NVIDIA AND CITRIX GRAPHICS-ACCELERATED VIRTUAL DESKTOPS AND APPLICATIONS

NVIDIA GRID™ technology delivers true PC graphics-rich experiences to users throughout an organization by offloading graphics processing from the CPU to the GPU in virtualized environments.

By adding GRID software and NVIDIA GPUs to an existing Citrix solution, data center managers can finally empower more users with full graphics capability, wherever they are.

NVIDIA GRID-Enabled Hypervisors

NVIDIA provides Citrix with GRID software libraries and technical support to enable GPU acceleration in their XenServer hypervisor products. These libraries also allow NVIDIA GRID K1 and K2 boards to be run in dedicated access mode (GPU pass-through) for power users, or NVIDIA GRID vGPU™ virtualization mode that lets multiple users share a single virtualized GPU's processing power.

NVIDIA GRID-Enabled Virtual Desktops

A virtual desktop sitting in a remote data center requires the fastest possible remoting solution to deliver an end-user experience that's comparable to a dedicated PC. GRID's software enables virtual desktop solutions to capture and encode remote streams directly in the GRID GPU hardware, delivering a local desktop feel with dramatically reduced latency.
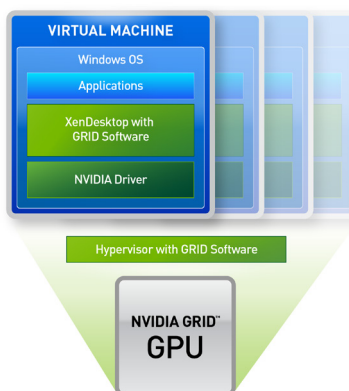
NVIDIA GRID Graphics Boards

GRID graphics boards feature the NVIDIA® Kepler™ architecture that, for the first time, allows hardware virtualization of the GPU. With low-latency remote display, H.264 encoding,[1] and power efficiency built in, GRID lets multiple users share a single GPU while enjoying a true PC experiences.

NVIDIA GRID vGPU

GRID vGPU takes graphics virtualization to the next level. For the first time the GPU can be shared by multiple users, enabling new economies of scale without sacrificing performance.

With GRID vGPU technology, the graphics commands of each virtual machine are passed directly to the GPU, without translation by the hypervisor. This allows the GPU hardware to be time-sliced to deliver the ultimate in shared virtualized graphics performance. Application features and compatibility are exactly the same as they would be with a local PC at the desk.

VIRTUAL MACHINE
- Windows OS
- Applications
- XenDesktop with GRID Software
- NVIDIA Driver

Hypervisor with GRID Software

NVIDIA GRID™ GPU

Benefits of NVIDIA GRID for IT:

Leverage industry-leading Citrix virtualization solutions

Add your most graphics-intensive users to your virtual solutions

Improve the productivity of all users

Benefits of NVIDIA GRID for users:

Enjoy highly responsive windows and rich multimedia experiences

Access all critical applications, even the most 3D-intensive, quickly and easily

Take advantage of the applications you need from anywhere, on any device

In collaboration with Citrix

CITRIX®

1. Consult your software provider to see if H.264 encoding is supported.

Citrix Solutions

A wide range of graphics-intensive applications—from PowerPoint and videos to intensive 3D CAD and interactive rendering of medical imagery—are now fully interactive with XenDesktop and XenApp. By leveraging GRID technology with full 3D and compute API support through the latest NVIDIA drivers, users can take advantage of the thousands of applications that run OpenGL 4.4, Microsoft DirectX 9, 10, 11, or NVIDIA CUDA® 6.0.[2]

The NVIDIA compatibility guarantee ensures that virtualized users experience the same state-of-the-art graphics they have at their desk. NVIDIA GRID GPUs are certified by industry leading application vendors to ensure the graphics performance and experience is the same for users in a virtualized environment as they have at their desk. There are two deployment models for GRID in a virtualized environment[1] each virtual machine has a dedicated GPU by using NVIDIA GPU Pass-through technology[2] multiple virtual machines share a GPU with NVIDIA GRID virtual GPU technology. For more information visit **www.nvidia.com/gridcertifications**.

	NVIDIA COMPATIBILITY GUARANTEE	APPLICATION CERTIFICATIONS	GRAPHICS APIs SUPPORTED	GRID K1	GRID K2
VIRTUALIZED APPLICATIONS					
Citrix XenApp 6.5 with OpenGL Add-on	✔		NVIDIA CUDA 6.0 DirectX 9,10,11 OpenGL 4.4	✔	✔
Citrix XenDesktop 7 Hosted-Shared delivery					
VIRTUAL DESKTOPS					
Citrix XenDesktop 7.1 with NVIDIA GRID vGPU[1]	✔	✔	DirectX 9,10,11 OpenGL 4.4	✔	✔
VIRTUAL REMOTE WORKSTATIONS					
Citrix XenDesktop 5.6	✔	✔	NVIDIA CUDA 6.0 DirectX 9, 10, 11 OpenGL 4.4	4 Users (pass-through)	2 Power Users (pass-through)
Citrix XenDesktop 7.1 VDI delivery					

OEM System Partners

CISCO   DELL   hp   IBM   SUPERMICRO

Also available from Asus, Fujitsu, Hitachi, Huawei, Inspur, Nutanix, Sugon, Tyan, and Quanta. A complete list can be found at **www.nvidia.com/buygrid**.

CITRIX®

Citrix and NVIDIA collaborate closely during product development to assure stability and reliability of the platform. As part of a joint Certification Program, NVIDIA GRID solutions are thoroughly tested to ensure customers get the performance they expect.

For more information, visit **www.nvidia.com/vdi**

1. NVIDIA GRID™ vGPU™ is only supported on compatible versions of Citrix XenServer. Consult Citrix for compatibility. | 2. NVIDIA CUDA is only supported in GPU pass-through mode.

NVIDIA.