Enable Advanced Network Function Virtualization (NFV) with AMD’s Embedded R-Series SoC and Enea’s Telco Development Platform
FULLY INTEGRATED APPLICATION DEVELOPMENT ENVIRONMENT
FROM AMD AND ENEA PROVIDES COMPREHENSIVE PLATFORM TO
DEVELOP, TEST, AND IMPLEMENT VIRTUALIZED NETWORK FUNCTIONS

Network function virtualization (NFV) is an innovative approach to telecommunications infrastructure that simplifies deployment and management for network and telecommunication service providers via a fully virtualized communications framework.

With NFV, much of the intelligence currently built into proprietary, specialized hardware resides instead in software that runs on general-purpose servers. By abstracting network devices such as routers and gateways within a virtual server, storage, and network environment, core network functionality can be scaled and managed with exceptional agility, helping to maximize performance and network bandwidth and helping to reduce overall costs. By minimizing dependencies on customized, integrated hardware, operating system, middleware, and application stacks, service providers can also accelerate development cycles and avoid vendor lock-in.

THE AMD AND ENEA ADVANTAGE

Working with Enea, a leading operating system solution vendor within the communications domain, AMD is paving the way for new and established service providers to design and deploy ARM®-based NFV infrastructure that leverages advanced software-defined networking (SDN) capabilities to meet exacting network performance, management flexibility, and cost requirements.

AMD’s Embedded R-Series SoC (code named “Hierofalcon”) – the first 64-bit ARM Cortex™-A57-based platform from AMD targeting embedded datacenter applications and communications infrastructure – is a key enabler of efficient, Linux®-based NFV solutions. It includes up to eight ARM Cortex-A57 CPUs and provides high-performance memory with two 64-bit DDR3/4 channels with error correction code (ECC) for high reliability applications. The integrated SoC includes 10GB KR Ethernet and PCI-Express® Gen 3 for high-speed network connectivity, making it ideal for control plane applications. The AMD Embedded R-Series SoC also provides enhanced security capability with support for ARM TrustZone® technology and a dedicated cryptographic security co-processor, aligning to the increased need for secure networked systems.

Complementing AMD’s Embedded R-Series processing platform, Enea Linux is an industry-proven embedded Linux distribution focused on ARM architectures, tailored to meet the desired real-time virtualization and networking characteristics of high-performance embedded communications systems. Enea Linux is composed exclusively of open source development tools, optimized to support all phases of the development process on embedded Linux.

Enea is distinguished as a leading provider of operating system solutions for ARM-based embedded communication systems and is highly active in the Yocto, Linaro, and Open NFV communities. By providing a Yocto-based Linux distribution for NFV solutions, Enea makes it easy to prototype and develop Linux-based software solutions for use with ARM-based processors like AMD’s Embedded R-Series SoC. Utilizing Enea’s Telco Development Platform, Enea customers can quickly get to market with their Yocto-based NFV solutions, or they can acquire a commercial Linux distribution based on the same code they used in the prototype phase with Enea Linux.

Together, AMD and Enea provide a versatile, open, ARM-optimized platform for telecommunications network infrastructure providers to leverage advanced NFV technologies that help reduce complexity and cost.

For more information about Enea’s solutions for NFV, please visit www.enea.com.
For the latest on Enea’s developments in open-source Linux, please visit www.openenealinux.org/.

For more information about AMD Embedded Solutions for communications infrastructure, please visit www.amd.com/en-us/solutions/embedded/communications.