

NVIDIA VIRTUAL GPU SOLUTIONS SALES SHEET

PRICING AND LICENSING


View the NVIDIA virtual GPU pricing and software licensing details on our [website](#).

For More Information, see the [NVIDIA Virtual GPU Solutions Playbook](#).

NVIDIA VIRTUAL GPU SOLUTIONS

Across the enterprise, there is a need for graphics and compute acceleration, with secure, quick access from anywhere, on any device. Engineers, designers and architects are using more powerful applications that rely on graphics-intensive datasets that need to be accessed by distributed teams from anywhere. At the same time, business users' graphics requirements are rising, with Windows 10 and updated versions of the basic office productivity apps demanding a much higher level of computer graphics than ever before. The adoption of desktop virtualization solutions has been limited by its failure to deliver a user experience that's equivalent to physical PC's and workstations and high TCO. NVIDIA virtual GPU solutions extends the power of the GPU to virtual workstations, desktops and apps, with an immersive, high-quality user experience for everyone. End users get a fantastic user experience on a cost-effective scalable infrastructure so that you can expand virtualization to more users.

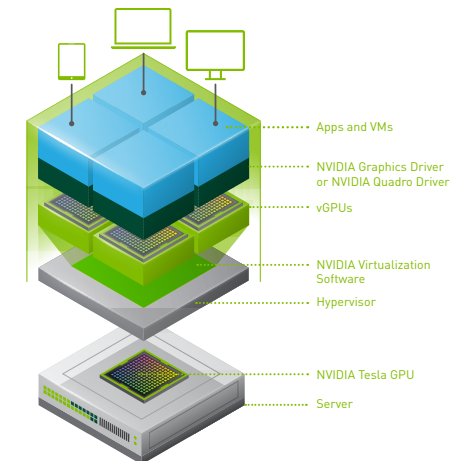
TARGET MARKET/CUSTOMER PROFILES

 INDUSTRIES	 TARGET BUYERS	 KEY INFLUENCERS
All Industries	CIO/VP, LOB/VP Eng/IT Management, EUC Architect	IT Implementers, Power users (Engineers, Architects, Designers), Knowledge workers, EDA Designers, Software Developers

THE SOLUTION AND HOW TO POSITION

The NVIDIA virtual GPU solution brings GPU acceleration to the data center. It requires both hardware and software licensing components:

- > **NVIDIA VIRTUAL GPU SOFTWARE.**
Three software products deliver accelerated virtual desktops and applications to support the needs of users everywhere.
- > **NVIDIA LICENSING AND SUPPORT OPTION.**
All the latest software updates, maintenance, and upgrades to keep your NVIDIA virtualization solution optimized and up to date. Plus, enterprise-class technical support.
- > **NVIDIA TESLA DATA CENTER GPUS.**
NVIDIA® Tesla® GPUs in certified server platforms run the NVIDIA virtualization software. Choose from density optimized, performance optimized or blade optimized solutions.








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ELEVATOR PITCH

The NVIDIA virtual GPU solution allows your workforce to be more productive while ensuring your business remains secure. Whether virtualizing powerful applications like ESRI ArcGIS Pro, Siemens NX, Dassault Systèmes SOLIDWORKS, and Autodesk AutoCAD, or virtualizing everyday programs like Windows 10, Office 365, or Chrome, which now require higher computer graphics than before, you can deliver any application from the data center with an optimal user experience. This gives enterprise IT better scalability, manageability, and security by efficiently allocating graphics resources. And end users get the user experience they need to be productive on any device, anywhere.

WORKSTATIONS	DESKTOPS	APPLICATIONS
 <p>NVIDIA QUADRO VIRTUAL DATA CENTER WORKSTATION</p>	 <p>NVIDIA GRID VIRTUAL PC</p>	 <p>NVIDIA GRID VIRTUAL APPLICATIONS</p>
For professional graphics applications includes an NVIDIA Quadro driver.	For virtual desktops delivering standard PC applications, browser, and multimedia	Use with Citrix XenApp or other RDSH solutions like VMware Horizon Apps

		Quadro vDWS	GRID vPC	GRID vApps
CONFIGURATION AND DEPLOYMENT	Desktop Virtualization	✓	✓	
	RDSH App Hosting	✓ ¹	✓	✓
	RDSH Desktop Hosting	✓ ¹	✓	✓
	Windows OS Support	✓	✓	✓
	Linux OS Support		✓ ²	
	GPU Pass-Through Support ³	✓		✓
	Bare Metal Support ⁴	✓		✓
	NVIDIA Graphics Driver	✓ ¹	✓	✓
	NVIDIA Quadro Driver	✓		
	Guaranteed Quality of Service Scheduling ⁵	✓	✓	✓
DISPLAY	Maximum Active Display	Four 4K	Four QHD, Two 4K ¹³	One ⁶
	Maximum Displays and Resolution	4096 x 2160	4096 x 2160 ²	1280 x 1024
DATA CENTER MANAGEMENT	Host, Guest, and Application Level Monitoring ⁷	✓	✓	✓
	Live Migration ²	✓	✓	✓
SUPPORT	NVIDIA Direct Enterprise-Level Technical Support	✓	✓	✓
	Maintenance Releases, Defect Resolutions, and Security Patches for up to 3 years ⁸	✓	✓	✓
ADVANCED PROFESSIONAL FEATURES	ISV Certifications	✓		
	CUDA/OpenCL	✓ ¹²		✓ ¹³
GRAPHICS FEATURES AND APIs	NVENC	✓	✓	
	OpenGL Extensions, Including WebGL	✓	✓	✓
	DirectX	✓	✓	✓
	Vulkan Support	✓		
	Quadro Performance Features and Optimizations	✓		
PROFILES¹¹	Max Frame Buffer Supported	24 GB	2 GB ²	24 GB
	Available Profiles ¹¹	0Q, 1Q, 2Q, 3Q, 4Q, 6Q, 8Q, 12Q, 16Q, 24Q, 32Q ¹⁴	0B, 1B, 2B ²	24A, 16A, 12A, 8A, 6A, 4A, 3A, 2A, 1A



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NVIDIA VIRTUAL GPU HARDWARE

		Quadro vDWS	GRID vPC	GRID vApps
RECOMMENDED GPUs FOR DIFFERENT USE CASES	High-end professional graphics users, includes use for double precision compute workloads (i.e. running 3D models and design workflows, intensive CAE simulations)	P100, V100 ¹²		
	Mid to high-end professional graphics users, includes use for single precision compute workloads (i.e. rendering and creating complex designs)	P40		
	Entry to mid-level professional graphics users, including deep learning inference workloads and Pascal features	P4		
	Entry to mid-level professional graphics users, including support for heterogeneous profiles and larger number of OEM server certifications	M60		
	Best density and performance for the knowledge worker		M10	M10
	Software developers using 2D Electronic Design Automation (EDA) tools and Linux apps; healthcare providers and financial traders needing increased productivity with multiple high-res monitor support		M10	M10
	Best for blade form factor	M6, P6	M6, P6	M6, P6



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¹ With packaged GRID vApps license

² Supported starting with NVIDIA virtual GPU software March 2018 release (version 6.0)

³ Only supported on 1:1 profiles

⁴ Only NVIDIA Tesla M6 Hardware supported as primary display device

⁵ Scheduling options include fixed share, equal share, and best effort/time slicing

⁶ GRID vApps supports one 1280x1024 display from the GPU card. However, XenApp renders to an offscreen buffer, so it can support multiple software rendered displays at higher resolutions

⁷ Application level monitoring only available starting with the NVIDIA virtual GPU August 2017 release (version 5.0)

⁸ Available with active Support, Updates, and Maintenance (SUMs) contract

⁹ Supported on 8GB 1:1 profile on Maxwell and all profiles on Pascal

¹⁰ Only supported for Maxwell 8A profile on GRID 4.x and earlier releases

¹¹ Profiles supported have dependency on GPU selected. For vGPU profiles, "Q" stands for Quadro, "B" stands for Business, and "A" stands for Apps. For more information, read the Virtual GPU Software User Guide at docs.nvidia.com/grid/latest/grid-vgpu-user-guide/index.html

¹² V100 support only available with NVIDIA virtual GPU software March 2018 release (version 6.0)

¹³ Supports up to two 4K displays or four 2560x1600 displays on 1B profile. Supports up to four 2560x1600 displays on 2B profile. Support for two 4K displays starts with NVIDIA virtual GPU software release 6.0, and support for four 2560x1600 displays on 2GB profile starts with NVIDIA virtual GPU software release 6.2

¹⁴ 32Q profile available with Tesla V100