WHAT'S SLOWING DOWN YOUR VDI?

Is your VDI project still stuck in the early stages of deployment, or has it failed to gain user adoption? It might be time to speed things up. Check off the applications you're running below, and then see why your VDI could benefit from GPU acceleration.

NVIDIA

WINDOWS 10

Windows 10 is the most graphically intensive operating system to date, requiring 32% more CPU than Windows 7.[1] The operating system's full potential can't be realized without graphics acceleration.

OFFICE 2016 / OFFICE 365

Crisp text, smooth scrolling and zooming, and improved mouse pointing accuracy are all the result of hardware graphics acceleration. Microsoft Office suite assumes you have graphics acceleration and enables this feature by default.

WEB BROWSER

Internet Explorer, Microsoft Edge, and Chrome all enable hardware acceleration by default. Often you need to go under advanced settings if you want to use software rendering.

BROWSER EXTENSIONS AND ADD-ONS

Extensions and plug-ins often increase CPU utilization even further— common culprits being antivirus, ad-blocking, and Adobe® Reader® add-ons. Similarly, ads on a browser page can cause high CPU utilization.

PDF VIEWERS

Adobe® Acrobat®, Adobe Reader, and Microsoft Edge Viewer are all hardware accelerated by default. This feature enhances page display, zooming, and panning within two-dimensional PDF files.

CURRENT AND LATEST WEB STANDARDS

Flash, HTML5, and WebGL are all prevalent across the web and are all very taxing to the CPU. WebGL, currently used in 53 percent of the top-100 websites,[2] can cause the CPU to hit 100 percent when just animating a simple scene.

COLLABORATION TOOLS AND VIDEO

Video conferencing applications like Skype for Business and streaming sites like YouTube are becoming prevalent across the enterprise. Video decoding takes potentially the entire CPU core if viewed in full-screen or full-HD, 1080p mode. And new standards like H.264/H.265 are entirely accelerated by GPUs.

DIGITAL IMAGING AND DESIGN

Creative and design tools like Adobe Photoshop® have features that simply won't work without a GPU and features that require GPU for acceleration[3].

MULTIPLE MONITORS

The more monitors you have, the more number of pixels required to encode and render, thereby increasing CPU utilization. 4K resolution monitors, which are becoming mainstream, also tax the CPU.

MULTIPLE APPLICATIONS

With the digital transformation of the workplace and the plethora of information and applications, multitasking is a given. Having multiple applications open taxes the CPU, and having a GPU can help offload that.

Today's modern workforce use applications and workflows are increasingly more graphics intensive. With CPU resources and active memory being consumed at unprecedented rates, GPU virtualization with NVIDIA GRID is a way to offset these added workloads. It's a cost-effective solutionto scale VDI while assuring a high-quality user experience.

Better VDI UX Makes Good Business Sense: Three Ways GPUs Add Value to Your Virtualized Environment

READ HERE

[1] Lakeside Software, Inc. "**Elevating User Experience Through GPU Acceleration: A Windows 7 Analysis.**" Lakeside Software Whitepaper, 2017.

[2] Zhihao Yao, Zongheng Ma, Yingtong Liu, Ardalan Amiri Sani, Aparna Chandramowlishwaran. 2018. **Sugar: Secure GPU Acceleration in Web Browsers**. In ASPLOS '18: 2018 Architectural Support for Programming Languages and Operating Systems, March 24–28, 2018, Williamsburg, VA, USA. ACM, New York, NY, USA, 16 pages.

[3] Adobe. December 31, 2017. **Photoshop Graphics Processor (GPU) Card FAQ**.

NVIDIA