IBM Power System S924

Future forward infrastructure for your mission critical data

Highlights

- IBM® Power Systems™ S924 server easily integrates into your organization's cloud & cognitive strategy

- Gain insights faster from your data with 4 TB in-memory database capabilities for HANA, DB2 and Oracle

- Deliver superior price-performance for your mission critical applications, with room to scale in AIX, IBM i, and Linux environments

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

- The integrated virtualization capabilities of the S924 enable enterprises to rapidly deploy, optimize, and recover workloads.

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

- Every POWER9™ S924 is fully cloud-enabled, allowing you to build an agile, containerized cloud on a server platform optimized for data and cognitive services

IBM Power Systems S924

IBM Power Systems S924 server easily integrates into your organization's cloud & cognitive strategy and delivers industry leading 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 S924 for high performance computing provides:

The IBM Power System S924 server (9009-42A) is a powerful 2-socket server that ships with up to 24 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:
  - 8-core Typical 3.8 to 4.0 GHz (max) POWER9 Processor
  - 10-core Typical 3.5 to 3.9 Ghz (max) POWER9 Processor
  - 12-core Typical 3.4 to 3.9 Ghz (max) POWER9 Processor

- Up to 4096 GB of DDR4 memory
- Running at speeds of 2133, 2400, and 2666 Mbps
- Storage backplane options:
  - Base 12 SFF-3 Bays/RDX Bay
  - Split feature to 6+6 SFF Bays: Add a second SAS Controller
  - Expanded Function 18 SFF-3 Bays/Dual IOA with Write Cache and optional external SAS port
  - Expanded Function 12 SFF-3 Bays/RDX Bay and optional external SAS port
- Optional PCIe3 NVMe carrier card with two M.2 module slots
- Expansion capabilities for the EXP12SX/EXP24SX SFF Gen2-bay Drawer
- Hot-plug PCIe Gen4 and Gen3 slots
- Integrated:
  - Service processor
  - EnergyScale technology
  - Hot-plug and redundant cooling
  - USB 3.0 ports
  - Two HMC ports
  - One system port with RJ45 connector
- Four hot-plug, redundant power supplies
- 19-inch rack-mounting hardware (4U)

The new S924 - Highest security and reliability now Cloud enabled with integrated Virtualization capabilities

Power System S924 (9009-42A) at a glance

System configurations

Microprocessors	2x POWER9 CPUs 8, 10, 12 cores
Level 2 (L2) cache	512 K
Level 3 (L3) cache	120 MB
RAM (memory)	Up to 4 TB, from 32 DDR4 IS DIMM @ 2666, 2400, and 2133 Mhz,
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, 340 GB/s per system
L2 to L3 cache bandwidth	7 TB/s on chip bandwidth
Internal SCSI disk bays	n/a
Media bays	Optional RDX drive with 12 SFF Bay option only
Adapter slots	3 x16 Gen4 full-height, half-length (CAPI) 2 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 S924 (9009-42A) at a glance

Standard features

I/O ports	• One front USB 3.0 ports
	  – Two rear USB 3.0 ports
	  – Two HMC 1 GbE 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: 1400 W PSU: 200 - 240 V AC Operating frequency: 47/63 Hz
System dimensions	• Width: 482 mm (18.97 in.) • Depth: 769.6 mm (30.3 in.) • Height: 173.3 mm (6.8 in.) • Weight: 39.9 kg (88 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 new memory footprint of 4 TB IBM provides right now Systems to clients that are unmatched by competition in terms of memory scaling as well as core to memory ratio needed for data centric and in-memory workloads. The S924 will be delivered with a temporary PowerVM license that will enable current POWER7® & POWER8 customers to smoothly migrate to POWER9 using Live Partition Mobility. The new S924 has built in security and is ready for current and future security threats.

For more information

To learn more about the Power System S924 please contact your IBM representative or IBM Business Partner or visit the following website:
ibm.com/us-en/marketplace/small-enterprise-servers

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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