

AppVeil: Controlling Android App Permissions

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Motivation

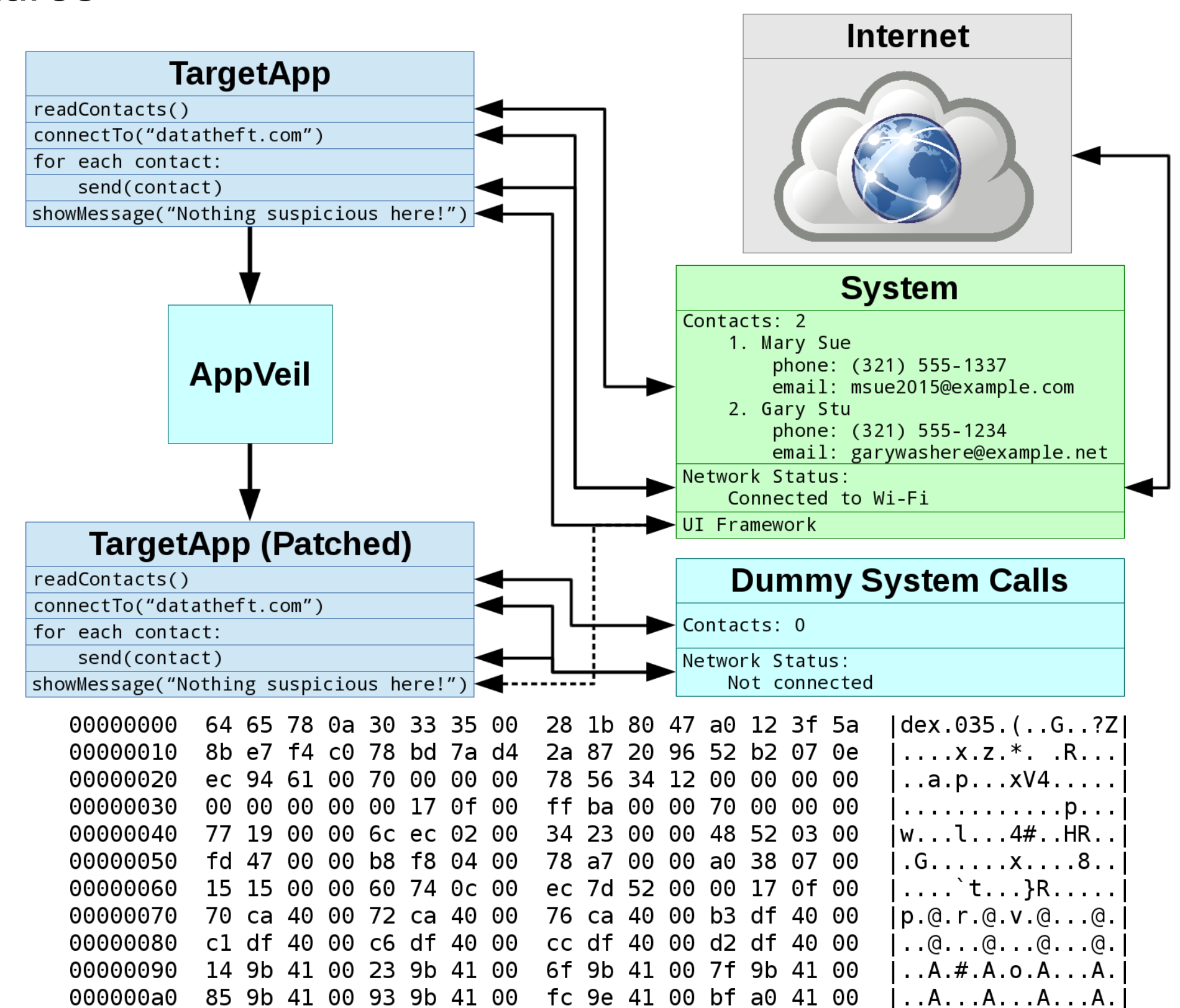
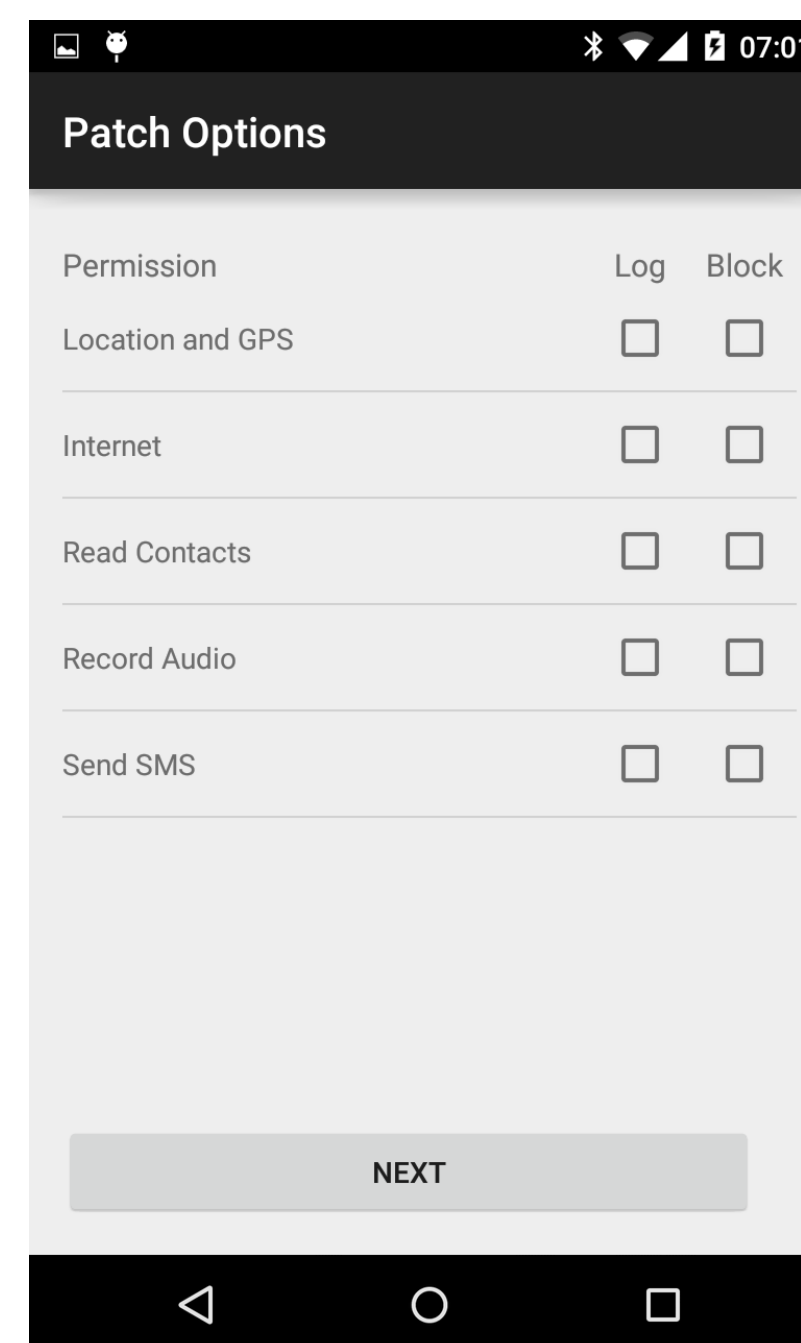
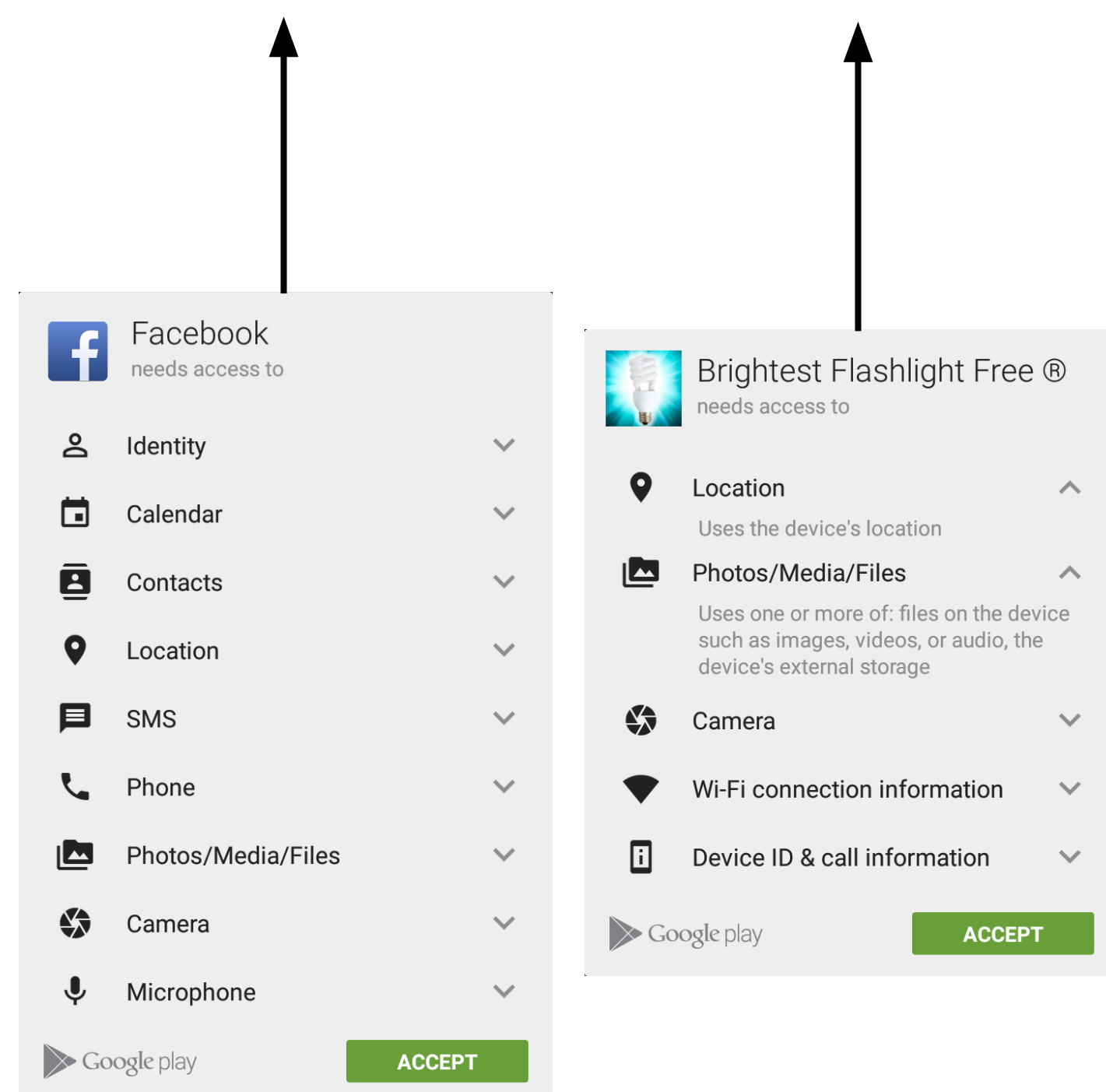
Permissions in Android apps can be a mess. Do you ever see prompts like these when you want to install something? For many free apps and services, the user is the product. Do you want to give away your personal information, friends' numbers, exact location, photos, and texts to whoever made that app? If not, you couldn't use that app at all. AppVeil can help.

Overview

Our project lets you take any Android app and change the way it can access sensitive information and features on your device. You can block these features, making the target app obtain false information like "your contacts list is empty" or "you are not connected to the Internet". You can also record how the app tries to access these features while it runs.

Approach

We patch the user's Android app to modify its system calls, redirecting them from Android functions to our own. To do this, we manipulate the Dalvik Executable Files in each app to insert new code and to alter the target of the relevant INVOKE instructions. We can do this without any app's source code.



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