

Calabash.sh

automated acceptance testing of mobile apps



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Agenda

- Automated testing for mobile
 - desirable properties for an acceptance testing tool
- Introduce Calabash via Short Live Demos
 - Focus on iOS
 - LessPainful: test service and device cloud



Professional practices?

- Invest the time
Examples:

- Unit testing
- Acceptance test
- Continuous build
- Continuous unit test coverage).
- Static analysis us
- Automated deplo
- Automatic Crash/Error reporting.
- ...



, p updates or link in email.



Go talk to the guys from eBay Classifieds Group
Den Blå Avis + Bilbasen :ties going.

The QA story for mobile



Excite™ 7.7 Tablet

Buy

Compare



Kyocera URBANO PROGRESSO

Buy

Compare



Xperia™ P

Buy

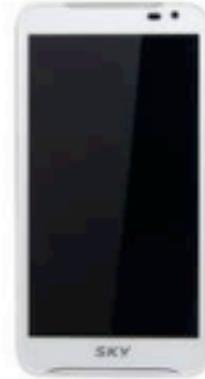
Compare



Xperia™ U



SKY VEGA Racer2 (IM-A830K)



SKY VEGA Racer2 (IM-A830L)

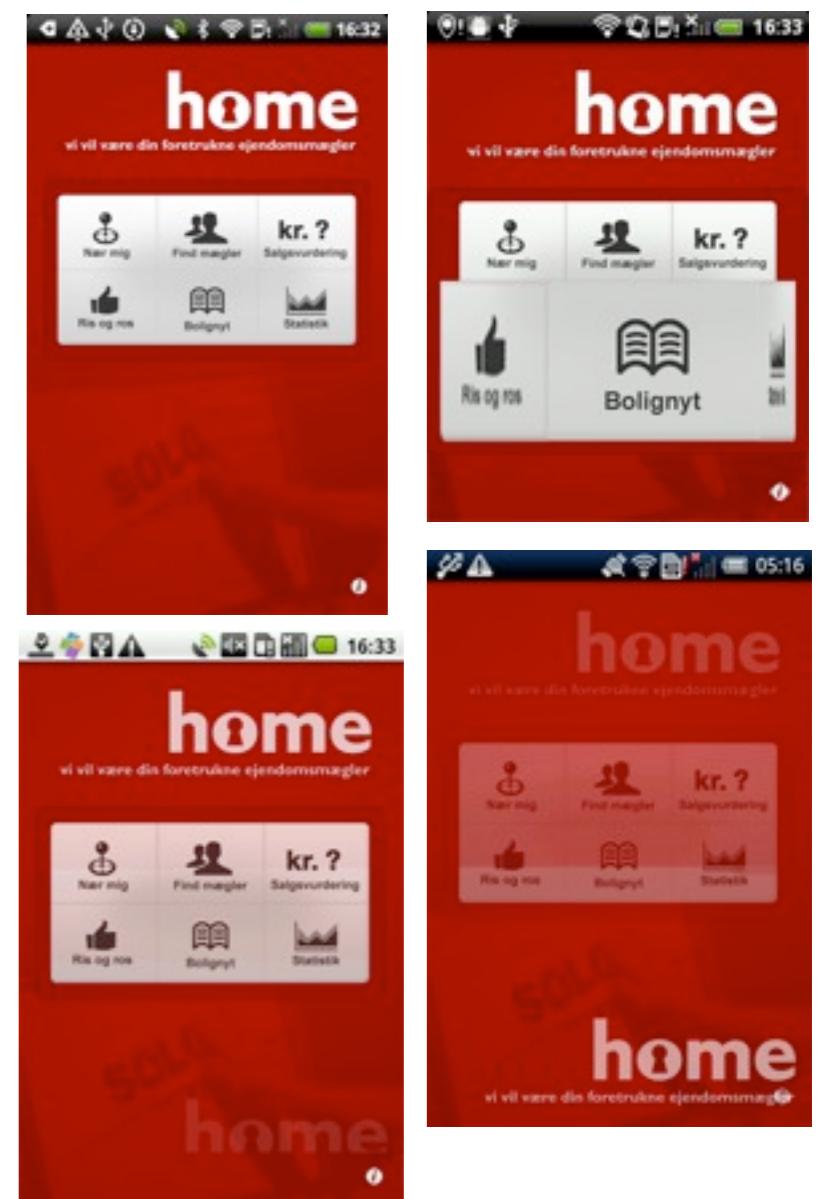
The acceptance testing story for mobile apps

- As realistic an environment as practically possible.
 - simulators/emulators are good, but not enough!
- Many devices, screens, resolutions, OS'es, CPUs
- Varying Conditions (Settings, Network, Storage...)
- Often a manual process: repetitive, expensive
 - Regressions, e.g., app crashes
 - Visual appearance of screens matter (alot!)
 - User experience, Design guidelines, branding,...



Significant Differences

- Problems that arise from differences are significant
 - Crashes
 - Graphical Errors
 - Wrong Computation
 - UI Components
 - Inaccessible text, buttons...



Automated acceptance testing desiderata

- Minimize distance between use cases and actual test code (DSLs?).
- Expressive and efficient to write & maintain.
- Extensible (open vs closed source)
- High-level, declarative (robustness:“minor” UI changes).
- Support testing in realistic environments (real devices, on multiple OS versions, languages).
- Support Continuous integration.



Calaba.sh

Calabash

- **Vision:** Cross-platform Automated Acceptance Testing
 - One interface: **Cucumber**, for *Android and iOS*.
 - BDD. Business understandable spec, executable as tests
 - Reuse of Cucumber features across platforms possible.
- Runs on physical devices and simulators/emulators.
- Support for native and hybrid apps (embedded webviews)
- Free, open source (Eclipse Public License)
- *with optional commercial extras support, training, consulting, device cloud, private device cloud*



LessPainful

Test Execution Service



- Execute Calabash tests in parallel on many devices, OS'es, languages.
- Visual test reports.
- Comparison across models and operating systems.
- Authentic: Not jailbroken/rooted, supports both iOS and Android devices.
- Continuous integration:
lesspainful app.ipa KEY

Mobile Test Lab

www.lesspainful.com

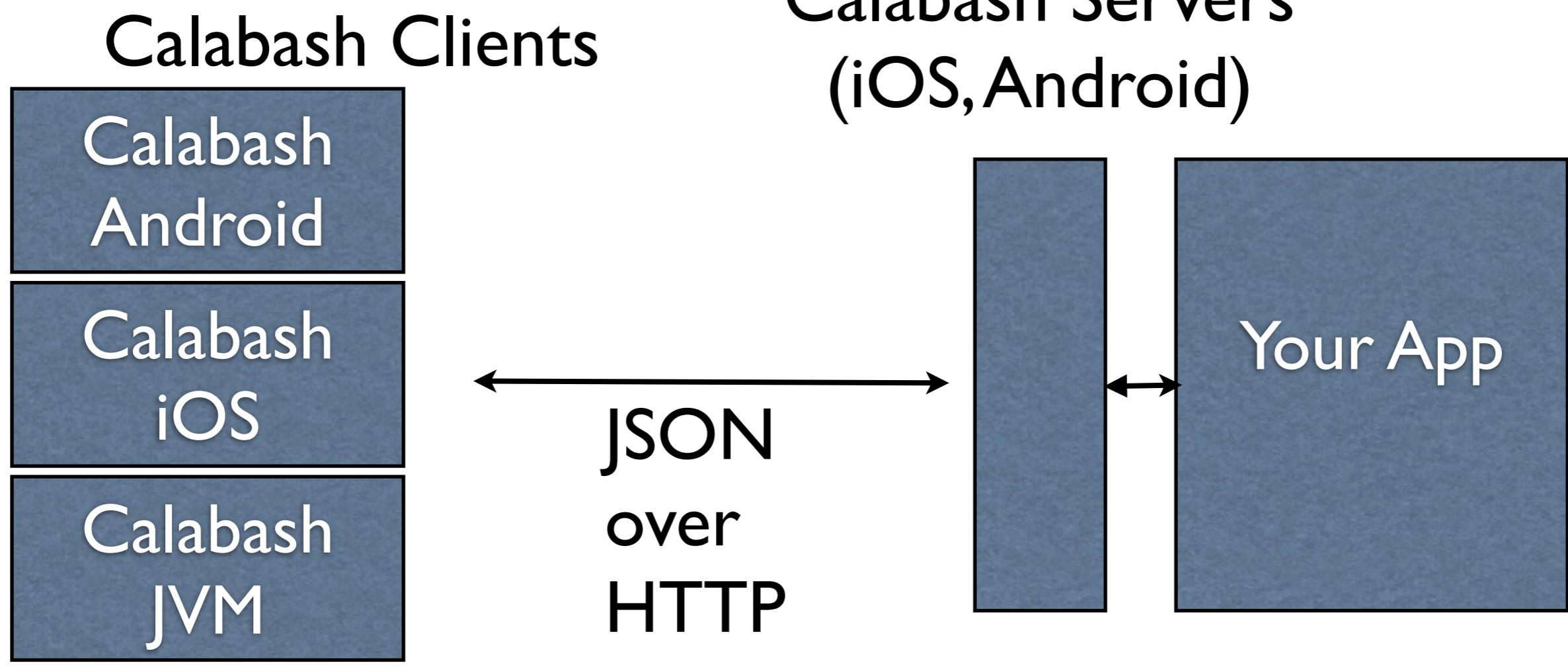


Calabash iOS: by way of Demo

The Setup

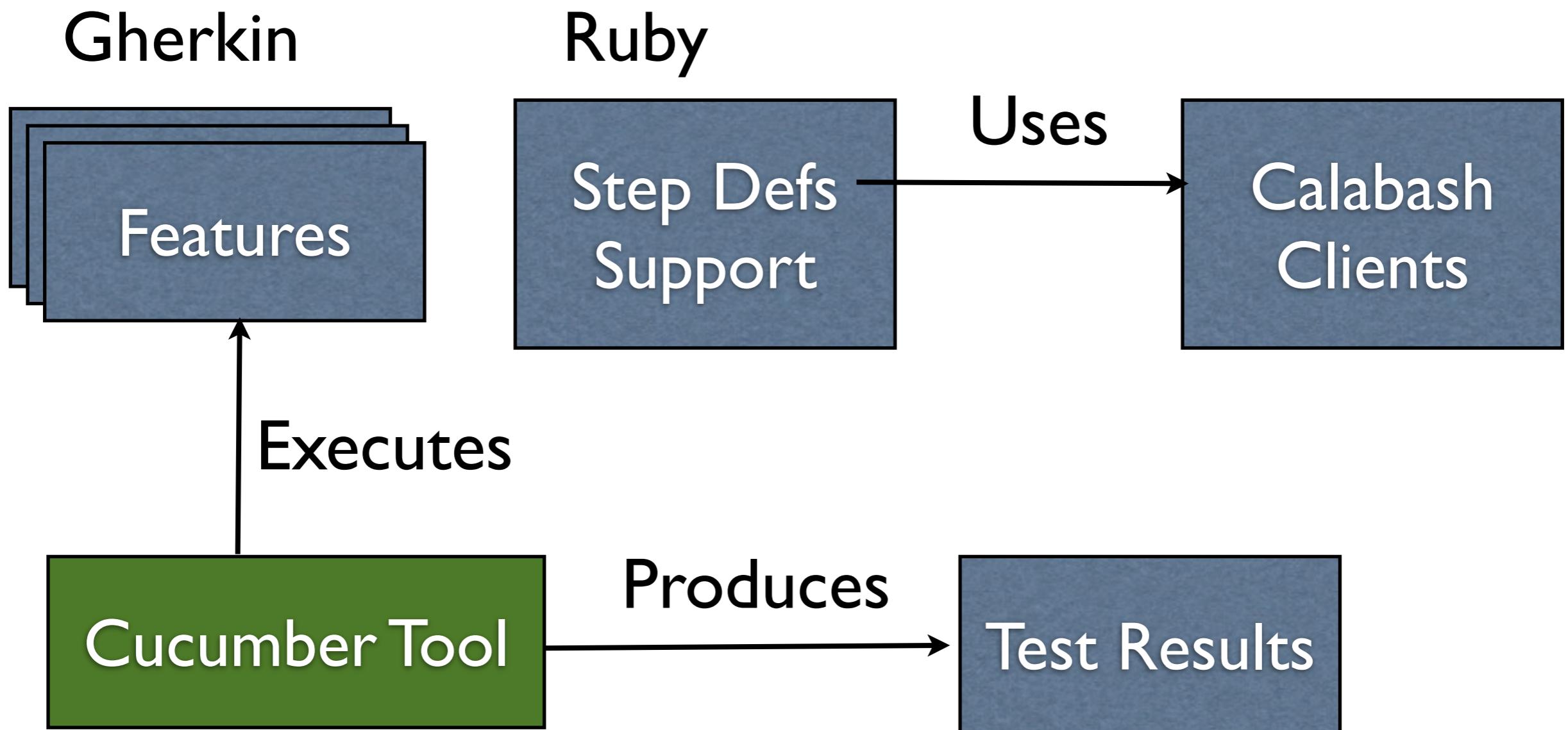
- install and run
- Cucumber Basics
- predefined steps

Calabash Architecture



...

Cucumber + Calabash



Calabash iOS Basics

- interactive/exploratory development
 - core API
 - screenshots

Calabash iOS Advanced

- record/transform/playback
 - web view support
 - location support

Roadmap for Calabash

- Support for dynamic query and action on Android.
- Better support for reuse of test code across platforms
 - More uniform APIs (old apis will not disappear)
 - Naming and conceptual model
 - Protocol-level
 - Support platform specific actions, where useful
- Support for JVM, Better WebView support, Better tooling.
 - Clojure POC already exists - supports any JVM language
- Your inputs!

References

- <https://github.com/calabash>
 - <https://github.com/calabash/calabash-ios>
 - <https://github.com/calabash/calabash-ios/wiki>
 - <https://github.com/calabash/calabash-ios-server>
 - <https://github.com/calabash/calabash-android>
- <http://blog.lesspainful.com/>
- <https://www.lesspainful.com/>



Questions?



Making app testing less painful...

Please contact us with any questions:

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