

# NVIDIA Announces OVX Computing Systems — the Graphics and Simulation Foundation for the Metaverse — Powered by Ada Lovelace GPU

## GIGABYTE, H3C, Inspur, Lenovo, QCT and Supermicro to Offer OVX Systems; BMW Group and Jaguar Land Rover Among First Customers to Receive OVX Systems

GTC -- NVIDIA today announced the second generation of [NVIDIA OVX™](#), powered by the NVIDIA Ada Lovelace GPU architecture and enhanced networking technology, to deliver groundbreaking real-time graphics, AI and digital twin simulation capabilities.

The new NVIDIA OVX systems are designed to build [3D virtual worlds](#) using leading 3D software applications and to operate immersive [digital twin](#) simulations in [NVIDIA Omniverse™ Enterprise](#) — a scalable, end-to-end platform enabling enterprises to build and operate metaverse applications.

[Launched in March](#), NVIDIA OVX — a computing system designed to power large-scale Omniverse digital twins — will be delivered to some of the world's most sophisticated design and engineering teams at companies like BMW Group and Jaguar Land Rover.

“Large-scale digital twins are redefining how nearly every industry plans, designs and builds in the physical world,” said Bob Pette, vice president of professional visualization at NVIDIA. “NVIDIA OVX will provide the next generation of compute power required for the most complex digital twins of factories, buildings and entire cities.”

Powering the new OVX systems is the [NVIDIA® L40 GPU](#), also based on the [NVIDIA Ada Lovelace GPU architecture](#), which brings the highest levels of power and performance for building complex industrial digital twins.

The L40 GPU's third-generation RT Cores and fourth-generation Tensor Cores will deliver powerful capabilities to Omniverse workloads running on OVX, including accelerated ray-traced and path-traced rendering of materials, physically accurate simulations and photorealistic 3D synthetic data generation. The L40 will also be available in [NVIDIA-Certified Systems™](#) servers from major OEM vendors to power RTX workloads from the data center.

In addition to the L40 GPU, the new NVIDIA OVX includes the [NVIDIA ConnectX®-7 SmartNIC](#), providing enhanced network and storage performance and the precision timing synchronization required for true-to-life digital twins. ConnectX-7 includes support for 200G networking on each port and fast in-line data encryption to speed up data movement and increase security for [digital twins](#).

### Worldwide Adopters Accelerate Performance

BMW Group and Jaguar Land Rover will be among the first equipped with the power of the new systems.

“Planning our factories of the future starts with building state-of-the-art digital twins using NVIDIA Omniverse,” said Jürgen Wittmann, head of innovation and virtual production at BMW Group. “Using NVIDIA OVX systems to run our digital twin workloads will provide the performance and scale needed to develop large-scale photorealistic models of our factories and conduct true-to-reality simulations that will transform our manufacturing, design and production processes.”

“NVIDIA OVX and DRIVE Sim deliver a powerful platform that enables us to simulate a wide range of real-world driving scenarios to safely and efficiently test our next generation of connected and autonomous vehicles as well as to recreate the customer journey to demonstrate vehicle features and functions,” said Alex Heslop, director of electrical, electronic and software engineering at Jaguar Land Rover. “Using this technology to generate large volumes of high-fidelity, physically accurate scenarios in a scalable, cost-efficient manner will accelerate our progress towards our goal of a future with zero accidents and less congestion.”

### Computing System Specifications

Each OVX server node combines eight NVIDIA L40 GPUs with three NVIDIA ConnectX-7 network adapters, bringing the power of 100/200/400G networking. For Omniverse workloads that require a higher level of performance and scale, the servers can be deployed in NVIDIA OVX POD and SuperPOD configurations with the NVIDIA Spectrum™-3 Ethernet platform.

### Availability

Second-generation NVIDIA OVX systems will be available from Inspur, Lenovo and Supermicro by early 2023, with GIGABYTE, H3C and QCT offering them in the future.

To learn more about [NVIDIA OVX](#), watch NVIDIA founder and CEO Jensen Huang's [GTC 2022 keynote](#). [Register for GTC for free](#) to attend sessions with NVIDIA and industry leaders.

### **About NVIDIA**

Since its founding in 1993, NVIDIA (NASDAQ: NVDA) has been a pioneer in accelerated computing. The company's invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined computer graphics and ignited the era of modern AI. NVIDIA is now a full-stack computing company with data-center-scale offerings that are reshaping industry. More information at <https://nvidianews.nvidia.com/>.

Certain statements in this press release including, but not limited to, statements as to: the benefits, impact, performance, and features of NVIDIA OVX, NVIDIA Omniverse Enterprise, the NVIDIA L40 GPU and the NVIDIA ConnectX-7 SmartNIC; NVIDIA OVX being delivered to BMW Group, Jaguar Land Rover and other design and engineering teams; large-scale digital twins redefining how nearly every industry plans, designs and builds in the physical world; and the availability of the L40 and OVX systems 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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