Optimal placement of PDP-capable switches

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 devices which are instructed by the controller on how to forward traffic.

P4 is a domain-specific programming language, which can be used to define the functionality of forwarding devices as virtual or hardware switches and SmartNICs.

This work consists on the the optimal placement of PDP-capable switches for PCPP. For that, an ILP and P4-enabled virtual network will be used to validate the implementation.

Prerequisites

Basic knowledge on the following:

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

Please send your CV and transcript of records.

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