

**Project Title:**

Optimized Rescheduling of Cloud-Native Network Functions in Telecom Clouds

Short description:

The Distributed Systems and Communication Research group is currently designing a new optimized (re)scheduling mechanism for Kubernetes. This mechanism allows a cloud-native application (e.g., a Network Function Cloudification (NFC) system) to (1) better utilize available resources in a cluster, and (2) reduce the response time by placing tightly coupled containers near each other.

Project output:

The main output of this project is realised through developing a plug-in for Kubernetes. This plugin will be used as a basis to evaluate and test different optimization solutions for placement and orchestration of microservices in a cloud-native application. It should work with any kind of cloud-native applications by considering all the user-defined or systemic criteria in each deployment (i.e., affinity/anti-affinity rules, nodeSelectors, etc.). Because we are closely collaborating with our industry partners, results of this project would be evaluated with real-life systems.

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