NGI EXPLORERS

CHALLENGE #12
SLU-MNG-01

Real-Time Management of Transmissions and Computations at Network Edge

Meet the expectations of this US Node through the technology challenge described below

GOALS

Due to the highly dynamic nature of the communications and computations in 5th Generation (5G) cellular communications systems, new services will require real-time management to achieve extremely low latencies in communication and computation. To advance the state of the art, this project explores resource management algorithms borrowing ideas from statistical learning, estimation, and data-driven techniques from high frequency financial trading systems. The challenge will consist on designing and prototyping a platform based on low-cost programmable switches that will allow researchers to experiment with novel statistical learning-based algorithmic solutions for real-time management of edge networks.

DETAILS

Candidates may work on one of these two research objectives: 1) to explore learning based solutions for real time management of virtual paths and virtual switches; and 2) to investigate real-time management of core 5G computation and network resources, and to orchestrate edge computing processing at the network edge.

SKILLS REQUIRED

Ideal candidates should have demonstrated with some publications, expertise in network management, machine learning, or both.

FUNDED BY NGI

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825183