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The Global Semiconductor Industry Analysts

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Facebook, Marvell Partner in 5G Infrastructure Makeover

Facebook and Marvell have partnered to develop equipment for 5G networks based on the open radio access network (ORAN) model that's intended to connect more of the world's people at lower cost.

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Ultra-Low Power Chipsets for NB-IoT Networks

As IoT expands to include all types of connected "things", many companies are providing several low power and connectivity chips to support the millions of devices. Sony Semiconductor Israel (formerly Altair Semiconductor), is a provider of cellular IoT chipsets.

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Ericsson Talks Security Needs for Massive IoT

5G promises many groundbreaking features such as ultra-fast bandwidth, low-latency, network slicing, massive MIMO, and 5G New Radio (NR). Most of those features are still being tested today, but strong security is essential for the upcoming critical IoT applications.

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TALK TO US



Canadian AI Startup Presents PetaOPS Card

Canadian startup Untether AI has an AI inference accelerator card which it claims achieves 2 Peta operations per second (petaOPS) of 8-bit integer performance from four of the company's RunAI200 ASIC chips. Run in a different mode, the card can also achieve power efficiency of 8 TOPS/W.

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LF Energy and Sony CSL Partner on Green Energy Microgrid Initiative

LF Energy and Sony Computer Science Laboratories (CSL) have announced Hyphae, a microgrid initiative to automate peer-to-peer distribution of renewable energy. The goal of Hyphae is to make microgrids more efficient and the overall grid more carbon-neutral..

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ORAN allows the adoption of multiple-vendor hardware and software that's based on open interfaces and commonly developed standards. Marvell will join Facebook Connectivity's Evenstar Program to provide a 4G/5G OpenRAN distributed unit (DU) design based on Marvell's Octeon Fusion baseband processors and Arm-based Octeon multi-core digital processing units (DPUs).

As 5G service providers in Europe and North America decouple from hardware that was provided by Huawei, Marvell is betting that more companies will adopt Open Ran as part of a disaggregated radio-and-base station concept that doesn't rely exclusively on one or two gear suppliers. After the administration of former US president Donald Trump designated Huawei's 5G equipment as a security risk, network providers started evaluating alternatives.

Ultra-Low Power Chipsets for NB-IoT Networks

As IoT expands to include all types of connected "things", many companies are providing several low power and connectivity chips to support the millions of devices. Sony Semiconductor Israel (formerly Altair Semiconductor), is a provider of cellular IoT chipsets. In an interview with EE Times Europe, Nohik Semel, CEO of Sony Semiconductor Israel, highlighted the importance of providing ultra-low power chipsets to keep devices connected to today's LTE networks and ready for 5G IoT.

In recent years, much attention has been focused on the Internet of Things (IoT), which is a whole range of commercial and industrial devices interconnected through the wireless (and wired) network. The advent of these devices poses a serious challenge in terms of battery life, data security and the corresponding batteries that need to be purchased, maintained and disposed; the energy harvesting technique presents a simple solution to easily and economically power low-power embedded devices (SoC) while using clean energy.

Ericsson Talks Security Needs for Massive IoT

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IoT Times. Talking about 5G, over the past few years the new networks have been appearing in many countries, and 5G is starting to provide some new use cases for IoT, especially for Critical IoT. Most of the applications are still in a trial phase; enterprises are figuring out if this can be deployed. How can we ensure that the security of those applications is designed from the start of those projects? Because the new projects are targeting critical infrastructure and critical applications.

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Working out who is in the lead for performance/power efficiency in the data center AI sector is notoriously difficult, given that offerings span the chip, card and server levels, and that AI benchmarking in general is extremely nuanced. However, the Untether AI card certainly packs a punch. Here's an overview of Untether's offering and its secret sauce, the proprietary "at-memory compute" architecture.

LF Energy and Sony CSL Partner on Green Energy Microgrid Initiative

LF Energy and Sony Computer Science Laboratories (CSL) have announced Hyphae, a microgrid initiative to automate peer-to-peer distribution of renewable energy. The goal of Hyphae is to make microgrids more efficient and the overall grid more carbon-neutral.

Microgrids are segments of larger grids that can disconnect from the larger grid to operate independently. One of the biggest benefit of microgrids is seen to be the resilience they can afford in response to grid disturbances or failures. They also provide a mechanism for attaching renewable energy systems to the grid at large.

In an interview with EE Times, Shuli Goodman, executive director at LF Energy, and Kotaro Jinushi, business development manager at Sony CSL (a subsidiary of Sony Corp.), highlighted how their collaboration directs the industrial market toward the goal of building an interoperable AC- and DC-ready microgrid that is autonomous, off-grid operational, and able to connect to an electrical distribution grid with utility oversight.