NVIDIA VIRTUAL GPU
HOW TO BUY

OVERVIEW

NVIDIA® virtual GPU (vGPU) software provides powerful GPU performance for graphics-rich virtual workstations and desktops in a virtualized environment. Virtualization enables IT to leverage management and security benefits as well as the performance of NVIDIA GPUs required for modern workloads. With NVIDIA virtual GPU software, GPU resources can be divided so that GPUs are shared across multiple virtual machines, or multiple GPUs can be allocated to a single virtual machine to power the most demanding, graphics intensive workloads.

The portfolio of NVIDIA virtual GPU software products includes:

> NVIDIA RTX™ Virtual Workstation (vWS)

> NVIDIA Virtual PC (vPC)

> NVIDIA Virtual Applications (vApps)

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

FIND THE BEST VIRTUAL GPU SOFTWARE PRODUCT FOR YOUR USERS.

Use Case	Creative and Technical Professional	Knowledge Worker
Compute Type	Client Computing	Client Computing
Virtual GPU Software Edition	NVIDIA RTX Virtual Workstation	NVIDIA Virtual PC / Virtual Applications
GPU Hardware	Recommended: A40	Recommended: A16

Now available in CSP marketplaces, NVIDIA RTX Virtual Workstation software brings enterprises pairing cloud-based workstations with on-premise infrastructure even greater flexibility and business agility.

NVIDIA VIRTUAL GPU SOFTWARE FEATURE LIST

Configuration and Deployment	vWS	vPC	vApps
Desktop Virtualization	✓	✓	
Server Virtualization			
RDSH App Hosting	✓[2]	✓	✓
RDSH Desktop Hosting	✓[2]	✓	✓
Windows OS Support	✓	✓	✓
Linux OS Support	✓	✓[3]	
GPU Pass-Through Support[4]	✓		✓
Bare-Metal Support[5]	✓		✓
NVIDIA Graphics Driver	✓[2]	✓	✓
NVIDIA RTX Enterprise Driver	✓		
NVIDIA Compute Driver			
Guaranteed Quality-of-Service Scheduling[6]	✓	✓	✓
Multi-GPU	✓[14]		

	vWS	vPC	vApps
NVIDIA NVLink™	✓		
ECC Reporting and Handling	✓		
Page Retirement	✓		
Display			
Maximum Hardware Rendered Display	Four 5K or Two 8K	Four QHD, Two 4K[12], One 5K	One[7]
Maximum Resolution	7680 x 4320[16]	5120 x 2880	1280 x 1024
Support			
NVIDIA Direct Enterprise-Level Technical Support	✓	✓	✓
Maintenance Releases, Defect Resolutions, and Security Patches for up to 3 Years[9]	✓	✓	✓
NGC™ Ready Support			

Data Center Management	vWS	vPC	vApps
Host, Guest, and Application-Level Monitoring[8]	✓	✓	✓
Live Migration[3]	✓	✓	✓
GPU Operator			
Advanced Professional Features			
ISV Certifications	✓		
NVIDIA CUDA® / OpenCL™ software.	✓[10]		
Graphics Features and APIs			
NVENC	✓	✓	
OpenGL Extensions, Including WebGL	✓	✓	✓
Insitu Graphics/GL Support			
NVIDIA Performance Features and Optimizations	✓		
DirectX	✓	✓	✓
Vulkan Support	✓		
Profiles[11]			
Max Frame Buffer Supported	48GB	2GB[3]	48GB
Available Profiles	0Q, 1Q, 2Q, 3Q, 4Q, 6Q, 8Q, 12Q, 16Q, 24Q, 32Q[13], 48Q[16]	0B, 1B, 2B[3]	1A, 2A, 3A, 4A, 6A, 8A, 12A, 16A, 24A, 32A, 48A

FIND THE BEST NVIDIA DATA CENTER GPU FOR YOUR ENVIRONMENT.

NVIDIA virtual GPU software runs on NVIDIA data center GPUs and is supported in certified servers.

For more information, learn how to buy the NVIDIA virtual GPU solution in four easy steps.

CHOOSE A SOFTWARE LICENSING MODEL

ANNUAL ENTERPRISE SUBSCRIPTION

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

NVIDIA Virtual Applications (vApps)	$10 per concurrent user subscription
NVIDIA Virtual PC (vPC)	$50 per concurrent user subscription
NVIDIA RTX Virtual Workstation (vWS)	$250 per concurrent user subscription

PERPETUAL ENTERPRISE LICENSE

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

NVIDIA Virtual Applications (vApps)	$20 perpetual license
	$5 SUMS per year
NVIDIA Virtual PC (vPC)	$100 perpetual license
	$25 SUMS per year
NVIDIA RTX Virtual Workstation (vWS)	$450 perpetual license
	$100 SUMS per year

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 RTX Virtual Workstation software will vary with CSP pricing.

Licensing by service providers reselling or hosting NVIDIA virtual GPU services is provided through the NPN Partner Program for Cloud Service Providers.

[1] NVIDIA RTX vWS 12.2 (A10: 24Q Profile, A40: 48Q Profile) | SPECviewperf 2020 Subtest, HD 3dsmax-07 composite.
[2] With packaged vApps license.
[3] Support starting with NVIDIA virtual GPU software Spring 2018 release (version 6.0).
[4] Only supported on 1:1 profiles.
[5] Only NVIDIA M6 hardware supported as primary display device.
[6] Scheduling options include fixed share, equal share, and best effort/time slicing.
[7] 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.
[8] Application-level monitoring only available starting with the NVIDIA virtual GPU August 2017 release (version 5.0).
[9] Available with active Support, Updates, and Maintenance Subscription (SUMS) contract.
[10] Supported on 8 GB 1:1 profile on Maxwell and all profiles on Pascal.
[11] Profiles supported have dependency on GPU selected. For more information, read the Virtual GPU Software User Guide.
[12] Supports up 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 2GB profile starts with NVIDIA virtual GPU software release 6.2.
[13] 32Q profile available with V100
[14] Support available Fall 2018 with NVIDIA virtual GPU software release (version 7.0).
[15] 48Q profile available with RTX 8000 and A40.
[16] Support for 8K displays with vWS starts with NVIDIA vGPU software 10.0.

⬢ NVIDIA.