NVIDIA

SOLUTION SHOWCASE

NVIDIA Omniverse™ Enterprise is a scalable, end-to-end platform for building and operating metaverse applications. Studios can easily build custom USD-based workflows and pipelines, achieving interoperability across applications so infinite iterations come at no opportunity cost.

Built For

> Concept Artists
> Previs Artists
> Modelers
> Animators, Motion Designers
> Lighting, Rendering Artists
> VFX Artists
> Technical Directors

Platform Features

> Premier Universal Scene Description collaboration platform and custom workflow toolkit
> Compatible with top industry digital content creation software
> Scalable, mutli-GPU-enabled physically accurate rendering and simulation
> Python-based modular development platform for quickly and easily building powerful 3D tools and services

Subscription Inclusions

> Omniverse Nucleus Workstation and Enterprise Nucleus Server collaboration engine
> **Omniverse Create** and **View** end user applications
> Omniverse Kit SDK for building custom 3D extensions, tools, and apps in Python
> Enterprise IT scalability, security, and deployment tools
> Full NVIDIA Enterprise Support services

Unlocking Real-Time, Full-Fidelity Content Collaboration in Media and Entertainment

> *" Sony Pictures Animation always pushes the boundaries of creativity, in both our storytelling and our visuals. NVIDIA Omniverse provides an exciting foundation for continued innovation toward that goal. "*
>
> — **Yiotis Katsambas,** Executive Director of Technology at Sony Pictures Animation

Challenges in the Media and Entertainment Industry

The film, television, and broadcast industries are undergoing rapid changes as new production pipelines emerge to address the growing demand for high-quality content—all from a globally distributed workforce.

Additionally, new streaming services are creating the need for constant releases and refreshes to satisfy growing subscriber bases.

NVIDIA Omniverse Enterprise gives creative and production teams the ability to create, iterate, and collaborate on assets using various industry-standard creative applications to deliver real-time results in full fidelity.

Artists can focus on maximizing iterations with no opportunity cost or having to endure long render times to achieve high-quality results.

M&E Use Cases for Omniverse

> **Concept Art and Design:** Artists can quickly develop and refine conceptual ideas at full fidelity in real time, giving the ability to create in context with accurate lighting and physically based materials

> **Previsualization:** Artists can build and refine previsualizations, and plan shots and sequences at full fidelity, allowing for better creative decision making and helping deliver closer to the director's vision

> **Real-Time Dailies:** Remote teams and supervisors can review beautiful, fully path traced shots from almost any device, allowing them to convey ideas effectively, reducing the number of review cycles, keeping projects on track, and accelerating the path to approvals

> **Content Collaboration:** Globally dispersed content teams with a broad range of disciplines can now collaborate and communicate easier than ever, increasing creative flow across departments.

Premier Platform for Building USD Pipelines

NVIDIA Omniverse Enterprise is a scalable, end-to-end platform for building and operating metaverse applications.

Based on Universal Scene Description (USD), Omniverse Enterprise unites teams, their assets, and 3D software tools, enabling diverse workgroups to collaborate on a single project file together. Studios can easily build custom USD-based workflows and pipelines, achieving interoperability across applications so infinite iterations come at no opportunity cost. Art Departments can maximize creative exploration with minimal risk to achieve new heights of quality and innovation with faster time-to-production.

Core Platform Technologies

Nucleus

Lets you store, share, and collaborate on project data and provides the unique ability to collaborate live across multiple applications.
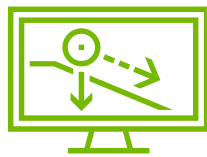

Connect

Lets you connect leading industry tools to the Omniverse platform for live-sync workflows and save USD and MDL content.
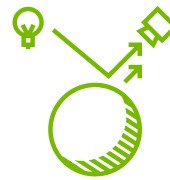

Kit

A powerful toolkit for developers to quickly and easily build custom tools and plugins in Python or C++ or custom UIs to accelerate content creation workflows.

Simulation

Leverage advanced NVIDIA physics technologies for physically accurate simulation, including **PhysX®**, **Flow, Blast**, and Rigid Body Dynamics.

RTX Renderer

Visualize your scenes in full fidelity with the advanced, multi-GPU RTX Renderer that supports both real-time ray tracing, interactive path tracing, and accurate NVIDIA Iray rendering.

Accelerating Workflows at Any Scale

Efficient, Optimized Workflows

Enable seamless, real-time collaboration across locations, teams, and top industry software applications simultaneously, and achieve the maximum number of creative iterations with faster time-to-market.

One-Click Ray Tracing

Power feature-film quality, multi-GPU real-time ray tracing and path tracing on USD content with NVIDIA RTX™.

Physically Accurate Simulation

Achieve high-performance simulation of complex, physically accurate 3D worlds with minimal effort using the latest in NVIDIA simulation and AI technologies.

Omniverse Platform Apps for Media and Entertainment

NVIDIA Omniverse™ Create

For artists and technical directors, Omniverse Create accelerates advanced scene composition and allows users to assemble, light, simulate, and render scenes in Pixar USD in real time.

NVIDIA Omniverse™ View

For reviewers, clients, and supervisors, Omniverse View powers seamless collaboration with immersive visualization and simulation of 3D assets and environments.

Scalable Deployment

This makes it possible to deploy NVIDIA Omniverse Enterprise across studios of any scale, from small workgroups using local desktops and laptops, to globally distributed teams accessing the data center using various devices. Omniverse Enterprise is designed, tested, and optimized to run on RTX-enabled **NVIDIA-Certified Systems™**.

Small Workgroups

Deploy Omniverse Nucleus Workstation across a small workgroup on a local network with NVIDIA RTX professional workstations and laptops.
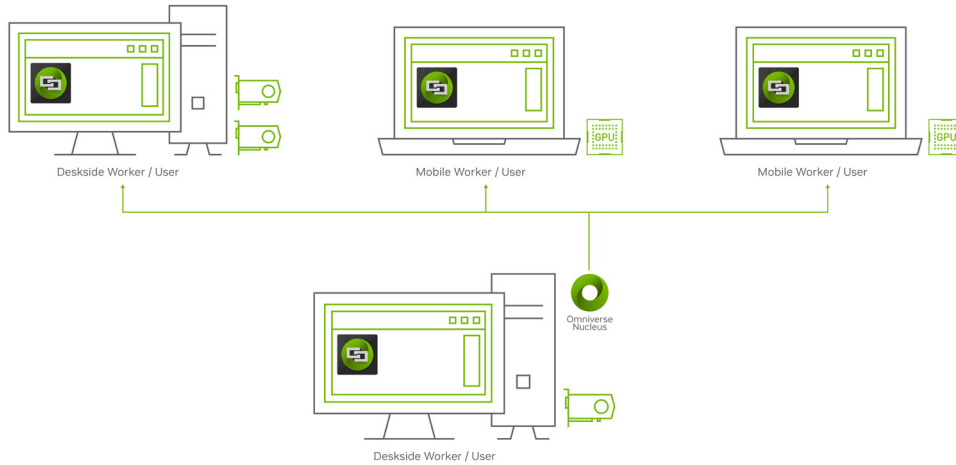
Large Enterprise

Deploy Omniverse Enterprise Nucleus Server in the data center to connect teams to the same Omniverse environment, virtualized with NVIDIA RTX Virtual Workstation software (RTX vWS), or locally using NVIDIA RTX professional workstations or laptops.
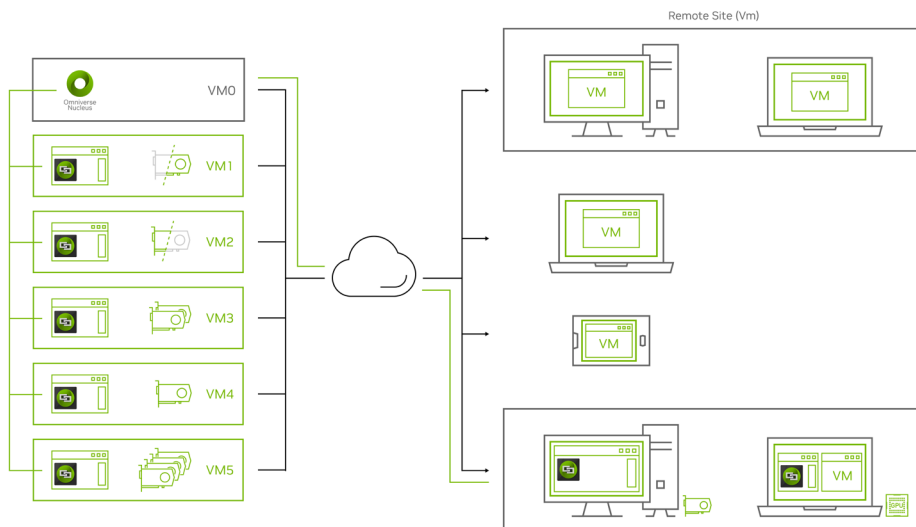
Connecting to Omniverse Enterprise

There are multiple ways to connect and aggregate full-fidelity 3D and CAD data in Omniverse Enterprise. Connectors provide the highest fidelity connection with live-link workflows between third-party applications. The platform automatically converts popular 3D and CAD file formats into USD to enable collaborative workflows.

Autodesk 3ds Max

Reallusion ActorCore

Reallusion Character Creator

HDR Light Studio

Reallusion iClone

Autodesk Maya

Adobe Substance 3D Painter

Epic Games Unreal Engine

Export and Import	FBX, GLB, GlTF, OBJ, OpenVDB, USD, USDZ
Import Only	Alembic, E57, FBX, GLB, GLTF, IGES, LXO, MD5

Image Courtesy of ILM

Learn More About Omniverse Enterprise for M&E

For more information, visit: **www.nvidia.com/ov-me**

FPO

NVIDIA