



# HIGH PERFORMANCE VISUAL COMPUTING FROM THE DATA CENTER

## NVIDIA EGX Platform for Professional Visualization



### Addressing the Challenges of Modern Enterprises

Creative and technical professionals across many industries face increasingly complex problems as they produce more data and create higher-quality content faster than ever before. These challenges are compounded exponentially as globally distributed teams continue to work remotely. Data centers must now provide the graphics and compute power that professionals need to tackle multiple visual computing workloads spanning the enterprise, from rendering and engineering simulation, to interactive graphics on virtual workstations.

To drive visual computing workflows, professionals require incredibly powerful computing solutions that support the latest technologies and are capable of powering diverse applications and multiple workloads from the data center. Subsequently, the IT teams supporting these professionals require a secure, scalable, and easy-to-manage solution that delivers the performance of a physical workstation, and enables true real-time collaboration, with the flexibility to work from anywhere.

**Simplify deployment of graphics-rich virtual workstations on NVIDIA accelerated infrastructure, accessible from anywhere on any device.**

#### KEY TECHNOLOGIES

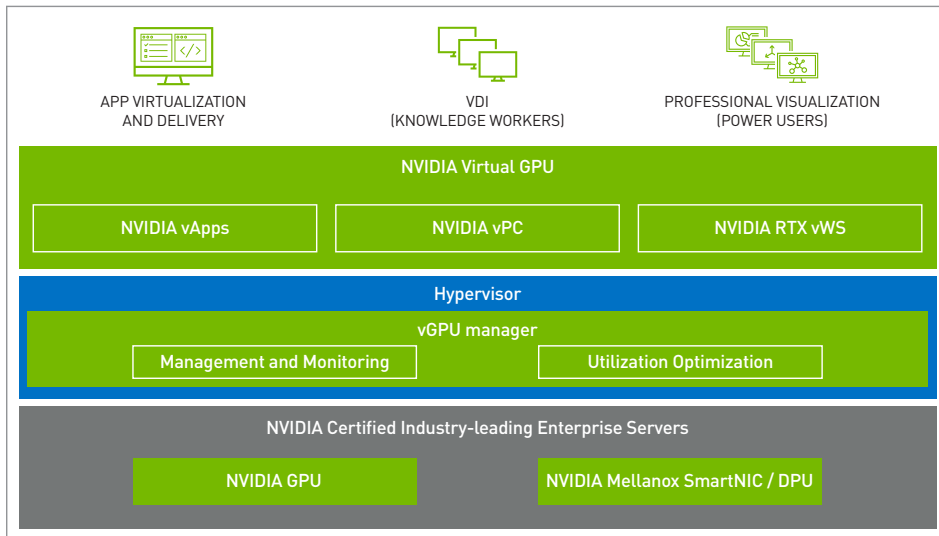
- > NVIDIA Data Center GPU
- > NVIDIA RTX™ Virtual Workstation (vWS) software
- > NVIDIA Omniverse™
- > NVIDIA CloudXR™
- > NVIDIA® Mellanox® ConnectX®
- > Hypervisor
- > ISV Applications

#### PROOF POINTS

- > Netflix's "Lost in Space" scene rendered 25x faster on infrastructure that was 7x more cost effective.\*

#### NVIDIA-CERTIFIED SYSTEMS

- > Enable enterprises to 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://nvidia.com/certified-systems)



EGX Platform for Professional Visualization

■ NVIDIA

■ VMware

■ Partner

### NVIDIA EGX Platform for Professional Visualization

- > The NVIDIA EGX platform for professional visualization is a combination of high-performance GPU computing, such as the NVIDIA A40, NVIDIA virtual GPU (vGPU) software, and high-speed, secure Mellanox networking in NVIDIA Certified data center servers, built and sold by our partners. Prepare for the future while driving down costs by standardizing on a single unified architecture that enables you to run any workload, from rendering, to simulation, for easy management, deployment, operation, and monitoring.

- > When combined with NVIDIA Omniverse, a cloud-native and multi-GPU enabled platform, the EGX solution delivers virtual collaboration and photorealistic simulation. Enterprises can achieve cost-effective, scalable remote collaboration with true real time performance for teams working across geographies and systems. Enterprise IT takes advantage of simplified infrastructure health management with streamlined user and server node categorization. Asset security and IP protection concerns are eased as Omniverse removes the need to distribute sensitive files around the world.

## Powering Multiple Visual Computing Workloads

### Rendering

Accelerate final frame rendering through either bare metal or virtual workstation instances to render scenes in a fraction of the time compared to CPU.

### Computer-Aided Design

Compress Design Cycles and reduce unit costs using RTX Virtual Workstations with performance indistinguishable from physical workstations.

### 3D Production

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

### AR/VR

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

### Engineering Simulation

Set up, test and iterate on complex simulations faster by combining NVIDIA GPUs with RTX vWS to design by day and compute by night.

### Geospatial

Gain immediate access to high-end cartography as well as compute power to execute intensive analysis remotely with accelerated virtual workstations from the data center.

### Remote Collaboration

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

### Game Development

Enable the creation of high-quality gaming entertainment from anywhere, leveraging a scalable, secure, centrally managed infrastructure.

## BENEFITS

- > **Reduced costs.** Maximize your budget with EGX by reducing infrastructure management overhead, and deploying fewer, more efficient GPU accelerated servers.
- > **Speed time-to-market.** The only virtual workstation to support RTX features to shorten design cycles and provide superior graphics performance.
- > **Manageability.** Effortlessly scale resources to accommodate new virtual workstation users in minutes with a consistent, intuitive architecture.
- > **Collaborate from anywhere.** Accelerate the creative process by giving employees the freedom to access fully 3D-capable virtual workstations on any device, from anywhere.

## Deploy High-Performance Visualization Solutions in Your Data Center Today

As employees globally shift to working remotely, IT must implement tools and infrastructure to enable them to work efficiently, and collaborate seamlessly, while keeping data secure. Historically, visualization workflows running on CPU-only servers resulted in slow, cumbersome, and inefficient user experiences. The EGX platform dramatically boosts the performance of your end-to-end design and engineering workflows, speeding up time-to-market while reducing overall cost.

\*EGX server was not used in the actual "Lost in Space" production. The performance numbers compare a Dual Skylake CPU-based server node to an EGX server with 4 Quadro RTX 8000s.

LEARN MORE

Learn more about accelerated visual computing at [www.nvidia.com/egx-graphics](http://www.nvidia.com/egx-graphics)