



# NVIDIA VIRTUAL GPU

## HOW TO BUY

### OVERVIEW

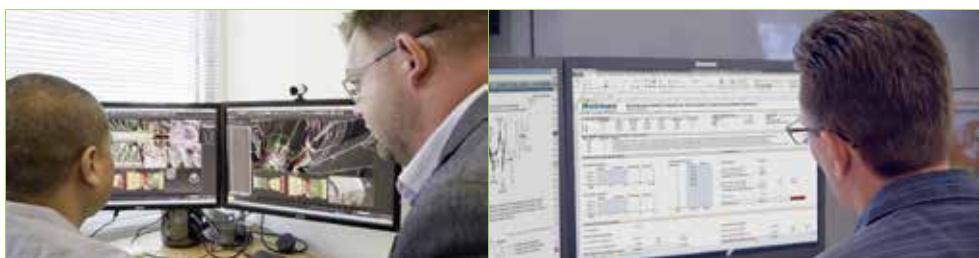
NVIDIA virtual GPU software enables the delivery of graphics-rich virtual desktops and workstations accelerated by NVIDIA® Tesla® GPUs, the most powerful data center GPUs on the market today. With NVIDIA virtual GPU software, Tesla GPU resources can be divided so the GPUs are shared across multiple virtual machines or multiple Tesla GPUs can be allocated to a single virtual machine to power the most demanding workflows.

The portfolio of NVIDIA virtual GPU software products includes:

- NVIDIA Quadro® Virtual Data Center Workstation (Quadro vDWS)
- NVIDIA GRID® Virtual PC (GRID vPC)
- NVIDIA GRID Virtual Applications (GRID vApps)

To run these software products, you'll need an NVIDIA Tesla GPU and a software license that addresses your specific use case.

### FIND THE BEST VIRTUAL GPU SOFTWARE PRODUCT FOR YOUR USERS.



Type of User	Creative and Technical Professional	Knowledge Worker
Virtual GPU Software Edition	Quadro Virtual Data Center Workstation	GRID Virtual PC / Virtual Applications
GPU Hardware Recommendation	Tesla T4, P4, M60, P40, P100, V100, or Tesla P6 for blade form factor	Tesla M10, or Tesla P6 for blade form factor

Now available in CSP marketplaces, NVIDIA Quadro Virtual Workstation software provides enterprises that want to pair cloud-based workstations with traditional on-premise infrastructure with even greater flexibility and business agility.

### NVIDIA VIRTUAL GPU SOFTWARE FEATURE LIST




Configuration and Deployment	Quadro vDWS	GRID vPC	GRID vApps
Desktop Virtualization	✓	✓	
RDSH App Hosting	✓ <sup>1</sup>	✓	✓
RDSH Desktop Hosting	✓ <sup>1</sup>	✓	✓
Windows OS Support	✓	✓	✓
Linux OS Support	✓	✓ <sup>2</sup>	
GPU Pass-Through Support <sup>3</sup>	✓		✓
Bare Metal Support <sup>4</sup>	✓		✓
NVIDIA Graphics Driver	✓ <sup>1</sup>	✓	✓
NVIDIA Quadro Driver	✓		
Guaranteed Quality-of-Service Scheduling <sup>5</sup>	✓	✓	✓
Multi-GPU	✓ <sup>14</sup>		

Display	Quadro vDWS	GRID vPC	GRID vApps
Maximum Hardware Rendered Display	Four 4k	Four QHD, Two 4K <sup>12</sup>	One <sup>6</sup>
Maximum Resolution	4096 x 2160	4096 x 2160	1280 x 1024
Support	Quadro vDWS	GRID vPC	GRID vApps
NVIDIA Direct Enterprise-Level Technical Support	✓	✓	✓
Maintenance Releases, Defect Resolutions, and Security Patches for up to 3 Years <sup>8</sup>	✓	✓	✓
Data Center Management	Quadro vDWS	GRID vPC	GRID vApps
Host, Guest, and Application-Level Monitoring <sup>7</sup>	✓	✓	✓
Live Migration <sup>2</sup>	✓	✓	✓

Advanced Professional Features	Quadro vDWS	GRID vPC	GRID vApps
ISV Certifications	✓		
NVIDIA CUDA® / OpenCL	✓ <sup>9</sup>		✓ <sup>10</sup>
Graphics Features and APIs	Quadro vDWS	GRID vPC	GRID vApps
NVENC	✓	✓	
OpenGL Extensions, Including WebGL	✓	✓	✓
Quadro Performance Features and Optimizations	✓		
DirectX	✓	✓	✓
Vulkan Support	✓		
Profiles <sup>11</sup>	Quadro vDWS	GRID vPC	GRID vApps
Max Frame Buffer Supported	32 GB <sup>13</sup>	2 GB <sup>2</sup>	24 GB
Available Profiles	0Q, 1Q, 2Q, 3Q, 4Q, 6Q, 8Q, 12Q, 16Q, 24Q, 32Q <sup>13</sup>	0B, 1B, 2B <sup>2</sup>	24A, 16A, 12A, 8A, 6A, 4A, 3A, 2A, 1A


## CHOOSE A SOFTWARE LICENSING MODEL

### ANNUAL SUBSCRIPTION

	
	
GRID Virtual Applications	\$10 subscription
GRID Virtual PC	\$50 subscription
Quadro Virtual Data Center Workstation	\$250 subscription

Annual subscription includes software license and NVIDIA Support, Update, and Maintenance Subscription (SUMS).

### PERPETUAL LICENSE

	
GRID Virtual Applications	\$20 perpetual license \$5 SUMS per year
GRID Virtual PC	\$100 perpetual license \$25 SUMS per year
Quadro Virtual Data Center Workstation	\$450 perpetual license \$100 SUMS per year

Perpetual License includes indefinite software license; SUMS is required and is available in three, four, or five year increments. One year SUMS available only for renewals.

For more details on what's supported in each version of NVIDIA virtual GPU software, see the [NVIDIA Virtual GPU Packaging, Pricing, and Licensing Guide](#).

Licensing for cloud-based workstations with NVIDIA Quadro Virtual Workstation software will vary with CSP pricing.

## FIND THE BEST NVIDIA DATA CENTER GPU FOR YOUR ENVIRONMENT.

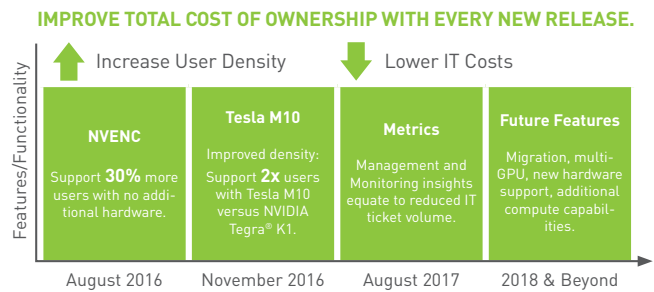
NVIDIA virtual GPU software runs on NVIDIA Tesla GPUs, is based on the NVIDIA Turing™, Volta™, Pascal™, and Maxwell™ GPU architectures and is supported in [certified servers](#).

For more information, [learn how to buy the NVIDIA virtual GPU solution in four easy steps](#).

## NVIDIA VIRTUAL GPU SOFTWARE: EXTENDING THE VALUE OF YOUR VIRTUAL GPU DEPLOYMENT

An NVIDIA virtual GPU software license gives you access to continuous innovation for your virtual GPU deployment, in addition to ongoing support and maintenance. This software license model enables NVIDIA to deliver on new feature requests without requiring new hardware.

Over the past couple of years, innovations in NVIDIA virtual GPU software have provided customers with increased user density, and better management and monitoring insights for their virtual GPU deployment. NVIDIA has an ongoing software roadmap for continued enhancements that will provide additional value to customers.



<sup>1</sup>With packaged GRID vApps license.

<sup>2</sup>Support starting with NVIDIA virtual GPU software Spring 2018 release (version 6.0).

<sup>3</sup>Only supported on 1:1 profiles.

<sup>4</sup>Only NVIDIA Tesla M6 hardware supported as primary display device.

<sup>5</sup>Scheduling options include fixed share, equal share, and best effort/time slicing.

<sup>6</sup>GRID vApps supports one 1280 x 1024 display from the GPU card. However, XenApp renders to an offscreen buffer, so it can support multiple software-rendered displays at higher resolutions.

<sup>7</sup>Application-level monitoring only available starting with the NVIDIA virtual GPU August 2017 release (version 5.0).

<sup>8</sup>Available with active Support, Updates, and Maintenance Subscription (SUMS) contract.

<sup>9</sup>Supported on 8 GB 1:1 profile on Maxwell and all profiles on Pascal.

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

<sup>11</sup>Profiles supported have dependency on GPU selected. For more information, read the [Virtual GPU Software User Guide](#).

<sup>12</sup>Supports up to two 4K displays or four 2560 x 1600 displays on 2B profile. Supports up to four 2560 x 1600 displays on 1B profile. Support for two 4K displays starts with NVIDIA virtual GPU software release 6.0, and support for four 2560 x 1600 displays on 2 GB profile starts with NVIDIA virtual GPU software release 6.2.

<sup>13</sup>32Q profile available with Tesla V100

<sup>14</sup>Support available Fall 2018 with NVIDIA virtual GPU software release (version 7.0).