Video Surveillance

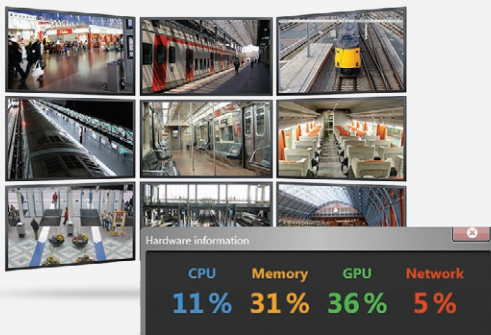# GPU-Accelerated Video Decoding
Optimize HD Viewing Performance

Security and IT departments will commonly equip operators with multi-monitor stations or video walls, so they can monitor a greater number of cameras concurrently, and provide them greater situational awareness across their environment. However, the need to render cameras on multiple displays places additional strain on a workstation's performance, as more processing power is required to decode and render video as the number of cameras increase.

Through GPU-accelerated decoding, Security Center leverages commercial off-the-shelf graphics cards to offload processing demand from the CPU, and enhance the performance of an organization's existing workstations. The capability enables operators to display more high-resolution streams from a single workstation, as well as enhancing video playback performance.

Key Benefits

▶ Display more cameras and higher resolution video from a single workstation

▶ Deploy cost-effective video walls with fewer workstations

▶ Enhance operator experience with greater playback fluidity when reviewing video

▶ Extend the lifetime of your workstations, even as video demands increase

What is GPU-Accelerated Video Decoding?

GPU-accelerated decoding makes use of the graphics processing unit (GPU) included with many servers and client workstations, together with the CPU, to assist processing-intensive applications. In video surveillance, the ability to offload video rendering to the GPU can reduce the impact on security workstations by freeing up CPU resources. This allows operators to display more high-resolution cameras from a single system, and enhances playback fluidity when reviewing video.

As security needs evolve, by leveraging off-the-shelf video cards, organizations can reduce their need to purchase new workstations when setting up video walls, when deploying high-resolution cameras, as well as when operating multiple applications concurrently.

Getting the Most Out of GPU-Acceleration

▶ The higher the resolution, the greater the benefits will be realized from GPU-acceleration

▶ Video cards with greater memory are better suited to decode very high-resolution video; a minimum of 2GB of video memory is recommended
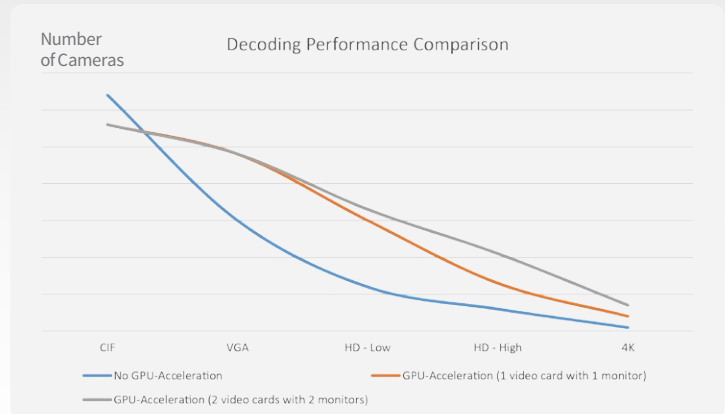
Users will benefit most from GPU-accelerated decoding when using high-resolution cameras.
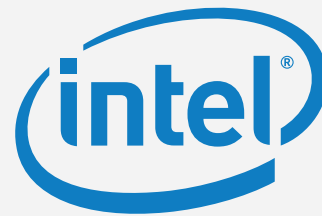
Compatibility

▶ Requires Security Center 5.3 or above

Supported Decoders

NVIDIA Graphics Cards

▶ Genetec highly recommends the use of NVIDIA® Video Cards with Compute Capability 5.0, and above (Maxwell Architecture)

Intel Quick Sync

▶ Intel® CPU and Motherboard with Quick Sync technology support

▶ Intel® Quick Sync Video is recommended only if the Intel® discrete graphics card is directly connected to a display device

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