

Lehrstuhl Informatik 7

Rechnernetze und Kommunikationssysteme

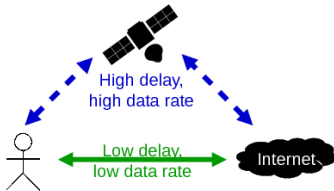


Bachelor-/Master-/Abschlussarbeit

Multipath QUIC with Satellite Internet

Motivation

As nowadays computers and smartphones very often have multiple (possibly heterogeneous) internet access links, it is desirable to use these links simultaneously to increase data rates and reliability. Multipath protocols, e.g. Multipath TCP, are used in this context. QUIC [1] is a recently developed transport layer protocol with stream multiplexing, zero RTT connection setup, and end-to-end encryption. It will also have support for Multipath communication, and first results of Multipath QUIC (MPQUIC) were presented in [2].



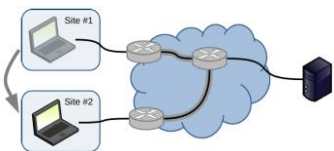
Task description

In this work, MPQUIC shall be applied to the specific use case when satellite and terrestrial internet access links are combined. In a first step, the MPQUIC implementation provided by the authors of [2] shall be reviewed and results shall be reproduced. Then, MPQUIC shall be applied to the combination of satellite and terrestrial internet access links and results shall be evaluated.

Required skills

- Solid knowledge of communication networks and protocols
- Interest in understanding and modifying complex software implementations

This work can be done in English or German language.



- [1] datatracker.ietf.org/wg/quic/about
research.google.com/pubs/archive/46403.pdf
- [2] multipath-quic.org

Kontakt

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