Master Thesis —
Io_uring and Linux UDP vs DPDK

Background
Mobile networks are used all over the world and are the corner stone 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
Traditional packet processing application for high speed applications are written using DPDK. In recent years the support in the Linux kernel has improved considerably in the area of Linux IO and UDP handling. Evaluate if and how we could use Linux kernel APIs for packet processing applications.

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.

Contact Persons
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