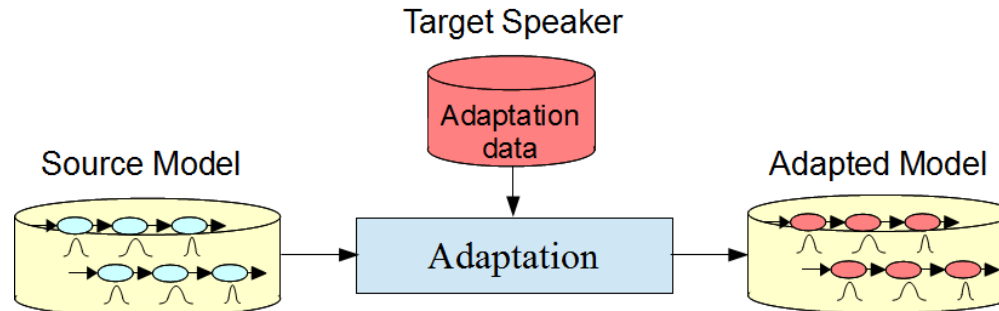


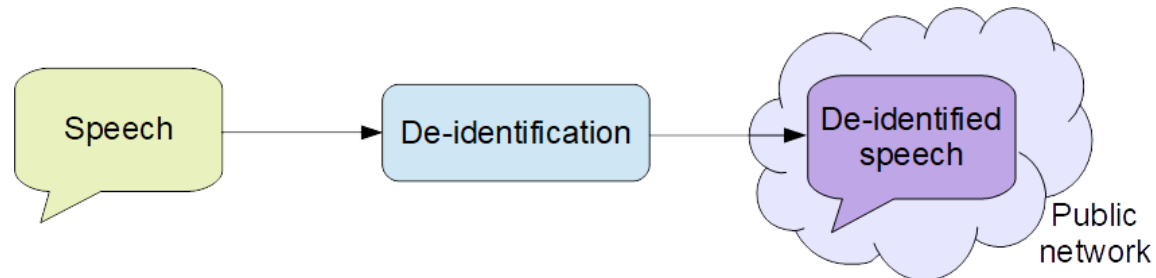
- **Voice Personalization**

HMM-based speech synthesis: adaptation techniques to modify speaker identity.



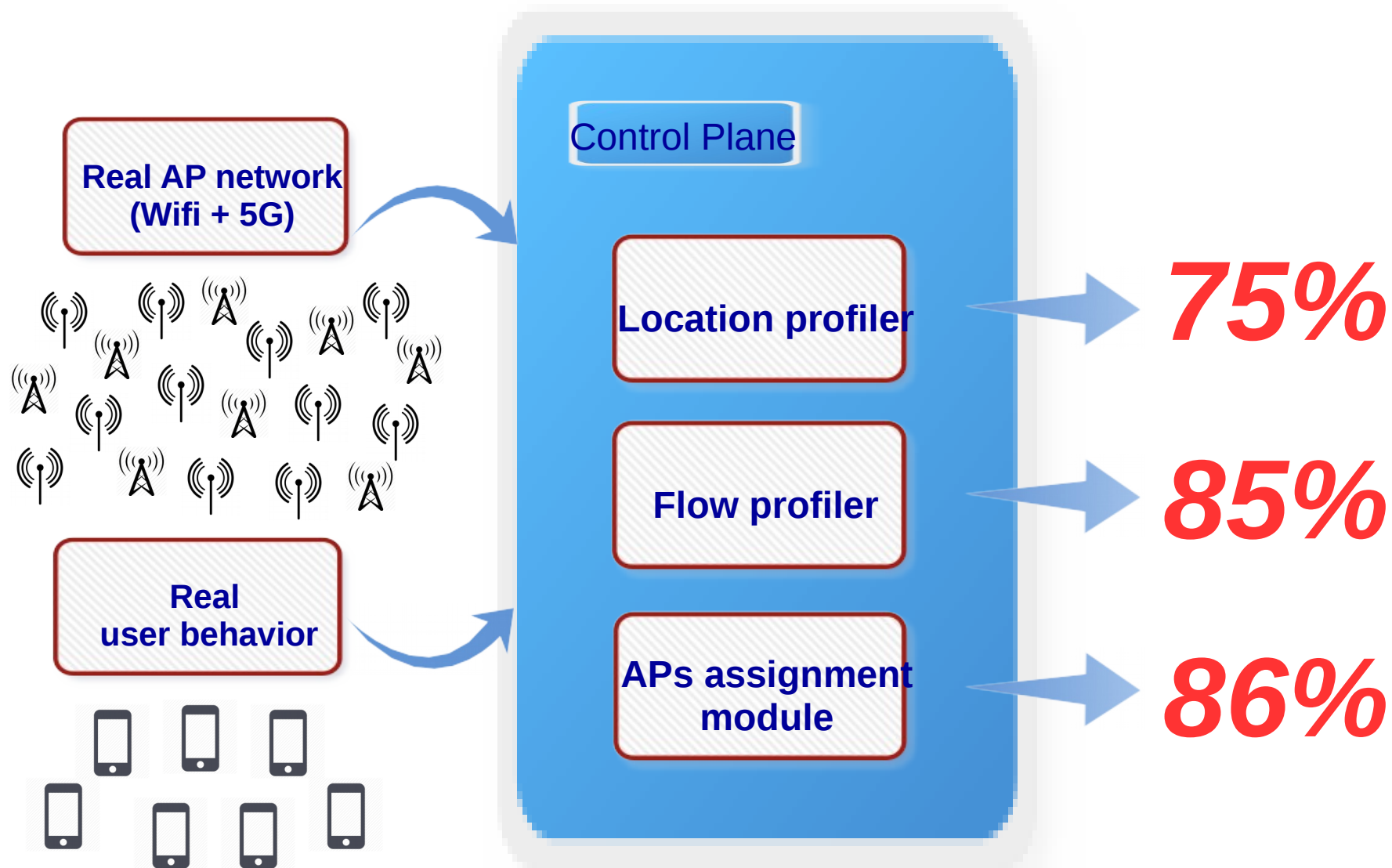
- **Speaker De-Identification**

Privacy protection: voice transformation techniques to hide speaker identity.



SDN-ORIENTED GLOBAL NETWORK OPTIMIZATION ALGORITHM

Saber Mhiri, Cristina López Bravo,
Francisco Javier González Castaño
AtlantTIC, GTI Group
University of vigo



Homomorphic Lattice Cryptosystems for Secure Signal Processing

Workshop on Monitoring PhD Student Progress. June 14-15, 2018.

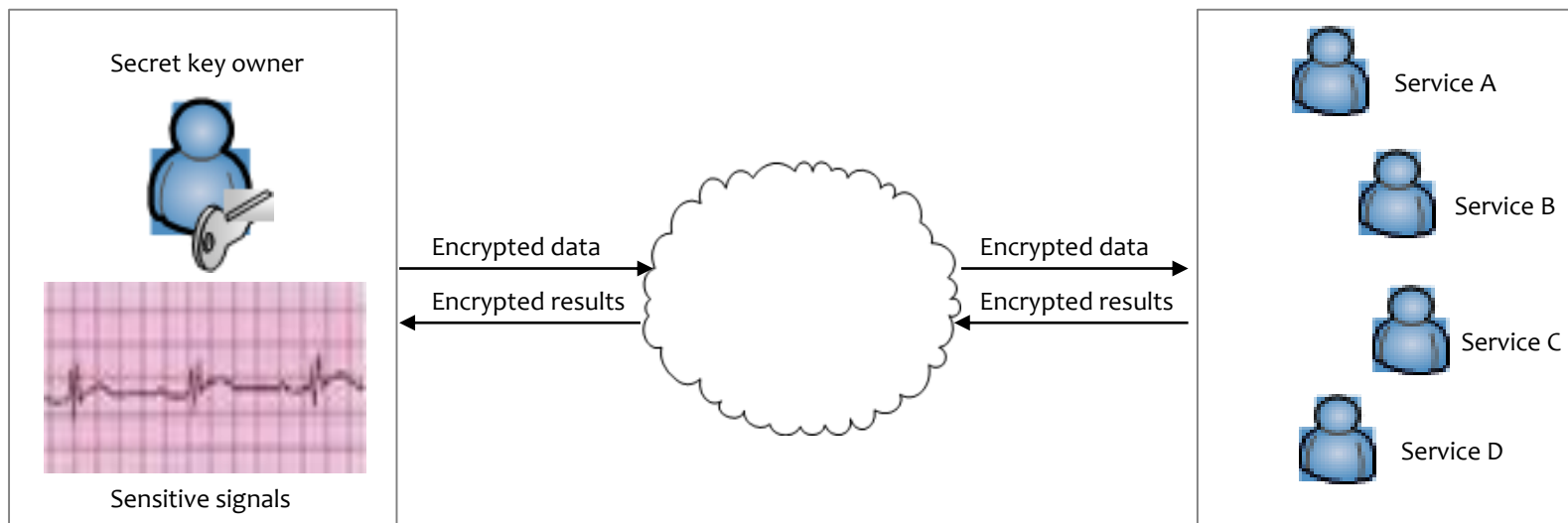
Alberto Pedrouzo-Ulloa, Advisors: Juan Ramón Troncoso-Pastoriza, Fernando Pérez-González
{apedrouzo@gts.uvigo.es, juan.troncoso-pastoriza@epfl.ch, fperez@gts.uvigo.es}

Main objective

- Privacy protection when dealing with sensitive signals in untrustworthy environments through the use of SPED (Signal Processing in the Encrypted Domain)

Specific objectives

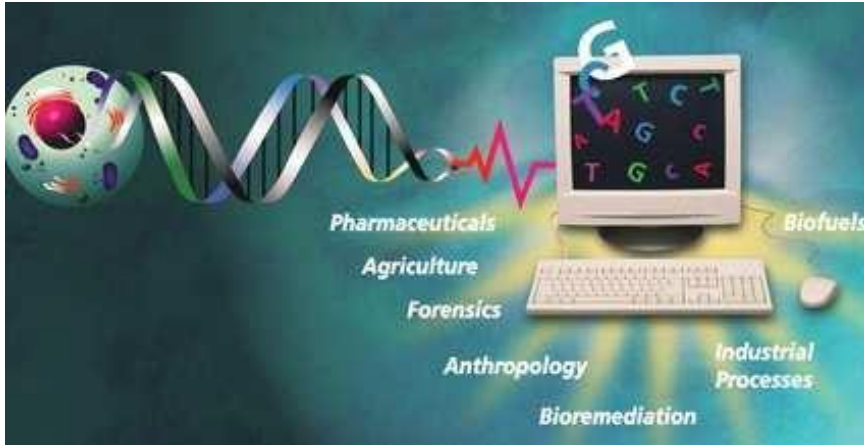
- Privacy protection when dealing with multidimensional signals
- Design of new primitives and protocols for encrypted signal processing
- Security analysis and development of encrypted compression schemes



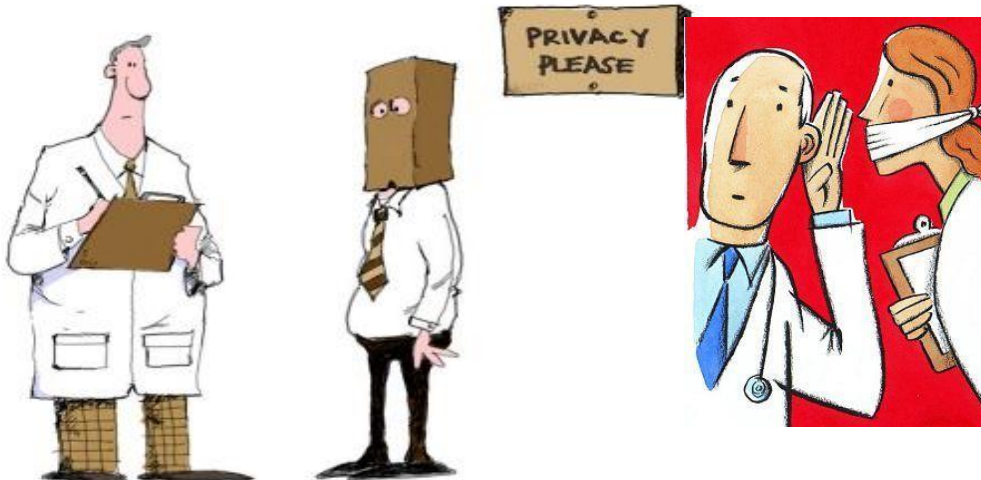
Secure Signal Processing for Genomic Privacy Protection

Mina Namazi

Motivation



Thesis Objectives



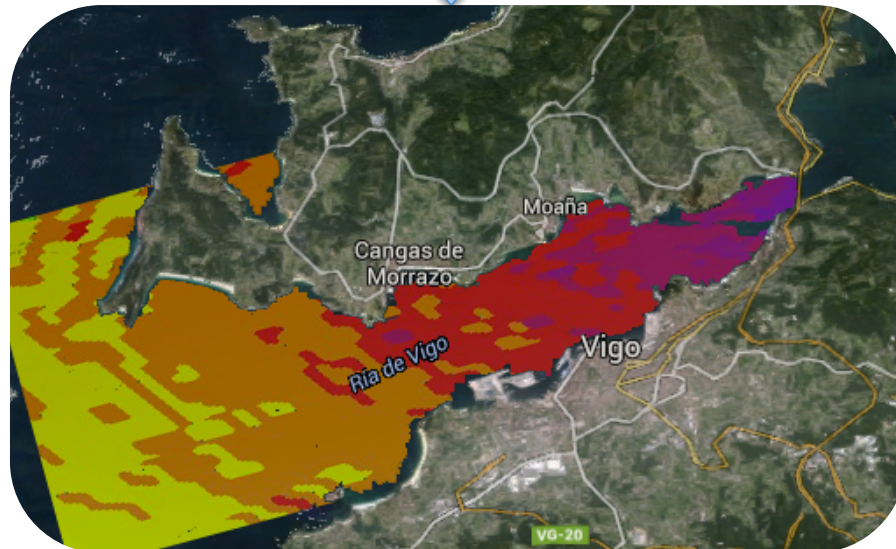
Results



UNDERWATER NOISE MAPPING METHODOLOGIES FOR SHALLOW WATERS

Author: David Santos-Domínguez | Thesis advisor: Soledad Torres-Guijarro | Affiliation: Sonitum (TSC, Universidad de Vigo)

- O1 Underwater noise measurement methodologies.
- O2 Propagation Losses calculation using both experimental and analytic models.
- O3 Study of underwater noise prediction software.
- O4 Classification of the different noise sources available in Ría de Vigo.
- O5 Noise map construction methodologies.
- O6 **Construction of an underwater noise map of Ría de Vigo.**



Ría de Vigo underwater noise map recreation

CONTRIBUTION TO THE VIRTUALIZATION TECHNIQUES FOR 5G NETWORKS

Abel Fernández Nandín, supervised by Felipe Gil-Castiñeira

Information Technology Group (GTI)

Major Goals

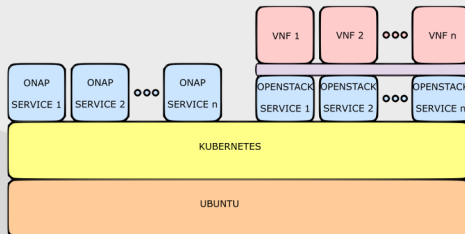
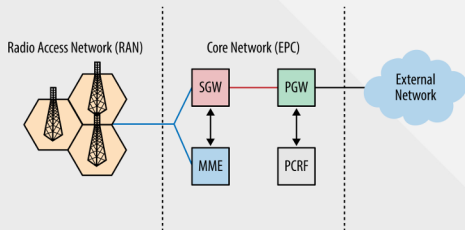
- Evaluate the traditional virtualization techniques and architectures
- Design new network architectures that help meet 5G requirements
- Measure the improvement between traditional and new approaches

Current results

- Virtualization of the eNodeB (RAN) and EPC
- Review of the state of the art and setup of a testbed
- New proposal for the containerization of the ONAP services for VNF deployment

Future Work

- Integration of lightweight virtualization into new containerized architectures in the context of Operator Core Networks
- Definition and measurement of quantitative metrics that compare traditional and new approaches
- Preparation of a journal publication about VNF containerizing



GENERATION OF KNOWLEDGE IN DYNAMIC FINANCIAL MARKETS WITH SUPERVISION

AUTHOR: Óscar Barba-Seara

ADVISORS: Milagros Fernández-Gavilanes, Javier González-Castaño

AFFILIATION: AtlanTTIC Research Center, University of Vigo

Universidade de Vigo

atlanTTIC research center
for Telecommunication Technologies



- Obtain a multi-context solution for short text classification in the financial area



- Test the results on real business context.
- Classify banking movements for personalized marketing according to the user profile & interests



- Make a efficiency & scalable approach to an opportunity in PSD2 environment.



- Great amount of information available online.
- Growth financial solutions and their information.

- Short texts have less features and higher irregularity than longer texts.
- Short text classification based on a SVM classifier combined with linguistic knowledge is used to learn and label financial short text samples.
- The proposed approach produces better classification accuracy results when lexic knowledge is used as a feature as well as the information related to the amount and date of the banking movement.
- Test on a manual annotated dataset with over 30,871 banking transaction descriptions.
 - Joint Project between GTI & Coinscrap Finance SL [9/2017 and 2/2018]



New Multibeam Processing Schemes for High Throughput Satellites

Tomás Ramírez
Advisor: Carlos Mosquera

