⊚ NVIDIA.

NVIDIA Omniverse™ Cloud

NVIDIA Omniverse™ Cloud provides enterprises a full-stack cloud environment to design, develop, deploy, and manage industrial metaverse applications.
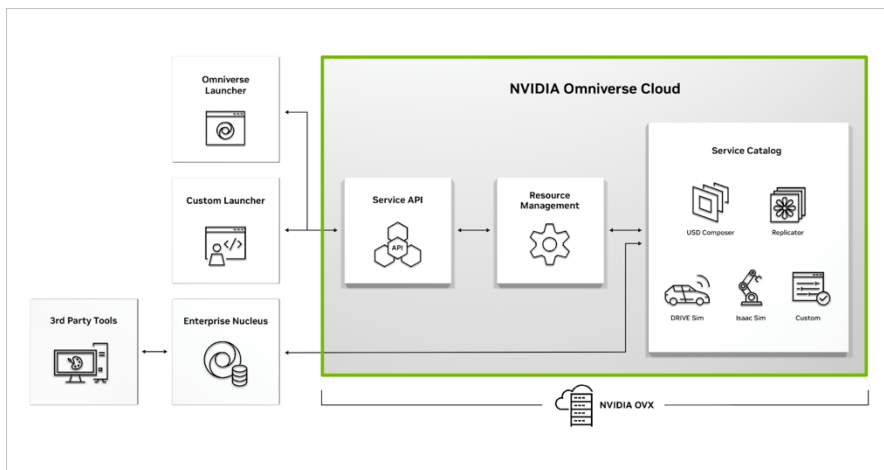
The Race to Become Software-Defined

Industrial enterprises are racing to reinvent themselves into software-driven tech companies — to be the disruptor and not the disrupted. The metaverse, the 3D evolution of the internet, introduces new opportunities for industrial enterprises to digitalize their physical processes.

Digitalization will let industries design and build physical products and environments in physically accurate 3D simulation before constructing a physical replica – helping to increase efficiency and reduce costs. And when the 3D simulations are connected to the physical world, companies can continuously operate and optimize their digital and physical twins through real-time, AI-enabled monitoring.

But today, implementing industrial metaverse applications such as digitalization is complex. Enterprise teams need a solution to navigate the complexities of globally spread, highly skilled teams, siloed data and incompatible software tools, and the increasing demand for persistent, generative AI-enabled real-time simulations.

NVIDIA Omniverse Cloud on Azure

Omniverse Cloud on Azure provides a secure, full stack cloud environment to design, develop, deploy, and manage industrial metaverse applications. On Omniverse Cloud, enterprise teams can easily scale digitalization workflows from unifying complex 3D design pipelines, to simulating virtual factories, or generating data to train perception AI's.

Key Challenges:

- **Ultra-Large, Diverse Teams** - Artists, designers, engineers, and visualization experts are often part of a hybrid workforce, working remotely or spread around the world. Each skill and expertise require its own system setup – from laptop to data center – physical or virtualized; and each discipline requires its own software applications.

- **Complex 3D Workflows** - Heavy 3D production pipelines are becoming increasingly complex as artists, designers, engineers, and researchers integrate technologies like global illumination, real-time ray tracing, AI, compute, and engineering simulation into their daily workflow.

- **Disconnected 3D Tools** - The explosion of tools required to enable these workflows adds to the difficulty as they are often incompatible, leading to long, arduous, linear workflows that rely on tedious export-import.

- **Physically Accurate, Photoreal Simulation** - The demand for faster time-to-solution, a maximum number of iterations at no opportunity cost, and the expectation of true-to-reality simulation and photorealism increases in parallel.

Omniverse Cloud Capabilities

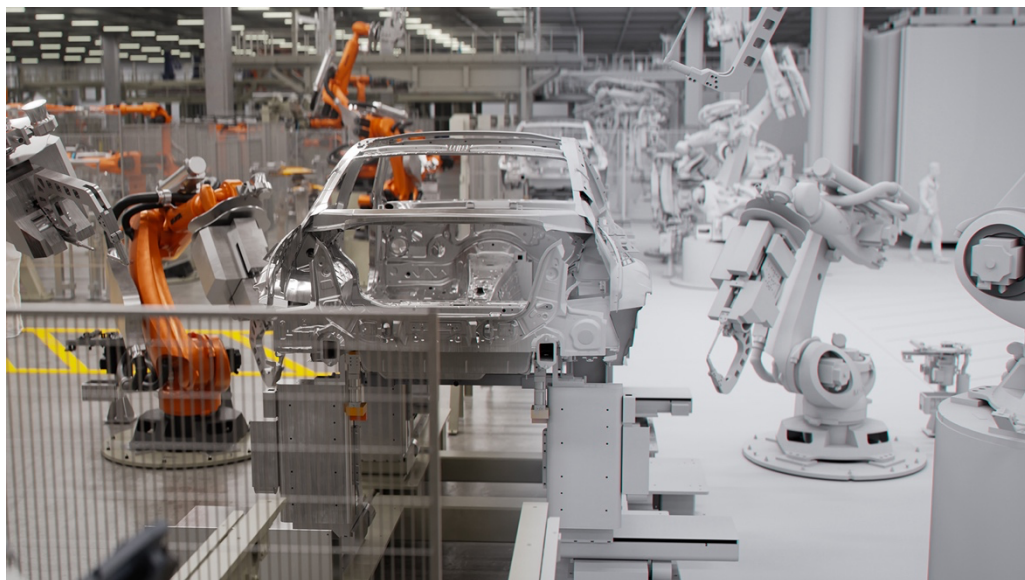|	
Seamless Application Deployment and Streaming	Easily deploy, manage, and scale out the usage of your applications without complex infrastructure setups, while delivering consistent availability and performance to users
On-Demand Resource Pools and Cloud APIs	Easily queue, manage, and run critical workloads via on-demand resource pools and develop the custom workflows you need via access to flexible Cloud APIs
Microservices Built for Hyperscale Performance	Eliminate manual data preparation and optimization, without sacrificing quality, by accessing a suite of microservices that support scene optimization, texture streaming, high-speed cache IoT data management, and CAD data conversion

Benefits:

- **Instant, Secure Access** - Fast track access to secure cloud service infrastructure and NVIDIA Omniverse software and services – from anywhere.

- **All-in-One Subscription** - Fully optimized infrastructure and software accommodating the most demanding 3D and workloads.

- **Expand with Ease** - Effortlessly and securely scale users and applications as your industrial digitalization projects grow.

BMW Group

"For the first time, we are able to have our entire factory in simulation. Global teams can collaborate using different software packages like Revit, CATIA, or Point Clouds to design and plan the factory in real-time 3D. The capability to operate in a perfect simulation revolutionizes BMW's planning processes."

Milan Nedeljkovic, Board Member for Production, BMW AG

Ready to Get Started?

To learn more about Omniverse Cloud visit:

nvidia.com/omniverse/cloud