Android App Repackaging Protection 2.0

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 based on modifying Dalvik bytecode. We have some ideas how to improve the implementation. For example, avoiding the modification of the Android OS to make deployment easier. Furthermore, dealing with bytecode directly can be error-prone and cumbersome. Thus, we want to investigate the use of intermediate representations to make the system more robust. These are only some ideas for improvement, 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

- Gino Brunner: brunnegi@ethz.ch, ETZ G63
- Simon Tanner: simtanner@ethz.ch, ETZ G97