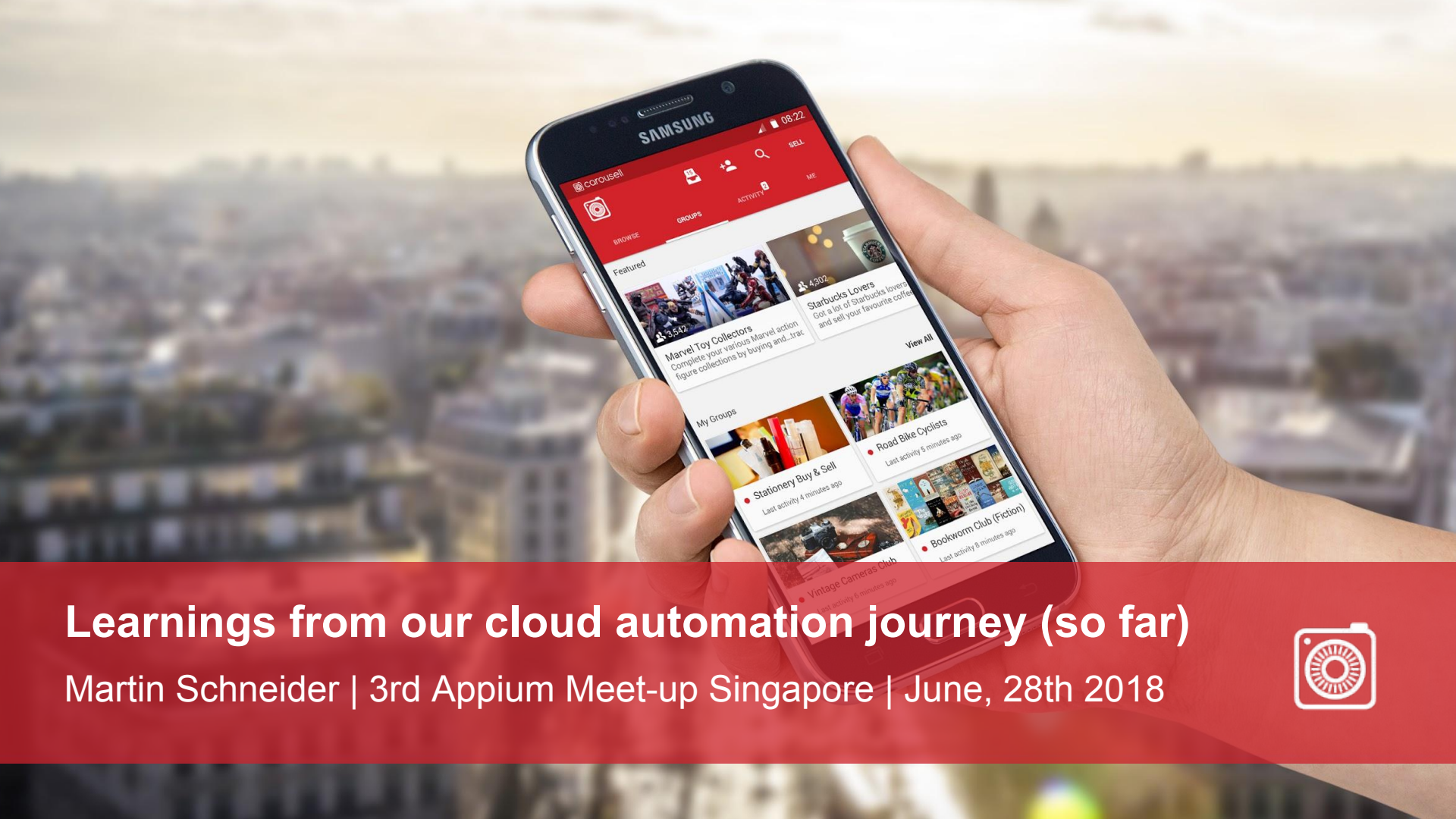
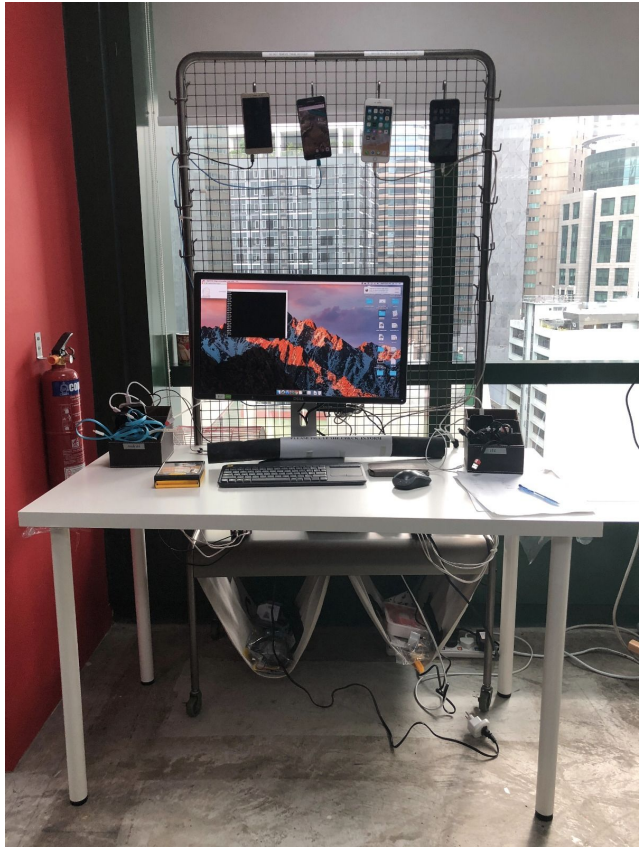



# Learnings from our cloud automation journey (so far)

Martin Schneider | 3rd Appium Meet-up Singapore | June, 28th 2018

# Current focus

# Local or cloud-based device farm?



# Factors to consider

- available device models
  - update cycles
- integration of existing test solution
  - plug & play or refactorings necessary
- maintenance of devices
  - software updates, repairs, resets etc.
- availability of devices
  - private/dedicated vs. public/shared devices
- extensibility
  - integration into build pipeline
  - available plugins
  - **API**
- cost **including man-hours**

# Learning #1 - It’s only software

- Each solution will have its limitations **BUT**
- there is usually a way to fix them (or around them)

# AWS Device Farm + Cucumber?

Re: Does AWS Device Farm support running tests via cucumber-jvm & appium?

Reply

Posted by: Nikhil@AWS

Posted on: Dec 28, 2016 11:42 AM

in response to: AnandBagmar

Hi Anand,

Please find the answers below:

1. Does AWS Device Farm support running cucumber-jvm / appium / junit tests?
Answer: Currently we so not have out of the box support for cucumber/appium/junit.

# AWS Device Farm + Cucumber!

1. AWS does not support to run Cucumber tests
2. We do not want to rewrite our tests
3. https://github.com/martinschneider/cucumber2junit

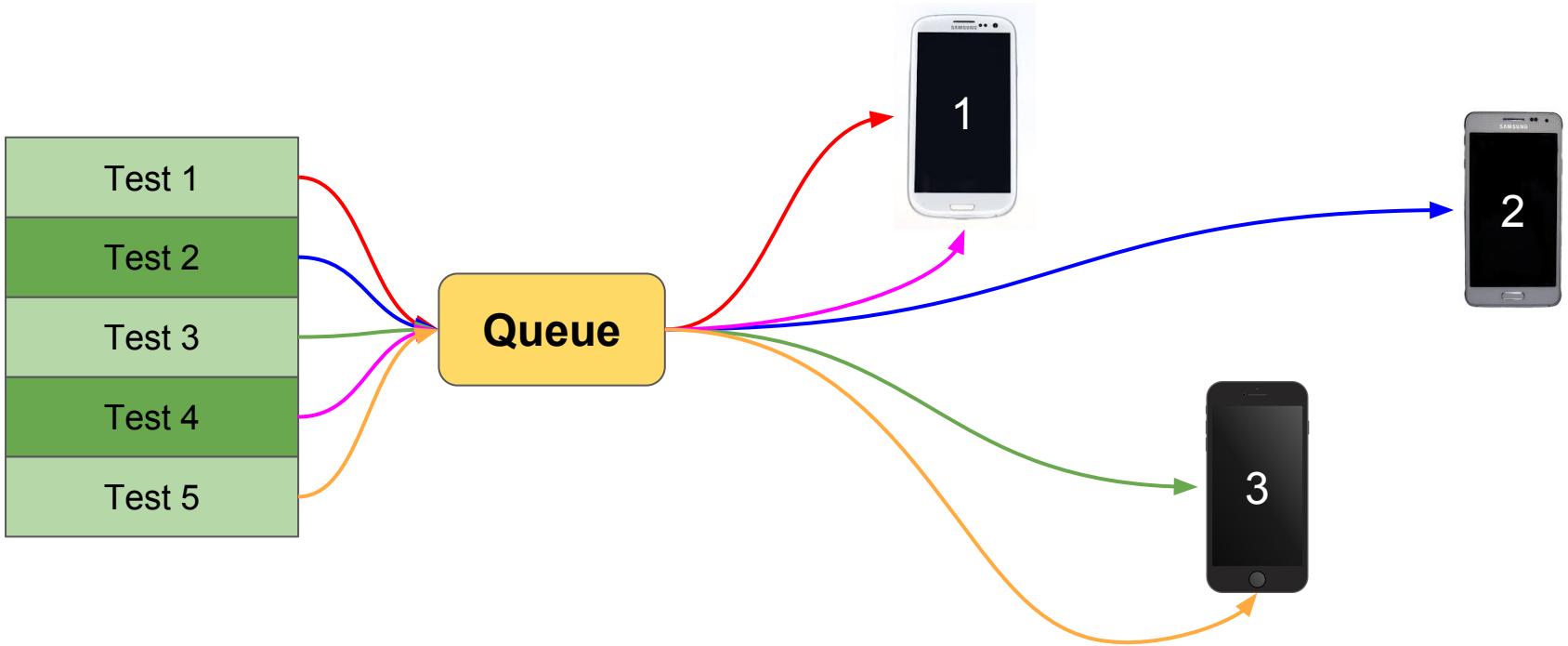
# Learning #2 - Distribution is key

**How to distribute *n* tests across *m* slots (browsers or phones)?**

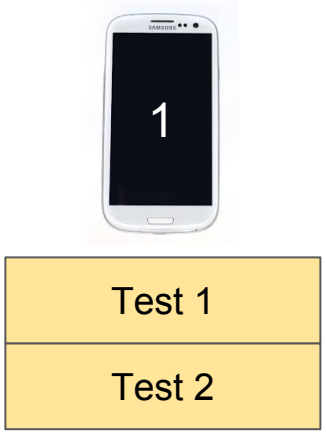
- Surprisingly not always a standard feature
- Two main ways to build it yourself:
  1. Split up your test suite in *m* chunks
  2. Implement a queue and a worker
- You might lose some of the features of the test framework along the way (e.g. having one report per run)

**Getting this part right is crucial for integrating tests into your pipeline!**

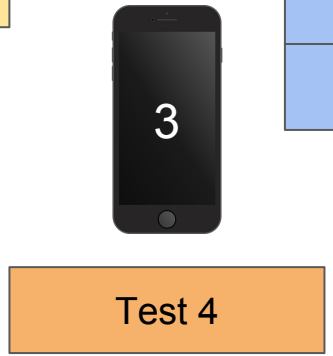
# Distribution using a queue



# Distribution using chunks





# Distributing with AWS

## Re: Running test in parallel

Reply

Posted by: RohanD@AWS

Posted on: Mar 28, 2016 10:12 PM

in response to: DexRobinson

Hi,

The feature you are asking for ("test sharding") isn't available in AWS Device Farm at this time. We've heard this request from several customers and will look into adding support.

Regards
Rohan

# Distributing with AWS

- On AWS, each execution has a large overhead so we chose option 1
- Steps:
  1. Create a test run on Testrail (http://www.gurock.com/testrail)
  2. Create test packages for this run (one per phone)
  3. Upload test packages and app package (APK, IPA) to AWS and trigger its execution
  4. Each execution will update the result on Testrail (including logs and a video)
  5. Once all tests complete we close the test run

**Testrail acts as the umbrella around our automation suite**

# Distribution with AWS, Jenkins and Testrail

# Learning #3 - Show me your APIs!

**No automation framework will cover all your requirements**

**Evaluation tip**

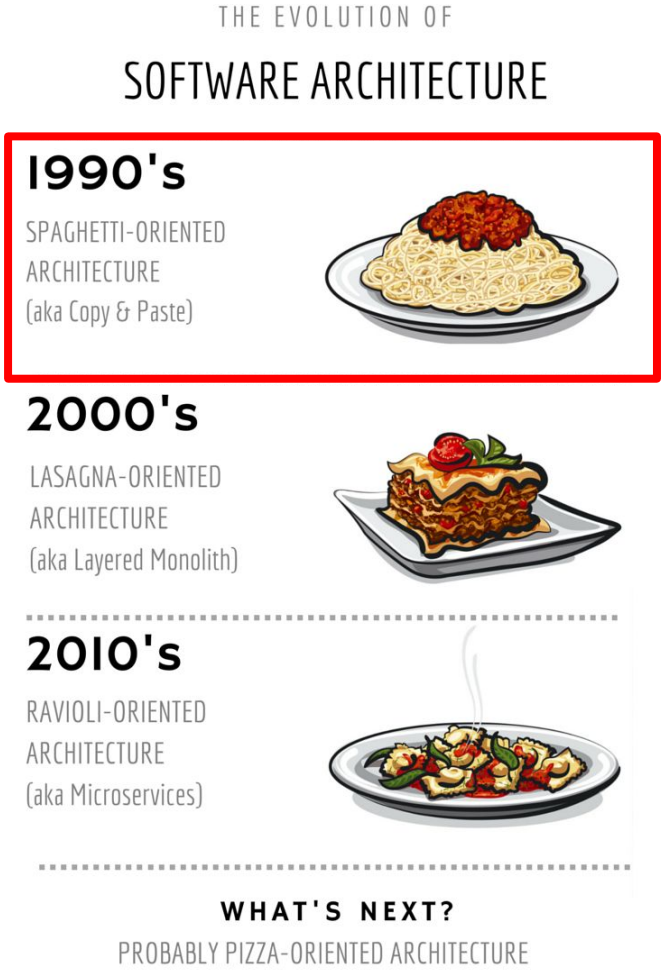
- Focus on the basics (supported phones, pricing, performance etc.) **and**
- Make sure it comes with a proper API

**Extend to your needs**

# Best practices

**Some advice for building a test framework**

1. Write clean code & ensure maintainability
   a. Avoid spaghetti code test scripts, OOP is your friend
   b. Keep things flexible: don't hard-code your config

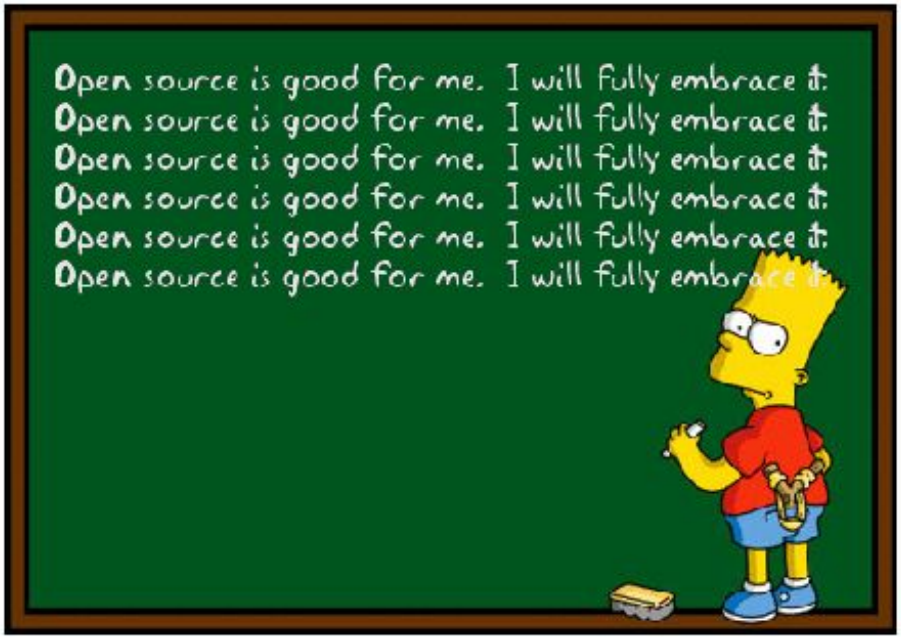


# Best practices

- Add documentation
  - In the code (e.g. Javadoc)
  - Readme files, setup guides, demos, sample docker containers etc.

# Best practices

- Consider sharing and open sourcing your solutions

# QA?

QA was yesterday - we are test automation **engineers**

# Get connected!

**Singapore Appium Meet-up Slack Channel**

https://singaporeappiummeetup-slack.herokuapp.com

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