

EUCNC 2016 Workshop W04a

Next Generation fronthaul/backhaul integrated transport networks

Date: Monday, June 27th 2016

Abstract: The Fifth Generation of communication networks is anticipated to require a revamp of all the segments in the network infrastructure, including access, transport and core network. With focus on the transport segment, it is the vision of the 5G-PPP 5G-Crosshaul project that the transport network of the future will evolve from today's separate and incompatible fronthaul and backhaul into an integrated flexible Crosshaul network. At the heart of such a network lie Network Function Virtualization (NFV) and Software Defined Networking (SDN) to lower costs and ensure flexibility and programmability, as well as high bandwidth wired and wireless link technology integrated together to support the 5G high capacity and low latency requirements. All these technology enablers are envisioned in a framework where the network resources are flexibly shareable between different tenants (multi-tenancy) hence supporting various services (e.g. for the different tenants) to coexist on top of this common shared infrastructure. This workshop aims at bringing together top-notch researchers in the area of fronthaul and backhaul integration under the umbrella of the EU H2020 5G-PPP 5G-Crosshaul project to share their ideas and research results, and hence create an opportunity for synergy in particular with other 5GPPP and H2020 5G projects, taking advantage of the EuCNC'16 venue as a central hub for European research.

Programme:

9:00 – 12:00 – Moderator (Antonio De La Oliva, UC3M)

09:00 – 09:05 – Welcome (Arturo Azcorra, UC3M)

09:05 – 10:20 - Session 1

1. 09:05-09:20 "5G-Crosshaul Concept and Architecture" - Xavier Costa (NEC)
2. 09:15-09:35 "5G-Crosshaul: a 5G integrated backhaul and fronthaul flexible transport network" - Fabio Cavaliere (Ericsson)
3. 09:30-09:50 "5G-Crosshaul Control and Data planes" - Thomas Deiss (Nokia)
4. 09:45-10:05 "5G-XHaul: Flexible functional splits and network virtualization for future transport networks" – Daniel Camps (I2CAT)
5. 10:00-10:20 Introduction to the COMBO project – Dirk Breuer (DT)

10:20 – 10:30 Coffee Break

10:30 – 12:00 Session 2

1. 10:30-10:45 "Orchestration of Crosshaul Slices From Federated Administrative Domains: the 5GEx and 5G-Crosshaul approach" – Carlos J Bernandos (UC3M)
2. 10:45-11:00 "5G NORMA: An adaptive mobile network architecture" – Peter Rost (Nokia)

3. 11:00-11:15 “SDN orchestration and virtualization of heterogeneous multi-domain and multi-layer transport networks in the STRAUSS project” – Raul Munoz (CTTC)
4. 11:15-11:30 “NetIDE: An Integrated Network Programming Framework” – Tinku Rasheed (CREATE-NET)
5. 11:30-11:45 “Flexible Ethernet Fronthaul” – Volker Jungnickel (HHI)
6. 11:45-12:00 “Bringing Application-awareness into Future Transport Networks: the ACINO approach” – Domenico Siracusa (CREATE-NET)