Optimal Placement of SDN Controllers and Hypervisors in Virtualized Networks

Introduction to Software Defined Networking (SDN) and Network Virtualization paradigms has brought new challenges to tackle. In this environment, network switches communicate to SDN controllers through a hypervisor. Therefore, considering a network graph, three questions may come up: 1) Where to deploy SDN controllers? 2) Where to deploy SDN hypervisors? 3) How to connect network switches to the respective SDN controllers to meet the traffic dynamicity and QoS requirements?

In this work, we plan to design and evaluate an optimization framework to optimally answer the above questions.

Prerequisites

Mathematical Optimization, Algorithms, Java / Python

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