NETINT

Infrastructure for Virtualized Video Processing

ULTRA-LOW POWER, REAL-TIME VIDEO ENCODING

STREAM VX

NETINT

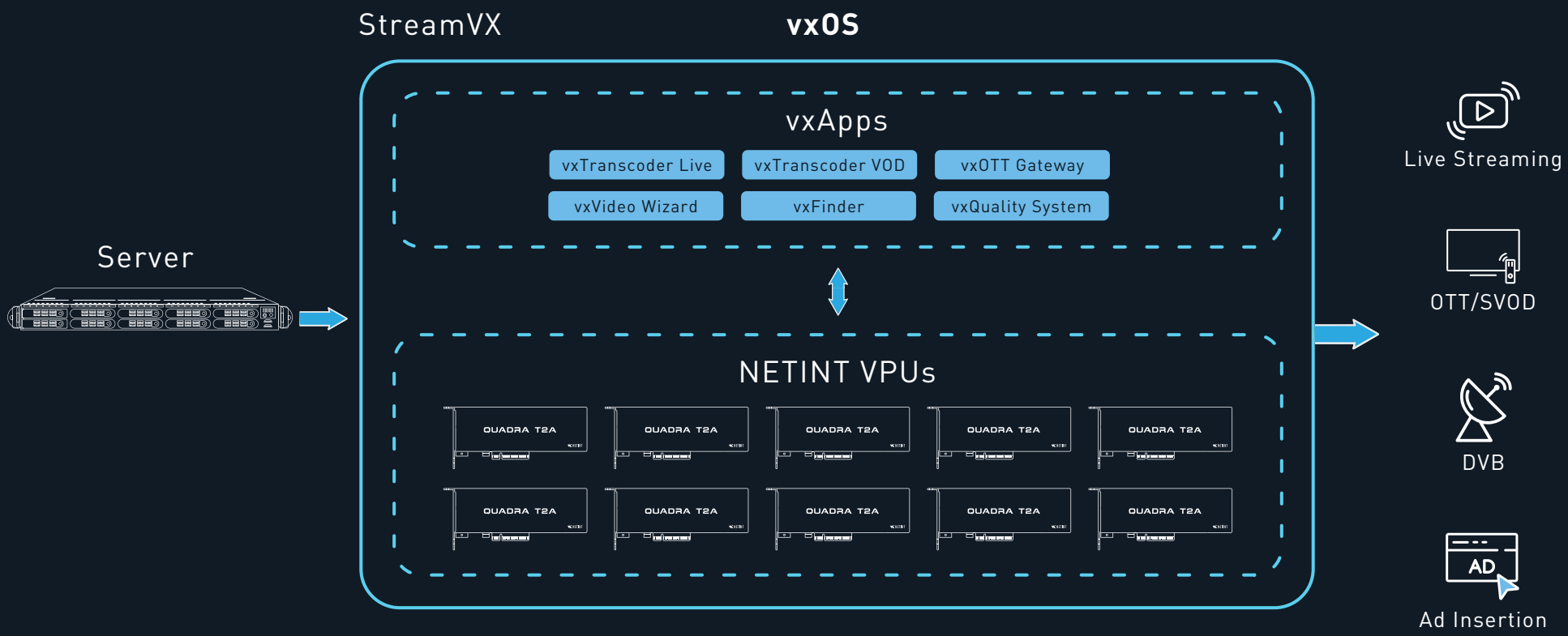
Introduction

Global energy prices are projected to soar and remain high for the foreseeable future. The immediate effect on the streaming video industry is companies are now implementing policies to mitigate these increased energy costs. These policies are severely limiting the ability of hyperscale video platforms to increase encoding capacity which is needed to deploy new streaming services.

With soaring energy costs and the challenges associated with them, "rack-locked" video platforms are looking for solutions that enable them to increase their encoding density in their existing server footprint while minimizing energy consumption.

StreamVX creates next-generation streaming solutions to address these emerging requirements. StreamVX's most advanced encoding software, powered by NETINT VPUs (Video Processing Units) offer best in class, low-power, low latency encoding performance.

STREAM VX



StreamVX creates next-generation streaming solutions that virtualizes the functionality of the infrastructure used by broadcasters, MSOs, and Telcos. Stream VX's, vxOS is an advanced platform that enables the virtualization of various processing functions which are packaged as vxAPPs enabling optimized workflows for applications including live streaming, OTT/SVOD, and digital ad insertion. The flexibility of StreamVX's solutions enables them to run on-premises or in the private or public cloud.

StreamVX's most advanced video processing software, powered by NETINT VPUs (Video Processing Units), offers best in class, low-power, low latency encoding performance. NETINT VPUs utilize ASIC-based video processing to real-time encode AV1, HEVC and H.264 at up to 8x 4Kp60, or 32x 1080p60 streams per VPU. StreamVX encoding software with the support of 10x NETINT VPUs in a compact 1RU form factor offers industry leading encoding capacity.

NETINT

By offloading complex encode/decode processing to its onboard ASIC, NETINT VPUs minimize host CPU utilization. The result is a significant improvement in real-time transcoding density compared to CPU/software-based encoding.

NETINT VPUs utilize as little as 7 watts per module, enabling StreamVX encoding solutions to offer, in addition to a 40x increase in encoding density, a 40x reduction in power consumption compared to existing CPU/software-based encoding.

STREAM VX

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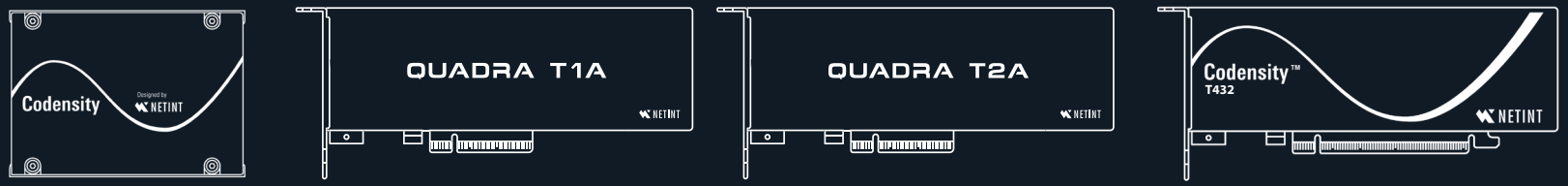
Video Processing Units

ASIC-based High Density Video Processing Units

NETINT's T408, T432 and Quadra T1/T2 Video Processing Units (VPUs) bring real-time, ultra-low latency video to the data center. NETINT VPUs enable hyper-scale video platforms to easily transition from software to hardware encoding and benefit from a 40x improvement in encoding performance and TCO with an 80x reduction in carbon emissions compared to CPU-based software video encoding.

Powered by NETINT Codensity G4 and G5 ASICs, NETINT VPUs support H.264, HEVC, and AV1 encoding at resolutions up to 8K with 10-bit HDR. Establishing an all-new industry benchmark, using NETINT VPUs, as many as 320 live broadcast-quality channels can be encoded on a StreamVX encoding platform.



STREAM VX

NETINT VPU Benefits

Ultra High Density
Increased video encoding density compared to software, enabling a 40x TCO reduction.

8K/4K/UHDTV
Supports a wide variety of streaming applications including live streaming, cloud gaming, Metaverse, OTT/SVOD and ad insertion.

Ultra-Low Latency
Enables Interactive video applications including Cloud Mobile Gaming, Metaverse, AR and VR.

AI Deep Neural Network Engines
Enables advanced processing including object detection, classification, segmentation and ROI for image quality improvement and content adaptive rate control.

AV1, HEVC, H.264
Flexible multi-format Transcoding, Encoding, and Decoding.

Real-Time Encoding
Optimized for live streaming and interactive video applications.

Scalable
High capacity encoding throughput for rapid deployment of additional channels.

Video 2D Processing Engines
Video cropping, padding and scaling for encoding ladder generation and image composition, video overlay, YUV and RGB conversion.

For more information on **NETINT VPU solutions**, contact us at:
go@netint.com
www.netint.com

For more information on **StreamVX solutions**, contact us at:
go@streamvx.com
Streamvx.com

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