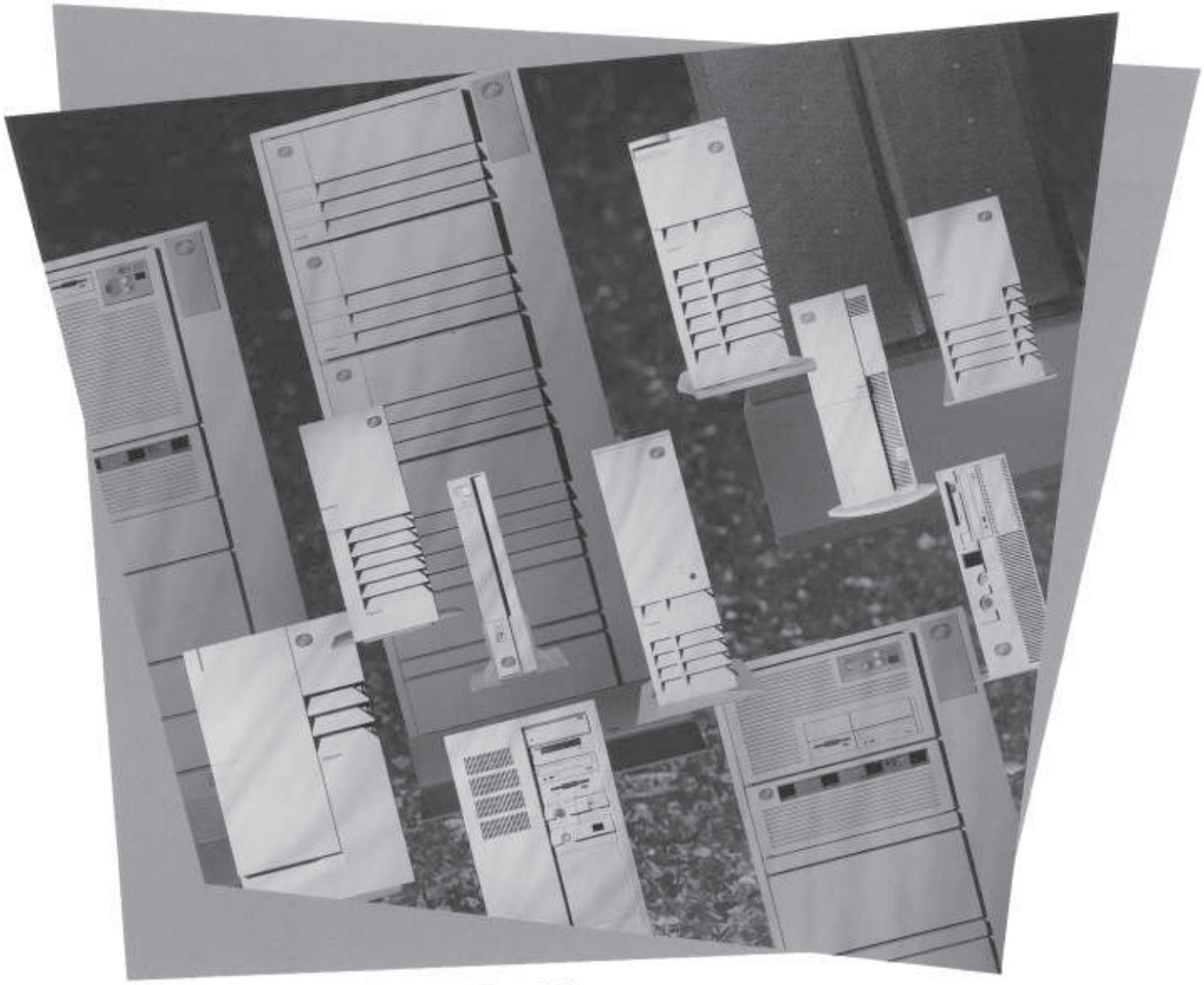
IBM

Servers: Facts and Features

July 1996



RS/6000

RS/6000 servers	***Model 250***	***Model C10***	***Model C20***
Packaging	**desktop**	**deskside**	**deskside**
Microprocessor type	PowerPC 601*	PowerPC 601	PowerPC 604*
Clock rate	66/80 MHz (*option*)	80 MHz	120 MHz
Benchmarks[1]			
SPEC**int_base95	1.69/2.03	2.37[b]	3.85[b]
SPECfp_base95	2.23/2.58	2.97[b]	3.50[b]
SPECint95	1.82/–	–	–
SPECfp95	2.32/–	–	–
SPECint_base_rate95	–	–	–
SPECfp_base_rate95	–	–	–
LINPACK DP (in MFLOPS)	12.7/15.1	20.3[b]	22.7[b]
LINPACK TPP (in MFLOPS)	33.9/40.5	42.4[b]	62.7[b]
tpmC; $/tpmC	–	485.88; 654[b]	–
System memory (standard/maximum)	16MB/256MB	16MB/256MB	16MB/256MB
Memory type	PS/2* ECC SIMM	PS/2 ECC SIMM	PS/2 ECC SIMM
Data/instruction (L1) cache	32KB[a]	32KB[a]	16KB/16KB
Level 2 (L2) cache	–	1MB (option)	1MB (option)
Memory bus width	64-bit	64-bit	64-bit
Memory slots	8	8	8
Disk storage (standard/internal SCSI max.)	0MB/2GB	1GB/6GB	1GB/6GB
With disk arrays and expansion units	>425GB	>650GB	>650GB
Storage interfaces			
SCSI/SCSI-2 and SCSI-2 Differential	X	X	X
SCSI-2 Fast/Wide and SCSI-2 Fast/Wide Differential	X	X	X
SCSI-2 Fast/Wide PCI RAID controller	–	–	–
SSA	–	–	–
Expansion slots available	2 Micro Channel	3 Micro Channel	4 Micro Channel
High-performance Micro Channel* subsystem	80MB/second	80MB/second	80MB/second
PCI bus speed	N/A	N/A	N/A
Communications and connectivity support			
EIA RS232D, EIA RS422, EIA RS422A, MIL-188	X	X	X
Token-Ring	X	X	X
Ethernet**	X	X	X
FDDI	X	X	X
X.25	X	X	X
SDLC	X	X	X
System/370*	–	X	X
Portmaster*	X	X	X
ATM	X	X	X
Fibre Channel	–	–	–
HiPPI	–	–	–
S/390* ESCON*	–	X	–
ARTIC960 Co-Processor	–	X	X
Operating system support	AIX*	AIX	AIX

X=Supported N/A=Not Applicable
[a]Total data and instruction cache [b]Reflects use of largest optional L2 cache
[c]Shared memory [d]Via J01 Expansion Cabinet [e]256KB on Model 43P-100
[f]Per processor [g]Via G02 Expansion Cabinets

RS/6000 servers	***Model 43P Series***	***Model E20***	***Model E30***	***Model F30***
Packaging	**desktop**	**deskside**	**deskside**	**deskside**
Microprocessor type	PowerPC 604	PowerPC 604	PowerPC 604	PowerPC 604
Clock rate	100/120/133 MHz	100 /133 MHz (*option*)	133 MHz	133 MHz
Benchmarks[1]				
SPECint_base95	3.36/4.01/4.55	3.43	4.56	4.56
SPECfp_base95	3.04/3.23/3.59	3.06	3.34	3.34
SPECint95	3.59/4.24/4.72	3.67	4.74	4.74
SPECfp95	3.20/3.41/3.76	3.13	3.49	3.49
SPECint_base_rate95	–	–	–	–
SPECfp_base_rate95	–	–	–	–
LINPACK DP (in MFLOPS)	–/25.5/27.8	23.5	23.1	23.1
LINPACK TPP (in MFLOPS)	56.4/61.0/67.5	62.3	69.0	69.0
tpmC; $/tpmC	–	735.27; 378	–	–
System memory (standard/maximum)	16MB/192MB	16MB/512MB	32MB/960MB	32MB/960MB
Memory type	32-bit SIMM	64-bit ECC DIMM	64-bit ECC DIMM	64-bit ECC DIMM
Data/instruction (L1) cache	16KB/16KB	16KB/16KB	16KB/16KB	16KB/16KB
Level 2 (L2) cache	512KB[e]	512KB	512KB	512KB
Memory bus width	64-bit	64-bit	64-bit	64-bit
Memory slots	6	8	8	8
Disk storage (standard/internal SCSI max.)	1.2GB/5GB	1080MB/13.2GB	2.1GB/13.2GB	2.2GB/40GB
With disk arrays and expansion units	>140GB	400GB	400GB	>425GB
Storage interfaces				
SCSI/SCSI-2 and SCSI-2 Differential	X	X	X	X
SCSI-2 Fast/Wide and SCSI-2 Fast/Wide Differential	X	X	X	X
SCSI-2 Fast/Wide PCI RAID controller	–	X	X	X
SSA	–	–	–	–
Expansion slots available	3 ISA, 2 PCI/ISA	5 PCI, 2 ISA, 1 PCI/ISA	5 PCI, 2 ISA, 1 PCI/ISA	3 PCI, 3 ISA, 4 PCI/ISA
High-performance Micro Channel subsystem	N/A	N/A	N/A	N/A
PCI bus speed	33 MHz	33 MHz	33 MHz	33 MHz
Communications and connectivity support				
EIA RS232D, EIA RS422, EIA RS422A, MIL-188	X	X	X	X
Token-Ring	X	X	X	X
Ethernet	X	X	X	X
FDDI	–	–	–	–
X.25	X	X	X	X
SDLC	X	X	X	X
System/370	–	–	–	–
Portmaster	–	–	–	–
ATM	–	–	–	–
Fibre Channel	–	–	–	–
HiPPI	–	–	–	–
S/390 ESCON	–	–	–	–
ARTIC960 Co-Processor	–	–	–	–
Operating system support	AIX, Windows NT** (PowerPC Ed.)	AIX, Windows NT (PowerPC Ed.)	AIX, Windows NT (PowerPC Ed.)	AIX, Windows NT (PowerPC Ed.)

X=Supported N/A=Not Applicable
[a]Total data and instruction cache [b]Reflects use of largest optional L2 cache
[c]Shared memory [d]Via J01 Expansion Cabinet [e]256KB on Model 43P-100
[f]Per processor [g]Via G02 Expansion Cabinets

RS/6000 servers	***Model 390***	***Model 39H***	***Model G40***
Packaging	**desktop**	**desktop**	**mini-tower**
Microprocessor type	POWER2	POWER2	PowerPC 604
Clock rate	67 MHz	67 MHz	1-way, 2-way, 4-way 112 MHz
Benchmarks[1]			(1, 2, 4-way)
SPECint_base95	3.12[b]	3.29[b]	–
SPECfp_base95	7.35[b]	9.61[b]	–
SPECint95	3.25[b]	3.42[b]	–
SPECfp95	7.71[b]	10.2[b]	–
SPECint_base_rate95	–	–	–
SPECfp_base_rate95	–	–	–
LINPACK DP (in MFLOPS)	55.1[b]	133.6[b]	–
LINPACK TPP (in MFLOPS)	182.8[b]	231.3[b]	–
tpmC; $/tpmC	–	–	–
System memory (standard/maximum)	32MB/512MB	64MB/512MB	64MB/1GB[c]
Memory type	IBM 40-bit ECC SIMM	IBM 40-bit ECC SIMM	72-bit JEDEC SIMM
Data/instruction (L1) cache	64KB/32KB	128KB/32KB	16KB/16KB[f]
Level 2 (L2) cache	0.5MB or 1MB (*options*)	1MB or 2MB (*options*)	0.5MB[f]
Memory bus width	64-bit	128-bit	256-bit
Memory slots	2	2	1
Disk storage (standard/internal SCSI max.)	2GB/9GB	2GB/13.5GB	2.2GB/13.5GB, 121.5GB[g]
With disk arrays and expansion units	>870GB	>870GB	>1.7TB
Storage interfaces			
SCSI/SCSI-2 and SCSI-2 Differential	X	X	X
SCSI-2 Fast/Wide and SCSI-2 Fast/Wide Differential	X	X	X
SCSI-2 Fast/Wide PCI RAID controller	–	–	–
SSA	X	X	X
Expansion slots available	4 Micro Channel	4 Micro Channel	5 Micro Channel
High-performance Micro Channel subsystem	160MB/second	160MB/second	160MB/second
PCI bus speed	N/A	N/A	N/A
Communications and connectivity support			
EIA RS232D, EIA RS422, EIA RS422A, MIL-188	X	X	X
Token-Ring	X	X	X
Ethernet	X	X	X
FDDI	X	X	X
X.25	X	X	X
SDLC	X	X	X
System/370	X	X	X
Portmaster	X	X	X
ATM	X	X	X
Fibre Channel	–	–	–
HiPPI	–	–	–
S/390 ESCON	X	X	X
ARTIC960 Co-Processor	X	X	X
Operating system support	AIX	AIX	AIX

X=Supported N/A=Not Applicable
[a]Total data and instruction cache [b]Reflects use of largest optional L2 cache
[c]Shared memory [d]Via J01 Expansion Cabinet [e]256KB on Model 43P-100
[f]Per processor [g]Via G02 Expansion Cabinets

RS/6000 servers	***Model 590***	***Model 59H***	***Model 591***
Packaging	**deskside**	**deskside**	**deskside**
Microprocessor type	POWER2	POWER2	POWER2
Clock rate	66 MHz	66 MHz	77 MHz
Benchmarks[1]			
SPECint_base95	3.19	3.25	3.67
SPECfp_base95	9.69	9.23	11.2
SPECint95	3.33	3.37	3.84
SPECfp95	10.4	9.80	12.4
SPECint_base_rate95	–	–	–
SPECfp_base_rate95	–	–	–
LINPACK DP (in MFLOPS)	131.8	132.0	156.0
LINPACK TPP (in MFLOPS)	237.2	227.1	274.4
tpmC; $/tpmC	–	–	–
System memory (standard/maximum)	64MB/2GB	64MB/2GB	64MB/2GB
Memory type	IBM 40-bit ECC SIMM	IBM 40-bit ECC SIMM	IBM 40-bit ECC SIMM
Data/instruction (L1) cache	256KB/32KB	128KB/32KB	256KB/32KB
Level 2 (L2) cache	–	1MB	–
Memory bus width	256-bit	128-bit	256-bit
Memory slots	8	8	8
Disk storage (standard/internal SCSI max.)	2GB/27GB	4GB/27GB	2GB/27GB
With disk arrays and expansion units	>2TB	>2TB	>2TB
Storage interfaces			
SCSI/SCSI-2 and SCSI-2 Differential	X	X	X
SCSI-2 Fast/Wide and SCSI-2 Fast/Wide Differential	X	X	X
SCSI-2 Fast/Wide PCI RAID controller	–	–	–
SSA	X	X	X
Expansion slots available	7 Micro Channel	7 Micro Channel	7 Micro Channel
High-performance Micro Channel subsystem	160MB/second	160MB/second	160MB/second
PCI bus speed	N/A	N/A	N/A
Communications and connectivity support			
EIA RS232D, EIA RS422, EIA RS422A, MIL-188	X	X	X
Token-Ring	X	X	X
Ethernet	X	X	X
FDDI	X	X	X
X.25	X	X	X
SDLC	X	X	X
System/370	X	X	X
Portmaster	X	X	X
ATM	X	X	X
Fibre Channel	X	X	X
HiPPI	X	X	X
S/390 ESCON	X	X	X
ARTIC960 Co-Processor	X	X	X
Operating system support	AIX	AIX	AIX

X=Supported N/A=Not Applicable
[a]Total data and instruction cache [b]Reflects use of largest optional L2 cache
[c]Shared memory [d]Via J01 Expansion Cabinet [e]256KB on Model 43P-100
[f]Per processor [g]Via G02 Expansion Cabinets

RS/6000 servers	***Model J40***	***Model R20***	***Model R24***	***Model R40***
Packaging	**deskside**	**rack drawer**	**rack drawer**	**rack drawer**
Microprocessor type	Dual PowerPC 604 2-way to 8-way	POWER2	POWER2	Dual PowerPC 604 2-way to 8-way
Clock rate	112 MHz	66 MHz	71.5 MHz	112MHz
Benchmarks[1]	(2, 4, 6, 8-way)			(2, 4, 6, 8-way)
SPECint_base95	–	3.25	3.32	–
SPECfp_base95	–	9.23	9.47	–
SPECint95	–	3.37	3.47	–
SPECfp95	–	9.80	10.2	–
SPECint_base_rate95	64.9, 129, 195, 244	–	–	64.9, 129, 195, 244
SPECfp_base_rate95	53.4, 102, 154, 189	–	–	53.4, 102, 154, 189
LINPACK DP (in MFLOPS)	–	132.0	141.0	–
LINPACK TPP (in MFLOPS)	–	227.1	245.3	–
tpmC; $/tpmC	5774.07; 243 (8-way)	–	1470.06; 666	5774.07; 248 (8-way)
System memory (standard/maximum)	128MB/2GB[c]	128MB/2GB	128MB/2GB	128MB/2GB[c]
Memory type	72-bit JEDEC SIMM	IBM 40-bit ECC SIMM	IBM 40-bit ECC SIMM	72-bit JEDEC SIMM
Data/instruction (L1) cache	16KB/16KB[f]	128KB/32KB	128KB/32KB	16KB/16KB[f]
Level 2 (L2) cache	1MB[f]	1MB	2MB	1MB[f]
Memory bus width	256-bit	128-bit	128-bit	256-bit
Memory slots	4	8	8	4
Disk storage (standard/internal SCSI max.)	4.5GB/36GB, 99GB[d]	1GB/4GB	4GB/18GB	2.2GB/2.2GB, 38GB[g]
With disk arrays and expansion units	>3.4TB	>2TB	>4.5TB	>4.5TB
Storage interfaces				
SCSI/SCSI-2 and SCSI-2 Differential	X	X	X	X
SCSI-2 Fast/Wide and SCSI-2 Fast/Wide Differential	X	X	X	X
SCSI-2 Fast/Wide PCI RAID controller	–	–	–	–
SSA	X	X	X	X
Expansion slots available	6+8[d] Micro Channel	8 Micro Channel	15 Micro Channel	15 Micro Channel
High-performance Micro Channel subsystem	160MB/second	160MB/second	160MB/second	160MB/second
PCI bus speed	N/A	N/A	N/A	N/A
Communications and connectivity support				
EIA RS232D, EIA RS422, EIA RS422A, MIL-188	X	X	X	X
Token-Ring	X	X	X	X
Ethernet	X	X	X	X
FDDI	X	X	X	X
X.25	X	X	X	X
SDLC	X	X	X	X
System/370	X	X	X	–
Portmaster	X	X	X	X
ATM	X	X	X	X
Fibre Channel	–	X	X	–
HiPPI	–	X	X	–
S/390 ESCON	X	X	X	X
ARTIC960 Co-Processor	X	X	X	X
Operating system support	AIX	AIX	AIX	AIX

X=Supported N/A=Not Applicable
[a]Total data and instruction cache [b]Reflects use of largest optional L2 cache
[c]Shared memory [d]Via J01 Expansion Cabinet [e]256KB on Model 43P-100
[f]Per processor [g]Via G02 Expansion Cabinets

RS/6000 server	***Scalable POWERparallel Systems* (SP* systems)***		
Packaging (nodes in freestanding frame)	**66 Thin 2 nodes**	**77 Wide nodes**	**604 High nodes**
Microprocessor type	POWER2	POWER2	Dual PowerPC 604
Number of nodes/system	2-128[i]	2-128[i]	1-16
Clock rate	66 MHz	77 MHz	112 MHz
Benchmarks[1]			(2, 4, 6, 8-way)
SPECint_base95	3.29[b]	3.67	–
SPECfp_base95	9.61[b]	11.2	–
SPECint95	3.42[b]	3.84	–
SPECfp95	10.2[b]	12.4	–
SPECint_base_rate95	–	–	64.9, 129, 195, 244
SPECfp_base_rate95	–	–	53.4, 102, 154, 189
LINPACK DP (in MFLOPS)	133.6[b]	156.0	–
LINPACK TPP (in MFLOPS)	231.3[b]	274.4	–
tpmC; $/tpmC	–	–	–
System memory (standard/maximum)	64MB/512MB[h]	64MB/2GB[h]	64MB/2GB[c,h]
Memory type	IBM 40-bit ECC SIMM	IBM 40-bit ECC SIMM	72-bit JEDEC SIMM
Data/instruction (L1) cache	128KB/32KB[h]	256KB/32KB[h]	16KB/16KB[f,h]
Level 2 (L2) cache	2MB *(option)*[h]	–	1MB[h]
Memory bus width	128-bit	256-bit	256-bit
Memory slots	2	8	4
Disk storage (standard/internal SCSI max.)	1GB/9GB[h]	1GB/18GB[h]	2.2GB/6.6GB[h]
With disk arrays and expansion units	>870GB[h]	>2TB[h]	>3.4TB[h]
Storage interfaces			
SCSI/SCSI-2 and SCSI-2 Differential	X	X	X
SCSI-2 Fast/Wide and Differential Fast/Wide	X	X	X
SCSI-2 Fast/Wide PCI RAID controller	–	–	–
SSA	X	X	X
Expansion slots available	4 Micro Channel[h]	7 Micro Channel[h]	14 Micro Channel[h]
High-performance Micro Channel subsystem	160MB/second	160MB/second	160MB/second
PCI bus speed	N/A	N/A	N/A
Communications and connectivity support			
EIA RS232D, EIA RS422, EIA RS422A, MIL-188	†	†	†
Token-Ring	X	X	X
Ethernet	X	X	X
FDDI	X	X	X
X.25	†	†	†
SDLC	–	–	–
System/370	X	X	X
Portmaster	†	†	†
ATM	X	X	X
Fibre Channel Adapter/1063	X	X	X
HiPPI	–	X	X
S/390 ESCON	X	X	X
ARTIC960 Co-Processor Adapter	–	–	–
Operating system support	AIX	AIX	AIX

X=Supported N/A=Not Applicable †Supported via special request (RPQ)
[a]Total data and instruction cache [b]Reflects use of largest optional L2 cache
[c]Shared memory [d]Via J01 Expansion Cabinet [e]256KB on Model 43P-100
[f]Per processor [g]Via G02 Expansion Cabinets

RS/6000 server options

Devices	250/ 25S	C10	C20	43P	E20	E30	F30	390	39H	G40
Disk Drives and Subsystems										
7203-001 Portable Disk Drive	X	X	X	X	X	X	X	X	X	X
7204-215/315/317/325 External Disk Drive	X	X	X	X	–	–	–	X	X	X
7134-010 High Density SCSI Subsystem	–	X	X	–	–	–	–	X	X	X
7133 Serial Storage Architecture (SSA) Disk Subsystem	–	–	–	–	–	–	–	X	X	X
7131-105 SCSI Multi-Storage Tower	X	X	X	X	X	X	X	X	X	X
7131-405 SSA Multi-Storage Tower	–	–	–	–	–	–	–	X	X	X
7135 RAIDiant Array	X	X	X	–	–	–	–	X	X	–
7137 Disk Array Subsystem	X	X	X	X	X	X	X	X	X	X
7027 High Capacity Storage Drawer	–	–	–	–	X	X	X	–	–	–
7012-G02 Expansion Cabinet	–	–	–	–	–	–	–	–	–	X
Optical Drives and Libraries										
3995-A63/063/163 Optical Library	X	X	X	X	X	X	X	X	X	X
3995-C60/C62/C64/C66/C68 Optical Library	X	X	X	X	X	X	X	X	X	X
7210-010 CD-ROM Drive	X	X	X	X	X	X	X	X	X	X
Quad-speed CD-ROM (internal)	–	X	X	X	X	X	X	X	X	X
NFS Accelerator**										
0562-004 Prestoserve** for AIX	–	–	–	–	–	–	–	X	X	X
Tape Drives and Libraries										
7206-005 4 mm Tape	X	X	X	X	X	X	X	X	X	X
7207-012 1/4-inch Cartridge Tape	X	X	X	X	X	X	X	X	X	X
7208-011 8 mm Tape	X	X	X	X	X	X	X	X	X	X
9348-012 Magnetic Tape Unit (1/2-inch 9-track)	X	X	X	–	–	–	–	X	X	X
3490-E01 1/2-inch (Cartridge 36-track)	X	X	X	–	–	–	–	X	X	–
3490-E11 1/2-inch (Cartridge 36-track)	–	X	X	–	–	–	–	X	X	X
3490-C11/C22 1/2-inch (Cartridge 36-track)	X	X	X	–	–	–	–	X	X	X
3490-AXX/BXX/C10 1/2-inch (Cartridge 36-track)	X	X	–	–	–	–	–	X	X	–
3494-L10/L12 Tape Library Dataserver	X	X	X	–	–	–	–	X	X	X
3590-B11 Magstar Tape Unit	–	X	X	–	–	–	–	X	X	X
7331-205 8 mm Tape Library	X	X	X	–	X	X	X	X	X	X
7336-205 4 mm Tape Library	X	X	X	X	X	X	X	X	X	X
3495-L20 Tape Library Dataserver	X	X	–	–	–	–	–	X	X	–
7332-005 4 mm Tape DDS-2 Tape Autoloader	X	X	X	–	X	X	X	X	X	X
1.2GB 1/4-inch Cartridge Tape Drive (internal)	–	X	X	–	–	–	–	X	X	–
4GB 4 mm Tape Drive (internal)	–	X	X	X	X	X	X	X	X	X
5GB 8 mm Tape Drive (internal)	–	X	X	–	–	–	X	X	X	X
24/48GB 4 mm DDS-2 Tape Autoloader (internal)	–	–	–	–	–	–	X	–	–	–
Communications Subsystems										
7318 Serial Communication Network Server Model P10/S20	X	X	X	–	X	X	X	X	X	X
7319-110 Fibre Channel Switch 16/1063	–	–	–	–	–	–	–	–	–	–

X = Available or standard feature
Note: For the devices listed, not all models are supported on all server systems. For more information, contact your IBM marketing representative or Business Partner.

RS/6000 server options

Devices	590	59H	591	J40	R20	R24	R40	SP
Disk Drives and Subsystems								
7203-001 Portable Disk Drive	X	X	X	X	X	X	X	X
7204-215/315/317/325 External Disk Drive	X	X	X	X	X	X	X	X
7134-010 High Density SCSI Subsystem	X	X	X	X	X	X	X	X
7133 Serial Storage Architecture (SSA) Disk Subsystem	X	X	X	X	X	X	X	X
7131-105 SCSI Multi-Storage Tower	X	X	X	X	–	–	X	X
7131-405 SSA Multi-Storage Tower	X	X	X	X	–	–	X	X
7135 RAIDiant Array	X	X	X	–	X	X	X	X
7137 Disk Array Subsystem	X	X	X	X	X	X	X	X
7027 High Capacity Storage Drawer	–	–	–	–	X	X	X	–
7012-G02 Expansion Cabinet	–	–	–	–	X	X	X	–
Optical Drives and Libraries								
3995-A63/063/163 Optical Library	X	X	X	X	X	X	X	X
3995-C60/C62/C64/C66/C68 Optical Library	X	X	X	X	–	–	–	X
7210-010 CD-ROM Drive	X	X	X	X	X	X	X	X
Quad-speed CD-ROM (internal)	X	X	X	X	X	X	X	–
NFS Accelerator								
0562-004 Prestoserve for AIX	X	X	X	X	X	X	X	–
Tape Drives and Libraries								
7206-005 4 mm Tape	X	X	X	X	X	X	X	X
7207-012 1/4-inch Cartridge Tape	X	X	X	X	X	X	X	X
7208-011 8 mm Tape	X	X	X	X	X	X	X	X
9348-012 Magnetic Tape Unit (1/2-inch 9-track)	X	X	X	X	–	–	–	X
3490-E01 1/2-inch (Cartridge 36-track)	X	X	X	–	X	X	–	X
3490-E11 1/2-inch (Cartridge 36-track)	X	X	X	X	X	X	X	X
3490-C11/C22 1/2-inch (Cartridge 36-track)	X	X	X	X	X	X	X	X
3490-AXX/BXX/C10 1/2-inch (Cartridge 36-track)	X	X	X	–	X	X	–	X
3494-L10/L12 Tape Library Dataserver	X	X	X	X	X	X	X	X
3590-B11 Magstar Tape Unit	X	X	X	X	X	X	X	X
7331-205 8 mm Tape Library	X	X	X	X	X	X	X	X
7336-205 4 mm Tape Library	X	X	X	X	X	X	X	X
3495-L20 Tape Library Dataserver	X	X	X	–	X	X	–	X
7332-005 4 mm Tape DDS-2 Tape Autoloader	X	X	X	X	X	X	X	X
1.2GB 1/4-inch Cartridge Tape Drive (internal)	X	X	X	–	X	X	X	–
4GB 4 mm Tape Drive (internal)	X	X	X	X	X	X	X	–
5GB 8 mm Tape Drive (internal)	X	X	X	X	X	X	X	–
24/48GB 4 mm DDS-2 Tape Autoloader (internal)	–	–	–	–	X	X	X	–
Communications Subsystems								
7318 Serial Communication Network Server Model P10/S20	X	X	X	X	X	X	X	X
7319-110 Fibre Channel Switch 16/1063	X	X	X	–	X	X	–	X

X = Available or standard feature
Note: For the devices listed, not all models are supported on all server systems. For more information, contact your IBM marketing representative or Business Partner.

IBM Services

IBM Services provide the capabilities and solutions you need to manage virtually every aspect of your open systems environment – and at any level you choose. These services complement the support already included with your RS/6000* system. IBM world-class services and support mean you can better manage your resources and focus on what matters most – your business.

IBM customer financing provides an additional incentive. An array of attractive and flexible financing programs eases the acquisition of new technology and helps protect you from the risk of obsolescence.

Project support services

- Operating system porting/conversion
- Operating system migration assistance
- Systems integration
- Software customization (IBM and non-IBM)
- IBM application development
- Site planning services

Continuing support services

- Customer Support Center services
  - Electronic/voice
  - IBM and non-IBM hardware and software
- Onsite software maintenance support
- Capacity planning
- Maintenance services, including multivendor environment
- Technical/application specialists
- Network custom services
- Education

[1] Values shown in the performance benchmarks section are the results of development-level systems using the AIX operating system. All performance data was obtained in a specific environment and is presented "as is" for illustrative purposes only. While these values should be indicative of generally-available systems, no warranties or guarantees are stated or implied by IBM. IBM recommends application-oriented testing for performance predictions and offers the above commonly reported benchmarks only as an initial indicator. Additional information on these tests is available from your IBM local Branch Office or IBM Authorized Reseller.

AIX 4.1 was used with each of these benchmarks. IBM C Set ++** for AIX/6000* 3.1.2 & AIX FORTRAN Version 3.2.2 are the compilers used in these tests. The preprocessors used in the tests include KAP** 2.5 for FORTRAN and KAP/C 1.4.2 from Kuck & Associates and VAST-2** X.03h28 from Pacific-Sierra Research. The preprocessors were purchased separately from these vendors.

SPECint95: SPEC component-level benchmark that measures integer performance. Result is the geometric mean of eight tests that comprise the CINT95 benchmark suite. All of these are written in C language.

SPECint_base95 is the result of the same tests in CINT95 with a maximum of four compiler flags that must be used in all eight tests.

SPECint_base_rate95: Geometric average of the eight SPEC rates from the SPEC integer tests (CINT95) with restrictive compiler options.

SPECfp95: SPEC component-level benchmark that measures floating point performance. Result is the geometric mean of ten tests, all written in FORTRAN, that are included in the CFP95 benchmark suite.

SPECfp_base95 is the result of the same tests in CFP95 with a maximum of four compiler flags that must be used in all ten tests.

SPECfp_base_ rate95: Geometric average of the ten SPEC rates from SPEC floating-point tests (CFP95) with restrictive compiler options.

LINPACK DP: Double precision, n=100 results with AIX XL FORTRAN compiler, with optimization. Units are megaflops (MFLOPS).

LINPACK TPP: Toward Peak Performance, n=1,000 results with AIX XL FORTRAN compiler, with optimization. Units are megaflops (MFLOPS).

tpmC: TPC Benchmark C throughput as measured in transactions per minute during a valid TPC-C** run.

$/tpmC: TPC Benchmark C price-performance ratio where the five year total cost of ownership for hardware, software, and maintenance is divided by the throughput, tpmC.

More information

- Contact your IBM marketing representative or IBM Business Partner.
- Access http://www.rs6000.ibm.com on the Internet to get to the RS/6000 Products and Services page‡ on IBM's World Wide Web server, and then select the Hardware option.
- Call (415) 855-4329, a U.S. phone number, to have information faxed to your location. In the U.S., call 1 800 IBM-4FAX (1 800 426-4329).

© International Business Machines Corporation 1996

IBM Corporation
Department PDQA
RS/6000 Division
Route 100
P.O. Box 100
Somers, New York 10589

Printed in the United States of America
7-96
All Rights Reserved

References in this publication to IBM products or services do not imply that IBM intends to make them available in all countries in which IBM operates.

Photographs show engineering and design models. Changes may be incorporated in production models.

Copying or downloading the images contained in this document is expressly prohibited without the written consent of IBM.

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

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

* The following are trademarks or registered trademarks of the IBM Corporation in the United States or other countries or both: IBM, AIX, AIX/6000, C Set++, ESCON, Micro Channel, Portmaster, PowerPC 601, PowerPC 604, PS/2, RS/6000, S/390, Scalable POWERparallel Systems, SP, and System/370.

** Windows NT is a trademark or registered trademark of Microsoft Corporation. Other company, product, and service names, which are denoted by a double asterisk, may be trademarks or service marks of others.

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

Worldwide telephone numbers

IBM Asia Pacific	
Australia	132-426x RS/INFO
Bangladesh	880-2-889-783
China (PRC)	
Beijing	10-437-6677 x CRC
Guangzhou	20-778-7268 x CRC
Shanghai	21-6280-1070 x CRC
Hong Kong	852-2825-7878
India (TATA)	080-526-9050
Indonesia	21-251-2922
Japan	0120-00-6025
Korea	02-781-7114
Malaysia	03-717-7788
New Zealand	0800-801-800
Philippines	02-819-2426
Singapore	1-800-320-1234
Sri Lanka	01-440810
Taiwan	080-011011
Thailand	02-273-4444
Vietnam	
Hanoi	84-4-426316
Ho Chi Minh	84-8-241474

IBM Europe, Middle East, or Africa	
Albania	35-542-32025
Austria	43-1-21145-2500
Belgium	32-2-225-3600
Bosnia	38-771-219388
Bulgaria	3592-731076
Croatia	3851-6124500
Czech Republic	422-6710-6111
Denmark	4545-8031-6000
Egypt	202-3492533
Finland	358-9800-42680
France	33-16-3883-4141
FYR of Macedonia	38991-113144
Germany	49-0180-55090
Greece	30-1-688-1476
Hungary	361-1654422
Ireland	353-18-5020-5205
Israel	972-177-022-3888
Italy	39-167-016338
Netherlands	31-20-513-5151

(IBM Europe, Middle East, or Africa, cont.)	
Norway	47-6699-9191
Poland	482-625-1010
Portugal	351-1-7915880
Romania	401-6158267
Russia	431-21145-5726
Saudi Arabia	966-02-600007
Slovakia	427-7806-111
Slovanija	38661-1252154
SouthAfrica	27-800-128-128
Spain	34-901-100-400
Sweden	46-2022-0203
Switzerland	41-155-1225
Turkey	90-212-2800900
UK	01705-492149
Ukraine	38044-2270225

IBM Latin America	
Argentina	319-6666
Bolivia	591-2-361-555
Brazil	0800-11-1426 x317
Chile	800-216-216, or 56-2-200-60-64
Colombia	9800-17555
Costa Rica	506-223-6222
Dominican	809-566-5161
Ecuador	593-432-1444 x228
El Salvador	503-298-5011
Guatemala	502-231-58-59
Honduras	504-322-309
Mexico	(5) 627-2444 x3333
Nicaragua	505-266-4141
Panama	507-263-9977
Paraguay	595-21-444-094 x210
Peru	511-349-0050
Uruguay	2-92-36-17
Venezuela	800-33-426

IBM North America	
Canada	1-800-363-RISC (1-800-363-7472)
United States	1-800-IBM-CALL (1-800-426-2255)

G320-9878-20 / G3209878