


# Magister Solutions Ltd

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Magister Solutions has a unique collection of world class expertise in the area of mobile, satellite and security technologies.

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## Our Services

### R&D

Developing new RRM concepts, algorithms and solutions for both user devices and networks is one of the cornerstones of our expertise.

### Simulators and Test-beds

We are professionals to design, implement and maintain software based simulators modeling real world wireless system behavior, interactions and protocols in detail.

### Trainings

Our trainings include wireless telecommunication and simulator related courses (LTE, LTE-A, NS3, ...) . We have ready-made courses but you can ask tailored ones.

### Advisory and Software

Advisory services and high-end software solutions supplement our service offering . See our own products and how we could help you with your projects

# Simulators and test-beds – Examples

## Simulation and Modeling – Use Cases



**Self Optimizing Networks**  
Enhanced network and handover performance through dynamic load balancing

**Drive Test Minimization**  
Coverage Optimization with Extended Radio Link  
Failure Reporting

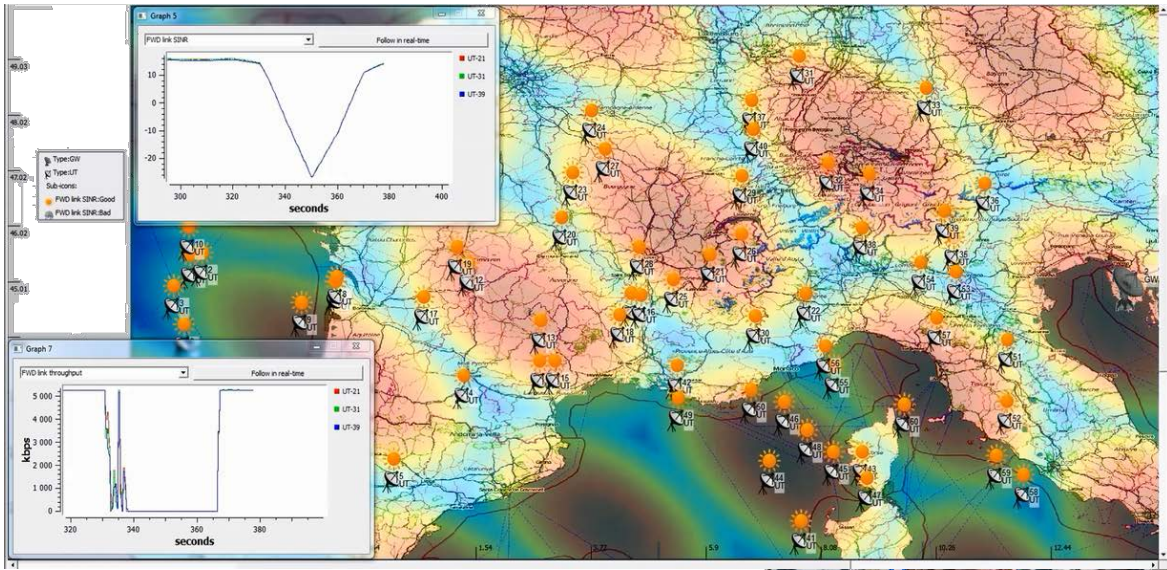
**LTE VoIP**  
User Equipment Energy Efficiency and battery savings versus LTE  
Network Performance

**Next Generation Mobile Network (operator alliance)**  
Typical user data rates in contrast of LTE and HSPA system peak data rates

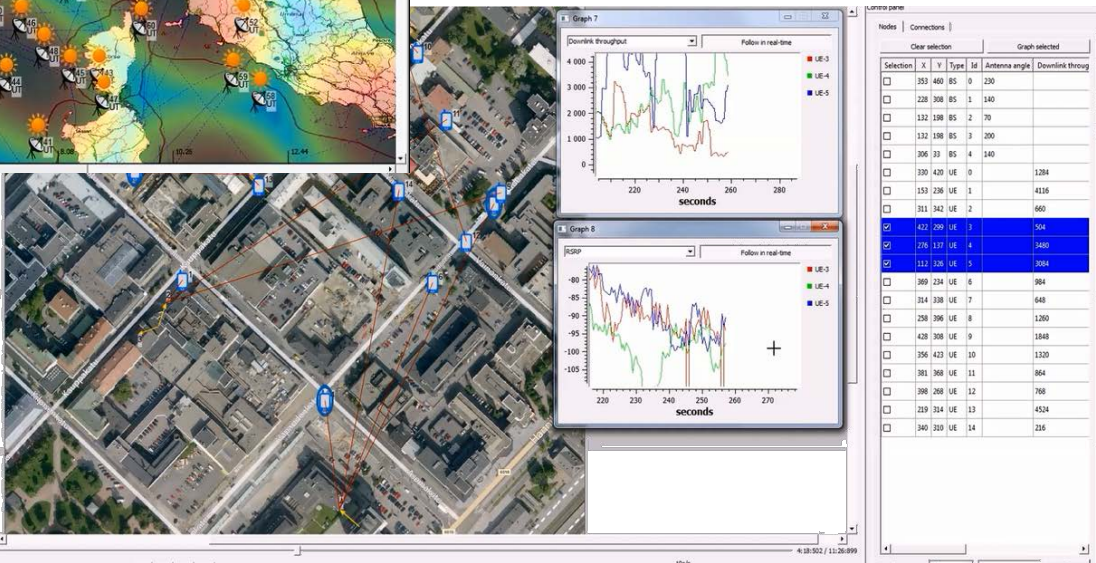


# Simulators and test-beds

NS-3 based Magister tool with modules for LTE (mobility extension) and satellite communication



Plug&Play real devices to simulator!



Download demo video:  
[https://www.dropbox.com/s/er5viu7jk5x9saa/NEFPlayer\\_demo.mp4](https://www.dropbox.com/s/er5viu7jk5x9saa/NEFPlayer_demo.mp4)

# Demonstration



- SNS3 - Satellite Network Simulator 3
  - Simulator (module) developed on top an open source Network Simulator 3 (ns-3) platform
  - Multi-spot beam satellite network by
  - Baseline developed within ESA ARTES 5.1 project
  - [satellite-ns3.com](http://satellite-ns3.com)



- NEF player simulator independent visualization
  - Visualization tool for visualizing the internals of the simulator for demonstration and debugging purposes
  - Currently used on top of proprietary simulators, custom demonstration scripts and Network Simulator 3