

KTH ROYAL INSTITUTE OF TECHNOLOGY
STOCKHOLM

SCHOOL OF ELECTRICAL ENGINEERING AND
COMPUTER SCIENCE

INTERNETWORKING IK1552

Project Proposal

Author
Emil STÅHL

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1 Topic

In this work, we are going to evaluate the performance, feasibility, and functionality of the SCION inter-domain routing protocol¹.

2 Purpose

The main purpose of this work is to through a technical review research how the SCION protocol may improve the performance of inter-domain routing on the Internet and how it can affect end-users, organizations, and ISPs. Next, we aim to perform our own research experiment to research the performance of transfers between nodes on a network.

3 Tools

The tools utilized for this project include:

- SCIONLab²
- Virtual Machine
- Vagrant
- Wireshark
- Python
- Bash

¹<https://scion-architecture.net>

²<https://docs.scionlab.org>

4 Methodology

The main methodology of this work is based on two methodologies. Firstly, we are going to through a literature review research how the SCION protocol aims to improve performance of inter-domain routing. Next, we are going to perform an experiment where we research the rate of transfers between nodes when utilizing the SCION protocol.

5 In case of failure

Due to the limited time and resources of this project, we may not be able to get the performance evaluation of SCION up and running in time. In this case, we are only going to pursue the literature review with the purpose of researching how SCION aims to improve inter-domain routing on the Internet.