

## NVIDIA RTX VIRTUAL WORKSTATION GPU-ACCELERATED INNOVATION IN THE CLOUD

### Enterprise Workloads are Moving to the Cloud

Enterprises are turning to cloud-based solutions because they offer the flexibility and simplified management required by businesses supporting the new normal of work from anywhere. With cloud adoption of NVIDIA GPUs and software, the possibilities are unlimited. Modern workloads, including AI, HPC, data science, and graphics workstations can be supported from the cloud with the performance of a physical system.

The need for agile, secure solutions that enable remote work has been especially acute recently and is expected to continue. The latest industry research shows a continued trend toward remote work enablement and an expectation that it is the new normal. Just like healthcare and 401K plans are sought-after employee benefits, the ability to work from anywhere is quickly becoming a standard benefit.

70% of new desktop virtualization business cases will be based on the BC (business continuity) demands highlighted during the COVID-19 crisis.<sup>1</sup>

52% indicated work-from-home employment models will likely be permanently changed as a result of the COVID-19 pandemic.<sup>2</sup>

54% cited poor technology and/or infrastructure for remote working as the biggest barrier to effective remote working.<sup>3</sup>

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.

According to Gartner, almost 70% of organizations using cloud services today plan to increase their cloud spending in the wake of the disruption caused by COVID-19. As enterprises increase investments in mobility, collaboration, and other remote working technologies and infrastructure, Gartner expects growth in public cloud to be sustained through 2024.<sup>4</sup>

**“...almost 70% of organizations using cloud services today plan to increase their cloud spending in the wake of the disruption caused by COVID-19.”**

Gartner

<sup>1</sup> Gartner, How to Build a Successful Business Case for Desktop Virtualization, ID G00722424, June 2020.

<sup>2</sup> IDC, From Rigid to Resilient Organizations: Enabling the Future of Work, Doc #US45799820, July 2020.

<sup>3</sup> Smarter with Gartner, Webinar Snap Poll of HR leaders, March 3, 2020.

<sup>4</sup> Gartner Forecasts Worldwide Public Cloud End-User Spending to Grow 18% in 2021, Nov 17, 2020.

## GPU-Accelerated Cloud Computing Powers Virtual Workstations

Using the NVIDIA® Virtual Machine Image (VMI) with the NVIDIA RTX™ Virtual Workstation (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 is needed. To get users up and running, IT only needs to 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.

As many organizations look to adopt a hybrid cloud solution, they're turning to NVIDIA RTX Virtual Workstations, which provide 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.

The cloud service providers offering NVIDIA GPU-accelerated infrastructure offer enterprises the benefits of:

- Broad NVIDIA GPU options, including RTX 6000/8000 available from our **NPN (NVIDIA Partner Network) CSP partners**, in addition to T4 and V100 supported by our global CSP partners.
- Management solutions to more easily unify enterprise private and multi-cloud infrastructure.
- Services and solution offerings which ease adoption and migration to the cloud, including deep vertical and workload expertise.

### SIX POWERFUL BENEFITS OF DEPLOYING NVIDIA RTX VIRTUAL WORKSTATIONS:



#### NVIDIA RTX WORKSTATION PERFORMANCE

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



#### ISV CERTIFICATIONS

Get proven NVIDIA RTX benefits from the cloud and leverage NVIDIA 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 vWS image is always optimized with the latest patches and upgrades.



#### ENTERPRISE-GRADE SECURITY

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

\*Formerly known as NVIDIA Quadro Virtual Workstation (vWS)

# GPU-Accelerated Cloud Computing is Transforming Industries

## ARCHITECTURE



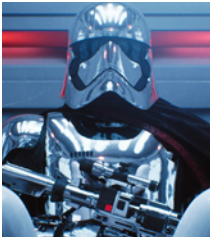
Architects, engineers, and contractors at specialized firms need to collaborate in real-time to bring projects to fruition. GPU-accelerated cloud computing provides easy access to high performance shared applications combined with the flexibility to adjust consumption based on cyclical project demands.

## MANUFACTURING



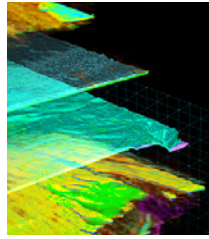
Engineers and contractors can leverage virtual workstations running CAD/CAE applications both in the office and off-site with the enhanced security of IP. Cloud-based workstations are easily provisioned to ensure each user gets the right level of computer graphics resources at every phase of the manufacturing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

NVIDIA RTX Virtual Workstation is available in the public cloud through our global CSP partners and NPN CSP partners. Get the simplicity of the cloud with proven NVIDIA benefits to meet the demands of the enterprise-wide virtual workspace today.

NVIDIA vWS on NVIDIA GPUs is available in the CSP marketplaces for Windows and Linux users. For the latest information, refer to our quick start guides:

- > [Amazon Web Services](#)
- > [Google Cloud Platform](#)
- > [Microsoft Azure](#)
- > [Oracle Cloud Infrastructure](#)

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

[Learn more about RTX Virtual Workstation](#)

“ **NVIDIA vWS expands customer choice of GPU offerings on Azure to bring powerful professional workstations in the cloud to meet the needs of the most demanding applications from any device, anywhere.**”

Talal Alquinawi

Senior Director of Microsoft Azure at Microsoft Corp.



For more information visit [www.nvidia.com/quadro-vws](http://www.nvidia.com/quadro-vws)

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