



Highlights

- Full PCIe Gen4 architecture enables seamless maximum speed and throughput between on-premise and multiple public cloud infrastructures
 - Unmatched memory bandwidth and memory storage in the market together with up to 14 NVMe adapters allow VM, container and bare metal consolidation, saving data center space and networking costs
 - Supports multiple OS instances without processor overhead
 - PowerVM hypervisor is included built-in at no additional cost
 - Migrate easily from previous IBM Power Systems servers with a no-cost temporary IBM PowerVM license for your previous server
 - Boot from PCIe Gen4 NVMe devices supported for native IBM i deployments
 - New cost-effective 800 GB data center NVMe device supported for AIX, IBM VIOS or Linux environments
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IBM Power System S922

Superior on-premise infrastructure for hybrid multicloud architectures and mission-critical applications

IBM Power Systems S922

Leveraging IBM's unique, comprehensive approach to the cloud, the new Power System S922 server delivers a seamless and light-speed throughput I/O between multiple on-premise and public cloud applications, and cloud-like agility and economics by supporting the IBM Power Systems Private Cloud Solution with Shared Utility Capacity.

Powered by a full PCIe Gen4 architecture (slots, switches and lanes) and up to 14 NVMe supported devices, the IBM Power System S922 server is a powerful socket flexible server, fully functional with 1 or 2-sockets populated. It is primed with a POWER9 processor, a technology designed from the ground up for data-intensive workloads. The system is built with innovations that deliver the highest security and reliability standards for all types of enterprises.

The IBM Power System S922 is ideal for medium and large business-critical applications, operational databases, advanced analytics and I/O intensive workloads, medium and large footprints of microservices architectures, high-density virtualization, and distributed and edge computing operations.

When it comes to virtualization technology, IBM Power System S922 is unmatched. With the built-in PowerVM hypervisor, clients have been relying on IBM for years to provide consumability and agility in IT data centers. It's the only choice for mission-critical operations with industry-leading end-to-end security (hardware, firmware, hypervisor) and no virtualization vulnerabilities.

Introducing Shared Utility Capacity for Pay-Per-Use Compute Experience by the Minute

Experience cloud-like agility and economics with the leader in business continuity and security in on-premise hardware. Take advantage of IBM's long-time expertise in flexible consumption offerings and pay-per-use computing. No fixed monthly fees, no fixed time contract: you pay for what you use, anytime you need. Optimize your IT spending by sharing resources across a collection of IBM Power Systems scale-out servers minimizing idle capacity costs.

Check the server features below, and contact IBM or one of its authorized Business Partners to start your journey to becoming a hybrid multicloud enterprise.



Shared Utility Capacity

- Flexible consumption with pay-per-use computing through IBM Power Systems Private Cloud Solution with Shared Utility Capacity
- No fixed monthly fees; you only pay for what you use
- No fixed contract time; you use it when you need it
- Enables multi-systems resource sharing across a collection of IBM scale-out servers
- Lower initial system price with a higher value-added proposition. Servers may be configured with only a single core active and 256 GB memory
- Save on licensing costs with the strongest per-core performance in the industry
- Delivers on-premise cloud-like agility and economics with leadership in business continuity and hardware security
- Industry-leading monitoring and metering through the IBM Cloud Management Console (CMC) with granular real-time and historical views of consumption by resource



The new S922 has a large memory footprint of up to 4TB and a built-in cloud-optimized hypervisor included at no additional cost

System Configurations

Power System S922 (9009-22G) at a Glance

Processor Options	<p>One processor socket populated with the following POWER9 processor modules:</p> <ul style="list-style-type: none"> • 1-core, 2.8 to 3.8 GHz (max) • 4-core, 2.8 GHz to 3.8 GHz (max) <p>One or two processor sockets populated with the following POWER9 processor modules:</p> <ul style="list-style-type: none"> • 8-core, 3.4 GHz to 3.9 GHz (max) • 10-core, 2.9 GHz to 3.8 GHz (max) • 11-core, 2.8 GHz to 3.8 GHz (max) <p>One socket servers can be upgraded with a 2nd processor on-site</p>
Level 2 (L2) Cache Per Core	512 K
Level 3 (L3) Cache Per Core	10 MB
Memory Options (RAM)	Up to 4.0 TB of system memory distributed across 32 DDR4 DIMM slots. Supports different memory DIMMs sizes such as 16 GB, 32 GB, 64 GB, and 128 GB, running at different speeds of 2133, 2400, and 2666 Mbps
Internal Disk Storage	<p>SFF bays, one integrated SAS controller without cache, and JBOD RAID 0, 5, 6, or 10</p> <ul style="list-style-type: none"> • Optionally, split the above SFF-3 bays and add a second integrated SAS controller without cache. • Expanded Function Storage Backplane 8 SFF-3 Bays/Single IOA with Write Cache. • Optionally, attach an EXP12SX/EXP24SX SAS HDD/SSD Expansion Drawer to the single IOA.
Processor-to-Memory Bandwidth	Up to 170 GB/s per socket, 340 GB/s per system
NVMe Enterprise Devices	Up to 14 devices with up to 6.4 TB each, and 89.6 TB of NVMe data storage space
PCIe 4.0 Slots	<p>12 PCIe slots with one processor populated:</p> <ul style="list-style-type: none"> • 1x16 Gen4 low-profile, half-length slot (CAPI) • 1x8 Gen4 low-profile, half-length slot (CAPI) • 2x16 Gen4 low-profile, half-length slots • 4x8 Gen4 low-profile, half-length slots (one is required for a base LAN adapter) • 4 front PCIe Gen4 capable NVMe U.2 drive slot <p>15 PCIe slots with two processors:</p> <ul style="list-style-type: none"> • 3x16 Gen4 low-profile, half-length slots (CAPI) • 1x8 Gen4 low-profile, half-length slots (CAPI) • 1x8 Gen4 low-profile, half-length slots • 2x16 Gen4 low-profile, half-length slots • 4x8 Gen4 low-profile, half-length slots (one is required for a base LAN adapter) • 4 front PCIe Gen4 capable NVMe U.2 drive slot <p>Support concurrent maintenance of PCIe adapters</p>

Power System S922 (9009-22G) at a Glance	
Interfaces	<ul style="list-style-type: none"> • Two front and two rear USB 3.0 ports • Two 1 GbE RJ45 ports for the Hardware Management Console • One system port with RJ45 connector • One Operator Panel LCD Display • QR code labels to provide instant access to key service functions through a mobile device
Advanced Virtualization	A PowerVM hypervisor license is built-in the system at no additional cost
Reliability, Availability, and Serviceability (RAS) Features	<ul style="list-style-type: none"> • POWER9 processor has the ability to do processor instruction retry for some transient errors • Memory subsystem RAS with error detection and correction circuitry • Chip kill memory • Service processor with proactive fault monitoring • Dynamic Processor Deallocation • Alternate Processor Recovery • Cache availability: L2 and L3 cache protected with ECC • Special Uncorrectable Error (SUE) handling prevents immediate system termination • PCI extended error handling (EEH) that allows the affected device driver to reset and continue without a system reboot • Uncorrectable error recovery, when enabled, allows the system to automatically restart, reducing downtime • Mutual surveillance: Service processor monitors the operation of firmware and the hypervisor monitors the service processor • Environmental monitoring does ambient and over temperature monitoring and reporting • Concurrent maintenance of PCIe adapter, power supplies, cooling fans and HDD/SSD drives • First Failure Data Capture (FFDC): Fault root cause is captured without the need to re-create the problem • Mobile access to important customer service functions available by scanning a QR label
Operating Systems	<ul style="list-style-type: none"> • Red Hat Enterprise Linux (RHEL) • SUSE Linux Enterprise Server (SLES) • IBM i • IBM AIX • IBM VIOS • Check for supported versions on the OS vendor's hardware compatibility lists
Power and Energy Features	<p>Two power supplies: 1+1 1400W, 200-240V AC</p> <p>Operating frequency: 47/63 Hz</p> <p>IBM EnergyScale technology: Dynamically optimize the processor frequency at any given time based on CPU utilization and operating environmental conditions</p>
System Dimensions	<p>Width: 482 mm (18.97 in.)</p> <p>Depth: 766.5 mm (30.2 in.)</p> <p>Height: 86.7 mm (3.4 in.)</p> <p>Weight: 30.4 kg (67 lb)</p>
Warranty and Hardware Maintenance	Standard warranty comes with 3 years of on-site, customer replacement unit, 9x5 coverage with Next Business Day response. Warranty may vary by country. Check for IBM Hardware Maintenance upgrades and Service Packs with your IBM representative or IBM Business Partner.

Why IBM?

IBM is leading the cognitive and cloud space— integrated cloud capabilities in POWER9 go in line with IBM's cloud strategy and enable clients to connect their enterprise applications 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 servers that will come completely cloud enabled out of the box with integrated PowerVM® Enterprise capabilities. Additionally, we introduced on-chip analytics and algorithms that help customers run their workloads at an always optimized processor frequency for performance and throughput. In combination with the memory footprint of 4TB, IBM provides systems to clients that are unmatched by the competition in terms of security and virtualization capabilities. The 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 S922 also has the option of a temporary PowerVM license for your old server to support a seamless move of workloads to POWER9.

The new S922 has built-in security and is ready for current and future security threats.

For More Information

To learn more about the Power System S922, please contact your IBM representative or IBM Business Partner or visit the following website: <https://www.ibm.com/products/power-system-s922>

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



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