NXP and Microsoft Demonstrates Edge-to-Cloud Machine Learning Solution for Predictive Maintenance

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News Highlights:

- Unveils new machine learning-based anomaly detection solution powered by NXP's Anomaly Detection Toolbox, NXP i.MX RT Crossover Processors and Microsoft's Azure IoT
- Jointly developed solution enables flexible balance of edge and cloud compute capabilities to bring productivity optimization and system-level safety to IoT and industrial devices
- NXP and Microsoft collaborate on market deployment, training and support

SEATTLE, May 07, 2019 (GLOBE NEWSWIRE) -- **(Microsoft Build 2019)** – NXP Semiconductors N.V.(NASDAQ:NXPI) today announced collaboration with Microsoft to bring Artificial Intelligence (AI) and Machine Learning (ML) capabilities for anomaly detection to Azure IoT users. By combining complementary strengths, NXP's offline machine learning capability and embedded processing with Microsoft's cloud expertise, the two companies jointly demonstrate a new Anomaly Detection Solution for Azure IoT at Microsoft Build in Seattle, WA from May 6-8.

The solution consists of a small form factor, low power System-on-Module (SOM) powered by NXP's i.MX RT106C Crossover Processors, a full suite of sensors, and an associated Anomaly Detection Toolbox. The toolbox utilizes various ML algorithms such as Random Forest and Simple Vector Machine (SVM), to model normal behavior of devices, detect anomalous behavior through a combined local and cloud mechanisms. This allows much lower cloud bandwidth requirements while maintaining full online logging and processing capabilities at a fraction of the cost. Applications include predictive maintenance for rotating components, presence detection and intrusion detection.

"Preventing failures and reducing downtime are key to enhance productivity and system safety," said Denis Cabrol, executive director and general manager of IoT and Security Solutions at NXP. "We partnered with Microsoft to combine the power of Azure IoT with local intelligence running on NXP's embedded technology to unlock innovation for the IoT– as part of our continued efforts to bring cognitive services down to the silicon."

"We are proud to expand our collaboration with NXP to include the new Azure IoT and i.MX RT106C Anomaly Detection Solution," said Rodney Clark, Vice President, IoT Sales, Microsoft. "Solutions like this from NXP empower developers with products, tools and services to accelerate development of complete edge to cloud solutions."

NXP's cost-effective anomaly detection solution is designed with a robust set of sensors and high-performance i.MX RT106C crossover microcontroller (MCU) running up to 600MHz, capable of collecting and analyzing sensor data in real time locally at the edge. The solution seamlessly connects to the Azure IoT Cloud, providing customers an easy way to transfer data to the cloud, where they can visualize the data and utilize powerful data analytical tools to train behavior prediction models for deploying on edge devices.

For more information visit, https://iotedge.nxp.com/anomaly-detection/.

About NXP Semiconductors
NXP Semiconductors N.V. (NASDAQ: NXPI) enables secure connections and infrastructure for a smarter world, advancing solutions that make lives easier, better, and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation in the secure connected vehicle, end-to-end security & privacy, and smart connected solutions markets. Built on more than 60 years of combined experience and expertise, the company has approximately 30,000 employees in more than 30 countries and posted revenue of $9.41 billion in 2018. Find out more at www.nxp.com.

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