IBM Power System S914

Future forward infrastructure for your mission critical data

Highlights

- IBM® Power Systems™ S914 server easily integrates into your organization's cloud & cognitive strategy and delivers superior price performance for your mission critical workloads.

- Gain insights faster from your data with up to 1 TB memory

- Designed for security, reliability and performance to face current and future security threats

- Live partition mobility capabilities help you migrating from previous Power Systems.

- Extend IBM i, a truly integrated operating system, and connect to the cognitive capabilities of the IBM Cloud using secure APIs

- Save on licensing cost with strongest per core performance in the industry

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IBM Power Systems S914 server easily integrates into your organization's cloud & cognitive strategy and delivers superior price performance for your mission critical workloads.

The next generation of IBM Power Systems, with POWER9™ technology, is built with innovations that deliver unprecedented security and reliability for data intense workloads of today's enterprises. POWER9 is designed from the ground up for data intensive workloads like Databases or Analytics. This new server generation comes along with twice the memory footprint than POWER8® making it an ideal platform for in-memory and data centric applications. Changes in the memory subsystem and the use of Industry Standard Memory DIMMs take POWER9 to the next level of price/performance leadership. Designed to run commercial, cognitive and database workload better than any other competitive Server Platform, customers are trusting POWER Servers as the robust and secure backbone of their IT infrastructure. Most of the Fortune 500 companies are using POWER technology in their IT infrastructure down from the shop level to large Datacenter deployments.

The IBM Power System S914 server (9009-41A) is a powerful 1-socket server that ships with up to eight activated cores and I/O configuration flexibility to meet today's growth and tomorrow's processing needs. The server features:

- The following fully activated IBM POWER9 processor module configurations in a 19-inch rack-mount, 4U (EIA units) form factor.
  - 4-core Typical 2.3 to 3.8 GHz (max) POWER9 Processor
  - 6-core Typical 2.3 to 3.8 GHz (max) POWER9 Processor
  - 8-core Typical 2.8 to 3.8 GHz (max) POWER9 Processor (rack-mount configuration only)

- Up to 1024 GB of DDR4 memory
- Storage backplane options:
  - Eighteen SFF-3 Bays/Dual IOA with Write Cache
  - Twelve SFF-3 Bays/RDX Bays
  - Split feature to 6+6 SFF Bays: Add a second SAS Controller
  - Twelve SFF-3 Bays/RDX Bay/2 EXT PT
- Optional PCIe3 NVMe carrier card with two M.2 module slots
- Expansion capabilities for the EXP24SX SFF Gen2 bay Drawer
- Hot-swap PCIe Gen4 and Gen3 slots
- Integrated:
  - Service processor
  - EnergyScale technology
  - Hot-swap and redundant cooling
  - USB 3.0 ports
  - Two HMC ports
  - One system port with RJ45 connector
- Two hot-plug, redundant power supplies
- 19-inch rack-mounting hardware (4U) and tower option

The new S914 – The entry offering into the POWER9 family of servers. Industry leading integrated security and reliability as well cloud enabled out of the box with PowerVM technology

Power System S914 (9009-41A) at a glance

System configurations

Microprocessors	1x POWER9 CPUs 4, 6, 8 cores
Level 2 (L2) cache per core	512 K
Level 3 (L3) cache per core	10 MB
RAM (memory)	Up to 1 TB, from 16 DDR4 IS DIMM @ 2666, 2400, and 2133 Mhz, (IBM i in p05 SW tier up to 64GB)
Internal disk storage	12 or 18 SFF SAS Bay options (HDD or SDD), 2 internal PCIe G3 Slots for Storage Controller or NVMe
Processor-to-memory bandwidth	Up to 170 GB/s per socket
L2 to L3 cache bandwidth	7 TB/s on chip bandwidth
Media bays	optional RDX drive with 12 SFF Bay option only,
Adapter slots	13 x16 Gen4 full-height, half-length (CAPI) 12 x8 Gen4 full-height, half-length (with x16 connectors) (CAPI) 2 x8 Gen3 full-height, half-length (with x16 connectors) 4 x8 Gen3 full-height, half-length (one of these slots is used for the required base LAN adapter)

Power System S914 (9009-41A) at a glance

Standard features

I/O ports	• One front USB 3.0 ports
	– Two rear USB 3.0 ports
	– Two HMC 1GbE RJ45 ports
	– One system port with RJ45 connector
	– 1x USB 3.0 front, 2x USB 3.0 rear, 2x HMC 1 GB Eth RJ45 ports, one system port with RJ45 connector, 2x High Speed 25 Gb/s ports

Connectivity support (optional)

Advanced POWER Virtualization	PowerVM Enterprise integrated
RAS features	Processor instruction retry Selective dynamic firmware updates Chip kill memory ECC L2 cache, L3 cache Service processor with fault monitoring Hot-swappable disk bays Redundant cooling fans
Operating systems	AIX 7.2 TL2 AIX 7.2 TL0, TL1 (P8 Compatibility Mode) AIX 7.1 TL4, TL5 (P8 Compatibility Mode) AIX 6.1 TL9 (P7 Compatibility Mode) IBM i 7.3 TR4 IBM i 7.2 TR8 Ubuntu 16.04.4 LTS (P8 Compatibility Mode) RedHat RHEL 7.4 LE (P8 Compatibility Mode) SuSE SLES 11 SP4 (P8 Compatibility Mode) SuSE SLES 12 SP3

Power requirements	• Operating voltage:
	  – 900 W PSU: 100 - 127 V AC or 200 - 240 V AC
	  – 1400 W PSU: 200 - 240 V AC
	• Operating frequency: 47/63 Hz

System dimensions	19-inch rack-mount hardware • Width: 482 mm (18.97 in.) • Depth: 769.6 mm (30.3 in.) • Height: 173.3 mm (6.8 in.) • Weight: 36.3 kg (80 lb) Tower hardware: • Width: 182.4 mm (7.18 in.) • Width with stand: 328.5 mm (12.93 in.) • Depth: 751.7 mm (29.59 in.) • Depth with front-rotatable door: 814.7 mm (32.07 in.) • Height: 486.1 mm (19.14 in.) • Height with handle: 522 mm (20.55 in.) • Weight: 51.89 kg (114.4 lb)
Warranty	3-year limited warranty, CRU (customer replaceable unit) for all other units (varies by country) next business day 9am to 5pm (excluding holidays), warranty service upgrades and maintenance are available.

Why IBM?

IBM is leading the Cognitive and Cloud space—Integrated Cloud capabilities in POWER9 go in line with IBMs cloud strategy and enable to connect current enterprise data with Cloud based AI or Analytics offerings like Watson. IBM gives you best in class on premise Cloud deployment possibilities with this announcement in addition to the off-premise portfolio already maintained. And we're applying that innovation to cognitive infrastructure, helping our customers on their journey to AI.

IBM aligns cutting-edge innovation with enterprise dependability—IBM has over 105 years of aligning continuous innovation with our customers' business needs.

The POWER9 Scale Out family will be the first set of entry servers that will come completely cloud enabled out of the box with integrated PowerVM® Enterprise capabilities. Additional we introduce on chip Analytics and Algorithms helping customers running their workloads at an always optimized processor frequency for performance and throughput. In combination with the memory footprint of 1TB IBM provides right now Systems to clients that are unmatched by competition in terms of security and virtualization capabilities. The affordable Price/Performance of this new server makes it very attractive to current and future customers. Live partition mobility capabilities are built in, to cloud-enable your POWER9 infrastructure and help you migrate from previous Power Systems. Every new S914 also has the option of a temporary PowerVM license for your old server to support a seamless move of workloads to POWER9.

The new S914 has built in security and is ready for current and future security threats.

For more information

To learn more about the Power System S914 please contact your IBM representative or IBM Business Partner.

Additionally, IBM Global Financing provides numerous payment options to help you acquire the technology you need to grow your business. We provide full lifecycle management of IT products and services, from acquisition to disposition. For more information, visit: **ibm.com**/financing

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