# Effective Cross-Platform Native App Development in Java

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#### Introduction

- Started our company in 2007
  - Outsourced Software Development
- Diverse Projects
  - Mobile
    - App & Platform Development
    - Android, iOS, BB10, BB Classic, J2ME
  - Embedded Linux
    - C/C++, Assembly (ARM, MIPS)
  - Web / Server
    - Java EE
- Built on Teleworking

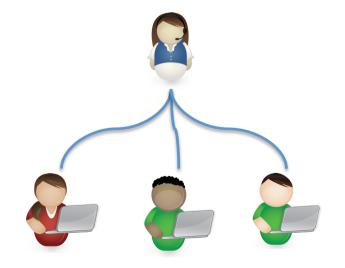




# The Mobile Challenge: Deploy the same app to other platforms

- Rewrite from Scratch
  - One team per platform
  - Develop, Test, Debug all over again
  - User Acceptance Testing Nightmare

- Use Cross-Platform Solution
  - Which language?
  - What about existing code?
  - Cross-platform or native UI?





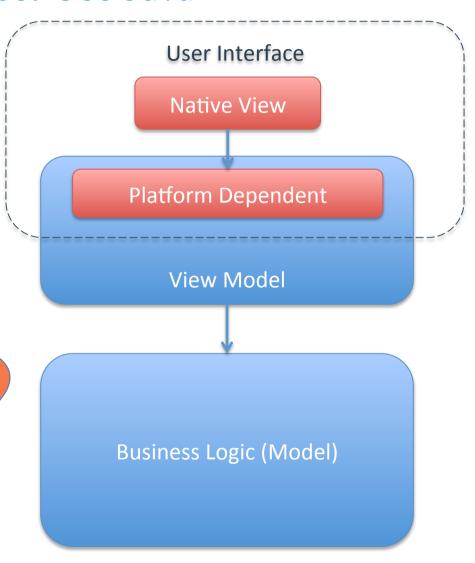
#### Our Choice: Use Java

- Most of our codebase is in Java
- Java is native on Android
- Native UI
  - After failed attempts with cross-platform UI

Migeran for iOS:

Make your Java Apps

Cross-Platform





#### **Cross-Platform Alternatives**

- JavaScript
  - Cordova / PhoneGap
  - Facebook React Native
  - Titanium

- C# / .NET
  - Xamarin
  - .NET on Windows
    - .NET Core Anyone?

- Objective-C / Swift
  - Apportable
  - Marmalade Juice
  - Elements Silver (Swift only)

- Java
  - RoboVM
    - Now Owned by Xamarin
  - Codename One





# Migeran for iOS









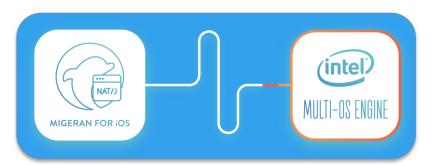








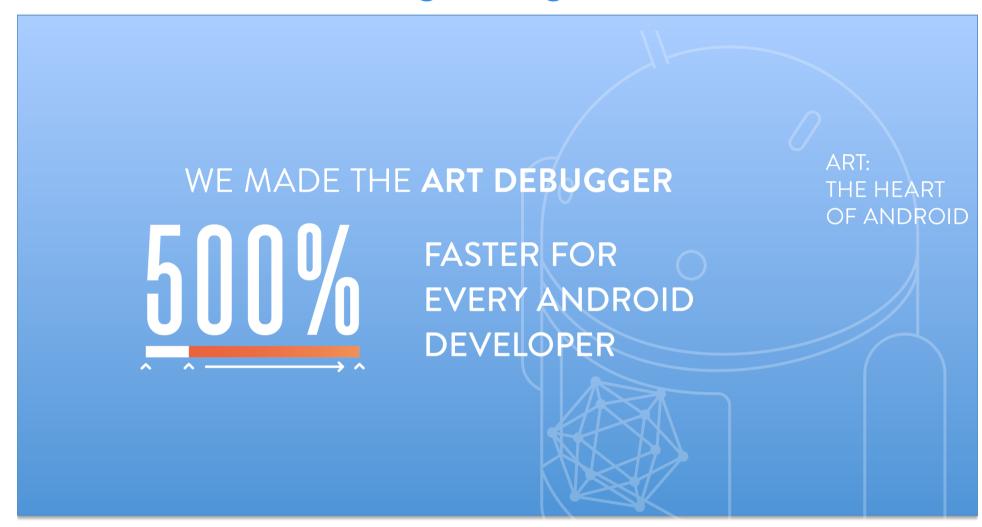
Migeran for iOS acquired by Intel Corporation



Migeran is now an Intel Partner



# While working on Migeran for iOS...





# What is the Intel Multi-OS Engine

- Java Runtime for iOS
  - ART from Android



- Android Studio Plugin
  - Windows and Mac Supported



- Nat/J: Easy Native Access
  - Every iOS API
  - Binding Generator



- Native UI Designer
  - Android Studio
  - Xcode





#### **Case Studies**



- Graffiti VR
  - Google Cardboard App
  - Ported the Cardboard SDK to iOS



- CarHunt
  - Find Stolen Cars
  - Over 95% Code Reuse



#### Is Your Android App Ready for iOS?



FIND OUT WITH THE MIGERAN ANALYZER analyzer.migeran.com

- 3 Steps to Get Started
  - Upload your APK
  - Get detailed report in email
  - Start porting your App



## Get Started with the Multi-OS Engine



- The Multi-OS Engine is now available as Technology Preview
- Get it at Intel Software

software.intel.com/multi-os-engine



### Thank you for your attention!

#### **MIGERAN SERVICES**









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