Performance Evaluation of P4 programmable Devices

P4 is a novel programming language for programming networking devices (switches and NICs). It allows you to describe how the networking devices will process the packets in a high-level language. This programmability paved the way to many different applications and innovations that were not possible before, which made it a hot research topic nowadays. The objective of this Master Thesis/internship topic is to evaluate the performance of such devices. The main scope of this thesis/internship work is to measure and model the performance of P4-programmable devices. Note that there are multiple related subtopics, so the required tasks are flexible and will be based on student’s interest and skills. The main requirements are being motivated and having basic programming and networking skills. Knowledge about SDN and P4 is a plus.

Prerequisites
Motivation, Basic Programming and Networking skills

Advisors
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