



# What's New in Virtual GPU Software R510 for All Supported Hypervisors

Release Notes

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# Chapter 1. Updates by Release

Updates for each release in this release family of NVIDIA vGPU software may include new features, introduction of hardware and software support, and withdrawal of hardware and software support.

## 1.1. Updates in Release 14.0

### New Features in Release 14.0

- ▶ Support for GPUDirect<sup>®</sup> technology on all C-series vGPUs on GPUs that support SR-IOV
- ▶ Support for a mixture of time-sliced vGPUs of the same frame buffer size on the same GPU
- ▶ Support for Tesla Compute Cluster (TCC) mode for Q-series vGPUs on Windows guest VMs
- ▶ Support for GPU System Processor (GSP) in GPU pass through and bare-metal configurations on Linux with vCS



**Note:** If you are using a product other than vCS, you must disable GSP as explained in [Virtual GPU Software User Guide](#).

- ▶ Enhanced NVIDIA CUDA Toolkit support:
  - ▶ NVIDIA CUDA Toolkit profilers can be enabled when unified memory is enabled.
  - ▶ Nsight Systems GPU context switch trace is supported.
- ▶ Enhancements to the NVIDIA Management Library (NVML) to determine whether a vGPU type supports GPUDirect technology and peer-to-peer CUDA transfers over NVLink
- ▶ Addition of RPM and Debian packages for the NVIDIA vGPU software graphics drivers for Linux
- ▶ Security updates - see *Security Bulletin: NVIDIA GPU Display Driver - February 2022*, which is posted shortly after the release date of this software and is listed on the [NVIDIA Product Security](#) page
- ▶ Miscellaneous bug fixes

## Hardware and Software Support Introduced in Release 14.0

- ▶ Support for the following GPUs:
  - ▶ NVIDIA A2
  - ▶ NVIDIA A30X
  - ▶ NVIDIA A100X
- ▶ Support for Red Hat Enterprise Linux with KVM hypervisor 8.5
- ▶ Support for Red Hat Enterprise Linux 8.5 as a guest OS
- ▶ Support for Debian 10 as a guest OS
- ▶ Support for Citrix Virtual Apps and Desktops version 7 2112
- ▶ Support for VMware Horizon 2111 (8.4)

## Feature Support Withdrawn in Release 14.0

- ▶ Red Hat Enterprise Linux with KVM hypervisor 8.1, 7.8, and 7.7 are no longer supported.
- ▶ Red Hat Enterprise Linux 8.1 is no longer supported as a guest OS.
- ▶ Red Hat Enterprise Linux 7.8 and 7.7 are no longer supported as a guest OS.
- ▶ Windows Server 2012 R2 is no longer supported as a guest OS.

## Features Deprecated in Release 14.0

The following table lists features that are deprecated in this release of NVIDIA vGPU software. Although the features remain available in this release, they might be withdrawn in a future release. In preparation for the possible removal of these features, use the preferred alternative listed in the table.

Deprecated Feature	Preferred Alternative	Additional Information
Legacy NVIDIA vGPU software license server	<a href="#">NVIDIA License System</a>	<a href="#">NVIDIA Virtual GPU Software License Server End of Life Notice</a>

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