Intel IoT – Customer Testimonials for Intel® Vision Accelerator Design Products Launch

AAEON

"Artificial Intelligence at the edge is the natural evolution of Cloud Computing and the Internet of Things. After using Intel® Movidius™ Myriad™ X VPU and the OpenVINO™ toolkit, we saw more than a 5x performance increase in our UP Squared AI Retail Suite and UP Squared AI Safety Suite. This performance boost allows us to expand the analytics capabilities of our UP AI Core product family beyond just security use cases, unlocking new markets for this product in retail, safety and more."

- **Fabrizio Del Maffeo, Vice President & Managing Director, AAEON Technology Europe**

ACCENTURE

"Accenture is excited about the benefits Intel® Vision Accelerator Design products bring to its Video Analytics Services Platform. By using Intel's Vision Accelerators and the OpenVINO™ toolkit to package customer-specific TensorFlow-based computer vision models, we are able to reduce overall solution cost and improve performance. This is a key factor in delivering value at scale to our customers."

- **Brian J. Green, Global Video Analytics Lead, Accenture**

ADLINK

"ADLINK is committed to bringing AI to the edge. We are taking a heterogeneous computing approach to AI deployments, building the right solution for our customer based on their computing needs. Using Intel® Vision Accelerator Design Products with Intel® Movidius™ VPUs and the OpenVINO™ toolkit, ADLINK's AI platforms can speed up image processing, computer vision and deep learning inferencing with power efficiency not yet fully recognized in the market. With these advantages, ADLINK can better target edge applications and infuse the power of AI in vertical markets including manufacturing, transportation, healthcare, retail, smart city, and more. Specifically, by leveraging the OpenVINO™ toolkit we saw over 11x increase in performance on CPU when compared with the solution running without the OpenVINO™ toolkit. Even more compelling is the 19x performance increase we saw when we added our own EDL-mPCIe-MA2485, a mini-PCIe accelerator card based on the Intel® Vision Accelerator Design."

- **Edgar Chen, General Manager of Embedded Platforms and Modules, ADLINK Technology**

ADVANTECH

"Advantech is building two form factors of Intel® Vision Accelerator Design with Intel® Movidius™ Myriad™ X VPU, VEGA-230 m.2 and VEGA-330 miniPCIe edge AI modules and leveraging the OpenVINO™ toolkit which will accelerate image processing, computer vision, and deep neural networks at the edge. When implemented with the OpenVINO™ toolkit, we've seen a 3~8 x deep-learning performance boost for video analytics."

‒ **Miller Chang, President of Embedded IoT, Advantech**

AWS

"With Intel® Vision Accelerator Design products, our customers can now build higher-performance, power-efficient computer vision solutions using AWS Greengrass and the OpenVINO™ toolkit. This allows AWS developers to use the power of the AWS cloud to build, train, and test ML models before deploying them on Edge devices running Greengrass. Also, leveraging Intel® Movidius™ VPU or Intel® Arria® 10 FPGA accelerators provide fast, local inferences for use cases such as Object recognition and Video surveillance."

‒ **Satyen Yadav, General Manager, AWS IOT Devices and Greengrass**

DELL EMC

"As a leading provider of compute infrastructure solutions for the security and surveillance market, Dell Technologies continues to integrate the best technologies from all of its portfolio of companies to provide the latest video surveillance solutions for education, smart cities, hospitals and other segments. A recent example is the launch of the new Dell Technologies IoT Solution for Surveillance, which leverages the latest Intel® Vision Accelerator Design to improve real time visual intelligence and situational awareness capabilities, as well as deep learning inferences for surveillance and security – all at a more affordable price point."

‒ **Ken Mills, General Manager, IoT Surveillance and Security, Dell EMC**

GENETEC

"As one of the leading solution providers to the security and surveillance industry, Genetec strives to deliver leading edge technology. We have worked with Intel CPU's with integrated GPU's for years to help us deliver exceptional performance. We recently scoped Intel's OpenVINO™ toolkit to optimize and scale performance across Intel® Vision Products, from the CPU and Integrated GPU to VPU and FPGA. With the new Intel® Vision Accelerators we can extend our investment with the OpenVINO™ toolkit to reach multiple price, power, and performance requirements that our customers require."

‒ **Danny Roy, Director of Engineering, Genetec**

HANWHA TECHWIN

"Hanwha Techwin is accelerating time to market by adding Intel® Vision Accelerator Design products onto our network video recorder (NVRs) for intelligent video applications, as we are committed to offering high performance and power-efficient AI solutions to our customers. We are delighted to leverage Intel's broad portfolio of vision technology, including the new Intel® Vision Accelerator Design with Intel® Movidius™ VPU, and fully optimized video analytics algorithms made possible by the OpenVINO™ toolkit. Our developers can now significantly reduce development efforts and focus on video algorithm optimization without worrying about the burden of heavy workloads or the need to determine where computing workloads go. In addition, the Intel® Vision Accelerator Design with Intel® Movidius™ VPU provides scalability and allows us to customize the number of VPUs our solution utilizes in order to meet our customers' needs."

– **Patrick Hong, Director, Head of Product Management, Hanwha Techwin**

HONEYWELL

"Intel's new Vision Accelerator Design Products will enable us to provide faster and more accurate AI solutions, with the power efficiency we need in our edge servers. This technology will help customers realize the great potential of AI vision analytics."

– **Jeremy Kimber, Director, Enterprise Global Product Management, Honeywell**

IEI

"We are extremely pleased to be partnering with Intel to launch Intel® Vision Accelerator Design Products. We are announcing both the Mustang-F100-A10 [Intel® Arria® 10 GX-1150 FPGA] and the Mustang-V100-MX8 [Intel® Movidius™ Myriad™ X] based on the Intel® OpenVINO™ toolkit to develop computer vision solutions on multiple Intel platforms, including CPU, VPU, GPU and FPGA. Our customers have tested these products and the results are outstanding. In a recent medical imaging deployment, we saw the performance move from 1.75 FPS on just Intel CPU and integrated GPU without the OpenVINO™ toolkit to 8.85 FPS on just the CPU with the OpenVINO toolkit, to over 21 FPS when fully utilizing both the Intel CPU with integrated GPU."

– **Teddy Kuo, Founder and Chairman, IEI Group**

MICROSOFT

"Microsoft is collaborating with Intel on developing high speed machine learning inferencing solutions. Azure Machine Learning service and Azure IoT can now deploy optimized models for Intel® Vision Accelerator Design products and is working to more deeply integrate with the OpenVINO™ toolkit to support hardware optimized serialization of ONNX models for this line of products. The combination of Azure Machine Learning & Azure IoT with Intel® Vision Accelerator Designs and the OpenVINO™ toolkit allows customers to do real-time video inferencing at the edge for scenarios such as robotics & smart manufacturing."

– **Eric Boyd, Corporate Vice President, Microsoft AI and ML**

NCS

"NCS has been developing on the OpenVINO™ toolkit and Intel® Vision Accelerator Designs with Arria® 10 FPGA, and observed that this framework capability enables highly optimized key capabilities to access the underlying compute, vision accelerators of Intel's heterogeneous architecture resulting in minimal changes to the top layer of the smart city solution stack. We are highly excited on the continuous investments from Intel in opening up access to Intel's architecture with best in class tools and local support to NCS."

– **Dr. Neo Shi Yong, Director, VITG, NCS Singapore**

NEXCOM

"At NEXCOM we aim to innovate in open and modular robotics by integrating AI vision into robot control systems to make them more flexible, to give them better protection from changing environmental conditions, and to enable them to handle a wider range of inspection tasks. By leveraging Intel's OpenVINO™ toolkit in the development of this solution, we saw the execution speed increase over 3x. This increased speed improves the overall efficiency and productivity to perform tasks faster than general robotic automation. By adding Intel® Vision Accelerator Design products, it is now possible to have robotic control and AI vision analytics all running on one platform."

– **Clement Lin, Chairman, Nexcom**

QNAP

"QNAP kicked off our 1st medical AI application earlier this year. This Medical AI solution uses AI image classification capabilities, and through x-ray film from OCT, we can assist doctors and improve diagnostic accuracy in aged-related macular degeneration disease. The solution surprised the medical community by greatly reducing the time to diagnose age-related macular degeneration at a renowned Taiwan medical facility, utilizing both the OpenVINO™ toolkit and Intel® Core processors. With Intel® Vision Accelerator Design (IEI's Mustang-F100-A10) and the OpenVINO™ toolkit, we see a startling 40x better performance when compared with the CPU only solution. It really improves the quality of diagnostics and enhance doctor-patient relationship."

– **Y.T. Lee, Vice President of R&D, QNAP**