

Section D. Leaflet

Title of the experiment:

FIRE LTE Experimentation over WiSHFUL (FLEXFUL)

Name of organisation and logo

University of Thessaly



UNIVERSITY OF
THESSALY

Goal(s) of Experiment/Extension:

FLEXFUL’s goals are twofold: 1) Developing the appropriate extensions to the WiSHFUL Unified Programming Interfaces (UPI) framework in order to support experimentation with LTE resources in FIRE and 2) to integrate and offer the NITOS testbed to the WiSHFUL community.

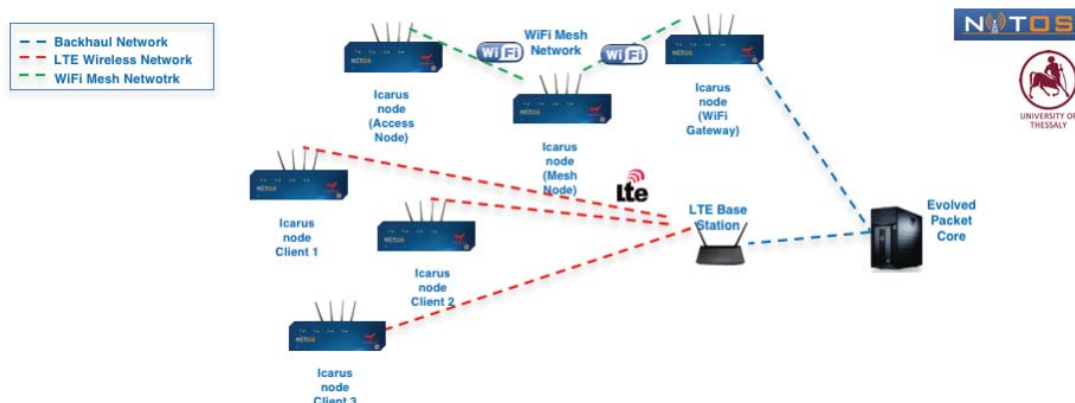
Main challenge(s) of Experiment/Extension (about 50 words, but definitely not more than 400 characters including spaces):

The main challenges of the extension are the following:

- 1) Mapping the tuneable LTE parameters to the existing UPI interfaces
- 2) Developing support for Base Stations, EPCs and UEs
- 3) Provide unified API for resources that are configured through different low level interfaces
- 4) Performing a mobile LTE to WiFi offloading experiment

Description of setup of Experiment/Extension, including 1 or maximum 2 figures

For the evaluation of the experiment, we use the NITOS testbed, and multiple nodes configured as either a mobile client, or to form a multi-hop WiFi mesh network (IEEE 802.11s)

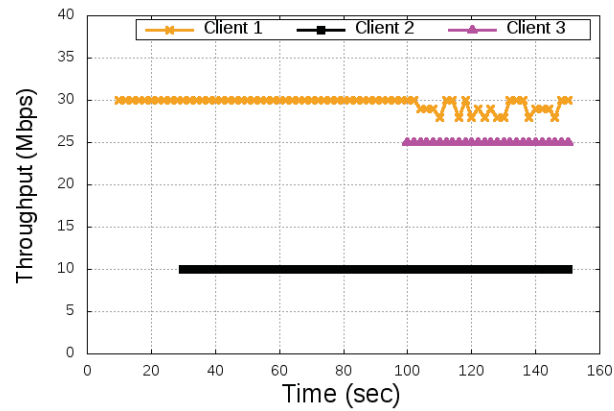


Main results, illustrated by 1 or maximum 2 figures with clear, but concise figure captions:

The following experiment run is demonstrated, for the given SLAs

Client ID	Requested SLA
Client 1	30 Mbps
Client 2	10 Mbps
Client 3	25 Mbps

Measured Throughput for the clients



Conclusions

- The WiSHFUL UPI framework is easily extensible
- Wide heterogeneity of resources available in the WiSHFUL testbeds
- Novel use cases can be conducted over the testbed facilities

Feedback

Thanks to the software tools and hardware provided to us by WiSHFUL, we are able to evaluate experimentally several of the 5G-related use cases.