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## **Kontron, AppliedMicro, Enea and Qosmos Showcase Security DPI Virtualized Network Function on 64-bit ARM Technology and OPNFV Framework**

*Integrated Converged Platform Solution Brings a Carrier Grade ARM-based and Open Source Alternative to Carriers Implementing NFV Infrastructure*

**Barcelona, SPAIN, February 22, 2015** – [Kontron](#), a leading global provider of Embedded Computing Technology (ECT), [Applied Micro Circuits Corporation](#) (Nasdaq:AMCC), a global leader in computing and connectivity solutions and Enea, a global supplier of network software platforms and world class services, today revealed the integration of a security network functions virtualization (NFV) solution on 64-bit ARMv8 modular servers. With a goal to provide new architectural choices, the platform uses the OPNFV Arno release on new ARM-based Kontron SYMKLOUD converged infrastructure.

Full demonstrations will be available at the Kontron booth (5H41; Hall 5) and the Enea booth (7J30; Hall 7) during Mobile World Congress, Feb. 22 – 25, 2016.

**Why this is important:** Operators now have an alternative and reliable path to reducing capital and operating expenses for their NFV infrastructure deployments. Backed by a well-cultivated ARM ecosystem, vendors of virtualized network functions (VNFs) can easily expand the scope of their offerings to carrier clients.

### **Layered View of Combined MWC Demonstration:**

- Layer 7 Firewall Deep Packet Inspection (DPI) VNF using the ixEngine from Qosmos for DPI and Enea Linux 5.0 as the guest OS, running on 'Arno SR1' OPNFV implementation, running Ubuntu 14.04 for NFVI (KVM and OVS) and VIM (Openstack and OpenDaylight);
- Complete set-up running on AppliedMicro X-Gene® 64-bit ARMv8-based modular servers, populated in a Kontron SYMKLOUD converged infrastructure platform;
- Highlights the potential of 3,024 VNF cores in a fully populated 42U rack.

Qosmos ixEngine® is the de facto industry-standard IP classification and metadata extraction engine based on Deep Packet Inspection (DPI). Networking and security vendors use ixEngine to gain application visibility, accelerate development, benefit from continuous protocol signature updates and strengthen capabilities of new solutions.

### **Enea Carrier-Grade Open Source Network Operating System**

The Enea COSNOS is a system-wide software platform that incorporates all aspects of NFV and includes operating systems, middleware and necessary open source building blocks from industry collaboration projects, including OPNFV, OpenDataPlane, OpenStack, OpenFlow, KVM, OpenDaylight and Open vSwitch.

### **High Density ARM-based Converged Infrastructure Platform**

The SYMKLOUD platform portfolio now includes a 10GbE modular server designed with two AppliedMicro X-Gene 64-bit ARMv8-based System-on-Chip (SoC) processors for server-class performance and mobile-level power efficiency. Each 2U SYMKLOUD enclosure has a capacity of nine modular, hot-swappable servers, which translates into a configuration of up to 144 X-Gene cores, or, 3,024 cores in a fully populated 42U rack. This is a massive 97 percent increase in space efficiency compared to traditional dual socket 1U commodity servers. Moreover, its modular and short-depth footprint packs in high density compute, storage and a 20GbE switch fabric that supports bare metal SDN switching for legacy and OpenFlow traffic.

Potential use cases include: NFVi as a Service; VNF as a Service; vMobile Core Network and vIMS; vMobile base station; vCPE/home environment; and vCDNs.

“Facilitating the integration of SDN and NFV into a common and more compelling choice of options is critical for service providers,” said Imran Yusuf, vice president, business development & strategic alliances at Qosmos. “The cohesive efforts with AppliedMicro, Enea and Kontron are a step in the right direction, and enables Qosmos to expand the existing compatibility of its ixEngine with ARM-based NFV infrastructure platforms.”

“In pioneering the first ARM-based OPNFV reference platform to the ecosystem, Enea has taken a leading position delivering the NFV vision across a wide range of ARM-based solutions,” said Daniel Forsgren, senior vice president, product management, Enea. “Working closely with AppliedMicro and Kontron to develop an OPNFV-compliant VNF on ARM technology is one of many examples bringing real commercial value the connected society.”

“While this is just the beginning of our partnership, we see X-Gene processors enabling tremendous growth potential in the ARM NFV server market,” said Michael Girvan Lampe, vice president, worldwide sales and marketing for AppliedMicro. “Kontron SYMKLOUD converged infrastructure platforms are the optimal solution in COTS hardware design for reliable and massive scale-out performance.”

“We look forward to working with Enea and AppliedMicro to bring our collective expertise into a seamless integrated framework for service provider clients,” said Robert Courteau, executive vice president, communications BU, Kontron. “I believe we have proven how quickly working with key ecosystem partners can provide a much stronger sales proposition compared to those from single vendor ‘locked-in’ solutions.”

Be sure to visit Kontron, AppliedMicro and ARM during:

**Mobile World Congress 2016**

**Kontron Stand 5H41 – ENEA Stand 7J30**

February 22-25, 2016 | Barcelona, Spain

<http://www.mobileworldcongress.com/>

#### **About AppliedMicro**

Applied Micro Circuits Corporation (AMCC) is a global leader in computing and connectivity solutions for next-generation cloud infrastructure and data centers. AppliedMicro delivers silicon solutions that dramatically lower total cost of ownership. Corporate headquarters are located in Santa Clara, California. [www.apm.com](http://www.apm.com).

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#### **About Qosmos**

Qosmos leads the market for IP traffic classification and network intelligence technology used in physical, SDN and NFV architectures. The company supplies software to vendors who embed real-time application visibility in their products for traffic optimization, service chaining, quality of service, analytics, cyber security and more. Qosmos customers benefit from fast time to market and continuous signature updates for their products. As the leading supplier of IP traffic classification and network intelligence software, Qosmos contributes actively to open source projects and international standards, and serves 75% of the market.

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#### **About Enea**

Enea is a global supplier of network software platforms and world class services, with a vision of helping customers develop amazing functions in a connected society. We are committed to working together with customers and leading hardware vendors as a key contributor in the open source community, developing and hardening optimal software solutions. Every day, more than three billion people around the globe rely on our technologies in a wide range of applications in multiple verticals – from Telecom and Automotive, to Medical and Avionics. We have offices in Europe, North America and Asia, and are listed on NASDAQ OMX Nordic Exchange Stockholm AB. Discover more at [www.enea.com](http://www.enea.com) and start a conversation at [info@enea.com](mailto:info@enea.com).

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#### **About Kontron**

Kontron, a global leader in embedded computing technology and trusted advisor in IoT, provides a complete and integrated portfolio of hardware, software and services. Kontron creates many of the standards that drive the world's embedded computing platforms, bringing to life numerous technologies and applications. The result is an accelerated time-to-market, reduced total-cost-of-ownership, product longevity and the best possible overall application with leading-edge, highest reliability embedded technology. Kontron is a listed company. Its shares are traded in the Prime Standard segment of the Frankfurt Stock Exchange and on other exchanges under the symbol "KBC".  
For more information, please visit: [www.kontron.com](http://www.kontron.com)

#### **About Kontron in Communications**

Kontron designs carrier-class and cloud infrastructure solutions that bring any application to life for the new world of software defined networks (SDN) and network functions virtualization (NFV). We are experienced system architects who match our clients' network application requirements with the right hardware and software solutions for the 4G LTE Evolved Packet Core, Content Delivery Networks, and Cloud infrastructure. By partnering with Kontron, service providers and their ISV partners can enter new markets with greater speed, confidence and operational efficiency. For more information, please visit [www.symkloud.com](http://www.symkloud.com) or [www.kontron.com/communications](http://www.kontron.com/communications). Kontron is a Corporate Sponsor of the OpenStack Foundation, and is an ecosystem member of the Alcatel-Lucent CloudBand™ Ecosystem Program, and the Wind River Titanium Cloud NFV partner program.

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