

“Ultra-short service migration in Mobile Edge Cloud”

Project Topic in OS Kommunikationssysteme WS 2019/20



Summary: Mobile Edge Computing (MEC) is paving the way for 5G network in respective of latency and computation offloading. Considering the user’s mobility, providing low downtime of service migration is one of critical challenges in MEC (i.e. for autonomous driving cars). Existing studies are mainly focused on the service migration in data center, while there are few researches on it in MEC. The service migration normally generates the huge amount of the application state, which results in high migration time and significantly degrading the end-to-end services. Such a problem still remains unsolved in MEC.

Components to learn: Software-defined Networking, Network Function Virtualization, Mobile Edge Cloud, service migration, application state.

Requirements: Basic knowledge about networking, Python, Java.

Steps of the project to go through:

Review a paper, catch the idea, and show the remained problem

Propose a solution to solve that problem

Set-up the testbed and evaluate the proposed solution compared with the state-of-the-art approaches

Keywords: Mobile edge cloud, state management, NFV, cloud computing

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