Master Thesis – Visualization of Advanced Engineering Environments

Background
The environment Ericsson uses to develop technologies like 5G is very complex, spanning multiple geographical locations and sometimes hundreds of resources. This makes it difficult to understand how base stations, simulators, load generators, servers and other equipment are connected and depend on each other. A system that can visualize equipment and their dependencies would make it easier for Ericsson’s developers to use and operate our next generation engineering environment.

Thesis Description
The following steps are envisioned as part of the thesis work:

- Interview users, developers and operational personnel to understand what needs to be visualized and the different use cases.
- Investigate what visualization tools and frameworks exist in the market that would fulfil the identified requirements.
- Implement a proof-of-concept, visualizing thousands of objects using Ericsson internal data sources.
- Document missing information and types of dependencies that would improve the benefit of the visualization.

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

Qualifications
This project targets students in UX Design, Computer Science, Computer Engineering or similar.

Extent
1-2 students, 30hp each

Location
Ericsson AB Mjärdevi, Linköping

Preferred Starting Date
Spring 2020

Keywords
Mobile Telecommunication, Optimization, Data Visualization, UX, Usability

Contact Persons
Peter Olofsson A
+46 10 711 4812
peter.a.olofsson@ericsson.com

Claudia Dauch
+46 10 711 4343
claudia.dauch@ericsson.com