TRANSFORMING THE CLASSROOM WITH NVIDIA GRID

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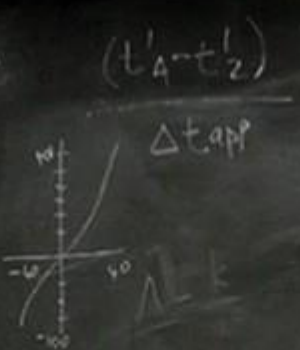
NVIDIA.

Warning: This presentation contains the word "Cloud"

Sydney

Mar 17. 2016

$$\frac{dN}{dt\,d\Omega\,dF\,d^2A^n p}$$

~ 823

$(t'_A - t'_2)$

$\overline{\Delta t_{app}}$

$R_{\mu\nu} = \frac{1}{2}Rg_{\mu\nu}$

$T_{\mu\nu}$ is zero $\sum_{m} q_m = [\pm]$

BY SETTING $T_{\mu\nu}$

$= n_0 [z(z)] \beta [\frac{F}{F\cdot(z)}, P] f(z)$

$H = \frac{1}{R}$

$\sqrt{EFE}$ photo $\_$ spectr (a) $\boxed{F^2 = F_1^2}$

THE SOLUTION IS $x = \frac{c}{g}(\cosh$

$$\frac{P^2}{(1+z)^2\sqrt{1+2q_0 z}}$$

LENGTH $t_2\,t_9$

CONTRACT $x_2 = x_9$

$\partial \rho + \vec{\nabla} r \cdot (p + \frac{Pth}{c^2}) \leqslant 0$

$C(R_{\mu\nu})$

Open x_2

font t_2

$\frac{d\vec{u}}{dt} = -\vec{\nabla}_r \emptyset \sim R^3$

$\Delta t_{app} = \frac{\Delta}{x}$

INTERVAL APPEAL

$\rho = $ MATTER DENSITY OF THE UNIVERSE

$-$ RICCI-flat

$(t'_2 = t'_1)$ Δt_{app}

Δt_{app}

$-$ R tensor PROPORTIONAL

$\Lambda =$ COSMOLOGICAL CONTENT $-At$ $- R_{\mu\nu} = \Lambda g_{\mu\nu} - t_2$

$(F^\nu - t_1^\nu)$

AGENDA

THE FUTURE OF COMPUTING
Removing the barriers to productivity

Run every application when I need it

At full performance

On the device(s) they want to use

Wherever they are

From your "cloud"

NVIDIA. GRID™

DELIVERING VALUE

Increase Student productivity

Work from anywhere, improve collaboration and reduce file transfer time
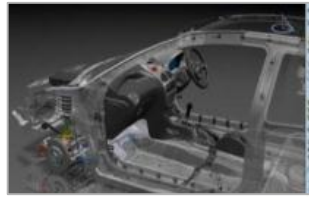
Centralize IT management

Deploy and manage all PCs and workstations from the datacenter

Protect valuable data

Ensure all valuable data remains secure in the datacenter with the right level of access

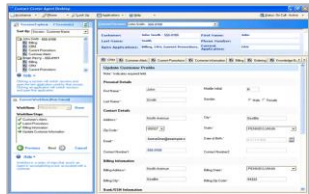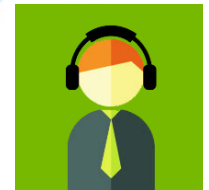# GRAPHICS-INTENSIVE APPS ARE REQUIRED BY MORE USERS

DESIGN / ENGINEERING
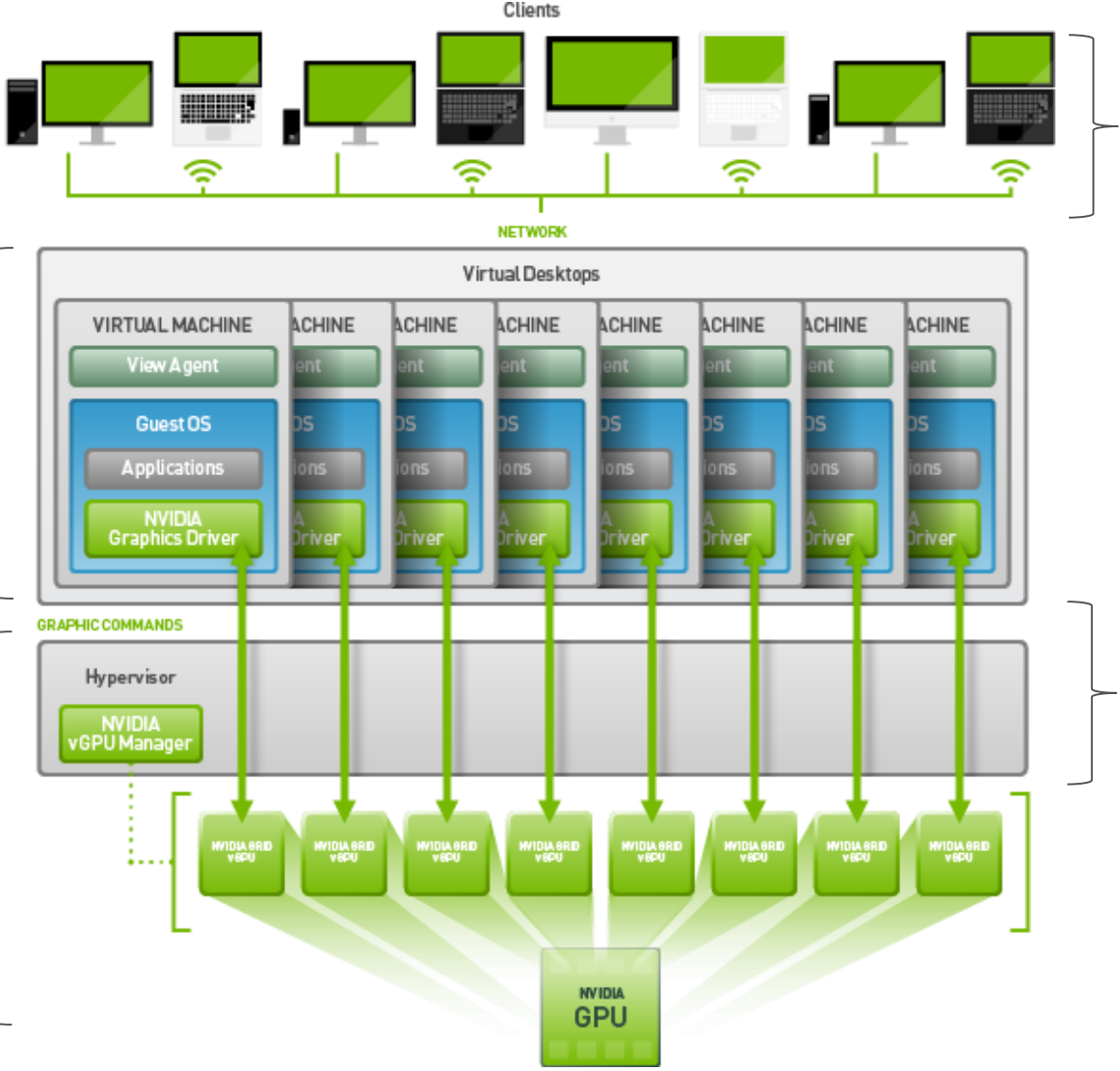
POWER USER

KNOWLEDGE APPS

TASK WORKING

The NVIDIA GRID virtualization platform delivers accelerated virtual desktops and applications from the data center to any student, on any device, anywhere.

NVIDIA GRID VGPU

VIRTUAL GPU RESOURCE SHARING
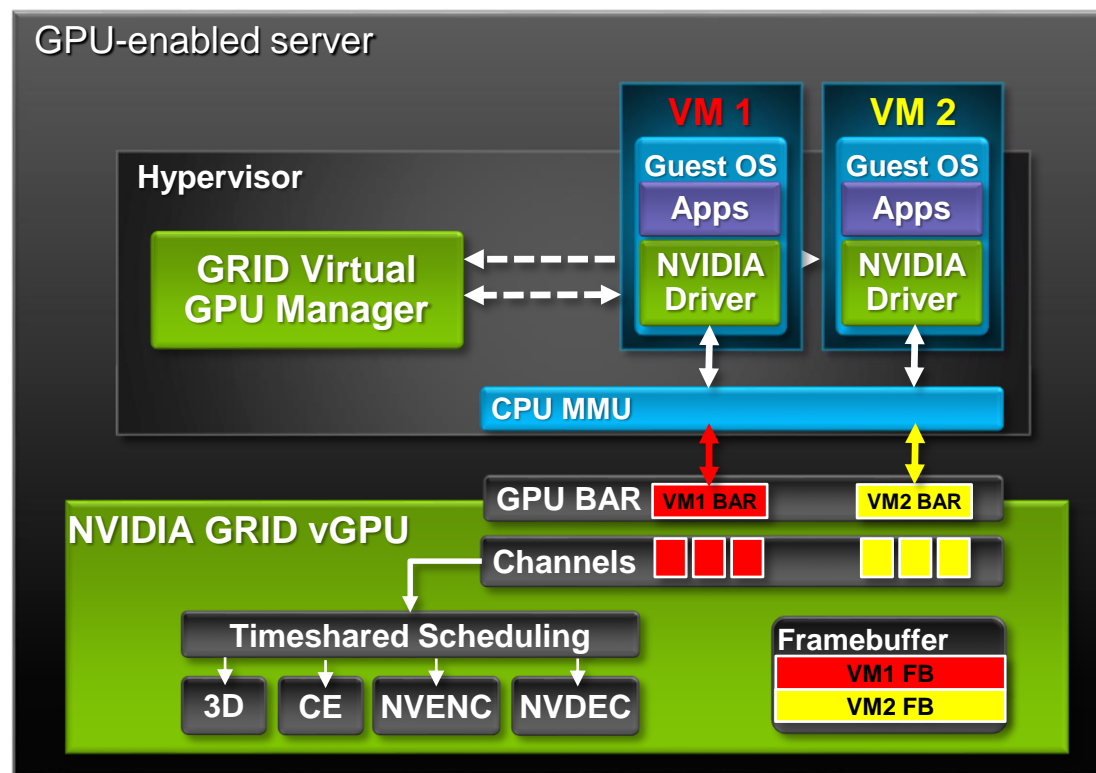
Frame Buffer

Allocated at VM startup

Channels

Used to post work to the GPU

VM accesses its channels via GPU Base Address Register (BAR), isolated by CPU's Memory Management Unit (MMU)

GPU Engines

Timeshared among VMs, like multiple contexts on single OS

AGENDA

IT'S ABOUT THE EXPERIENCE…

…not the classroom or device.

Location is no longer a barrier to access, nor is device. BYOD Anyone?

Day, night and in between. Students control their time & access.
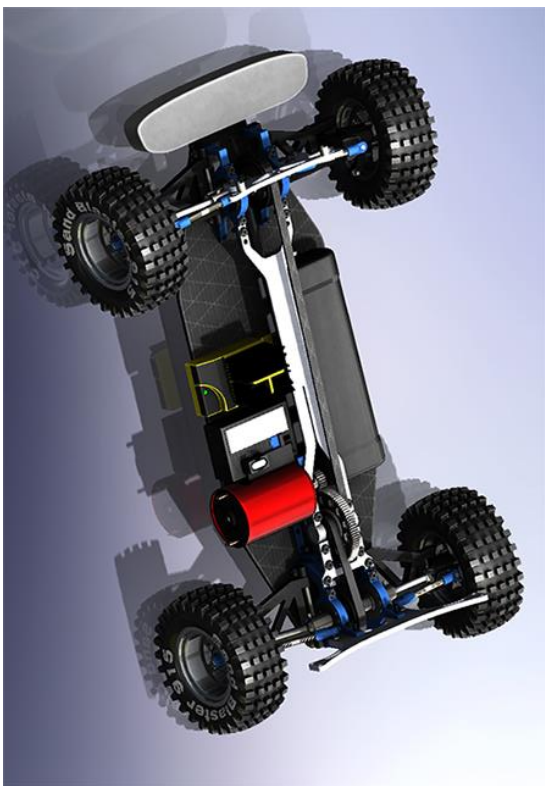
Learn on your own, Virtually, from your Cloud.

One stack, many books, many classes.

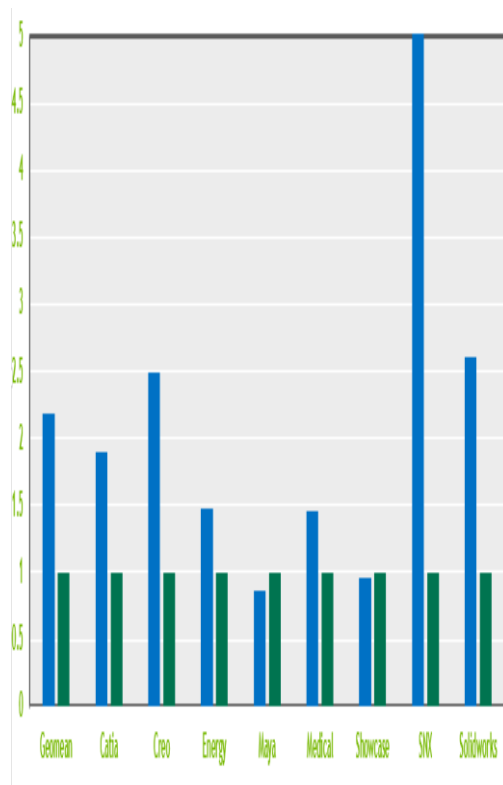Flexibility in a box. Win 7+8+10 + different app worklaods.

Graphics, Video, Gaming, CAD, Design, Image, and more.

Don't troubleshoot technology, troubleshoot learning.
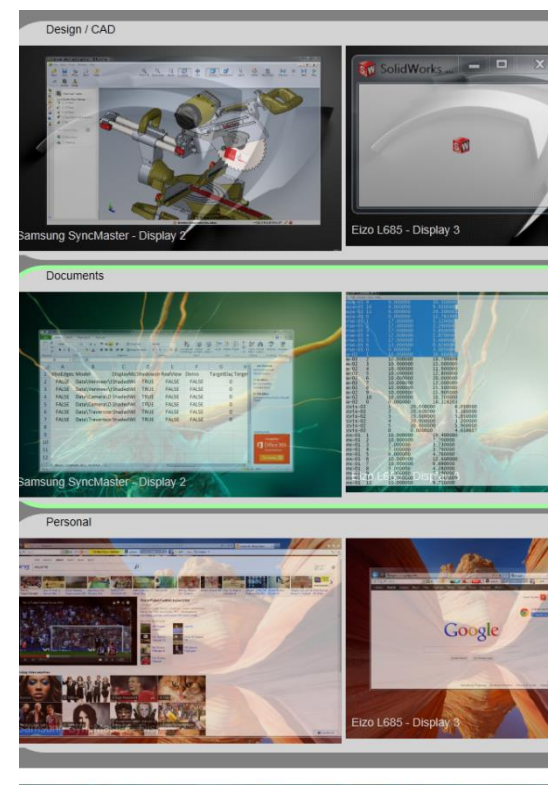
GRID LEVERAGES QUADRO GOODNESS
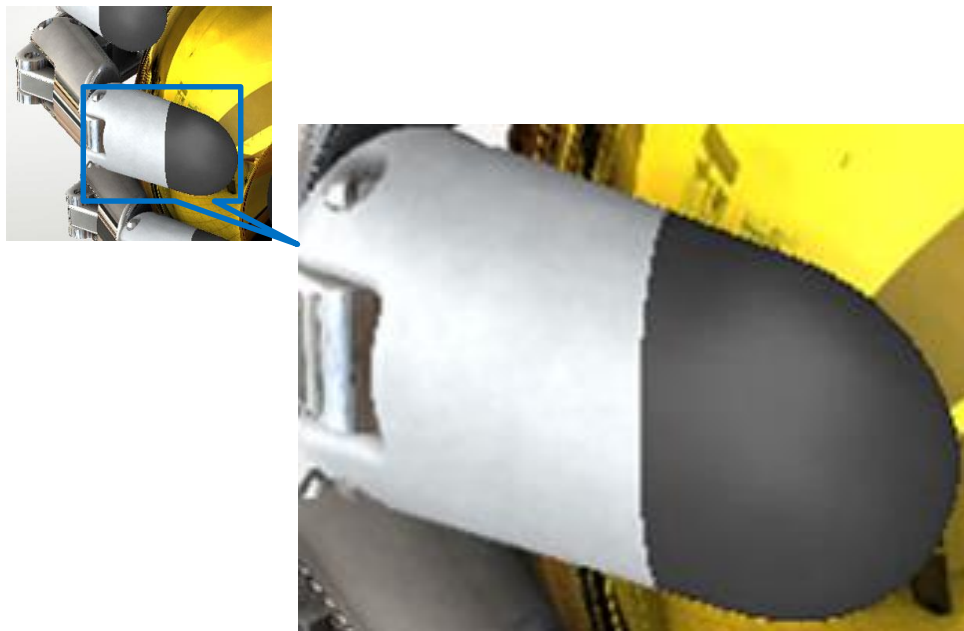

Realistic Models

Perf Enhancements
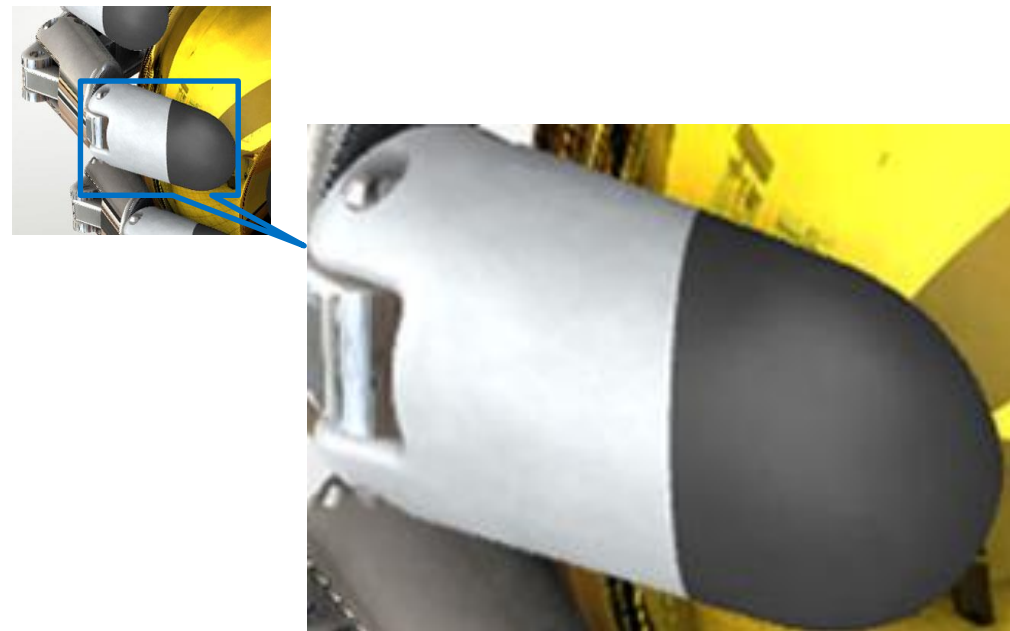
Application Certification

Improved Productivity

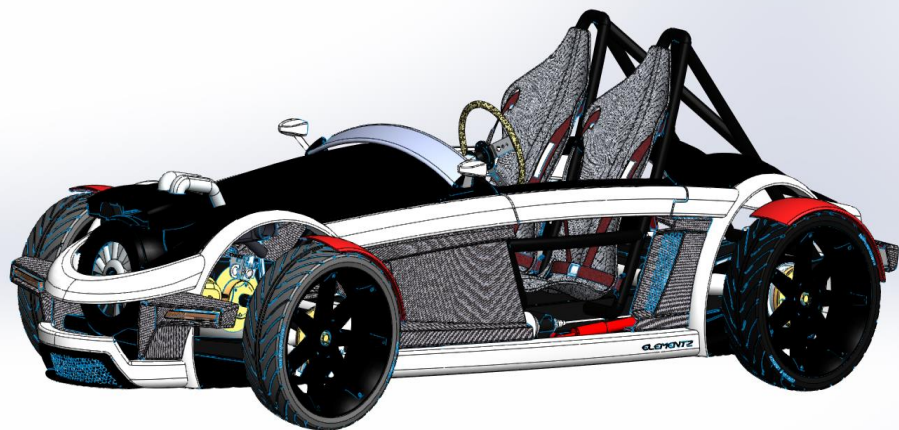# REALISTIC MODELS - ANTI-ALIASING

Without full scene antialiasing jagged edges are visible and produce lower quality results.
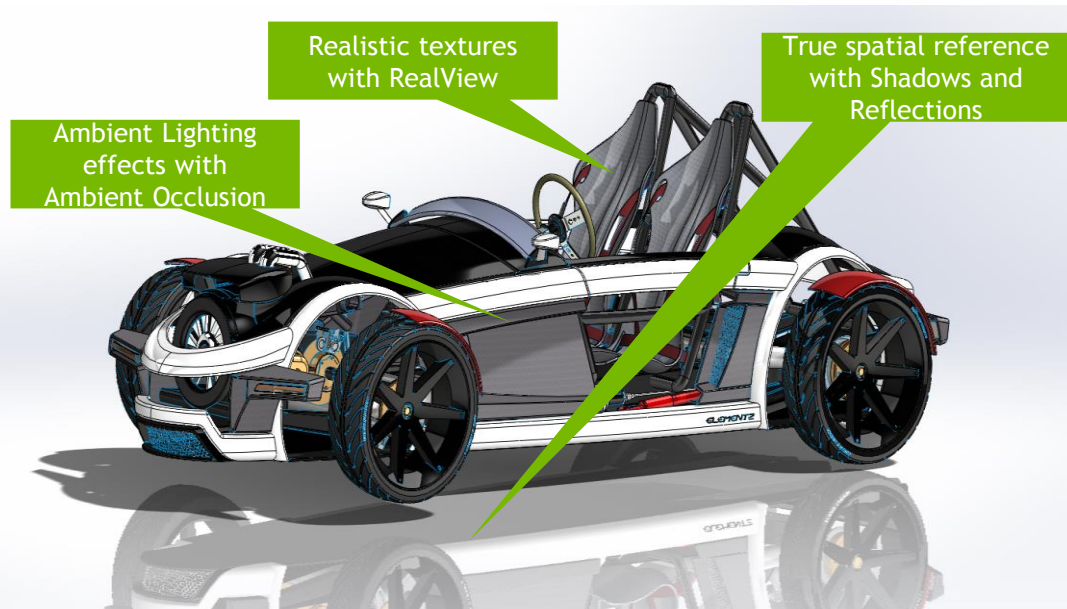
With full scene antialiasing, edges are smoother for a more realistic and more detailed model.

Anti-Aliasing makes the design realistic and detailed.

REALISTIC MODELS – SOLIDWORKS REALVIEW

Realistic textures with RealView

True spatial reference with Shadows and Reflections

Ambient Lighting effects with Ambient Occlusion

3D model with Ambient Occlusion, RealView Graphics and Shadows turned OFF

3D model with Ambient Occlusion, RealView Graphics and Shadows turned ON

Shadows, reflection and textures help designers see and interact with more detailed models

NVIDIA.

APP CERTIFICATION

Quadro certification guarantees that application performance is optimized for peak performance

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HOW LONG IS *YOUR* PIECE OF STRING?

Profiling your Users, Apps and Datasets will give you the best outcome.

Which Profile should I use?

- GPU Requirements, Quadro, Video RAM, Resolution, # Monitors, Linux, CUDA, etc

Which Card is best for me? Blade or Rack server?

How do I profile my current Platform and applications?

- Check usage RAM, CPU (multi/single threaded), GPU and VRAM usage.

Where are some resources I can use to see how I should build?

What are my use cases and test process?

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DEFINED
REFERENCE POINTS
App guides

Available Now:

Autodesk AutoCAD 2015

Autodesk Revit 2015

Esri ArcGIS Pro

Coming Soon:

Adobe Photoshop & Illustrator

www.nvidia.com/grid-resources

Download the newest NVIDIA Performance Engineering Lab benchmarking guide detailing performance and scalability metrics for Esri ArcGIS 3D Pro 1.0. Results support a recommended "users per server" metric when virtualizing Esri's ArcGIS Pro application with NVIDIA GRID vGPUs running VMware vSphere 6 w/ VMware Horizon 6.1.

Application Deployment Guide

Esri ArcGIS Pro with NVIDIA GRID vGPU on VMware Horizon

NVIDIA GRID RESOURCES

GRID Test Drive
www.nvidia.com/trygrid

GRID Website
www.nvidia.com/grid

GRID News
http://tinyurl.com/gridinfo

GRID YouTube Channel
http://tinyurl.com/gridvideos

Questions? Ask on our Forums
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