

5G-CORAL: A 5G Convergent Virtualised Radio Access Network Living at the Edge



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END DATE: 31/08/2019

COST: 3,856,973.75€ including
2,497,223.75€ from EU H2020

MORE INFORMATION

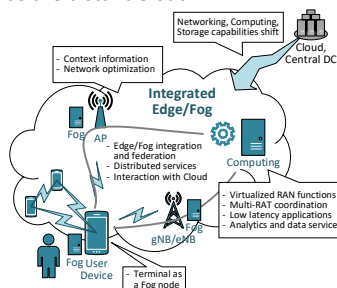
www.5g-coral.eu

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MAIN OBJECTIVES

- o Develop a system model including use cases, requirements, architecture, deployment scenarios, and business models to design and validate the 5G-CORAL solution.
- o Design virtualised Radio Access Network (RAN) functions for multiple RATs including Cellular, Wi-Fi and IoT, data services, and users and third party low latency applications for hosting in the 5G-CORAL integrated Edge and Fog computing System (EFS).
- o Design an Orchestration and Control system (OCS) for dynamic integration and federation, and optimised allocation of 5G-CORAL EFS computing resources, including the interworking with other (non-EFS) domains such as the distant Cloud.



Proof of Concepts (PoCs)

5G-CORAL project be validated in testbeds with PoCs:

1. Augmented Reality Live Navigation in Taiwan shopping mall

Features:

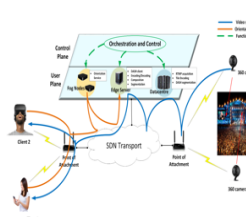
- > Distributed Fog Architecture
- > Multi-RAT for localization
- > Low-Latency communication
- > Unified Orchestration and Monitoring across different entities
- > Automatic deployment for Distributed computing



2. Virtual Reality, a showcase of 360 video streaming

Features:

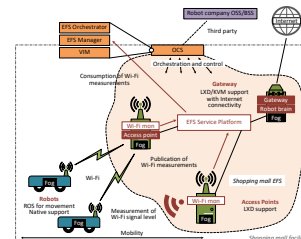
- > Multi-Tier Architecture
- > Distributed Intelligence
- > Higher bandwidth gain
- > Decreased deployment cost
- > Heterogenous nodes integration
- > Unified Orchestration and Control Platform for various microservices



3. Fog Assisted Robotics

Features:

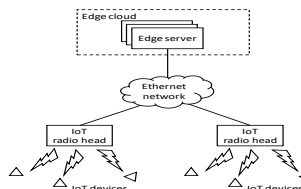
- > Multi-RAT
- > Low Latency communication
- > Localization
- > Distributed Fog Architecture
- > Migration of the Functions on the move
- > Automatic Instantiation



4. Multi-RAT IoT Gateway with Edge server

Features:

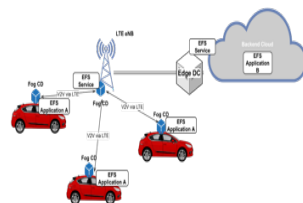
- > Multi-RAT
- > Communication throughput
- > Automatic Instantiation
- > Edge Server



5. Enhanced Safety in Connected Cars

Features:

- > Multi-Tier Architecture
- > Low latency communication
- > Reliability
- > Distributed Fog



Summary of Overall Achievements

5G-CORAL project also kept focusing on communication, dissemination, standardization and exploitation. We have several significant achievements in Year 1 and Q1 of Year 2 listed in the table below.

Activities		Achievement
Press and Media	Public Summary	1
	Leaflet	1
	Poster	2
	Press Release	9
	Videos	6
Public Presentations		20
Education and Training		1
Publication		16
Organized Events		5
Open Source Contributions		1
Exhibitions	Booth	2
	Demo	8
Standard Dissemination		4
Standard Contributions		27

Supported by the



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