

Les rencontres du NUMÉRIQUE de l'ANR



IDEFIX - Intelligent DESign of Future mobile Internet for enhanced eXperience

Selected items ...

Mobility and Control

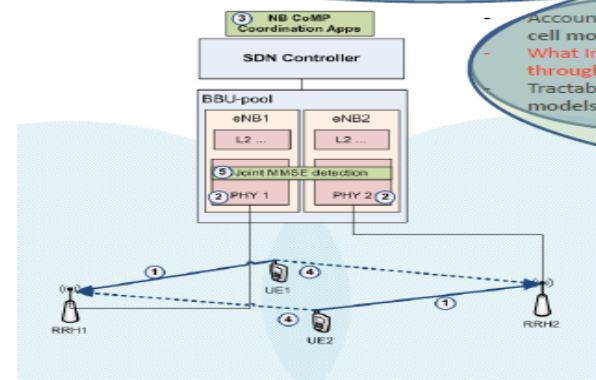
- Context: availability of geo-localized measurements (GLM) and their maps
- How can we exploit GLM to improve QoS of users in mobility?
- Forecast scheduling using GLM maps considerably enhances QoS, from 40-120% throughput increase according to studied scenarios

Mobility and Performance

- Account for intra- and inter-cell mobility
- What Impact on user throughput and handover?
- Tractable mathematical models
- New queuing models
- Opportunism of moving users : increase of cell capacity up to a limit better throughput for both static and moving users ...
- ... at the expense of handover

Multi-Point Coordination

- A promising technique to mitigate interference
- Need to control the induced radio resource consumption
- A novel coordination scheme (patent pending)
- Coordination triggered only when beneficial
- To be tested on real traffic



- Programme INFRA 2013
- TYPE DE RECHERCHE: universitaire et industrielle
- COÛT COMPLET: 779 667 €
- AIDE DE L'ANR: 233 900 €
- DATE DE DEMARRAGE: Sept. 2013
- DUREE: 42 mois
- SITE WEB: <http://lia.univ-avignon.fr/idefix/>

- Coordinateur du projet: ORANGE
- Partenaire 1: INRIA
- Partenaire 2: Institut MINES TELECOM
- Partenaire 3: NOKIA
- Partenaire 4: UAPV
- Partenaire 5: UPMC

Project Objectives : Analyze new architectures and user perceived performance for future (4G, LTE-A, pre-5G) mobile networks through various modelling techniques: **Multi-Point Coordination** (System Level Simulation), **Hybrid architecture LTE/DVB** for mobile TV (Game Theory, Real Options), **Impatience of users**, **Impact of user displacement** on throughput and handover (Queueing Theory), **Use of geo-localized measurement** to increase throughput (Control Theory)

Adresse mail du contact
alain.simonian@orange.com

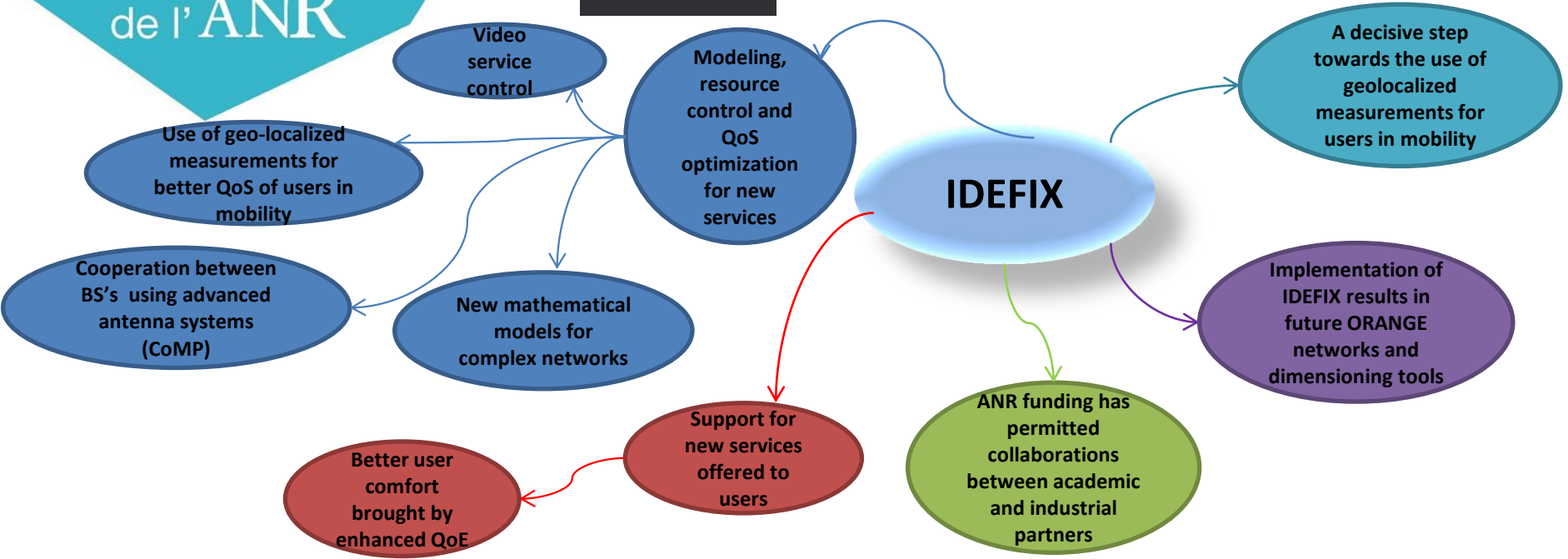


16|17 NOVEMBRE 2016





IDEFIX - *Intelligent D*esign of *F*uture
*m*obile *I*nternet for *e*nhanced
*e*xperience



16|17 NOVEMBRE
2016