

Evolution von Dienstkontrollmechanismen in Netzen der nächsten Generation und im Internet der Zukunft

Thomas Magedanz and Julius Müller

Technische Universität Berlin
und
Fraunhofer FOKUS
Thomas.Magedanz@tu-berlin.de
Julius.Mueller@tu-berlin.de

Abstract: This half day workshop will provide an overview of the Packet Core Network evolution starting with the introduction of global fixed and mobile next generation network standards and outlining its evolution in regard to the emerging Future Internet, which is driven by international research programmes, such as GENI in the US, FIRE in Europe and Akari in Japan. The main focus will be on the network and service control options and optimization within the 3GPP Evolved Packet Core (EPC) forming today the common packet core architecture for various broadband access networks, including LTE and WiMAX. The tutorial will outline the EPC architecture and address potential EPC application domains, including IP Multimedia Subsystem (IMS) based VoIP as well as internet over the top service architectures with their own service layer control capabilities. Starting from here the tutorial looks at the emerging Future Internet, comprising different research views, such as the internet of things, the internet of services, and the network of the future. Here we introduce the current visions and research topics related to cross-layer functional composition and network virtualisation. The tutorial terminates with outlining how FI concepts could be exploited in NGN/EPC evolution and introducing related software toolkits and experimental platforms of TU Berlin / Fraunhofer FOKUS, namely the OpenEPC (www.openepc.net) and the FUSECO-Playground (www.fuseco-playground.org) enabling comprehensive prototyping in the context of academic and industry research.