OPEN & TRUSTED FOG COMPUTING PLATFORM

MANAGE SCALABLE, HETEROGENEOUS & SECURE IoT SERVICES

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NEW FORMS OF CLOUD COMPUTING

ARE ALREADY BEING DEVELOPED, AND EUROPE IS CLEARLY TAKING THE LEAD IN THIS RESPECT. AN EXAMPLE IS 'FOG-COMPUTING', WHICH IS BASED ON FEDERATING THE COMPUTATION OVER A LARGE NUMBER OF MACHINES CONNECTED TO A NETWORK. THIS CAN BRING MANY ADVANTAGES, ESPECIALLY WITH REGARDS TO THE GROWING INTERNET OF THINGS.

- ROBERTO VIOLA, DIRECTOR-GENERAL DG CONNECT @EU_COMMISSION

Decrease effort and investments for developing and managing the lifecycle of fog computing services and increase software delivery cycles speed

Improved interoperability of cloud-based services used in fog and edge execution environment

Improved efficiency and performance of fog nodes due to more efficient service development and orchestration

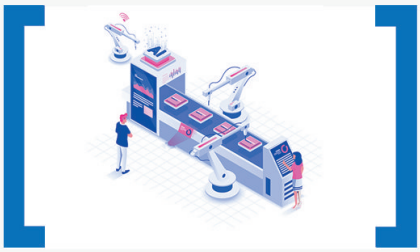
Increased trust feeling of data and services relying on fog-based services and improved security and privacy guarantees

Increased productivity of business applications which rely on, or can be developed based on fog computing services

RAINBOW CONSORTIUM

UBITECH, TU WIEN, POLITECNICO DI TORINO, Πανεπιστήμιο Κύπρου University of Cyprus, DTU, ΑΡΙΣΤΟΤΕΛΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΟΝΙΚΗΣ, LINKS, infineon, INTRASOFT INTERNATIONAL, Suite5 We Deliver Intelligence, K3Y, uni.systems, CENTRO RICERCHE FIAT, BIBA, MSP

RAINBOW USE CASES

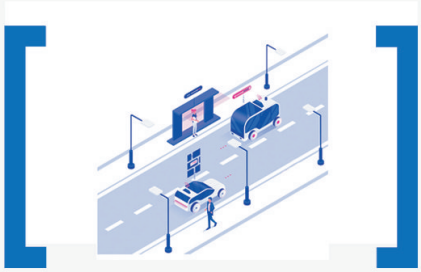


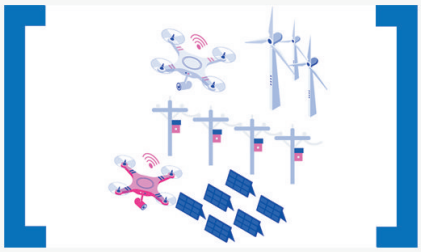
HUMAN ROBOT COLLABORATION IN INDUSTRIAL ECOSYSTEMS

Indoor positioning for safety-critical industrial IoT requires the propagation of telemetry, positioning and trajectory data at millisecond range from hundreds of thousands of objects, human workers and robotic machinery.

DIGITAL TRANSFORMATION OF URBAN MOBILITY

The goal of this use-case is to create a real-time geo-referenced notification system for vehicles traveling in urban areas about critical situations for the city mobility network, due to any possible cause (e.g., severe weather, failure of road infrastructure, huge congestion).





POWER LINE SURVEILLANCE VIA SWARM OF DRONES

The introduction of drones for power line surveillance is still in embryotic state. However, using a swarm of drones presents the obvious benefit of reducing the total time required to scan the entire power line infrastructure,there are still significant challenges.