

## NVIDIA Quadro Virtual Data Center Workstation Software Turns Tesla GPU Servers into Powerful Workstations

### Available from Major Server OEMs, Quadro vDWS Streams Any Workstation or HPC Application from the Data Center; GRID vPC Optimizes Digital Workplace TCO

NVIDIA today introduced new virtualization software capabilities that turn [NVIDIA® Tesla® GPU-accelerated servers](#) into powerful workstations and provide IT departments the resources they need to address the demands of an enterprise-wide virtual workspace.

Certified with hundreds of professional workstation applications, NVIDIA Quadro® has long been the industry standard for professional visualization in the enterprise. Now, [NVIDIA Quadro Virtual Data Center Workstation Software](#) (Quadro vDWS) delivers an unparalleled experience running both virtualized graphics and compute workloads on any virtual workstation or laptop from NVIDIA Tesla-accelerated data centers. Available for over 120 systems from 33 system vendors, Quadro vDWS provides high-end performance to multiple enterprise users from the same GPU for lower cost of ownership.

Quadro vDWS enables greater mobility and collaboration among globally dispersed teams. It also addresses the increasingly compute-intensive workflows -- with their exponential growth in data size and complexity -- associated with new technologies for 3D, photorealistic rendering, virtual reality and deep learning. These are particularly common in such fields as engineering and science, where, for example, simulations are conducted during the design process to accurately predict final products.

When powered by [NVIDIA Pascal™ architecture](#)-based Tesla GPU accelerators, Quadro vDWS provides:

- The ability to create complex 3D and photoreal designs - Up to 24GB of GPU memory for working with large, immersive models.
- Increased productivity - Up to double the graphics performance of the previous NVIDIA GPU architecture lets users make better, faster decisions.
- Unified graphics and compute workloads - Supports accelerated graphics and compute (CUDA and OpenCL) workflows to streamline design and computer-aided engineering simulation.
- Better performance for Linux users - [NVIDIA NVENC](#) delivers better performance and user density by off-loading H.264 video encoding, a compute-intensive task, from the CPU for Linux virtual workstation users.

"The enterprise is transforming. Workflows are evolving to incorporate AI, photorealism, VR, and greater collaboration among employees. The Quadro visualization platform is evolving with the enterprise to provide the performance required," said Bob Pette, Vice President of Professional Visualization at NVIDIA. "With Quadro vDWS on Tesla-powered servers, businesses can tackle larger datasets, power the most demanding applications and meet the need for greater mobility."

With Quadro vDWS, NVIDIA customers like [ESI Group](#), are able to support multiple engineers on a single GPU while they remotely access powerful applications in real-time and conduct immersive product visualizations.

"Our customers are looking to democratize virtual reality across the enterprise," said Eric Kam, Product Marketing Manager of Immersive Experience at ESI. "Virtual prototypes can suffer similar shortcomings as physical prototypes; they are relatively expensive and often location limited due to hardware and software requirements. With the NVIDIA Quadro vDWS and Tesla P40, our VRify application provides the power, performance, and user experience of a physical workstation. This allows users to easily manage data-heavy 3D assets, integrate complex geometry into virtual environments, run real-time multi-body physics simulations and potentially experience their designs in VR through their browser, untethered from any one location."

### NVIDIA GRID vPC Powers the Modern Virtual Workspace

At the same time as manufacturing and design workloads are growing more complex, everyday programs like Windows 10, Office 365 and streaming applications like YouTube now require graphics acceleration to deliver features, functionality and a great virtual PC user experience for the digital workplace.

To address the growing demand for graphics-accelerated VDI, NVIDIA announced improvements to its [NVIDIA GRID™](#) vPC product. By leveraging new enhancements in the NVIDIA GRID August 2017 Release and Pascal-based NVIDIA Tesla GPU accelerators, GRID vPC provides:

- Improved user density and scalability - The Tesla P40 supports up to 24 instances of 1GB virtual desktop profiles, which is a 50 percent increase when compared to the Tesla M60. Taking advantage of this market-leading graphics virtualization density, IT departments can optimize their infrastructure investment and deliver graphics-accelerated virtualized desktops and applications across the enterprise.
- Greater vGPU insight - End-to-end management and monitoring tools provide vGPU visibility at the host or guest level. Application-level monitoring capabilities allow IT to intelligently design, manage and support their end users' experience. New integrations with VMware vRealize Operations (vROps), Citrix Director and XenCenter enable flexibility and control from a single, unified view.
- Better service - A new GPU resource scheduler helps IT departments enable seamless, consistent allocation of vGPU resources to the user, preventing latency and a degraded user experience caused by a "noisy neighbor."

### Tesla-Powered Virtual GPU Solutions Deliver More Power for More Users

NVIDIA Quadro vDWS and NVIDIA GRID vPC solutions are designed for optimal performance with Pascal-based Tesla GPU accelerators.

Joining the NVIDIA Tesla P4, P40 and P100 is the new [Tesla P6](#). It is designed entirely for blade servers and delivers 16GB of memory and supports up to 16 instances of 1GB virtual desktop profiles. Pascal-based Tesla accelerators provide IT departments the graphics and compute virtualization resources needed to meet demands and scale across the enterprise.

#### Availability

Quadro vDWS and NVIDIA GRID vPC solutions are available today in over 100 server systems worldwide, including those from Cisco, Citrix, Dell, HP, IBM, Lenovo, VMware and others, with support for new Pascal-based features and functionality starting September 1st.

#### About NVIDIA

NVIDIA's (NASDAQ: [NVDA](#)) invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined modern computer graphics, and revolutionized parallel computing. More recently, GPU deep learning ignited modern AI -- the next era of computing -- with the GPU acting as the brain of computers, robots, and self-driving cars that can perceive and understand the world. More information at <http://nvidianews.nvidia.com/>.

Certain statements in this press release including, but not limited to, statements as to: the benefits, impact and availability of Quadro vDWS and GRID vPC; the benefits and impact of Tesla P6; and workflows and the Quadro visualization platform evolving are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners' products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; as well as other factors detailed from time to time in the reports NVIDIA files with the Securities and Exchange Commission, or SEC, including its Form 10-Q for the fiscal period ended April 30, 2017. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

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