

IBM POWER9 technology-based servers enhance I/O options

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Overview

The IBM[®] POWER9[™] technology-based servers are enhanced with the PCIe2 8 Gb 2-Port Fibre Channel Adapter and the PCIe1 SAS Tape/DVD Dual-port 3 Gb x8 Adapter.

The PCIe2 8 Gb 2-Port Fibre Channel Adapter (#EN0F/#EN0G) ships a two-port, 8 Gb PCIe Gen2 Fibre Channel Adapter based on the QLogic QLE2562 Host Bus Adapter.

Features EN0F and EN0G are electronically and functionally identical with the same CCIN of 578D. EN0F has a low-profile tailstock bracket and EN0G has a full-high tailstock bracket.

The PCIe1 SAS Tape/DVD Dual-port 3 Gb x8 Adapter (#EJ1N/#EJ1P) supports the attachment of SAS tape and DVD using a pair of mini SAS 4x connectors.

Feature EJ1N and EJ1P are electrically and functionally identical with the same CCIN of 57B3. EJ1N has a low-profile tailstock bracket and EJ1P has a full-high tailstock bracket.

The IBM Power[®] S914 server is now supported with four 900 W power supplies (#EB2L) in a rack configuration. The four 900 W power supplies are configured as 2+2 and can support either 100 - 127 V AC input or 200 - 240 V AC input options for tower or rack version.

Feature exchange

Not applicable.

Planned availability date

April 6, 2018, except for:

- April 20, 2018, for feature EN0G for 9009-22A, 9009-41A, and 9223-22H and for feature EJ1P for 9009-22A, 9009-42A, 9223-22H, and 9223-42H

Description

The POWER9 servers that support the feature EN0F are the S922 (9009-22A) and H922 (9223-22H), and the POWER9 servers that support the feature EN0G are the

S924 (9009-42A), S914 (9009-41A), S922 (9009-22A), H924 (9223-42H), and H922 (9223-22H).

The **PCIe 2 8 Gb 2-Port Fibre Channel Adapter (#EN0F/#EN0G)** feature ships a two-port, 8 Gb PCIe Gen2 Fibre Channel Adapter based on the QLogic QLE2562 Host Bus Adapter (HBA). Each port provides single initiator capability over a fiber link. The ports have LC type connectors and utilize shortwave laser optics. The adapter operates at link speeds of 2, 4, and 8 Gbps and automatically negotiates to the highest speed possible. LEDs on each port provide information on the status and link speed of the port.

The adapter connects to a Fibre Channel switch or can directly attach to a Fibre Channel port on a supported storage unit.

N_Port ID Virtualization (NPIV) capability is supported through VIOS.

Cables are the responsibility of the client. Use multimode fiber optic cables with short-wave lasers that adhere to the following specifications:

- OM3 - multimode 50/125 micron fiber, 2000 MHz*km bandwidth
- OM2 - multimode 50/125 micron fiber, 500 MHz*km bandwidth
- OM1 - multimode 62.5/125 micron fiber, 200 MHz*km bandwidth

Because core sizes are different, OM1 cables can only be connected to other OM1 cables. For best results, OM2 cables should not be connected to OM3 cables. However, if an OM2 cable is connected to an OM3 cable, the characteristics of the OM2 cable apply to the entire length of the cables. The following table shows the supported distances for the three different cable types at the three different link speeds.

Cable	2.125 Gbps	4.25 Gbps	8.5 Gbps
OM3	5m - 500m	.5m - 380m	.5m - 150m
OM2	5m - 300m	.5m - 150m	5m - 50m
OM1	5m - 150m	.5m - 70m	5m - 21m

See also feature 5273 or 5735 for a 2-port 8 Gb Fibre Channel adapter based on an Emulex adapter.

See also optional wrap plug feature ECW0, which is a) required to run some diagnostic procedures and b) in some cases may speed system boot when placed in empty ports.

Features EN0F and EN0G are electronically and functionally identical with the same CCIN of 578D. EN0F has a low-profile tailstock bracket and EN0G has a full-high tailstock bracket.

The POWER9 servers that support the feature EJ1N are the S922 (9009-22A) and H922 (9223-22H), and the POWER9 servers that support the feature EJ1P are the S924 (9009-42A), S914 (9009-41A), S922 (9009-22A), H924 (9223-42H), and H922 (9223-22H).

The **PCIe1 SAS Tape/DVD Dual-port 3 Gb x8 Adapter (#EJ1N/#EJ1P)** is a PCIe Gen1 short x8 form factor adapter that supports the attachment of SAS tape and DVD using a pair of mini SAS 4x connectors. The PCIe1 can be used for external tape drives, which are not supported on the newer and faster 4-port 6 Gb PCIe3 adapter (see #EJ10 or #EJ11). The adapter supports external SAS tape drives such as the 36 GB/72 GB DAT72, 80 GB/160 GB DAT160, and 800 GB/1600 GB LTO™ 4 found in the IBM multimedia drawers such as the 7226-1U3 and 7214-1U2 or tape units such as the TS2240, TS2340, TS3100, TS3200, and TS3310. Other removable media devices supported include IBM SAS/SATA DVD-ROM/RAM drives.

SAS adapter-to-enclosure (AE) 3 Gb cables with mini-SAS connectors are used to attach these drives. See features 3684 (3 m) and 3685 (6 m). The same AE cables can often alternatively be ordered under the tape enclosure or multimedia drawer.

Feature EJ1N and EJ1P are electrically and functionally identical with the same CCIN of 57B3. EJ1N has a low-profile tailstock bracket and EJ1P has a full-high tailstock bracket.

Product number

The following are newly announced features on the specific models of the IBM Power Systems™ 9009 and 9223 machine type:

New features available April 6, 2018

Description	Machine		Feature number
	type	Model	
PCIe1 LP SAS Tape/DVD Dual-port 3Gb x8 Adapter	9009	22A	EJ1N
	9223	22H	
PCIe1 SAS Tape/DVD Dual-port 3Gb x8 Adapter	9009	41A	EJ1P
	9223	22H	
PCIe2 LP 8Gb 2-Port Fibre Channel Adapter	9009	22A	EN0F
	9223	22H	
PCIe2 8Gb 2-Port Fibre Channel Adapter	9009	42A	EN0G
	9223	42H	

The following are newly announced features on the specific models of the IBM Power Systems 9009, 9223 machine type:

New features available April 20, 2018

Description	Machine		Feature number
	type	Model	
PCIe1 SAS Tape/DVD Dual-port 3Gb x8 Adapter	9009	22A	EJ1P
	9009	42A	
	9223	22H	
	9223	42H	
PCIe2 8Gb 2-Port Fibre Channel Adapter	9009	22A	EN0G
	9009	41A	
	9223	22H	

The following are newly announced features on the specific models of the IBM Power Systems 8828 machine type:

New features available March 27, 2018

Description	Machine		Feature number
	type	Model	
S&H - No Charge	8828	ER6	ESC0
	8828	G36	
	8828	GU6	
S&H	8828	ER6	ESC7
	8828	G36	
	8828	GU6	

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld^(R) ID and password are required (use IBMid).

[BP Attachment for Announcement Letter 118-043](#)

Publications

No publications are shipped with the announced products.

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For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or go to the [Resiliency Services](#) website.

Details on education offerings related to specific products can be found on the [IBM authorized training](#) website.

Technical information

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.

IBM Systems Lab Services

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To learn how Electronic Services can work for you, go to the [IBM Electronic Support](#) website.

Terms and conditions

Field-installable feature

Yes

Warranty period

To obtain copies of the IBM Statement of Limited Warranty, contact your reseller or IBM. An IBM part or feature installed during the initial installation of an IBM machine is subject to the full warranty period specified by IBM. An IBM part or feature that replaces a previously installed part or feature assumes the remainder of the warranty period for the replaced part or feature. An IBM part or feature added to a machine without replacing a previously installed part or feature is subject to a full warranty. Unless specified otherwise, the warranty period, type of warranty service, and service level of a part or feature are the same as those for the machine in which it is installed.

Customer setup

Yes

Machine code

Same license terms and conditions as base machine

Prices

For additional information and current prices, contact your local IBM representative.

The following are newly announced features on the specific models of the IBM Power Systems 9009 and 9223 machine type:

Description Machine type 9009	Model number	Feature number	Purchase price	Minimum Monthly Maint. Charge	Initial/ MES/ Both/ Support	RP CSU MES
PCIe1 LP SAS Tape/DVD	2P 3Gb 22A	EJ1N			Both	Yes No
PCIe1 SAS Tape/DVD	2P 3Gb x8 22A	EJ1P			Both	Yes No
	41A				Both	Yes No
	42A				Both	Yes No
PCIe2 LP 8Gb 2-Port Fibre Chan	22A	EN0F			Both	Yes No
PCIe2 8Gb 2-Port Fibre Channel	22A	EN0G			Both	Yes No
	41A				Both	Yes No
	42A				Both	Yes No

Description Machine type 9223	Model number	Feature number	Purchase price	Minimum Monthly Maint. Charge	Initial/ MES/ Both/ Support	RP CSU MES
PCIe1 LP SAS Tape/DVD	2P 3Gb 22H	EJ1N			Both	Yes No
PCIe1 SAS Tape/DVD	2P 3Gb x8 22H	EJ1P			Both	Yes No
	42H				Both	Yes No
PCIe2 LP 8Gb 2-Port Fibre Chan	22H	EN0F			Both	Yes No
PCIe2 8Gb 2-Port Fibre Channel	22H	EN0G			Both	Yes No
	42H				Both	Yes No

Description Machine type 8828	Model number	Feature number	Purchase price	Minimum Monthly Maint. Charge	Initial/ MES/ Both/ Support	RP CSU MES
S&H - No Charge	ER6	ESC0			Initial	N/A No
	GU6				Initial	N/A No
	G36				Initial	N/A No
S&H	ER6	ESC7			Initial	N/A No
	GU6				Initial	N/A No
	G36				Initial	N/A No

CSU = Customer setup

RP MES = Return parts, miscellaneous equipment specifications

Pricing terms

Prices in the following PDF prices link are suggested list prices on day of announcement for the U.S. only. They are provided for your information only. Dealer prices may vary, and prices may also vary by country. IBM list price does not include tax or shipping and is subject to change without notice.

[ENUS-118-043-LIST_PRICES_2018_03_27.PDF](#)

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