Android App Repackaging Protection Analysis

In Android, app repackaging is currently a big problem. Apps can easily be repackaged by dishonest developers to make profit from displaying ads or insert malware. Downloaded apps can easily be extracted from the phone. Since they consist of bytecode, changes are relatively easy to implement. Detection of repackaged apps is quite difficult and often not reliable with obfuscated apps. Especially on third party app stores, the apps often do not get checked thoroughly.

We already had a project that tackled this problem. We have a prototype implementation that inserts integrity checks in the apps themselves that are hard to remove. In this project we want to analyze how many apps on the app stores contain some repackaging protection methods. We could then analyze these methods to determine how hard they are to circumvent. Additionally, you could also improve the repackaging protection prototype to improve the robustness.

These are only some ideas and we would love to hear your take on this as well! If this sounds interesting to you, do not hesitate to contact us so we can have a chat.

Requirements: Programming experience is an advantage. During your thesis, you will meet on a weekly basis with your advisors to discuss progress and open questions.

Interested? Please contact us for more details!

Contacts

• Simon Tanner: simtanner@ethz.ch, ETZ G97