NVIDIA GRID K1 AND K2
GRAPHICS-ACCELERATED VIRTUAL DESKTOPS AND APPLICATIONS

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

The NVIDIA GRID K1 and K2 boards provide:

GPU Virtualization[1]

GRID boards feature the NVIDIA Kepler™ architecture that, for the first time, allows hardware virtualization of the GPU. This means multiple users can share a single GPU, improving user density while providing true PC performance and compatibility.

Low-Latency Remote Display

NVIDIA's patented low-latency 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 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.

Maximum User Density

NVIDIA GRID boards have an optimized multi-GPU design that 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 Fujitsu ensures that GRID cards perform optimally and reliably for the life of the system.

Widest Range of Virtualization Solutions

GRID boards enable GPU-capable virtualization solutions from Citrix, Microsoft, and VMware, letting users 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:

Explore highly responsive windows and rich multimedia experiences

Access all critical applications, including the most 3D-intensive

Access their most important apps from anywhere, on any device

Specifications

	NVIDIA GRID K1	NVIDIA 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

Fujitsu Solutions

	FUJITSU CELSIUS R940	FUJITSU CELSIUS M740	FUJITSU CELSIUS C620	FUJITSU PRIMERGY TX300 S8	FUJITSU PRIMERGY RX350 S8	FUJITSU PRIMERGY RX2540 MI	FUJITSU PRIMERGY CX400 M1
Form Factor	Desktop Workstation (dual-processor)	Desktop Workstation (single processor)	Rack Workstation	Tower Server	4U Rack Server	2U Rack Server	2U Scale-Out Server
CPUs	Intel Xeon processor E5-2600 v3 product family	Intel Xeon processor E5-2600 v3 product family, Intel Xeon processor E5-1600 v3 product family	Intel Xeon processor E3-1200 v2 product family, Intel Core i3-3220 processor	Intel Xeon processor E5-2600 v2 product family	Intel Xeon processor E5-2600 v2 product family	Intel Xeon processor E5-2600 v3 product family	Intel Xeon processor E5-2600 v3 product family
GRID Boards	2 GRID K1 or 3 GRID K2 boards (temperature-controlled active cooling)	2 GRID K1 or 2 GRID K2 boards (temperature-controlled active cooling)	1 GRID K2 board	2 GRID K1 or 2 GRID K2 boards	2 GRID K1 or 2 GRID K2 boards	2 GRID K1 or 2 GRID K2 boards	2 GRID K1 or 2 GRID K2 boards per node
Memory	Max. 1024 GB, (2x8x64 GB) ECC (DDR4)	Max. 256 GB, (8x32 GB) ECC (DDR4)	Max. 32 GB, (4x 8 GB) ECC/non-ECC (DDR3)	Max. 1536 GB, 24 DIMM (DDR3)	Max. 1536 GB, 24 DIMM (DDR3)	Max. 1536 GB, 24 DIMM (DDR4)	Max. 1024 GB, 16 DIMM (DDR4) per node

For more information or to purchase available systems, visit **www.nvidia.com/vdi**

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