (MB)	rPerf LPAR Size # cores	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8	SPECint_	SPECint_	SPECfp_	SPECfp_
										rate_2006	base_2006	rate_2006	base_2006
780	P7/8	3.92	32/32	2/32				101.8		--	--	--	--
780	P7/16	3.92	32/32	4/64				197.6		--	--	--	--
780	P7/32	3.92	32/32	8/128				366.6		--	--	--	--
780	P7/48	3.92	32/32	12/192				529.6		--	--	--	--
780	P7/64	3.92	32/32	16/256				692.5	2,770	2,420	2,640	2,410	
780	P7/8	4.14	32/32	4/64				115.86		--	--	--	--
780	P7/16	4.14	32/32	8/128				226.97		--	--	--	--
780	P7/24	4.14	32/32	12/192				326.24		--	--	--	--
780	P7/32	4.14	32/32	16/256				425.50	1,460	1,300	1,300	1,190	
780	P7/12	3.44	32/32	3/48				138.4		--	--	--	--
780	P7/24	3.44	32/32	6/96				253.3		--	--	--	--
780	P7/48	3.44	32/32	12/192				443.3		--	--	--	--
780	P7/72	3.44	32/32	18/288	36			696.6		--	--	--	--
780	P7/96	3.44	32/32	24/384	48			886.6	3,520	3,070	3,150	2,840	
780	P7+8	4.42	32/32	2/80				126.1		--	--	--	--
780	P7+/16	4.42	32/32	4/160				245.7		--	--	--	--
780	P7+/32	4.42	32/32	8/320				460.3		--	--	--	--
780	P7+/48	4.42	32/32	12/480				638.7		--	--	--	--
780	P7+/64	4.42	32/32	16/640				817.1	3,730	2,830	2,880	2,500	
780	P7+/16	3.72	32/32	4/160				207.0		--	--	--	--
780	P7+/32	3.72	32/32	8/320				383.9		--	--	--	--
780	P7+/64	3.72	32/32	16/640	64			690.1		--	--	--	--
780	P7+/96	3.72	32/32	24/960	32			1,151.6		--	--	--	--
780	P7+/128	3.72	32/32	32/1280	64			1,380.2		--	--	--	--
E880	p8/32	4.35	32/64	16/256/512	32	355.1	514.9	669.4	716.3	--	--	--	--
E880	p8/64	4.35	32/64	32/512/1024	32	710.2	1,029.8	1,338.8	1,432.5	5,400	4,130	4,470	3,960
595	P6/8	4.2	64/64	32/128			75.58			--	--	--	--
595	P6/16	4.2	64/64	64/256			142.90			--	--	--	--
595	P6/32	4.2	64/64	128/512			266.51			--	--	--	--
595	P6/48	4.2	64/64	192/768			373.60			--	--	--	--
595	P6/64	4.2	64/64	256/1024			479.89		1650	1420	--	--	--
595	P6/8	5.0	64/64	32/128			87.10			--	--	--	--
595	P6/16	5.0	64/64	64/256			164.67			--	--	--	--
595	P6/32	5.0	64/64	128/512			307.12			--	--	--	--
595	P6/48	5.0	64/64	192/768			430.53			--	--	--	--
595	P6/64	5.0	64/64	256/1024			553.01		2083	1822	2108	1822	
795	P7/24	3.7	32/32	6/96	24			273.51		--	--	--	--
795	P7/48	3.7	32/32	12/192	24			547.02		--	--	--	--
795	P7/72	3.7	32/32	18/288	24			820.53		--	--	--	--
795	P7/96	3.7	32/32	24/384	24			1,094.04		--	--	--	--
795	P7/120	3.7	32/32	30/480	24			1,367.55		--	--	--	--
795	P7/144	3.7	32/32	36/576	24			1,641.06		--	--	--	--
795	P7/168	3.7	32/32	42/672	24			1,914.57		--	--	--	--
795	P7/192	3.7	32/32	48/768	24			2,188.08		--	--	--	--
795	P7/32	4.0	32/32	8/128	32			372.27		--	--	--	--
795	P7/64	4.0	32/32	16/256	32			744.54		--	--	--	--
795	P7/96	4.0	32/32	24/384	32			1,116.81		--	--	--	--
795	P7/128	4.0	32/32	32/512	32			1,489.08		--	--	--	--
795	P7/160	4.0	32/32	40/640	32			1,861.35		--	--	--	--
795	P7/192	4.0	32/32	48/768	32			2,233.62		--	--	--	--
795	P7/224	4.0	32/32	56/896	32			2,605.89		--	--	--	--
795	P7/256	4.0	32/32	64/1024	32			2,978.16		--	--	--	--
795	P7/24	4.25	32/32	6/192	16			347.36		--	--	--	--
795	P7/32	4.25	32/32	8/256	16			463.14		--	--	--	--
795	P7/48	4.25	32/32	12/384	16			694.71		--	--	--	--
795	P7/64	4.25	32/32	16/512	16			926.28		--	--	--	--
795	P7/80	4.25	32/32	20/640	16			1,157.85		--	--	--	--
795	P7/96	4.25	32/32	24/768	16			1,389.42		--	--	--	--
795	P7/112	4.25	32/32	28/896	16			1,620.99		--	--	--	--
795	P7/128	4.25	32/32	32/1024	16			1,852.56		--	--	--	--
795	P7/64	4.25	32/32	16/512	64			777.09		--	--	--	--
795	P7/128	4.0	32/32	32/512	64			1406.36		--	--	--	--
795	P7/128	4.25	32/32	32/1024	64			1,554.18		--	--	--	--
795	P7/256	4.0	32/32	64/1024	64			2,812.72		--	--	--	--

Model	Processor / # Cores	GHz	Cache L1 (KB)	Cache L2/L3/L4 (MB)	rPerf LPAR Size # cores	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8	SPECint_	SPECint_	SPECfp_	SPECfp_
										rate_ base_ 2006	rate_ base_ 2006	rate_ base_ 2006	rate_ base_ 2006
795	P7/32	4.0	32/32	8/128	--	--	--	--	--	1,440	1,270	--	--
795	P7/256	4.0	32/32	64/1024	--	--	--	--	--	11,200	9,880	10,500	9730
795	P7/128	4.25	32/32	32/1024	--	--	--	--	--	6,150	5,330	5,870	5,450

Note : upto 5% additional rPerf with Intelligent Energy Optimization enabled depending on the system

Section 2a – AIX Multiuser Performance (rPerf, SPEC CPU2000, SPECweb99)

Model	Processor / # Cores	MHz	L1 Cache (KB)	L2/L3 Cache (MB)	rPerf	SPEC	SPEC	SPEC	SPEC	SPEC web99
						int_ rate_ 2000	int_ rate_ base_ 2000	fp_ rate_ 2000	fp_ rate_ base_ 2000	
JS20	PPC970/1	1600	64/32	0.5/-	1.53	--	--	--	--	--
JS20	PPC970/2	1600	64/32	1.0/-	2.65	--	--	--	--	--
JS20	PPC970/1	2200	64/32	0.5/-	1.95	--	--	--	--	--
JS20	PPC970/2	2200	64/32	1.0/-	3.40	21.5	20.2	20.0	19.2	--
JS21	PPC970+/2	2700	64/32	2.0/-	5.31	38.5	36.6	43.9	40.9	--
JS21	PPC970+/4	2500	64/32	4.0/-	8.72	67.5	64.2	58.8	56.1	--
JS21	PPC970+/4	2300	64/32	4.0/-	8.15	--	--	--	--	--
#IS-285	P5+/2	1900	64/32	1.9/36	--	39.6	38.8	67.6	65.4	--
IS-285	P5+/2	2100	64/32	1.9/36	--	45.0	43.9	72.9	70.0	--
#p5-505	P5/2	1500	64/32	1.9/36	9.13	--	--	--	--	--
#p5-505	P5/1	1650	64/32	1.9/0	3.51	--	--	--	--	--
#p5-505	P5/2	1650	64/32	1.9/36	9.86	34.1	33.5	59.4	57.0	--
p5-505	P5+/1	1900	64/32	1.9/0	4.10	--	--	--	--	--
p5-505	P5+/2	1900	64/32	1.9/36	11.49	--	--	--	--	--
p5-505	P5+/2	2100	64/32	1.9/36	12.46	44.6	43.4	73.4	71.6	--
p5-505Q	P5+/4	1650	64/32	1.9/72	20.25	70.0	68.6	100	97.2	--
#p5-510	P5/1	1500	64/32	1.9/0	3.25	--	--	--	--	--
#p5-510	P5/2	1500	64/32	1.9/36	9.13	--	--	--	--	--
#p5-510	P5/1	1650	64/32	1.9/36	5.24	--	--	--	--	--
#p5-510	P5/2	1650	64/32	1.9/36	9.86	33.0	31.6	43.2	41.5	--
#p5-510	P5+/1	1900	64/32	1.9/36	6.11	--	--	--	--	--
#p5-510	P5+/2	1900	64/32	1.9/36	11.49	39.9	39.4	67.1	65.9	--
p5-510	P5+/1	2100	64/32	1.9/36	6.63	--	--	--	--	--
p5-510	P5+/2	2100	64/32	1.9/36	12.46	44.6	43.4	73.4	71.6	--
#p5-510Q	P5+/4	1500	64/32	1.9/72	18.75	63.0	61.4	95.5	89.8	--
p5-510Q	P5+/4	1650	64/32	1.9/72	20.25	70.0	68.6	100	97.2	--
#p5-520	P5/1	1500	64/32	1.9/0	3.25	--	--	--	--	--
#p5-520	P5/2	1500	64/32	1.9/36	9.13	--	--	40.0	38.7	--
#p5-520	P5/2	1650	64/32	1.9/36	9.86	32.9	30.3	43.0	41.5	--
#p5-520	P5+/1	1650	64/32	1.9/0	3.62	--	--	--	--	--
#p5-520	P5+/2	1650	64/32	1.9/36	10.15	34.8	34.4	61.5	59.0	--
#p5-520	P5+/2	1900	64/32	1.9/36	11.16	39.6	38.9	67.6	65.4	--
p5-520	P5+/1	2100	64/32	1.9/36	6.63	--	--	--	--	--
p5-520	P5+/2	2100	64/32	1.9/36	12.46	44.6	43.4	73.4	71.6	--
#p5-520Q	P5+/4	1500	64/32	1.9/72	18.75	63.0	61.4	95.5	89.8	--
p5-520Q	P5+/4	1650	64/32	1.9/72	20.25	70.0	68.6	100	97.2	--
#p5-550	P5/1	1500	64/32	1.9/0	3.25	--	--	--	--	--
#p5-550	P5/2	1500	64/32	1.9/36	9.13	--	--	--	--	--
#p5-550	P5/4	1500	64/32	3.8/72	18.20	--	--	80.6	77.4	--
#p5-550	P5/2	1650	64/32	1.9/36	9.86	--	--	--	--	--

Model	Processor / # Cores	MHz	L1 Cache (KB)	L2/L3 Cache (MB)	rPerf	SPEC	SPEC	SPEC	SPEC	SPEC web99
						int_rate_2000	int_rate_base_2000	fp_rate_2000	fp_rate_base_2000	
#p5-550	P5/4	1650	64/32	3.8/72	19.66	65.5	60.4	84.8	82.1	--
#p5-550	P5+/2	1650	64/32	1.9/36	10.15	--	--	--	--	--
#p5-550	P5+/4	1650	64/32	3.8/72	20.25	69.0	68.1	119	117	--
p5-550	P5+/2	1900	64/32	1.9/36	11.16	--	--	--	--	--
p5-550	P5+/4	1900	64/32	3.8/72	22.26	78.5	77.1	133	129	--
p5-550	P5+/2	2100	64/32	1.9/36	12.46	--	--	--	--	--
p5-550	P5+/4	2100	64/32	3.8/72	24.86	90.0	87.5	149	139	--
#p5-550Q	P5+/4	1500	64/32	3.8/72	18.20	--	--	--	--	--
#p5-550Q	P5+/8	1500	64/32	7.6/144	34.46	124	122	178	174	--
p5-550Q	P5+/4	1650	64/32	3.8/72	20.25	--	--	--	--	--
p5-550Q	P5+/8	1650	64/32	7.6/144	38.34	140	137	202	189	--
#p5-560Q	P5+/4	1500	64/32	3.8/72	18.75	--	--	--	--	--
#p5-560Q	P5+/8	1500	64/32	7.6/144	35.50	--	--	--	--	--
#p5-560Q	P5+/16	1500	64/32	7.6/288	65.24	248	243	368	360	--
p5-560Q	P5+/4	1800	64/32	3.8/72	21.72	--	--	--	--	--
p5-560Q	P5+/8	1800	64/32	7.6/144	41.12	--	--	--	--	--
p5-560Q	P5+/16	1800	64/32	7.6/288	75.58	--	--	--	--	--
#p5-570	P5/2	1500	64/32	1.9/36	9.13	--	--	--	--	--
#p5-570	P5/4	1500	64/32	3.8/72	18.20	--	--	--	--	--
#p5-570	P5/8	1500	64/32	7.6/144	34.46	--	--	--	--	--
#p5-570	P5/2	1650	64/32	1.9/36	9.86	--	--	--	--	--
#p5-570	P5/4	1650	64/32	3.8/72	19.66	--	--	--	--	--
#p5-570	P5/8	1650	64/32	7.6/144	37.22	--	--	--	--	--
#p5-570	P5/12	1650	64/32	11.4/216	53.43	--	--	--	--	--
#p5-570	P5/16	1650	64/32	15.2/288	68.40	--	--	--	--	--
#p5-570	P5/2	1900	64/32	1.9/36	11.16	--	--	--	--	--
#p5-570	P5/4	1900	64/32	3.8/72	22.26	76.3	74.4	130	125	--
#p5-570	P5/8	1900	64/32	7.6/144	42.14	147	141	249	241	--
#p5-570	P5/12	1900	64/32	11.4/216	60.50	--	--	--	--	--
#p5-570	P5/16	1900	64/32	15.2/288	77.45	294	273	460	438	--
p5-570	P5+/2	1900	64/32	1.9/36	12.27	--	--	--	--	--
p5-570	P5+/4	1900	64/32	3.8/72	24.48	--	--	--	--	--
p5-570	P5+/8	1900	64/32	7.6/144	46.36	--	--	--	--	--
p5-570	P5+/12	1900	64/32	11.4/216	66.55	--	--	--	--	--
p5-570	P5+/16	1900	64/32	15.2/288	85.20	--	--	--	--	--
p5-570	P5+2	2200	64/32	1.9/36	13.83	--	--	--	--	--
p5-570	P5+/4	2200	64/32	3.8/72	27.58	--	--	--	--	--
p5-570	P5+/8	2200	64/32	7.6/144	52.21	--	--	--	--	--
p5-570	P5+/12	2200	64/32	11.4/216	74.95	--	--	--	--	--
p5-570	P5+/16	2200	64/32	15.2/288	95.96	--	--	--	--	--
#p5-575	P5/16	1500	64/32	15.2/288	--	238	230	385	359	--
#p5-575	P5/8	1900	64/32	15.2/288	--	167	159	282	266	--
p5-575	P5+/16	1900	64/32	15.2/288	--	314	310	571	541	--
p5-575	P5+/8	2200	64/32	15.2/288	--	200	196	382	355	--
#p5-590	P5/8	1650	64/32	7.6/144	41.68	--	--	--	--	--
#p5-590	P5/16	1650	64/32	15.2/288	80.86	--	--	--	--	--
#p5-590	P5/24	1650	64/32	22.8/432	116.29	--	--	--	--	--
#p5-590	P5/32	1650	64/32	30.4/576	151.72	529	503	870	824	--
p5-590	P5+/8	2100	64/32	7.6/144	55.74	--	--	--	--	--
p5-590	P5+/16	2100	64/32	15.2/288	108.13	--	--	--	--	--
p5-590	P5+/24	2100	64/32	22.8/432	155.51	--	--	--	--	--
p5-590	P5+/32	2100	64/32	30.4/576	202.88	--	--	--	--	--
#p5-595	P5/16	1650	64/32	15.2/288	80.86	--	--	--	--	--

Model	Processor / # Cores	MHz	L1 Cache (KB)	L2/L3 Cache (MB)	rPerf	SPEC int_rate 2000	SPEC int_rate_base 2000	SPEC fp_rate 2000	SPEC fp_rate_base 2000	SPEC web99
#p5-595	P5/24	1650	64/32	22.8/432	116.29	--	--	--	--	--
#p5-595	P5/32	1650	64/32	30.4/576	151.72	--	--	--	--	--
#p5-595	P5/40	1650	64/32	38.0/720	182.07	--	--	--	--	--
#p5-595	P5/48	1650	64/32	45.6/864	212.41	--	--	--	--	--
#p5-595	P5/56	1650	64/32	53.2/1008	242.76	--	--	--	--	--
#p5-595	P5/64	1650	64/32	60.8/1152	273.10	--	--	--	--	--
#p5-595	P5/16	1900	64/32	15.2/288	90.67	--	--	--	--	--
#p5-595	P5/24	1900	64/32	22.8/432	130.39	--	--	--	--	--
#p5-595	P5/32	1900	64/32	30.4/576	170.11	--	--	--	--	--
#p5-595	P5/40	1900	64/32	38.0/720	204.14	--	--	--	--	--
#p5-595	P5/48	1900	64/32	45.6/864	238.16	--	--	--	--	--
#p5-595	P5/56	1900	64/32	53.2/1008	272.18	--	--	--	--	--
#p5-595	P5/64	1900	64/32	60.8/1152	306.21	1,147	1,063	1,752	1,684	--
p5-595	P5+/16	2100	64/32	15.2/288	108.13	--	--	--	--	--
p5-595	P5+/24	2100	64/32	22.8/432	155.51	--	--	--	--	--
p5-595	P5+/32	2100	64/32	30.4/576	202.88	--	--	--	--	--
p5-595	P5+/40	2100	64/32	38.0/720	243.46	--	--	--	--	--
p5-595	P5+/48	2100	64/32	45.6/864	284.04	--	--	--	--	--
p5-595	P5+/56	2100	64/32	53.2/1008	324.61	--	--	--	--	--
p5-595	P5+/64	2100	64/32	60.8/1152	365.19	--	--	--	--	--
p5-595	P5+/16	2300	64/32	15.2/288	116.53	--	--	--	--	--
p5-595	P5+/24	2300	64/32	22.8/432	167.58	--	--	--	--	--
p5-595	P5+/32	2300	64/32	30.4/576	218.64	--	--	--	--	--
p5-595	P5+/40	2300	64/32	38.0/720	262.37	--	--	--	--	--
p5-595	P5+/48	2300	64/32	45.6/864	306.10	--	--	--	--	--
p5-595	P5+/56	2300	64/32	53.2/1008	349.83	--	--	--	--	--
p5-595	P5+/64	2300	64/32	60.8/1152	393.55	1,513	1,488	2,406	2,215	--

Section 2b – Power Systems Multiuser Performance using AIX 5L V5.2

Model	Processor / # Cores	MHz	L1 Cache (KB)	L2/L3 Cache (MB)	rPerf
#p5-505	P5/2	1500	64/32	1.9/36	7.02
#p5-505	P5/1	1650	64/32	1.9/0	2.70
#p5-505	P5/2	1650	64/32	1.9/36	7.58
p5-505	P5+/1	1900	64/32	1.9/0	3.15
p5-505	P5+/2	1900	64/32	1.9/36	8.84
p5-505	P5+/2	2100	64/32	1.9/36	9.59
p5-505Q	P5+/4	1650	64/32	1.9/72	15.57
#p5-510	P5/1	1500	64/32	1.9/0	2.50
#p5-510	P5/2	1500	64/32	1.9/36	7.02
#p5-510	P5/1	1650	64/32	1.9/36	4.03
#p5-510	P5/2	1650	64/32	1.9/36	7.58
#p5-510	P5+/1	1900	64/32	1.9/36	4.70
#p5-510	P5+/2	1900	64/32	1.9/36	8.83
p5-510	P5+/1	2100	64/32	1.9/0	5.10
p5-510	P5+/2	2100	64/32	1.9/36	9.59
#p5-510Q	P5+/4	1500	64/32	1.9/72	14.42
p5-510Q	P5+/4	1650	64/32	1.9/72	15.57
#p5-520	P5/1	1500	64/32	1.9/0	2.50
#p5-520	P5/2	1500	64/32	1.9/36	7.02
#p5-520	P5/2	1650	64/32	1.9/36	7.58

Model	Processor / # Cores	MHz	L1 Cache (KB)	L2/L3 Cache (MB)	rPerf
#p5-520	P5+1	1650	64/32	1.9/0	2.78
#p5-520	P5+2	1650	64/32	1.9/36	7.80
#p5-520	P5+2	1900	64/32	1.9/36	8.58
p5-520	P5+1	2100	64/32	1.9/36	5.10
p5-520	P5+2	2100	64/32	1.9/36	9.59
#p5-520Q	P5+4	1500	64/32	1.9/72	14.42
p5-520Q	P5+4	1650	64/32	1.9/72	15.57
#p5-550	P5/1	1500	64/32	1.9/0	2.50
#p5-550	P5/2	1500	64/32	1.9/36	7.02
#p5-550	P5/4	1500	64/32	3.8/72	14.00
#p5-550	P5/2	1650	64/32	1.9/36	7.58
#p5-550	P5/4	1650	64/32	3.8/72	15.12
#p5-550	P5+2	1650	64/32	1.9/36	7.80
#p5-550	P5+4	1650	64/32	3.8/72	15.57
p5-550	P5+2	1900	64/32	1.9/36	8.58
p5-550	P5+4	1900	64/32	3.8/72	17.12
p5-550	P5+2	2100	64/32	1.9/36	9.59
p5-550	P5+4	2100	64/32	3.8/72	19.12
#p5-550Q	P5+4	1500	64/32	3.8/72	14.00
#p5-550Q	P5+8	1500	64/32	7.6/144	26.50
p5-550Q	P5+4	1650	64/32	3.8/72	15.57
p5-550Q	P5+8	1650	64/32	7.6/144	29.49
p5-560Q	P5+4	1500	64/32	3.8/72	14.42
p5-560Q	P5+8	1500	64/32	7.6/144	27.30
p5-560Q	P5+16	1500	64/32	15.2/288	50.18
p5-560Q	P5+4	1800	64/32	3.8/72	16.71
p5-560Q	P5+8	1800	64/32	7.6/144	31.63
p5-560Q	P5+16	1800	64/32	15.2/288	58.14
#p5-570	P5/2	1500	64/32	1.9/36	7.02
#p5-570	P5/4	1500	64/32	3.8/72	14.00
#p5-570	P5/8	1500	64/32	7.6/144	26.50
#p5-570	P5/2	1650	64/32	1.9/36	7.58
#p5-570	P5/4	1650	64/32	3.8/72	15.12
#p5-570	P5/8	1650	64/32	7.6/144	28.63
#p5-570	P5/12	1650	64/32	11.4/216	41.10
#p5-570	P5/16	1650	64/32	15.2/288	52.61
#p5-570	P5/2	1900	64/32	1.9/36	8.58
#p5-570	P5/4	1900	64/32	3.8/72	17.12
#p5-570	P5/8	1900	64/32	7.6/144	32.41
#p5-570	P5/12	1900	64/32	11.4/216	46.53
#p5-570	P5/16	1900	64/32	15.2/288	59.57
p5-570	P5+2	1900	64/32	1.9/36	9.43
p5-570	P5+4	1900	64/32	3.8/72	18.83
p5-570	P5+8	1900	64/32	7.6/144	35.66
p5-570	P5+12	1900	64/32	11.4/216	51.19
p5-570	P5+16	1900	64/32	15.2/288	65.53
p5-570	P5+2	2200	64/32	1.9/36	10.63
p5-570	P5+4	2200	64/32	3.8/72	21.21
p5-570	P5+8	2200	64/32	7.6/144	40.16
p5-570	P5+12	2200	64/32	11.4/216	57.65
p5-570	P5+16	2200	64/32	15.2/288	73.81
#p5-590	P5/8	1650	64/32	7.6/144	32.06
#p5-590	P5/16	1650	64/32	15.2/288	62.20
#p5-590	P5/24	1650	64/32	22.8/432	89.46
#p5-590	P5/32	1650	64/32	30.4/576	116.71
p5-590	P5+8	2100	64/32	7.6/144	42.87

Model	Processor / # Cores	MHz	L1 Cache (KB)	L2/L3 Cache (MB)	rPerf
p5-590	P5+/16	2100	64/32	15.2/288	83.18
p5-590	P5+/24	2100	64/32	22.8/432	119.62
p5-590	P5+/32	2100	64/32	30.4/576	156.06
#p5-595	P5/16	1650	64/32	15.2/288	62.20
#p5-595	P5/24	1650	64/32	22.8/432	89.46
#p5-595	P5/32	1650	64/32	30.4/576	116.71
#p5-595	P5/40	1650	64/32	38.0/720	140.05
#p5-595	P5/48	1650	64/32	45.6/864	163.39
#p5-595	P5/56	1650	64/32	53.2/1008	186.74
#p5-595	P5/64	1650	64/32	60.8/1152	210.08
#p5-595	P5/16	1900	64/32	15.2/288	69.74
#p5-595	P5/24	1900	64/32	22.8/432	100.30
#p5-595	P5/32	1900	64/32	30.4/576	130.86
#p5-595	P5/40	1900	64/32	38.0/720	157.03
#p5-595	P5/48	1900	64/32	45.6/864	183.20
#p5-595	P5/56	1900	64/32	53.2/1008	209.37
#p5-595	P5/64	1900	64/32	60.8/1152	235.54
p5-595	p5+/16	2100	64/32	15.2/288	83.18
p5-595	P5+/24	2100	64/32	22.8/432	119.62
p5-595	P5+/32	2100	64/32	30.4/576	156.06
p5-595	P5+/40	2100	64/32	38.0/720	187.28
p5-595	P5+/48	2100	64/32	45.6/864	218.49
p5-595	P5+/56	2100	64/32	53.2/1008	249.70
p5-595	P5+/64	2100	64/32	60.8/1152	280.92
p5-595	P5+/16	2300	64/32	15.2/288	89.64
p5-595	P5+/24	2300	64/32	22.8/432	128.91
p5-595	P5+/32	2300	64/32	30.4/576	168.19
p5-595	P5+/40	2300	64/32	38.0/720	201.82
p5-595	P5+/48	2300	64/32	45.6/864	235.46
p5-595	P5+/56	2300	64/32	53.2/1008	269.10
p5-595	P5+/64	2300	64/32	60.8/1152	302.73

Section 2c – AIX Capacity Upgrade on Demand Relative Performance Guidelines

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
#p5-570	P5/4	1.65			19.66		
#p5-570	P5/6	1.65			28.44		
#p5-570	P5/8	1.65			37.22		
#p5-570	P5/10	1.65			45.33		
#p5-570	P5/12	1.65			53.43		
#p5-570	P5/14	1.65			60.92		
#p5-570	P5/16	1.65			68.40		
#p5-570	P5/4	1.9			22.26		
#p5-570	P5/6	1.9			32.20		
#p5-570	P5/8	1.9			42.14		
#p5-570	P5/10	1.9			51.32		
#p5-570	P5/12	1.9			60.50		
#p5-570	P5/14	1.9			68.98		
#p5-570	P5/16	1.9			77.45		
p5-570	P5+/4	1.9			24.48		
p5-570	P5+/6	1.9			35.42		
p5-570	P5+/8	1.9			46.36		

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
p5-570	P5+/10	1.9			56.45		
p5-570	P5+/12	1.9			66.55		
p5-570	P5+/14	1.9			75.87		
p5-570	P5+/16	1.9			85.20		
p5-570	P5+/4	2.2			27.58		
p5-570	P5+/6	2.2			39.90		
p5-570	P5+/8	2.2			52.21		
p5-570	P5+/10	2.2			63.58		
p5-570	P5+/12	2.2			74.95		
p5-570	P5+/14	2.2			85.46		
p5-570	P5+/16	2.2			95.96		
570	P6/4	3.5			31.69		
570	P6/6	3.5			45.32		
570	P6/8	3.5			58.95		
570	P6/10	3.5			71.15		
570	P6/12	3.5			83.35		
570	P6/14	3.5			94.55		
570	P6/16	3.5			105.75		
570	P6/4	4.2			36.76		
570	P6/6	4.2			52.57		
570	P6/8	4.2			68.38		
570	P6/10	4.2			82.53		
570	P6/12	4.2			96.68		
570	P6/14	4.2			109.67		
570	P6/16	4.2			122.67		
570/32	P6+/4	4.2			35.50		
570/32	P6+/6	4.2			50.23		
570/32	p6+/8	4.2			64.96		
570/32	p6+/10	4.2			77.14		
570/32	p6+/12	4.2			89.32		
570/32	p6+/14	4.2			101.50		
570/32	p6+/16	4.2			113.68		
570/32	p6+/18	4.2			123.62		
570/32	p6+/20	4.2			133.57		
570/32	p6+/22	4.2			143.52		
570/32	p6+/24	4.2			153.46		
570/32	p6+/26	4.2			163.41		
570/32	p6+/28	4.2			173.36		
570/32	p6+/30	4.2			183.30		
570/32	p6+/32	4.2			193.25		
570	P6+/4	4.4			38.16		
570	P6+/6	4.4			54.56		
570	p6+/8	4.4			70.97		
570	p6+/10	4.4			85.66		
570	p6+/12	4.4			100.35		
570	p6+/14	4.4			113.84		
570	p6+/16	4.4			127.32		
570	P6/4	4.7			40.26		
570	P6/6	4.7			57.58		

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
570	P6/8	4.7			74.89		
570	P6/10	4.7			90.39		
570	P6/12	4.7			105.89		
570	P6/14	4.7			120.12		
570	P6/16	4.7			134.35		
570	P6+/4	5.0			42.32		
570	P6+/6	5.0			60.52		
570	p6+/8	5.0			78.71		
570	p6+/10	5.0			95.01		
570	p6+/12	5.0			111.30		
570	p6+/14	5.0			126.25		
570	p6+/16	5.0			141.21		
770	P7/4	3.50				49.19	
770	P7/6	3.50				72.55	
770	P7/8	3.50				95.29	
770	P7/12	3.50				140.75	
770	P7/16	3.50				180.90	
770	P7/20	3.50				221.05	
770	P7/24	3.50				261.19	
770	P7/28	3.50				299.89	
770	P7/32	3.50				338.58	
770	P7/36	3.50				377.28	
770	P7/40	3.50				415.97	
770	P7/44	3.50				454.67	
770	P7/48	3.50				493.37	
770	P7/4	3.7				51.6	
770	P7/6	3.7				76.0	
770	P7/8	3.7				99.9	
770	P7/12	3.7				147.5	
770	P7/16	3.7				189.6	
770	P7/20	3.7				231.7	
770	P7/24	3.7				273.7	
770	P7/28	3.7				314.3	
770	P7/32	3.7				354.8	
770	P7/36	3.7				395.4	
770	P7/40	3.7				435.9	
770	P7/44	3.7				476.5	
770	P7/48	3.7				517.0	
770	P7/4	3.10				44.84	
770	P7/8	3.10				85.20	
770	P7/12	3.10				125.25	
770	P7/16	3.10				165.30	
770	P7/20	3.10				200.66	
770	P7/24	3.10				236.02	
770	P7/28	3.10				271.38	
770	P7/32	3.10				306.74	
770	P7/36	3.10				340.82	
770	P7/40	3.10				374.90	

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
770	P7/44	3.10				408.98	
770	P7/48	3.10				443.06	
770	P7/52	3.10				477.15	
770	P7/56	3.10				511.23	
770	P7/60	3.10				545.31	
770	P7/64	3.10				579.39	
770	P7/4	3.3				47.0	
770	P7/8	3.3				89.2	
770	P7/12	3.3				131.2	
770	P7/16	3.3				173.1	
770	P7/20	3.3				210.1	
770	P7/24	3.3				247.2	
770	P7/28	3.3				284.2	
770	P7/32	3.3				321.2	
770	P7/36	3.3				356.9	
770	P7/40	3.3				392.6	
770	P7/44	3.3				428.3	
770	P7/48	3.3				464.0	
770	P7/52	3.3				499.7	
770	P7/56	3.3				535.4	
770	P7/60	3.3				571.1	
770	P7/64	3.3				606.8	
770	P7+/4	4.22				64.1	
770	P7+/6	4.22				94.5	
770	P7+/8	4.22				124.4	
770	P7+/12	4.22				184.2	
770	P7+/16	4.22				237.8	
770	P7+/20	4.22				291.5	
770	P7+/24	4.22				345.1	
770	P7+/28	4.22				389.7	
770	P7+/32	4.22				434.3	
770	P7+/36	4.22				478.9	
770	P7+/40	4.22				523.5	
770	P7+/44	4.22				568.1	
770	P7+/48	4.22				612.7	
770	P7+/4	3.80				59.2	
770	P7+/8	3.80				112.5	
770	P7+/12	3.80				165.9	
770	P7+/16	3.80				219.3	
770	P7+/20	3.80				267.1	
770	P7+/24	3.80				315.0	
770	P7+/28	3.80				362.9	
770	P7+/32	3.80				410.8	
770	P7+/36	3.80				450.6	
770	P7+/40	3.80				490.4	
770	P7+/44	3.80				530.3	
770	P7+/48	3.80				570.1	
770	P7+/52	3.80				609.9	
770	P7+/56	3.80				649.7	

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
770	P7+/60	3.80				689.5	
770	P7+/64	3.80				729.3	
			32 core				
E870	p8/8	4.02		87.9	127.5	165.8	177.4
E870	p8/12	4.02		129.7	188.1	244.5	261.6
E870	p8/16	4.02		171.5	248.7	323.3	345.9
E870	p8/20	4.02		212.2	307.7	400.1	428.1
E870	p8/24	4.02		253.0	366.8	476.8	510.2
E870	p8/28	4.02		293.7	425.9	553.6	592.4
E870	p8/32	4.02		334.4	484.9	630.4	674.5
			40 core				
E870	p8/8	4.19		90.4	131.1	170.4	182.4
E870	p8/12	4.19		132.8	192.6	250.4	267.9
E870	p8/16	4.19		175.2	254.1	330.3	353.4
E870	p8/20	4.19		217.6	315.6	410.2	439.0
E870	p8/24	4.19		259.0	375.5	488.2	522.4
E870	p8/28	4.19		300.3	435.5	566.1	605.8
E870	p8/32	4.19		341.7	495.4	644.1	689.2
E870	p8/36	4.19		383.0	555.4	722.0	772.6
E870	p8/40	4.19		424.4	615.4	800.0	856.0
780	P7/4	3.86				53.03	
780	P7/8	3.86				100.75	
780	P7/12	3.86				148.10	
780	P7/16	3.86				195.45	
780	P7/20	3.86				237.26	
780	P7/24	3.86				279.07	
780	P7/28	3.86				320.88	
780	P7/32	3.86				362.70	
780	P7/36	3.86				403.00	
780	P7/40	3.86				443.29	
780	P7/44	3.86				483.59	
780	P7/48	3.86				523.89	
780	P7/52	3.86				564.19	
780	P7/56	3.86				604.49	
780	P7/60	3.86				644.79	
780	P7/64	3.86				685.09	
780	P7/4	3.92				53.6	
780	P7/8	3.92				101.8	
780	P7/12	3.92				149.7	
780	P7/16	3.92				197.6	
780	P7/20	3.92				239.8	
780	P7/24	3.92				282.1	
780	P7/28	3.92				324.4	
780	P7/32	3.92				366.6	
780	P7/36	3.92				407.4	
780	P7/40	3.92				448.1	
780	P7/44	3.92				488.9	
780	P7/48	3.92				529.6	
780	P7/52	3.92				570.3	
780	P7/56	3.92				611.1	

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
780	P7/60	3.92				651.8	
780	P7/64	3.92				692.5	
780	P7/4	4.14				59.26	
780	P7/8	4.14				115.86	
780	P7/12	4.14				171.42	
780	P7/16	4.14				226.97	
780	P7/20	4.14				276.61	
780	P7/24	4.14				326.24	
780	P7/28	4.14				375.87	
780	P7/32	4.14				425.50	
			48 core				
780	P7/4	3.44				48.6	
780	P7/6	3.44				71.7	
780	P7/8	3.44				93.9	
780	P7/12	3.44				138.4	
780	P7/16	3.44				176.7	
780	P7/20	3.44				215.0	
780	P7/24	3.44				253.3	
780	P7/28	3.44				285.0	
780	P7/32	3.44				316.6	
780	P7/36	3.44				348.3	
780	P7/40	3.44				380.0	
780	P7/44	3.44				411.6	
780	P7/48	3.44				443.3	
780	P7+/4	4.42				66.3	
780	P7+/8	4.42				126.1	
780	P7+/12	4.42				185.9	
780	P7+/16	4.42				245.7	
780	P7+/20	4.42				299.3	
780	P7+/24	4.42				353.0	
780	P7+/28	4.42				406.6	
780	P7+/32	4.42				460.3	
780	P7+/36	4.42				504.9	
780	P7+/40	4.42				549.5	
780	P7+/44	4.42				594.1	
780	P7+/48	4.42				638.7	
780	P7+/52	4.42				683.3	
780	P7+/56	4.42				727.9	
780	P7+/60	4.42				772.5	
780	P7+/64	4.42				817.1	
780	P7+/4	3.72				56.8	
780	P7+/8	3.72				107.8	
780	P7+/12	3.72				157.4	
780	P7+/16	3.72				207.0	
780	P7+/20	3.72				251.2	
780	P7+/24	3.72				295.4	
780	P7+/28	3.72				339.7	
780	P7+/32	3.72				383.9	
780	P7+/36	3.72				422.1	

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
780	P7+/40	3.72				460.4	
780	P7+/44	3.72				498.7	
780	P7+/48	3.72				537.0	
780	P7+/52	3.72				575.3	
780	P7+/56	3.72				613.5	
780	P7+/60	3.72				651.8	
780	P7+/64	3.72				690.1	
			32 core				
E880	p8/8	4.35		93.4	135.4	176.0	188.4
E880	p8/12	4.35		137.8	199.7	259.7	277.8
E880	p8/16	4.35		182.1	264.1	343.3	367.3
E880	p8/20	4.35		225.4	326.8	424.8	454.5
E880	p8/24	4.35		268.6	389.5	506.3	541.8
E880	p8/28	4.35		311.9	452.2	587.9	629.0
E880	p8/32	4.35		355.1	514.9	669.4	716.3
#p5-590	P5/8	1.65			41.68		
#p5-590	P5/10	1.65			51.48		
#p5-590	P5/12	1.65			61.27		
#p5-590	P5/14	1.65			71.07		
#p5-590	P5/16	1.65			80.86		
#p5-590	P5/18	1.65			89.72		
#p5-590	P5/20	1.65			98.58		
#p5-590	P5/22	1.65			107.44		
#p5-590	P5/24	1.65			116.29		
#p5-590	P5/26	1.65			125.15		
#p5-590	P5/28	1.65			134.01		
#p5-590	P5/30	1.65			142.87		
#p5-590	P5/32	1.65			151.72		
p5-590	P5+/8	2.1			55.74		
p5-590	P5+/10	2.1			68.84		
p5-590	P5+/12	2.1			81.93		
p5-590	P5+/14	2.1			95.03		
p5-590	P5+/16	2.1			108.13		
p5-590	P5+/18	2.1			119.98		
p5-590	P5+/20	2.1			131.82		
p5-590	P5+/22	2.1			143.67		
p5-590	P5+/24	2.1			155.51		
p5-590	P5+/26	2.1			167.35		
p5-590	P5+/28	2.1			179.20		
p5-590	P5+/30	2.1			191.04		
p5-590	P5+/32	2.1			202.88		
#p5-595	P5/16	1.65			80.86		
#p5-595	P5/18	1.65			89.72		
#p5-595	P5/20	1.65			98.58		
#p5-595	P5/22	1.65			107.44		
#p5-595	P5/24	1.65			116.29		
#p5-595	P5/26	1.65			125.15		
#p5-595	P5/28	1.65			134.01		
#p5-595	P5/30	1.65			142.87		

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
#p5-595	P5/32	1.65			151.72		
#p5-595	P5/34	1.65			159.31		
#p5-595	P5/36	1.65			166.90		
#p5-595	P5/38	1.65			174.48		
#p5-595	P5/40	1.65			182.07		
#p5-595	P5/42	1.65			189.65		
#p5-595	P5/44	1.65			197.24		
#p5-595	P5/46	1.65			204.83		
#p5-595	P5/48	1.65			212.41		
#p5-595	P5/50	1.65			220.00		
#p5-595	P5/52	1.65			227.58		
#p5-595	P5/54	1.65			235.17		
#p5-595	P5/56	1.65			242.76		
#p5-595	P5/58	1.65			250.34		
#p5-595	P5/60	1.65			257.93		
#p5-595	P5/62	1.65			265.52		
#p5-595	P5/64	1.65			273.10		
#p5-595	P5/16	1.9			90.67		
#p5-595	P5/18	1.9			100.60		
#p5-595	P5/20	1.9			110.53		
#p5-595	P5/22	1.9			120.46		
#p5-595	P5/24	1.9			130.39		
#p5-595	P5/26	1.9			140.32		
#p5-595	P5/28	1.9			150.25		
#p5-595	P5/30	1.9			160.18		
#p5-595	P5/32	1.9			170.11		
#p5-595	P5/34	1.9			178.62		
#p5-595	P5/36	1.9			187.13		
#p5-595	P5/38	1.9			195.63		
#p5-595	P5/40	1.9			204.14		
#p5-595	P5/42	1.9			212.64		
#p5-595	P5/44	1.9			221.15		
#p5-595	P5/46	1.9			229.65		
#p5-595	P5/48	1.9			238.16		
#p5-595	P5/50	1.9			246.67		
#p5-595	P5/52	1.9			255.17		
#p5-595	P5/54	1.9			263.68		
#p5-595	P5/56	1.9			272.18		
#p5-595	P5/58	1.9			280.69		
#p5-595	P5/60	1.9			289.19		
#p5-595	P5/62	1.9			297.70		
#p5-595	P5/64	1.9			306.21		
p5-595	P5+/16	2.1			108.13		
p5-595	P5+/18	2.1			119.98		
p5-595	P5+/20	2.1			131.82		
p5-595	P5+/22	2.1			143.67		
p5-595	P5+/24	2.1			155.51		
p5-595	P5+/26	2.1			167.35		
p5-595	P5+/28	2.1			179.20		
p5-595	P5+/30	2.1			191.04		

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
p5-595	P5+/32	2.1			202.88		
p5-595	P5+/34	2.1			213.03		
p5-595	P5+/36	2.1			223.17		
p5-595	P5+/38	2.1			233.32		
p5-595	P5+/40	2.1			243.46		
p5-595	P5+/42	2.1			253.61		
p5-595	P5+/44	2.1			263.75		
p5-595	P5+/46	2.1			273.90		
p5-595	P5+/48	2.1			284.04		
p5-595	P5+/50	2.1			294.18		
p5-595	P5+/52	2.1			304.33		
p5-595	P5+/54	2.1			314.47		
p5-595	P5+/56	2.1			324.61		
p5-595	P5+/58	2.1			334.76		
p5-595	P5+/60	2.1			344.90		
p5-595	P5+/62	2.1			355.05		
p5-595	P5+/64	2.1			365.19		
p5-595	P5+/16	2.3			116.53		
p5-595	P5+/18	2.3			129.29		
p5-595	P5+/20	2.3			142.06		
p5-595	P5+/22	2.3			154.82		
p5-595	P5+/24	2.3			167.58		
p5-595	P5+/26	2.3			180.35		
p5-595	P5+/28	2.3			193.11		
p5-595	P5+/30	2.3			205.88		
p5-595	P5+/32	2.3			218.64		
p5-595	P5+/34	2.3			229.57		
p5-595	P5+/36	2.3			240.51		
p5-595	P5+/38	2.3			251.44		
p5-595	P5+/40	2.3			262.37		
p5-595	P5+/42	2.3			273.30		
p5-595	P5+/44	2.3			284.24		
p5-595	P5+/46	2.3			295.17		
p5-595	P5+/48	2.3			306.10		
p5-595	P5+/50	2.3			317.03		
p5-595	P5+/52	2.3			327.97		
p5-595	P5+/54	2.3			338.90		
p5-595	P5+/56	2.3			349.83		
p5-595	P5+/58	2.3			360.76		
p5-595	P5+/60	2.3			371.69		
p5-595	P5+/62	2.3			382.62		
p5-595	P5+/64	2.3			393.55		
595	P6/8	4.2			75.58		
595	P6/10	4.2			92.41		
595	P6/12	4.2			109.24		
595	P6/14	4.2			126.07		
595	P6/16	4.2			142.90		
595	P6/18	4.2			158.35		
595	P6/20	4.2			173.80		
595	P6/22	4.2			189.25		
595	P6/24	4.2			204.70		

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
595	P6/26	4.2			220.15		
595	P6/28	4.2			235.60		
595	P6/30	4.2			251.06		
595	P6/32	4.2			266.51		
595	P6/34	4.2			279.89		
595	P6/36	4.2			293.28		
595	P6/38	4.2			306.67		
595	P6/40	4.2			320.05		
595	P6/42	4.2			333.44		
595	P6/44	4.2			346.83		
595	P6/46	4.2			360.21		
595	P6/48	4.2			373.60		
595	P6/50	4.2			386.89		
595	P6/52	4.2			400.17		
595	P6/54	4.2			413.46		
595	P6/56	4.2			426.74		
595	P6/58	4.2			440.03		
595	P6/60	4.2			453.32		
595	P6/62	4.2			466.60		
595	P6/64	4.2			479.89		
595	P6/8	5.0			87.10		
595	P6/10	5.0			106.49		
595	P6/12	5.0			125.88		
595	P6/14	5.0			145.28		
595	P6/16	5.0			164.67		
595	P6/18	5.0			182.48		
595	P6/20	5.0			200.28		
595	P6/22	5.0			218.09		
595	P6/24	5.0			235.90		
595	P6/26	5.0			253.70		
595	P6/28	5.0			271.51		
595	P6/30	5.0			289.31		
595	P6/32	5.0			307.12		
595	P6/34	5.0			322.54		
595	P6/36	5.0			337.97		
595	P6/38	5.0			353.40		
595	P6/40	5.0			368.82		
595	P6/42	5.0			384.25		
595	P6/44	5.0			399.68		
595	P6/46	5.0			415.10		
595	P6/48	5.0			430.53		
595	P6/50	5.0			445.84		
595	P6/52	5.0			461.15		
595	P6/54	5.0			476.46		
595	P6/56	5.0			491.77		
595	P6/58	5.0			507.08		
595	P6/60	5.0			522.39		
595	P6/62	5.0			537.70		
595	P6/64	5.0			553.01		
			64 core				
795	P7/6	3.70				75.97	
795	P7/8	3.70				99.78	

Model	Proc. / # Cores	GHz	LPAR Max size	rPerf ST	rPerf SMT2	rPerf SMT4	rPerf SMT8
795	P7/12	3.70				147.39	
795	P7/16	3.70				189.43	
795	P7/20	3.70				231.47	
795	P7/24	3.70				273.51	
795	P7/28	3.70				314.03	
795	P7/32	3.70				354.55	
795	P7/36	3.70				395.07	
795	P7/40	3.70				435.58	
795	P7/44	3.70				476.10	
795	P7/48	3.70				516.62	
795	P7/52	3.70				548.91	
795	P7/56	3.70				581.20	
795	P7/60	3.70				613.49	
795	P7/64	3.70				645.78	
			64 core				
795	P7/8	4.00				103.41	
795	P7/12	4.00				152.01	
795	P7/16	4.00				200.61	
795	P7/20	4.00				243.53	
795	P7/24	4.00				286.44	
795	P7/28	4.00				329.36	
795	P7/32	4.00				372.27	
795	P7/36	4.00				413.63	
795	P7/40	4.00				455.00	
795	P7/44	4.00				496.36	
795	P7/48	4.00				537.72	
795	P7/52	4.00				579.09	
795	P7/56	4.00				620.45	
795	P7/60	4.00				661.81	
795	P7/64	4.00				703.18	
			64 core				
795	P7/4	4.25				60.46	
795	P7/8	4.25				118.21	
795	P7/12	4.25				174.89	
795	P7/16	4.25				231.57	
795	P7/20	4.25				282.21	
795	P7/24	4.25				332.85	
795	P7/28	4.25				383.49	
795	P7/32	4.25				434.13	
795	P7/36	4.25				477.00	
795	P7/40	4.25				519.87	
795	P7/44	4.25				562.74	
795	P7/48	4.25				605.61	
795	P7/52	4.25				648.48	
795	P7/56	4.25				691.35	
795	P7/60	4.25				734.22	
795	P7/64	4.25				777.09	

Section 2d – POWER8 CPW Published Results

Model # Cores GHz # x LPARs CPW

Formatted: Centered

S814	4	3.02		39,500
S814	6	3.02		59,500
S814	8	3.72		85,500
S824	6	3.89		72,000
S824	12	3.89		130,000
S824	8	4.15		94,500
S824	16	4.15		173,500
S824	24	3.52		230,500
E870	32	4.02	1x32	359,000
E870	64	4.02	2x32	711,000
E870	40	4.19	1x40	460,000
E870	80	4.19	2x40	911,000
E880	32	4.35	1x32	381,000
E880	64	4.35	2x32	755,000

Section 2e – POWER 7 and POWER7+ CPW Published Results

Model	# Cores	GHz	CPW
JS12	2	3.8	7100@
JS22	4	4.0	13800%
JS23	4	4.2	14400%
JS43	8	4.2	24050#
PS700	4	3.0	21100%
PS701	8	3.0	42100%%
PS702	16	3.0	76300##
PS703	16	2.4	64,000##
PS704	32	2.4	110,000###
PFlex260	4	4.0	25400 %%%
PFlex260	8 (2x4c)	3.3	38,500#
PFlex260	16	3.22	80,500##
PFlex260	16	3.55	87,000##
PFlex260	8 (2x4c)	4.0	51400#
PFlex260	16	3.6	99500##
PFlex260	16	4.1	110000##
PFlex270	24	3.1	123500 &&
PFlex270	24	3.4	131500 &&
PFlex460	16 (4x4c)	3.3	80,500##
PFlex460	32	3.22	150,000###
PFlex460	32	3.55	162,000###
PFlex460	16	4.0	109500 &
PFlex460	32	3.6	198900 &&&
PFlex460	32	4.1	219900 &&&
710	4	3.0	23,800
710	6	3.7	40,900
710	8	3.55	51,800
710	4	3.6	28400
710	6	4.2	49400
710	8	4.2	64500
520	1	4.2	4300
520	2	4.2	8300
520	4	4.2	15600
520	2	4.7	9500
520	4	4.7	18300
720	4	3.0	23,800
720	6	3.0	34,900
720	8	3.0	46,300
720	4	3.6	28400

720	6	3.6	42400
720	8	3.6	56300
730	8	3.0	44,600
730	8	3.7	51,900
730	12	3.7	77,200
730	16	3.55	97,700
730	8	4.3	59700
730	12	4.2	89200
730	16	3.6	104700
730	16	4.2	117600
740	4	3.3	25,500
740	4	3.7	27,900
740	6	3.7	41,600
740	8	3.3	47,800
740	8	3.7	52,200
740	12	3.7	77,200
740	16	3.55	97,700
740	6	4.2	49000
740	12	4.2	91700
740	8	3.6	56300
740	16	3.6	106500
740	8	4.2	64500
740	16	4.2	120000
550	2	3.5	7750
550	4	3.5	15000
550	6	3.5	20300
550	8	3.5	27600
550	2	4.2	9200
550	4	4.2	18000
550	6	4.2	23850
550	8	4.2	32650
550	2	5.0	10600
550	4	5.0	20550
550	6	5.0	28800
550	8	5.0	37950
560	4	3.6	14100
560	8	3.6	27600
560	16	3.6	48500
570	2	3.5	8150
570	4	3.5	16100
570	8	3.5	30100
570	12	3.5	43100
570	16	3.5	57600
570	2	4.2	9650
570	4	4.2	19200
570	8	4.2	35500
570	16	4.2	68600
570	2	4.4	9850
570	4	4.4	19400
570	8	4.4	36200
570	12	4.4	51500
570	16	4.4	70000
570	2	4.7	10800
570	4	4.7	21200
570	8	4.7	40100
570	16	4.7	76900
570	2	5.0	11000
570	4	5.0	21600

570	8	5.0	40300
570	12	5.0	56800
570	16	5.0	77600
570	4 (32)	4.2	16200
570	8 (32)	4.2	31900
570	16(32)	4.2	56400
570	24(32)	4.2	81600
570	32(32)	4.2	104800
595	8	4.2	35,500
595	16	4.2	66,400
595	24	4.2	93,800
595	32	4.2	128,000
595	64	4.2	256,200*
595	8	5.0	41,000
595	16	5.0	77,000
595	24	5.0	108,100
595	32	5.0	147,900
595	64	5.0	294,700*
750	8	3.0	44600
750	16	3.0	82600
750	24	3.0	122500
750	32	3.0	158300
750	6	3.3	37200
750	12	3.3	69200
750	18	3.3	94900
750	24	3.3	135300
750	8	3.3	47800
750	16	3.3	88700
750	24	3.3	129700
750	32	3.3	168800
750	8	3.55	52,200
750	16	3.55	95,700
750	24	3.55	138,500
750	32	3.55	181000
750	8	3.20	47,800
750	16	3.20	89,600
750	24	3.20	131,500
750	32	3.20	171,400
750	8	3.60	52,700
750	16	3.60	97,000
750	24	3.60	141,400
750	32	3.60	183,200
750	4	3.70	27,300
750	8	3.70	51,000
750	12	3.70	74,700
750	16	3.70	97,700
750	6	3.70	40,800
750	12	3.70	75,500
750	18	3.70	109,100
750	24	3.55	145,600
750	8	4.0	59000
750	16	4.0	108000
750	24	4.0	158000
750	32	4.0	208000
750	8	3.5	52000
750	16	3.5	96000
750	24	3.5	141500
750	32	3.5	185000

760	12	3.1	69800
760	24	3.1	129000
760	36	3.1	195700
760	48	3.1	258000
760	12	3.4	75200
760	24	3.4	137000
760*	36	3.4	209000
760*	48	3.4	274000
770	4	3.1	22750
770	8	3.1	45000
770	16	3.1	88800
770	32	3.1	155850
770	48	3.1	229800*
770	64	3.1	292700*
770	4	3.5	24900
770	6	3.5	37400
770	12	3.5	73100
770	18	3.5	99000
770	24	3.5	131050
770	48	3.5	248550*
770	4	4.22	30700
770	6	4.22	45800
770	9	4.22	68200
770	12	4.22	90000
770	24	4.22	154800
770	36	4.22	242600*
770	48	4.22	306600*
770	4	3.8	28700
770	8	3.8	56100
770	16	3.8	110000
770	24	3.8	146700
770	32	3.8	191500
770	48	3.8	290500*
770	64	3.8	379300*
780	4	3.8	26600
780	8	3.8	54400
780	16	3.8	105200
780	32	3.8	177400
780	48	3.8	265200*
780	64	3.8	343050*
780	8	4.1	57450
780	16	4.1	114850**
780	24	4.1	172450**
780	32	4.1	229650**
780	4	4.42	32400
780	8	4.42	63200
780	16	4.42	123500
780	24	4.42	164700
780	32	4.42	214000
780	48	4.42	326100*
780	64	4.42	424400*
780	4	3.72	28500
780	8	3.72	56000
780	16	3.72	108500
780	24	3.72	159600
780	32	3.72	209500

780	64	3.72	414900*
780	96	3.72	622300*
780	128	3.72	829800*
795	24	3.7	149,100
795	48	3.7	288,500*
795	32	4.0	204,300
795	64	4.0	399,200*
795	24	4.25	162,100
795	32	4.25	218,400***

* CPW is limited to 32 core partition sizes. Larger core configurations were measured with two partitions.

** CPW values for the Power 780 with TurboCore enabled were measured with 8 core partitions.

*** CPW value for the 32 core Power 795 with TurboCore enabled was measured with 16 core partitions

@ CPW value for 1.8 cores of 2 total cores. 0.2 core is allocated for VIOS

% CPW value for 3.7 cores of 4 total cores. 0.3 core is allocated for VIOS

%% CPW value for 7.5 cores of 8 total cores. 0.5 core is allocated for VIOS

%% CPW value for 3.5 cores of 4 cores. 0.5 core is allocated for VIOS

CPW value for 7 cores of 8 total cores. 1 core is allocated for VIOS.

CPW value for 15 cores of 16 total cores. 1 core is allocated for VIOS.

CPW value for 30 cores of 32 total cores. 2 cores are allocated for VIOS.

& CPW value for 15 cores of 16 total cores. 1 core is allocated for VIOS.

&& CPW value for 23 cores of 24 total cores. 1 core is allocated for VIOS.

&&& CPW value for 31 cores of 32 total cores. 1 core is allocated for VIOS.

CPW values for non-POWER6 System i™ models may be obtained from

<http://www.ibm.com/systems/i/solutions/perfmgmt/resource.html> .

Section 3 - TPC-C Version 5 Published Results

Model	Proc	Chip /Core /Thread	# Nodes	GHz	L2/L3 Cache (MB)	tpmC	\$/tmpC	Database	AIX	Avail. Date
550	p6	4/8/16	1	4.2	32/128	629,159.00	2.49	DB2 9.5		
#p5-570	p5	2/4/8	1	1.9	3.8/72	194,391.43	5.62	Oracle DB 10g	5.3.0	09/30/04
#p5-570	p5	2/4/8	1	1.9	3.8/72	203,439.87	3.93	Oracle DB 10g	5.3.0	10/17/05
#p5-570	p5	4/8/16	1	1.9	7.6/144	371,044.22	5.26	Oracle DB 10g	5.3.0	09/30/04
#p5-570	p5	4/8/16	1	1.9	7.6/144	429,899.7	4.99	DB2@ UDB V8.1	5.3.0	09/30/04
#p5-570	p5	8/16/32	1	1.9	15.2/288	809,144.09	4.95	DB2 UDB V8.1	5.3.0	09/30/04
P5-570	p5+	8/16/32	1	2.2	15.2/288	1,025,169.69	4.42	DB2 UDB V8.2	5.3.0	05/31/06
570	p6	2/4/8	1	4.7	16/64	404,462.54	3.50	Oracle DB 10g	5.3.0	11/26/07
570	p6	8/16/32	1	4.7	64/256	1,616,162.84	3.54	DB2 9.1	5.3.0	11/21/07
#p5-595	p5	16/32/64	1	1.9	30.4/576	1,601,784.98	5.05	Oracle DB 10g	5.3.0	04/20/05
#p5-595	p5	32/64/128	1	1.9	60.8/1152	3,210,540.63	5.07	DB2 UDB V8.2	5.3.0	05/14/05
p5-595	p5+	32/64/128	1	2.3	60.8/1152	4,033,378.00	2.97	DB2 9.1	5.3.0	12/20/06
595	p6	32/64/128	1	5.0	256/1024	6,085,166.00	2.81	DB2 9.5	5.3.0	12/10/08
780	p7	2/8/32	1	4.1	2/64	1,200,011	0.69	DB2 9.5	6.1	10/13/10
780	p7	8/64/256	3	3.8	16/256	10,366,254	1.38	DB2 9.7	6.1	10/13/10

Section 4 – TPC-H Published Results

TPC-H 1000 GB (1 TB):

Proc.	Processor	Chip /Core /Thread	# Nodes	MHz	QphH	\$/QphH	AIX	Database	Avail. Date
-------	-----------	--------------------	---------	-----	------	---------	-----	----------	-------------

#p5-570	P5	2/4/8	4	1900	26,156	53	5.3.0	DB2 UDB V8.2	12/15/04
---------	----	-------	---	------	--------	----	-------	--------------	----------

TPC-H 3000 GB (3 TB):

Model	Proc.	Chip /Core /Thread	# Nodes	MHz	QphH	\$/ QphH	AIX	Database	Avail. Date
#p5-595	p5	32/64/128	1	1900	100,512	53.00	5.3.0	Oracle DB 10g	03/01/06
595	p6	32/64/128	1	5000	156.537	20.60	6.1.0	Sybase IQ v.15.1	11/24/09

TPC-H 10000 GB (10 TB):

Model	Proc.	Chip /Core /Thread	# Nodes	MHz	QphH	\$/ QphH	AIX	Database	Avail. Date
p570	p6	2/4/8	32	4700	343,551.2	32.89	5.3.0	DB2 Warehouse 9.5	04/15/08
#p5-575	p5	4/8/16	8	1900	104,100.1	61	5.3.0	DB2 UDB V8.2	08/15/05
p5-575	p5+	4/8/16	16	2200	180,108	47.00	5.3.0	DB2 UDB V8.2	08/30/06

Section 5 – AIX SPECsfs97_R1 Benchmark Results

Model	Proc./ # Cores	MHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPEC sfs97_R1.v2 UDP	SPEC sfs97_R1.v2 TCP	SPEC sfs97_R1.v3 UDP	SPEC sfs97_R1.v3 TCP
#p5-510	P5/2	1650	64/32	1.9/36	--	--	--	42,033
#p5-550	P5/4	1650	64/32	3.8/72	--	--	--	75,839
#p5-550Q	P5+/8	1500	64/32	7.6/144	--	--	--	118,391
#p5-570	P5/8	1900	64/32	7.6/144	--	--	--	145,362
p5-570	P5+/8	2200	64/32	7.6/144	--	--	--	169,786

Section 5a – AIX NotesBench Published Results

Model	Processor / # Cores	MHz	L2/L3 Cache (MB)	Users	TPM	Response Time	\$/User	Domin oVers.	Work Load
#p5-570	P5/8	1500	1.9/36	17,400	14,740	0.270	10.19	6.5.3	R6iNotes

R7iNotes

Model	Proc.	MHz	Work Load	# Notes Bench Users	Notes Mark (TPM)	Resp. Time (ms.)	\$/User	\$/Notes Mark	# Cores	# Users/ Core
#p5-550Q	P5+	1500	DWA7	24,000	20,108	932	5.97	7.13	8	3,000
p5-560Q	P5+	1800	DWA7	55,000	46,193	848	4.89	5.82	16	3,438

Section 6 – AIX Java Benchmarks (SPECjbb2013) Published Results

Model	Proc / # Cores	GHz	L1 Cache (KB)	L2/L3/L4 Cache (MB)	SPECjbb2013 Max-JOPS	SPECjbb2013 critical-JOPS.
S824	P8/24	3.52	32/64	12/192/256	167,958	27,041

Section 6a – AIX Java Benchmarks (SPECjvm98, SPECjbb2000, SPECjbb2005) Published Results

Model	Proc / # Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPEC jvm98 (256MB)	SPEC jbb2000 ops/sec	SPECjbb2005		
							bops	JVM inst.	Bops/JVM
JS20	PPC970/2	2.2	64/32	1.0/-	--	39,605	--	--	--
PS702	P7/16	3.0	32/32	4/64	--	--	1,119,946	16	69,997
PFlex260	P7+/16	4.11	32/32	4/160	--	--	1,877,581	16	117,349
PFlex270	P7+/24	3.41	32/32	6/240	--	--	2,495,770	24	103,990
PFlex460	P7+/32	4.11	32/32	8/320	--	--	3,663,756	32	114,492
p5-505	P5+/2	2.1	64/32	1.9/36	--	--	41,751	1	41,751
p5-505Q	P5+/4	1.65	64/32	1.9/72	--	--	63,544	2	31,772
#p5-510	P5/2	1.5	64/32	1.9/36	--	68,029	--	--	--
#p5-510	P5/2	1.65	64/32	1.9/36	--	76,040	--	--	--
#p5-510	P5+/2	1.9	64/32	1.9/36	--	--	36,039	1	36,039
#p5-510Q	P5+/4	1.5	64/32	1.9/72	--	--	54,785	1	54,785
710	P7/8	3.55	32/32	2/32	--	--	607,514	8	75,939
#p5-520	P5/2	1.65	64/32	1.9/36	--	75,607	--	--	--
#p5-520	P5+/2	1.9	64/32	1.9/36	--	99,844	32,820	1	32,820
730	P7/16	3.55	32/32	4/64	--	--	1,216,983	16	76,061
730	P7+/16	4.2	32/32	4/160	--	--	1,889,298	16	118,081
740	P7/16	3.55	32/32	4/64	--	--	1,212,466	26	75,779
740	P7+/16	4.2	32/32	4/160	--	--	1,919,456	16	119,966
#p5-550	P5+/4	1.65	64/32	3.8/72	--	--	60,419	1	60,419
p5-550	P5+/4	1.9	64/32	3.8/72	--	190,445	61,789	1	61,789
#p5-550Q	P5+/8	1.5	64/32	7.6/144	--	294,315	91,806	1	91,806
p5-550Q	P5+/8	1.65	64/32	7.6/144	--	--	127,851	8	15,981
550	P6/8	4.2	64/64	32/128	--	--	333,779	4	83,445
750	P7/32	3.55	32/32	8/128	--	--	2,478,929	32	77,467
750	P7/32	3.60	32/32	8/128	--	--	2,491,323	32	77,854
750	P7+/32	3.5	32/32	8/320	--	--	3,625,947	32	113,311
750	P7+/32	4.0	32/32	8/320	--	--	3,983,153	32	124,474
#p5-560Q	P5+/16	1.5	64/32	15.2/288	--	--	226,291	8	28,286
p5-560Q	P5+/16	1.8	64/32	15.2/288	--	--	278,384	8	34,798
560	P6+/16	3.6	64/64	64/256	--	--	593,904	8	74,238
760	P7+/48	3.4	32/32	12/480	--	--	5,032,254	48	104,839
#p5-570	P5/2	1.9	64/32	1.9/36	--	86,267	--	--	--
#p5-570	P5/4	1.9	64/32	3.8/72	--	170,127	--	--	--
#p5-570	P5/8	1.9	64/32	7.6/144	--	328,996	--	--	--
#p5-570	P5/16	1.9	64/32	15.2/288	--	633,106	224,200	1	224,200
#p5-570	P5/16	1.9	64/32	15.2/288	--	--	244,361	8	30,545
p5-570	P5+/16	2.2	64/32	15.2/288	--	--	326,651	8	40,831
570/32	P6+/32	4.2	64/64	128/512	--	--	1,390,087	16	86,880
570	P6/2	4.7	64/64	8/32	--	--	88,089	1	88,089
570	P6/4	4.7	64/64	16/64	--	--	175,474	2	87,737
570	P6/8	4.7	64/64	32/128	--	--	346,742	4	86,686
570	P6/16	4.7	64/64	64/256	--	--	691,975	8	86,497
570	P6/4	4.7	64/64	16/64	--	--	205,917	2	102,959
570	P6/8	4.7	64/64	32/128	--	--	402,923	4	100,731
570	P6/16	4.7	64/64	64/256	--	--	798,752	8	99,844
570	P6+/16	5.0	64/64	64/256	--	--	867,989	8	108,499
770	P7/64	3.1	32/32	16/256	--	--	4,604,894	64	71,951
770	P7+/48	4.22	32/32	12/480	--	--	5,130,786	48	106,891
780	P7/16	3.8	32/32	4/64	--	--	1,331,641	16	83,228
780	P7/32	4.1	32/32	8/256	--	--	3,031,184	32	94,725
780	P7/64	3.8	32/32	16/256	--	--	5,210,501	64	81,414
780	P7/96	3.44	32/32	24/384	--	--	7,242,788	96	75,446
780	P7+/64	4.42	32/32	16/640	--	--	6,884,200	64	107,566

	Proc /	GHz	L1 Cache	L2/L3 Cache	SPEC jvm98	SPEC jbb2000	SPECjbb2005		
780	P7+/128	3.72	32/32	32/1280	--	--	12,560,858	128	98,132
#p5-595	P5/64	1.9	64/32	60.8/1152	--	2,200,162	--	--	--
#p5-595	P5/64	1.9	64/32	60.8/1152	--	2,505,245	--	--	--
595	P6/64	5.0	64/64	256/1024	--	--	3,435,485	32*	107,359
795	P7/256	4.0	32/32	64/1024	--	--	21,058,767	256	82,261

Section 6b – IBM i Java Benchmarks (SPECjbb2005) Published Results

Model	Proc / # Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPECjbb2005		
					Bops	JVM inst.	Bops/JVM
750	P7/16	3.30	32/32	4/64	976,223	16	61,014
570	P6/8	4.7	64/64	32/128	--	--	345,809
595	P6/32	5.0	64/64	128/512	--	--	1,530,343
780	P7/32	4.1	32/32	8/256	2,514,313	32	78,572

Section 6c – AIX SPECjEnterprise 2010 Benchmark Published

JEE Server	GHz	JEE AppServer	JEE Nodes / Cores	DB Server	GHz	Database	DB Nodes / Cores	EjOPS
Power 730	3.55	WebSphere 7.0	1/16	pS701	3.0	DB2 9.7	1/8	4,062.38
Power S824	3.52	WebSphere 8.5	1/24	Power S824	3.52	DB2 10.5	1/24	22,543.34
Power 750	3.55	WebSphere 7.0	1/32	pS702	3.0	DB2 9.7	1/16	7,172.93
Power 780	3.86	WebSphere 7.0	1/64	P750	3.55	DB2 9.7	1/32	16,646.34
Power 780	4.42	WebSphere 8.5	1/16	Power 780	4.42	DB2 10.1	1/16	10,902.30

Section 6d – AIX SPECjAppServer2004 Benchmark Published

J2EE Server	GHz	J2EE AppServer	J2EE Nodes / Cores	DB Server	GHz	Database	DB Nodes / Cores	JOPS
JS22	4.0	WebSphere 6.1	26/4	P5-595	2.1	DB2 9.5	1/40	14,004.42
p5-505	2.1	WebSphere® 6.0	1/2	p5-505	1.65	DB2 UDB V8.2	1/2	349.11
p5-505	2.1	WebSphere 6.1	1/2	p5-505Q	1.65	DB2 UDB V8.2	1/4	404.88
p5-505Q	1.65	WebSphere 6.1	1/4	p5-550	2.1	DB2 UDB V8.2	1/4	618.38
570	4.7	WebSphere 6.1	1/4	p5-550	2.1	DB2 9.1	1/4	1,197.51

Section 7 – SAP Standard Application Benchmarks Published Results

Sales and Distribution – SD 2-Tier – AIX

Model (GHz)	# Core (Proc/ Thread)	Users	Avg. Resp. Time	Dialog Steps Per Hour (K)	Fully Proc. Line Items Per Hour	SAPS (K)	OS	Database	CPU Util. %	SAP ECC Ver.	Cert. #
550 P6 5.0 GHz	8 (4/16)	3752	.97	1,231	410,330	20.52	AIX 6.1	DB2 9.5	99%	EHP4	2009023
730 p7+, 4,2	12 (2/48)	7,000	.91	2,311	770,330	38.52	AIX 7.1	Sybase ASE 15.7	99%	EHP5	2013024

Model (GHz)	# Core (Proc/Thread)	Users	Avg. Resp. Time	Dialog Steps Per Hour (K)	Fully Proc. Line Items Per Hour	SAPS (K)	OS	Database	CPU Util. %	SAP ECC Ver.	Cert. #
730 P7 3.55	16 (2/64)	8,704	.97	2,856	952,000	47.60	AIX 7.1	DB2 9.7	99%	EHP4	2011011
PFlex260 p7+ 4.11	16 (2/64)	10,000	.97	3,282	1,094,000	54.7	AIX 7.1	DB2 10	99%	EHP5	2012035
PFlex270 p7+ 3.4	24 (2/96)	12,528	.99	4,103	1,367,670	68.38	AIX 7.1	DB2 10.5	99%	EHP5	2013019
S824 P8 3.52	24 (4/192)	21,212	.98	6,952	2,317,330	115.87	AIX 7.1	DB2 10.5	99%	EHP5	2014016
750 P7 3.55	32 (4/128)	15,600	.99	5,113	1,704,330	85.22	AIX 6.1	DB2 9.7	99%	EHP4	2010004
PFlex460 P7 3.55	32 (4/128)	17,000	.96	5,585	1,861,670	93.08	AIX 7.1	DB2 9.7	99%	EHP4	2012015
750 P7 3.55	32 (4/128)	17,312	.96	5,684	1,894,670	94.73	AIX 7.1	DB2 9.7	99%	EHP4	2011043
760 P7+ 3.4	48 (8/192)	25,488	.99	8,353	2,784,330	139.22	AIX 7.1	DB2 10	99%	EHP5	2013004
E870 P8 4.19	80 (8/640)	79,750	.97	26,166	8,722,000	436.1	AIX 7.1	DB2 10.5	99%	EHP5	*
780 P7 3.8	64 (8/256)	37,000	.98	12,131	4,043,670	202.18	AIX 6.1	DB2 9.7	99%	EHP4	2010013
780 P7+ 3.7	96 (12/384)	57,024	.98	18,703	6,234,330	311.72	AIX 7.1	DB2 10	99%	EHP5	2012033
795 P7 4.0	128 (16/512)	70,032	.93	23,060	7,686,670	384.33	AIX 7.1	DB2 9.7	99%	EHP4	2010042
795 P7 4.0	256 (32/1024)	126,063	.98	41,318	13,772,670	688.63	AIX 7.1	DB2 9.7	96%	EHP4	2010046

* The SAP certification number was not available at press time and can be found at www.sap.com/benchmark.

Historical (2008 and older) results: Sales and Distribution – SD 2-Tier – AIX

Model (GHz)	# Core (Proc/Thread)	Users	Avg. Resp. Time	Dialog Steps Per Hour (K)	Fully Proc. Line Items Per Hour	SAPS (K)	OS	Database	CPU Util. %	SAP ECC Ver.	Cert. #
#p5-520 P5 1.65	2 (2/4)	572	1.96	172	57,330	2.87	AIX 5.3	DB2 UDB V8.1	98%	4.70	2004061
p5-505 P5+ 2.1	2 (2/4)	680	1.98	204	68,000	3.4	AIX 5.3	DB2 9.1	98%	5.0	2006047
p5-505Q P5+ 1.65	4 (1/8)	1,100	1.97	331	110,330	5.52	AIX 5.3	DB2 9.1	99%	5.0	2006046
#p5-570 P5 1.9	4 (4/8)	1,313	1.97	395	131,670	6.58	AIX 5.3	DB2 UDB V8.1	99%	4.70	2004042
#p5-570 P5 1.9	8 (8/16)	2,600	1.99	781	260,330	13.02	AIX 5.3	DB2 UDB V8.1	99%	4.70	2004041
#p5-570 P5 1.9	16 (16/32)	5,056	1.99	1,518	506,000	25.3	AIX 5.3	DB2 UDB V8.1	99%	4.70	2004040
p5-570 P5+ 2.2	16 (16/32)	5,520	1.97	1,660	553,330	27.67	AIX 5.3	DB2 UDB V8.2	99%	5.0	2006044
570 P6 4.7 (2 Virt CPU)	2 (1/4)	1,020	1.99	306	102000	5.1	AIX 6.1	DB2 9.5	99%	6.0	2008080
570 P6 4.7	4 (2/8)	2,035	1.99	611	203,670	10.18	AIX 5.3	Oracle DB 10g	99%	6.0	2007037
570 P6 4.7	8 (4/16)	4,010	1.96	1,207	402,330	20.12	AIX 5.3	Oracle DB 10g	99%	6.0	2007038
570 P6 4.7	16 (8/32)	8,000	1.98	2,404	801,330	40.07	AIX 5.3	DB2 9.5	99%	6.0	2007039
570/32 P6+ 4.2	32 (16/64)	14,432	1.99	4,335	1,445,000	72.25	AIX 6.1	DB2 9.5	99%	6.0	2008057
#p5-595 P5 1.9	64 (64/128)	20,000	1.92	6,042	2,014,000	100.7	AIX 5.3	DB2 UDB V8.1	97%	4.70	2004062
p5-595 P5+ 2.3	64 (64/128)	23,456	1.98	7,051	2,350,330	117.52	AIX 5.3	DB2 9.1	99%	5.0	2006045
595 P6 5.0	64 (32/128)	35,400	1.94	10,677	3,559,000	177.95	AIX 6.1	DB2 9.5	99%	6.0	2008019

* The SAP certification number was not available at press time and can be found at www.sap.com/benchmark.

Sales and Distribution – SD 2-Tier Parallel

Model (GHz)	# of Nodes x Cores (Proc/Threads)	Users S&D	Avg. Res p. Time	Dialog Steps Per Hour (K)	Fully Proc. Line Items Per Hour (K)	SAPS	OS	Database	Avg. CPU Util. %	SAP ECC Ver.	Cert. #
p5-570 P5 1.9	2 x 4c (4/8)	2,400	1.95	723	241	12050	AIX 5.3	Oracle 9i	99%	4.7	2005033
570 P6 4.7	5 x 16c (8/32)	36,000	1.76	11,021	3,673.67	183680	AIX.5.3	Oracle 10g r2	99%	6.0	2007066
570 P6 4.7	2 x 16c (8/32)	15,520	1.94	1,559.33	4,678	77,970	AIX 5.3	Oracle 10g r2	98%	6.0	2008010
570 P6 4.7	3 x 16c (8/32)	22,416	1.94	2,252.33	6,757	112,620	AIX 5.3	Oracle 10g r2	99%	6.0	2008011
570 P6 4.7	4 x 16c (8/32)	30,016	1.86	3,036	9,108	151,800	AIX 5.3	Oracle 10g r2	99%	6.0	2008012
570 P6 4.7	5 x 16c (8/32)	37,040	1.86	3,749	11,247	187,450	AIX 5.3	Oracle 10g r2	99%	6.0	2008013

Sales and Distribution – SD 3-Tier

Model (GHz)	# Cores (Proc/Thread)	Users	Avg. Res p. Time	Fully Proc. Line Items Per Hour (K)	Dialog Steps Per Hour (K)	SAPS	OS	Database	CPU Util. DB (%)	SAP ECC Ver.	Cert. #
JS12 (3.8)	2 (1/4)	14,000	1.95	1,406.33	4,219	70,320	AIX 6.1	DB2 9.5	97	6.0	2008031
550 P6 (4.2)	4 (2/8)	32,000	1.89	3,230.33	9,691	161,520	AIX.5.3	DB2 9.5	99	6.0	2008001
#p5-570 P5	4 (4/8)	21,712	1.96	2,178.67	6,536	108,930	AIX 5.3	DB2 UDB V8.2	97	4.70	2004076
#p5-595 P5	32 (32/64)	168,300	1.95	16,896.67	50,690	844,330	AIX 5.3	DB2 UDB V8.2.2	99	4.70	2005021
780 P7+ 3.7	64 (8/128)	266,000	.84	29,433.67	88,301	1,471,680	AIX 7.1	DB2 10.5	97	EHP 5	2013010

BI Data Mart

Model	# Core (Proc/Thread)	Query Steps/ Hour	CPU Util. (%)	OS	Database	Platform Release	Cert. #
#i5-520 1.9 GHz	2 (2/4)	26,224	97%	i5/OS V5R4	DB2 for i5/OS V5R4	NW 7.0 (2004s)	2007061
520 P6 4.2 GHz	2 (1/4)	41,297	96%	i 6.1	DB2 for IBM i 6.1	NW 7.0 (2004s)	2008020
#i5-570 2.2 GHz	4 (4/8)	51,875	98%	i5/OS V5R4	DB2 for i5/OS V5R4	NW 2004s	2007003
#i5-570 2.2 GHz	8 (8/16)	114,687	95%	i5/OS V5R4	DB2 for i5/OS V5R4	NW 2004s	2007027
570 P6 4.7 GHz	4 (2/8)	92,716	98%	i5/OS V5R4M5	DB2 for i5/OS V5R4M5	NW 7.0 (2004s)	2007047

BI Mixed Load (MXL)

Model	#Core (Proc/Thread)	Query Steps/ Hour	CPU Util. (%)	OS	Database	Platform Release	Cert. #
520 P6 4.7 GHz	2 (1/4)	41,090	94%	i 6.1	DB2 for IBM i 6.1	NW 7.0 (2004s)	2009002
550 P6 5.0 GHz	4 (2/8)	90,492	97%	i 6.1	DB2 for IBM i 6.1	NW 7.0 (2004s)	2009010
550 P6 5.0 GHz	4 (2/8)	90,634	98%	i 6.1	DB2 for IBM i 6.1	NW 7.0 (2004s)	2009011
570 P6 5.0 GHz	4 (2/8)	93,468	98%	i 6.1	DB2 for IBM i 6.1	NW 7.0 (2004s)	2008069
570 P6 5.0 GHz	8 (4/16)	154,447	97%	i 6.1	DB2 for IBM i 6.1	NW 7.0 (2004s)	2009043
740 P7 3.3 GHz	4 (1/16)	151,426	99%	i 7.1	DB2 for IBM i 7.1	NW 7.0 (2004s)	2010035
750 P7 3.30 Ghz	8 1/16)	241,526	99%	i 6.1	DB2 for IBM i 6.1	NW 7.0 (2004s)	2010005
750 P7 3.30 GHz	8 1/16)	278,462	99%	i 6.1	DB2 for IBM i 7.1	NW 7.0 (2004s)	2010014
780 P7 4.10 GHz	16 (4/64)	625,646	99%	i 7.1	DB2 for IBM i 7.1	NW 7.0 (2004s)	2010047

Section 8 – AIX PeopleSoft Benchmarks Published Results

HRMS Self-service Online

PS Version	Model	# Cores - MHz	Concurrent Users	Search	Save	Database
8.9	p5-570	12 – 1900	4,000	1.74 sec.	1.25 sec.	Oracle 10.1.0.3

Global Payroll France – Version 1

PS Version	Model	# Cores - MHz	Maximum Payees	Payroll Non Retro	Payroll Retro	Database
8.9	p570	8 – 4700	200,222	44.95	73.56	Oracle 9i

Global Payroll France – Version 2

PS Version	Model	# Cores - MHz	L2/L3 Cache (MB)	Memory (GB)	Disk (GB)	Large Rate	Database
8.9	p570	8 – 4700	32/128	84	550	200,222	Oracle 9.2.0.6

North American Payroll – Checks per Hour

PS Version	Model	# Cores - MHz	L2/L3 Cache (MB)	Memory (GB)	Disk (GB)	Large Rate	Database
8.8	p5-570	8 – 1900	0.95/18	64	3,931	393,000	DB2 V8.1

Section 9 – AIX Oracle e-Business Suite (eBS) Benchmarks Published Results

R12 – 12.1.3 Payroll Batch Results

Model	GHz	Cores (Proc/ threads)	Checks /Hour	Kit	Average CPU util.	Batch: Payroll Employees	App level	Tiers
Power S824	3.52	12 (2/48)	1,090,909	ExLrg	53%	250,000	12.1.3	2-Tier

R12 – 12.1.2 Payroll Batch Results

Model	GHz	Cores (Proc / workers)	Checks /Hour	Kit	Average CPU util.	Batch: Payroll Employees	App level	Tiers
730 P7	3.72	12 (2/48)	702,576	ExLrg	57%	250,000	12.1.2	2-Tier
p260 p7+	4.08	8 (2/48)	626,741	ExLrg	66%	250,000	12.1.2	2-Tier

12.1.2

2-Tier

R12 – 12.1.2 Order to Cash Batch Results

Model	GHz	Cores (Proc / workers)	Lines	Kit	Average CPU util.	Batch: Order to Cash: Lines	App level	Tiers
730 P7	3.72	12 (2/48)	135,399	Large	58%	100,000	12.1.2	2-Tier

R12 – 12.0.4 Payroll Batch Results

Model	GHz	Cores (Proc / workers)	Checks /Hour	Kit	Average CPU util.	Batch: Payroll Employees	RUP level	Tiers
JS22 P6	4.0	4 (2/8)	157,205	Medium	68%	10,000	4	2-Tier
750 P7	3.30	6 (1/12)	257,143	Medium	55%	10,000	4	2-Tier

R12 – 12.0.4 Order to Cash Batch Results

Model	GHz	Cores (Proc / workers)	Lines /Hour	Kit	Average CPU util.	Batch: Order to Cash: Lines	RUP level	Tiers
JS23 P6	4.2	4 (2/8)	81,990	Medium	77%	50,000	4	2-Tier
710 P7	3.72	6 (1/12)	213,523	Medium	59%	50,000	4	2-Tier
750 P7	3.30	6 (1/12)	177,195	Medium	57%	50,000	4	2-Tier

11i – 11.5.10

Model	GHz	# Cores	Kit	Online : Users / Batch : Order Lines / Batch: Payroll Employees	User load % of maximum	Online : Average Response Time (sec)	Batch : Lines/Hour	Batch : Checks /Hour
p5-570 P5+	2.2	8	Medium	2,000 / 50,000 / 10,000	100% (full)	0.983	56,391	51,948
p5-570 P5+	2.2	8	Medium	1,800 / 50,000 / 10,000	90%	0.857	59,678	56,818
p5-570 P5+	2.2	8	Medium	1,400 / 50,000 / 10,000	70%	0.712	61,894	65,076
p570 P6	4.7	8	Medium	3000 / 50,000 / 10,000	100% (full)	0.764	94,757	74,257
p570 P6	4.7	8	Medium	2,700 / 50,000 / 10,000	90%	0.702	97,784	84,270
p570 P6	4.7	8	Medium	2,100 / 50,000 / 10,000	70%	0.625	106,838	91,047

11i – 11.5.10 Real Application Clusters (RAC)

Model	GHz	# Nodes x # Cores	Kit	Online : Users / Batch : Order Lines / Batch: Payroll Employees	User load % of maximum	Online : Average Response Time (sec)	Batch : Lines/Hour	Batch : Checks /Hour
p5-505 P5+	2.1	2 x 2c	Small	1,000 / 10,000 / 5,000	100% (full)	0.780	11,080	13,043
p5-505 P5+	2.1	2 x 2c	Small	900 / 10,000 / 5,000	90%	0.758	12,280	17,493
p5-505 P5+	2.1	2 x 2c	Small	700 / 10,000 / 5,000	70%	0.656	17,207	26,087

Section 10 – AIX Siebel Benchmarks Published Results

Siebel CRM 8.1 Industry Applications Performance and Scalability Benchmark

DB Server	# Cores / Memory	App./Gateway Servers	# Cores / Memory	Concurrent Users	Application Version	Database
S824 p8 4.1	6/224GB	3 x S824 p8 4.1GHz	16/448GB	50,000	8.1.1.4	Oracle 11gR2
740 P7 3.55	6/64GB	2x 750 P7 3.55GHz	16/256GB	21,000	8.1.1.4	Oracle 11gR2

Siebel CRM Release 8.0 Industry Applications Benchmark

Gateway / Application Servers	App Server # Cores / Memory	Concurrent Users	%CPU	DB Server	DB Server # Cores / Memory	Database
1x p570 P6 4.7 GHz	8 / 64GB	7,000	84%	1x p570 P6 4.7 GHz	4 / 32GB	Oracle 10gR2

Siebel 7.7 Industry Applications Performance and Scalability Benchmark

DB Server	# Cores / Memory	App./Gateway Servers	# Cores / Memory	Concurrent Users	Database
#p5-570 P5	4/32GB	5x p690	16/64GB	12,500	DB2 UDB V8.1

Section 11 – AIX Sybase Benchmarks Published Results

Sybase Risk Analysis Platform Benchmark

DB Server	# Cores / Memory	Load Test with 16-Stream Binary Data (GB/Hour/Core)	Query Test: Cumulative Query Processing Times @ 50 Users (lower is better)	Database
p5-570 P5+ 2.2 GHz	8 / 32GB	7.407	2,308,842 msec	Sybase IQ

DB Server	# Cores / Memory	Load Test with 16-Stream Binary Data (GB/Hour/Core)	Query Test: Cumulative Query Processing Times @ 50 Users (lower is better)	Database
p570 P6 4.7 GHz	4 / 32GB	6.692	3,376,891 msec	Sybase IQ
p570 P6 4.7 GHz	8 / 32GB	11.254	1,459,035 msec	Sybase IQ

Section 12 – AIX Manugistics Benchmarks Published Results

Manugistics NetWORKS Fulfillment Benchmark

Server	# Cores	SKUs/Hour	SKUs/Hour/Core	Release
#p5-590	32	38,475,727	1,202,366	7.2
p5-595 2.3 GHz	64	116,500,032	1,820,313	7.3

Section 13 – Linux Published Benchmark Results

SPEC CPU2006 Performance

Model	Proc / #Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPEC		SPEC		Linux Version
					int_2006	Base_2006	Fp_2006	base_2006	
JS12	P6/2	3.8	64/64	16/-	16.1	13.6	17.9	14.2	RHEL5.1
570	P6/1	4.7	64/64	8/32	21.7	17.8	22.5	18.1	RHEL5.1
570	P6/1	4.7	64/64	8/32	21.3	17.5	22.4	17.8	SLES10 SP1

SPEC CPU2000 Performance

Model	Proc / #Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPEC		SPEC		Linux Version
					int_2000	Base_2000	fp_2000	Base_2000	
#OP710	P5/1	1.65	64/32	1.9/36	1,144	1,129	1,919	1,828	RHEL AS4
#OP720	P5/1	1.65	64/32	1.9/36	1,138	1,121	1,966	1,865	SLES9
p5-505	P5+1	2.1	64/32	1.9/36	1655	1594	3293	2773	SLES10
p5-510	P5+1	2.1	64/32	1.9/36	1655	1594	3293	2773	SLES10
p5-520	P5+1	2.1	64/32	1.9/36	1655	1595	3283	2772	SLES10
p5-520Q	P5+1	1.65	64/32	1.9/72	1302	1255	2580	2152	SLES10
p5-550	P5+1	2.1	64/32	1.9/36	1656	1596	3282	2778	SLES10
p5-550Q	P5+1	2.1	64/32	1.9/72	1303	1256	2573	2157	SLES10
p5-575	P5+1	2.2	64/32	1.9/36	1730	1666	3418	2896	SLES10
p5-575	P5+1	1.9	64/32	1.9/36	1501	1445	2979	2543	SLES10

Multiuser Performance SPEC CPU2006

Model	Processor/ # Cores	GHz	L1 Cache (KB)	L2/L3/L4 Cache (MB)	SPEC		SPEC		Linux Version
					int_rate_2006	int_base_2006	fp_rate_2006	fp_base_2006	
JS12	P6/2	3.8	64/64	16/-	45.9	41.2	42.5	36.2	RHEL5.1
JS22	P6/4	4.0	64/64	16/-	84.7	77.2	75.0	65.7	SLES10 SP1
JS23	P6+4	4.2	64/64	16/64	110	92.2	92.4	75.8	SLES11
JS43	P6+8	4.2	64/64	32/128	219	184	184	151	SLES11
PS702	P7/16	3.0	32/32	4/64	505	452	415	366	SLES 11 SP1
PS702	P7/16	3.0	32/32	4/64	521	466	455	405	RHEL 6
PS704	P7/32	2.46	32/32	8/128	-	-	772	687	RHEL 6
PFlex260	P7+16	4.1	32/32	4/160	* 825	* 599	* 562	* 497	SLES 11 SP2

Model	Processor/ # Cores	GHz	L1 Cache (KB)	L2/L3/L4 Cache (MB)	SPEC		SPEC		Linux Version
					int_ rate 2006	int_ rate_ base 2006	fp_ rate 2006	fp_ rate_ base 2006	
PFlex260	P7+/16	4.1	32/32	4/160	563	563	-	-	SLES 11 SP2 using GCC
PFlex270	P7+/24	3.41	32/32	6/240	1070	742	--	--	RHEL 6.4
PFlex270	P7+/24	3.41	32/32	6/240	696	696	--	--	RHEL 6.4 using GCC
520	P6/4	4.2	64/64	16/-	89.2	81.2	79.7	69.0	SLES10 SP1
520	P6+/4	4.7	64/64	16/64	122	102	102	83.7	SLES11
550	P6/8	4.2	64/64	32/128	213	182	176	151	RHEL5.1
550	P6+/8	5.0	64/64	32/128	258	216	216	178	SLES11
730	P7/12	3.7	32/32	3/48	480	425	422	380	RHEL 6
730	P7/12	3.7	32/32	3/48	388	388	-	-	RHEL 6.1 using GCC
730	P7/16	3.55	32/32	4/64	578	515	477	439	SLES 11 SP1
730	P7+/16	4.2	32/32	4/160	852	618	575	509	SLES 11 SP2
730	P7+/16	4.2	32/32	4/160	582	582	-	-	SLES 11 SP2 using GCC
7R2	P7+/16	4.2	32/32	4/160	852	617	575	509	SLES 11 SP2
7R2	P7+/16	4.2	32/32	4/160	582	582	-	-	SLES 11 SP2 using GCC
740	P7/16	3.55	32/32	4/64	580	516	492	447	SLES 11 SP1
740	P7/16	3.55	32/32	4/64	581	518	497	443	RHEL 6
740	P7+/16	4.2	32/32	4/160	869	629	586	521	SLES 11 SP2
740	P7+/16	4.2	32/32	4/160	589	589	-	-	SLES 11 SP2 using GCC
S824	P8/24	3.52	32/64	12/192/256	1,720	1,310	1,330	1,130	RHEL 7.0
750	P7/32	3.30	32/32	8/128	1030	924	839	736	SLES 11
750	P7/32	3.55	32/32	8/128	1070	960	865	761	SLES 11
750	P7/32	3.55	32/32	8/128	1140	1020	978	873	RHEL 6
750	P7+/32	4.0	32/32	8/320	1710	1230	1170	1050	SLES 11 SP2
750	P7+/32	4.0	32/32	8/320	1190	1190	-	-	SLES 11 SP2 using GCC
7R4	P7+/32	4.0	32/32	8/320	1710	1240	1160	1040	RHEL 6.4
7R4	P7+/32	4.0	32/32	8/320	1170	1170	1110	983	RHEL 6.4 using GCC
755	P7/32	3.30	32/32	8/128	1030	924	839	736	SLES 11
760	P7+/48	3.4	32/32	12/480	2130	1480	1360	1190	SLES 11 SP2
760	P7+/48	3.4	32/32	12/480	1390	1390	-	-	SLES 11 SP2 using GCC
570	P6/4	4.7	64/64	16/64	122	108	116	98.8	RHEL5.1
570	P6/4	4.7	64/64	16/64	118	105	115	97.5	SLES10 SP1
570	P6/8	4.7	64/64	32/128	243	210	216	185	RHEL5.1
570	P6/8	4.7	64/64	32/128	234	204	215	182	SLES10 SP1
570	P6/16	4.7	64/64	64/256	484	420	430	369	RHEL5.1
570	P6/16	4.7	64/64	64/256	466	407	428	364	SLES10 SP1
570	P6+/32	4.2	64/64	128/512	826	673	592	492	RHEL 5.2
575	P6/32	4.7	64/64	128/512	928	809	813	681	RHEL 5.2
780	P7/32	4.14	32/32	8/256	1470	1310	1310	1160	SLES 11
780	P7/64	3.86	32/32	16/256	2610	2340	2300	2010	SLES 11
780	P7/64	3.86	32/32	16/256	2740	2440	2550	2280	RHEL 6
780	P7/96	3.44	32/32	24/384	3560	3140	3080	2850	SLES 11 SP1
780	P7+/128	3.72	32/32	32/1280	6130	4460	4180	3690	RHEL 6.3
780	P7+/128	3.72	32/32	32/1280	4140	4140	-	-	RHEL 6.3
595	P6/64	5.0	64/64	256/1024	2,097	1,837	2,108	1,822	RHEL 5.2
595	P6/64	5.0	64/64	256/1024	2,160	1,870	2,180	1,680	SLES11
795	P7/256	4.0	32/32	64/1024	10,900	9,410	10,400	9,370	SLES 11 SP1
795	P7/256	4.0	32/32	64/1024	11,300	9,930	10,500	9,640	RHEL 6
795	P7/128	4.25	32/32	32/1024	6,130	5,350	5,860	5260	SLES 11 SP1

Multiuser Performance SPEC CPU2000

Model	Processor/ # Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPEC int_ rate 2000	SPEC int_ rate_ base 2000	SPEC fp_ rate 2000	SPEC fp_ rate_ base 2000	Linux Version
#OP710	P5/2	1.65	64/32	1.9/36	--	--	40.2	39.5	SLES9
#OP710	P5/2	1.65	64/32	1.9/36	29.8	29.5	40.1	39.0	RHEL AS4
#OP720	P5/4	1.65	64/32	3.8/72	59.8	58.8	80.8	78.8	SLES9
p5-505	P5+/2	2.1	64/32	1.9/36	43.5	42.4	72.4	66.5	SLES10
p5-510	P5+/2	2.1	64/32	1.9/36	43.5	42.4	72.4	66.5	SLES10
p5-520	P5+/2	2.1	64/32	1.9/36	43.6	42.6	71.7	66.0	SLES10
p5-520Q	P5+/4	1.65	64/32	3.8/72	68.2	66.6	99.0	92.9	SLES10
p5-550	P5+/4	2.1	64/32	1.9/72	86.7	85.0	143	131	SLES10
p5-550Q	P5+/8	1.65	64/32	7.6/144	136	133	196	183	SLES10
#p5-575	P5/8	1.9	64/32	15.2/288	--	--	238	229	RHEL AS4
p5-575	P5+/8	2.2	64/32	1.9/288	199	193	370	310	SLES10
p5-575	P5+/16	1.9	64/32	1.9/288	311	305	541	478	SLES10
#p5-595	P5/32	1.9	64/32	30.4/576	--	--	781	754	SLES9 SP1

Java Benchmarks (SPECjbb2013) Published Results

Model	Proc / # Cores	GHz	L1 Cache (KB)	L2/L3/L4 Cache (MB)	SPECjbb2013		Linux Version
					max-jOPS	critical-jOPS	
E870	p8/80	4.19	32/64	40/640/1024	656,820	158,605	RHEL 7

Historical Java Performance (SPECjbb2000, SPECjbb2005)

Model	Processor / # Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPEC jbb2000 ops/sec	SPECjbb2005 ops/sec			Linux Version
						bops	JVM inst.	Bops / JVM	
PS702	P7/16	3.0	32/32	4/64	-	1,103,231	16	68,952	SLES 11 SP1
PFlex260	P7+/16	4.1	32/32	4/160	-	1,818,045	16	113,628	SLES 11 SP2
PFlex270	P7+/24	3.4	32/32	6/240	-	2,441,660	24	101,736	RHEL 6.4
#OP720	P5/4	1.65	64/32	3.8/72	136,167	-	-	-	SLES9
#OP720	P5/4	1.65	64/32	3.8/72	136,261	-	-	-	RHEL AS4
550	P6/8	4.2	64/64	32/128	-	328,343	4	82,086	RHEL5.1
#p5-570	P5/2 DDR2	1.9	64/32	1.9/36	82,615	-	-	-	SLES9
#p5-570	P5/4 DDR2	1.9	64/32	3.8/72	160,995	-	-	-	SLES9
#p5-570	P5/8 DDR1	1.9	64/32	7.6/144	299,197	-	-	-	SLES9
#p5-570	P5/16 DDR1	1.9	64/32	15.2/288	542,145	-	-	-	SLES9
570	P6/4	4.7	64/64	16/64	-	169,304	2	84,652	RHEL5.1
570	P6/8	4.7	64/64	32/128	-	335,424	4	83,856	RHEL5.1
570	P6/16	4.7	64/64	64/256	-	664,167	8	83,021	RHEL5.1
570/32	P6+/32	4.2	64/64	128/512	-	1,243,824	16	77,739	RHEL5.2
#p5-595	P5/32	1.9	64/32	30.4/576	1,076,309	-	-	-	SLES9
730	P7/16	3.55	32/32	4/64	-	1,205,289	16	75,331	SLES 11 SP1
730	P7+/16	4.2	32/32	4/160	-	1,877,284	16	117,330	SLES 11 SP2
7R2	P7+/16	4.2	32/32	4/160	-	1,872,915	16	117,057	SLES 11 SP2
740	P7/16	3.55	32/32	4/64	-	1,204,362	16	75,273	SLES 11 SP1
740	P7+/16	4/2	32/32	4/160	-	1,901,452	16	118,841	SLES 11 SP2
750	P7/32	3.55	32/32	8/128	-	2,410,483	32	75,328	SLES 11
750	P7+/32	4.0	32/32	8/320	-	3,837,707	32	119,928	SLES 11 SP2
7R4	P7+/32	4.0	32/32	8/320	-	* 3,838,000	32	* 119,938	RHEL 6.4
760	P7+/48	3.4	32/32	12/480	-	4,858,622	48	101,221	SLES 11 SP2

Model	Processor / # Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPEC jbb2000 ops/sec	SPECjbb2005 ops/sec			Linux Version
						bops	JVM inst.	Bops / JVM	
780	P7/64	3.86	32/32	16/256	-	5,087,469	64	79,492	SLES 11
780	P7/32	4.14	32/32	8/256	-	2,926,261	32	91,446	SLES 11
780	P7/96	3.44	32/32	24/384	-	7,080,765	96	73,758	SLES 11 SP1
780	P7+/128	3.72	32/32	32/1280	-	12,305,473	128	96,137	RHEL 6.3
795	P7/256	4.0	32/32	64/1024	-	20,449,538	256	80,076	SLES 11 SP1

SPECjEnterprise2010 Performance

Java EE Model/GHz	Java EE OS	Java EE AppServer	# Java EE Nodes / Cores	DB Model/GHz	Database OS	Database	# DB Nodes / Cores	EjOPS
7R2/4.2 GHz	RHEL 6.4	WebSphere v8.5	1 node 16 core	7R2/4.2 GHz	RHEL 6.4	DB2 10.1 FP2	1 node 16 core	12,062
730/4.2GHz	RHEL 6.4	WebSphere v8/5	1 node 16 core	730/4.2GHz	RHEL 6.4	DB2 10.1 FP2	1 node 16 core	12,067
7R2/4.2GHz	RHEL 6.4	WebSphere v8.5.5	1 node 16 core	7R2/4.2GHz	RHEL 6.4	DB2 10.1 FP2	1 node 16 core	13,161

Web Serving SPECweb99 and SPECweb99_SSL Performance

Model	Proc./ # Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	Encryption card	SPEC web99	SPEC web99 ssl	Linux Version
#p5-570	P5/4	1.9	64/32	3.8/72	Yes, ICA	-	4,970	SLES9
#p5-570	P5/4	1.9	64/32	3.8/72	None	13,500	-	RHEL AS3
#p5-570	P5/8	1.9	64/32	7.6/144	None	25,000	-	RHEL AS4

Web Serving SEPCweb2005 Performance

Model	Proc./ # Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	Encryption card	Result	Banking	Ecommerce	Support	Linux Version
#p5-550	P5+/4	1.9	64/32	3.8/72	None	7,881	12,240	11,820	7,500	SLES9 SP2

SPECsfs97_R1 Benchmark Results

Model	Proc./ # Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	SPEC sfs97_R1.v3 UDP	SPEC sfs97_R1.v3 TCP	Linux Version
#p5-570	P5/2	1.9	64/32	1.9/36	--	45,586	SLES9
#p5-570	P5/4	1.9	64/32	3.8/72	--	81,889	SLES9 SP1

NetBench® Published Results

Model	Processor / # Cores	GHz	L1 Cache (KB)	L2/L3 Cache (MB)	Mbps
#p5-520	P5/1	1.65	64/32	1.9/36	787
#p5-520	P5/2	1.65	64/32	3.8/72	1,457
#p5-550	P5+/2	1.9	64/32	1.9/36	2,054
#p5-550	P5+/4	1.9	64/32	3.8/72	3,055

SAP Standard Application Benchmark Published Results

Sales and Distribution – SD 2-Tier – Linux on Power

Model (GHz)	# Core (Proc/Thread)	SD Users	Avg. Resp. Time	Dialog Steps Per Hour (K)	Fully Proc. Line Items Per Hour	SAPS (K)	OS	Database	CPU Util. %	SAP ECC Ver.	Cert. #
p5-550 P5 (1.9)	4 (2/8)	1000	1.97	301	100,330	5.02	SLES 9	DB2 V8.2.2	99%	5.0	2005040
p5-570 P5 (1.9)	8 (4/16)	2000	1.95	603	210,000	10.05	SLES9	DB2 V8.2.2	99%	4.7	2004057
570 P6 (4.2)	8 (4/16)	3104	1.91	938	312,670	15.63	RHEL5.1	DB2 9.5	97%	6.0	2008002
730 P7 (3.7)	12 (2/24)	5250	.98	1,721	573,670	28.68	SLES11	DB2 9.7	97%	EHP4	2011022
730 P7 (3.55)	16 (2/64)	7000	.99	2,293	764,330	38.22	SLES11	DB2 9.7	97%	EHP4	2011042
7R2 p7+ (4.22)	16 (2/64)	8016	.98	2,628	876,000	43.80	SLES 11	DB2 10	99%	EHP5	2013003
7R2 p7+ (4.22)	16 (2/64)	8256	.97	2,709	903,000	45.13	RHEL6.4	DB2 10	99%	EHP5	2013006

* The SAP certification number was not available at press time and can be found at www.sap.com/benchmark.

TPC-C Version 5.4 Published Results

Model	Processor	Chip /Core /Thread	# Nodes	GHz	L2/L3 Cache (MB)	tpmC	\$/tmpC	Database	Linux Version	Avail. Date
#p5-570	p5	2/4/8	1	1.9	3.8/72	197,669.81	3.93	DB2 UDB V8.2	RHEL AS4	02/07/06
p5-570	p5+	2/4/8	1	2.2	3.8/72	236,271	2.56	Oracle 10g R2 EE	RHEL5	04/04/08
#p5-520	p5+	1/2/4	1	1.65	1.9/36	81,439.30	2.99	Sybase ASE	SLES9	12/22/06
550	p6	2/4/8	1	4.2	16/64	276,383	2.22	Sybase ASE	RHEL 5.1	12/16/08

TPC-H 1000 GB (1 TB):

Model	Processor	Chip /Core /Thread	# Nodes	MHz	QphH	\$/QphH	Linux Version	Database	Avail. Date
780	p7	8/32/128	1	4140	167,747	6.85	RHEL 6	Sybase IQ Single Application Server v15.2 ESD#2	3/31/11

SPECjAppServer2004 Performance

J2EE Model/GHz	J2EE OS	J2EE AppServer	# J2EE Nodes / Cores	DB Model/GHz	Database OS	Database	# DB Nodes	JOPS
#p5-550 1.9 GHz	SLES 9	WebSphere 6.0	8 nodes 32 cores	p5-570 / 1.9	SLES9	DB2 UDB V8.2.3	1 node 8 cores	2921.48

Section 14 – Historical Multiuser Performance (2006 to present)

Type Model	Product Name	Announce Date	Marketing Withdrawal	Processor	GHz	# Cores	rPerf			
9110-510	eServer p5 510	2005/02/18	2006/11/13	POWER5	1.5	1	3.25			
9110-510				POWER5	1.5	2	9.13			
9110-510			2006/05/31	POWER5	1.65	1	5.24			
9110-510				POWER5	1.65	2	9.86			
9110-51A	System p5 510	2006/02/14	2007/02/12	POWER5+	1.9	1	6.11			
9110-51A				POWER5+	1.9	2	11.49			
9110-51A	System p5 510Q			POWER5+	1.5	4	18.75			
9111-285	IntelliStation 285	2005/10/04	2007/02/12	POWER5+	1.9	1				
9111-285				POWER5+	1.9	2				
9111-520	eServer p5 520	2004/07/13	2006/05/31	POWER5	1.5	1	3.25			
9111-520				POWER5	1.5	2	9.13			
9111-520				POWER5	1.65	2	9.86			
9112-265	IntelliStation 265	2002/02/05	2003/12/12	POWER3-II	.450	2	N/A			
9113-550	eServer p5 550	2004/07/13	2006/05/31	POWER5	1.5	1	3.25			
9113-550				POWER5	1.5	2	9.13			
9113-550				POWER5	1.5	4	18.20			
9113-550				POWER5	1.65	2	9.86			
9113-550				POWER5	1.65	4	19.66			
9114-275	IntelliStation 275	2003/06/24	2006/05/31	POWER4+	1.0	1	N/A			
9114-275				POWER4+	1.45	1	N/A			
9114-275				POWER4+	1.45	2	N/A			
9115-505	System p5 505	2005/10/04	2006/01/13	POWER5+	1.5	2	9.13			
9115-505				POWER5+	1.65	1	3.51			
9115-505				POWER5+	1.65	2	9.86			
9116-561	System p5 560Q	2006/02/14	2008/02/25	POWER5+	1.5	4	18.75			
9116-561				POWER5+	1.5	8	35.50			
9116-561				POWER5+	1.5	16	65.24			
9117-570	eServer p5 570	2004/07/13	2006/05/31	POWER5	1.5	2	9.13			
9117-570				POWER5	1.5	4	18.20			
9117-570				POWER5	1.5	8	34.46			
9117-570				POWER5	1.65	2	9.86			
9117-570				POWER5	1.65	4	19.66			
9117-570				POWER5	1.65	8	37.22			
9117-570				POWER5	1.65	12	53.43			
9117-570				POWER5	1.65	16	68.40			
9117-570				POWER5	1.9	2	11.16			
9117-570				POWER5	1.9	4	22.26			
9117-570				POWER5	1.9	8	42.14			
9117-570				POWER5	1.9	12	60.50			
9117-570				POWER5	1.9	16	77.45			
9118-575				System p5 575	2005/02/08	2006/11/17	POWER5	1.5	16	N/A
9118-575					2005/02/08	2006/11/10	POWER5	1.9	8	N/A

Type Model	Product Name	Announce Date	Marketing Withdrawal	Processor	GHz	# Cores	rPerf
9119-590	eServer p5 590	2004/10/15	2007/02/12	POWER5	1.65	8	41.68
9119-590				POWER5	1.65	16	80.86
9119-590				POWER5	1.65	24	116.29
9119-590				POWER5	1.65	32	151.72
9119-595	eServer p5 595	2004/10/15	2007/02/12	POWER5	1.65	16	80.86
9119-595				POWER5	1.65	24	116.29
9119-595				POWER5	1.65	32	151.72
9119-595				POWER5	1.65	40	182.07
9119-595				POWER5	1.65	48	212.41
9119-595				POWER5	1.65	56	242.76
9119-595				POWER5	1.65	64	273.10
9119-595				POWER5	1.9	16	90.67
9119-595				POWER5	1.9	24	130.39
9119-595				POWER5	1.9	32	170.11
9119-595				POWER5	1.9	40	204.14
9119-595				POWER5	1.9	48	238.16
9119-595				POWER5	1.9	56	272.18
9119-595				POWER5	1.9	64	306.21
9123-710	eServer OpenPower 710	2005/01/25	2006/05/31	POWER5	1.65	1	N/A
				POWER5	1.65	2	N/A
9124-720	eServer OpenPower 720	2004/09/14	2006/05/31	POWER5	1.5	1	N/A
9124-720				POWER5	1.5	2	N/A
9124-720				POWER5	1.5	4	N/A
9124-720				POWER5	1.65	2	N/A
9124-720				POWER5	1.65	4	N/A
9131-52A	System p5 520	2005/10/04	2007/02/12	POWER5+	1.65	1	3.62
9131-52A				POWER5+	1.65	2	10.15
9131-52A				POWER5+	1.9	2	11.16
9131-52A				System p5 520Q	POWER5+	1.5	4
9133-55A	System p5 550	2005/10/04	2007/02/12	POWER5+	1.65	2	10.15
9133-55A				POWER5+	1.65	4	20.25
9133-55A		2005/10/04	2007/04/27	POWER5+	1.5	4	18.20
9133-55A				POWER5+	1.5	8	34.46
8842-42x	BladeCenter JS20	6/28/05	5/31/06	PPC970	1.6	1	1.53
				PPC970	1.6	2	2.65
				PPC970	2.2	1	1.95
				PPC970	2.2	2	3.40
9117-570	System p5 570	2/14/06	8/29/08	POWER5+	1.9	2	12.27
				POWER5+	1.9	4	24.48
				POWER5+	1.9	8	46.36
				POWER5+	1.9	12	66.55
				POWER5+	1.9	16	85.20
				POWER5+	2.2	2	13.83
				POWER5+	2.2	4	27.58
				POWER5+	2.2	8	52.21
				POWER5+	2.2	12	74.95
				POWER5+	2.2	16	95.96

Type Model	Product Name	Announce Date	Marketing Withdrawal	Processor	GHz	# Cores	rPerf
9118-575	System p5 575	2/14/06	8/29/08	POWER5+	1.9	16	--
				POWER5+	2.2	8	--
9119-590	System p5 590	7/25/06	8/29/08	POWER5+	2.1	8	55.74
				POWER5+	2.1	16	108.13
				POWER5+	2.1	24	155.51
				POWER5+	2.1	32	202.88
7988-J21	BladeCenter JS21	6/5/07	12/12/08	PPC970	2.7	2	5.31
7988-J21	BladeCenter JS21	6/5/07	12/12/08	PPC970	2.5	4	8.72
9110-51A	System p5 510	7/25/06	07/30/10	POWER5+	2.1	1	6.63
		7/25/06	07/30/10	POWER5+	2.1	2	12.46
9110-51A	System p5 510Q	7/25/06	07/30/10	POWER5+	1.65	4	20.25
9131-52A	System p5 520	7/25/06	12/12/08	POWER5+	2.1	1	6.63
		7/25/06	12/12/08	POWER5+	2.1	2	12.46
9131-52A	System p5 520Q	7/25/06	12/12/08	POWER5+	1.65	4	20.25
9133-55A	System p5 550	10/4/05	12/12/08	POWER5+	1.9	2	11.16
		10/4/05	12/12/08	POWER5+	1.9	4	22.26
		7/25/06	12/12/08	POWER5+	2.1	2	12.46
		7/25/06	12/12/08	POWER5+	2.1	4	24.86
9133-55A	System p5 550Q	7/25/06	12/12/08	POWER5+	1.65	4	20.25
		7/25/06	12/12/08	POWER5+	1.65	8	38.34
9111-285	IntelliStation 285	7/11/06	01/02/09	POWER5+	2.1	1	--
		7/11/06	01/02/09	POWER5+	2.1	2	--
7047-185	IntelliStation 185	2/14/06	01/02/09	PPC970	2.5	1	--
		2/14/06	01/02/09	PPC970	2.5	2	--
9115-505	System p5 505	7/25/06	5/29/09	POWER5+	1.9	1	4.10
		7/25/06	5/29/09	POWER5+	1.9	2	11.49
		7/25/06	5/29/09	POWER5+	2.1	2	12.46
	System p5 505Q	7/25/06	5/29/09	POWER5+	1.65	4	20.25
9119-595	System p5 595	7/25/06	5/29/09	POWER5+	2.1	16	108.13
		7/25/06	5/29/09	POWER5+	2.1	32	202.88
		7/25/06	5/29/09	POWER5+	2.1	48	284.04
		7/25/06	5/29/09	POWER5+	2.1	64	365.19
		7/25/06	5/29/09	POWER5+	2.1	16	116.53
		7/25/06	5/29/09	POWER5+	2.1	32	218.64
		7/25/06	5/29/09	POWER5+	2.1	48	306.10
		7/25/06	5/29/09	POWER5+	2.3	64	393.55
9116-561	System p5 560Q	2/14/07	1/2/09	POWER5+	1.8	4	21.72
		2/14/07	1/2/09	POWER5+	1.8	8	41.12
		2/14/07	1/2/09	POWER5+	1.8	16	75.58
7998-60X	BladeCenter JS12	4/2/08	--	POWER6	3.8	2	14.71

Type Model	Product Name	Announce Date	Marketing Withdrawal	Processor	GHz	# Cores	rPerf	
7998-61X	BladeCenter JS22	11/6/07	--	POWER6	4.0	4	30.26	
	BladeCenter JS23	4/28/09	--	POWER6+	4.2	4	36.28	
	BladeCenter JS43	4/28/09	--	POWER6+	4.2	8	68.20	
8203-E4A	Power 520	1/29/08	--	POWER6	4.2	1	8.39	
		1/29/08	--	POWER6	4.2	2	15.95	
		1/29/08	--	POWER6	4.2	4	31.48	
		4/28/09	--	POWER6+	4.7	2	20.13	
		4/28/09	--	POWER6+	4.7	4	39.73	
8204-E8A	Power 550	1/29/08	--	POWER6	3.5	2	15.85	
		1/29/08	--	POWER6	3.5	4	31.27	
		1/29/08	--	POWER6	3.5	6	45.04	
		1/29/08	--	POWER6	3.5	8	58.80	
		1/29/08	--	POWER6	4.2	2	18.38	
		1/29/08	--	POWER6	4.2	4	36.28	
		1/29/08	--	POWER6	4.2	6	52.24	
		1/29/08	--	POWER6	4.2	8	68.20	
		4/28/09	--	POWER6+	5.0	2	21.18	
		4/28/09	--	POWER6+	5.0	4	41.81	
		4/28/09	--	POWER6+	5.0	6	60.20	
		4/28/09	--	POWER6+	5.0	8	78.60	
		Power 560	10/7/08	--	POWER6+	3.6	4	31.32
	10/7/08		--	POWER6+	3.6	8	57.32	
	10/7/08		--	POWER6+	3.6	16	100.30	
	9117-MMA	Power 570	5/22/07	--	POWER6	3.5	2	15.85
			5/22/07	--	POWER6	3.5	4	31.69
			5/22/07	--	POWER6	3.5	8	58.95
			5/22/07	--	POWER6	3.5	12	83.35
			5/22/07	--	POWER6	3.5	16	105.75
5/22/07			7/2/09	POWER6	4.2	2	18.38	
5/22/07			7/2/09	POWER6	4.2	4	36.76	
5/22/07			7/2/09	POWER6	4.2	8	68.38	
5/22/07			7/2/09	POWER6	4.2	12	96.68	
5/22/07			7/2/09	POWER6	4.2	16	122.67	
10/7/08			--	POWER6+	4.2	4	35.50	
10/7/08			--	POWER6+	4.2	8	64.96	
10/7/08			--	POWER6+	4.2	16	113.68	
10/7/08			--	POWER6+	4.2	24	153.46	
10/7/08			--	POWER6+	4.2	32	193.25	
10/7/08			--	POWER6+	4.4	2	19.08	
10/7/08			--	POWER6+	4.4	4	38.16	
10/7/08			--	POWER6+	4.4	8	70.97	
10/7/08			--	POWER6+	4.4	12	100.35	
10/7/08			--	POWER6+	4.4	16	127.32	
5/22/07			7/2/09	POWER6	4.7	2	20.13	
5/22/07			7/2/09	POWER6	4.7	4	40.26	
5/22/07			7/2/09	POWER6	4.7	8	74.89	
5/22/07			7/2/09	POWER6	4.7	12	105.89	
5/22/07			7/2/09	POWER6	4.7	16	134.35	
10/7/08			--	POWER6+	5.0	2	21.16	
10/7/08			--	POWER6+	5.0	4	42.32	

Type Model	Product Name	Announce Date	Marketing Withdrawal	Processor	GHz	# Cores	rPerf
		10/7/08	--	POWER6+	5.0	8	78.71
		10/7/08	--	POWER6+	5.0	12	111.3
		10/7/08	--	POWER6+	5.0	16	141.21
9125-F2A	Power 575	4/8/08	07/30/10	POWER6+	4.7	32	--
9119-FHA	Power 595	4/8/08	--	POWER6	4.2	8	75.58
		4/8/08	--	POWER6	4.2	16	142.90
		4/8/08	--	POWER6	4.2	32	266.51
		4/8/08	--	POWER6	4.2	48	373.60
		4/8/08	--	POWER6	4.2	64	479.89
		4/8/08	--	POWER6	5.0	8	87.10
		4/8/08	--	POWER6	5.0	16	164.67
		4/8/08	--	POWER6	5.0	32	307.12
		4/8/08	--	POWER6	5.0	48	430.53
		4/8/08	--	POWER6	5.0	64	553.01
9119-FHA	Power 595	4/8/08	--	POWER6	4.2	8	75.58
8233-E8B	Power 750	02/09/10	--	POWER7	3.3	6	70.07
		02/09/10	--	POWER7	3.3	12	134.54
		02/09/10	--	POWER7	3.3	18	193.40
		02/09/10	--	POWER7	3.3	24	252.26
		02/09/10	--	POWER7	3.0	8	81.24
		02/09/10	--	POWER7	3.0	16	155.99
		02/09/10	--	POWER7	3.0	24	224.23
		02/09/10	--	POWER7	3.0	32	292.47
		02/09/10	--	POWER7	3.3	8	86.99
		02/09/10	--	POWER7	3.3	16	167.01
		02/09/10	--	POWER7	3.3	24	240.08
		02/09/10	--	POWER7	3.3	32	313.15
		02/09/10	--	POWER7	3.55	32	331.06
8236-E8C	Power 755	02/09/10	--	POWER7	3.3	32	-
9117-MMB	Power 770	02/09/10	--	POWER7	3.5	6	72.55
		02/09/10	--	POWER7	3.5	12	140.75
		02/09/10	--	POWER7	3.5	24	261.19
		02/09/10	--	POWER7	3.5	36	377.28
		02/09/10	--	POWER7	3.5	48	493.37
		02/09/10	--	POWER7	3.1	8	85.20
		02/09/10	--	POWER7	3.1	16	165.30
		02/09/10	--	POWER7	3.1	32	306.74
		02/09/10	--	POWER7	3.1	48	443.06
		02/09/10	--	POWER7	3.1	64	579.39
9179-MHB	Power 780	02/09/10	--	POWER7	3.86	8	100.75
		02/09/10	--	POWER7	3.86	16	195.45
		02/09/10	--	POWER7	3.86	32	362.70
		02/09/10	--	POWER7	3.86	48	523.89
		02/09/10	--	POWER7	3.86	64	685.09
		02/09/10	--	POWER7	4.14	8	115.86
		02/09/10	--	POWER7	4.14	16	226.97
		02/09/10	--	POWER7	4.14	24	326.24
		02/09/10	--	POWER7	4.14	32	425.50

Type Model	Product Name	Announce Date	Marketing Withdrawal	Processor	GHz	# Cores	rPerf
8406-71X	BladeCenter PS700	04/13/10	--	POWER7	3.0	4	45.13
8406-71Y	BladeCenter PS701	04/13/10	--	POWER7	3.0	8	81.24
8406-71Y	BladeCenter PS702	04/13/10	--	POWER7	3.0	16	154.36

Note: The rPerf projections are based on different levels of AIX and databases. As a result, actual performance may vary. Estimates have been provided where no historical projections were available.

Notes on Performance Benchmarks and Values

The performance benchmarks and the values shown here were derived using particular, well configured, development-level computer systems. Unless otherwise indicated for a system, the values were derived using external cache if external cache is supported on the system. All performance benchmark values are provided "AS IS" and no warranties or guarantees are expressed or implied by IBM. Actual system performance may vary and is dependent upon many factors including system hardware configuration and software design and configuration. Buyers should consult other sources of information to evaluate the performance of systems they are considering buying and should consider conducting application oriented testing. For additional information about the performance benchmarks, values and systems tested, please contact your IBM local Branch Office or IBM Authorized Reseller or access the following on the Web:

SPEC - <http://www.spec.org>
TPC - <http://www.tpc.org>

All performance measurements for the IBM Power, IBM PowerLinux, System p, System p5 and eServer p5 servers were made with systems running AIX or AIX 5L operating systems unless otherwise indicated to have used Linux. For new and upgraded systems, the latest versions of AIX were used. All other systems used previous versions of AIX.

The SPEC CPU2006 and SPEC CPU2000 benchmarks were compiled using IBM's high performance C, C++, and FORTRAN compilers for AIX and Linux. For new and upgraded systems, the latest versions of these compilers were used.

The following SPEC benchmarks reflect the performance of the microprocessor, memory architecture and compiler of the tested system:

SPECint2006 - New SPEC component-level benchmark that measures integer performance. Result is the geometric mean of twelve tests that comprise the CINT2006 benchmark suite.

SPECint_base2006 - The result of the same tests in CINT2006 with the same compiler options that must be used in all twelve tests.

SPECint_rate2006 - Geometric average of the twelve SPEC rates from the SPEC integer tests (CINT2006).

SPECint_rate_base2006 - The result of the same tests as CINT2006 with the same compiler options that must be used in all twelve tests.

SPECfp2006 - New SPEC component-level benchmark that measures floating-point performance. Result is the geometric mean of seventeen tests, all written in FORTRAN and C languages, that are included in the CFP2006 benchmark suite.

SPECfp_base2006 - The result of the same tests in CFP2006 with the same compiler options that must be used in all seventeen tests.

SPECfp_rate2006 - Geometric mean of the seventeen SPEC rates from SPEC floating-point tests (CFP2006).

SPECfp_rate_base2006 - The result of the same tests as CFP2006 with the same compiler options that must be used in all seventeen tests.

SPECint2000 - SPEC component-level benchmark that measures integer performance. Result is the geometric mean of twelve tests that comprise the CINT2000 benchmark suite. All of these are written in C language except for one which is in C++.

SPECint_base2000 - The result of the same tests in CINT2000 with a maximum of four compiler options that must be used in all twelve tests.

SPECint_rate2000 - Geometric average of the twelve SPEC rates from the SPEC integer tests (CINT2000).

SPECint_rate_base2000 - The result of the same tests as CINT2000 with a maximum of four compiler options that must be used in all twelve tests.

SPECfp2000 - SPEC component-level benchmark that measures floating-point performance. Result is the geometric mean of fourteen tests, all written in FORTRAN and C languages, that are included in the CFP2000 benchmark suite.

SPECfp_base2000 - The result of the same tests in CFP2000 with a maximum of four compiler options that must be used in all fourteen tests.

SPECfp_rate2000 - Geometric mean of the fourteen SPEC rates from SPEC floating-point tests (CFP2000).

SPECfp_rate_base2000 - The result of the same tests as CFP2000 with a maximum of four compiler options that must be used in all fourteen tests.

SPEC OMP2001 - Geometric mean 11 compute intensive parallel workload tests, written in Fortran and C languages.

SPECweb99 - Number of conforming, simultaneous connections the Web server can support using a predefined workload. The SPECweb99 test harness emulates clients sending the HTTP requests in the workload over slow Internet connections to the Web server. The Web server software is Zeus from Zeus Technology Ltd.

SPECweb2005 - Emulates users sending browser requests over broadband Internet connections to a Web server. It provides three new workloads: a banking site (HTTPS), an e-commerce site (HTTP/HTTPS mix); and a support site (HTTP).

SPECweb99_SSL - Number of conforming, simultaneous SSL encryption/decryption connections the Web server can support using a predefined workload. The Web server software is Zeus from Zeus Technology Ltd.

SPECjvm99 - Contains eight different tests. Each test measures the time it takes to load the program, verify the class files, compile on the fly if a JIT compiler is used, and execute the test. A geometric mean is used to compute a composite score. Test scores are normalized against a reference machine. Higher scores indicate better performance.

SPECjbb2000 - Expressed in operations per second; evaluates the performance of servers running typical Java business applications; it represents an order processing application for a wholesale supplier. The benchmark can be used to evaluate performance of hardware and software aspects of Java Virtual Machine (JVM) servers.

SPECjbb2005 - Expressed in bops and bops/JVM; evaluates the performance of servers running typical Java business applications; it represents an order processing application for a wholesale supplier. The benchmark can be used to evaluate performance of hardware and software aspects of Java Virtual Machine (JVM) servers.

SPECsfs97_R1 - Measures speed and request-handling capabilities of NFS (network file server) computers.

SPECjAppServer2004 - Measures the performance of Java Enterprise Application Servers using a subset of J2EE APIs in a complete end-to-end Web application.

SPECjEnterprise2010 - The SPECjEnterprise2010 benchmark is a full system benchmark which allows performance measurement and characterization of Java EE 5.0 servers and supporting infrastructure such as JVM, Database, CPU, disk and servers.

The following Transaction Processing Council (TPC) benchmarks reflect the performance of the microprocessor, memory subsystem, disk subsystem and some portions of the network:

tpmC - TPC Benchmark C throughput measured as the average number of transactions processed per minute during a valid TPC-C configuration run of at least twenty minutes.

\$/tpmC - TPC Benchmark C price-performance ratio reflects the estimated five year total cost of ownership for system hardware, software and maintenance and is determined by dividing such estimated total cost by the tpmC for the system.

QppH - The power metric of TPC-H and is based on a geometric mean of the 17 TPC-H queries, the insert test and the delete test. It measures the ability of the system to give a single user the best possible response time by harnessing all available resources. QppH is scaled based on database size from 30GB to 1TB.

QthH - The throughput metric of TPC-H and is a classical throughput measure characterizing the ability of the system to support a multiuser workload in a balanced way. A number of query users is chosen, each of which must execute the full set of 17 queries in a different order. In the background, there is an update stream that runs a series of insert/delete operations. QthH is scaled based on the database size from 30GB to 1TB.

QpH is the geometric mean of the power tests (QppH) and the throughput tests (QthH).

\$/QpH - The price/performance metric for the TPC-H benchmark where QpH is the geometric mean of QppH and QthH. The price is the five year cost of ownership for the tested configuration and includes maintenance and software support.

Notes on Performance Estimates

rPerf (Relative Performance) is an estimate of commercial processing performance relative to other IBM UNIX systems. It is derived from an IBM analytical model which uses characteristics from IBM internal workloads, TPC and SPEC benchmarks. The rPerf model is not intended to represent any specific public benchmark results and should not be reasonably used in that way. The model simulates some of the system operations such as CPU, cache and memory. However, the model does not simulate disk or network I/O operations.

rPerf estimates are calculated based on systems with the latest levels of AIX and other pertinent software at the time of system announcement. Actual performance will vary based on application and configuration specifics. The IBM eServer pSeries 640 is the baseline reference system and has a value of 1.0. Although rPerf may be used to approximate relative IBM UNIX commercial processing performance, actual system performance may vary and is dependent upon many factors including system hardware configuration and software design and configuration. Note that the rPerf methodology used for the POWER6 systems is identical to that used for the POWER5 systems. Variations in incremental system performance may be observed in commercial workloads due to changes in the underlying system architecture.

Commercial Processing Workload (CPW) is a relative measure of performance of processors running the IBM i operating system. Performance in client environments may vary. The value is based on maximum configurations. More performance information is available in the Performance Capabilities Reference at: <http://www.ibm.com/systems/i/solutions/perfmgmt/resource.html>.

All performance estimates are provided "AS IS" and no warranties or guarantees are expressed or implied by IBM. Buyers should consult other sources of information, including system benchmarks, and application sizing guides to evaluate the performance of a system they are considering buying. For additional information about rPerf and CPW, contact your local IBM office or IBM authorized reseller.

IBM withdrew Relative OLTP (ROLTP). Starting June 2001, IBM will not publish/update ROLTP results. ROLTP results of systems that are withdrawn from the market are left in Section 14, Historical Multiuser Performance.

Application Benchmarks

SAP - Benchmark overview information: <http://www.sap.com/benchmark/>

PeopleSoft - To get information on PeopleSoft benchmarks, contact PeopleSoft directly or the PeopleSoft/IBM International Competency Center in San Mateo, CA.

Oracle Applications - Benchmark overview information: http://www.oracle.com/apps_benchmark/html/results.html

NotesBench - The driver program to test various aspects of Lotus® Notes®. It is designed to execute the commands in customized workload scripts, simulating Notes client actions. Source: <http://www.notesbench.org/>.

Total Users - Number of active users supported in the workload, each producing approximately one transaction/minute.

TPM - Transactions per minute (NotesMark)

Average Response Time - Average time for a transaction to be completed for an average user action.

\$/User - Total cost of the hardware and software including discounts quoted by a supplier.



© IBM Corporation 2014

IBM Corporation
Marketing Communications
Systems and Technology Group
Route 100
Somers, New York 10589

Produced in the United States of America

October, 2014

All Rights Reserved

This document was developed for products and/or services offered in the United States. IBM may not offer the products, features, or services discussed in this document in other countries.

The information may be subject to change without notice. Consult your local IBM business contact for information on the products, features and services available in your area.

All statements regarding IBM future directions and intent are subject to change or withdrawal without notice and represent goals and objectives only.

IBM, the IBM logo, AIX, AIX 5L, BladeCenter, DB2, eServer, Lotus, Notes, Power, POWER, POWER2, POWER3, POWER4, POWER4+, POWER5, POWER5+, POWER6, POWER PC, Power Architecture, Power Systems, PowerPC 601, PowerPC 604, pSeries, RS/6000, SP, System I, System p, System p5 and WebSphere are trademarks or registered trademarks of International Business Machines Corporation in the United States or other countries or both. A full list of US trademarks owned by IBM may be found at <http://www.ibm.com/legal/copytrade.shtml>.

UNIX is a registered trademark of The Open Group in the United States, other countries or both.

Linux is a registered trademark of Linus Torvalds in the United States, other countries or both.

Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States and/or other countries.

TPC-C is a trademark of the Transaction Processing Council (TPPC).

SPECint, SPECp, SPECjbb, SPECweb, SPECAppServer, SPEC OMP, SPECviewperf, SPECcapc, SPECpc, SPECjvm, SPECmail, SPECimap and SPECsfs are trademarks of the Standard Performance Evaluation Corp (SPEC).

NetBench is a registered of Ziff Davis Media in the United States, other countries or both.

Altivec is a trademark of Freestyle Semiconductor, Inc.

Other company, product, and service names may be trademarks or service marks of others.

IBM hardware products are manufactured from new parts, or new and used parts. Regardless, our warranty terms apply.

This equipment is subject to FCC rules. It will comply with the appropriate FCC rules before final delivery to the buyer.

Information concerning non-IBM products was obtained from the suppliers of these products or other public sources. Questions on the capabilities of the non-IBM products should be addressed with the suppliers.

All performance information was determined in a controlled environment. Actual results may vary. Performance information is provided "AS IS" and no warranties or guarantees are expressed or implied by IBM.

The IBM home page on the Internet can be found at <http://www.ibm.com>.

The Power Systems home page on the Internet can be found at <http://www.ibm.com/systems/power>.

The BladeCenter home page on the Internet can be found at <http://www.ibm.com/systems/bladecenter>.

More information about PowerLinux page on the Internet can be found at <http://www.ibm.com/systems/power/software/linux/powerlinux>

POO03017USEN-85