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Socionext Collaborates with Foxconn and Network Optix to Deliver Intelligent and Scalable Edge-AI Solutions for Retail and Manufacturing Markets

New, Compact, Powerful Edge Computing Platforms for "Smart" Applications

Yokohama, January 8, 2020 --- Socionext Inc., a world leading system-on-chip (SoC) solutions provider, has introduced new, intelligent, scalable edge-AI solutions developed in partnership with Foxconn Technology Group and Network Optix Inc.

Socionext has partnered closely with Foxconn, a global leader in smart manufacturing together with Network Optix, a creator of innovative video management software (VMS) on the high-performance edge system. The newly launched solutions are powered by a scalable, 24-core Arm Cortex-A53 SoC offering exceptional CPU performance, which provides excellent processing speed and power-savings. The new system is designed to support the most demanding edge computing, smart energy, Internet of Things (IoT), and real-time data processing applications.

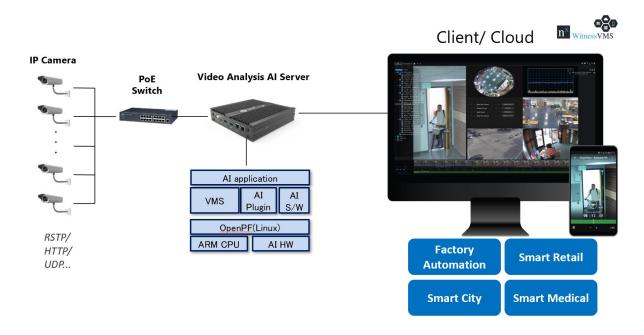


Diagram of the Intelligent Video System Architecture for Edge AI Server with VMS

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High-Density Fan-less Edge-AI Sever "BOXiedge" enhancing operational efficiency

Socionext and Foxconn have collaborated on the development of Foxconn's BOXiedge, a highdensity, fan-less, and highly efficient edge server that measures a compact 200mm x 200mm (1U) and typically consumes only 30W of power.



BOXiedge Fan-less server View Larger Image

The BOXiedge is ideal for industrial internet AI applications as it provides over 20 TOPS in total with AI accelerating card that offers excellent performance in object classification.

It also supports the mainstream Caffe and TensorFlow AI development frameworks, so no additional learning time is required. In order to support additional computational off-loading of real-time applications, Foxconn will be pre-installing the Network Optix's Witness VMS to the BOXiedge server for better optimization. Additionally, it provides immediate support for a broad range of IP cameras on the market.

"Socionext has been a reliable and trusted technology partner in ASSP for many years and share the same vision with us at Foxconn of innovating the next generation AI solutions," said Gene Liu, VP of Foxconn Technology Group. "We are pleased to partner with Socionext again to integrate the "Nx Witness VMS" into Foxconn's BOXiedge in order to deliver even greater value to HW-SW integrated ARM solutions, bringing a more powerful and cost effective solution to the retail and manufacturing industry."

BOXiedge Plus Nx Witness VMS

The new edge computing system developed with Network Optix combines the ultra-fast processing capabilities of Arm-based CPU with Network Optix's Nx Witness VMS that integrate seamlessly with other products 'Powered-by-Nx' built on the Nx Meta Video Development Platform for analyzing and enriching video data. It enables multiple video input processing in real-time, and provides a powerful and intuitive user interface to view and manage multiple incoming IP video streams. The lightweight VMS can run on most hardware and leading server platforms.

This compact and efficient Edge AI server is ideal for real-time edge inference applications such as being able to recognize and filter video input using metadata to identify objects, people, commodities, human faces and even pathways. Potential applications include smart retail, smart manufacturing, surveillance, medical AI, and more.

"Socionext is taking a unique approach to solving the challenges of creating lightweight but powerful AI-enabled hardware with their advanced SoC solutions. The collaboration between Nx, Socionext, and Foxconn strengthens the ability of all companies involved to bring to market exceptional intelligent video hardware that can be used for a variety of applications - from cloud-based IoT solutions to on-premise edge processing," said Tony Luce, Director of Marketing & Business Development, Network Optix.

"Socionext, as a provider of SoC-based solutions, looks to create a solid synergy by working with leading high-tech companies such as Foxconn and Network Optix," said Kotaro Goto, Vice Head of the Automotive & Industrial Business Group at Socionext. "Moving business processes to the edge with simple and scalable hardware solutions offers service providers the ability to streamline workflow and support a wide range of business needs, resulting in faster response times and data transfer speed."

Socionext is championing the use its leading-edge, scalable and power-efficient SoC solutions for meeting customers specific requirements and distinctive use cases with high-performance and AI computing systems and hardware devices to better differentiate their own unique products and services.

Socionext aims to continually expand its current ecosystem of partners and introduce solutions to help in the growing mobile, edge and cloud computing markets.

Verified proof-of-concepts are also available. Please contact us for more information.

Nx Witness v 4.0 http://www.networkoptix.com/nx-witness-v4-0/

BOXiedge https://boxiedge.mlab.tw/v2/

Socionext ASIC Service https://www.socionext.com/en/products/customsoc/

About Socionext

Socionext is a global, innovative enterprise that designs, develops and delivers System-on-Chip solutions to customers worldwide. The company is focused on technologies that drive today's leading-edge applications in consumer, automotive and industrial markets. Socionext combines world-class expertise, experience, and an extensive IP portfolio to provide exceptional solutions and ensure a better quality of experience for customers. Founded in 2015, Socionext Inc. is headquartered in Yokohama, and has offices in Japan, Asia, United States and Europe to lead its product development and sales activities. For more information, visit www.socionext.com.

About Foxconn Technology Group:

Established in 1974, Foxconn Technology Group ("Foxconn") is a leading technological solution provider, that has leveraged its expertise in software and hardware to integrate its unique manufacturing systems with emerging technologies.

By capitalizing on its expertise in Cloud Computing, Mobile Devices, IoT, Big Data, AI, Smart Networks and Robotics/Automation, the Group has expanded capabilities in four key technologies – Data Tech, Analytics Tech, Platform Tech, and Operations Tech. The company has research centers and testing laboratories internationally and has received more than 83,500 patents worldwide. In addition to maximizing value-creation for customers, Foxconn is also dedicated to enhancing the concept of environmental sustainability in the manufacturing process and serving as a best-practices model for global enterprises.

In 2018, Foxconn achieved US\$175 billion in revenue, and has received an array of international accolades and recognition. The company was ranked 23rd in the Fortune Global 500 rankings in 2018 and 215th in the Forbes ranking of the World's Best Employers that year. In 2019, the company was ranked 21st for Sales and was ranked 123rd overall in the Forbes Global 2000.

About Network Optix

Network Optix (Nx) is a software company focused on one thing: IP video. Since the first product was sold in 2013 Network Optix has enabled the management of millions of IP video cameras in 130 countries and 6 continents with software that is instantly usable, open and extensible, and powerfully simple to use.

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