

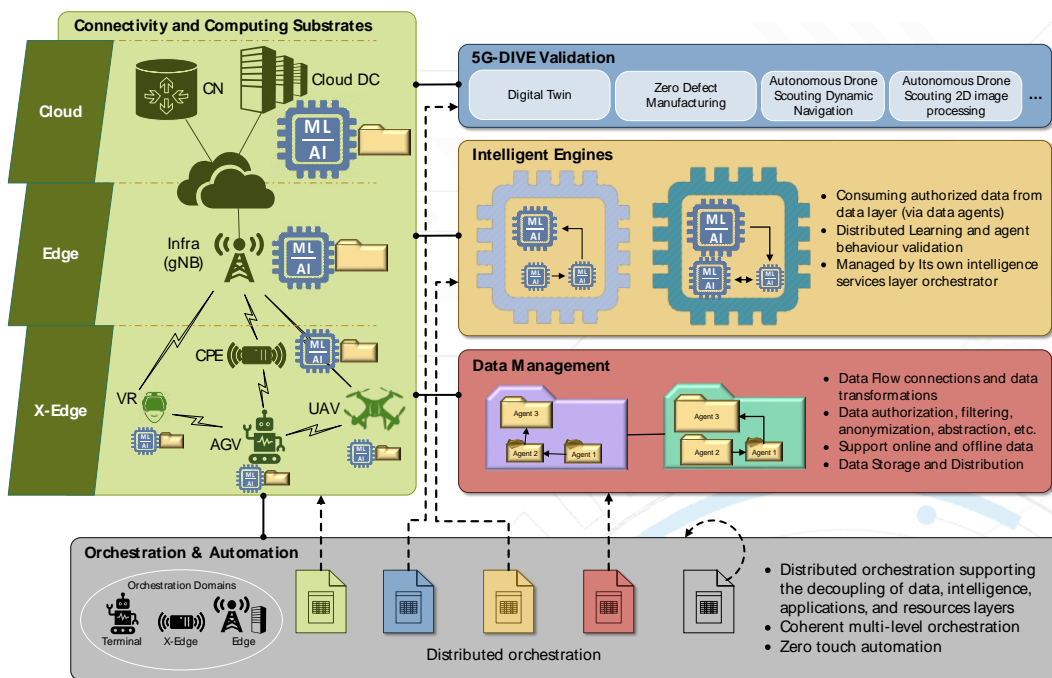
5G-DIVE: EDGE INTELLIGENCE FOR VERTICAL EXPERIMENTATION

VISION

5G-DIVE is an end-to-end Platform-as-a-Service (PaaS) build on top of an Edge and Fog computing platform (developed by the project 5G-CORAL).

5G-DIVE aims to enhance the management and automation of business processes of the 5G-CORAL platform using **data analysis** and **Artificial Intelligence (AI)** to maximize the value proposition of 5G for different type of **vertical industries**.

CONCEPT



TOP-5 RESEARCH CHALLENGES

- Develop and validate through trials end-to-end 5G connectivity customized to the targeted vertical applications in their actual deployment environments.
- Identify gaps and develop technical solutions for enhancements of current 3GPP 5G releases for best support of the targeted vertical applications.
- Enhance the orchestration and control functions such as federation, orchestration, and enforcement of SLAs, using DLT (Distributed Ledger Technologies) and AI (Artificial Intelligence) techniques.
- Support interoperability amongst distributed heterogeneous intelligence agents.
- Optimize the balancing of computing load and power across the different computing tiers through novel DRL (Deep Reinforcement Learning) schemes.

USE CASES

Industry 4.0

- Digital Twin application that enables real time control, through a digital replica, of a robot arm.
- Zero Defect Manufacturing system to automatically detect defects in production lines using cameras and AI/ML algorithms with the help of edge/fog computing.

Autonomous drone scout:

- Drone fleet navigation enabling a better piloting of the drone swarm by providing intelligence onto the drones.
- Intelligence processing of images onto the drones to provide more automation in the scouting of the drones.



PROJECT COORDINATOR

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START DATE

01/10/2019

END DATE

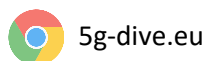
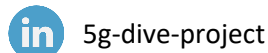
30/09/2021



COST

4.304.416,25€

CONTACT



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