NVIDIA Advances AI Computing Revolution with New Volta-Based DGX Systems

Volta-Charged DGX-1 Delivers Up to 3x Speed Improvement for Demanding AI Workloads; DGX Station is World’s First AI Personal Supercomputer

NVIDIA today announced a new lineup of NVIDIA® DGX AI supercomputers with unmatched computing performance to advance the world’s most challenging AI research.

Featuring NVIDIA Tesla® V100 data center GPUs based on the NVIDIA Volta™ architecture and a fully optimized AI software package, the systems deliver groundbreaking AI computing power three times faster than the prior DGX generation, providing the performance of up to 800 CPUs in a single system.

The NVIDIA Volta architecture-based DGX portfolio includes the NVIDIA DGX-1™ AI supercomputer for data center deployments and a new personal supercomputing workstation, the NVIDIA DGX Station™.

Both systems benefit from the integrated NVIDIA GPU Cloud Deep Learning Stack delivered over the newly launched NVIDIA GPU Cloud.

“NVIDIA’s DGX portfolio and its software are the essential instruments for advancing the work of serious AI research and realizing the promise of this new era of computing,” said Jim McHugh, general manager of DGX Computing at NVIDIA. “No other computing system comes close to providing the same level of performance for AI and advanced analytics.”

The NVIDIA GPU Cloud Deep Learning Stack integrates the latest deep learning frameworks and the NVIDIA software development kit into an always up-to-date container. DGX customers can power up and immediately get started with the latest deep learning software for training, inferencing and other AI computing workloads -- saving weeks of time and hundreds of thousands of dollars in integration and engineering effort.

Using one consistent software stack across the portfolio, data scientists can easily experiment deskside on their personal DGX Station and then seamlessly scale their work to a DGX-1 server cluster.

Introduced last year, DGX-1 systems now power a wide range of AI deployments at leading enterprises, cloud service providers and research organizations worldwide. The new Volta-based DGX-1 supercomputer delivers the computing capacity of 800 CPUs in a single, small server footprint.

Greater Deep Learning Performance in a Personal Supercomputer

The new NVIDIA DGX Station is the world’s first personal supercomputer for AI development, with the computing capacity of 400 CPUs, consuming nearly 40x less power, in a form factor that fits neatly deskside.

Engineered for peak performance and deskside comfort, the DGX Station is the world’s quietest workstation, drawing one-tenth the noise as other deep learning workstations. Data scientists can use it for compute-intensive AI exploration, including training deep neural networks, inferencing and advanced analytics.

One Platform for Deep Learning Training and Inference

NVIDIA designed its portfolio of DGX systems to deliver extreme versatility with an architecture capable of powering both deep learning training and inference.

DGX-1 and DGX Station can run several jobs simultaneously with flexible allocation of GPU resources, allowing organizations to meet the demands of challenging deep learning projects, including both training and inferencing. DGX systems ensure a team of data scientists can continuously experiment and gain insights with optimal performance.

Volta-Based DGX System Availability and Technical Specifications

Volta-based DGX Station and DGX-1 servers are available now and expected to ship in the third quarter. Further information, including pricing, detailed technical specifications and order forms, is available on www.nvidia.com/dgx-1 and www.nvidia.com/dgx-station.

Resources:
- DGX-1 data sheet
- DGX Station data sheet

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About NVIDIA

NVIDIA’s (NASDAQ: NVDA) invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined modern computer graphics and revolutionized parallel computing. More recently, GPU deep learning ignited modern AI -- the next era of computing -- with the GPU acting as the brain of computers, robots and self-driving cars that can perceive and understand the world. More information at http://nvidianews.nvidia.com/.

Certain statements in this press release including, but not limited to, statements as to: the impact, benefits, performance and availability of NVIDIA DGX AI supercomputers, NVIDIA Tesla GPUs, the NVIDIA Volta architecture and the NVIDIA DGX Station are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners’ products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; as well as other factors detailed from time to time in the reports NVIDIA files with the Securities and Exchange Commission, or SEC, including its Form 10-K for the fiscal period ended January 29, 2017. Copies of reports filed with the SEC are posted on the company’s website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future
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