NVIDIA

SOLUTION SHOWCASE

NVIDIA Omniverse™ Enterprise for Design Collaboration

Enabling real-time 3D design collaboration and true-to-reality simulation for organizations of any scale.

Key Technologies

> NVIDIA Omniverse Enterprise

> Omniverse Nucleus collaboration engine

> Omniverse Connectors to independent software vendor (ISV) applications

> Omniverse Create, Omniverse View end-user applications

> NVIDIA RTX-powered workstations or servers

Platform Features

> Built on open standards such as Universal Scene Description for maximum interoperability

> 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 Includes

> Omniverse Nucleus Workstation and Enterprise Nucleus Server collaboration engine

> Use of Omniverse Connectors

> Omniverse Create and View end user applications

> Enterprise IT scalability, security, and deployment tools

> Full NVIDIA Enterprise Support services

Revolutionizing Design Collaboration and Simulation

The Challenges of Modern Workflows

Organizations in visual industries are facing unique challenges with the rise in remote workforces and increasingly complex 3D workloads. Enabling teams to collaborate on these 3D assets with various machines scattered across geographic locations is a task for which Enterprise IT needs a solution.

Efficiency is a critical factor in a remote workforce's success, a difficult balancing act for power-hungry workloads and a dispersed team. The demand for photorealistic, physically accurate simulation begs higher compute power- accessible from anywhere.

An Open Platform Build for Speed and Collaboration

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. Working and creating with 3D workflows is a complex task with specialized tools and custom plugins. Omniverse is a platform for artists, designers, engineers, and developers to connect and build custom 3D pipelines to unlock full-design-fidelity, real-time virtual worlds.

Benefits

Omniverse simplifies design workflows for individual users and globally dispersed teams of any scale.

Easily Connect Your Workforce

Give employees the freedom to collaborate anywhere in real time, using their preferred 3D design tools.

Achieve Faster Time for Production

Maximum iterations at no opportunity cost mean shortened design cycles and superior output.

Access Secure IP from Anywhere

Keep assets secure with infrastructure that removes the need to distribute sensitive files—either locally or around the world.

Full-Service Global Enterprise Support

Minimize system downtime and maximize system utilization and user productivity to ensure your projects stay on schedule.

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 design 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.

Omniverse Apps

NVIDIA OMNIVERSE™ CREATE

For technical artists, designers, and engineers, 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

Omniverse View powers seamless collaborative design and immersive visualization of design and simulation projects for reviewers, clients, and project managers.

Deploy Across Any Organization

Enterprise teams can deploy Omniverse Enterprise across organizations of any scale, from small workgroups using local mobile or desktop workstations, to globally distributed teams accessing the data center using various devices. Omniverse Enterprise is designed, tested, and optimized to run on NVIDIA RTX™ and NVIDIA-Certified Systems™.

Small Workgroups

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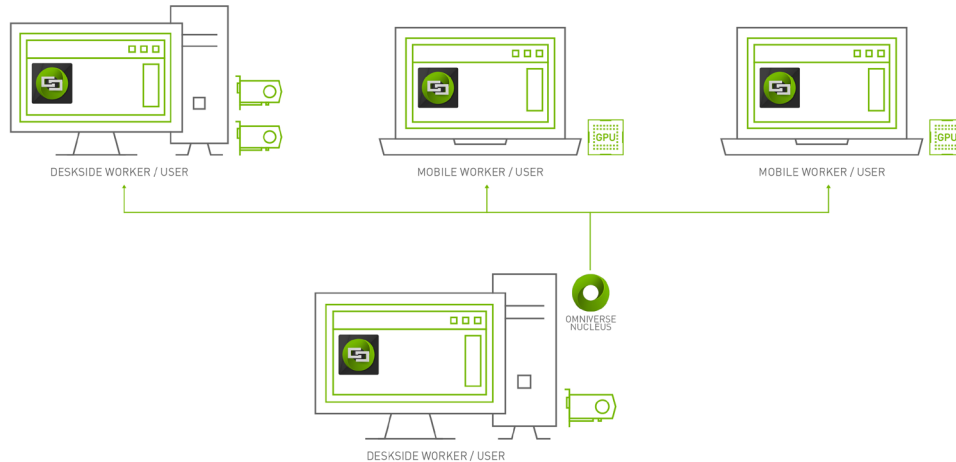
Large Enterprise

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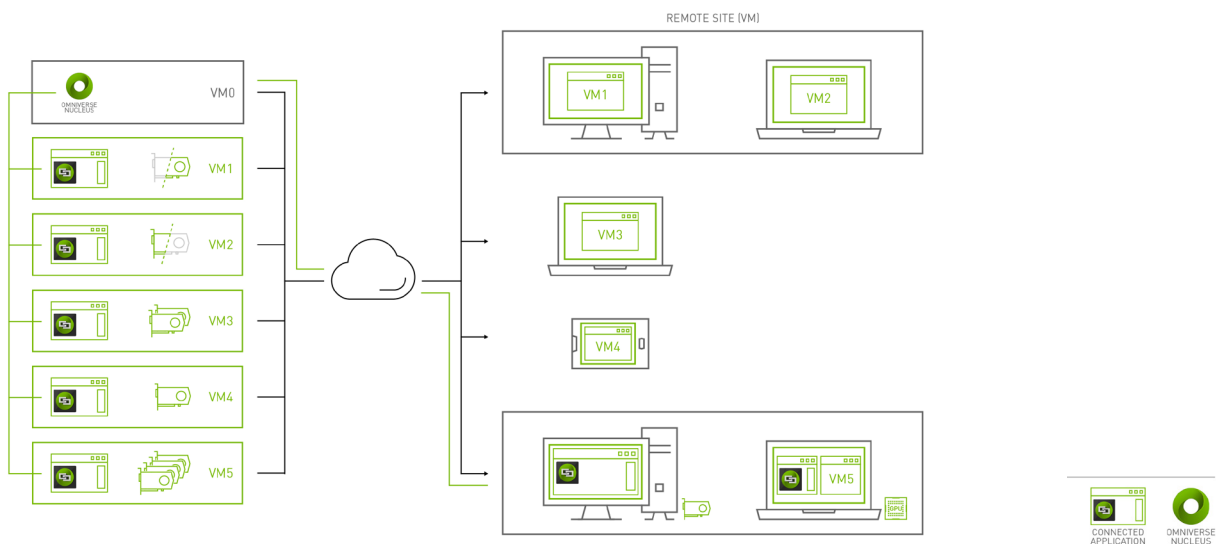
Connecting to Omniverse Enterprise

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	Autodesk Alias	Graphisoft Archicad	Esri ArcGIS CityEngine	Reallusion Character Creator
PTC Creo	HDR Light Studio	Reallusion iClone	Ipolog	Autodesk Maya	Kitware Paraview
Autodesk Revit	McNeel & Associates Rhino including Grasshopper	Siemens NX	SketchFab	Trimble SketchUp	Adobe Substance 3D Painter
SyncTwin	Epic Games Unreal Engine	Visual Components			

Export and Import	FBX, GLB, GlTF, OBJ, OpenVDB, USD, USDZ
Import Only	3D PDF, 3DS, 3DXML, 3MF, ACIS, Alembic, CATIA V4, CATIA V5, Collada, DWF, DWG, E57, IFC, IGES, Inventor, JT, LXO, MD5, NX, Parasolid, PRC, PRO/E, ShapeNet, Solid Edge, SOLIDWORKS, STL, STP, U3D, URDF, VDA-FS, VRML, X3D

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