# Live Demo at ITU, Genova, Switzerland, July 2017

Title: Experience Live Software-defined RAN slicing

This demo shows how to slice a cloudified radio access network that consists of a fronthaul segment between the remote radio unit (RRU) and centralized/distributed unit (CU/DU) and a backhaul segment between CU/DU and the realtime RAN controller. Through the separation of the RAN control plane and data plane coupled with the virtualized RAN control functions, real-time monitoring and control applications are developed on per-slice basis to demonstrate fine-grain RAN programmability. This allows different levels of coordination among RAN infrastructure elements by dynamic placement of virtualized control functions following SDN and NFV principles for adapting control over time and space for easing network operation and evolution. The proposed framework features RAN resource abstraction (e.g. radio and spectrum resources) and its consolidation through network graphs, and is complementary to the ongoing solutions of Network Slicing, and supports the 3GPP Dedicated Core Network (DCN) vision.

Through the demo, we will create two RAN slices, leveraging both the OpenAirInterface and Mosaic-5G platforms, to demonstrate a bi-directional video streaming on two smart phones connected to their respective slices and observe their perceived quality of experience by enforcing slicing policy.
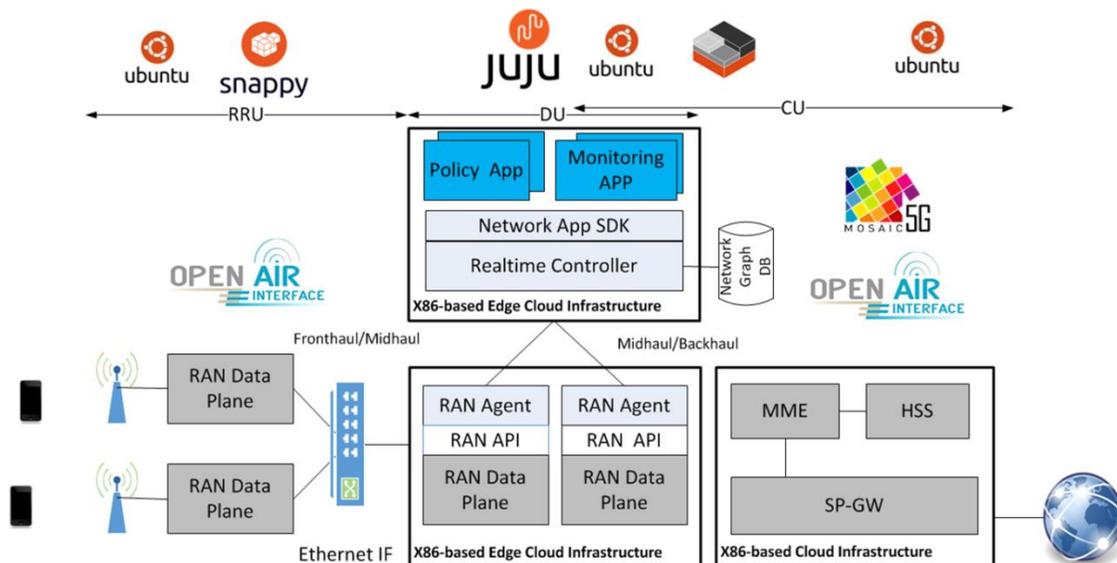
Demo highlights:

- RAN Functional split in support of 3 tier RAN architecture
- Separation of Control and data plane in RAN
- Hierarchical Realtime controller
- RAN agent, APIs, and data models
- Network graph data base
- Network application SDK
- Network applications
  - Status Monitoring APP
  - Radio resource management app to enforce RAN slicing policy

Additional Links

Link to the program :

http://www.itu.int/en/ITU-T/Workshops-and-Seminars/201707/Pages/Programme.aspx

5G Workshop highlights video

https://www.youtube.com/watch?v=PoZPQyx8rS4&feature=youtu.be

Interview

https://www.youtube.com/playlist?list=PLpoIPNlF8P2PMXAymXzdCLa-guIAJuFwV

Supporting projects :

Contact Information:

- OpenAirInterface: contact@openairinterface.org
- Mosaic-5G: mosaic-5g@lists.eurecom.fr