



What's New in Virtual GPU Software R460 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 12.4

New Features in Release 12.4

- ▶ Security updates - see *Security Bulletin: NVIDIA GPU Display Driver - October 2021*, 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 12.4

- ▶ Support for Citrix Virtual Apps and Desktops version 7 2109

1.2. Updates in Release 12.3

New Features in Release 12.3

- ▶ Security updates - see [Security Bulletin: NVIDIA GPU Display Driver - July 2021](#)
- ▶ Miscellaneous bug fixes

Hardware and Software Support Introduced in Release 12.3

- ▶ Support for Citrix Virtual Apps and Desktops version 7 2106
- ▶ Support for VMware Horizon 2106 (8.3)

Feature Support Withdrawn in Release 12.3

- ▶ Citrix Hypervisor 7.0 is no longer supported.
- ▶ Red Hat Enterprise Linux with KVM hypervisor 8.3 is no longer supported.

- ▶ Red Hat Enterprise Linux 8.3 is no longer supported as a guest OS.

1.3. Updates in Release 12.2

New Features in Release 12.2

- ▶ Support for unified memory with NVIDIA vGPU
- ▶ Support for GPUDirect technology remote direct memory access (RDMA) on VMware vSphere
- ▶ Security updates - see [Security Bulletin: NVIDIA GPU Display Driver - April 2021](#)
- ▶ Miscellaneous bug fixes

Hardware and Software Support Introduced in Release 12.2

- ▶ Support for the following GPUs:
 - ▶ NVIDIA® A10
 - ▶ NVIDIA RTX A5000
- ▶ Support for Red Hat Enterprise Linux with KVM hypervisor 8.4
- ▶ Support for Red Hat Enterprise Linux 8.4 as a guest OS
- ▶ Support for Citrix Virtual Apps and Desktops version 7 2103
- ▶ Support for VMware Horizon 2103 (8.2)
- ▶ Support for NVIDIA GPU Operator with Red Hat Enterprise Linux with KVM 8.2, Red Hat OpenShift 4.7, and Red Hat CoreOS 4.7
- ▶ Support for NVIDIA GPU Operator with the following combinations of hypervisor, container platform, and guest OS:
 - ▶ VMware vSphere 7.0, Red Hat OpenShift 4.7, and Red Hat CoreOS 4.7
 - ▶ VMware vSphere 7.0 Update 2 and later compatible updates, VMware Tanzu Kubernetes Grid, and Ubuntu 20.04

1.4. Updates in Release 12.1

New Features in Release 12.1

- ▶ Support for NVIDIA vGPU on GPUs based on the NVIDIA Ampere architecture on VMware vSphere ESXi 7.0 U2 and later compatible updates
- ▶ Miscellaneous bug fixes

1.5. Updates in Release 12.0

New Features in Release 12.0

- ▶ Support for NVIDIA® GPU Operator
- ▶ Support for NVIDIA® NVSwitch™ on-chip memory fabric
- ▶ Miscellaneous bug fixes

Hardware and Software Support Introduced in Release 12.0

- ▶ Support for the following GPUs:
 - ▶ NVIDIA A100 HGX 80GB
 - ▶ NVIDIA A40
 - ▶ NVIDIA RTX A6000
- ▶ Support for Windows 10 October 2020 Update (20H2) as a guest OS
Windows 10 May 2021 Update (21H1), which is a bug fix release for Windows 10 October 2020 Update (20H2), is also supported.
- ▶ Support for Red Hat CoreOS 4.7 as a guest OS
- ▶ Support for SuSE Linux Enterprise Server 15 SP2
- ▶ Support for VMware Horizon 2012 (8.1)

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