

# NVIDIA Virtual GPU (vGPU): VMware Deployment Guide

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## Selecting the Correct vGPU Profiles

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This section covers selecting the correct vGPU Profiles:

- › Creative and Technical Professionals
- › Knowledge Worker profiles
- › Frame buffer Utilization and vGPU Profile selection

Selecting the right vGPU profile based on the users' tasks and workloads maximizes the whole virtualization experience. Virtual GPU profiles determine the amount of frame buffer allocated to your virtual machine and which license is used for the virtual instances. This section provides vGPU profile guidance and additional references for these NVIDIA licensed software products - [NVIDIA RTX Virtual Workstation \(RTX vWS\)](#), [NVIDIA Virtual PC \(vPC\)](#), and [NVIDIA Virtual Applications \(vApps\)](#).

### Creative and Technical Professionals

Previously, creative and technical professionals were limited to physical devices like laptops or desktop workstations due to their demanding tasks and heavy workloads. But now, the NVIDIA Virtual GPU (vGPU) paired with the [NVIDIA RTX Virtual Workstation \(RTX vWS\)](#) software solution enables creative and technical professionals the ability to access their most demanding applications from anywhere with performance that rivals physical workstations. NVIDIA RTX vWS software accelerates professional design and visualization applications, including Autodesk Revit, Maya, Dassault Systèmes CATIA, Solidworks, Esri ArcGIS Pro, Petrel, and more.

Considerations for selecting the right vGPU profile for creative and technical professionals are compatibility and performance. The Q-series vGPU profiles undergo the same rigorous application certification process as the [NVIDIA RTX™ Enterprise platform drivers](#) or professional graphics applications.

**CHAT** (beta)

software supports RTX Enterprise drivers, allowing users to benefit from the acceleration and stability that RTX brings to professional applications used by the most demanding customers today. As a result, you can expect 100% compatibility and performance within your applications using the NVIDIA RTX vWS software licensed product.

Begin your profile selection by considering the requirements of your users' primary applications. Professional application software vendors certify their products to run with NVIDIA vGPU software, ensuring that the performance is tuned for maximum efficiency. Most vendors' websites have a dedicated page indicating the proper GPU hardware; use those recommendations to select the appropriate vGPU profile to meet your end users' needs. To understand more about the graphics requirements of your users' applications, consult the application vendors.

## Matching Profiles to User Needs

As stated earlier in the **Sizing Your Environment** section, you must define your users' needs and match them to the NVIDIA vGPU profiles that provide the right amount of frame buffer and the correct software licenses. By categorizing a user's workload as Light, Medium, and Heavy, we can illustrate a base VM configuration for an NVIDIA RTX vWS deployment.

- › Light user
  - › 8 GB RAM
  - › Four vCPUs (2.4 GHz)
  - › A40-8Q vGPU Profile
- › Medium
  - › 16 GB RAM
  - › Eight vCPUs (2.6 GHz)
  - › A40-12Q
- › Heavy user
  - › 32 GB RAM
  - › 12 vCPUs (3.2 GHz)
  - › A40-24Q

### ✓ **Note**

These VM configurations are benchmark testing for the RTX vWS "Dedicated Performance" user type quality of service (QoS). For more RTX vWS Benchmarking results and vGPU sizing guidance, refer to the [\*\*NVIDIA RTX vWS Workstation Sizing Guide\*\*](#).

## Knowledge Worker Profiles

