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## **Press Release:**

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# **UNIFY: Bridging the gap between Networks and Clouds**

*EU-funded project presents first results at the European Workshop on Software Defined Networks in Budapest*

The UNIFY consortium, a group of fifteen leading European telecommunication operators, vendors, small and medium enterprises and research institutions, presents the first results of its research on bringing together cloud and networking services at the third European Workshop on Software Defined Networking (EWSDN). EWSDN is a premier event for the European SDN research community, which this year is held from 1<sup>st</sup> to the 3<sup>rd</sup> of September at Hotel Gellert in Budapest, Hungary. The UNIFY project, also as a technical co-sponsor to the event, unveils its innovative architecture in a technical talk accompanied by two proof-of-concept demonstrations.

There is a need for an increased flexibility in traditional telecom infrastructure for faster service creation. Further, services are impeded by the increased complexity of integrating vast networking assets and data centres of telecom providers. On-demand and flexible services supported by various networks and clouds currently require costly reconfiguration and programming of physical hardware.

The UNIFY consortium pursues an *open innovation environment* for telecommunication services leveraging on both networking and cloud resources, similar to mobile applications ecosystems. The UNIFY consortium creates means for the users or service providers *to develop, build, deploy* or even *to operate* their own *rich and interconnected services* through programmability interfaces and combined development and operations (DevOps) services. The UNIFY consortium brings performance optimized cloud execution environments into the network for improved quality of experience.

An open innovation environment allows development of software defined virtualized network functions (e.g., intrusion detection systems, firewalls, network caches, etc.) and their on-demand, flexible but automated deployment into service offerings. Such developments, however, need continuous deployment, integration, testing and monitoring support which are pursued in UNIFY as part of the service provider DevOps efforts.

Virtualized network functions must be hosted by execution environments with performance comparable to traditional hardware-based counterparts. To this end, the UNIFY consortium combines high-throughput packet processing on commodity hardware with flexibility of deployment and operations.

The UNIFY consortium develops a novel unified framework for enhanced software defined networking (SDN) in telecommunications services. UNIFY researches, develops and evaluates means to orchestrate, validate and verify end-to-end service delivery from home and enterprise through aggregation and core networks to data centres. UNIFY also develops and evaluates a universal network node based on commodity hardware for service execution. At the EWSDN '14 conference, we demonstrate how user-specific Network Service Functions can be added to an SDN-enabled Network Node and how Multi-layered Service Orchestration in a Multi-Domain Network Environment can be carried out.

#### *About EWSDN*



This year's European Workshop on Software Defined Networking features paper presentations by top researchers from academia and industry, an

exhibition with poster and demonstrator session as well as two associated tutorials.

Sponsored by Ericsson and by the EC-funded projects ALIEN and UNIFY, the Workshop contributes to the current debate on standardisation and the future of Software Defined Networking, bringing together researchers, regulators and the telecom industry from all over Europe, Asia and the United States.

More information is available at <http://ewsdn.eu/>

#### *About UNIFY*



UNIFY is supported by a research grant from the European Commission. Coordinated by Ericsson Hungary and spanning from November 2013 to April 2016, UNIFY aims at strengthening the position of the European telecom industry in developing innovative and flexible network technologies, using Software Defined Networking. A unified production environment is being developed, enhancing the

integration of services and enabling speedy, efficient and cost-effective data transfer across networks and data centres.

Project partners include Ericsson, Acreo, BISDN, Budapest University of Technology and Economics, Deutsche Telekom, Universidad del Pais Vasco/Euskal Herriko Unibertsitatea, EICT, iMinds, Intel, Hellenic Telecommunications Organization, Politecnico di Torino, SICS, Telecom Italia, Traveling and TU Berlin.

More information is available at <http://www.fp7-unify.eu/>

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