



NVIDIA QUADRO VIRTUAL WORKSTATION GPU-ACCELERATED INNOVATION IN THE CLOUD

Enterprise Workloads are Moving to the Cloud

Enterprises need the power of workstations and flexibility of the cloud to improve user productivity and stay competitive. It's becoming more challenging as every year the IT environment becomes progressively more complex. Datasets are growing larger, workflows are becoming more compute-intensive, and enterprise applications are increasingly enhanced by AI.

It's not surprising that in response to these challenges a growing number of enterprises are migrating workloads to the cloud. In fact, the pursuit of IT agility and digital transformation are the leading factors driving greater cloud engagement. A recent survey of IT leaders reveals that by 2020 upwards of 83 percent of enterprise workloads will be in the cloud with 41 percent running on public cloud platforms and another 22 percent on hybrid cloud platforms.¹

Moving to GPU-enabled virtual desktops in the cloud has a variety of benefits. IT teams can avoid the cost and complexity of managing data centers while

quickly adapting to changing business needs. Plus, they no longer have to worry about operating system updates, security patches, hardware upgrades, and unnecessary consumption. With its promise of simplicity and high performance, it's no wonder that by 2021 enterprise spending on cloud services and cloud-enabling hardware and software is expected to double to \$530 billion.²

“83% of enterprise workloads will be in the cloud by 2020.”

LogicMonitor

When looking to harness the power of workstations and flexibility of the cloud, enterprises are increasingly turning to virtualization powered by NVIDIA Quadro® Virtual Workstation (Quadro vWS) instances to gain the flexibility and business agility to meet today's IT challenges.

¹ LogicMonitor. *Cloud Vision 2020: The Future of the Cloud Study*.

² IDC. *IDC FutureScape: Worldwide IT Industry 2018 Predictions*. October 2017, IDC #US43171317

GPU-Accelerated Cloud Computing Powers Virtual Workstations

Using the NVIDIA Virtual Machine Image (VMI) with the Quadro Virtual Workstation (Quadro vWS) software available in CSP marketplaces, customers can spin up a VM in minutes. Then, it's a simple matter of configuring the NVIDIA GPU instance, vCPU, memory, and storage requirements. No additional physical hardware or infrastructure needed. To get users up and running, all IT needs to do is install applications.

Cloud-Based Virtual Workstations Enhance On-Premise Deployments

To adapt to the rapidly evolving business landscape, organizations today must constantly innovate. Having the option to run virtualized workloads in traditional data centers, on the public cloud, or on a hybrid cloud mix is a critical part of staying competitive. Although not all workloads can be moved to the public cloud, pairing traditional infrastructure with the public cloud can enable organizations to optimize costs and increase efficiency. In fact, Gartner predicts that by 2020, 90 percent of organizations will adopt hybrid infrastructure management capabilities.³

As many organizations look to adopt a hybrid cloud solution, they're turning to NVIDIA Quadro Virtual Workstations, which provides even greater flexibility and business agility. Whether delivered from the cloud or from your data center, GPU-accelerated virtual workstations help to keep IT flexible, scalable and secure while dramatically lowering operating costs.

SIX POWERFUL BENEFITS TO DEPLOYING NVIDIA QUADRO VIRTUAL WORKSTATIONS:



NVIDIA® QUADRO® WORKSTATION PERFORMANCE

NVIDIA GPUs in the cloud power high-performance simulation, rendering, and design.



ISV CERTIFICATIONS

Get proven NVIDIA Quadro® benefits from the cloud and leverage Quadro ISV certifications.



IT SPEED AND AGILITY

Spin up a GPU-accelerated virtual workstation in minutes.



FLEXIBILITY IN THE CLOUD

Scale up and down as your business needs change and pay for only what you need.



ALWAYS-UP-TO-DATE

Your NVIDIA Quadro image is always optimized with the latest patches and upgrades.



ENTERPRISE-GRADE SECURITY

Get the same Quadro experience from anywhere, with the assurance that sensitive data is protected in the cloud.

³Gartner. **Gartner Says a Massive Shift to Hybrid Infrastructure Services Is Underway.** Press Release April 5, 2017.

GPU-Accelerated Cloud Computing is Transforming Industries

Architecture



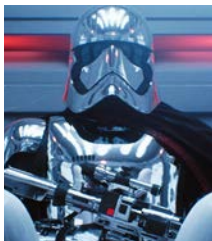
Architects, engineers, and contractors at specialized firms need to collaborate in real-time to bring projects to fruition. GPU-accelerated cloud computing provides easy access to high performance shared applications combined with the flexibility to adjust consumption to cyclical project life cycles.

Manufacturing



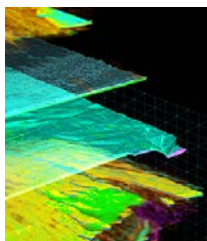
Engineers and contractors can leverage virtual workstations running CAD/CAE applications both in the office and off-site with the enhanced security of IP. Cloud-based workstations are easily provisioned to ensure each user gets the right level of computer graphics resources at every phase of the manufacturing and design process.

Media and Entertainment



Employees and contract workers can run all the high performance creative tools they need, on any device, from anywhere. With cloud-based virtual workstations, creative teams are as flexible and agile as possible, and computing resources can be easily scaled up or down on-demand.

Oil and Gas



Geologists, geophysicists, and engineers can leverage applications running complex 3D data visualizations from anywhere, on any device. Whether they are working in the field or handling remote events after hours, GPU-accelerated cloud computing ensures users experience the same local, workstation-like performance.

Experience Quadro Reliability from the Cloud Today

NVIDIA Quadro Virtual Workstation is available in the public cloud. Get the simplicity of the cloud with proven Quadro benefits to meet the demands of the enterprise-wide virtual workspace today.



Microsoft Azure supports Quadro vWS on NVIDIA P40, P100, V100 and M60 GPUs for Windows and Linux users:

- > [Windows Server 2016](#)
- > [Windows Server 2019](#)
- > [Ubuntu 18.04](#)

Large scale cloud deployments for knowledge worker and RDSH (Remote Desktop Session Host) segments can use Microsoft's Windows Virtual Desktop, which includes support for the Quadro Virtual Workstation instances on NVIDIA GPUs.

- > [Learn more about Windows Virtual Desktop](#)



Google Cloud Platform supports Quadro vWS on NVIDIA T4, V100, P100 and P4 GPUs for Windows and Linux users:

- > [Windows Server 2016](#)
- > [Windows Server 2019](#)
- > [Ubuntu 18.04](#)

For less than \$3 per hour, realize the benefits of added flexibility and business agility with cloud-based virtual workstations.

> [Learn more about Quadro Virtual Workstation](#)

For more information visit www.nvidia.com/quadro-vws