IBM Power System S822

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

Highlights

- Ideal for consolidation of multiple applications and infrastructure workloads in a virtualized 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 utilizing advanced energy control

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 organizations to bring insight to the point of impact 2x faster. These first generation systems push the physical and virtual boundaries of data center 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 optimized 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 and data warehouses to predictive analytics solutions, Power servers are optimized 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 revolutionizing 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 virtualized 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 PCIe capacities and performance, the capability to support CAPI accelerator devices, and greater RAS including hot-plug PCIe capability.

IBM Power System S822 at a glance

System configurations	Model 8284-22A
Processor and Memory	
Microprocessors	One or two 6 core 3.89GHz POWER8 processor cards or One or two 10 core 3.42 GHz POWER8 processor cards
Level 2 (L2) cache	512 KB L2 cache per core
Level 3 (L3) cache	8 MB L3 cache per core
Level 4 (L4) cache	16 MB per DIMM
Memory Min/Max	16 GB, 32 GB and 64 GB 1600 MHz DDR3 module 16 to 512 GB (1S) 32 to 1 TB (2S)
Processor-to-memory bandwidth	192 GBps per socket
Storage and I/O	
Standard backplane	12 SFF HardDiskDrive/SolidStateDisk
With dual IOA higher function backplane	8 SFF HDD/SSD plus 6 1.8-inch bays for SSD
Media bays	One slimline DVD
Integrated SAS Controller	Standard RAID 0,5,6,10. optional: 7200 MB* cache & easy tier function
Adapter slots	Included one x8 PCIe slots must contain a 4-port 1 Gb Ethernet LAN available for client use Nine PCIe Gen3 slots with concurrent maintenance: four x16 plus five PCIe Gen3 x8 1 CAPI adapter per processor card
I/O bandwidth	96 GBps per socket
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 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; CRU (customer replaceable unit) for all other units (varies by country), next business day 9x5 (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

* 1.8 GB write cache with compression up to 7.2 GB effective

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