



IBM Linux on POWER

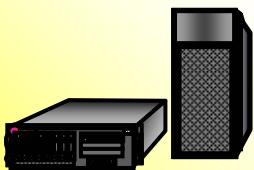
Facts and Features

IBM @server OpenPower, p5, i5, pSeries

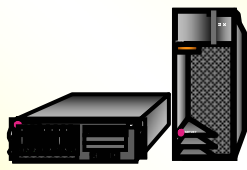
October 13, 2004




Entry rack/deskside



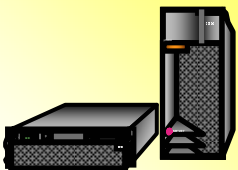
pSeries 615



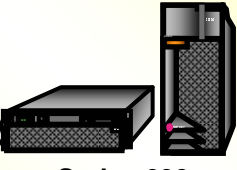
p5-520/i5-520



p5-550




OpenPower 720




pSeries 630

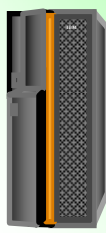
Mid-range



p5-570
i5-570

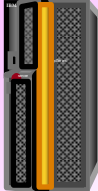


pSeries 650

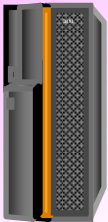


pSeries 670

High-end



pSeries 655



pSeries 690

Product Line	IBM @server® OpenPower™ 720
Machine Type	9124-720
System Packaging	rack drawer, deskside
Microprocessor type	64-bit IBM POWER5™
# of processors/system	1, 2 or 4
Clock rates available	1.5 GHz / 1.65 GHz
Linux® Distributions *	RHEL AS 3 / SLES 9
Linux LPAR Support	SOD / SOD
Capacity on Demand (CoD) Features	- / -
Storage Interfaces	
5703 52P8630 PCI-X Dual Channel Ultra320 SCSI RAID	X / X
5709 52P8631 Planar Dual Channel SCSI RAID	X / X
5712 52P8632 PCI-X Dual Channel Ultra320 SCSI	X / X
5716 52P8633 2 Gigabit Fibre Channel PCI-X	X / X
Communications and Connectivity	
2738 52P8639 2 Port USB PCI Adapter	X / X
4962 52P8640 10/100 Mbps Ethernet PCI II	X / X
5700 52P8641 Gigabit Ethernet-SX PCI-X (Fibre)	X / X
5701 52P8642 10/100/1000 Base-TX Ethernet PCI-X (Copper)	X / X
5706 52P8643 2-port 10/100/1000 Base-TX Ethernet PCI-X	X / X
5707 52P8644 2-port Gigabit Ethernet-SX PCI-X (Fibre)	X / X
Display Adapters ^a	
2849 52P8645 PCI 2D Graphics Accelerator GXT135P	X / X
Disk Drives and Subsystems	
2591 52P8634 USB Diskette	X / X
2104-DU3/TU3/DS4/TS4 Expandable Storage Plus	X / X
2105-100/800 Enterprise Storage Server®	X / X
DS4000 Series Storage Servers ^e	X / X
Expansion Drawers	
7040-61D I/O Drawer	- / -
7311-D10 I/O Drawer	- / -
7311-D11 I/O Drawer	- / -
7311-D20 I/O Drawer	X / X
Fibre Channel Directors, Switches and Hubs	
2031-016/032/216/224/232/L00 McDATA Fibre Channel Switch	X / X
2032-001/064/140 McDATA Fibre Channel Director	X / X
2042-001/128/256 INRANGE FC/9000 Fibre Director	X / X
2062-D01/D04/T07 Cisco Fabric Switch / Director	X / X
2005-H08/H16 SAN Switch	X / X
3534-F08 SAN Switch	X / X
2109-F16/F32/M12/M14/S08/S16 SAN Switch	X / X
Optical Drives and Libraries	
2640 52P8635 IDE Slimline DVD	X / X
5751 52P8636 IBM 4.7 GB IDE Slimline DVD	X / X
Tape Drives and Libraries	
3494 Enterprise Automated Tape Library [†]	P / P
3580 Ultrium LTO Gen 2 Tape Drive [†]	P / P
3581 LTO Gen 2 Ultrium Tape Autoloader [†]	P / P
3582 Ultrium Tape Library [†]	P / P
3583 LTO Ultrium Scalable Tape Library [†]	P / P
3584 UltraScalable Tape Library [†]	P / P
3590 H11/H1A/E11/E1A Enterprise Tape Drive [†]	P / P
3592 Enterprise Tape Drive [†]	P / P
6120 59P6746 80/160 GB Tape Drive with VXA Technology	X / X
6134 52P8637 60/150GB 8 mm Tape Drive	X / X
6258 52P8638 36/72GB 4 mm Tape bolt-in	X / X
Benchmarks (SLES 9)	(1-, 2-, 4-way; 1.65 GHz)
SPECint_base2000	1,120 , - , -
SPECfp_base2000	1,822 , - , -
SPECint_rate_base2000	- , - , 58.8
SPECfp_rate_base2000	- , - , 77.6
SPEC OMPMbase2001	- , - , 9,664
SPECjbb2000	- , - , 136,167
SPECsfs_R1.v3	- , - , 67,347

Product Line	IBM @server p5 520	IBM @server p5 550
Machine Type	9111-520	9113-550
System Packaging	19" rack drawer (4U); deskside	19" rack drawer (4U); deskside
Microprocessor type	64-bit POWER5	64-bit POWER5
# of processors/system	2	2 or 4
Clock rates available	1.65 GHz	1.65 GHz
Linux Distributions *	RHEL AS 3 / SLES 9	RHEL AS 3 / SLES 9
Linux LPAR Support	X / X	X / X
Capacity on Demand (CoD) Features	X / X	X / X
Storage Interfaces		
5703 PCI-X Dual Channel Ultra320 SCSI RAID	X / X	X / X
5709 Planar Dual Channel SCSI RAID	X / X	X / X
5712 PCI-X Dual Channel Ultra320 SCSI	X / X	X / X
6203 PCI Dual Channel Ultra3 SCSI	- / -	- / -
6204 PCI Universal Differential Ultra SCSI	X / X	X / X
6228 2 Gigabit Fibre Channel PCI	- / -	- / -
6239 2 Gigabit Fibre Channel PCI-X	X / X	X / X
5716 2 Gigabit Fibre Channel PCI-X	X / X	X / X
Communications and Connectivity		
2738 2 Port USB PCI Adapter	X / X	X / X
4961 4-port 10/100 Mbps Ethernet	- / -	- / -
4962 10/100 Mbps Ethernet PCI II	X / X	X / X
5700 Gigabit Ethernet-SX PCI-X (Fibre)	X / X	X / X
5701 10/100/1000 Base-TX Ethernet PCI-X (Copper)	X / X	X / X
5706 2-port 10/100/1000 Base-TX Ethernet PCI-X	X / X	X / X
5707 2-port Gigabit Ethernet-SX PCI-X (Fibre)	X / X	X / X
Display Adapters ^a		
2848 PCI 2D Graphics Accelerator GXT135	X / X	X / X
2849 PCI 2D Graphics Accelerator GXT135P	X / X	X / X
Disk Drives and Subsystems		
2591 USB Diskette	X / X	X / X
2104-DU3/TU3/DS4/TS4 Expandable Storage Plus	X / X	X / X
2105-100/800 Enterprise Storage Server	X / X	X / X
DS4000 Series Storage Servers ^e	X / X	X / X
Expansion Drawers		
7040-61D I/O Drawer	- / -	- / -
7311-D10 I/O Drawer	- / -	- / -
7311-D11 I/O Drawer	- / -	- / -
7311-D20 I/O Drawer	X / X	X / X
Fibre Channel Directors, Switches and Hubs		
2031-016/032/216/224/232/L00 McDATA Fibre	X / X	X / X
2032-001/064/140/C36/C40 McDATA Fibre Channel	X / X	X / X
2042-001/128/256/C40 INRANGE FC/9000 Fibre	X / X	X / X
2062-D01/D07/T07 Cisco Fabric Switch / Director	X / X	X / X
2005-H08/H16 SAN Switch	X / X	X / X
3534-F08 SAN Switch	X / X	X / X
2109-F16/F32/M12/S08/S16 SAN Switch	X / X	X / X
Optical Drives and Libraries		
2640 IDE Slimline DVD-ROM	X / X	X / X
5751 IBM 4.7 GB IDE Slimline DVD-RAM Drive	X / X	X / X
Tape Drives and Libraries		
3494 Enterprise Automated Tape Library ^f	P / P	P / P
3580 Ultrium LTO Gen 2 Tape Drive ^f	P / P	P / P
3581 LTO Gen 2 Ultrium Tape Autoloader ^f	P / P	P / P
3582 Ultrium Tape Library ^f	P / P	P / P
3583 LTO Ultrium Scalable Tape Library ^f	P / P	P / P
3584 UltraScalable Tape Library ^f	P / P	P / P
3590 H11/H1A/E11/E1A Enterprise Tape Drive ^f	P / P	P / P
3592 Enterprise Tape Drive ^f	P / P	P / P
6120 80/160 GB Tape Drive with VXA Technology	X / X	X / X
6134 60/150GB 8 mm Tape Drive	X / X	X / X
6258 36/72GB 4 mm Tape bolt-in	X / X	X / X
Benchmarks (RHEL AS 3)		
SPEC OMPMbase2001	4,758	- / -

Product Line	IBM @server p5 570
Machine Type	9117-570
System Packaging	19" rack drawer (4U)
Microprocessor type	64-bit POWER5
# of processors/system	2, 4, 8, 12 or 16
Clock rates available	1.65 GHz / 1.9 GHz
Linux Distributions *	RHEL AS 3 / SLES 9
Linux LPAR Support	X / X
Capacity on Demand (CoD) Features	X / X
Storage Interfaces	
5703/5711 PCI-X Dual Channel Ultra320 SCSI RAID	X / X
5709 Planar Dual Channel SCSI RAID	X / X
5710/5712 PCI-X Dual Channel Ultra320 SCSI	X / X
6203 PCI Dual Channel Ultra3 SCSI	X / X
6204 PCI Universal Differential Ultra SCSI	X / X
6228 2 Gigabit Fibre Channel PCI	X / X
6239 2 Gigabit Fibre Channel PCI-X	X / X
5716 2 Gigabit Fibre Channel PCI-X	X / X
Communications and Connectivity	
2738 2 Port USB PCI Adapter	X / X
4961 4-port 10/100 Mbps Ethernet	X / X
4962 10/100 Mbps Ethernet PCI II	X / X
5700 Gigabit Ethernet-SX PCI-X (Fibre)	X / X
5701 10/100/1000 Base-TX Ethernet PCI-X (Copper)	X / X
5706 2-port 10/100/1000 Base-TX Ethernet PCI-X	X / X
5707 2-port Gigabit Ethernet-SX PCI-X (Fibre)	X / X
Display Adapters^a	
2848 PCI 2D Graphics Accelerator GXT135	X / X
2849 PCI 2D Graphics Accelerator GXT135P	X / X
Disk Drives and Subsystems	
2591 USB Diskette	X / X
2104-DU3/TU3/DS4/TS4 Expandable Storage Plus	X / X
2105-100/800 Enterprise Storage Server	X / X
DS4000 Series Storage Servers ^e	X / X
Expansion Drawers	
7040-61D I/O Drawer	- / -
7311-D10 I/O Drawer	X / X
7311-D11 I/O Drawer	X / X
7311-D20 I/O Drawer	X / X
Fibre Channel Directors, Switches and Hubs	
2031-016/032/216/224/232/L00 McDATA Fibre Channel	X / X
2032-001/064/140 McDATA Fibre Channel Director	X / X
2042-001/128/256 INRANGE FC/9000 Fibre Director	X / X
2062-D01/D04/T07 Cisco Fabric Switch / Director	X / X
2005-H08/H16 SAN Switch	X / X
3534-F08 SAN Switch	X / X
2109-F16/F32/M12/M14/S08/S16 SAN Switch	X / X
Optical Drives and Libraries	
2640 IDE Slimline DVD-ROM	X / X
5751 IBM 4.7 GB IDE Slimline DVD-RAM Drive	X / X
Tape Drives and Libraries	
3494 Enterprise Automated Tape Library ^f	P / P
3580 Ultrium LTO Gen 2 Tape Drive ^f	P / P
3581 LTO Gen 2 Ultrium Tape Autoloader ^f	P / P
3582 Ultrium Tape Library ^f	P / P
3583 LTO Ultrium Scalable Tape Library ^f	P / P
3584 UltraScalable Tape Library ^f	P / P
3590 H11/H1A/E11/E1A Enterprise Tape Drive ^f	P / P
3592 Enterprise Tape Drive ^f	P / P
6120 80/160 GB Tape Drive with VXA Technology	- / -
6134 60/150GB 8 mm Tape Drive	- / -
6258 36/72GB 4 mm Tape bolt-in	- / -
Benchmarks (SLES 9)	(2-,4-,8-,16-way; 1.9 GHz)
SPEC OMPMbase2001	-, 12,403, -, -
SPECweb99_SSL	-, 4,970, -, -
SPECjbb2000	82,615, 160,995, 299,197, 542,145
SPECweb99 (RHEL AS 3)	-, 13,500, -, -

Product Line	IBM @server i5 520	IBM @server i5 570
Machine Type	9406-520	9406-570
System Packaging	19" rack drawer (4U); deskside	19" rack drawer (4U)
Microprocessor type	64-bit POWER5	64-bit POWER5
# of processors/system	1 or 2	2, 4, 8, 12 or 16
Clock rates available	1.65 GHz	1.65 GHz
Linux Distributions *	RHEL AS 3 / SLES 9	RHEL AS 3 / SLES 9
Linux LPAR Support	X / X	X / X
Capacity on Demand (CoD) Features	X / X	X / X
Storage Interfaces		
0627 PCI-X Dual Channel U320 SCSI RAID	X / X	X / X
0628 PCI-X Dual Channel Ultra320 SCSI RAID	X / X	X / X
5709 Planar Dual Channel SCSI RAID	X / X	X / X
0624 PCI-X Dual Channel Ultra320 SCSI	X / X	X / X
0645 PCI-X Dual Channel Ultra320 SCSI	X / X	X / X
6203 PCI Dual Channel Ultra3 SCSI	X / X	X / X
6204 PCI Universal Differential Ultra SCSI	X / X	X / X
0611 2 Gigabit Fibre Channel PCI	X / X	X / X
0612 2 Gigabit Fibre Channel PCI	X / X	X / X
0625 2 Gigabit Fibre Channel PCI-X	X / X	X / X
0626 2 Gigabit Fibre Channel PCI-X	X / X	X / X
Communications and Connectivity		
0632 2 Port USB PCI Adapter	X / X	X / X
0603 PCI 100Mbps Token-Ring	X / X	X / X
0607 PCI 10/100Mbps Ethernet	X / X	X / X
0623 PCI 10/100Mbps Ethernet	X / X	X / X
0637 4-port 10/100 Mbps Ethernet	X / X	X / X
4962 10/100 Mbps Ethernet PCI II	X / X	X / X
0620 Gigabit Ethernet-SX PCI-X (Fibre)	X / X	X / X
0621 10/100/1000 Base-TX Ethernet PCI-X (Copper)	X / X	X / X
0643 2-port 10/100/1000 Base-TX Ethernet PCI-X	X / X	X / X
0644 2-port Gigabit Ethernet-SX PCI-X (Fibre)	X / X	X / X
Display Adapters ^a		
2848 PCI 2D Graphics Accelerator GXT135	X / X	X / X
0633 PCI 2D Graphics Accelerator GXT135P	X / X	X / X
Disk Drives and Subsystems		
2591 USB Diskette	X / X	X / X
2104-DU3/TU3/DS4 Expandable Storage Plus	X / X	X / X
2105-100/800 Enterprise Storage Server	X / X	X / X
DS4000 Series Storage Servers ^b	X / X	X / X
Expansion Drawers		
7311-D10 I/O Drawer	X / X	X / X
7311-D11 I/O Drawer	- / -	X / X
7311-D20 I/O Drawer	X / X	X / X
Fibre Channel Directors, Switches and Hubs		
2031-016/032/216/224/232/L00 McDATA Fibre Channel	X / X	X / X
2032-001/064/140 McDATA Fibre Channel Director	X / X	X / X
2042-001/128/256 INRANGE FC/9000 Fibre Director	X / X	X / X
2062-D01/D04/T07 Cisco Fabric Switch / Director	X / X	X / X
2005-H08/H16 SAN Switch	X / X	X / X
3534-F08 SAN Switch	X / X	X / X
2109-F16/F32/M12/M14/S08/S16 SAN Switch	X / X	X / X
Optical Drives and Libraries		
4430 4.7GB SCSI DVD-RAM	X / X	X / X
4425 32X/40X CD-ROM	X / X	X / X
4625 40X CD-ROM auto-dock	X / X	X / X
4630 4.7GB SCSI DVD-RAM	X / X	X / X
4631 16/48X DVD-ROM auto-dock	X / X	X / X
2640 IDE Slimline DVD-ROM	X / X	X / X
5751 IBM 4.7 GB IDE Slimline DVD-RAM Drive	X / X	X / X
4633 4.7 GB SCSI DVD-RAM Drive	X / X	X / X
Tape Drives and Libraries		
3494 Enterprise Automated Tape Library [†]	P / P	P / P
3580 Ultrium LTO Gen 2 Tape Drive [†]	P / P	P / P
3581 LTO Gen 2 Ultrium Tape Autoloader [†]	P / P	P / P
3582 Ultrium Tape Library [†]	P / P	P / P
3583 LTO Ultrium Scalable Tape Library [†]	P / P	P / P
3584 UltraScalable Tape Library [†]	P / P	P / P
3590 H11/H1A/E11/E1A Enterprise Tape Drive [†]	P / P	P / P
3592 Enterprise Tape Drive [†]	P / P	P / P
1889 80GB VXA-2 Tape Drive	X / X	- / -
4684 30GB 1/4-Inch Cartridge Tape	X / X	X / X
4685 80GB VXA-2 Tape Drive	X / X	X / X
4687 50GB 1/4-Inch Cartridge Tape	X / X	X / X
5753 30GB 1/4-Inch Cartridge Tape	X / X	X / X
5754 50GB 1/4-Inch Cartridge Tape	X / X	X / X
6134 60/150GB 8 mm Tape Drive	X / X	X / X
6258 36/72GB 4 mm Tape bolt-in	X / X	- / -

Product Line	IBM @server pSeries® 615	IBM @server pSeries 630
Machine Type	7029-6C3 / 7029-6E3	7028-6C4 / 7028-6E4
System Packaging	19" rack drawer (4U); deskside	19" rack drawer (4U); deskside
Microprocessor type	64-bit POWER4+™	64-bit POWER4+
# of processors/system	1 or 2	1,2 or 4
Clock rates available	1.2 GHz / 1.45 GHz ⁿ	1.2 GHz / 1.45 GHz ⁿ
Linux Distributions *	RHEL AS 3 / SLES 9	RHEL AS 3 / SLES 9
Linux LPAR Support	- / -	X / X
Capacity on Demand (CoD) Features	- / -	- / -
Storage Interfaces		
5703/5711 PCI-X Dual Channel Ultra320 SCSI RAID	X / X	X / X
5709 Planar Dual Channel SCSI RAID	X / X	- / -
5710/5712 PCI-X Dual Channel Ultra320 SCSI	X / X	X / X
6203 PCI Dual Channel Ultra3 SCSI	X / X	X / X
6204 PCI Universal Differential Ultra SCSI	X / X	X / X
6228 2 Gigabit Fibre Channel PCI	X / X	X / X
6239 2 Gigabit Fibre Channel PCI-X	X / X	X / X
5716 2 Gigabit Fibre Channel PCI-X	X / X	X / X
Communications and Connectivity		
4961 4-port 10/100 Mbps Ethernet	X / X	X / X
4962 10/100 Mbps Ethernet PCI II	X / X	X / X
5700 Gigabit Ethernet-SX PCI-X (Fibre)	X / X	X / X
5701 10/100/1000 Base-TX Ethernet PCI-X (Copper)	X / X	X / X
5706 2-port 10/100/1000 Base-TX Ethernet PCI-X	X / X	X / X
5707 2-port Gigabit Ethernet-SX PCI-X (Fibre)	X / X	X / X
Display Adapters ^a		
2848 PCI 2D Graphics Accelerator GXT135	X / X	X / X
2849 PCI 2D Graphics Accelerator GXT135P	X / X	X / X
Disk Drives and Subsystems		
2591 USB Diskette	X / X	X / X
2104-DU3/TU3/DS4/TS4 Expandable Storage Plus	X / X	X / X
2105-100/800 Enterprise Storage Server	X / X	X / X
DS4000 Series Storage Servers ^e	X / X	X / X
Expansion Drawers		
7040-61D I/O Drawer	- / -	- / -
7311-D10 I/O Drawer	- / -	- / -
7311-D20 I/O Drawer	- / -	X / X
Fibre Channel Directors, Switches and Hubs		
2031-016/032/216/224/232/L00 McDATA Fibre Channel Switch	X / X	X / X
2032-001/064/140 McDATA Fibre Channel Director	X / X	X / X
2042-001/128/256 INRANGE FC/9000 Fibre Director	X / X	X / X
2062-D01/D04/T07 Cisco Fabric Switch / Director	X / X	X / X
2005-H08/H16 SAN Switch	X / X	X / X
3534-F08 SAN Switch	X / X	X / X
2109-F16/F32/M12/M14/S08/S16 SAN Switch	X / X	X / X
Optical Drives and Libraries		
2623/2627 4.7GB SCSI DVD-RAM	- / X	- / X
2624 32X/40X CD-ROM	- / -	- / -
2628 40X CD-ROM auto-dock	- / -	- / -
2629 4.7GB SCSI DVD-RAM	- / -	- / -
2633 IDE 48X CD-ROM	- / -	X / X
2634 16/48X DVD-ROM	- / -	X / X
2635 16/48X DVD-ROM auto-dock	- / -	- / -
2640 IDE Slimline DVD-ROM	X / X	- / -
5751 IBM 4.7 GB IDE Slimline DVD-RAM Drive	X / X	- / -
5752 4.7 GB SCSI DVD-RAM Drive	X / X	X / X
Tape drives and libraries		
3494 Enterprise Automated Tape Library [†]	P / P	P / P
3580 Ultrium LTO Gen 2 Tape Drive [†]	P / P	P / P
3582 Ultrium Tape Library [†]	P / P	P / P
3584 UltraScalable Tape Library [†]	P / P	P / P
3590 H11/H1A/E11/E1A Enterprise Tape Drive [†]	P / P	P / P
3592 Enterprise Tape Drive [†]	P / P	P / P
6120 80/160 GB Tape Drive with VXA Technology	X / X	X / X
6131 60/150GB 8 mm Tape auto-dock	- / -	- / -
6134 60/150GB 8 mm Tape Drive	X / X	X / X
6158 20/40GB 4 mm Tape Drive	X / X	X / X
6258 36/72GB 4 mm Tape bolt-in	X / X	X / X
6185 20/40GB 4 mm Tape auto-dock	- / -	- / -
Benchmark (SLES 8)		
SPECint_base2000	727 (1-way; 1.2 GHz)	720 (1-way; 1.2 GHz)
SPECfp_base2000	877 (1-way; 1.2 GHz)	852 (1-way; 1.2 GHz)
SPECint_base2000	-	856 (1-way; 1.45 GHz)
SPECfp_base2000	-	984 (1-way; 1.45 GHz)

Product Line	IBM @server pSeries 650	IBM @server pSeries 655
Machine Type	7038-6M2	7039-651
System Packaging	19" rack drawer (8U - system / 4U - I/O ^{bb})	24" system frame
Microprocessor type	64-bit POWER4+	64-bit POWER4+
# of processors/system	2, 4, 6, or 8	4 or 8
Clock rates available	1.2 GHz / 1.45 GHz	1.7 GHz
Linux Distributions *	RHEL AS 3 / SLES 9	RHEL AS 3 / SLES 9 ^c
Linux LPAR Support	X / X	X / X
Capacity on Demand (CoD) Features	X / X	- / -
Storage Interfaces		
5703/5711 PCI-X Dual Channel Ultra320 SCSI RAID	X / X	X / X
5709 Planar Dual Channel SCSI RAID	- / -	- / -
5710/5712 PCI-X Dual Channel Ultra320 SCSI	X / X	X / X
6203 PCI Dual Channel Ultra3 SCSI	X / X	X / X
6204 PCI Universal Differential Ultra SCSI	X / X	X / X
6228 2 Gigabit Fibre Channel PCI	X / X	X / X
6239 2 Gigabit Fibre Channel PCI-X	X / X	X / X
5716 2 Gigabit Fibre Channel PCI-X	X / X	X / X
Communications and Connectivity		
4961 4-port 10/100 Mbps Ethernet	X / X	X / X
4962 10/100 Mbps Ethernet PCI II	X / X	X / X
5700 Gigabit Ethernet-SX PCI-X (Fibre)	X / X	X / X
5701 10/100/1000 Base-TX Ethernet PCI-X (Copper)	X / X	X / X
5706 2-port 10/100/1000 Base-TX Ethernet PCI-X	X / X	X / X
5707 2-port Gigabit Ethernet-SX PCI-X (Fibre)	X / X	X / X
Display Adapters^a		
2848 PCI 2D Graphics Accelerator GXT135	X / X	X / X
2849 PCI 2D Graphics Accelerator GXT135P	X / X	X / X
Disk Drives and Subsystems		
2591 USB Diskette	X / X	X / X
2104-DU3/TU3/DS4/TS4 Expandable Storage Plus	X / X	X / X
2105-100/800 Enterprise Storage Server	X / X	X / X
DS4000 Series Storage Servers ^e	X / X	X / X
Expansion Drawers		
7040-61D I/O Drawer	- / -	X / X
7311-D10 I/O Drawer	X / X	- / -
7311-D20 I/O Drawer	X / X	- / -
Fibre Channel Directors, Switches and Hubs		
2031-016/032/216/224/232/L00 McDATA Fibre Channel Switch	X / X	X / X
2032-001/064/140 McDATA Fibre Channel Director	X / X	X / X
2042-001/128/256 INRANGE FC/9000 Fibre Director	X / X	X / X
2062-D01/D04/T07 Cisco Fabric Switch / Director	X / X	X / X
2005-H08/H16 SAN Switch	X / X	X / X
3534-F08 SAN Switch	X / X	X / X
2109-F16/F32/M12/M14/S08/S16 SAN Switch	X / X	X / X
Optical Drives and Libraries		
2623/2627 4.7GB SCSI DVD-RAM	- / -	- / -
2624 32X/40X CD-ROM	- / -	- / -
2628 40X CD-ROM auto-dock	X / X	- / -
2629 4.7GB SCSI DVD-RAM	X / X	- / -
2633 IDE 48X CD-ROM	- / -	- / -
2634 16/48X DVD-ROM	- / -	- / -
2635 16/48X DVD-ROM auto-dock	X / X	- / -
2640 IDE Slimline DVD-ROM	- / -	- / -
Tape Drives and Libraries		
3494 Enterprise Automated Tape Library [†]	P / P	P / P
3580 Ultrium LTO Gen 2 Tape Drive [†]	P / P	P / P
3582 Ultrium Tape Library [†]	P / P	P / P
3584 UltraScalable Tape Library [†]	P / P	P / P
3590 H11/H1A/E11/E1A Enterprise Tape Drive [†]	P / P	P / P
3592 Enterprise Tape Drive [†]	P / P	P / P
6120 80/160 GB Tape Drive with VXA Technology	- / -	- / -
6131 60/150GB 8 mm Tape auto-dock	X / X	- / -
6134 60/150GB 8 mm Tape Drive	- / -	- / -
6158 20/40GB 4 mm Tape Drive	X / X	X / X
6258 36/72GB 4 mm Tape bolt-in	X / X	X / X
6185 20/40GB 4 mm Tape auto-dock	X / X	- / -
Benchmarks (SLES 8)	(1-way; 1.45 GHz)	(1-way; 1.7 GHz)
SPECint_base2000	886	1,031, 1,023 (LPAR)
SPECfp_base2000	1,091	1,405, 1,405 (LPAR)

Product Line	IBM @server pSeries 670	IBM @server pSeries 690
Machine Type	7040-671	7040-681
System Packaging	24" system frame	24" system frame (+ I/O frame)
Microprocessor type	64-bit POWER4+	64-bit POWER4+
# of processors/system	4, 8 or 16	8, 16, 24 or 32
Clock rates available	1.5 GHz	1.5 GHz, 1.7 GHz, 1.9 GHz
Linux Distributions *	RHEL AS 3 / SLES 9	RHEL AS 3 / SLES 9
Linux LPAR Support	X / X	X / X
Capacity on Demand (CoD) Features	X / X	X / X
Storage Interfaces		
5703/5711 PCI-X Dual Channel Ultra320 SCSI RAID	X / X	X / X
5709 Planar Dual Channel SCSI RAID	- / -	- / -
5710/5712 PCI-X Dual Channel Ultra320 SCSI	X / X	X / X
6203 PCI Dual Channel Ultra3 SCSI	X / X	X / X
6204 PCI Universal Differential Ultra SCSI	X / X	X / X
6228 2 Gigabit Fibre Channel PCI	X / X	X / X
6239 2 Gigabit Fibre Channel PCI-X	X / X	X / X
5716 2 Gigabit Fibre Channel PCI-X	X / X	X / X
Communications and Connectivity		
4961 4-port 10/100 Mbps Ethernet	X / X	X / X
4962 10/100 Mbps Ethernet PCI II	X / X	X / X
5700 Gigabit Ethernet-SX PCI-X (Fibre)	X / X	X / X
5701 10/100/1000 Base-TX Ethernet PCI-X (Copper)	X / X	X / X
5706 2-port 10/100/1000 Base-TX Ethernet PCI-X	X / X	X / X
5707 2-port Gigabit Ethernet-SX PCI-X (Fibre)	X / X	X / X
Display Adapters ^a		
2848 PCI 2D Graphics Accelerator GXT135	X / X	X / X
2849 PCI 2D Graphics Accelerator GXT135P	X / X	X / X
Disk Drives and Subsystems		
2591 USB Diskette	X / X	X / X
2104-DU3/TU3/DS4/TS4 Expandable Storage Plus	X / X	X / X
2105-100/800 Enterprise Storage Server	X / X	X / X
DS4000 Series Storage Servers ^e	X / X	X / X
Expansion Drawers		
7040-61D I/O Drawer	X / X	X / X
7311-D10 I/O Drawer	- / -	- / -
7311-D20 I/O Drawer	- / -	- / -
Fibre Channel Directors, Switches and Hubs		
2031-016/032/216/224/232/L00 McDATA Fibre Channel Switch	X / X	X / X
2032-001/064/140 McDATA Fibre Channel Director	X / X	X / X
2042-001/128/256 INRANGE FC/9000 Fibre Director	X / X	X / X
2062-D01/D04/T07 Cisco Fabric Switch / Director	X / X	X / X
2005-H08/H16 SAN Switch	X / X	X / X
3534-F08 SAN Switch	X / X	X / X
2109-F16/F32/M12/M14/S08/S16 SAN Switch	X / X	X / X
Optical Drives and Libraries		
2623/2627 4.7GB SCSI DVD-RAM	- / X	- / X
2624 32X/40X CD-ROM	X / X	X / X
2628 40X CD-ROM auto-dock	- / -	- / -
2629 4.7GB SCSI DVD-RAM	- / -	- / -
2633 IDE 48X CD-ROM	- / -	- / -
2634 16/48X DVD-ROM	X / X	X / X
2635 16/48X DVD-ROM auto-dock	- / -	- / -
2640 IDE Slimline DVD-ROM	- / -	- / -
Tape Drives and Libraries		
3494 Enterprise Automated Tape Library ^f	P / P	P / P
3580 Ultrium LTO Gen 2 Tape Drive ^f	P / P	P / P
3582 Ultrium Tape Library ^f	P / P	P / P
3584 UltraScalable Tape Library ^f	P / P	P / P
3590 H11/H1A/E11/E1A Enterprise Tape Drive ^f	P / P	P / P
3592 Enterprise Tape Drive ^f	P / P	P / P
6120 80/160 GB Tape Drive with VXA Technology	X / X	X / X
6131 60/150GB 8 mm Tape auto-dock	- / -	- / -
6134 60/150GB 8 mm Tape Drive	- / -	- / -
6158 20/40GB 4 mm Tape Drive	X / X	X / X
6258 36/72GB 4 mm Tape bolt-in	X / X	X / X
6185 20/40GB 4 mm Tape auto-dock	- / -	- / -

Footnotes

X	=	Supported
P	=	Planned
O	=	Optionally Available
-	=	Not Supported
N/A	=	Not Applicable
SOD	=	Statement of General Direction Announced

* Linux distributions are orderable from IBM as follows:

SUSE LINUX Enterprise Server 9 available as 5639-SLP
Red Hat Enterprise Linux AS 3 available as 5639-RDH

* RHEL AS 3 = Red Hat Enterprise Linux AS 3 for POWER™, Update 3

More information is available at: (<http://www.redhat.com/software/rhel/as/>)

SLES 9 = SUSE LINUX Enterprise Server 9 for POWER

More information is available at: (http://www.suse.com/us/business/products/server/sles/i_pseries.html)

- a For versions of the GXT135P (Feature Codes 2848 and 2849) with a digital port as VGA1, please see http://www.ibm.com/servers/eserver/pseries/linux/sles8_release_notes.pdf for information on configuring this card for use with Linux. There is limited native X-Windows and graphics support on these adapters. Remote X-Windows capabilities are fully enabled. Graphics adapters do not function properly when the system is configured for LPAR.
- c Support for Linux running in single system image mode (non-LPAR) requires a network attached pSeries system with AIX 5L™. Linux running in an LPAR on the p655 requires either AIX 5L in an LPAR on the p655 or a network attached pSeries system with AIX 5L.
- e Updates and restrictions regarding TotalStorage® DS4000 Series (formerly FASiT Family) support:
- Single path attachment from a pSeries server to DS4000 is provided.
 - Multi-path failover support for SLES 8 is available via the Emulex MultiPulse driver. The Emulex FC MultiPulse Device Driver for IBM pSeries OEM-ed adapter (9802 and 9002L) required to support path failover can be found at the following Web site: <http://www.emulex.com/ts/docoem/framibm.htm>
 - Multi-path failover support for SLES 9 and RHEL AS 3 are not available at this time.
 - Multiple 6228 host bus adapters (HBA) are supported in a pSeries server provided the DS4000 logical volumes (LUNs) are masked to only one HBA with DS4000 Storage Partitions or SAN switch zoning.
 - Attachment from pSeries can be: direct attach or through IBM Fibre Channel Switch (2109/3534) fabrics (Quick loop mode not supported) or McDATA Director/Switch fabrics (2031/2032).
- f Enterprise and Ultrium tape drives are only supported via Fibre Channel attachment.

More Information

Further details on the support of Linux distributions on IBM pSeries servers is contained in a white paper, "Linux on IBM @server pSeries Overview", available at http://www.ibm.com/servers/eserver/pseries/linux/whitepapers/linux_pseries.html.



© IBM Corporation 2004

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

Produced in the United States of America
October 2004
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, the e-business logo, @server, AIX 5L, Enterprise Storage Server, OpenPower, POWER, POWER4+, POWER5, pSeries and TotalStorage are trademarks or registered trademarks of International Business Machines Corporation in the United States or other countries or both. A full list of U.S. trademarks owned by IBM may be found at <http://www.ibm.com/legal/copytrade.shtml>.

SPECint, SPECfp, SPECjbb, SPECweb, SPEC OMP, and SPECsfs are trademarks of the Standard Performance Evaluation Corp (SPEC).

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

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.

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.

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.

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

The pSeries home page on the Internet can be found at <http://www.ibm.com/servers/eserver/pseries>.

The Linux for pSeries home page on the Internet can be found at <http://www.ibm.com/linux/power>.

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