



**Call for Papers**  
**IEEE ICC 2011**  
**Workshop on Advances in Mobile Networking**  
**– Towards a Next Generation Mobile Core Network –**  
**June 9, 2011**

**Workshop Chairs**

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**Important dates**

Paper submission deadline:  
October 15, 2010

Accept/ reject notice:  
January 15, 2011

Camera read submission:  
February 15, 2011

Submissions should be in English,  
adopt IEEE paper templates and must  
not exceed 5 pages. For EDAS settings  
file format is PDF, Page size is A4.  
Please see the website for details:

<http://www.docomoeurolabs.de/amn2011/>

Accepted papers will be published in  
the conference proceedings and on  
IEEE Xplore.

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has engaged in either practice.

Mobile networks are at the brink of becoming truly All-IP Networks, providing all services through IP technology. This opens the door for new advancements of mobile systems and all parts of them, along with the efforts taken to advance Internet technology. In fact, there is an urgent necessity to advance the IP based mobile network in the upcoming years. This need stems from the rapid growth of multimedia application traffic that in return requires an unprecedented network capacity increase. However, the revenue will not grow at the same extent as the traffic. Consequently costs per bit are increasing, demanding for higher network efficiency. The efficiency increase is expected for infrastructure provisioning as well as for operational cost. In addition we address innovative user-centric service deployment embracing emerging resources in the network such as storage and processing power that demand for new mobility management and resource management solutions taking service locality, service roaming and user perceived quality into account.

This workshop focuses on the mobile core network. We take a deployment of air interfaces such as LTE-Advanced for well underway and focus in concepts and technologies for the advancement of the core network. Contributions are sought for all network layers ranging from high-speed transport to service delivery platform.

The emerging variety of multimedia services also pushed by the heterogeneity of end systems ranging from traditional mobile phones to high resolution portable smart devices, demands for new, efficient resource management schemes such as mobile network embedded Content Delivery Networks or content specific mobility management schemes. With available processing and storage space in the network, services do not any longer have to remain statically at a central server, but may move closer to the consumer. Such migration is not limited to one operator domain, but service programs may roam between operator networks.

Diversified resource control also demands for a next generation of quality of service provisioning taking the user's Quality of Experience into account. In order to flexibly realize such new network and service solutions a level of indirection between the service delivery platform and the transport network is needed. Sophisticated mechanism are sought to allow for network resource isolations, realizing an abstraction layer for flexible control and management of coexisting, specific networks on one infrastructure substrate. It also allows abstracting from transport networks, supporting the flexible introduction of high speed bit transport through advanced (e.g. optical) network technologies. This addresses a new emerging business environment that reaches from Cloud Computing, Network Virtualization and System Adaptability to the exploding number of 3rd party applications. New players have to be taken into account in an open service market to respond to the economic market pressure that is grounded in fierce competition.



New solutions are sought for expanding the next mobile network and emerging service ecosystems into a ubiquitous service space that includes internetworking with physical objects in the user environment, through means of Radio Frequency Identification, Near Field Communication and advanced user interaction mechanism.

Topics of particular interest include, but are not limited to:

Network aspects for next generation mobile systems such as decentralization, scalability, networked cloud computing, ubiquitous networking environments

Mobile network edge-based service delivery platforms

Mobile content delivery networks

In-network service processing

Advanced roaming concepts (roaming of service programs and content)

Quality of Experience driven network optimization

Reconfigurable, self-organizing mobile network

Network resource management for LTE-Advanced

Mobile network virtualization

Mobile network sharing and network access

Advanced mobility management

Optical network technologies for mobile core network

Energy-efficient networking awareness

