New NVIDIA EGX Edge Supercomputing Platform Accelerates AI, IoT, 5G at the Edge

BMW, NTT East, Procter & Gamble, Samsung Electronics, Walmart Among First to Deploy EGX Platform, Delivering AI to Factories, Wireless Networks, Stores

Mobile World Congress -- NVIDIA today announced the [NVIDIA EGX Edge Supercomputing Platform](#) - a high-performance, cloud-native platform that lets organizations harness rapidly streaming data from factory floors, manufacturing inspection lines and city streets to securely deliver next-generation AI, IoT and 5G-based services at scale, with low latency.

Early adopters of the platform - which combines [NVIDIA CUDA-X™ software](#) with NVIDIA-certified GPU servers and devices - include Walmart, BMW, Procter & Gamble, Samsung Electronics and NTT East, as well as the cities of San Francisco and Las Vegas.

"We've entered a new era, where billions of always-on IoT sensors will be connected by 5G and processed by AI,'' said Jensen Huang, NVIDIA founder and CEO, at a keynote at the start of MWC Los Angeles. "Its foundation requires a new class of highly secure, networked computers operated with ease from far away.

"We've created the NVIDIA EGX Edge Supercomputing Platform for this world, where computing moves beyond personal and beyond the cloud to operate at planetary scale,'' he said.

The EGX platform features software to support a wide range of applications, including [NVIDIA Metropolis](#), which can be used to build smart cities and intelligent video analytics applications, as well as the just-announced [NVIDIA Aerial™ software developer kit](#). Aerial allows telcos to build completely virtualized 5G radio access networks that are highly programmable, scalable and energy efficient, and can ultimately enable them to offer new services such as smart factories, AR/VR and cloud gaming.

As also announced today, early ecosystem partners collaborating with NVIDIA include [Microsoft](#), [Ericsson](#) and [Red Hat](#).

Global Leaders Turn to EGX for AI at the Edge
Walmart is a pioneer user of EGX, deploying it in its Levittown, New York, Intelligent Retail Lab -- a unique, fully operating grocery store where it's exploring the ways AI can further improve in-store shopping experiences.

Using EGX's advanced AI and edge capabilities, Walmart is able to compute in real time more than 1.6 terabytes of data generated each second and can use AI to automatically alert associates to restock shelves, open up new checkout lanes, retrieve shopping carts and ensure product freshness in meat and produce departments.

"At Walmart, we're using AI to define the future of retail and re-think how technology can further enhance how we operate our stores,'' said Mike Hanrahan, CEO of Walmart Intelligent Retail Lab. "With NVIDIA's EGX edge computing platform, Walmart's Intelligent Retail Lab is able to bring real-time AI compute to our store, automate processes and free up our associates to create a better and more convenient shopping experience for our customers.''

Samsung Electronics, in another early EGX deployment, is using AI at the edge for highly complex semiconductor design and manufacturing processes.

"Samsung has been an early adopter of both GPU computing and AI from the beginning,'' said Charlie Bae, executive vice president of foundry sales and marketing at Samsung Electronics. "NVIDIA's EGX platform helps us to extend these manufacturing and design applications smoothly onto our factory floors.''

Other early EGX deployments include:

- BMW -- The German automaker is using intelligent video analytics in its South Carolina manufacturing facility to automate inspection. With EGX gathering data from multiple cameras and other sensors in inspection lines, BMW is helping ensure only the highest quality automobiles leave the factory floor.
- NTT East -- The Japanese telecom services giant is using EGX in its data centers to develop new AI-powered services in remote areas through its broadband access network. Using the power of the EGX platform, NTT East will provide remote populations the computing power and connectivity required to build and deploy a wide range of AI applications at the edge.
- Procter & Gamble -- The world's leading consumer goods company is working with NVIDIA to develop AI-enabled applications on top of the EGX platform for the inspection of products and packaging to help ensure they meet the highest safety and quality standards. With powerful NVIDIA EGX edge systems in its manufacturing plants, the company can analyze thousands of hours of footage from inspection lines and immediately flag imperfections.
- Las Vegas -- The city is using EGX to capture vehicle and pedestrian data to ensure safer streets and expand economic opportunity. As part of its effort to advance its use of AI, Las Vegas plans to use the data to autonomously manage signal timing and other operational capabilities.
- San Francisco -- The city's Union Square Business Improvement District is using EGX to capture real-time pedestrian counts for local retailers, providing them a powerful business intelligence tool for engaging with their customers more effectively. With this data, the BID's retailers can deliver better customer experience, reduced waiting times and higher operational efficiency.

Expanding EGX Ecosystem
NVIDIA's EGX ecosystem includes more than 100 technology companies worldwide, from startups to established software vendors, cloud service providers, and global server and device manufacturers.

To accelerate the move to edge computing, NVIDIA has [expanded its server-certification program](#) to include a new designation, NGC-Ready for Edge, identifying systems powered by NVIDIA T4, Quadro RTX 8000 and V100 Tensor Core GPUs capable of running the most demanding AI workloads at the edge. [Dell Technologies](#), [Hewlett Packard Enterprise](#), [Lenovo](#), [QCT](#) and [Supermicro](#) are among the first to work with NVIDIA to certify their systems, now totaling more than 20 validated servers from more than a dozen manufacturers worldwide.

The EGX software stack architecture is supported by leading hybrid-cloud partners Canonical, Cisco, Nutanix, Red Hat and VMware.

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: NVIDIA EGX accelerating AI, IoT, 5G at the edge; the first companies and early adopters deploying the EGX platform and its impact; the performance, impact, benefits and abilities of the NVIDIA EGX Edge Supercomputing Platform, NVIDIA Metropolis and NVIDIA Aerial software developer kit; entering into a new era where billions of always-on IoT sensors will be connected by 5G and processed by AI and its foundation requiring a new class of secure networked computers operated from far away; NVIDIA EGX Edge Supercomputing Platform being created where computing moves beyond personal and beyond the cloud to operate at planetary scale; the early ecosystem partners collaborating with NVIDIA; global leaders turning to EGX for AI at the edge; how users of EGX are deploying the technology, what they are able to do with the technology and its impact; Walmart using AI to define the future of retail and re-thinking how technology can enhance the operation of their stores; NVIDIA EGX Edge Supercomputing Platform enabling Walmart to bring real-time AI compute to their store, automate processes and create a better and more convenient experience for customers; NVIDIA EGX platform helping Samsung to extend manufacturing and design applications smoothly onto their factory floors; the size NVIDIA EGX's ecosystem; NVIDIA accelerating the move to edge computing by expanding its server-certification program; and the companies that are working with NVIDIA to certify their systems and the number of validated servers 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 most recent reports NVIDIA files with the Securities and Exchange Commission, or SEC, including, but not limited to, its annual report on Form 10-K and quarterly reports on Form 10-Q. 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 performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

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