

RNS Reach

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ETHERNITY NETWORKS LIMITED

("Ethernity" or the "Company")

Ethernity Networks and TietoEVERY to Boost 5G Performance with UPF/VPP Acceleration

5G User Plane Function is implemented as a plug-in to open source VPP software, offering offloaded (to FPGA-based SmartNIC) and accelerated 5G packet processing with low TCO and high throughput

Ethernity Networks (AIM: ENET.L), a leading supplier of data processing offload solutions on FPGA (field-programmable gate array) for virtualised networking appliances, and TietoEVERY (HEL: TIETO), a leading digital services and software company, announced today that they are jointly offering an open source concept based on VPP for 5G User Plane Functionality (UPF) to accelerate 5G packet processing at the network edge, where high bandwidth and low latency are of key importance.

TietoEVERY and Ethernity will now jointly promote these accelerated UPF technologies to OEMs and system integrators as well as through the companies' technology partners and customers.

TietoEVERY has developed UPF software components for packet processing and control that makes use of the Virtual Packet Processing (VPP) open source project to enable high flexibility in 5G networking. By offloading the data plane to Ethernity's FPGA-based ACE-NIC100 SmartNIC, the integrated offering provides extremely high bandwidth and low latency while saving CPU cores. The integration uses industry-standard Data Plane Development Kit (DPDK) APIs to offload VPP/UPF to the ACE-NIC100.

The concept and joint offering follows the trend of network disaggregation, in which service providers are seeking to complement and enhance their 5G networks by deploying Open UPF, in combination with edge connectivity. With the ACE-NIC100's small footprint and low power dissipation, the integrated reference software from Ethernity and TietoEVERY is optimized for edge deployment, being fully containerized and using the VPP data plane. This allows service providers to boost performance, reduce networking overhead, and lower Total Cost of Ownership, as well as co-locate the UPF with other services.

Open source software and FPGAs also support network disaggregation for 5G by ensuring that customers will not be tied to any single software or hardware vendor. Moreover, open source software avoids security issues due to the ability to inspect code while simplifying additional enhancements and placement options.

David Levi, CEO at Ethernity Networks, commented: "As communications service providers continue to race toward initial 5G rollouts, they are recognizing that they cannot achieve the required benchmarks to enable true 5G performance without significant data plane acceleration. Offloading data processing and resource-consuming virtual functions to an FPGA-based SmartNIC is the most efficient means of achieving such acceleration and eliminates heavy loads on the CPU. It frees those resources for user sessions that require deterministic results for high throughput and low latency."

Harri Salomaa, VP and Head of Telecom Cloud Infrastructure and Applications BU at TietoEVERY, commented: “Delivering on the full value of 5G calls for embracing cloud-native programmability and connecting application data to users, while achieving high performance close to the network edge. Leveraging our 5G software engineering expertise and working closely with Ethernity, we have been able to show an integrated, disaggregated, and accelerated UPF reference design. ACE-NIC100 and Ethernity’s carrier-grade APIs allowed for minimal integration effort while achieving excellent results with our containerized 5G UPF.”

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About Ethernity Networks

Ethernity Networks (AIM: ENET.L) provides innovative, comprehensive networking and security solutions on programmable hardware for accelerating telco/cloud networks. Ethernity’s FPGA logic offers complete Carrier Ethernet Switch Router data plane processing and control software with a rich set of networking features, robust security, and a wide range of virtual function accelerations to optimize telecommunications networks. Ethernity’s complete solutions quickly adapt to customers’ changing needs, improving time-to-market and facilitating the deployment of 5G, edge computing, and NFV.

About TietoEVERY

TietoEVERY creates digital advantage for businesses and society. We are a leading digital services and software company with local presence and global capabilities. Our Nordic values and heritage steer our success. Headquartered in Finland, TietoEVERY employs around 24000 experts globally. The company serves thousands of enterprise and public sector customers in more than 90 countries. TietoEVERY’s annual turnover is approximately EUR 3 billion and its shares are listed on the NASDAQ in Helsinki and Stockholm as well as on the Oslo Børs. www.tietoevery.com/pds

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