

## **Abstract**

To be able to evaluate new protocols it is important to have access to good experimental environments. Several experiments are needed to verify different aspects of protocol performance as well as robustness under various network conditions. Emulab is a new public experimental platform which is available for remote users. The ambition is that Emulab should offer the user the possibility to perform both simulation and emulation of a network. In addition, Emulab offers access to an experimental live network. This thesis presents a study where a series of tests are performed on the Emulab platform and also gives an introduction to SCTP. The first objective of the thesis is to obtain practical experience and to evaluate the usability of Emulab and the second objective is to compare the throughput between the transport protocols TCP and SCTP. The experiences from using Emulab are very positive. The results show that Emulab is a reliable and robust platform with high availability. The throughput comparison did not reveal significant differences between SCTP and TCP under moderate traffic load. Further tests and analyses are necessary to obtain a clear view of the situation in a heavily loaded network.