

FutureHorizons



The Global Semiconductor Industry Analysts

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Shifting to the Cloud Creates Data Security

To achieve greater efficiency and access to more data, industrial organizations have shifted data processing and storage, data management, and data analytics to the cloud — for IoT and industrial IoT sensors and devices, operational technology (OT), and industrial control systems (ICS).

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NXP-Amazon Deal Promises Carmakers Vehicle-Wide Data

NXP Semiconductors this week partnered with AWS, with the goal to enable car OEMs to collect and harness the voluminous streams of data generated by their own vehicles. The auto industry, of course, has been talking up connected vehicles for a long time. Connectivity installed in vehicles, for example, already enabled carmakers to build and offer telematics services such as General Motor's OnStar.

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Qualcomm on the Edge

Qualcomm's investment in the next-gen cloud infrastructure and edge computing signals the company's ambition to own the entire mobile compute chain: handset, connection and edge computing.

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TALK TO US



Arm MicroNPU Comes to Application Processors

Arm has created a new version of its microNPU (neural processing unit) IP that is suitable for use alongside Cortex-A CPU cores in application processors. Lead licensee NXP plans to use this IP in an upcoming family of application processors that can handle AI application such as pose estimation, multi-face recognition and object detection in videos, and speech recognition beyond basic keyword spotting.

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EVENTS

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-March 2021– London UK

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Chip Interconnect Startup Kandou Raises \$92.3m

Kandou, a fabless startup based in Switzerland, has announced it has closed a \$92.3 million series C funding round. The company is focused on USB-C retimers with USB4 support, as well as signaling technology and SerDes intellectual property (IP).

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Shifting to the Cloud Creates Data Security Challenges

To achieve greater efficiency and access to more data, industrial organizations have shifted data processing and storage, data management, and data analytics to the cloud — for IoT and industrial IoT sensors and devices, operational technology (OT), and industrial control systems (ICS). There, they can be accessed by many more users than ever before.

But while cloud service providers (CSPs) assure us that their data centers have better security measures than many companies' data centers, achieving plant connectivity at scale comes at the price of greater cybersecurity risks. Moving proprietary information and customer data — especially personally identifiable information (PII) — from on-premise equipment to the cloud has vastly increased the potential attack surface.

NXP-Amazon Deal Promises Carmakers Vehicle-Wide Data

NXP Semiconductors this week partnered with AWS, with the goal to enable car OEMs to collect and harness the voluminous streams of data generated by their own vehicles.

The auto industry, of course, has been talking up connected vehicles for a long time. Connectivity installed in vehicles, for example, already enabled carmakers to build and offer telematics services such as General Motor's OnStar. It also allowed users to download apps and other content to in-vehicle infotainment systems.

"Let's call them Phase I and Phase II of the connected vehicle," said Brian Carlson, global marketing director for vehicle control and networking at NXP. In Phase III, the new NXP-AWS partnership seeks to make "vehicle-wide data available to car OEMs," he explained.

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This week, Qualcomm CEO Steve Mollenkopf enthusiastically shared his company's latest financial results, and \$6.5 billion in revenue was about \$200 million better than expected for their fourth quarter, an increase of 35% from last year. I embrace any silver linings in the cloud otherwise known as 2020. The \$1.45 earning per share was a record. Qualcomm's hardware revenues were up significantly, and this reporting period included only minimal sales into the new iPhone. When Apple ramps up the iPhone 12 sales, it should offer a nice first quarter bump for Qualcomm.

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Arm's existing microNPU product, the Ethos-U55, launched in February 2020, is aimed at microcontroller-class products alongside Cortex-M cores. It provides up to 0.5 TOPS of acceleration (based on smaller geometries such as 16 or 7 nm, running at 1 GHz), with between 3 and 256 multiply-accumulate units (MACs). Arm's portfolio also has the Ethos-N77, N57 and N37 which offer 4, 2 and 1 TOPS, respectively.

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The money will be used to bring Kandou's first silicon — known as Matterhorn, a USB-C multiprotocol retimer solution with support for USB4 — to market for consumer and networking applications in electronic devices. Additionally, the funds will be used for ongoing development of its Chord signaling technology and Glasswing ultra-short reach (USR) SerDes IP.

"This round of funding will enable us to meet growing customer demand for Matterhorn as we continue to innovate and deliver high-speed connectivity solutions," said Amin Shokrollahi, founder and CEO of Kandou.