



Call for Papers
First International Workshop on
5G Architecture (5GArch 2015)
In conjunction with VTC-Spring 2015, EU FP7 METIS and iJOIN projects

Scope and Objectives:

Mobile networks have become the main communication vehicle for the upcoming connected society. In addition to humans, billions of machines will be connected to the network in the future, yielding a 10.000 traffic increase beyond 2020. However, such traffic increase does not necessarily lead to a similar increase in the revenue of mobile network operators, which need to make very high investments to handle all this traffic. This challenges the deployment of a mobile network that can satisfy the requirements of the society and at the same time is sustainable for network operators. A fundamental piece to address this challenge is the design of a novel mobile network architecture that provides the necessary flexibility to offer new services in an efficient way and inherently can share or distribute infrastructure resources dynamically, such that operators can increase their revenue through the new services, while leveraging the efficiency of the architecture to do so in a cost-effective way.

Current mobile networks are not well suited to address the above challenge. In 4G mobile networks, large effort was made in making the air interface fully adaptive to changing radio conditions, but lack similar functionality to optimize the network side. Eventually, while current architectures have been very successful in the last few years, they do not provide the required flexibility to cope with the service and traffic diversity required by 5G mobile networks as well as the current trends in terms of topologies. Such trends (in terms of traffic and topologies) make networks increasingly heterogeneous and require tailored solutions to adapt to each specific scenario and service in an efficient way. In order to overcome the limitations of today's networks, the central goal of this workshop is to discuss about future mobile network architectures that can flexibly adapt its operation to the specific characteristics and requirements of a given service and scenario.

We solicit original submissions in the following areas:

- Flexible centralized RAN architectures and C-RAN
- Functional split and function placement
- Multi-service architectures
- 5G wireless technologies
- Cloud-based 5G mobile architectures
- Network Function Virtualization
- Multi-tenancy architectures
- Convergence of CN and RAN
- SDN for wireless functionality
- Novel mobility management protocols

Important Dates:

Paper Submission: December 17th, 2014
Acceptance Notification: January 26th, 2015
Camera-Ready: February 16th, 2015

Submission Guidelines:

Papers should be written in English with a maximum length of 5 pages (two-column A4, 10-point font) following the standard IEEE manuscript template. Two additional pages is allowed with a charge of USD100, if accepted. Papers need to be uploaded by <https://vtc2015sp-wksp.trackchair.com> and submitting the paper to "W4: First International Workshop on 5G Architecture (5GArch 2015)" or directly to <https://vtc2015sp-wksp.trackchair.com/track/1377>

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