
Fraunhofer Institute for Secure Information Technology:

Field Test: Quality of App Security for Enterprises

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Appcaptor Framework

- **Framework accumulates workflow and analysis tools for automated and manual app security evaluation**
 - Scans for known **malware patterns** and **weak implementations** of security functionality
 - Smartphone **Platform agnostic** and correlates platform results
 - Based on **knowhow** of manual testing and integrates **conceptual research** of CASED
 - Workbench visualizes **interpreted results** and **entry points** for manual investigations



„ Investment in your Future “

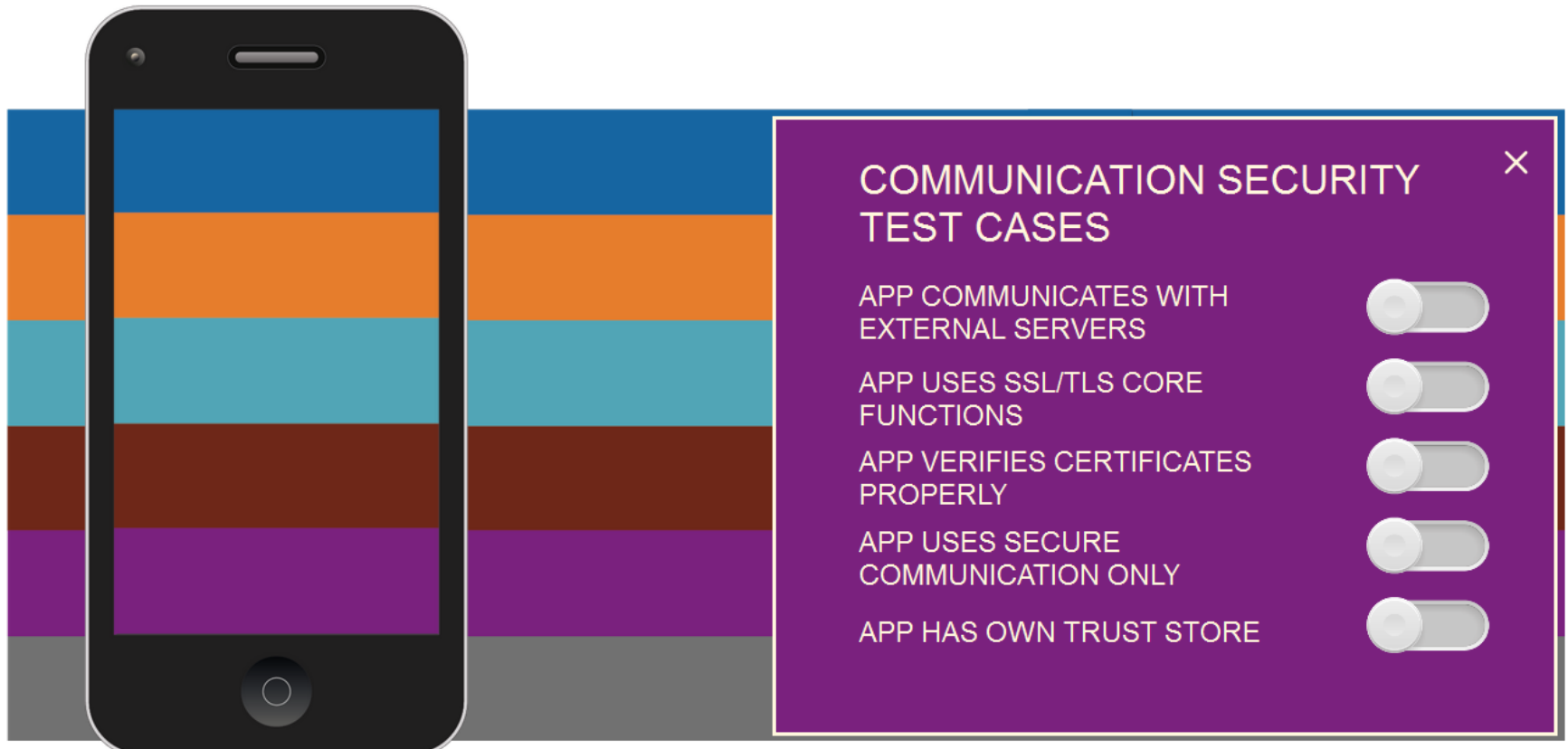


Investments for this work were co-funded by the European Union with European regional development funds and by the state government of Hessen

App Security Testing – Appcaptor

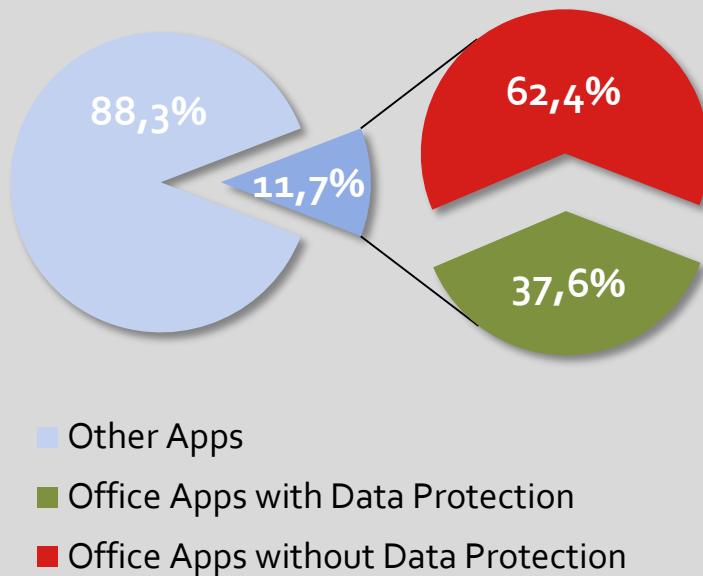


App Security Testing – Appcaptor



Data Protection

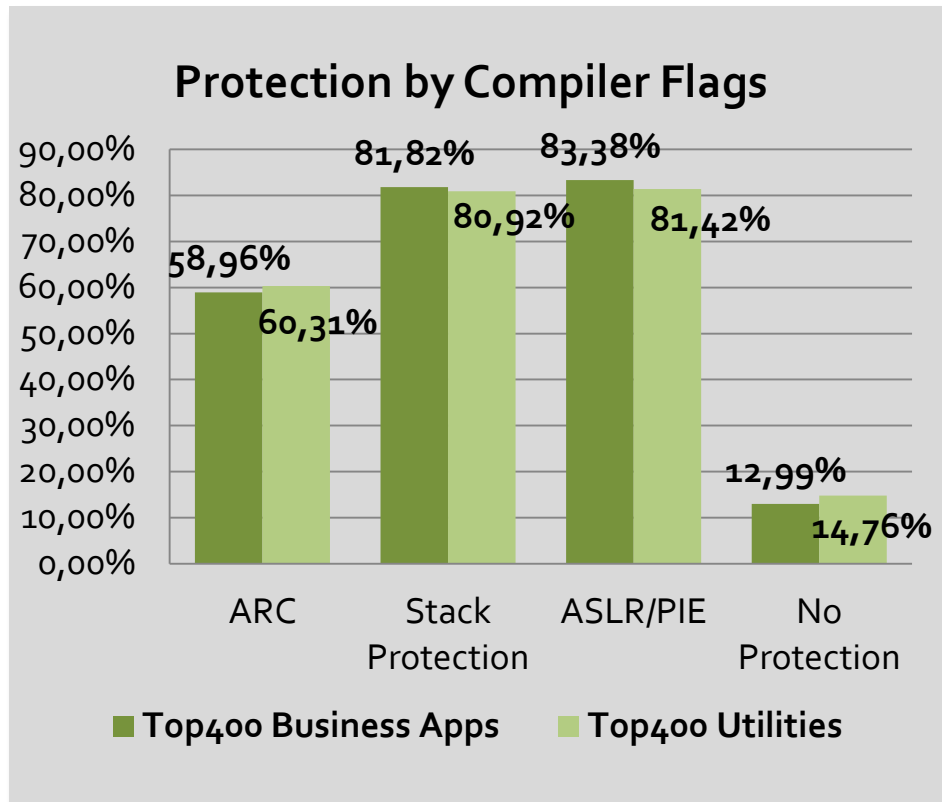
Office Apps and Data Protection for Top 400 Business Apps



Appicaptor Analysis, German App Store, 29.9.2013

- iOS functionality to keep files encrypted in storage
 - Incorporates passcode as user secret for encryption + bruteforce protection
 - Protection for lost/stolen devices
 - Protection simple to activate for developers
- Result of control sample
 - Many apps work with office files
 - Nearly 2/3 of business apps using office files do not provide data protection

Runtime Security

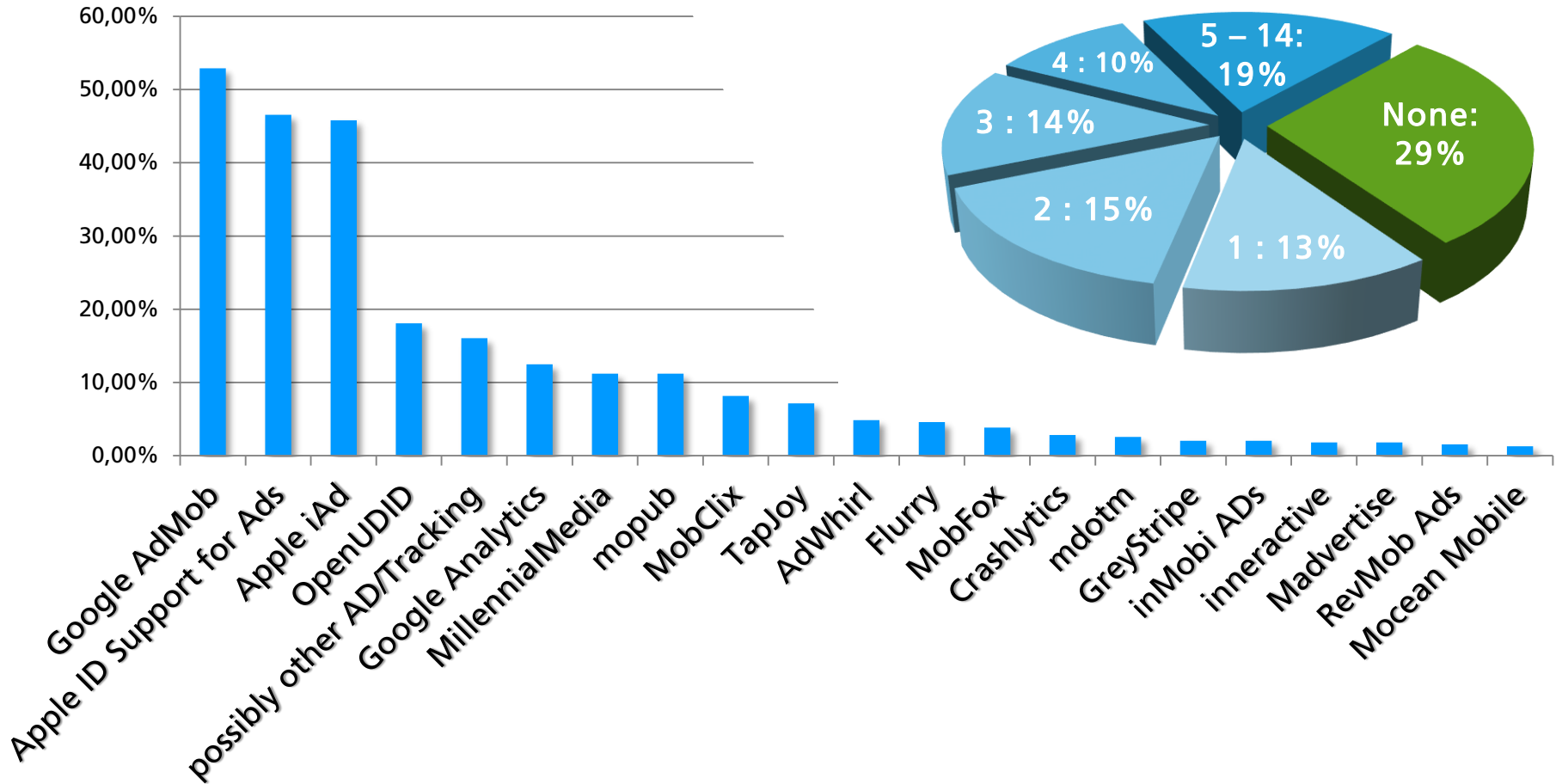


Appicator Analysis, German App Store, 29.9.2013

- **Hardening of Apps by Compiler**
 - Simple to active; partly now default setting
 - **Automatic Reference Counting:** less risk for memory management flaws
 - **Stack Protection:** increase security of stack integrity
 - **Address Space Layout Randomization:** increase effort to exploit vulnerabilities
- **Result of control sample**
 - No difference between business and utility apps
 - More apps than expected have no protection

Example: unexpected Functionality

Ad-/Tracking Frameworks Top 400 Utilities



Appicator Analysis, German App Store, 27.9.2013

Contact



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