NVIDIA Enables Real-Time Healthcare, Industrial and Scientific AI Applications at the Edge With Enterprise Software Support for NVIDIA IGX With Holoscan

Medtronic, SETI Institute, Manufacturing Leaders and More Build NVIDIA IGX Systems to Supercharge AI at the Industrial Edge

COMPUTEX—To address the increasing need for real-time AI computing at the industrial edge, NVIDIA today announced the general software availability of NVIDIA AI Enterprise-IGX with NVIDIA Holoscan on the NVIDIA IGX™ platform. Together, they empower solution providers within the medical, industrial and scientific computing sectors to develop and deploy edge AI solutions faster, with enterprise-grade software and support.

NVIDIA AI Enterprise-IGX is a new offering providing enterprises with unprecedented performance, security and support for the edge computing software stack, streamlining AI-powered operations and the deployment of AI applications at scale. NVIDIA Holoscan is a sensor-processing platform for streamlining the development and deployment of AI and high-performance computing applications to deliver real-time insights.

By combining NVIDIA AI Enterprise-IGX and Holoscan on IGX, NVIDIA offers an enterprise-grade platform that delivers powerful AI compute, flexible sensor integration, real-time performance and functional safety for the industrial edge — cutting the time and costs required to build advanced AI solutions across industries.

“As software-defined functionality continues to transform businesses across industries, enterprises are seeking powerful edge AI solutions that can meet their unique performance and regulatory requirements,” said Deepu Talla, vice president of robotics and edge computing at NVIDIA. “The NVIDIA IGX platform’s new capabilities deliver powerful enterprise-grade software from the cloud to the industrial edge, giving customers increased performance, safety and scalability.”

NVIDIA IGX Platform Expands
In addition to the introduction of NVIDIA AI Enterprise-IGX with NVIDIA Holoscan, the NVIDIA IGX platform has undergone a major refresh.

- The NVIDIA IGX Orin™ 700, previously called the IGX Boardkit, now supports the NVIDIA RTX™ 6000 Ada GPU as a new configuration option, delivering up to 1,705 trillion operations per second — a 7x increase in AI performance compared with using an onboard iGPU. This provides even more computing power at the edge for generative AI and high-performance computing workloads.
- NVIDIA IGX now supports a new product, the IGX Orin 500 system-on-module, which enables the creation of flexible carrier-board designs and custom configurations without sacrificing enterprise software support.
- The NVIDIA-Certified Systems™ program has expanded to include the IGX platform, ensuring systems built with IGX are validated to run accelerated AI workloads with optimized performance. Companies including Advantech, ADLINK, Aetina, Ahead, Cosmo Intelligent Medical Devices (a division of Cosmo Pharmaceuticals), Dedicated Computing, Leadtek, Onyx and YUAN are building NVIDIA-Certified IGX systems.

Bringing AI to the Medical Edge
Leading medical technology companies Barco, Karl Storz, Medtronic and Moon Surgical are adopting NVIDIA IGX with Holoscan to accelerate the development of AI-powered solutions for medical diagnostics, surgical copilots, surgical robots, patient care agents and more. Additionally, Johnson & Johnson MedTech is working on how NVIDIA IGX with Holoscan could accelerate the development of AI for Polyphonic, Johnson & Johnson MedTech’s digital ecosystem for surgery.

Healthcare technology provider Medtronic is leveraging NVIDIA IGX with NVIDIA Holoscan for its GI Genius™ intelligent endoscopy module designed, developed and manufactured by Cosmo Intelligent Medical Devices. It’s the first FDA-cleared, AI-assisted colonoscopy tool to help physicians detect polyps that can lead to colorectal cancer.

“The NVIDIA IGX with Holoscan platform has significantly accelerated our AI innovation in endoscopy,” said Raj Thomas, president of endoscopy at Medtronic. “By leveraging NVIDIA's advanced technology, we can focus on developing groundbreaking software applications that ultimately enhance patient outcomes and provide greater support to physicians. This collaboration underscores our commitment to pioneering advancements in medical technology for the benefit of all.”

Robotic surgery company Moon Surgical is using IGX with Holoscan to power its Maestro System, a state-of-the-art surgical robotics system designed to assist surgeons with precision and control during minimally invasive procedures.

“NVIDIA’s IGX platform with Holoscan accelerated the development of our Maestro System as well as enhance Maestro’s capabilities,” said Anne Osdoit, CEO of Moon Surgical. “Our collaboration with NVIDIA has allowed us to get our intelligent

robotic assistant into the hands of surgeons sooner and with more features, enabling us to get valuable feedback on our path to commercialization."

Industrial AI at the Edge
The NVIDIA IGX platform significantly improves functional safety and high-bandwidth sensor processing, transforming factory automation and robotic collaboration with AI.

ADLINK is using NVIDIA IGX to build industrial-grade edge AI solutions for its manufacturing processes.

"ADLINK leverages NVIDIA IGX and Holoscan to deliver proactive safety capabilities that ensure more efficient, seamless human and robot collaboration," said Stephen Huang, president and chief operating officer at ADLINK. "Working with NVIDIA, we continue to drive precision, safety and latency improvements to optimize manufacturing operations like machine movement routing, robotic arm operation and charging-station monitoring all at once."

Edge AI for Exploring Extraterrestrial Worlds
NVIDIA IGX is helping scientific researchers venture into new worlds with AI, transforming radar processing and radio astronomy with real-time edge computing capabilities.

Nonprofit research organization SETI Institute is leveraging NVIDIA IGX Orin to power radio astronomy capabilities for its Hat Creek Radio Observatory, which aims to detect technologically capable extraterrestrial life.

"The SETI Institute is using the IGX Orin platform's advanced capabilities with the Holoscan sensor-processing platform to enable transformational capabilities in radio astronomy," said Andrew Siemion, Bernard M. Oliver Chair at SETI Institute. "We can now stream multiple terabits per second of radio telescope data directly into AI classifiers with minimal overhead and exceptional computational performance, allowing us to process more bandwidth from more antennas to detect weaker and rarer astrophysical phenomena."

Watch NVIDIA founder and CEO Jensen Huang's COMPUTEX keynote to learn the latest on AI computing at the industrial edge.

About NVIDIA
NVIDIA (NASDAQ: NVDA) is the world leader in accelerated computing.

Certain statements in this press release including, but not limited to, statements as to: the benefits, impact, and performance of NVIDIA's products, services, and technologies, including NVIDIA AI Enterprise-IGX, NVIDIA Holoscan, NVIDIA IGX platform, NVIDIA IGX Orin 700, NVIDIA RTX 6000 Ada GPU, IGX Orin 500 system-on-module, and NVIDIA-Certified System program; the benefits and impact of NVIDIA's collaboration with third parties, and the features of their services and offerings; third parties using or adopting our products or technologies; enterprises seeking powerful edge AI solutions that can meet their unique performance and regulatory requirements; and NVIDIA IGX platform's new capabilities delivering powerful enterprise-grade software from the cloud to the industrial edge, giving customers increased performance, safety and scalability 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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