1. Detecting privacy leaks in Android Apps

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Abstract: The number of Android apps have grown explosively in recent years and the number of apps leaking private data have also grown. It is necessary to make sure all the apps are not leaking private data before putting them to the app markets and thereby a privacy leaks detection tool is needed. We propose a static taint analysis approach which leverages the control-flow graph (CFG) of apps to detect privacy leaks among Android apps. We tackle three problems related to intercomponent communication (ICC), lifecycle of components and callback mechanism making the CFG imprecision. To bridge this gap, we explicitly connect the discontinuities of the CFG to provide a precise CFG. Based on the precise CFG, we aim at providing a taint analysis approach to detect intra-component privacy leaks, inter-component privacy leaks and also inter-app privacy leaks. (8 refs)
Main heading: Android (operating system)
Controlled terms: Data flow analysis - Flow graphs - Life cycle - Static analysis
Uncontrolled terms: Analysis approach - Android apps - Control flow graphs - Leaks detections - Private data - Taint analysis
Classification Code: 723 Computer Software, Data Handling and Applications - 723.5 Computer Applications - 921.4 Combinatorial Mathematics, Includes Graph Theory, Set Theory
Database: Compendex
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