GPU TECHNOLOGY CONFERENCE

S5445

BUILDING THE BEST USER EXPERIENCE WITH CITRIX XENAPP & NVIDIA GRID

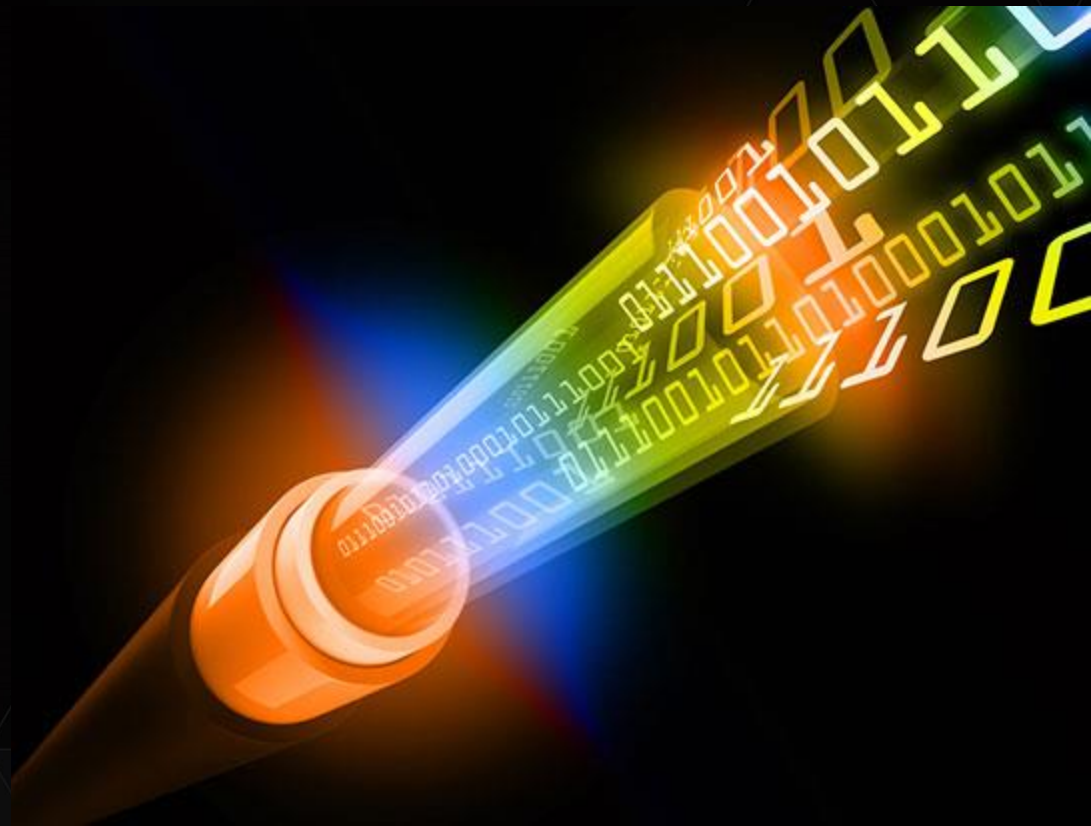
THOMAS POPPELGAARD

WHO AM I

- Thomas Poppelgaard,
- Technology Evangelist
  Poppelgaard.com
- SME in Remote Graphics, Visualization (VR/AR)
- Awarded ”CTP” Citrix Technology Professional in 2013, 2014, 2015
- Awarded ”RSVP” RES Software Valued Professional

- Worked with Citrix HDX 3D Pro since 2008,
  Worked with NVIDIA GRID since 2012

CITRIX XENAPP ANO 2015



WHAT IS CITRIX XENAPP

- WinFrame Server
- Citrix Metaframe Serv
- Citrix Presentation Se
- Citrix XenApp

- The product is an application virtualization product that allows users to connect to their corporate applications from a wide range of computer systems and mobile devices. XenApp can host applications on central servers and allow users to interact with them remotely or stream and deliver them to user devices for local execution. Learn in this session customer cases, how and why NVIDIA GRID provided the best user experience. Learn how to build better user experience with application such as Google Earth, Adobe Reader, MS Office in a Citrix XenApp with NVIDIA GRID

XENAPP: INFRASTRUCTURE

Universal client

High-Definition User Experience

Enterprise app store

Flexible Desktop and App delivery

GPU TECHNOLOGY CONFERENCE

POWERED BY
NVIDIA GRID™

CITRIX XenApp

Windows Server

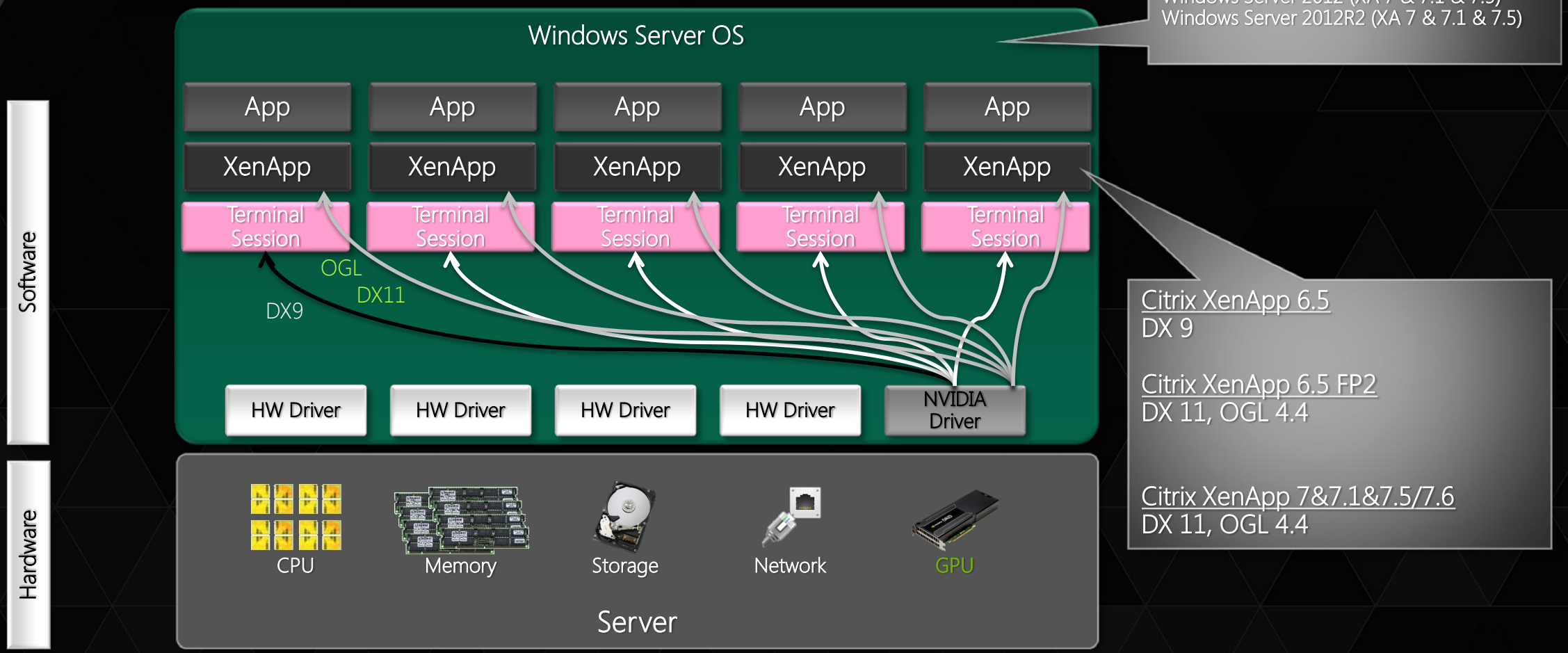
App	App	App	App
XenApp Session	XenApp Session	XenApp Session	XenApp Session

NVIDIA Driver

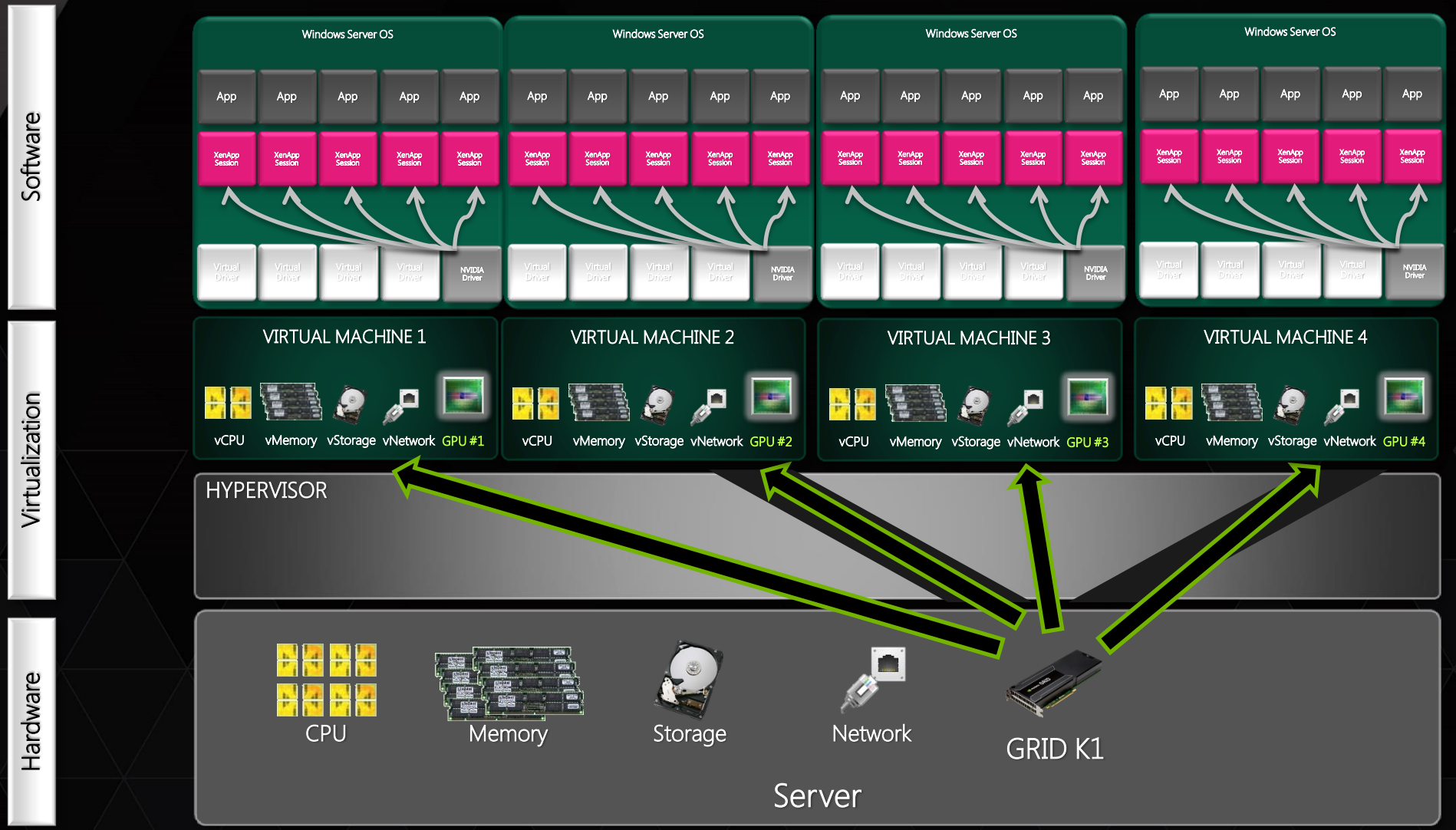
NVIDIA GRID GPU

Virtual Applications

XENAPP 7.6 ON BARE METAL



NVIDIA GRID K1 COMBINED WITH CITRIX XENAPP 7.6



SOLUTION OFFERING

- NVIDIA GRID™ vGPU™ with Citrix XenApp & Vmware vSphere 6

- NVIDIA GRID vGPU with Citrix XenApp & Citrix XenServer 6.5

SESSION SHARING (GPU, MEMORY, CPU, RAM)

- Haswell CPU's for more user density
- If apps uses single thread use high clock frekvens CPU's
- If apps uses multi thread CPU use CPU with many cores (8-14)
  Best practices is to use high clock frequence CPU with highest cores
- Memory is best practice using min. DDR3 or DDR4 and dedicate min. 50 GB memory for each XenApp
- Storage is best practice to use Allflash or if possible in memory for highest performing iOPS

ANY DEVICE – FOLLOW ME USER EXPERIENCE

PUBLISHED APPS VS PUBLISHED DESKTOPS

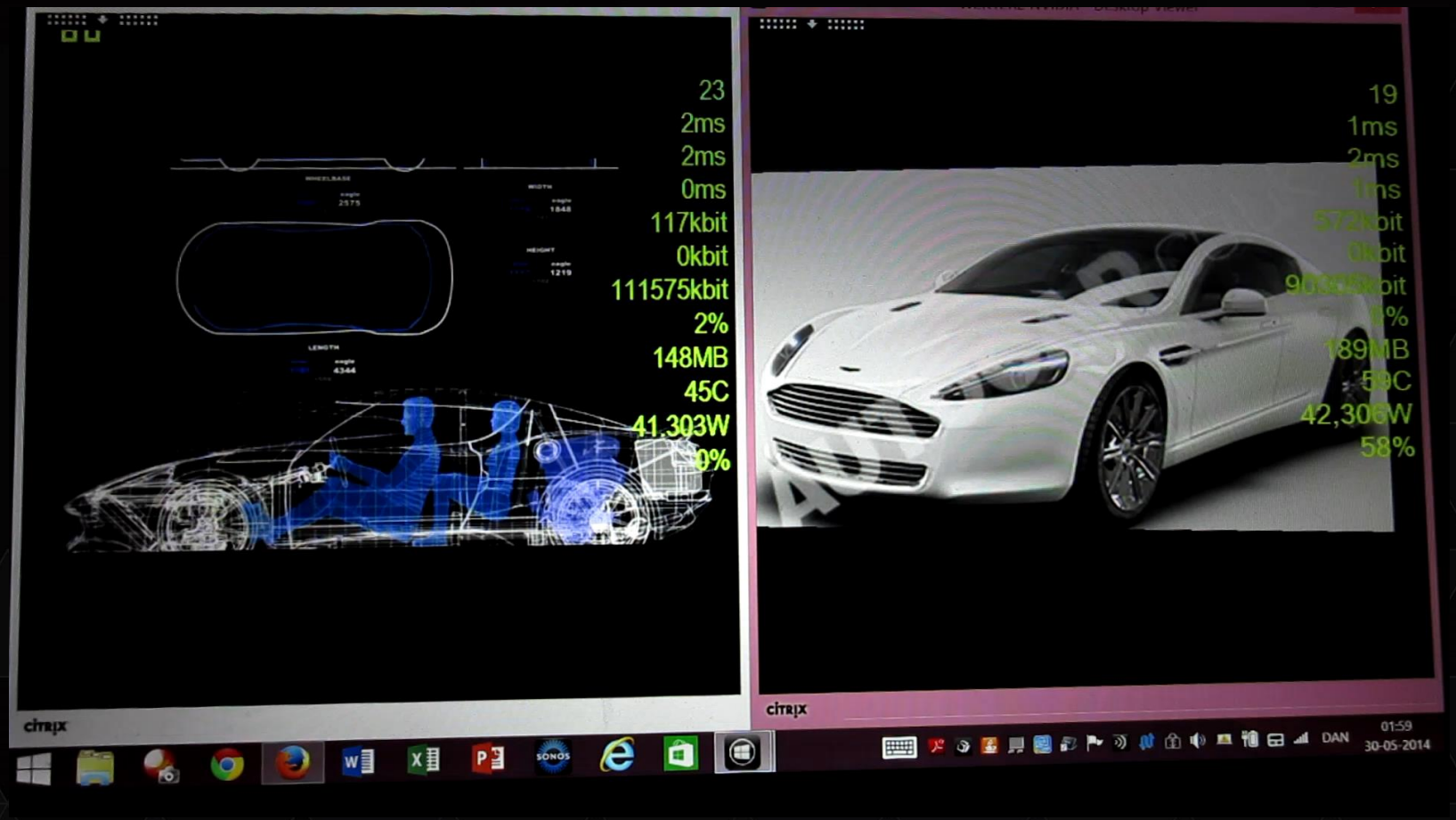
NVIDIA GRID GPU PASS-THROUGH VS VGPU

- When to choose
- Case scenarious (1. Maximum servers, 2. Maximum density, 3. Maximum user experience)
- Multiple GPU pass-through of GPU’s to 1 XenApp
- Does applications support GPU pass-through
- Single thread CPU vs Multi thread CPU

MICROSOFT OFFICE

- Which apps utilize GPU (DirectX / OpenGL)
- Hardware acceleration

POWERPOINT IMPACT ON GPU



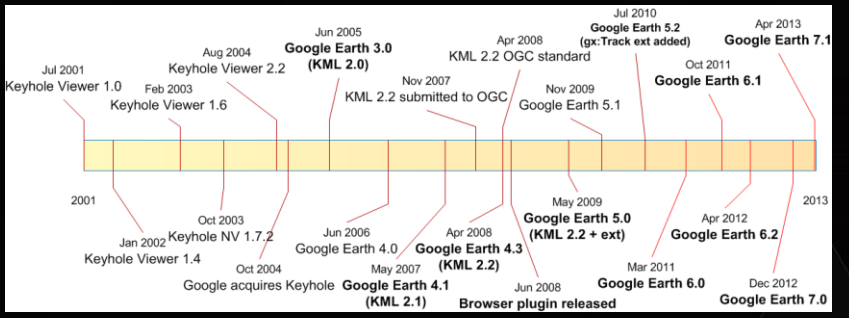
INTERNET BROWSERS (IE, CHROME, FIREFOX…)

- Hardware acceleration is enabled by default in physically virtually servers. With non GPU environments… look at impact
- With GPU enabled look at user experience, look at impact of CPU cycles
- IE, Chrome and Firefox are “Heavy” using GPU why,
  HTML5, WebGL, Flash, Video



ADOBE READER

- Which apps utilize GPU (DirectX / OpenGL)
- Hardware acceleration



GOOGLE EARTH + PRO

- DirectX / OpenGL, which option do you choose?
- Hardware acceleration or not, what is the answer

Google Earth is one of the applications that have enable Multihook and this disallows the application to be running in a RDS/XenApp environment. I fixed this together with fellow CTP Remko.

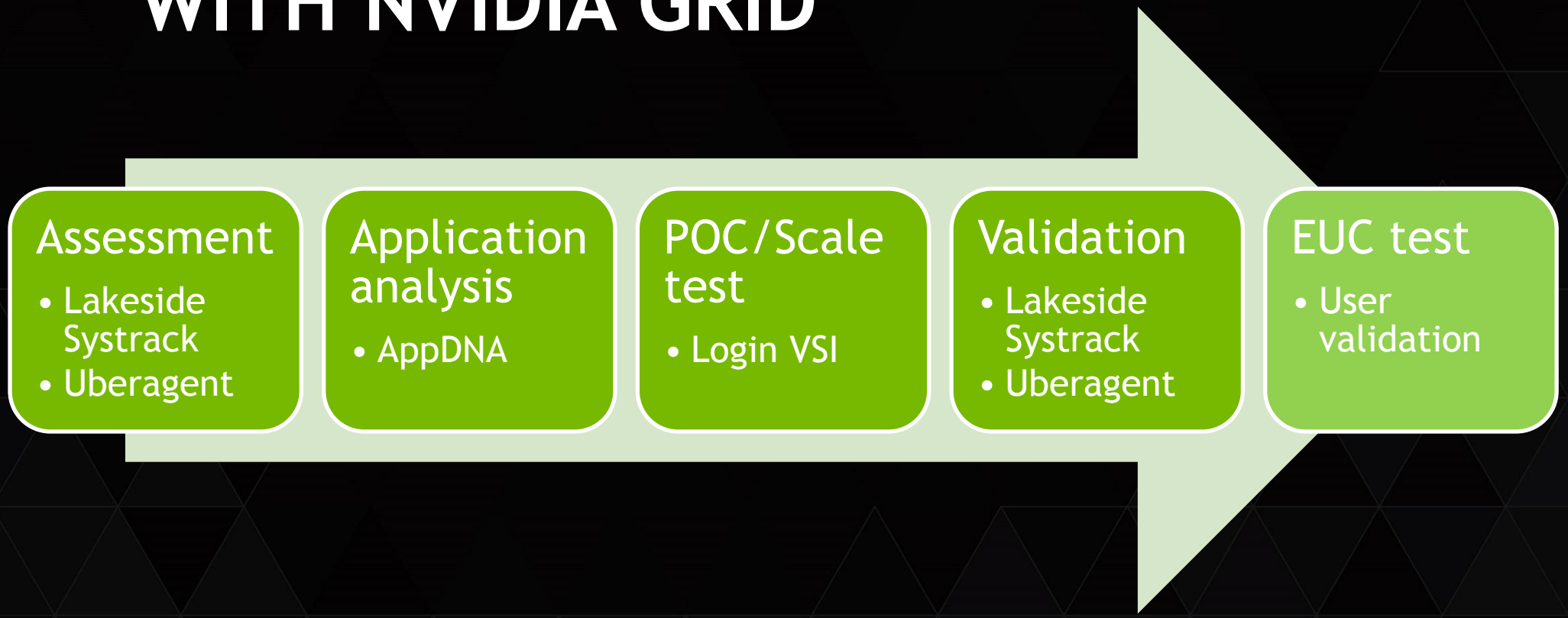
Use case VDI is not the answers, some like just XenApp to simplify user experience and image management

HINT Come to Citrix Synergy and see our session with CTP Remko and Magnar @GPU virtualization version 2.0

LEARN MORE AT CITRIX SYNERGY IN MAY 2015
HOW TO BE SUCCESSFUL WITH GPU VIRTUALIZATION V2.0

- Joined session with fellow CTP Remko Weijnen and good GPU friend Magnar Johnsen
- • How to fix applications that are not working for SBC environments, case study Google Earth
- • How to scale, test and monitor virtual 3D applications
- • About time-saving tools and the pitfalls to watch for in GPU virtualization projects

METHOLOGY FOR SUCCESSFULL INTEGRATING YOUR APP IN XENAPP WITH NVIDIA GRID



- Monitoring Tools
- Lakeside Software
  - SysTrack

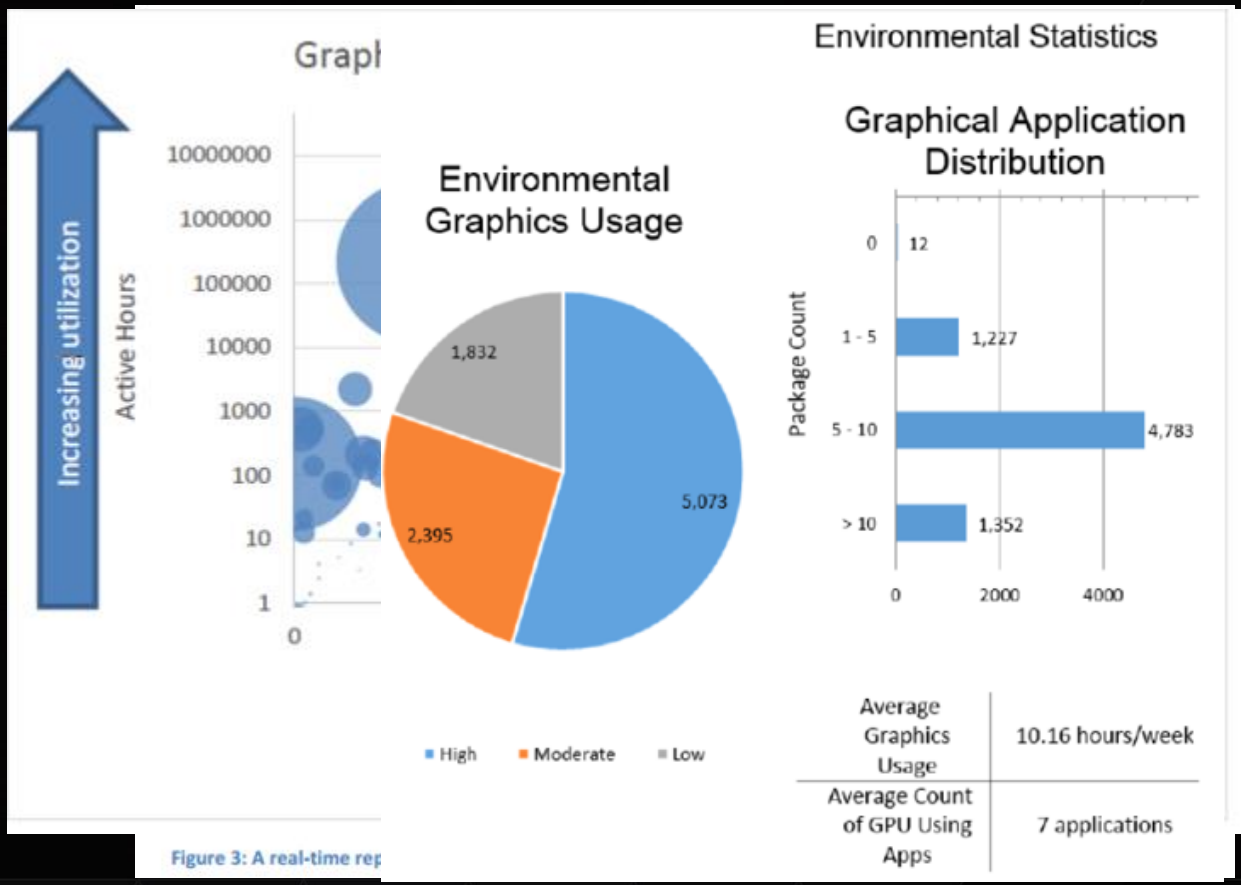
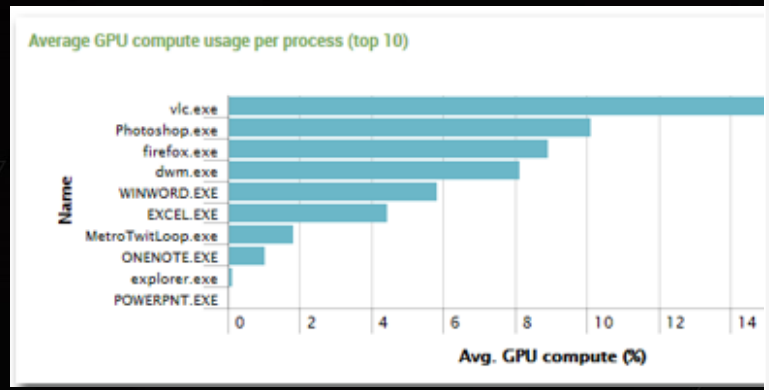
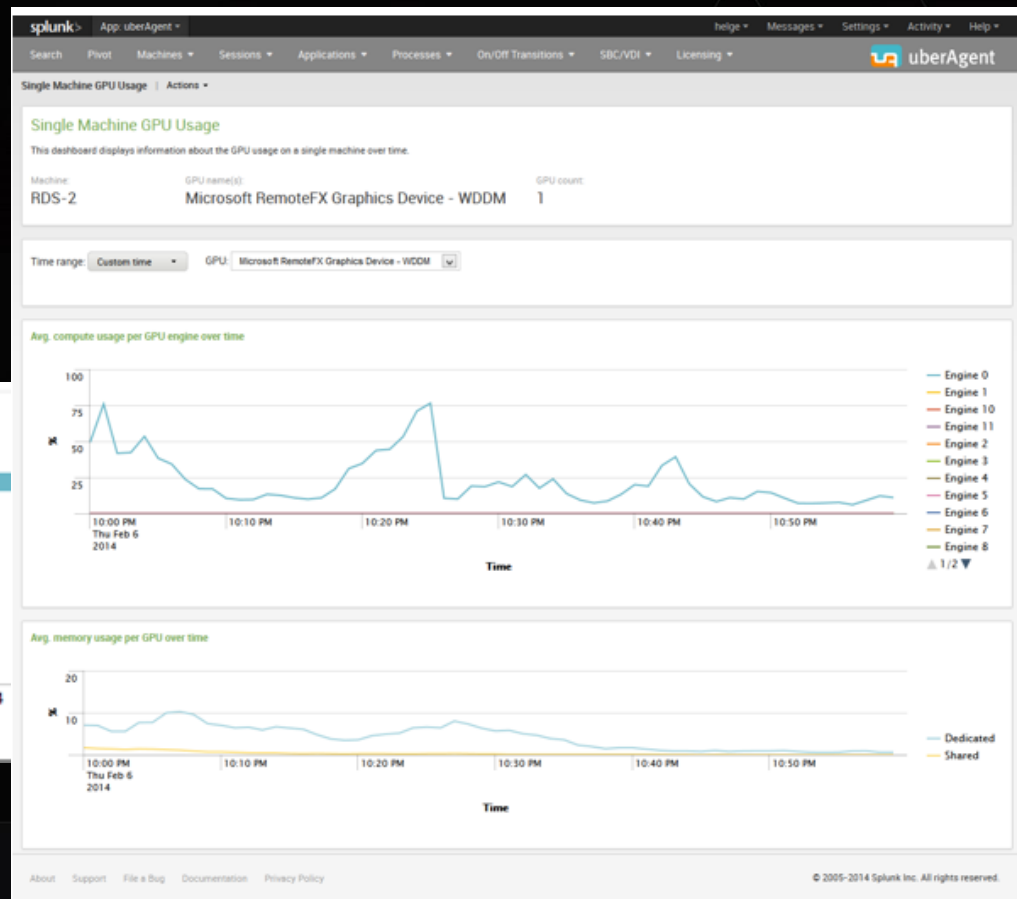


Figure 3: A real-time rep

DEPLOY, MONITOR, AND MANAGE

- Monitoring Tools
- Monitoring Tools
- Splunk with UberAgent





USER

- From Road Trip via 3G (80-400MS latency) to datacenter in Denmark Driving 80-100 mph access real-time HDX3DPro

QUESTIONS?

THANK YOU

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