Exploring Android Stack by implementing a complete flow, from Java application layer to native library

ANTONIO TROINA

thoeni@gmail.com

Politecnico di Milano

This paper aims to describe, through a convienient and properly documented example,the necessary steps to break into the Android stack, and implement a customised native daemon - which relies on his own native library - that can communicate with a Java application (and the other way around) through the Java Native Interface.

Categories and Subject Descriptors: D.4.7 [**Real-time systems and embedded systems**]: Android

Additional Key Words and Phrases: Android, JNI

---

1.   INTRODUCTION

In 2011, 48.8% of the smartphones on the market, ran Android OS, contributing to an annual growth of 244%.[1] This is what an average customer can easily guess by himself. What not everyone can figure, unless he's working in this very specific field, is that lately Android OS - and therefore its open source project AOSP - aroused the curiosity of many embedded developers.

---

[1]Source: Canalys. February 2012

Exploring Android Stack - August 2012.

REFERENCES

...

...