

NVIDIA GRID

Ralph Stocker, GRID Sales Specialist, Central Europe

rstocker@nvidia.com





GAMING

TECHNOLOGY

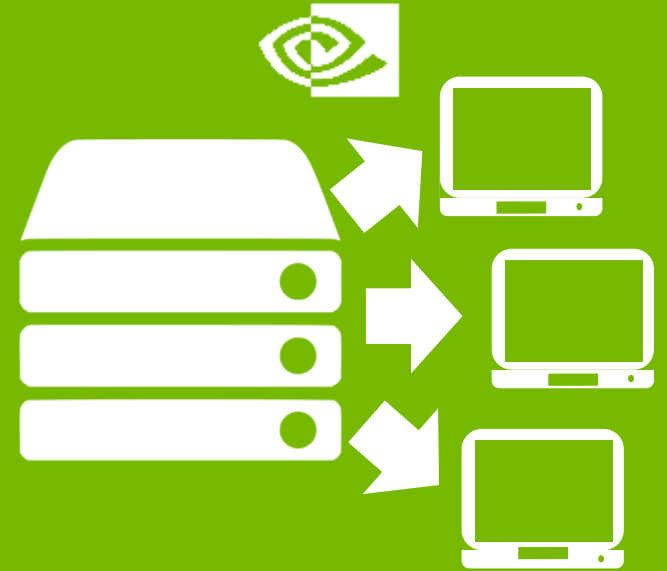
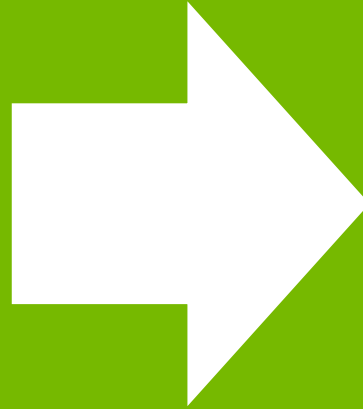
THE WORLD LEADER IN VISUAL COMPUTING

PERFORMANCE DELIVERED FROM THE CLOUD

Graphics accelerated virtual desktops and applications



All devices have graphics



Virtual machines also need a GPU

DELIVER VALUE ACROSS THE ENTERPRISE

Graphics virtualization provides additional benefits to both user and IT

User benefits



Increased performance



Mobility and flexibility



Improved productivity

IT benefits



Centralized management



Simplified support



Data security

USER EXPERIENCE IS KEY



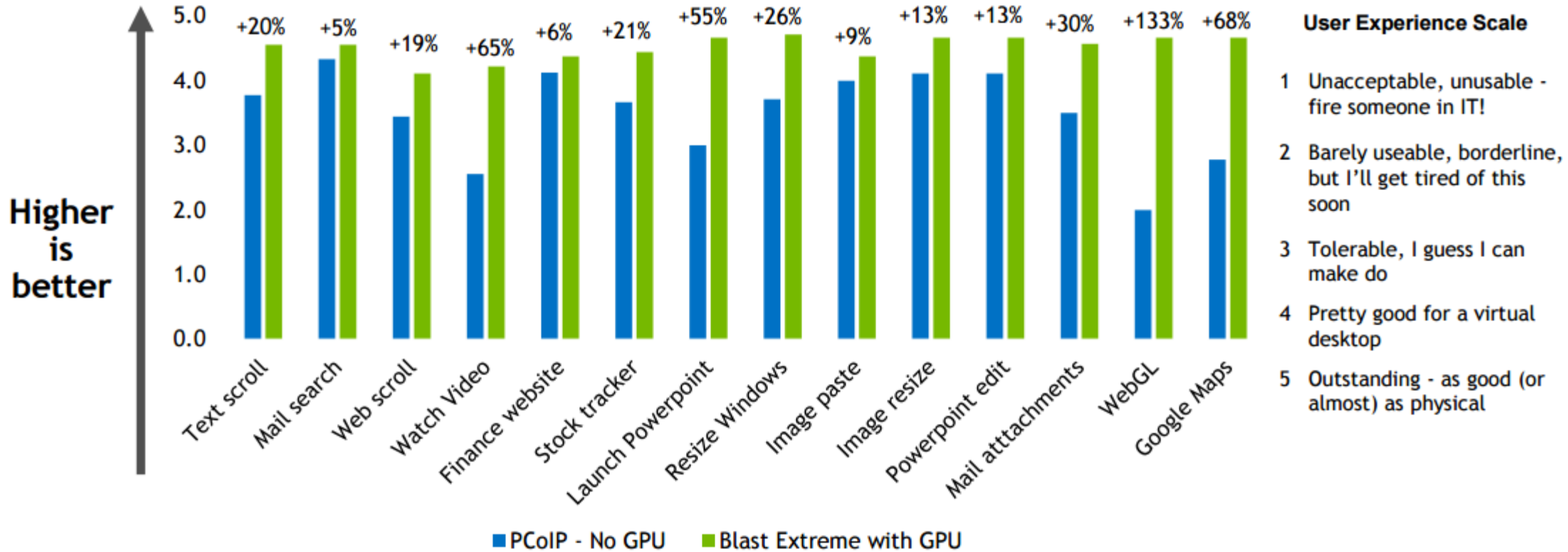
Knowledge
workers

Providing business users the
highest level of experience for all
their apps on any device



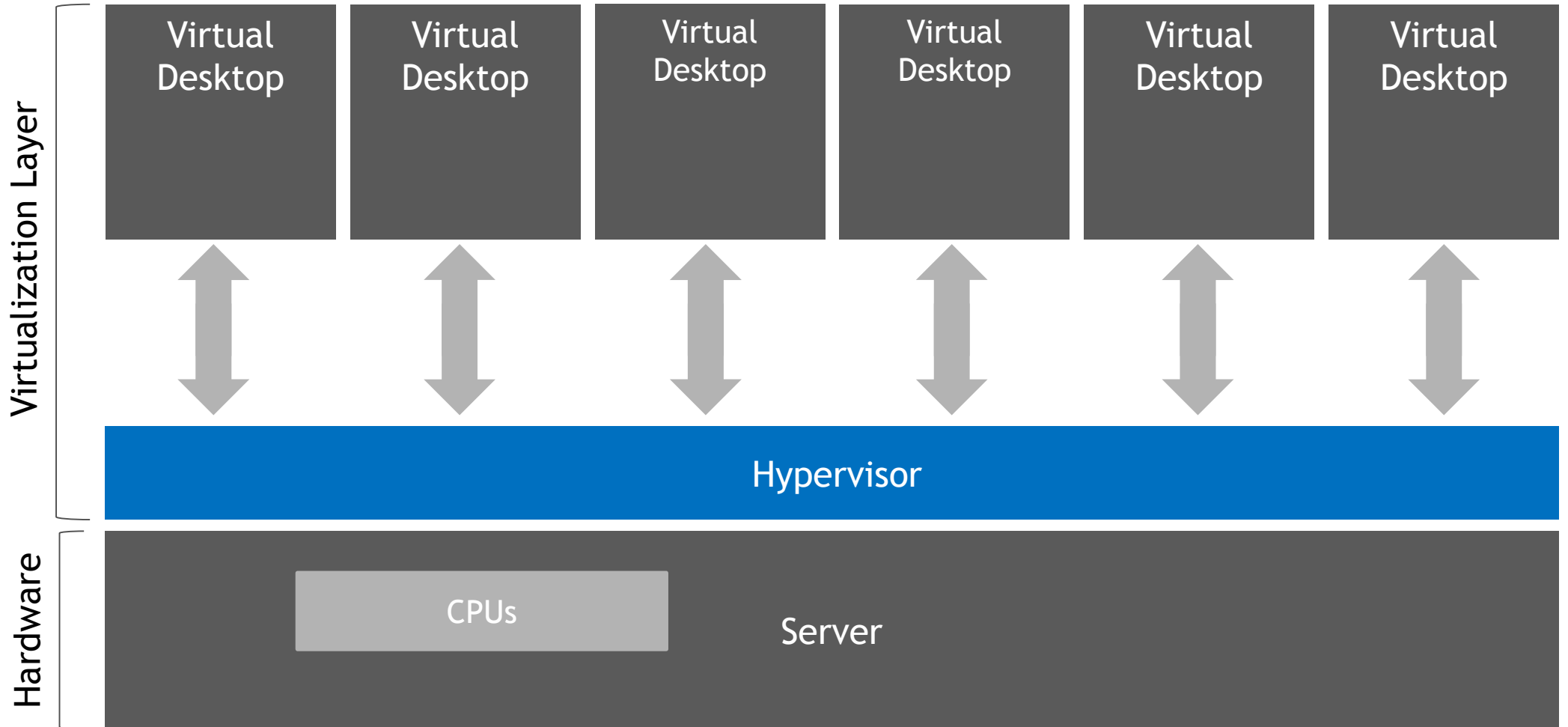
CPU ONLY VS. NVIDIA GRID

GPU with NVENC provided an average positive increase to UX of 34%

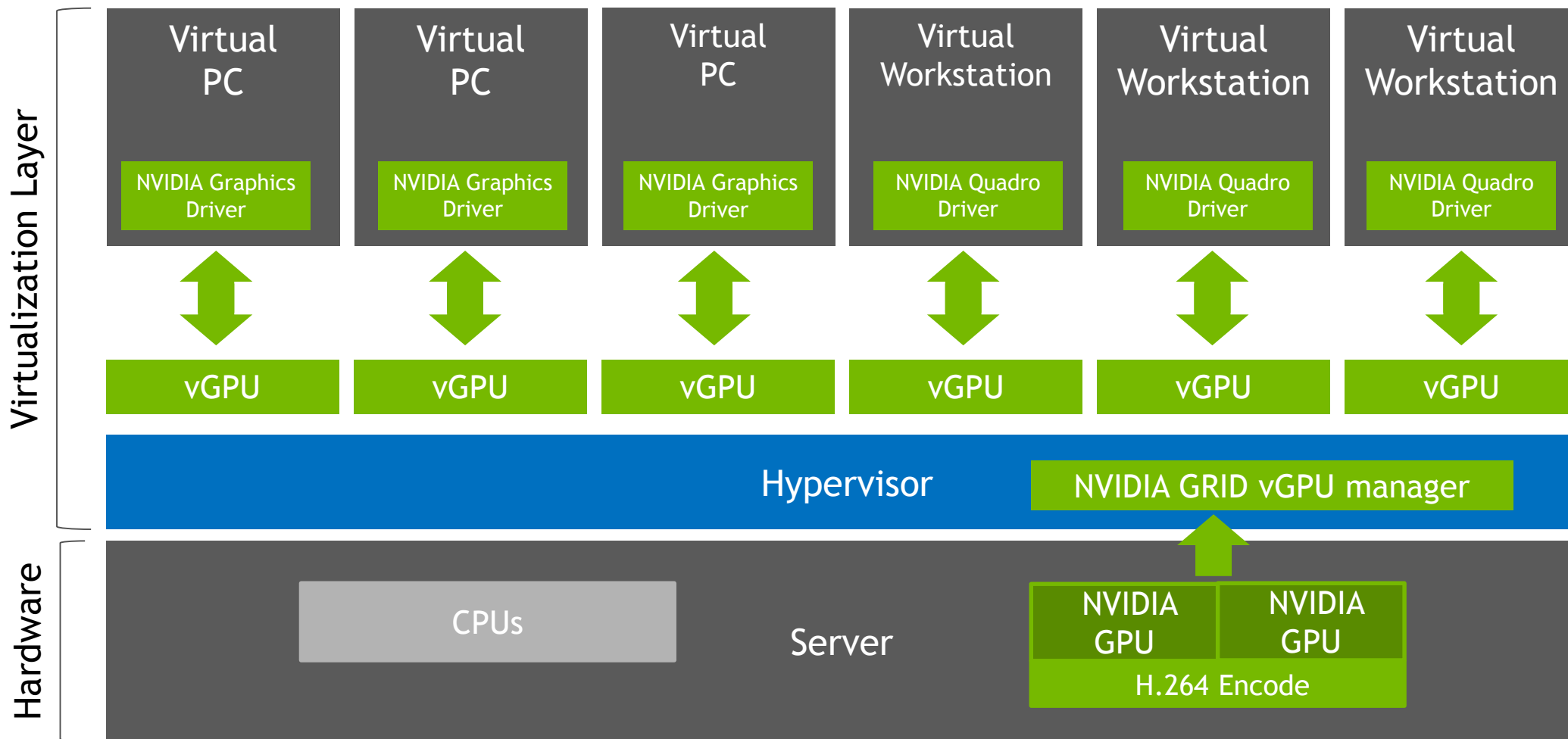


Testing ran on two identical systems, CPU system was loaded up to 60-80% utilization, the GPU system ran the same workload

HOW DOES NVIDIA GRID WORK?



HOW DOES NVIDIA GRID WORK?



NVIDIA GRID

GRID HARDWARE

Maxwell Architecture



High Density
M10
(Up to 64 Users)



High Performance
M60
(Up to 32 Users)



High Performance
M6
For Blades (Up to 16 Users)

Rack Servers & Tower Servers



Blade Servers Converged Infrastructure



TESLA LINEUP FOR GRID

The most powerful data center GPUs targeted at graphics virtualization

	M6	M10	M60
GPU	Single High-end Maxwell	Quad Mid-level Maxwell	Dual High-end Maxwell
CUDA Cores	1536	2560 (640 per GPU)	4096 (2048 per GPU)
Memory Size	8 GB GDDR5	32 GB GDDR5 (8 GB per GPU)	16 GB GDDR5 (8GB per GPU)
H.264 1080p30 streams	18	28	36
Max vGPU instances	16	64	32
Form Factor	MXM (blade servers)	PCIe 3.0 Dual Slot (rack servers)	PCIe 3.0 Dual Slot (rack servers)
Power	100W (75W opt)	225W	240W / 300W (225W opt)
Thermal	bare board	passive	active / passive

Blade
optimized

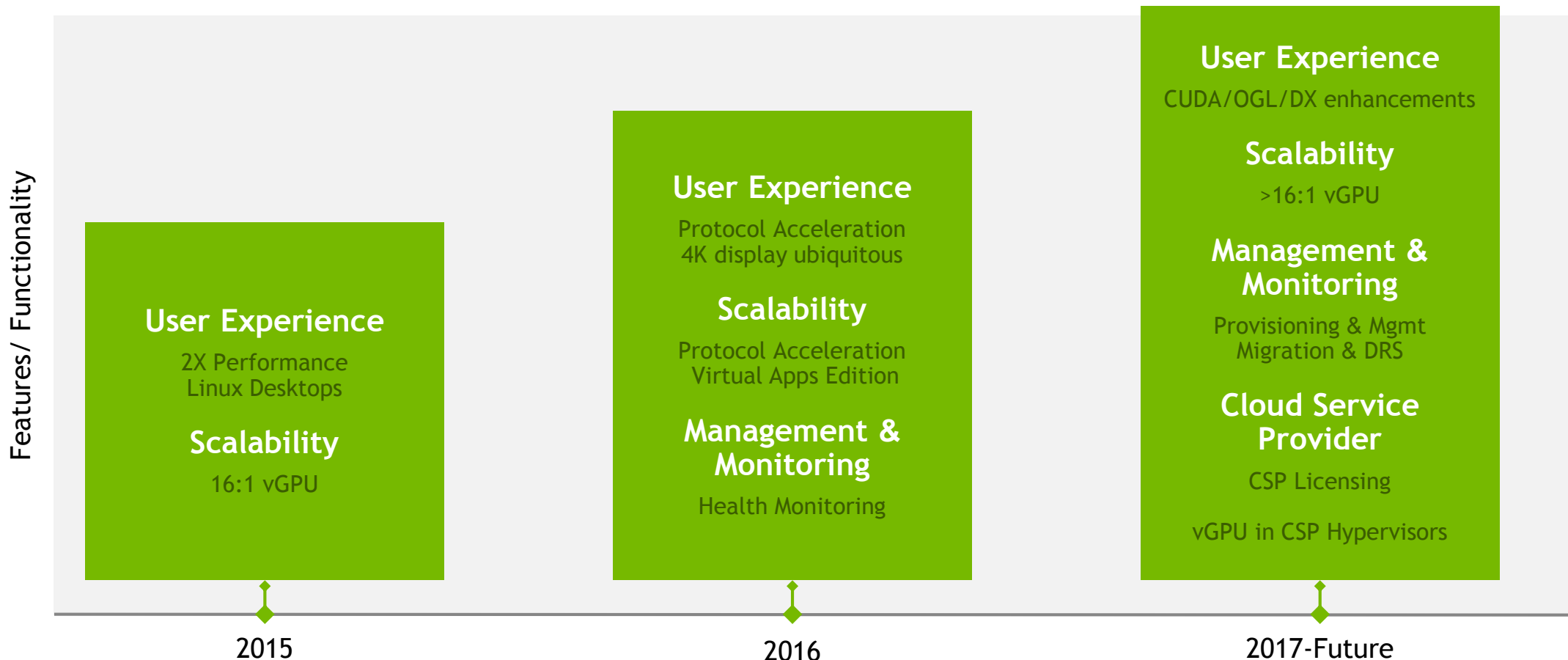
User Density
optimized

Performance
optimized

NVIDIA GRID LICENSING

ONGOING INNOVATION THROUGH SOFTWARE

Value added through software updates



NVIDIA GRID PRODUCTS



NVIDIA GRID Virtual Applications

For organizations deploying XenApp or other RDSH solutions. Designed to deliver Windows applications at full performance.



NVIDIA GRID Virtual PC

For users who want a virtual desktop but need great user experience leveraging PC Windows applications, browsers and high definition video.

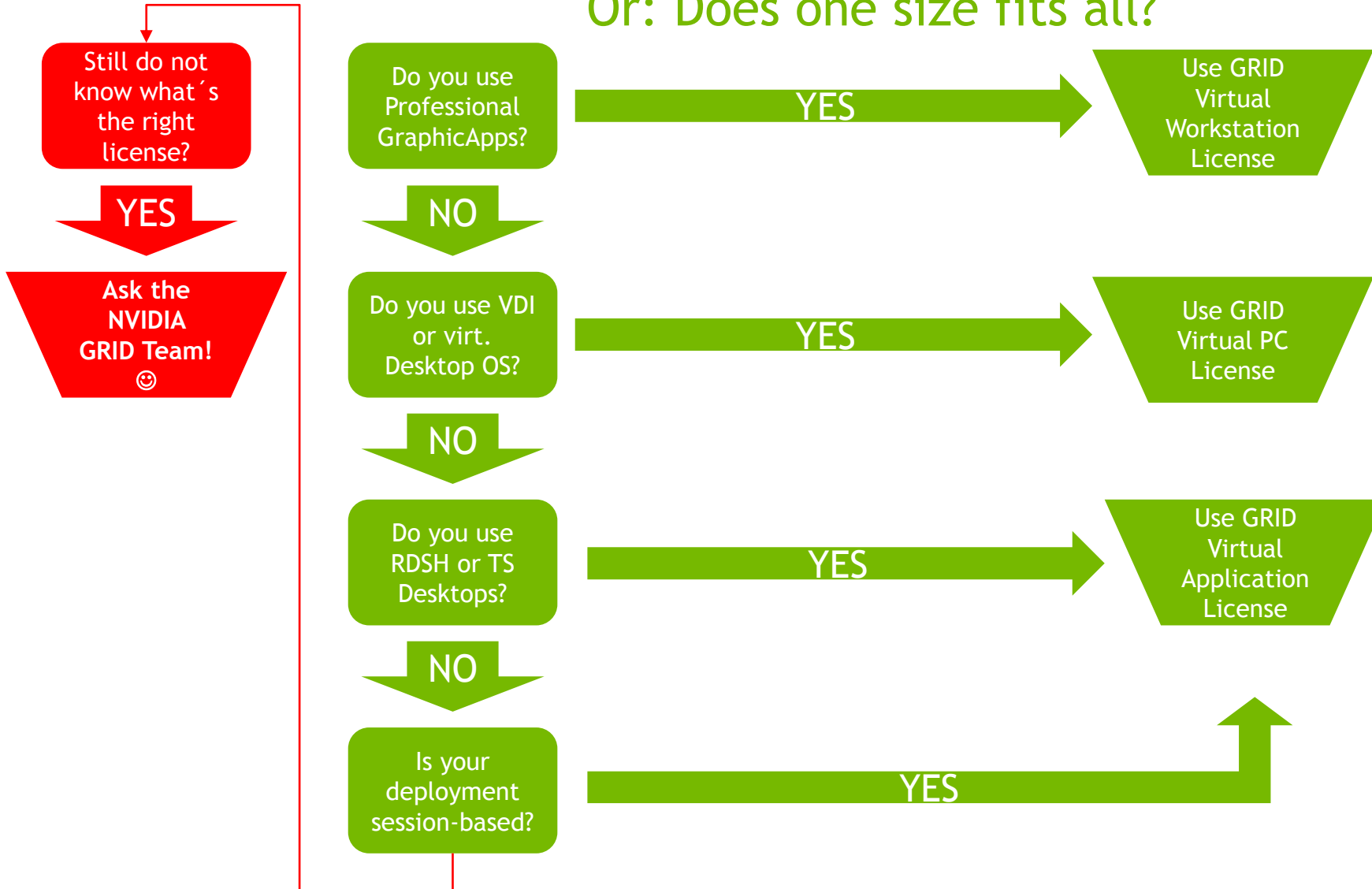


NVIDIA GRID Virtual Workstation

For users who want to be able to use remote professional graphics applications with full performance on any device, anywhere.

WHAT LICENSE DO I NEED?

Or: Does one size fits all?



SUPPORT, UPDATES AND MAINTENANCE



Support

Resolve specific issues
to your operating
environment



Updates

Ongoing access to
NVIDIA GRID software
improvements



Maintenance

Long term resolution of
defects and security
issues

SOFTWARE LICENSING OPTIONS



Annual subscription provides software entitlement, support, updates, maintenance for one year. Additionally available in 3 year increments.



Perpetual license allows for use of the licensed software indefinitely. First year of SUMS required with purchase for access to support, updates, and maintenance.

ANNUAL SUBSCRIPTION



NVIDIA GRID
Virtual Applications

\$10

per concurrent user



NVIDIA GRID
Virtual PC

\$50

per concurrent user



NVIDIA GRID
Virtual Workstation

\$250

per concurrent user

PERPETUAL LICENSE



NVIDIA GRID
Virtual Applications

\$20

perpetual license
+ SUMS



NVIDIA GRID
Virtual PC

\$100

perpetual license
+ SUMS



NVIDIA GRID
Virtual Workstation

\$450

perpetual license
+ SUMS

NVIDIA GRID PRICING

Annual Subscription



Virtual Applications	\$10 Subscription
Virtual PC	\$50 Subscription
Virtual Workstation	\$250 Subscription

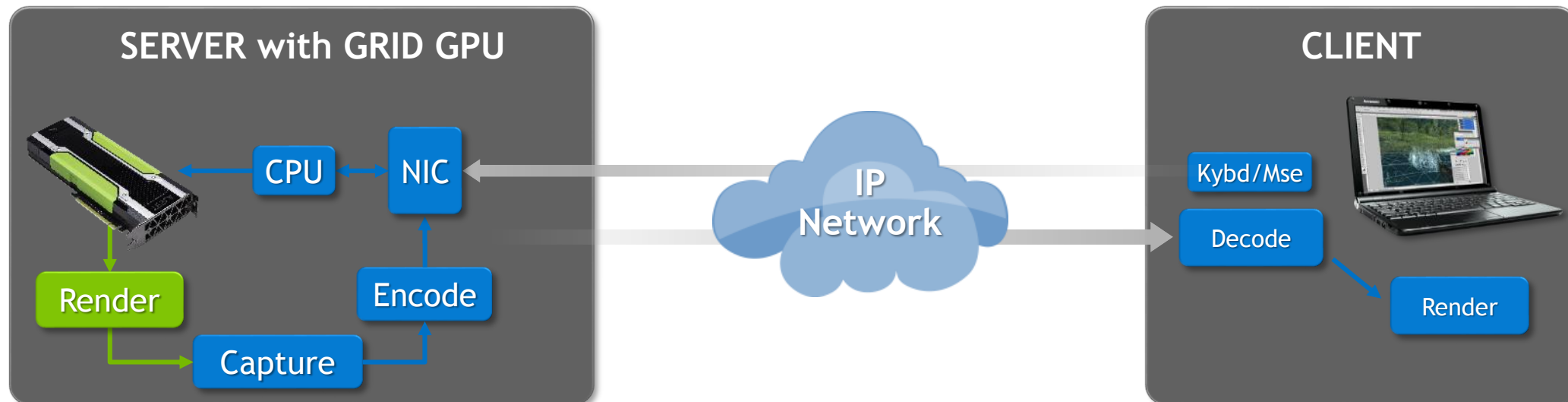
Perpetual License + SUMS



Virtual Applications	\$20 perpetual license
	\$5 SUMS
Virtual PC	\$100 perpetual license
	\$25 SUMS
Virtual Workstation	\$450 perpetual license
	\$100 SUMS

HIGHSPEED WITH NVENC

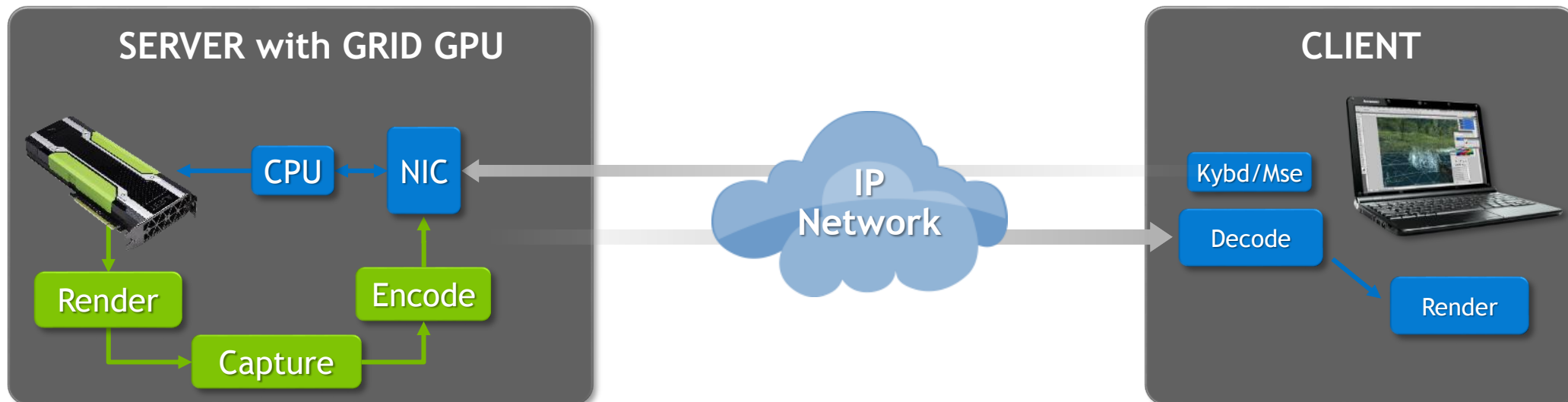
HOW IT WORKS TODAY



GRID GPU WORKLOAD

NON GPU WORKLOAD

NVIDIA NVENC ACCELERATION

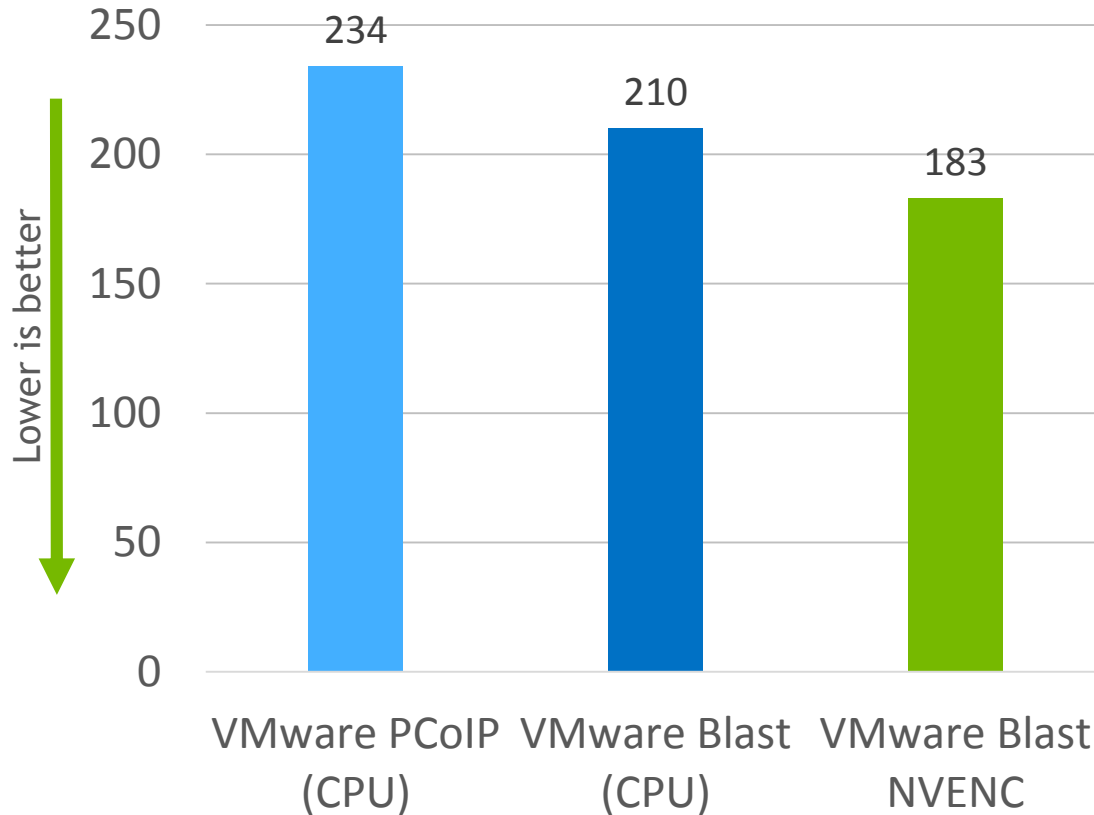


GRID GPU WORKLOAD

NON GPU WORKLOAD

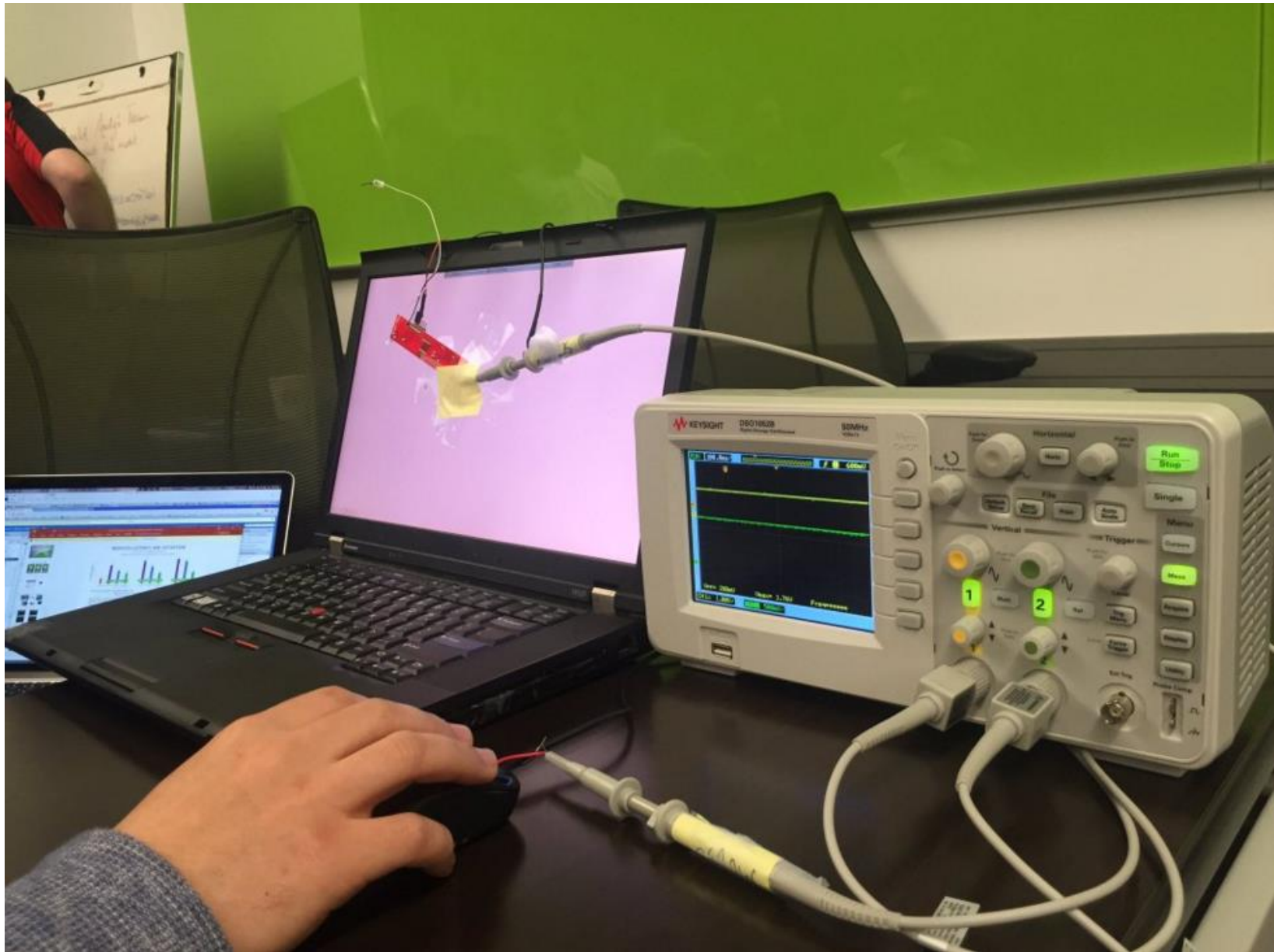
REDUCES OVERALL LATENCY

Click to Photon in ms (lower is better)



Protocol acceleration
decreases latency by

- 27ms - Blast (H.264 vs H.264 NVENC)
- 51ms - PCoIP vs Blast (H.264 NVENC)



Q & A

