

Assistant (Student)

Multi-domain network implementation

Software-Defined Networking (SDN) is a network paradigm where control and data planes are decoupled. The control plane consists on a controller, which manages network functionality and can be deployed in one or multiple servers. The data plane consists on forwarding entities which are instructed by the controller on how to forward traffic.

A network can be divided in multiple domains in order to ease its management or limit ownership. In multi-domain SDN, each domain has a controller which is responsible for the management. Controllers in different domains cooperate with each other aiming at providing multi-domain end-to-end connectivity.

In this work, the student will receive an abstract topology representing the multi-domain network. This information has to be used to build a virtual network, that can be used in the testing of different algorithms. The implementation should include a GUI, in order to visualize the topology and interact with the different elements in the network.

Please send your CV and transcript of records.

Prerequisites

Basic knowledge on the following:

- Linux
- Networking/SDN
- Python
- Web programming (GUI)

Contact

cristian.bermudez-serna@tum.de

Advisors

Cristian Bermudez Serna