



DATASHEET

Vultr Cloud GPU: Accelerated by NVIDIA A40

Enabling high-performance virtual workstations for all

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Introduction

Vultr Cloud GPU, accelerated by the NVIDIA A40 GPUs and NVIDIA RTX Virtual Workstation (vWS), offers high-performance cloud computing solutions for a wide range of applications. With our advanced cloud infrastructure, we provide a seamless and cost-effective solution for professionals and businesses looking to leverage the power of cutting-edge NVIDIA GPU technology for high-performance workstations. The NVIDIA A40 GPU is specifically designed to deliver exceptional performance in ray-traced rendering, simulation, virtual production, and CAD applications.

Why it's important right now

Vultr Cloud GPU, accelerated by NVIDIA A40, is essential for various industries due to its ability to handle complex computations and large datasets. Industries like healthcare, automotive, and entertainment benefit from its capabilities. In healthcare, it accelerates drug discovery and enhances medical imaging. The automotive sector leverages it for real-time data processing in autonomous vehicles, and the entertainment industry uses it for realistic visuals.

Use Cases

Real-time ray tracing and game streaming

The NVIDIA A40 GPU can be utilized for real-time ray tracing, providing stunning, photorealistic graphics for game developers and content creators. Additionally, its powerful performance enables cloud gaming platforms to deliver high-quality, low-latency game streaming experiences to users worldwide without the need for dedicated gaming hardware on the client side.

3D visualization and virtual workstation

The NVIDIA A40 GPU can be employed in the cloud to provide high-quality, real-time 3D visualization and rendering for industries such as architecture, engineering, and construction (AEC). It also supports virtual workstation solutions, enabling users to access powerful, NVIDIA GPU-accelerated desktops remotely for graphics-intensive applications and workflows.

AI and machine learning training and inference

With its impressive processing capabilities and support for various AI frameworks, the NVIDIA A40 GPU can be used in the cloud for training large-scale machine learning models and performing real-time inference tasks. This use case benefits industries such as healthcare, finance, retail, and autonomous vehicles, where rapid AI-driven insights are critical.

Key Benefits

High-performance ray-traced rendering

Harness the power of the NVIDIA A40 GPU, featuring the latest Ampere architecture, to achieve stunning, photorealistic visuals in your 3D projects. Utilize hardware-accelerated ray tracing, deep learning, and shading technologies for faster and more efficient rendering workflows.

Advanced simulation capabilities

Run complex, large-scale simulations with the NVIDIA A40's massive memory bandwidth and processing power. Accelerate physics, fluid dynamics, and finite element analysis workloads to enable faster design iterations and improved productivity.

Seamless virtual production

Streamline your virtual production pipeline with the real-time performance of the NVIDIA A40 GPU, which helps drive high-quality, low-latency virtual sets and environments, ideal for filmmaking, animation, and motion capture.

Enhanced CAD performance

Experience smooth and responsive performance in CAD applications, such as Autodesk AutoCAD, Revit, Inventor, and Dassault Systèmes CATIA. Leverage the NVIDIA A40 GPU's advanced graphics capabilities to handle large assemblies, intricate models, and high-resolution textures. Improve collaboration and design review processes with high-quality, real-time visualization.

Scalable cloud infrastructure

Easily scale your GPU resources up or down based on your project requirements. Vultr's pay-as-you-go pricing model ensures you only pay for the resources you use, minimizing costs and maximizing efficiency.

GPU-Accelerated virtual workstations

NVIDIA RTX vWS combined with NVIDIA A40 GPUs deliver the most powerful virtual workstation. It's designed to meet the needs of creative and technical applications, connecting designers, engineers, modelers, and architects with their visualization tools in the interface of their desktop with a smooth user experience.

Specifications

NVIDIA A40 GPU	
GPU Memory	48 GB GDDR6 with error-correcting code (ECC)
GPU Memory Bandwidth	696 GB/s
Interconnect	NVIDIA NVLink 112.5 GB/s (bidi-rectional) PCIe Gen4: 64GB/s
vGPU Software Support	NVIDIA Virtual PC, NVIDIA Virtual Applications, NVIDIA RTX Virtual Work-station, NVIDIA Virtual Compute Server, NVIDIA AI Enterprise
NVENC NVDEC	1x 2x (includes AV1 decode)
Secure and Measured Boot with Hardware Root of Trust	Yes (optional)
NEBS Ready	Level 3

Discover the benefits of using Vultr Cloud GPU accelerated by the NVIDIA A40 GPU for your next project.

Learn more about our powerful lineup of **NVIDIA GPUs**.

Contact us at vultr.com to get started.

