

Quick Information

Project Title

Rational decomposition and orchestration for serverless computing

Start date

1st of January, 2019

Duration

30 months

Funding Programme

H2020-EU.2.1.1. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT)

Topic

ICT-16-2018 - Software Technologies

Funding Scheme

RIA - Research and Innovation action

Project Coordinator

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Unlocking the benefits of serverless FaaS

for the European software industry



Welcome to the RADON project newsletter!

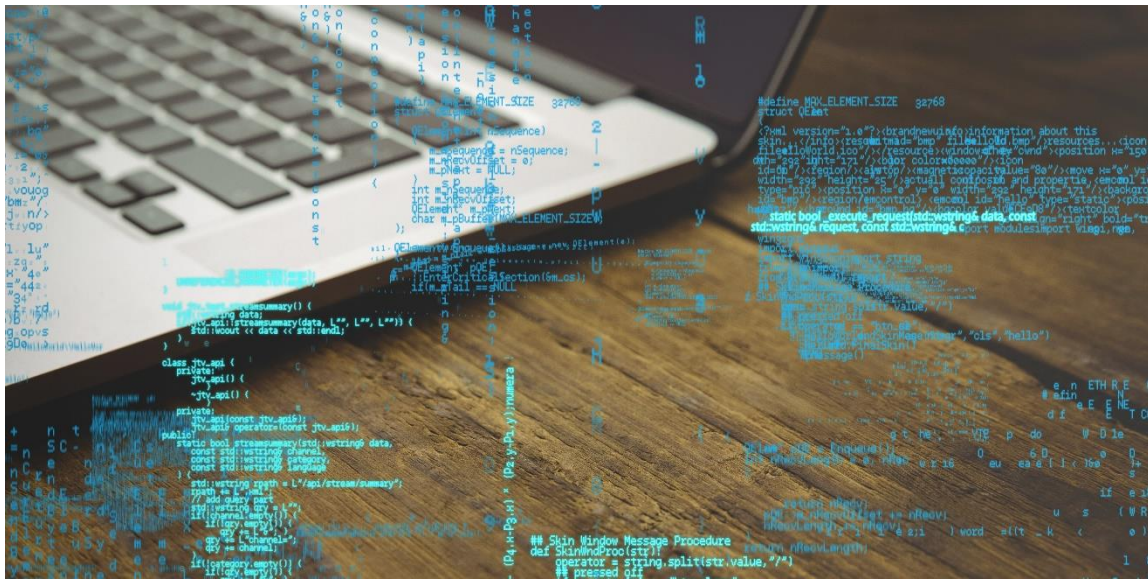
RADON aims at creating a **DevOps framework** to create and manage microservices-based applications that can optimally exploit serverless computing technologies. RADON applications will include fine-grained and independently deployable microservices that can efficiently exploit **Function-as-a-Service (FaaS)** and container technologies. The end goal is to broaden the adoption of serverless computing technologies within the European software industry.

RADON aims to unlock the benefits of serverless Function-as-a-Service computing for the European software

Strategy and Objectives

RADON will release an **integrated framework**, which is centered on a **DevOps methodology**, to manage the lifecycles of microservices, data, and functions in FaaS-based applications. Through a **modelling environment**, we aim to graphically design dependencies and elicit requirements for serverless FaaS, microservices and data pipelines.

A **runtime environment** will be developed, which will address the automated model-driven orchestration, based on reusable templates and Infrastructure-as-Code-based configuration of deployable resources. To support this, we will define a **library of templates**, and a **FaaS abstraction layer** based on event gateways that can prevent proprietary lock-in in commercial FaaS platforms.



Latest News

RADON participated in a session during the 13th SummerSoc in Crete!

On June 20th 2019, Project Coordinator Giuliano Casale presented the RADON framework and its envisioned research agenda, during the Symposium session. Read more [here](#).

RADON's work wins the Best Demo Award at ICPE 2019!

Project Coordinator Giuliano Casale from Imperial College London won the Best Demo Award for the paper "Automated Multi-Paradigm Analysis of Extended and Layered Queueing Models with LINE", during the 10th International Conference on Performance Engineering (ICPE 2019). Read more [here](#).

Public Deliverable 2.1 Initial Requirements & Baselines and its Companion Document are published!

Download them [here](#).



Our Targets

A number of markets will directly benefit from RADON, including **horizontal markets** (those pertaining to the commercialization of IT technology that is independent of the target application domain), and **vertical markets** (focusing on a specific segment of customer needs). Our target customer segments include:

- Cloud providers, System integrators, and Mobile developers
- Consulting firms and Telco providers
- IoT and Software vendors
- Research scholars.

Our Use Cases

RADON will propose a DevOps framework for creating and managing microservices-based applications that can optimally exploit serverless computing technologies. This framework will be "crash-tested" in the development of 3 different applications, in the areas of:

- Travel and tourism technology
- Ambient assisted living
- Managed DevOps

Who are we

Imperial College
London

JADS Jharonimus Academy of Data Science

XLAB

UNIVERSITY OF TARTU

ATC ATHENS TECHNOLOGY CENTER

ENGINEERING

Universität Stuttgart

PRAQMA



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