Master Thesis – Application Specific QUIC Congestion Control

Background
Mobile networks are used all over the world and are the cornerstone for the networked society, where everything will be connected. To support the vast amount and diversity of data expected in future networks, Ericsson develops products to drive and support the networked society. The subject for this Master Thesis is 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 is a possible transport protocol for 3GPP. An interesting aspect is to evaluate the possibility of adapting the flow/congestion control so that it suits the RAN applications better. Evaluate mechanisms for replacing QUIC congestion control with a simple RAN optimized implementation and compare results with current transport protocols.

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 2023

Keywords
SW development, Mobile Telecommunication, Optimization.

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