

Enabling Virtual RAN and EPC experiments in WISHFUL (EVER-WISHFUL)

Scuola Superiore Sant'Anna, Pisa, Italy

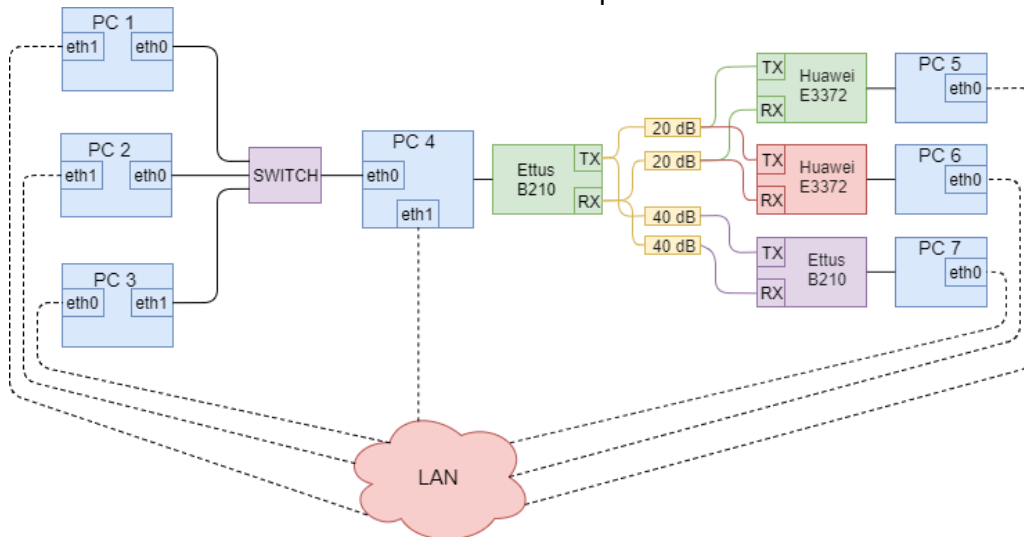
Goals

- Provide experimenters both hardware and software facilities to experiment the eNB and NG Core Function Virtualization.
- Two types of user access to the testbed have been defined:
 - basic user access.
 - standard user access.
- Three sample experiments have been defined:
 - a standard LTE network;
 - Cloud RAN (C-RAN) scenario;
 - Containerized Cloud RAN (C-RAN) scenario

Objectives Achieved

- Two set of UPIs have been defined:
 - activation/deactivation UPIs: activating or deactivating the OAI LTE/5G entities
 - parameter configuration UPI: for changing the default parameters of OAI entities.
- A list of parameters is provided for the configuration of physical and network parameters (e.g., MME realm name, eNB TX gain and eNB RX gain).
- Docker based Aggregate Manager is considered.
- ARNO Testbed UPIs for OpenAirInterface platform.

Testbed Setup



Conclusions

- A deployment of OAI mobile network software in different flavors is possible
- Tests performed during the project showed the successful implementation of the proposed extensions.
- ARNO Testbed supports UPIs unification between all LTE WISHFUL platform.

Dissemination

- H. Gupta, D. Manicone, F. Giannone, K. Kondepu, A. Franklin, P. Castoldi, and L. Valcarenghi, "How much is fronthaul latency budget impacted by RAN virtualisation ?" Conference on Network Function Virtualization and Software Defined Networks: Workshop on Federated Testbeds for NFV/SDN/5G: Experiences and Feedbacks (Fed5G), Nov 2017.

