MASTER THESIS - AUTOMATED TEST CASE STRUCTURE

Background
Mobile networks are used all over the world and is the corner stone for the networked society where everything shall be connected.
Ericsson use automated continous integration to secure that new technologies reach the network with high quality in all releases. In the journey towards 5G, the amount of solutions and configurations are increasing and the requirements on instant accurate verdict is higher, hence we need to improve the test case structure.

Thesis Description
We see a need to increase the level of abstraction to make our test cases more solution flexible and easier to maintain and expand. At the same time, we need to limit complexity and code duplication. This thesis is about how to divide the test cases into distinct parts and define their input, content and output.

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

- Theoretical investigation of Ericsson external test case abstractions.
- Analyze current Ericsson internal test case structure and investigate how it can be improved.
- Create proof of concept in test case repository.
- Discuss solution proposals in Ericsson internal automation forum.
- Present suggested solution for department.

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

Extent
1-2 students, 30hp each

Location
Ericsson AB Mjärdevi, Linköping

Preferred Starting Date
Winter 2017/Spring 2018

Keywords
Java, Test automation, Mobile communication, Programming, testNG, Eclipse, Linux, GIT

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