NVIDIA GRID K1 AND K2 ENTERPRISE GRAPHICS VIRTUALIZATION

NVIDIA GRID™ technology offers the ability to offload graphics processing from the CPU to the GPU in virtualized environments. This gives IT managers the freedom to deliver true PC graphics-rich experiences to more virtual users for the first time.

GPU Virtualization[1]

NVIDIA® Kepler™ architecture allows hardware virtualization of the GPU for the first time ever. With NVIDIA GRID™ vGPU™, multiple users can share a single GPU, improving user density while providing true PC performance and application compatibility.

Low-Latency Remote Display

NVIDIA's patented remote display technology greatly improves the user experience by reducing the lag that users feel when interacting with their virtual machine. With this technology, the virtual desktop screen is pushed directly to the remoting protocol.

H.264 Encoding[2]

The Kepler-powered GPU includes a high-performance H.264 engine capable of encoding simultaneous streams with superior quality. This provides a giant leap forward in cloud server efficiency by offloading the CPU from encoding functions and allowing these functions to scale with the number of GPUs in a server.

Software Partner Compatibility

The NVIDIA compatibility guarantee ensures that virtualized users experience the same state-of-the-art graphics they have at their desk. NVIDIA works with over 100 leading companies to ensure this experience meets their stringent application certification standards. A list of these solutions can be found at **www.nvidia.com/gridcertifications.**

Maximum User Density

An optimized multi-GPU design helps to maximize user density. GRID K1 boards, which include four Kepler-based GPUs and 16 GB of memory, are designed to host the maximum number of concurrent users. GRID K2 boards, which include two higher-end Kepler GPUs and 8 GB of memory, deliver maximum density for users of graphics-intensive applications.

24/7 Reliability

GRID boards are designed, built, and tested by NVIDIA for 24/7 operation. Working closely with leading server vendors such as Cisco, Dell, HP, Lenovo, and SuperMicro ensures that GRID cards perform optimally and reliably for the life of the system.

Widest Range of Virtualization Solutions

GPU-capable virtualization options from Citrix, Microsoft, and VMware, deliver the flexibility to choose from a wide range of proven solutions.

IT managers can now:

- Leverage industry-leading virtualization solutions, including Citrix, Microsoft, and VMware
- Add the most graphics-intensive users to virtual solutions
- Improve the productivity of all users

Users can now:

- Experience highly responsive windows and rich media
- Run all critical applications including the most 3D-intensive
- Access their most important apps from anywhere, on any device

1. Available for Citrix Xenserver and VMware vSphere | 2. Consult your software provider to see if this is supported

Specifications

	GRID K1	GRID K2
Number of GPUs	4 x entry Kepler™-based GPUs	2 x high-end Kepler™-based GPUs
Total NVIDIA® CUDA® Cores	768	3,072
Total Memory Size	16 GB DDR3	8 GB GDDR5
Max Power	130 W	225 W
Aux Power	6-pin connector	8-pin connector
Board Dimensions	10.5" long, 4.4" high, dual slot	
Display IO	None	
PCIe	x16, Gen3 (Gen2 compatible)	
Cooling Solution	Passive	

NVIDIA Drivers

The compatibility process ensures that NVIDIA GRID™ graphics processing units (GPUs) and NVIDIA drivers are fully tested and supported by industry-leading Independent Software Vendors (ISVs) in a Virtual Desktop Infrastructure (VDI) environment. This process validates that users get the same graphics performance and experience in a virtualized environment that they would expect from their PC or workstation.

	NVIDIA COMPATIBILITY GUARANTEE	APPLICATION CERTIFICATIONS	GRAPHICS APIs SUPPORTED	GRID K1	GRID K2
VIRTUALIZED APPLICATIONS					
Citrix XenApp	✔		DirectX 9,10,11 OpenGL 4.4	✔	✔
VIRTUAL DESKTOPS					
Citrix XenDesktop with HDX 3D Pro and NVIDIA GRID vGPU[1]	✔	✔	DirectX 9,10,11 OpenGL 4.4	Up to 32 Users	Up to 16 Users
VMware Horizon View with NVIDIA GRID vGPU[1]					
VIRTUAL REMOTE WORKSTATIONS					
Citrix XenDesktop with HDX 3D Pro	✔	✔	NVIDIA CUDA DirectX 9, 10, 11 OpenGL 4.4	4 Users	2 High-end Users
VMware Horizon View with vDGA					

OEM Systems Partners

Also available from Asus, Fujitsu, Hitachi, Huawaei, Inspur, Nutanix, Pivot3, Quanta, and Sugon.

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

1. NVIDIA GRID™ vGPU™ is supported on compatible versions of Citrix XenServer and VMware vSphere. Consult Citrix and VMware for compatibility..