

Proposal for a Research Group on Software Defined and Virtualized Wireless Access

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Introduction

- IEEE ComSoc is looking for opportunities to contribute to standardization on hot/emerging topics
- ComSoc community has strong competences on current trends in communication-related topics
- On April 25th, 2014, a rapid standardization workshop was held in Newark Airport, NJ (coordinated by Mehmet Ulema)
- Several opportunities were identified

RG on Software Defined and Virtualized Wireless Access

- To identify and address the research issues that need to be solved and assess the feasibility of launching an IEEE standardization effort on Software Defined and Virtualized Wireless Access.
- Possible outcomes of the RG include one or more white paper(s) and/or a PAR toward the formal standardization within IEEE.
- Currently under evaluation by the ComSoc Standards Board

Scenarios

- Scenario 1 (end-to-end wireless SDN):
 - Extending SDN to (mobile) devices at the network edge (with separation of control and data plane);
 - Joint optimization of end-to-end transport and Radio Access Network.
- Scenario 2 (SD and virtualized wireless access):
 - Using SDN to control and program network resources (e.g. migrating from the SON concept to SDN network control);
 - Heterogeneous multi-owner multi-vendor Radio Access Network control and management (e.g. CRAN, softRAN);
 - Interoperability among layers 1 to 3 (for definition of a programmable data path);
 - Extracting and managing information to enable wireless network control (in terms of mechanisms – HOW – and KPIs – WHAT)

What do we need by TCs?

- PARTICIPATION!
 - TCs defined the clusters of competence in ComSoc
- Interested people are suggested to contact me:
 - granelli@disi.unitn.it
 - granelli@ieee.org
- Next:
 - Mailing list and community website
 - Start of activities!