



IBM Power Systems I/O enhancements

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At a glance

IBM® Power® System enhancements for carrier-grade applications:

- DC power (#EB3H) and NEBS/ETSI compliance now available on the IBM Power System S822 and S822L
- Designed for clients that require hardened infrastructures because of the industries they serve or data center environments where the equipment is located
- Power S822 and Power S822L supports NEBS compliant local IBM Storage expansion options, including IBM Storwize® V3700

The IBM Power Systems™ family offers the following new adapter and drive options:

IBM i supported features

- 571 GB 15K RPM SAS SFF-1 (#ESDJ) Gen2 (#ESDN)
- 571 GB 15K RPM SAS SFF-3 Disk Drive (#ESDE)
- 387 GB SFF SFF-2 4k SSD (#ES0R) Gen3 (#ES0V)
- 775 GB SFF SFF-2 4k SSD (#ES0T) Gen3 4k SSD (#ES0X)

IBM AIX® and Linux™ supported features

- 177 GB 1.8" 4k SSD Read Intensive for AIX/Linux (#ES0Y) (528 byte #ES0Z)
- 600 GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (#ESDK) (Linux #ELDK)
- 600 GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block (#ESDP) (Linux #ELDP)
- 600 GB 15k RPM SAS SFF-3 Disk Drive - 5xx Block (Linux #ELDF)
- 387 GB SFF-2 4K SSD for AIX/Linux (#ES0Q), (Linux #EL4Q)
- 387 GB SFF-3 4k SSD AIX/Linux (#ES0U) (Linux #EL4U)
- 775 GB SFF-2 4k SSD for AIX/Linux (#ES0S) (Linux #EL4S)
- 775 GB SFF-3 4k SSD for AIX/Linux (#ES0W) (Linux #EL4W)
- RDX removable disk technology: 2 TB Removable Disk Drive Cartridge (RDX) (#EU2T)

The Power System S824 server (8286-42A) will support 1 TB or 2 TB memory using 128 GB memory DIMMs. Consult your IBM seller for more information when ordering (RPQ 8A2232) available on October 14, 2014.

Overview

The IBM Power System S822 and S822L will be available for carrier-grade applications using industry standard ac or dc power sources. Both of these systems have been certified by an independent test laboratory to conform to the Network Equipment Building Systems (NEBS) Level 3 and the European Telecommunications Standards Institute (ETSI) standards. By supporting NEBS capability, both servers can be configured with two dc power supplies (#EB3H) for redundant hot swap capabilities. When choosing this option, also select Flexible Thermal Settings for NEBS Applications (#0709).

The customer is responsible for validation and proper usage of NEBS/ETSI conforming configurations of these systems in application systems and communications facilities.

IBM Power S822, visit

<http://www.ibm.com/systems/power/hardware/s822/index.html>

IBM Power S822L, visit

<http://www.ibm.com/systems/power/hardware/s812l-s822l/>

IBM Storwize V3700, visit

http://www.ibm.com/systems/storage/disk/storwize_v3700/overview.html

The P10C3 LP Coherent Accelerator Processor Interface (CAPI) Accelerator Adapter (#EJ16) is available for high bandwidth/low latency attachment of Flash arrays. This feature enables a low latency I/O path to up to 40 terabytes of Flash storage, enabling clients with growing in-memory NoSQL databases the opportunity to scale to larger data sets while reducing management cost and cluster latency. The adapter requires program customization to take advantage of the technology and requires a Linux OS.

A 177 GB 1.8-inch solid-state drive (SSD) is available in two different formats for Easy Tier® intensive-read applications:

- 177 GB 1.8-inch 4k SSD Read Intensive for AIX/Linux (#ES0Y)
- 177 GB 1.8-inch SSD Read Intensive for AIX/Linux 528 bytes (#ES0Z)

IBM POWER8™, POWER7®, and POWER7+™ servers can now add a 600 GB disk, which is available on different carriers as a 600 GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (#ESDK) or 600 GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block (#ESDP).

The same physical disks are available on select IBM PowerLinux™ (7R1/7R2) servers as a 600 GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (#ELDK) or as 600 GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block2 (#ELDP).

The disk is also available on S814 and S824 servers as 600 GB 15k RPM SAS SFF-3 Disk Drive - 5xx Block (#ELDF).

New 387 GB and 775 GB SSDs in two different carriers are available for use in S822, S814, and S824 servers:

- 387 GB SFF-2 SSD (#ES0Q)
- 387 GB SFF-3 SSD (#ES0U)
- 775 GB SFF-2 4k SSD (#ES0S)
- 775 GB SFF-3 SSD (#ES0W)

On the POWER8 S812L and S822L Linux only servers, 387 GB SFF-2 4K SSD for Linux (#EL4Q) and 775 GB SFF-2 4K SSD for Linux (#EL4S) are used in the EXP24S

SFF Gen2-bay Drawer. Also available in the low-profile CEC Gen3 bays are the 775 GB SFF-3 4K SSD for Linux (#EL4W) and the 387 GB SFF-3 4K SSD for Linux (#EL4U).

IBM i OS supported SSD and disk

Power System S814 (8286-41A) and S824 (8286-42A) servers support two new SSD features in the EXP24S SFF Gen2-bay Drawer (#EL1S): 387 GB SFF-2 4k SSD for IBM i (#ES0R) and 775 GB SFF-2 4k SSD for IBM i (#ES0T). Also available are SSDs mounted in a Gen2 carrier as 387 GB SFF-3 4k SSD for IBM i (#ES0V) and 775 GB SFF-3 4k SSD for IBM i (#ES0X) for use in the CEC Gen3 bays.

A new 528 byte, single-sided format disk, the 571 GB 15k RPM SAS SFF-3 Disk Drive (#ESDE), is available for use on S814 and S824 servers. This disk is available on POWER7 and POWER7+ servers as 571 GB 15K RPM SAS SFF-1 (#ESDJ) and as 571 GB 15K RPM SAS SFF-2 (#ESDN).

Additionally, increased storage capacity is available in RDX removable, disk technology with the 2.0 TB Removable Disk Drive Cartridge (#EU2T), which is supported on POWER6® and POWER7/POWER7+.

128 GB Memory DIMM

The Power System S824 server (8286-42A) will support 1 TB or 2 TB memory using 128 GB memory DIMMs. Consult your IBM seller for more information when ordering (RPQ 8A2232) available on October 14, 2014.

Key prerequisites

None

Planned availability date

October 31, 2014

Description

Carrier-grade platforms for NGN infrastructure and application deployment, designed for extreme shock, vibration and thermal conditions, which exceed normal data center design standards:

- POWER8 performance maximizes NGN throughput and responsiveness.
- Open and industry standard componentry lowers cost and complexity.
- Power management architecture delivers highest performance across broad thermal range.
- Supports same operating system and management options as standard Power Systems offerings.

Optional dc power supply and flexible thermal settings for the IBM Power System S822 (8284-22A) and S822L (8247-22L):

- Power Supply, 2x750 Watt, -48V DC, Hot-swap, Base and Redundant (#EB3H)
- Flexible Thermal Settings for NEBS Applications (#0709)

The IBM Power System S822 and S822L will be available for carrier-grade applications using industry standard ac or dc power sources. Both of these systems have been certified by an independent test laboratory to conform to the Network Equipment Building Systems (NEBS) Level 3 and the European Telecommunications Standards Institute (ETSI) standards. By supporting NEBS capability, both servers

will be able to be configured with two dc power supplies (#EB3H) for redundant hot swap capabilities. When choosing this option, also select Flexible Thermal Settings for NEBS Applications (#0709).

IBM Power S822, visit

<http://www.ibm.com/systems/power/hardware/s822/index.html>

IBM Power S822L, visit

<http://www.ibm.com/systems/power/hardware/s812l-s822l/>

IBM Storwize V3700, visit

http://www.ibm.com/systems/storage/disk/storwize_v3700/overview.html

Power Supply, 750 Watt, -48V DC, Hot-swap, Base and Redundant (#EB3H)

This feature provides a -48V DC telecommunications industry-standard power source, either as the primary power supply in the system or the secondary power supply for redundant power. The ac and dc power supplies cannot be mixed in a system. Two power supplies are required on an order for the IBM Power System S822 and S822L.

Flexible Thermal Settings for NEBS Applications (#0709)

This feature enables resets thermal tolerance of the system to higher limits specified by NEBS Level 3-compliant specifications.

Technical information

NEBS/ETSI and -48V DC Power Configurations features 0709 and EB3H are intended for usage in unique applications normally associated with the harsh environments of remotely located, mobile switching centers only and should be used with awareness of the intended application environment and potential limitations. NEBS/ETSI mode activation (#0709) overrides normal thermal and cooling operating limits and may cause undesirable performance in standard datacenter environments. Total power capacity of the 750 Watt, -48V DC power (#EB3H) limits normal configuration options and should only be used outside of recommended configurations with guidance from IBM.

The IBM Power System S822 and S822L systems were testing for Network Equipment Building Systems (NEBS) / European Telecommunications Standards Institute (ETSI) conformance using memory DIMMs, network adapters, and storage options most commonly requested for telco applications. Additional features may be qualified in the future, as requested by our clients. The scope of the conformance testing included additional standards (known as NEBS Level 3+) requested by some telecommunications network providers. Compliance testing was performed by a certified Independent Testing Laboratories (ITL), selected by IBM based on demonstrated competence in performing such testing, ongoing training programs, audit quality, and certification in nationally recognized quality programs for testing laboratories.

For additional guidance on NEBS/ETSI conforming applications of the Power System S822 and S822L, and usage of 750 watt -48V DC power supplies, consult your IBM sales specialist or visit

<http://www.ibm.com/systems/power/solutions/industry/telco.html>

Limitations

The customer is responsible for validation and proper usage of NEBS/ETSI conforming configurations of these systems in application systems and communications facilities.

More information

IBM Power S822, visit

<http://www.ibm.com/systems/power/hardware/s822/index.html>

IBM Power S822L, visit

<http://www.ibm.com/systems/power/hardware/s812l-s822l/>

IBM Storwize V3700, visit

http://www.ibm.com/systems/storage/disk/storwize_v3700/overview.html

Statement of general direction

POWER8 I/O Planning Insights

IBM plans to support additional PCIe adapters on the Power E870 and E880 servers to provide additional I/O configuration flexibility to clients. The following full-high profile adapters are planned to be placed in the PCIe Gen3 I/O Drawer:

- PCIe2 4-Port (10GbE and 1GbE) SR&RJ45 Adapter (#5744)
- 10Gb FCoE PCIe Dual Port Adapter (#5708)
- PCIe 380 MB Cache Dual Port 3Gb SAS RAID Adapter (#5805)
- PCIe2 4-port (10Gb FCoE and 1GbE) LR&RJ45 Adapter (#EN0M)

And the following low-profile adapters are planned to be placed in the E870 and E880 system node drawers:

- PCIe LP POWER® GXT145 Graphics Accelerator (#5269)
- PCIe LP 10GbE SR 1-port Adapter (#5275)
- PCIe LP 4Gb 2-Port Fibre Channel Adapter (#5276)
- PCIe2 LP 4-Port 10GbE&1GbE SR&RJ45 Adapter (#5280)
- PCIe2 LP 2-Port 4X IB QDR Adapter 40Gb (#5283)
- PCIe2 LP 2-port 10GbE SR Adapter (#5284)
- PCIe2 LP 3D Graphics Adapter x1 (#EC41)
- PCIe2 LP 4-Port (10Gb+1GbE) SR+RJ45 Adapter (#EN0T)
- PCIe2 LP 4-port (10Gb+1GbE) Copper SFP+RJ45 Adapter (#EN0V)
- PCIe LP 2-Port Async EIA-232 Adapter (#EN28)

IBM plans to support up to four PCIe Gen3 I/O drawers per Power E870 and E880 system node drawer, providing additional configuration flexibility and system growth.

IBM plans to extend the support of PCIe Gen3 I/O drawers to the POWER8 scale-out servers that have six or more cores. This drawer is planned to be attached via two x16 PCIe slots and will require an update to the currently available firmware.

IBM plans to add NIC SR-IOV capability to POWER8 servers using selected SR-IOV capable PCIe adapters. The adapters planned to be added are 4-port Ethernet Adapters with copper twinax ports (#EN0K, #EN0L, #EL3C), SR optical ports (#EN0H, #EN0J, #EL38), and LR optical ports (#EN0N, #EN0M).

IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of

any future features or functionality described for our products remains at our sole discretion.

Product number

The following are newly announced features on the specific models of the IBM Power Systems 1457, 7014, 7042, 7120, 7316, 7891, 7893, 7895, 7953, 7954, 7955, 7965, 8202, 8203, 8204, 8205, 8231, 8233, 8234, 8236, 8246, 8247, 8248, 8268, 8284, 8286, 8406, 8408, 8412, 8956, 9109, 9117, 9119, and 9179 machine type:

New features available October 31, 2014

Description	Machine type	Model	Feature number
PCIe3 LP CAPI Accelerator Adapter	8247	21L	EJ16
	8247	22L	
Trial PowerVM® Live Partition Mobility	8286	41A	ELPM
	8286	42A	
Rack Content Specify for #EMX0 I/O Expansion Drawer Rack Content Specify: 8247-21L - 2EIA	7014	T42	ER0M
	7014	T00	ER18
RACK SPECIFY FC EMX0	7014	T42	ER19
	7965	94Y	
	7014	B42	
	7014	T00	
2TB Removable Disk Drive Cartridge (RDX)	7014	T42	EU2T
	7965	94Y	
	1457	7FL	
	7891	73X	
	7891	74X	
	7895	22X	
	7895	23A	
	7895	23X	
	7895	42X	
	7895	43X	
	7954	24X	
	8202	E4B	
	8202	E4C	
	8202	E4D	
	8205	E6B	
	8205	E6C	
	8205	E6D	
	8231	E1C	
	8231	E1D	
	8231	E2B	
	8231	E2C	
	8231	E2D	
	8233	E8B	
	8236	E8C	
	8246	L1C	
	8246	L1D	
	8246	L1S	
	8246	L1T	
	8246	L2C	
	8246	L2D	
	8246	L2S	
	8246	L2T	
	8247	21L	
8247	22L		
8248	L4T		
8268	E1D		
8284	22A		
8286	41A		
8286	42A		
8406	70Y		
8406	71Y		
8408	E8D		
8412	EAD		

9109 RMD
 9117 MMB
 9117 MMC
 9117 MMD
 9179 MHB
 9179 MHC
 9179 MHD

New features available November 18, 2014

Description	Machine type	Model	Feature number
387GB SFF-2 4K SSD for Linux	8247	21L	EL4Q
	8247	22L	
775GB SFF-2 4K SSD for Linux	8247	21L	EL4S
	8247	22L	
387GB SFF-3 4K SSD for Linux	8247	21L	EL4U
	8247	22L	
775GB SFF-3 4K SSD for Linux	8247	21L	EL4W
	8247	22L	
600GB 15k RPM SAS SFF-3 Disk Drive - 5xx Block	8247	21L	ELDF
	8247	22L	
600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block	8246	L1D	ELDK
	8246	L1T	
	8246	L2D	
	8246	L2T	
600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	8246	L1T	ELDP
	8246	L2T	
	8247	21L	
	8247	22L	
	8248	L4T	
Quantity 150 of #ELDP 600GB 15k RPM SFF-2 Disk	8246	L2T	ELQ0
	8247	21L	
	8247	22L	
	8248	L4T	
Quantity 150 of #EL4S 775GB SFF-2 4k SSD (Linux)	8247	21L	ELQS
	8247	22L	
Quantity 150 of #EL4Q 387GB SFF-2 4k SSD (Linux)	8247	21L	ELRQ
	8247	22L	
#ESDE Load Source Specify (571GB 15k RPM SFF-3)	8286	41A	ELSE
	8286	42A	
#ESDJ Load Source Specify (571GB 15K RPM SFF-1)	8202	E4D	ELSJ
	8205	E6D	
	8231	E1D	
	8231	E2D	
	8268	E1D	
	8408	E8D	
	9109	RMD	
	9117	MMD	
	9119	FHB	
	9179	MHD	
#ESDN Load Source Specify (571GB 15K RPM SFF-2)	8202	E4D	ELSN
	8205	E6D	
	8231	E1D	
	8231	E2D	
	8268	E1D	
	8286	41A	
	8286	42A	
	8408	E8D	
	9109	RMD	
	9117	MMD	
	9119	FHB	
	9179	MHD	
#ES0R Load Source Specify (387GB SSD SFF-2 4K)	8286	41A	ELSR
	8286	42A	
#ES0T Load Source Specify (775GB SSD SFF-2 4K)	8286	41A	ELST
	8286	42A	
#ES0V Load Source Specify (387GB SSD SFF-3 4k)	8286	41A	ELSV
	8286	42A	
#ES0X Load Source Specify (775GB SSD SFF-3 4k)	8286	41A	ELSX
	8286	42A	
Quantity 150 of #ES0Q 387GB SFF-2 4k SSD (AIX/			

Linux)	8284	22A	EQ0Q
	8286	41A	
	8286	42A	
Quantity 150 of #ES0R 387GB SFF-2 4k SSD (IBM i)	8286	41A	EQ0R
	8286	42A	
Quantity 150 of #ES0S 775GB SFF-2 4k SSD (AIX/Linux)	8284	22A	EQ0S
	8286	41A	
	8286	42A	
Quantity 150 of #ES0T 775GB SFF-2 4k SSD (IBM i)	8286	41A	EQ0T
	8286	42A	
Quantity 150 of #ESDJ (571GB 15K RPM SAS SFF-1 for IBM i)	9117	MMD	EQDJ
	9119	FHB	
	9179	MHD	
Quantity 150 of #ESDK (571GB 15K RPM SAS SFF-1 for AIX/Linux)	8412	EAD	EQDK
	9117	MMD	
	9119	FHB	
	9179	MHD	
Quantity 150 of #ESDN (571GB 15K RPM SAS SFF-2 for IBM i)	8202	E4D	EQDN
	8205	E6D	
	8231	E2D	
	8286	41A	
	8286	42A	
	8408	E8D	
	9109	RMD	
	9117	MMD	
	9119	FHB	
	9179	MHD	
Quantity 150 of #ESDP (600GB 15K RPM SAS SFF-2 for AIX/LINUX)	8202	E4D	EQDP
	8205	E6D	
	8231	E2D	
	8284	22A	
	8286	41A	
	8286	42A	
	8408	E8D	
	8412	EAD	
	9109	RMD	
	9117	MMD	
	9119	FHB	
	9179	MHD	
387GB SFF-2 4K SSD for AIX/Linux	8284	22A	ES0Q
	8286	41A	
	8286	42A	
387GB SFF-2 4k SSD for IBM i	8286	41A	ES0R
	8286	42A	
775GB SFF-2 4k SSD for AIX/Linux	8284	22A	ES0S
	8286	41A	
	8286	42A	
775GB SFF-2 4k SSD for IBM i	8286	41A	ES0T
	8286	42A	
387GB SFF-3 4k SSD AIX/Linux	8284	22A	ES0U
	8286	41A	
	8286	42A	
387GB SFF-3 4k SSD for IBM i	8286	41A	ES0V
	8286	42A	
775GB SFF-3 4k SSD for AIX/Linux	8284	22A	ES0W
	8286	41A	
	8286	42A	
775GB SFF-3 4k SSD for IBM i	8286	41A	ES0X
	8286	42A	
571GB 15k RPM SAS SFF-3 Disk Drive - 528 Block (IBM i)	8286	41A	ESDE
	8286	42A	
600GB 15k RPM SAS SFF-3 Disk Drive - 5xx Block (AIX/Linux)	8284	22A	ESDF
	8286	41A	
	8286	42A	
571GB 15K RPM SAS SFF-1 Disk Drive - 528 Block (IBM i)	8202	E4D	ESDJ
	8205	E6D	

	8231	E1D	
	8231	E2D	
	8268	E1D	
	8408	E8D	
	9109	RMD	
	9117	MMD	
	9119	FHB	
	9179	MHD	
600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (AIX/Linux)	8202	E4D	ESDK
	8205	E6D	
	8231	E1D	
	8231	E2D	
	8268	E1D	
	8408	E8D	
	8412	EAD	
	9109	RMD	
	9117	MMD	
	9119	FHB	
	9179	MHD	
571GB 15K RPM SAS SFF-2 Disk Drive - 528 Block (IBM i)	8202	E4D	ESDN
	8205	E6D	
	8231	E1D	
	8231	E2D	
	8268	E1D	
	8286	41A	
	8286	42A	
	8408	E8D	
	9109	RMD	
	9117	MMD	
	9119	FHB	
	9179	MHD	
600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block (AIX/Linux)	8202	E4D	ESDP
	8205	E6D	
	8231	E1D	
	8231	E2D	
	8268	E1D	
	8284	22A	
	8286	41A	
	8286	42A	
	8408	E8D	
	8412	EAD	
	9109	RMD	
	9117	MMD	
	9119	FHB	
	9179	MHD	

The following are newly announced features on the specific models of the IBM Power Systems 1457, 7014, 7042, 7120, 7316, 7891, 7893, 7895, 7953, 7954, 7955, 7965, 8202, 8203, 8204, 8205, 8231, 8233, 8234, 8236, 8246, 8247, 8248, 8268, 8284, 8286, 8406, 8408, 8412, 8956, 9109, 9117, 9119, and 9179 machine type:

New features available November 18, 2014

Description	Machine type	Model	Feature number
177 GB 1.8" 4k SSD Read Intensive for AIX/Linux	8284	22A	ES0Y
	8286	42A	
177 GB 1.8" SSD Read Intensive for AIX/Linux (528 byte)	8284	22A	ES0Z
	8286	42A	

The following are newly announced features on the specific models of the IBM Power Systems 1457, 7014, 7042, 7120, 7316, 7891, 7893, 7895, 7953, 7954, 7955, 7965, 8202, 8203, 8204, 8205, 8231, 8233, 8234, 8236, 8246, 8247, 8248, 8268, 8284, 8286, 8406, 8408, 8412, 8956, 9109, 9117, 9119, and 9179 machine type:

New features available November 21, 2014

Description	Machine type	Model	Feature number
Flexible Thermal Settings for NEBS Applications	8247	22L	0709
	8284	22A	
DC Power Supply, 750 watt, DC, Base and Redundant	8247	22L	EB3H
	8284	22A	

The following are newly announced features on the specific models of the IBM Power Systems 1457, 7014, 7042, 7120, 7316, 7891, 7893, 7895, 7953, 7954, 7955, 7965, 8202, 8203, 8204, 8205, 8231, 8233, 8234, 8236, 8246, 8247, 8248, 8268, 8284, 8286, 8406, 8408, 8412, 8956, 9109, 9117, 9119, and 9179 machine type:

New features available November 28, 2014

Description	Machine type	Model	Feature number		
REDIS LAB	8247	21L	EHKE		
	8247	22L			
PCIe Crypto Coprocessor No BSC 4765-001	8202	E4B	EJ27		
	8202	E4C			
	8202	E4D			
	8203	E4A			
	8204	E8A			
	8205	E6B			
	8205	E6C			
	8205	E6D			
	8233	E8B			
	8236	E8C			
	8286	41A			
	8286	42A			
	PCIe Crypto Coprocessor Gen3 BSC 4765-001	8202		E4B	EJ28
		8202		E4C	
8202		E4D			
8203		E4A			
8204		E8A			
8205		E6B			
8205		E6C			
8205		E6D			
8231		E2C			
8231		E2D			
8233		E8B			
8234		EMA			
8408		E8D			
8412		EAD			
9109		RMD			
9117		MMA			
9117		MMB			
9117		MMC			
9117		MMD			
PCIe Crypto Coprocessor Gen4 BSC 4765-001	9119	FHA	EJ29		
	9119	FHB			
	9179	MHB			
	9179	MHC			
	9179	MHD			
	8408	E8D			
	8412	EAD			
	9109	RMD			
	9117	MMB			
9117	MMC				
9117	MMD				
9179	MHB				
9179	MHC				
9179	MHD				

The following are newly announced features on the specific models of the IBM Power Systems 1457, 7014, 7042, 7120, 7316, 7891, 7893, 7895, 7953, 7954, 7955,

7965, 8202, 8203, 8204, 8205, 8231, 8233, 8234, 8236, 8246, 8247, 8248, 8268, 8284, 8286, 8406, 8408, 8412, 8956, 9109, 9117, 9119, and 9179 machine type:

New features available December 5, 2014

Description	Machine		Feature number
	type	Model	
Integrated Solution Packing	7014	S25	ECSS
	7014	T00	
	7014	T42	
	7042	CR8	
	7120	24E	
	7120	24L	
	7120	48E	
	7120	64C	
	7316	TF4	
	7965	94Y	
	8202	E4D	
	8205	E6D	
	8231	E1D	
	8231	E2D	
	8246	L1T	
	8246	L2D	
	8247	21L	
	8247	22L	
	8248	L4T	
	8268	E1D	
	8284	22A	
	8286	41A	
	8286	42A	
	8408	E8D	
	8412	EAD	
	9109	RMD	
9117	MMD		
9179	MHD		

The following are newly announced features on the specific models of the IBM Power Systems 1457, 7014, 7042, 7120, 7316, 7891, 7893, 7895, 7953, 7954, 7955, 7965, 8202, 8203, 8204, 8205, 8231, 8233, 8234, 8236, 8246, 8247, 8248, 8268, 8284, 8286, 8406, 8408, 8412, 8956, 9109, 9117, 9119, and 9179 machine type:

New features available December 12, 2014

Description	Machine		Feature number
	type	Model	
2 Port Async EIA-232 PCIe Adapter	8202	E4B	EN27
	8202	E4C	
	8202	E4D	
	8205	E6B	
	8205	E6C	
	8205	E6D	
	8231	E2C	
	8231	E2D	
	8233	E8B	
	8236	E8C	
	8246	L2S	
	8246	L2T	
	8248	L4T	
	8408	E8D	
	8412	EAD	
	9109	RMD	
	9117	MMB	
	9117	MMC	
	9117	MMD	
	9119	FHB	
9179	MHB		
9179	MHC		
9179	MHD		
PCIe LP 2-Port Async EIA-232 Adapter	8202	E4B	EN28
	8202	E4C	

8202	E4D
8205	E6B
8205	E6C
8205	E6D
8231	E1C
8231	E1D
8231	E2B
8231	E2C
8231	E2D
8246	L1C
8246	L1D
8246	L1S
8246	L1T
8246	L2B
8246	L2C
8246	L2D
8246	L2S
8246	L2T
8268	E1D

The following are newly announced features on the specific models of the IBM Power Systems 8202, 8205, 8231, 8233, 8234, 8236, 8246, 8247, 8248, 8261, 8268, 8284, 8286, 8408, 8412, 9109, 9117, 9119, 9125, 9179 machine type:

New features available October 31, 2014

Description	Machine type	Model	Feature number
PCIe 2-Line WAN w/Modem	8202	E4B	2893
	8202	E4C	
	8202	E4D	
	8205	E6B	
	8205	E6C	
	8205	E6D	
	8231	E2C	
	8231	E2D	
	8233	E8B	
	8234	EMA	
	8236	E8C	
	8246	L2T	
	8248	L4T	
	8261	E4S	
	8286	41A	
	8286	42A	
	8408	E8D	
	9109	RMD	
	9117	MMA	
	9117	MMB	
	9117	MMC	
9117	MMD		
9119	FHB		
9179	MHB		
9179	MHC		
9179	MHD		
PCIe2 LP 2-Port 4X IB QDR Adapter 40Gb	8202	E4B	5283
	8202	E4C	
	8202	E4D	
	8205	E6B	
	8205	E6C	
	8205	E6D	
	8231	E1C	
	8231	E1D	
	8231	E2C	
	8231	E2D	
	8246	L1C	
	8246	L1D	
	8246	L1S	
	8246	L1T	
	8246	L2C	
	8246	L2D	
	8246	L2S	

	8246	L2T	
	8247	21L	
	8247	22L	
	8268	E1D	
	8284	22A	
	9125	F2C	
PCIe2 2-Port 4X IB QDR Adapter 40Gb	8202	E4C	5285
	8202	E4D	
	8205	E6C	
	8205	E6D	
	8286	41A	
	8286	42A	
	8408	E8D	
	8412	EAD	
	9109	RMD	
	9117	MMC	
	9117	MMD	
	9179	MHC	
	9179	MHD	
PCIe3 LP 2-Port 40GbE NIC RoCE QSFP+ Adapter	8247	21L	EC3A
	8247	22L	
	8284	22A	
PCIe3 2-Port 40GbE NIC RoCE QSFP+ Adapter	8286	41A	EC3B
	8286	42A	

Feature conversions

The existing components being replaced during a model or feature conversion become the property of IBM and must be returned.

Feature conversions are always implemented on a "quantity of one for quantity of one" basis. Multiple existing features may not be converted to a single new feature. Single existing features may not be converted to multiple new features.

The following conversions will be supported in eConfig on November 11, 2014 customers:

Feature conversions for 8202-E4B adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	No
EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No

Feature conversions for 8202-E4C adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	No
EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No

Feature conversions for 8202-E4D adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC	EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	No

4765-001			
EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001		No

Feature conversions for 8202-E4D disk features

From FC:	To FC:	Return parts
ESDJ - 571GB 15K RPM SAS SFF-1 Disk Drive - 528 Block (IBM i)	ESDN - 571GB 15K RPM SAS SFF-2 Disk Drive - 528 Block	No
ESDK - 600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (IBM i)	ESDP - 600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	No

Feature conversions for 8203-E4A to 8202-E4D adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	No
EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No

Feature conversions for 8203-E4A adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	No
EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No

Feature conversions for 8204-E8A adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	No
EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No

Feature conversions for 8205-E6B adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	No
EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No

Feature conversions for 8205-E6C adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	No
EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No

Feature conversions for 8205-E6D adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	No
EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No

Feature conversions for 8205-E6D disk features

From FC:	To FC:	Return parts
ESDJ - 571GB 15K RPM SAS SFF-1 Disk Drive - 528 Block (IBM i)	ESDN - 571GB 15K RPM SAS SFF-2 Disk Drive - 528 Block	No
ESDK - 600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (IBM i)	ESDP - 600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	No

Feature conversions for 8231-E1D disk features

From FC:	To FC:	Return parts
ESDJ - 571GB 15K RPM SAS SFF-1 Disk Drive - 528 Block (IBM i)	ESDN - 571GB 15K RPM SAS SFF-2 Disk Drive - 528 Block	No
ESDK - 600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (IBM i)	ESDP - 600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	No

Feature conversions for 8231-E2D disk features

From FC:	To FC:	Return parts
ESDJ - 571GB 15K RPM SAS SFF-1 Disk Drive - 528 Block (IBM i)	ESDN - 571GB 15K RPM SAS SFF-2 Disk Drive - 528 Block	No
ESDK - 600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (IBM i)	ESDP - 600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	No

Feature conversions for 8233-E8B adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC	EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	No

4765-001			
EJ27 - PCIe Crypto Coprocessor No BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001		No

Feature conversions for 8268-E1D disk features

From FC:	To FC:	Return parts
ESDJ - 571GB 15K RPM SAS SFF-1 Disk Drive - 528 Block (IBM i)	ESDN - 571GB 15K RPM SAS SFF-2 Disk Drive - 528 Block	No
ESDK - 600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (IBM i)	ESDP - 600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	No

Feature conversions for 8408-E8D adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 8408-E8D disk features

From FC:	To FC:	Return parts
ESDJ - 571GB 15K RPM SAS SFF-1 Disk Drive - 528 Block (IBM i)	ESDN - 571GB 15K RPM SAS SFF-2 Disk Drive - 528 Block	No
ESDK - 600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (IBM i)	ESDP - 600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	No

Feature conversions for 8412-EAD adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 8412-EAD disk features

From FC:	To FC:	Return parts
EQDK - Quantity 150 of #ESDK (571GB 15K RPM SAS SFF-1 for AIX/Linux)	EQDP - Quantity 150 of #ESDP (600GB 15K RPM SAS SFF-2 for AIX/LINUX)	No
ESDK - 600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (IBM i)	ESDP - 600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	No

Feature conversions for 9109-RMD adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9109-RMD disk features

From FC:	To FC:	Return parts
ESDJ - 571GB 15K RPM SAS SFF-1 Disk Drive - 528 Block (IBM i)	ESDN - 571GB 15K RPM SAS SFF-2 Disk Drive - 528 Block	No
ESDK - 600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (IBM i)	ESDP - 600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	No

Feature conversions for 9117-MMA to 9117-MMD adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9117-MMA to 9179-MHD adapter features

From FC:	To FC:	Return parts
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9117-MMB adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9117-MMB to 9117-MMD adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9117-MMC adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9117-MMC to 9117-MMD adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9117-MMD adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9117-MMD disk features

From FC:	To FC:	Return parts
EQDJ - Quantity 150 of #ESDJ (571GB 15K RPM SAS SFF-1 for IBM i)	EQDN - Quantity 150 of #ESDN (571GB 15K RPM SAS SFF-2 for IBM i)	No
EQDK - Quantity 150 of #ESDK (571GB 15K RPM SAS SFF-1 for AIX/Linux)	EQDP - Quantity 150 of #ESDP (600GB 15K RPM SAS SFF-2 for AIX/LINUX)	No
ESDJ - 571GB 15K RPM SAS SFF-1 Disk Drive - 528 Block (IBM i)	ESDN - 571GB 15K RPM SAS SFF-2 Disk Drive - 528 Block	No
ESDK - 600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (IBM i)	ESDP - 600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	No

Feature conversions for 9119-FHB disk features

From FC:	To FC:	Return parts
EQDJ - Quantity 150 of #ESDJ (571GB 15K RPM SAS SFF-1 for IBM i)	EQDN - Quantity 150 of #ESDN (571GB 15K RPM SAS SFF-2 for IBM i)	No
EQDK - Quantity 150 of #ESDK (571GB 15K RPM SAS SFF-1 for AIX/Linux)	EQDP - Quantity 150 of #ESDP (600GB 15K RPM SAS SFF-2 for AIX/LINUX)	No
ESDJ - 571GB 15K RPM SAS	ESDN - 571GB 15K RPM SAS	No

SFF-1 Disk Drive - 528 Block (IBM i)	SFF-2 Disk Drive - 528 Block	
ESDK - 600GB 15K RPM SAS	ESDP - 600GB 15K RPM SAS	No
SFF-1 Disk Drive - 5xx Block (IBM i)	SFF-2 Disk Drive - 5xx Block	

Feature conversions for 9179-MHB adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9179-MHB to 9179-MHD adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9179-MHC adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9179-MHC to 9179-MHD adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9179-MHD adapter features

From FC:	To FC:	Return parts
EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	No
EJ28 - PCIe Crypto Coprocessor Gen3 BSC 4765-001	EJ29 - PCIe Crypto Coprocessor Gen4 BSC 4765-001	No

Feature conversions for 9179-MHD disk features

From FC:	To FC:	Return parts
EQDJ - Quantity 150 of #ESDJ (571GB 15K RPM SAS SFF-1 for IBM i)	EQDN - Quantity 150 of #ESDN (571GB 15K RPM SAS SFF-2 for IBM i)	No
EQDK - Quantity 150 of #ESDK (571GB 15K RPM SAS SFF-1 for AIX/Linux)	EQDP - Quantity 150 of #ESDP (600GB 15K RPM SAS SFF-2 for AIX/LINUX)	No
ESDJ - 571GB 15K RPM SAS SFF-1 Disk Drive - 528 Block (IBM i)	ESDN - 571GB 15K RPM SAS SFF-2 Disk Drive - 528 Block	No
ESDK - 600GB 15K RPM SAS SFF-1 Disk Drive - 5xx Block (IBM i)	ESDP - 600GB 15K RPM SAS SFF-2 Disk Drive - 5xx Block	No

Publications

No publications are shipped with these features.

Services

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<http://www.ibm.com/services/continuity>

For details on education offerings related to specific products, visit

http://www.ibm.com/services/learning/ites.wss/zz/en?pageType=tp_search_new

Technical information

Refer to the technical information for these products.

- Power S822L servers (8247-22L)
- Management Server (8247-21L)
- HMC (7042-CR8)
- Networking Switches (7120-48E, 7120-64C, and 7120-24L)
- Flat Panel Display (7316-TF4)
- Rack (7014-T42)
- DCS3700 storage expansion drawers (1818-80E)

Specified operating environment

Physical specifications

For physical specifications, refer to the Sales Manual.

To assure installability and serviceability in non-IBM industry-standard racks, review the installation planning information for any product-specific installation requirements.

Planning information

Cable orders

No cables required.

Security, auditability, and control

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

Global Technology Services

Contact your IBM representative for the list of selected services available in your country, either as standard or customized offerings, for the efficient installation, implementation, and/or integration of this product.

IBM Electronic Services

Electronic Service Agent™ and the IBM Electronic Support web portal are dedicated to providing fast, exceptional support to IBM Systems customers. The IBM Electronic Service Agent tool is a no-additional-charge tool that proactively monitors and reports hardware events, such as system errors, performance issues, and inventory. The Electronic Service Agent tool can help you stay focused on your company's strategic business initiatives, save time, and spend less effort managing day-to-day IT maintenance issues. Servers enabled with this tool can be monitored remotely around the clock by IBM Support all at no additional cost to you.

Now integrated into the base operating system of AIX 5.3, AIX 6.1, and AIX 7.1, Electronic Service Agent is designed to automatically and electronically report system failures and utilization issues to IBM, which can result in faster problem resolution and increased availability. System configuration and inventory information collected by the Electronic Service Agent tool also can be viewed on the secure Electronic Support web portal, and used to improve problem determination and resolution by you and the IBM support team. To access the tool main menu, simply type "smitty esa_main", and select "Configure Electronic Service Agent." In addition, ESA now includes a powerful Web user interface, giving the administrator easy access to status, tool settings, problem information, and filters. For more information and documentation on how to configure and use Electronic Service Agent, refer to

<http://www.ibm.com/support/electronic>

The IBM Electronic Support portal is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. This portal enables you to gain easier access to IBM resources for assistance in resolving technical problems. The My Systems and Premium Search functions make it even easier for Electronic Service Agent tool-enabled customers to track system inventory and find pertinent fixes.

Benefits

Increased uptime: The Electronic Service Agent tool is designed to enhance the Warranty or Maintenance Agreement by providing faster hardware error reporting and uploading system information to IBM Support. This can translate to less wasted time monitoring the "symptoms," diagnosing the error, and manually calling IBM Support to open a problem record. Its 24x7 monitoring and reporting mean no more dependence on human intervention or off-hours customer personnel when errors are encountered in the middle of the night.

Security: The Electronic Service Agent tool is designed to be secure in monitoring, reporting, and storing the data at IBM. The Electronic Service Agent tool securely transmits either via the Internet (HTTPS or VPN) or modem, and can be configured to communicate securely through gateways to provide customers a single point of exit from their site. Communication is one way. Activating Electronic Service Agent does not enable IBM to call into a customer's system. System inventory information is stored in a secure database, which is protected behind IBM firewalls. It is viewable only by the customer and IBM. The customer's business applications or business data is never transmitted to IBM.

More accurate reporting: Since system information and error logs are automatically uploaded to the IBM Support center in conjunction with the service request, customers are not required to find and send system information, decreasing the risk of misreported or misdiagnosed errors. Once inside IBM, problem error data is run through a data knowledge management system and knowledge articles are appended to the problem record.

Customized support: Using the IBM ID entered during activation, customers can view system and support information in the "My Systems" and "Premium Search" sections of the Electronic Support website at

<http://www.ibm.com/support/electronic>

My Systems provides valuable reports of installed hardware and software using information collected from the systems by Electronic Service Agent. Reports are available for any system associated with the customer's IBM ID. Premium Search combines the function of search and the value of Electronic Service Agent information, providing advanced search of the technical support knowledgebase. Using Premium Search and the Electronic Service Agent information that has been collected from your system, customers are able to see search results that apply specifically to their systems.

For more information on how to utilize the power of IBM Electronic Services, contact your IBM Systems Services Representative, or visit

<http://www.ibm.com/support/electronic>

Terms and conditions

Terms and conditions features

Field-installable feature

Yes

Warranty period

These features assume the same warranty or maintenance terms as the machine in which they are installed for the full warranty or maintenance period announced for such machine.

Customer setup

Yes.

Machine code

Same license terms and conditions as base machine

Prices

For all local charges, contact your IBM representative.

Announcement countries

Features 5283, 5285, EC3A, and EC3B will only be available in the following European, Middle Eastern, and African countries:

- Bahrain
- Kuwait
- Oman
- Qatar
- Saudi Arabia
- United Arab Emirates

Note: This includes IBM Middle East - Dubai and Abu Dhabi, which have separate country codes.

- Morocco
- Tunisia
- Iraq
- Lebanon
- Yemen
- Libya
- Somalia
- Djibouti
- Comoros
- Pakistan
- Sudan and Syria

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