

MSc Thesis: An Evaluation of the Security in Mobile Banking Apps

Background The tasks we do with our smartphones are steadily growing and the number of available apps are also including some that need very strict security. The most obvious ones in this category are banking apps such as Swish. A previous study [1] here at Uppsala University has shown that one in twenty apps leaks sensitive data, independent of the actual platform the app is running on. This study also shows that users often bypass security warnings which in the worst case exposes the users' password to the attacker.

Thesis Objective In this MSc thesis we want revisit this problem. The focus is to look deeper in the situation of apps that require high security levels such as mobile banking apps where security is of utmost importance.

Candidate Requirements We are looking for two highly motivated students, in CS and HCI (or IS) respectively. The HCI / IS student will be conduct a study of usage practices with payment apps, aiming to identify security requirements and propose design solutions that cater better to what people actually do with them. The CS student will look into current and proposed security solutions, to understand how they match such requirements. The students should have knowledge social science methodology and security respectively, as well as good analytical skills. Good programming skills are an advantage as the work may include the development of a concept prototype.

Starting Date and Application The thesis project can be started soon. We appreciate if two students apply together, but you can also apply for one of the positions. For the application, please provide us with a CV, your courses and grades. In addition, we appreciate an article, paper, thesis or other relevant documents you have written in your education in order to judge your ability to express yourself in English. Please send your application to thiemo.voigt@it.uu.se as a set of pdf files.

Contact person and supervision The thesis project will be supervised by Christian Rohner, Thiemo Voigt and Annika Waern in collaboration. The supervisors come from the IT and the IM departments at Uppsala Universities, and the project is open for students from both departments.

Please contact thiemo.voigt@it.uu.se

[1] Christoffer Brodd-Reijer. "An evaluation of smartphone communication (in)security", Examensarbete, Feb 2014.