



IBM Linux on POWER

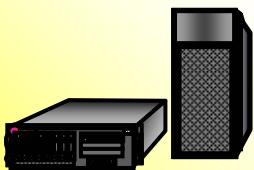
Facts and Features

IBM @server OpenPower, p5, i5, pSeries

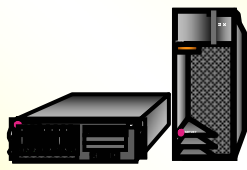
October 13, 2004




Entry rack/deskside



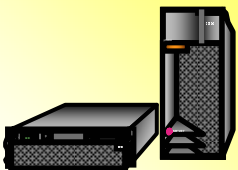
pSeries 615



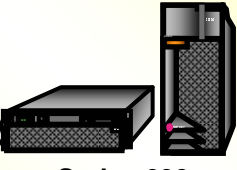
p5-520/i5-520



OpenPower 720




p5-550




pSeries 630

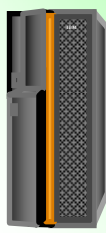
Mid-range



pSeries 650

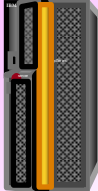


p5-570
i5-570

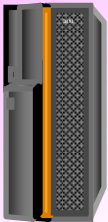


pSeries 670

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	- / -	- / -
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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.



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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>.