Application Story

AI Enhancements Drive "SuperMarketing" in Asia

The AIEdge-X®100 AI precision marketing system includes the AIBooster®-X2 module with Intel® Movidius™ Myriad™ X VPU inside, as well as Intel's OpenVINO™ AI toolkit.

The development of the Internet of Things means that technology has found its way into every corner of our everyday lives. And for good reason: it's made our lives faster and easier! An Asia supermarket chain owner needed an economical way to better understand customer behavior and target its marketing. The client specifically required a stable, fanless system that could run video cameras 24/7 for analysis and dual displays for advertising.

Attention shoppers: pick up the AIEdge-X®100 today!

NEXCOM offered a comprehensive "AI precision marketing" system in the AIEdge-X®100, powered by Intel® Celeron™ CPU and Movidius™ Myriad™ X VPU (via NEXCOM AIBooster®-X2 module). The AI at the edge gateway also included Intel's OpenVINO™ AI and third-party 3D software for facial recognition analysis, two USB 3.0 ports to link cameras for video streaming shopping behavior, two HDMI 2.0 ports to connect dual displays, and a LAN port to send information to the edge and control center.

Out with the old, in with the new

Understanding the power of edge AI can unlock the possibilities of targeted marketing. The traditional, face-to-face marketing techniques many supermarkets utilize – often with free tastings – is great for a personal touch! But they don't particularly tune into customers' individual needs and instead increase the costs of demonstration table supplies and labor. NEXCOM's AIEdge-X®100 AI precision marketing system reduces those unnecessary costs as well as the guesswork of understanding customer needs.

"AI precision marketing" is the way

Our marketing solution observes shopper behavior and sends information to the edge to perform big data analysis. The results you obtain can be the catalyst for "AI precision marketing" and its multiple benefits, avoiding the presumptions that come with traditional marketing
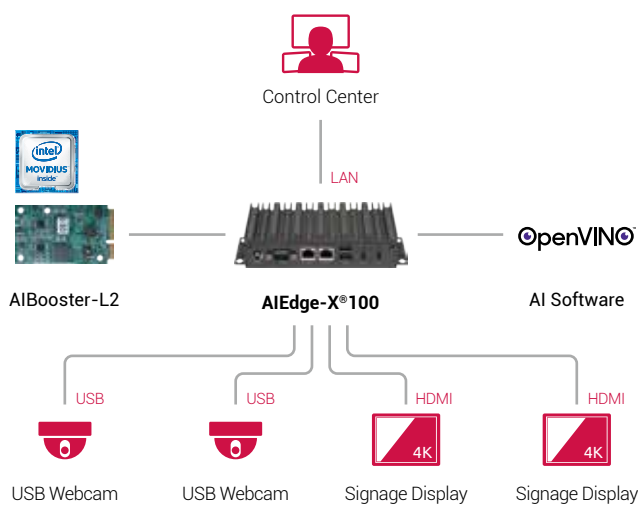

Figure 1. The AIEdge-X®100 AI precision marketing system.

State-of-the-art and comprehensive, the AIEdge-X®100 solution captures and analyzes shopping behavior so that you can deliver more accurate and targeted advertising.

techniques. First, you control and target advertisements based on demographics and shopping patterns. For instance, you can differentiate and run promotions for the typical office worker after 6 PM and stay-at-home parents during the day. Secondly, it promotes cost effectiveness: adjust purchasing patterns so that you don't waste or deplete stock. Finally, it simplifies marketing efforts and eliminates guesswork. Adjust event promotions, both face-to-face and paper-based, according to supply and demand forecasts.

The comprehensive, Intelligent system

With a high price-performance ratio, the AIEdge-X®100 is available for Windows and Linux and relies on state-of-the-art Intel® technology, a combination of CPU, GPU, and deep learning toolkit, to produce outstanding results. The AI at the edge fanless system uses a Celeron® processor, which delivers performance and value, on top of power efficiency. We include our AIBooster®-X2 deep learning accelerator card, which includes two Movidius™ Myriad™ X VPU chips, providing enough processing power to simultaneously operate two cameras for capturing shopping footage. Finally, the fanless gateway includes the OpenVINO toolkit to help you quickly facilitate inference of deep learning models. Combined with third-party 3D software, you're able to perform facial recognition to more effectively analyze customer demographics and behavior.

Structured information flow and design

The onboard USB 3.0 ports support cameras for video streaming shopping behavior to the AIEdge-X®100 gateway. The gateway then performs preliminary analysis with the aforementioned Intel® technology before sending information via LAN connection to central management at the edge. This is where management can first determine purchasing habits by performing big data analysis of customer profiles, which then drives the design of targeted advertising. As central management controls systems and their content, advertising is transmitted back via LAN to display on two HDMI monitors that support 2K and 4K resolution images. The advantages of using display monitors is that they're automatic and can run 24/7, which in-person advertising can't achieve, saving you time and money over the long run.

We're here for you

NEXCOM's AIEdge-X®100 and its AI precision marketing system are an unparalleled combination of superior performance and advanced technology. The visual solution is the smart choice to eliminate the guessing game and focus instead on needs-based marketing, with the end goal of enhancing the shopper experience. In fulfilling its commitment to meet every customer specification, NEXCOM provides an assortment of AI-enhanced solutions in its lineup.

NEXCOM

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Founded in 1992, NEXCOM integrates its capabilities and operates eight global businesses, which are Industrial Mesh, Intelligent Platform @ Smart City, Intelligent Video Security, Mobile Computing Solutions, Medical and Healthcare Informatics, Network and Communication Solutions, Smart Manufacturing, and Open Robotics and Machinery. This strategic deployment enables NEXCOM to offer time-to-market, time-to-solution products and services without compromising cost.

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