

Cognet

- Research & Innovation Action
- Overall budget of ~6 Million euro
- Consortium members
 - TSSG (Coordinator)
 - IBM
 - Alcatel Lucent
 - WeFi
 - Telefonica I&D
 - Universidad Politécnica de Madrid
 - VicomTech
 - Fraunhofer Fokus
 - Technical University of Berlin
 - University of Trento
 - Interroutes

What is CogNet about?

- Today Network Management software is semi automated but still requires human intelligence to detect and correct problems
- This technology is being stretched by 4G networks
- And will be completely incapable of managing 5G/IOT networks
- CogNet aims to collect the vast data from networks and apply Machine Learning algorithms to detect and correct issues and allow the network to organise and manage itself

Objectives

- R&D for Network Management at the 5G/IOT scale
- Addressing:
 - Network Data Collection
 - Demand Prediction with Smart & Efficient Resource Mgmt
 - Autonomics & Self Organisation
 - Error, Fault & Degradation detection and correction
 - Machine Learning algorithms applied to the above
 - Substantial integration with NFV & SDN technology
 - Use of and contribution to O/S such as OpenDayLight, OpenNFV
 - Demonstrable applications using real world data.

Impact

CogNet will help maintain Europe's lead in Network Management technology

- Capability to efficiently manage networks of scale
- Cost and Energy usage reductions
- Improved QoS for the end user
- Better Security & Fault Tolerance
- Increased sales, new market opportunities and more jobs in this sector



Relation to 5GPPP program

CogNet addresses a number of the specific areas of interest of the 5GPPP

- P11 Cognitive Network Management (Main)
- P13 5G Network Security and Integrity
- P14 Virtual Network Platform

Architecture

