

IBM Unveils Industry's Most Advanced Server Designed for Artificial Intelligence

New Power Systems deliver nearly 4x deep-learning framework performance over x86 POWER9 processor designed for AI workloads

BANGALORE, India - 08 Jun 2018: IBM (NYSE: [IBM](#)) today unveiled its next-generation Power Systems Servers incorporating its newly designed POWER9 processor. Built specifically for compute-intensive AI workloads, the new POWER9 systems are capable of improving the training times of deep learning frameworks by nearly 4x allowing enterprises to build more accurate AI applications, faster.

The new [POWER9-based AC922 Power Systems](#) are the first to embed PCI-Express 4.0, next-generation NVIDIA NVLink and OpenCAPI, which combined can accelerate data movement, calculated at 9.5x faster than PCI-E 3.0 based x86 systems.

The system was designed to drive demonstrable performance improvements across popular AI frameworks such as Chainer, TensorFlow and Caffe, as well as accelerated databases such as Kinetica.

As a result, data scientists can build applications faster, ranging from deep learning insights in scientific research, real-time fraud detection and credit risk analysis.

POWER9 is at the heart of the soon-to-be most powerful data-intensive supercomputers in the world, the U.S. Department of Energy's "Summit" and "Sierra" supercomputers, and has been tapped by Google.

IT infrastructure needs to be re-designed for the AI era, which lets companies analyse data in milliseconds and make decisions driven by data. AI workloads demand new hardware and software paradigms and the infrastructure to deliver data-driven workloads. The P9 architecture aims to transform computing across every industry and profession, turning client data into faster insights where inferences can be drawn quicker and faster to market said **Viswanath Ramaswamy, Director - Systems, India/South Asia**.

Accelerating the Future with POWER9

Deep learning is a fast growing machine learning method that extracts information by crunching through millions of processes and data to detect and rank the most important aspects of the data.

To meet these growing industry demands, four years ago IBM set out to design the POWER9 chip on a blank sheet to build a new architecture to manage free-flowing data, streaming sensors and algorithms for data-intensive AI and deep learning workloads on Linux.

IBM is the only vendor that can provide enterprises with an infrastructure that incorporates cutting-edge hardware and software with the latest open-source innovations.

With PowerAI, IBM has optimized and simplified the deployment of deep learning frameworks and libraries on

the Power architecture with acceleration, allowing data scientists to be up and running in minutes.

IBM Research is developing a wide array of technologies for the Power architecture. IBM researchers have already cut deep learning times from days to hours with the [PowerAI Distributed Deep Learning toolkit](#).

Building an Open Ecosystem to Fuel Innovation

The era of AI demands more than tremendous processing power and unprecedented speed; it also demands an open ecosystem of innovative companies delivering technologies and tools. IBM serves as a catalyst for innovation to thrive, fueling an open, fast-growing community of more than 300 [OpenPOWER Foundation](#) and [OpenCAPI Consortium](#) members.

Learn more about POWER9 and the AC922: <http://ibm.biz/BdjCQQ>

Read more from Bob Picciano, Senior Vice President, IBM Cognitive Systems: <https://ibm.biz/BdjQZu>
