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RS/6000 Facts and Features

October 1998







RS/6000™ model	140	150
Machine type	7043	7043
Microprocessor type	PowerPC 604e [™]	PowerPC 604e
# processors/system	1	1
Clock rates available (standard/option)	233/332MHz	375MHz
System memory (standard/maximum)	64MB/768MB	128MB/1GB
Memory type	64-bit ECC DIMM	64-bit ECC DIMM
Data/instruction (L1) cache	32KB/32KB	32KB/32KB
Level 2 (L2) cache	1MB	1MB
Memory slots	6	4
Reliability, availability, serviceability		
Service processor Hot-swappable disks (internal)	_	-
Capacity Clate environment		E DOI
Slots available High-performance Micro Channel [®] subsystem	3 PCI+2 PCI/ISA N/A	5 PCI N/A
PCI bus speed	33MHz	33MHz
Disk/media bays	5	5
Standard/maximum internal	4.5GB/27.3GB	4.5GB/27.3GB
Storage interfaces	·	·
SCSI-2 Fast/Wide SE and SCSI-2 Fast/Wide Differential	Х	Х
SCSI-2 Fast/Wide RAID-5	_	_
Ultra SCSI SE and Ultra SCSI Differential	Х	Х
SSA 8-way non-RAID (MCA)	_	-
SSA 8-way JBOD/2-way RAID EL (PCI and MCA)	Х	Х
Fibre Channel	_	-
Communications and connectivity		
EIA RS232D/EIA RS422A	X	X
Token-Ring 4/16 Mbps	X	X
Ethernet [®] 10 Mbps	X X	X X
Ethernet 10/100 Mbps Gigabit Ethernet	^ _	^ _
FDDI 100 Mbps	Х	Х
ATM 25 Mbps	X	X
ATM 155 Mbps	Х	Х
ISDN	Х	Х
X.25	X	X
SDLC	X	Х
BSC SP System Attachment	Х	=
3270 Connection	_	_
ESCON®	_	_
Block Multiplexer	_	-
HIPPI 100 Mbps	_	-
T1/E1 ^e	X	-
Telephony ^e	Х	-
Graphics adapters available	MVP, GXT120P, 250/ 255P, 550P, 800P	GXT 120P, 250/255P, 550P, 3000P
Benchmarks (see page 13)		
SPEC [®] web96	_/_	_
SPECint_base95	8.29 ^d /12.2	14.5
SPECfp_base95	5.48 ^d /5.99	9.85
SPECint95	9.24 ^d /12.9	15.1
SPECfp95		10.1
	5.75 ^d /6.21	10.1
	5.75°/6.21 -	_
SPECfp_base_rate95	5.75°/6.21 _ _ _	- -
SPECfp_base_rate95 TPC-C:tpmC; \$/tpmC	5.75°/6.21 - - -	- - -
SPECint_base_rate95 SPECfp_base_rate95 TPC-C:tpmC; \$/tpmC TPC-D:QppD,QthD (@ 100GB) TPC-D:\$/QphD (@ 100GB)	5.75°/6.21 	- - - -



RS/6000™ model	240	260	397
Machine type	7043	7043	7012
Microprocessor type	PowerPC 604e	POWER3	POWER2 SC
# processors/system	1 or 2	1 or 2	1
Clock rates available (standard/option)	233MHz	200MHz	160MHz
System memory (standard/maximum)	64MB/1GB ^a	256MB/4GB ^a	128MB/1GB
lemory type	64-bit ECC DIMM	128-bit ECC DIMM	40-bit ECC SIMM
Data/instruction (L1) cache	32KB/32KB ^b	64KB/32KB ^b	256KB/32KB
evel 2 (L2) cache //emory slots	1MB ^b 8	4MB ^b 32 (2 memory card slots,	4
lemory slots	0	16 slots/card)	4
leliability, availability, serviceability		· · ·	
Service processor	-	Х	-
lot-swappable disks (internal)	-	-	-
Capacity			
Slots available	3 PCI+2 ISA	2 PCI (64-bit)+3 PCI (32-bit)	
ligh-performance Micro Channel [®] subsystem	N/A	N/A	80MB/second
PCI bus speed Disk/media bays	33/50MHz	33/50MHz	N/A
Standard/maximum internal	5 4.5GB/27.3GB	5 4.5GB/27.3GB	5 4.5GB/27.3GB
Storage interfaces	1.000/21.000	1.000/21.000	1.000/21.000
SCSI-2 Fast/Wide SE and SCSI-2 Fast/Wide Differential	Х	Х	Х
SCSI-2 Fast/Wide RAID-5	_	_	-
Iltra SCSI SE and Ultra SCSI Differential	Х	Х	_
SA 8-way non-RAID (MCA)		- 	X
SA 8-way JBOD/2-way RAID EL (PCI and MCA) ibre Channel	X _	X _	X _
Communications and connectivity			
EIA RS232D/EIA RS422A	Х	Х	Х
oken-Ring 4/16 Mbps	Х	Х	Х
thernet [®] 10 Mbps	Х	Х	Х
thernet 10/100 Mbps	Х	Х	Х
Bigabit Ethernet	-	X	-
DDI 100 Mbps	Х	X	Х
TM 25 Mbps	X	X	-
TM 155 Mbps SDN	X X	X X	X X
	X	Â	X
DLC	X	X	X
ISC	_	X	X
P System Attachment	_	_	_
270 Connection	-	-	Х
SCON®	_	_	Х
Block Multiplexer	_	-	Х
IIPPI 100 Mbps	-	_	-
1/E1 ^e elephony ^e	_	×	-
Graphics adapters available		GYT 120P 250/255P	 GXT150M, 800M
arapinus avapiers availdble	255P, 550P, 800P	GXT 120P, 250/255P, 3000P	
Benchmarks (see page 13)	(1, 2-way)	(1, 2-way)	
SPEC [®] web96			
PECint_base95	7.80	12.5	7.77
PECfp_base95	5.60	27.6	23.0
PECint95	8.71	13.2	8.62
PECfp95 PECint base rate95	5.87 69.9, 132	30.1 111, 222	26.6
PECINT_base_rate95 PECfp_base_rate95	69.9, 132 50.1, 89.5	243, 468	-
PECIP_base_rate95 PC-C:tpmC; \$/tpmC		-	_
PC-D:QppD,QthD (@ 100GB)	_	_	_
PC-D:\$/QphD (@ 100GB)	_	_	-





RS/6000 model	E30	F40
Machine type	7024	7025
Microprocessor type	PowerPC 604	PowerPC 604e
# processors/system	1	1 or 2
Clock rates available (standard/option)	233MHz	233MHz
System memory (standard/maximum)	64MB/1GB	64MB/1GB ^a
Memory type	64-bit ECC DIMM	64-bit ECC DIMM
Data/instruction (L1) cache Level 2 (L2) cache	16KB/16KB 0.5MB	32KB/32KB ^b 1MB ^b
Memory slots	8	8
Reliability, availability, serviceability		-
Service processor	X (option)	X (option)
Hot-swappable disks (internal)	_	X
Capacity		
Slots available	5 PCI, 2 ISA, + 1 PCI/ISA	7 PCI + 2 PCI/ISA
High-performance Micro Channel subsystem	N/A	N/A
PCI bus speed	33MHz	33/50MHz
Disk/media bays Standard/maximum internal	8	22 4500/172900
	4.5GB/54.6GB	4.5GB/172.8GB
Storage interfaces SCSI-2 Fast/Wide SE and SCSI-2 Fast/Wide Differential	Х	Х
SCSI-2 Fast/Wide SE and SCSI-2 Fast/Wide Differential SCSI-2 Fast/Wide RAID-5	× _	X
Ultra SCSI SE and Ultra SCSI Differential	×	X
SSA 8-way non-RAID (MCA)	_	_
SSA 8-way JBOD/2-way RAID EL (PCI and MCA)	Х	Х
Fibre Channel	_	_
Communications and connectivity		
EIA RS232D/EIA RS422A	Х	Х
Token-Ring 4/16 Mbps	Х	Х
Ethernet 10 Mbps	X	X
Ethernet 10/100 Mbps	Х	Х
Gigabit Ethernet	-	-
FDDI 100 Mbps	X	X
ATM 25 Mbps ATM 155 Mbps	X X	X X
ISDN	X	Â
X.25	x	X
SDLC	X	X
BSC	X	X
SP System Attachment	_	_
3270 Connection	_	_
ESCON	-	-
Block Multiplexer	_	-
HIPPI 100 Mbps	-	-
T1/E1 ^e Telephony ^e	_	X
		X
Graphics adapters available	GXT110P, 250P	MVP, GXT120P, 250/ 255P, 550P, 800P
Benchmarks (see page 13)		(1, 2-way)
SPECweb96	_	(1, 2-way) -
SPECint_base95	8.46	7.80
SPECfp_base95	5.71	5.60
SPECint95	9.41	8.71
SPECfp95	6.01	5.87
SPECint_base_rate95	-	69.9, 132
SPECfp_base_rate95	_	50.1, 89.5
TPC-C:tpmC; \$/tpmC	-	-
TPC-D:QppD,QthD (@ 100GB)	-	-
TPC-D:\$/QphD (@ 100GB) Relative OLTP performance	_ 4.7	_ 3.7, 5.2
	7.1	0.1, 0.2

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RS/6000 model	F50	H50
Machine type	7025	7026
Microprocessor type	PowerPC 604e	PowerPC 604e
# processors/system	1, 2, 3, or 4	1, 2, 3, or 4
Clock rates available (standard/option)	166/332MHz	332MHz
System memory (standard/maximum)	128MB/3GB ^a	128MB/3GB ^a
Memory type	16-, 64-bit ECC SDRAM	16-, 64-bit ECC SDRAM
Data/instruction (L1) cache	32KB/32KB ^b	32KB/32KB ^b
Level 2 (L2) cache	256KB ^b	256KB ^b
Memory slots	2	2
Reliability, availability, serviceability		
Service processor	X	X
Hot-swappable disks (internal)	Х	Х
Capacity		
Slots available	7 PCI + 2 PCI/ISA	7 PCI + 2 PCI/ISA
High-performance Micro Channel subsystem	N/A	N/A
PCI bus speed	33/50MHz	33/50MHz
Disk/media bays	18/4	13/3
Standard/maximum internal	4.5GB/172.8GB	4.5GB/118.2GB
Storage interfaces		
SCSI-2 Fast/Wide SE and SCSI-2 Fast/Wide Differential	Х	Х
SCSI-2 Fast/Wide RAID-5	Х	-
Ultra SCSI SE and Ultra SCSI Differential	Х	Х
SSA 8-way non-RAID (MCA)		_
SSA 8-way JBOD/2-way RAID EL (PCI and MCA)	X	X
Fibre Channel	X§	X§
Communications and connectivity		
EIA RS232D/EIA RS422A	X	X
Token-Ring 4/16 Mbps	X	X
Ethernet 10 Mbps	X	X
Ethernet 10/100 Mbps Gigabit Ethernet	X X	X X
FDDI 100 Mbps	x	X
ATM 25 Mbps	X	X
ATM 155 Mbps	X	X
ISDN	X	X
X.25	Х	Х
SDLC	Х	Х
BSC	Х	Х
SP System Attachment	-	-
3270 Connection	-	-
ESCON	Х	Х
Block Multiplexer	-	-
HIPPI 100 Mbps T1/E1 ^e	×	_ X
Telephony ^e	X	X
Graphics adapters available	GXT120P, 800Pf	GXT 120P
Benchmarks (see page 13)	(1, 2, 3, 4-way)	(1, 2, 3, 4-way)
SPECweb96 SPECint base95	2148/2755 (4-way)	2755 (4-way)
SPECIfi_base95	6.79/14.0 8.11/12.1	14.0 12.1
SPECint95	7.52/14.4	14.4
SPECfp95	8.52/12.6	12.6
SPECint base rate95	61.0, 121, -, 241/126, 249, 369, 490	126, 249, 369, 490
SPECfp base rate95	72.8, 143, -, 267/109, 206, 292, 366	109, 206, 292, 366
TPC-C:tpmC; \$/tpmC	8142.40, 63 (4-way, 166MHz)	_
	9853.13, 65 (4-way, 332MHz)	-
TPC-D:QppD,QthD (@ 100GB)		_ 1168.1, 499.1
TPC-D:QppD,QthD (@ 100GB) TPC-D:\$/QphD (@ 100GB) Relative OLTP performance	9853.13, 65 (4-way, 332MHz)	– 1168.1, 499.1 489

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RS/6000 models	R50	\$70	S70 Advanced
Machine type	7015	7017	7017
Microprocessor type # processors/system Clock rates available (standard/option)	Dual PowerPC 604e 2, 4, 6, or 8 200MHz	PowerPC RS64/RS64-II ^h 4, 8, or 12 125MHz/262MHz	PowerPC RS64-II 4, 8, or 12 262MHz
System memory (standard/maximum) Memory type Data/instruction (L1) cache Level 2 (L2) cache Memory slots	256MB/4GB ^a 72-bit JEDEC SIMM 32KB/32KB ^b 2MB ^b 4	512MB/32GB ^a Card-based ECC SDRAM 64KB/64KB ^b 4MB ^b 125MHz/8MB ^b 262MHz 20	1GB/32GB ^a Card-based ECC SDRAM 64KB/64KB ^b 8MB ^b 262MHz 20
Reliability, availability, serviceability	· ·		
Service processor Hot-swappable disks (internal)	X _	X X	X X
Capacity Slots available High-performance Micro Channel subsystem PCI bus speed Disk/media bays Standard/maximum internal	15 Micro Channel 160MB/second N/A 4 4.5GB/18.2GB	53 PCI N/A 33MHz 48/12 4.5GB/436.8GB	53 PCI N/A 33MHz 48/8 9.0GB/436.8GB
Storage interfaces SCSI-2 Fast/Wide SE and SCSI-2 Fast/Wide Differential	Х	Х	Х
SCSI-2 Fast/Wide RAID-5 Ultra SCSI SE and Ultra SCSI Differential SSA 8-way non-RAID (MCA)	- - X	- X -	_ X _
SSA 8-way JBOD/2-way RAID EL (PCI and MCA) Fibre Channel	X -	X X ⁱ	X X ⁱ
Communications and connectivity	N/		
EIA RS232D/EIA RS422A Token-Ring 4/16 Mbps	X X	X X	X X
Ethernet 10 Mbps	X	X	X
Ethernet 10/100 Mbps	X	X	X
Gigabit Ethernet	_	Х	Х
FDDI 100 Mbps	Х	Х	Х
ATM 25 Mbps	_	-	_
ATM 155 Mbps	X	X	X
ISDN	X	X	X
X.25 SDLC	X X	X X	X X
BSC	X	X	X
SP System Attachment	_	X	X
3270 Connection	Х	_	_
ESCON	Х	Х	Х
Block Multiplexer	Х	-	-
HIPPI 100 Mbps	_	_	_
T1/E1° Telephony°	_	X	X
Graphics adapters available	_	GXT120P	GXT120P
Benchmarks (see page 13)	(2, 4, 6, or 8-way)	(4, 8, or 12-way)	(4, 8, or 12-way)
SPECweb96	_	4075 (12-way)/9081 ^j (12-way)	_
SPECint_base95	-	_	-
SPECfp_base95	-	-	-
SPECint95 SPECfp95	_	_	_
SPECint_base_rate95	_ 121, 244, 343, 445	_	_
SPECfp_base_rate95	90.3, 176, 248, 320	_	_
TPC-C:tpmC; \$/tpmC	9165.13; 99 (8-way)	18666.73;109 (12-way)/ 34139.63 ^j ;89 ^j (12-way)	-
TPC-D:QppD,QthD (@ 100GB)	-	-	-
TPC-D:\$/QphD (@ 100GB)			-
Relative OLTP performance	9.3, 17.0, 23.6, 30.6	24.2, 44.0, 62.2/46.0, ¹ 82.7, ¹ 113.8 ¹	40.U, 82.7, 113.8



RS/6000 model		SP™ system (9076)	k
Node type	604e High	160MHz Thin	135MHz Wide
Microprocessor type Minimum/maximum of each node type per system # processors/node Clock rates available (standard/option)	Dual PowerPC 604e 1-64 2, 4, 6 or 8 200MHz	POWER2 SC 2-128 ¹ 1 160MHz	POWER2 SC 2-128 ¹ 1 135MHz
System memory per node (standard/maximum) Memory type Data/instruction (L1) cache Level 2 (L2) cache Memory slots	256MB/4GB ^a 72-bit JEDEC SIMM 32KB/32KB ^b 2MB ^b 4	64MB/1GB 40-bit ECC SIMM 128KB/32KB - 4	64MB/2GB 40-bit ECC SIMM 128KB/32KB – 8
Reliability, availability, serviceability Service processor Hot-swappable disks (internal)	- Xa	– Xa	X ^g
Capacity per node Slots available High-performance Micro Channel subsystem PCI bus speed Disk/media bays Standard/maximum internal	14 Micro Channel 160MB/sec. ^{#, m} N/A 4 4.5GB/18GB	4 Micro Channel 160MB/sec. ^m N/A 2 4.5GB/18.2GB	7 Micro Channel 160MB/sec. ^{#, m} N/A 4 4.5GB/36.4GB
Storage interfaces SCSI-2 Fast/Wide SE and SCSI-2 Fast/Wide Differential SCSI-2 Fast/Wide RAID-5 Ultra SCSI SE and UltraS CSI Differential SSA 8-way non-RAID (MCA) SSA 8-way JBOD/2-way RAID EL (PCI and MCA) Fibre Channel	X - - X X -	X - - X X -	X - - X X -
Communications and connectivity EIA RS232D/EIA RS422A Token-Ring 4/16 Mbps Ethernet 10 Mbps Ethernet 10/100 Mbps Gigabit Ethernet FDDI 100 Mbps ATM 25 Mbps ATM 25 Mbps ISDN X.25 SDLC BSC SP System Attachment 3270 Connection ESCON Block Multiplexer HIPPI 100 Mbps T1/E1 ^e Telephony ^e	X X X X - X - X X X X X X X X X X X X X	X X X X - X - X X X X X X X X X X X X X	X X X X - X - X X X X X X X X X X X X X
Graphics adapters available	-	_	-
Benchmarks (see page 13) SPECweb96 SPECint_base95 SPECfp_base95 SPECfp95 SPECfp95 SPECfp_base_rate95 SPECfp_base_rate95 TPC-C:tpmC; \$/tpmC TPC-D:QppD,QthD (@ 1TB) TPC-D:\$/QphD (@ 1TB) Relative OLTP performance	(2, 4, 6, 8-way) - - - 121, 244, 343, 445 90.3, 176, 248, 320 57, 053.80/147.40° 7633.0, 5155.4° 2095° 9.3, 170, 23.8, 30.6	- 7.77 23.0 8.62 26.6 - - - - 6.7	- 5.90 15.4 6.17 17.6 - - - 5.8





RS/6000 model	SP system				
Node type	332MHz SMP Thin	332MHz SMP Wide			
Microprocessor type Minimum/maximum of each node type per system # processors/node Clock rates available (standard/option)	PowerPC 604e 1-128 ^l 2 or 4 332MHz	PowerPC 604e 1-128 ^l 2 or 4 332MHz			
System memory per node (standard/maximum) Memory type Data/instruction (L1) cache Level 2 (L2) cache Memory slots	256MB/3GB ^a 16-, 64-bit ECC SDRAM 32KB/32KB ^b 256KB ^b 2	256MB/3GB ^a 16-, 64-bit ECC SDRAM 32KB/32KB ^b 256KB ^b 2			
Reliability, availability, serviceability Service processor Hot-swappable disks (internal)	Xg -	– Xa			
Capacity per node Slots available High-performance Micro Channel subsystem PCI bus speed Disk/media bays Standard/maximum internal	2 PCI (32-bit) N/A 33MHz 2 4.5GB/18.2GB	10 PCI (32-bit) N/A 33MHz 4 4.5GB/36.4GB			
Storage interfaces SCSI-2 Fast/Wide SE and SCSI-2 Fast/Wide Differential SCSI-2 Fast/Wide RAID-5 Ultra SCSI SE and Ultra SCSI Differential SSA 8-way non-RAID (MCA) SSA 8-way JBOD/2-way RAID EL (PCI and MCA) Fibre Channel	X - - - X X§	X - - X X§			
Communications and connectivity EIA RS232D/EIA RS422A Token-Ring 4/16 Mbps Ethernet 10 Mbps Ethernet 10/100 Mbps Gigabit Ethernet FDDI 100 Mbps ATM 25 Mbps ATM 25 Mbps ISDN X.25 SDLC BSC SP System Attachment 3270 Connection ESCON Block Multiplexer HIPPI 100 Mbps T1/E1° Telephonye	X X X X X X - X - X - X - X - X - X - - X - - X -	X X X X X X - X - X - X - X - - X -			
Graphics adapters available	-	-			
Benchmarks (see page 13) SPECweb96 SPECint_base95 SPECfp_base95 SPECint95 SPECint_base_rate95 SPECint_base_rate95 TPC-C:tpmC; \$/tpmC TPC-D:QppD,QthD (@ 1TB) TPC-D:\$/QphD (@ 1TB) Relative OLTP performance	(2, 4-way) 2755 (4-way) 14.0 12.1 14.4 12.6 249, 490 206, 366 - - - 17.9, 32.8	(2, 4-way) 2755 (4-way) 14.0 12.1 14.4 12.6 249, 490 206, 366 - - 19137.5, 10661.5 ^p 875 ^p 17.9, 32.8			

RS/6000 system options

	140	150	240	260	397	E30	F40
Disk drives and subsystems 7203-001 Portable Disk	Х	Х	Х	Х	Х	Х	Х
7204 External Disk	Х	Х	Х	Х	Х	Х	Х
7131-105 SCSI Multi-Storage Tower	Х	Х	Х	Х	Х	Х	Х
7131-405 SSA Multi-Storage Tower	Х	Х	Х	Х	Х	Х	Х
7133-020/600 SSA Disk Subsystems	-	Х	_	Х	Х	Х	Х
7137 Disk Array Subsystem	Х	Х	Х	Х	Х	Х	Х
7012-G02 Expansion Cabinet	-	-	_	-	Х	-	_
2105-B09 Versatile Storage Server	-	_	_	_	Х	Х	Х
Optical drives and libraries 3995-Cxx Optical Library	Х	Х	х	Х	Х	Х	Х
7209-003 51/4-inch Writeable Optical Disk	Х	Х	Х	Х	Х	Х	Х
7210-015 External 8X CD-ROM	Х	Х	Х	Х	Х	Х	Х
Tape drives and libraries 7205-311 DLT Tape	Х	Х	х	х	Х	Х	Х
7206-005 4 mm Tape	Х	Х	Х	Х	Х	Х	Х
7206-110 4 mm Tape	Х	Х	Х	Х	Х	Х	Х
7207-012 1.2GB 1/4-inch Tape Cartridge	Х	Х	Х	Х	Х	Х	Х
7207-122 4GB 1/4-inch Tape Cartridge	Х	Х	Х	Х	Х	Х	Х
7207-315 13GB 1/4-inch Tape	Х	Х	Х	Х	Х	Х	Х
7208-341 8 mm Tape	Х	Х	Х	Х	Х	Х	Х
9348-012 Magnetic Tape (1/2-inch 9-track)	Х	Х	Х	Х	Х	Х	Х
3490E-Fxx 1/2-inch Tape Subsystem (18/36-track)	Х	Х	Х	Х	Х	Х	Х
3494-L12/L10/D12/D10 Magstar Tape Library	Х	Х	Х	Х	Х	Х	Х
3570-Bxx Magstar MP Tape	Х	Х	Х	Х	Х	Х	Х
3570-Cxx Magstar MP Tape	Х	Х	Х	Х	Х	Х	Х
3575 Magstar MP Tape Library	Х	Х	Х	Х	Х	Х	Х
3590-B11/C12 Magstar Tape	Х	Х	Х	Х	Х	Х	Х
7331-305 8 mm Tape Library	Х	Х	Х	Х	Х	Х	Х
7332-110 4 mm DDS-3 Tape Autoloader	Х	Х	Х	Х	Х	Х	Х
7337-305/306 DLT Tape Library	Х	Х	Х	Х	Х	Х	Х
4GB/8GB 4 mm Tape (internal)	Х	_	Х	_	Х	Х	Х
12GB/24GB 4 mm Tape (internal)	Х	Х	Х	Х	Х	Х	Х
5GB/10GB 8 mm Tape (internal)	_	_	_	_	Х	_	Х
20/40GB 8 mm Tape (internal)	-	-	—	Х	Х	Х	Х
Communications subsystems 8361-100/200 IBM Network Station	Х	Х	х	Х	Х	Х	Х

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

RS/6000 system options	F 50	450	DEA	670	670	6D
	F50	H50	R50	\$70	S70 Advanced	SP
Disk drives and subsystems						
7203-001 Portable Disk	X	X	X	X	X	—
7204 External Disk	X	X	X	X	X	-
7131-105 SCSI Multi-Storage Tower	X	X	X	X	Х	X
7131-405 SSA Multi-Storage Tower	Х	Х	Х	Х	Х	Х
7133-020/600 SSA Disk Subsystems	Х	Х	Х	Х	Х	
7137 Disk Array Subsystem	Х	Х	Х	Х	Х	Х
7012-G02 Expansion Cabinet	-	-	Х	-	-	-
2105-B09 Versatile Storage Server	Х	Х	Х	Х	Х	Х
Optical drives and libraries 3995-Cxx Optical Library	Х	Х	Х	Х	Х	Х
7209-003 51/4-inch Writeable Optical Disk	Х	Х	Х	Х	Х	Х
7210-015 External 8X CD-ROM	Х	Х	Х	Х	Х	-
Tape drives and libraries 7205-311 DLT Tape	Х	Х	Х	Х	Х	_
7206-005 4 mm Tape	Х	Х	Х	Х	Х	_
7206-110 4 mm Tape	Х	Х	Х	Х	Х	Х
7207-012 1.2GB 1/4-inch Tape Cartridge	Х	Х	Х	Х	Х	_
7207-122 4GB 1/4-inch Tape Cartridge	Х	Х	Х	Х	Х	Х
7207-315 13GB 1/4-inch Tape	Х	Х	Х	Х	Х	_
7208-341 8 mm Tape	Х	Х	Х	Х	Х	_
9348-012 Magnetic Tape (1/2-inch 9-track)	Х	Х	Х	Х	Х	Х
3490E-Fxx 1/2-inch Tape Subsystem (18/36-track)	Х	Х	Х	Х	Х	Х
3494-L12/L10/D12/D10 Magstar Tape Library	Х	Х	Х	Х	Х	Х
3570-Bxx Magstar MP Tape	Х	Х	Х	Х	Х	Х
3570-Cxx Magstar MP Tape	Х	Х	Х	Х	Х	Х
3575 Magstar MP Tape Library	Х	Х	Х	Х	Х	Х
3590-B11/C12 Magstar Tape	Х	Х	Х	Х	Х	Х
7331-305 8 mm Tape Library	Х	Х	Х	Х	Х	Х
7332-110 4 mm DDS-3 Tape Autoloader	_	_	Х	Х	Х	_
7337-305/306 DLT Tape Library	Х	Х	Х	Х	Х	Х
4GB/8GB 4 mm Tape (internal)	Х	Х	Х	Х	Х	_
12GB/24GB 4 mm Tape (internal)	Х	Х	-	Х	Х	_
5GB/10GB 8 mm Tape (internal)	Х	Х	Х	Х	Х	_
20/40GB 8mm Tape (internal)	Х	Х	-	Х	Х	-
Communications subsystems 8361-100/200 IBM Network Station	Х	Х	Х	Х	Х	хх

X = Available or standard feature

xx = 135MHz Wide nodes only Note: For the devices listed, not all models are supported on all systems. For more information, contact your IBM marketing representative or IBM Business Partner.

RS/6000 graphics processors/accelerators

	140	150	240/F40	260	F50	397	
MVP	Х	-	Х	-	-	_	
POWER GXT120P [™]	Х	Х	Х	Х	Х	-	
POWER GXT150M TM	-	-	_	_	-	Х	
POWER GXT250P/255P [™]	Х	Х	Х	Х	-	-	
POWER GXT550P™	Х	Х	X1	_	-	-	
POWER GXT800M TM	-	-	_	-	-	Х	
POWER GXT800P TM	Х	-	X1	-	X ^{1, 2}	-	
POWER GXT3000P [™]	-	Х	_	Х	-	-	

RS/6000 workstation performance

	3	97	140 (33	2MHz)	150	240/F40	260
Graphics accelerators	GXT150M	GXT800M	GXT255P	GXT800P	GXT3000P	GXT800P (2-way)	GXT3000P (2-way)
GPC/XPC Xmark93	19.07	13.93	23.09	20.95	37.17	15.76	37.09
GPC/PLB PLBwire93	79.9	163.4	150.9	157.5	257.3	164.5	627.4
GPC/PLB PLBsurf93	57.8	276.6	50.2	266.4	468.9	262.4	866.2
GPC/OPC CDRS-03	11.0	43.23	8.88	36.42	94.76	35.44	218.17
GPC/OPC DX-03	1.0	7.93	3.95	8.13	11.16	8.27	16.37
GPC/OPC DRV-04	1.01	3.81	2.02	3.68	6.17	3.09	7.32
AWadvs-01	—	7.72	-	-	13.77	-	12.81

RS/6000 software

R5/6000 software	140	150	240	260	E30	F40	397	
	140	150	240	200	EJU	F40	397	
Operating system support AIX [®] 4.1.5	Х	_	Х	_	Х	х	X	
AIX 4.2.1	Х	Х	Х	Х	Х	Х	Х	
AIX 4.3.2	Х	Х	Х	Х	Х	Х	Х	
HACMP support	Х	Х	Х	Х	Х	Х	Х	
	F50	H50	R50	\$70	S70 Advance	d		
Operating system support AIX 4.1.5	_	_	Х	_	_			
AIX 4.2.1	Х	Х	Х	-	-			
AIX 4.3.2	Х	Х	Х	Х	Х			
HACMP support	Х	Х	Х	Х	Х			
		SP e High	SP 160 Thin	SP 135 Wi		SP 332 SMP Thin	SP 332 SMP Wide	
Operating system support AIX 4.1.5		Х	Х	Х		_	_	
AIX 4.2.1	Х		Х	Х		Х	Х	
AIX 4.3.2	Х		Х	Х		Х	Х	
HACMP support	Х		Х	Х		Х	Х	

¹ Multi-threaded graphics API exploits SMP ² 332MHz processor only

Year 2000 readiness

The currently marketed RS/6000 models and versions of AIX contained in this document are Year 2000 ready. That is, when used in accordance with their associated documentation, they are capable of correctly processing, providing, and/or receiving date data between the 20th and 21st centuries provided all other products (for example, software, hardware, and firmware) used with them properly exchange date data.

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 allow you to 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. Financing may be available to credit-qualified customers. Rates are based on credit rating, financing terms, and other options. Other restrictions may apply.

Project support services

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

Continuing support services

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

Benchmark notes:

Values shown in the performance benchmarks section were derived using particular, well configured, development-level computer systems, and used 32-bit applications and external cache if external cache is supported on the system. All performance benchmark values and 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, to evaluate the performance of a system they are considering. Actual system performance may vary and is dependent upon many factors including system hardware configuration and software design and configuration. IBM recommends applicationoriented testing for performance predictions. Additional information about the performance benchmarks, values, and systems tested is available from your IBM marketing representative or IBM Authorized Reseller or access the following on the Web:

SPEC/GPC http://www.specbench.org

TPC http://www.tpc.org

Unless otherwise indicated, new or updated system benchmarks were conducted using AIX Version 4.2.1 or AIX 4.3.

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 divided by the tpmC for the system. QppD is the power metric of TPC-D and is based on a geometric mean of the 17 TPC-D 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. QppD is scaled based on database size from 30GB to 1TB.

QthD is the throughput metric of TPC-D and is a classical throughput measure characterizing the ability of the system to support a multi-user 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 if insert/delete operations. QthD is scaled based on the database size from 30GB to 1TB.

\$/QphD: Price-performance metric for the TPC-D benchmark where QphD is the geometric mean of QppD and QthD. The price reflects the estimated five year cost of ownership for the tested hardware configuration, software and maintenance.

Relative OLTP performance: Estimate of commercial processing performance derived from an IBM analytical model which simulates some of the system's operations such as CPU, cache and memory. The model does not simulate disk or network I/O operations. Although general database and operating system parameters are used, the model does not reflect specific databases or AIX version or releases. The model assumes the use of 32-bit applications. An IBM RS/6000 Model 250 is the baseline reference system and has a value of 1.0. Although Relative OLTP may be used to compare estimated RS/6000 commercial processing performance, actual system performance may vary and is dependent upon many factors, including system hardware configuration and software design and configuration.

Footnotes

X = Supported

- N/A = Not Applicable
- § = Statement of Direction
- # = Dual buses
- ^a Shared memory
- ^b Per processor
- ° Using J01 Expansion Cabinet
- ^d May not be achievable with upgraded 233MHz system
- ^e Toolkit included, application coding required ^f 332MHz processor only
- 9 Via control workstation and PSSP software
- h RS64-II available via upgrade only
- ⁱ GA March 1999
- ^j Using RS64-II processors
- ^k Node types can be intermixed on system
- Up to 512 available via special request (RPQ)
- $^{\rm m}\,{\rm In}\,{\rm support}\,{\rm of}\,{\rm SP}\,{\rm switch}$
- n 12 nodes, 8 processors per node
- ° 32 nodes, 8 processors per node
- p 48 nodes, 4 processors per node

More information

- · Contact your IBM marketing representative or IBM Business Partner.
- Access 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.

Worldwide telephone numbers

IBM Asia Pacific		(IBM Europe, Middle E	ast, or Africa, cont.)
Australia	132-426x RS/INFO	Netherlands	31-20-513-5151
Bangladesh	880-2-889-783	Norway	47-669999-9090
China: Beijing	10-437-6677 x CRC	Oman	968-791360
Guangzhou	20-778-7268 x CRC	Poland	48-22-8786-777
Shanghai	21-6280-1070 x CRC	Portugal	351-1-7915880
Hong Kong	852-2825-7878	Qatar	974-435395
India (TATA)	080-526-9050	Romania	401-6158267
Indonesia	21-251-2922	Russia	7095-9402000
Japan	0120-04-1992	Saudi Arabia	966-02-600007
Korea	02-781-7114	Slovak Republic	421-7-7806111
Malaysia	03-717-7788	Slovenia	38661-1252154
New Zealand	0800-801-800	South Africa	27-800-128-128
Philippines	02-819-2426	Spain	34-901-100-400
Singapore	1-800-320-1234	Sweden	46-20-220203
Sirigapore Sri Lanka	01-440810	Switzerland	41-155-1225
Taiwan	080-011011	Turkey	90-212-2800900
Thailand	02-273-4444	UK	01705-492149
Vietnam: Hanoi	84-4-426316	Ukraine	38044-2270225
	84-8-241474	Yemen	967-1-213745
<i>IBM Europe, Middle Ea</i> Abu-dhabi	<i>st, or Africa</i> 971-2-345165	<i>IBM Latin America</i> Argentina	319-6666
Albania	35-542-32025	Bolivia	591-2-361-555
Austria	43-1-21145-2500	Brazil	0800-11-1426 x317
Bahrain	973-533995	Chile	800-216-216, or
Belgium	32-2-225-3600		56-2-200-60-64
Bosnia	38-771-219388	Colombia	9800-17555
Bulgaria	3592-731076	Costa Rica	506-223-6222
Croatia	3851-6124500	Dominican Republic	809-566-5161
Czech Republic	420-2-67106111	Ecuador	593-432-1444 x5808
Denmark	4545-8031-6000	El Salvador	503-298-5011
Dubai	971-4-313155	Guatemala	502-331-5859
Egypt	202-3492533	Honduras	504-322-309
Finland	358-9800-42680	Mexico	(5) 627-2444 x3333
France	33-(02)-3855-7777	Nicaragua	505-266-4141
FYR of Macedonia	38991-113144	Panama	507-263-9977
Germany	49-180-55090	Paraguay	595-21-444-094 x210
Greece	30-1-688-1476	Peru	511-349-0050
Hungary	361-1654422	Uruguay	902-3617
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