



REMOTE COLLABORATION AND SIMULATION FROM THE DATA CENTER



Addressing the Challenges of Modern Workflows

Organizations in visual industries like Architecture, Engineering, and Construction, Media and Entertainment, Product Design and Manufacturing, and Industrial Manufacturing are facing unique challenges with the rise in remote workforces and increasingly complex 3D production pipelines. Enterprise IT often struggles to enable large teams to collaborate on complex 3D assets across multiple incompatible software applications, in different geographic locations, on different machines.

Remote workforces demand efficient, secure, and constant on- and off-boarding of team members, causing a trade-off between maintaining productivity and team flexibility. The need for photorealistic rendering and physically accurate simulation also demands higher compute power—accessible from anywhere. Firms must constantly balance achieving maximum creativity and innovation versus the fastest time-to-production.

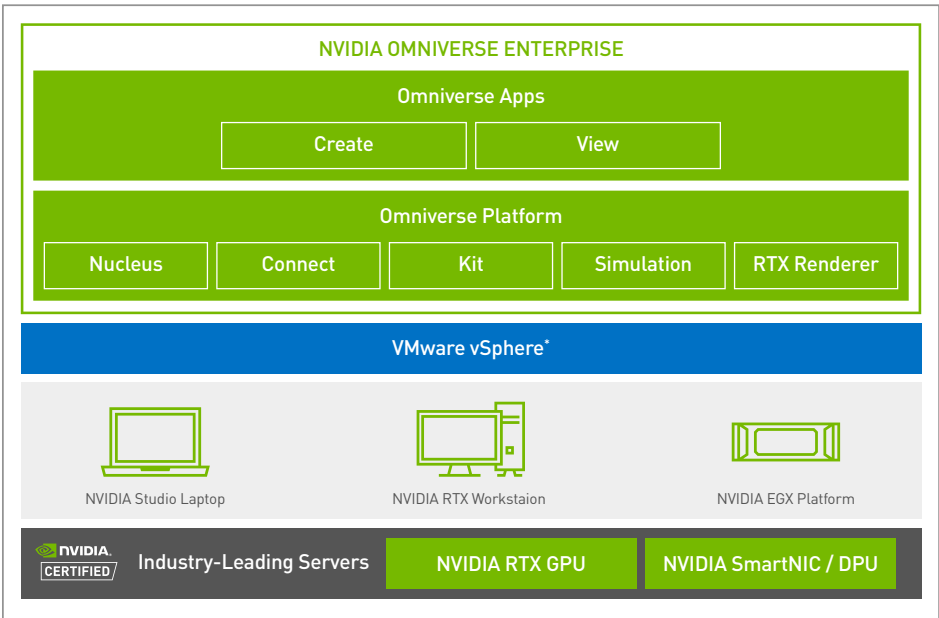
Enable real-time design collaboration and physically accurate simulation on the NVIDIA accelerated infrastructure—from anywhere, on any device.

KEY TECHNOLOGIES

- > NVIDIA Omniverse™ Enterprise
- > NVIDIA ConnectX®
- > NVIDIA data center GPU
- > Hypervisor
- > Independent software vendor (ISV) applications

PROOF POINTS

- > BMW Group gained 30% more efficiency in resource utilization by using Omniverse’s real-time collaborative design capabilities.
- > MoonShine Animation had 50% time savings with Omniverse’s collaborative, AI-enabled review.



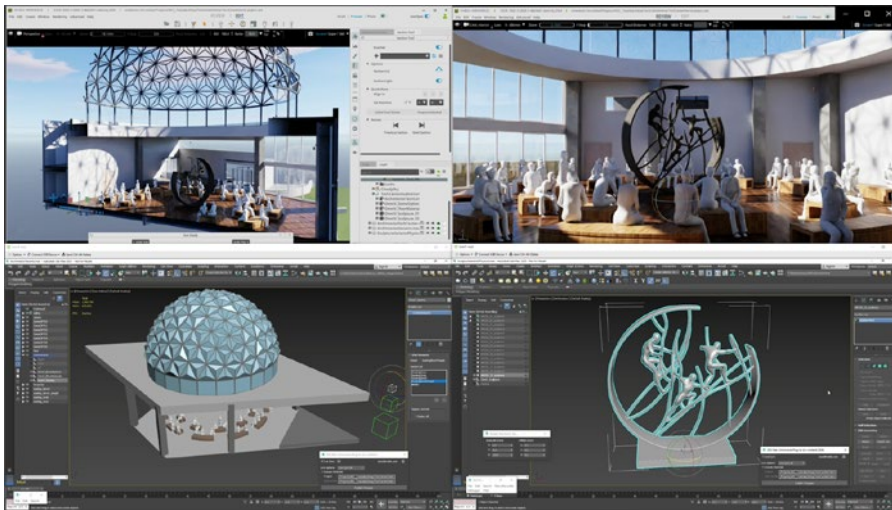
*VMware vSphere required for virtualized system configurations

NVIDIA EGX Platform with NVIDIA Omniverse Enterprise

The NVIDIA EGX™ platform for **NVIDIA Omniverse™ Enterprise** lets enterprise IT easily deploy real-time collaboration and true-to-reality simulation on high-performance and cost-effective infrastructure. The NVIDIA-Certified Enterprise Server delivers high-performance computing with the latest graphics-capable GPUs, such as the NVIDIA A40, plus NVIDIA virtual GPU (vGPU) software and high-speed, secure NVIDIA Mellanox networking.

With NVIDIA Omniverse, a cloud-native and multi-GPU-enabled platform, the EGX solution lets enterprises achieve scalable, remote collaboration with true real-time performance for teams working across geographies, apps, and systems. Enterprise IT can take advantage of simplified infrastructure health management with streamlined user and server node categorization. And because Omniverse removes the need to distribute sensitive files, asset security and IP protection concerns are eased.

NVIDIA Omniverse Enterprise on NVIDIA EGX lets enterprises address the future of work while driving down costs by standardizing on a single, unified architecture. It's now possible to run any workload—from multi-user collaboration to real-time rendering to photorealistic simulation—with easy management, deployment, operation, and monitoring.



Multi-User Collaboration in NVIDIA Omniverse on the EGX Platform

Enabling Multiple Visual Workloads

Remote Collaboration

Streamline 3D production by bringing RTX capabilities to third-party applications with the NVIDIA Omniverse digital collaboration platform.

Rendering

Accelerate true real-time ray- or path-traced rendering with the Omniverse RTX Renderer, or use a third-party renderer for photorealistic scenes in a fraction of the time compared to CPU.

BENEFITS

- > **Reduce infrastructure costs:** Maximize budget and time with reduced infrastructure management overhead and deploying fewer, more efficient GPU-accelerated servers.
- > **Accelerate your design cycles:** Interoperability between third-party applications and access to fully 3D-capable virtual workstations on any device let teams produce as fast as possible—from anywhere.
- > **Disruption-free deployment:** Omniverse Connectors allow your teams to use their favorite industry applications from Autodesk, Adobe, Bentley Systems, Blender, Closes3d, Epic Unreal Engine, Esri, GRAPHISOFT, McNeel & Associates, SideFX, and Trimble—no change in tools necessary.
- > **Superior quality, shorter time to production:** Omniverse's live sync collaborative workflow lets teams make maximum iterations at no opportunity cost for new levels of production quality.
- > **Secure IP from anywhere:** Protect IP sensitivity and assets with infrastructure that removes the need to distribute sensitive files—locally or globally.

Content Creation

Simplify 3D content creation with a single import and export while working between multiple third-party software suites—no need for data preparation or model decimation.

Computer-Aided Design (CAD)

Compress design cycles and reduce unit costs using RTX Virtual Workstations, with performance indistinguishable from physical workstations.

Computer-Aided Engineering (CAE)

Set up, test and iterate on complex simulations faster with the Omniverse platform's advanced simulation capabilities accelerated by NVIDIA GPUs.

Simulation

Experience true-to-reality simulation with support from **NVIDIA MDL, PhysX® 5, Flow, Blast**, and core AI technologies. Train AI agents and autonomous machines in a realistic, high-fidelity environment.

Augmented and Virtual Reality (AR/VR)

Accelerate time to visualization at the edge with a full-stack solution that allows you to run and scale extended reality (XR) applications to untethered devices, anywhere, across 5G.

3D Production

Produce high-quality visual effects for the next blockbuster film, faster and within budget, with virtual workstations accessible from anywhere.

Real-Time Collaboration and Simulation in the Data Center

As employees shift to working remotely, IT must implement tools and infrastructure to enable them to work and collaborate seamlessly, while keeping data secure. The EGX platform with NVIDIA Omniverse improves 3D content creation pipelines for creators, designers, and engineers, speeding up time to market while reducing costs.

NVIDIA-CERTIFIED SYSTEMS

- > Confidently deploy scalable hardware and software solutions that securely and optimally run accelerated workloads.
- > Learn more about accelerated servers at [nvidia.com/certified-systems](https://www.nvidia.com/certified-systems)



LEARN MORE

Learn more about Omniverse at www.nvidia.com/en-us/omniverse/enterprise/