HP True Graphics

Breakthrough video and graphics presentation for HP Thin Clients

HP True Graphics[1] offloads rich application and multimedia content to your HP Thin Client GPU HW decoder, delivering high frame rate images while boosting efficiency.
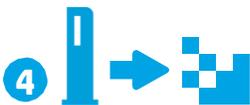

User accesses rich content through Citrix® or VMware® Blast connection on HP Thin Client

Server GPU or CPU encodes content in H.264

H.264 stream is sent to the HP Thin Client

HP Thin Client offloads H.264 to the GPU HW decode

Figure 1. HP True Graphics technology process and H.264 data flow with an HP Thin Client.

Without HP True Graphics

Challenging for rich graphics and video presentation in the cloud

In today's remote cloud-computing environments, smooth streaming and high-quality presentation of HD video and 3D graphics are significant hurdles. IT and end users often experience poor graphics, slow frame rates, lag, heavy client CPU burden, and codec mismatches. Rich content remote redirection requires a strong server, a high bandwidth network to transmit the data, and an extremely powerful endpoint device to render the content. Current software solutions that attempt a resolution are extremely client CPU intensive and require high-performance endpoint devices. Today's high-performance endpoint devices, like PCs and workstations, aren't as secure and reliable as a thin client in VDI and cloud computing environments.

The thin client demand

The industry solution has typically been multimedia offloading and server side rendering, yet each solution gives thin client users just enough capability for average quality video and graphics in a limited number of file formats. With increased industry adoption of H.264 as a popular format, the demand has grown stronger than ever for a more flexible, cost-effective and efficient solution.

H.264 industry happenings

H.264

The industry's most common video format for recording, compression, and distribution of video and graphics content is H.264. Today's modern GPUs offer H.264 accelerated decoding capabilities allowing rich content to be displayed on most modern endpoint devices, like tablets and smartphones, without consuming massive amounts of CPU. HP True Graphics harnesses H.264 video and graphics content and redirects it to the GPU's HW decoder for smooth streaming and enhanced presentation on HP Thin Clients.

With HP True Graphics

Truly astounding cloud-based multimedia

HP True Graphics[1] gives HP Thin Client users the ability to view and manipulate cloud-based applications and multimedia content with smooth display and reduced lag. Enjoy high frame rates for large format applications, multi-video chat, and demanding programs like HD video, CAD, HTML5, and Silverlight.

Key benefits
- Breakthrough video playback
- View and manipulate cloud-based applications and multimedia content
- Flexible solution that works with your Windows® - or HP ThinPro-based thin clients
- Redirect H.264 content straight to your GPU HW decoder
- Immediate keyboard and mouse responsiveness
- Low equipment burden and CPU utilization

HP True Graphics provides up to 2x the average frame rate at as low as 1/3rd of the typical thin client CPU utilization and with a single, simplified codec-based scheme.[2] This technology drastically reduces high client CPU usage that often can't keep up with today's heavy content demands resulting in a more responsive end-user experience and a more efficient IT environment.

[1] HP True Graphics requires an HP Thin Client with an HP ThinPro 5.0 or higher operating system (combo OS with HP Smart Zero begins at v5.0), AMD processing technology, and a Citrix® virtual desktop infrastructure—XenApp® or XenDesktop® v7.0 or higher or WES 7E 32-bit/Windows 10 IoT with a Citrix® 4.4 receiver and Citrix® virtual desktop infrastructure—XenApp® or XenDesktop® v7.0 or higher. HP True Graphics is preinstalled on the OS starting with HP ThinPro 5.2. See product QuickSpecs for exact compatibility.

[2] Source: HP Thin Clients WW Global Research and Development Unit – Benchmark testing October 2014.

Learn more at
hp.com/go/TrueGraphics

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