Chair of Communication Networks
TUM Department of Electrical and Computer Engineering
Technical University of Munich

Master's Thesis

Design and Evaluation of a Distributed Optimization framework for SFC Scaling

A Service Function Chain (SFC) can be deployed by utilizing Network Function Virtualization (NFV) concept. A challenge during the lifetime of SFCs can over- / underload a Virtual Network Function (VNF). To solve this issue, firsly, the under- / overload bottleneck should be identified. Secondly, an algorithm must be solved to solve the under- / overloaded situation efficiently.

In this work, we plan to design and evaluate an optimized strategy to identify and cope with under / over deployed SFCs. We want focus on a distributed optimization approach, called Alternating Direction Method of Multipliers (ADMM).

Prerequisites

Mathematical Optimization, Algorithms, Java / Python

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