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Review of Mobile Applications Used for Covert Communication

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ABSTRACT

The cyber security and forensic community have approaches and tools for analyzing and detecting digital communication on modern computers, however those approaches are not relevant for embedded or covert communication on emerging devices such as smartphones. In this work-in-progress paper, we have conducted an in-depth analysis of some of the mobile application which can be used for anonymous communication, covert communication or hidden communication. The mobile applications were selected based on their download frequency, user ratings, and reviews in the Android and Apple store. A systematic approach was adopted to analyze the purpose, functionality, and security flaws of the selected applications. The final paper will highlight the legal issues pertaining to these applications. Based on our initial results, there is a need for more in-depth analysis and testing of these applications to better understand the communication undertaken by using these applications.

Keywords

Information Security, mobile applications, digital forensics, covert communication, anonymous communication