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Are You Being Tracked? Examination of Popular Apps in Android Market Placobile Networks

Abstract

Smartphone usage is driven by the availability of third party apps. In addition there is a large diverse ecosystem of organizations collecting information about the users of these apps sending them with content such as targeted advertisements. Numerous research groups has exposed the privacy leakage that occur as a result of the developers of free apps monetizing users personal data through advertisements and integration with analytic libraries. Paid apps on the other hand is expected to be monetized through the sale of the app, and therefore less intrusive. As a result, the behaviour paid apps have not been fully analysed. This talk will provide the findings of a systematic study the most popular apps in Google Play Store through the analysis of the top 100 free and paid apps. The results show that paying for an app does provide a greater level protection with respect to privacy, with 49% of the apps from top -100 paid apps, providing user information to third party aggregators. Moreover, as the aggregator market dominated by a few large aggregators, the possibility of linking user information is greatly increased. The talk concludes by presenting a potential method of minimizing this type of privacy leakage without compromising the utility of apps.

Biographical Sketch

Aruna Seneviratne received his PhD in electrical engineering from the University of Bath, UK, in 1982. He is currently the leader of the Networks Reserch Group, and Director of the NICTA Australian Technology Park Laboratory, in Sydney, Australia. His research interests are in performance in mobile computing systems. He has held academic appointments at the University of Bradford, UK, Curtin University, University of Technology, Sydney and the University of New South Wales in Australia.

He had also held visiting appointments at the University of Pierre Marie Curie, Paris, and INRIA, Nice in France. In addition he has been consultant to numerous organizations, including Telstra, Vodafone, Inmarsat and Ericsson.