



Highlights

- Ideal for consolidation of multiple applications and infrastructure workloads in a virtualised environment, bringing together business transaction processing with infrastructure for social and mobile solutions
 - Consolidation of UNIX® and x86 Linux® workloads
 - Gain faster insights with the IBM® POWER8 processor and smart acceleration enabled by Coherent Accelerator Processor Interface (CAPI) technologies
 - Reduce energy consumption utilising advanced energy control
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IBM Power System S822

Scale-out application server for secure infrastructure built on open technology

Power Systems: Innovation to put data to work New innovation brings faster insight to the point of impact for today's data hungry applications

Built with innovation that puts data to work, IBM Power Systems deliver the foundation for organisations to bring insight to the point of impact 2x faster. These first generation systems push the physical and virtual boundaries of data centre technology with innovation designed to drive faster and more efficient data-centric applications required for today's smarter enterprise.

With new innovations, Power Systems provide the ability to:

- Gain faster insights with the POWER8 processor and smart acceleration enabled by CAPI technologies such as accelerators for key workloads
- Achieve lower latency and smaller footprint with CAPI Flash
- Move data in and out of systems more quickly with twice the memory and I/O expansion
- Achieve greater speed and efficiency for database, transactional and other highly multi-threaded applications with transactional memory supported by 50 percent more cores and 2x the number of simultaneous threads per core



Designed and optimised for big data and analytics

Businesses are amassing a wealth of data. Power Systems, built with innovation that puts data to work, can scale to support growing workloads and help businesses find business insights faster. Power Systems are designed for big data. From operational Business Intelligence (BI) and data warehouses to predictive analytics solutions, Power servers are optimised for the compute intensive performance demands of database and analytics applications. They can flexibly scale to support the demands of rapidly growing data for mid-market businesses.

Delivering open innovation by revolutionising the way IT is developed and delivered

With an architecture at the heart of the open server development community and the OpenPOWER Foundation, Power Systems' open technology platform presents a world of community created innovation, applications and technology components to deliver a broader set of applications and new technologies quickly. Leveraging open standards, Power Systems provides developers with tools tuned for a platform that boosts productivity and performance by removing constraints imposed by commodity architecture. With continuous innovation built into the platform, Power Systems will enable future integrated hardware solutions that dramatically accelerate compute and data-intensive tasks.



IBM Power System S822

IBM Power System S822 server is ideal for consolidation of multiple applications and infrastructure workloads in a virtualised environment, bringing together business transaction processing with infrastructure for social and mobile solutions in UNIX and Linux operating environments. A 2-socket 2U system which can be ordered with the flexibility of either one or two processor sockets populated provides growth capacity for customers who need it. It provides the benefits of greater performance per core as well as per socket with POWER8 processors, new I/O capabilities, higher internal storage and Peripheral Component Interconnect Express (PCIe) capacities and performance, the capability to support CAPI accelerator devices and greater Reliability, Availability and Serviceability (RAS) including hot-plug PCIe capability.

IBM Systems
Data Sheet

IBM Power System S822 at a glance	
System configurations	Model 8284-22A
Processor and Memory	
Microprocessors	One or two 6-core 3.89 gigahertz (GHz) POWER8 processor cards or One or two 8-core 4.15 GHz POWER8 processor cards or One or two 10-core 3.42 GHz POWER8 processor cards
Level 2 (L2) cache	512 kilobyte (KB) L2 cache per core
Level 3 (L3) cache	8 megabyte (MB) L3 cache per core
Level 4 (L4) cache	16 MB per dual inline memory module (DIMM)
Memory Min/Max	16 gigabyte (GB), 32 GB and 64 GB 1600 megahertz (MHz) double data rate-3 (DDR3) module 16 to 512 GB (1S) 32 to 1 terabyte (TB) (2S)
Processor-to-memory bandwidth	192 gigabytes per second (GBps) per socket
Storage and I/O	
Standard backplane	12 small form factor (SFF) Hard Disk Drive (HDD)/Solid State Disk (SSD)
With dual IOA higher function backplane	8 SFF HDD/SSD plus 6 1.8-inch bays for SSD
Media bays	One slimline DVD
Integrated serial attached SCSI (SAS) Controller	Standard redundant array of independent disks (RAID) 0,5,6,10. optional: 7200 MB* cache & easy tier function
Adapter slots	One x8 PCIe slot must contain a 4-port 1 Gigabit Ethernet (GbE) Local Area Network (LAN) available for client use Nine PCIe Gen3 slots with concurrent maintenance: four x16 plus five PCIe Gen3 x8 Up to two CAPI adapters per processor socket installed
I/O bandwidth	96 GBps per socket
Expansion features (Optional)	
Max PCIe Gen3 I/O drawer	1
Power, RAS, system software, physical characteristics and warranty	
Power supply	200 V to 240 V
RAS features	Processor instruction retry Alternate processor recovery Selective dynamic firmware updates Chipkill memory Error correcting code (ECC) L2 cache, L3 cache Service processor with fault monitoring Hot-swappable disk bays Hot-plug concurrent maintenance PCIe slots Hot-plug and redundant power supplies and cooling fans Dynamic processor deallocation Extended error handling on PCI slots
Operating systems [†]	AIX and Linux on POWER
System dimensions	427.5 W x 86.5 H x747.5 D mm
Warranty	3 year limited warranty, on site for selected components; Customer Replaceable Unit (CRU) for all other units (varies by country), next business day 09:00 to 17:00 (excluding holidays), warranty service upgrades and maintenance are available.

For more information

To learn more about the IBM Power System S822, please contact your IBM marketing representative or IBM Business Partner, or visit the following websites:

ibm.com/systems/power/hardware/s822/index.html



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† See facts and features document for detailed OS level support.