Master Thesis - QUIC – Statistics and Monitoring

Background
Mobile networks are used all over the world and are the corner stone for the networked society, where everything shall be connected. To support the vast amount and diversity of data expected in future networks, Ericsson are developing products to drive and support the networked society. The subjects for Master Thesis are defined to investigate and develop algorithms, architecture, tools etc. to support huge increase of speech, data and massive IoT for Radio Access Networks.

Thesis Description
QUIC (https://www.chromium.org/quic) is becoming more and more popular on the Internet and we need to build an understanding on how to gather statistics and how to do monitoring of QUIC flows in 5G radio networks. QUIC is being pushed and used by both Google and Akamai. It has been shown to have performance advantages compared to TCP and is being used for transport in the currently drafted HTTP/3 standard (currently inter-draft in the standards track).

- Investigate and compare different implementations of QUIC monitoring solutions in relation to radio network requirements.

The thesis will be concluded with a result presentation for the Ericsson team.

Qualifications
This project aims at students in electrical engineering, computer science, computer engineering or similar.

Extent
1-2 students, 30hp each

Location
Ericsson AB Mjärdevi, Linköping

Preferred Starting Date
Spring 2020

Contact Persons
Christer Lindell  christer.lindell@ericsson.com
Niklas Carlsson  http://www.ida.liu.se/~nikca/