Taking your Selenium Tests for web and mobile beyond your local Firefox Browser

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*"We co-created Selenium
and invented the Selenium Box"*

We are a boutique consulting firm specialized in agile engineering practices and test automation solutions with Selenium. The company founders are key contributors and thought leaders to open source projects such as Selenium, Selendroid and ios-driver. Michael Palotas and Francois Reynaud spent more than a decade working for eBay and were instrumental in bringing software development and test engineering at eBay into the agile age.

AGENDA

- Introduction
- Where is Selenium?
- What is Selenium?
- The problem
- The solutions
- The problems with the solutions

Test automation is...

software development

A little history

Selenium was so named because Huggins, dissatisfied with testing tools on the market, was seeking a name that would position the product as an alternative to Mercury Interactive QuickTest Professional commercial testing software. The name, Selenium, was selected because selenium mineral supplements serve as a cure for mercury poisoning, Huggins explained.

Selenium – what is it?

Selenium automates browsers – that's it
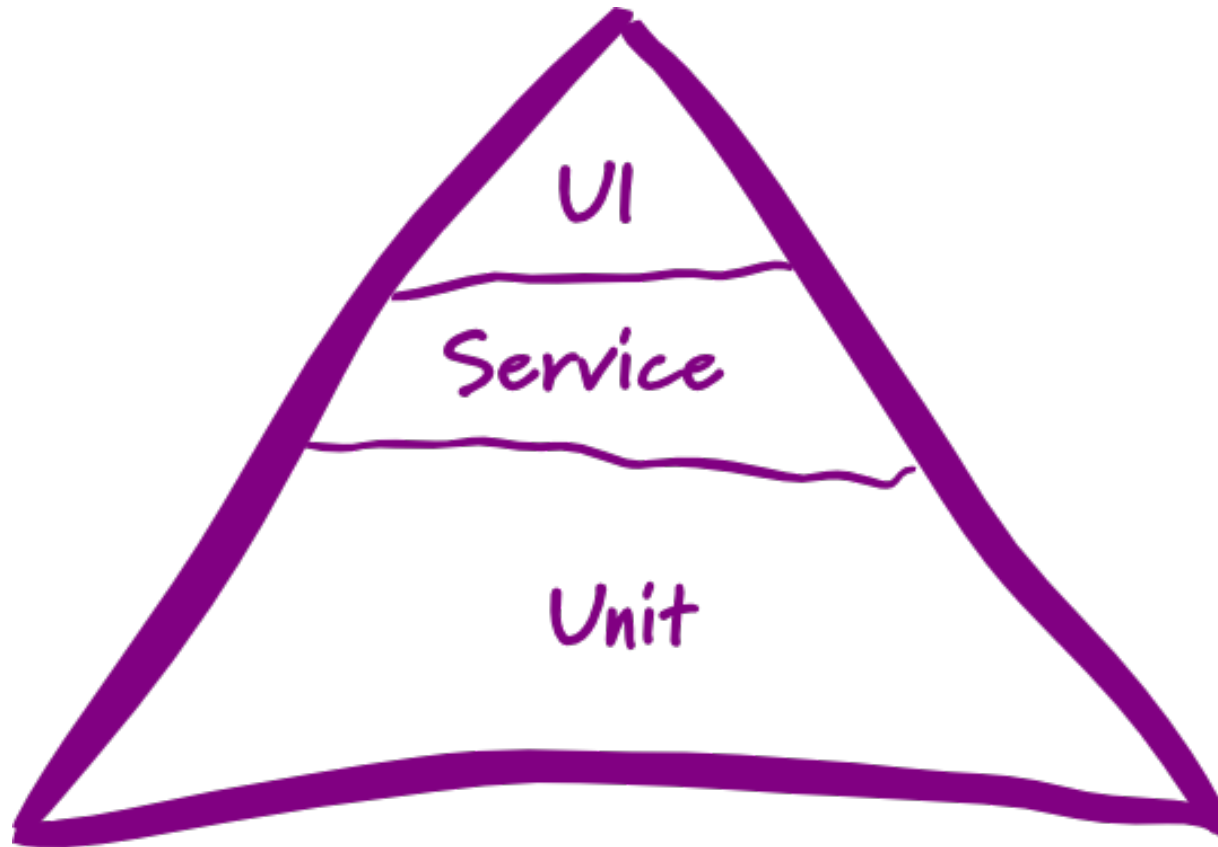
Selenium is a HTTP protocol describing user interactions

Selenium is becoming a W3C standard:

http://www.w3.org/TR/webdriver

Supports most browsers

Supports most programming languages

Selenium – where is it?

Selenium „flavors"

Selenium IDE

Selenium

Selenium GRID
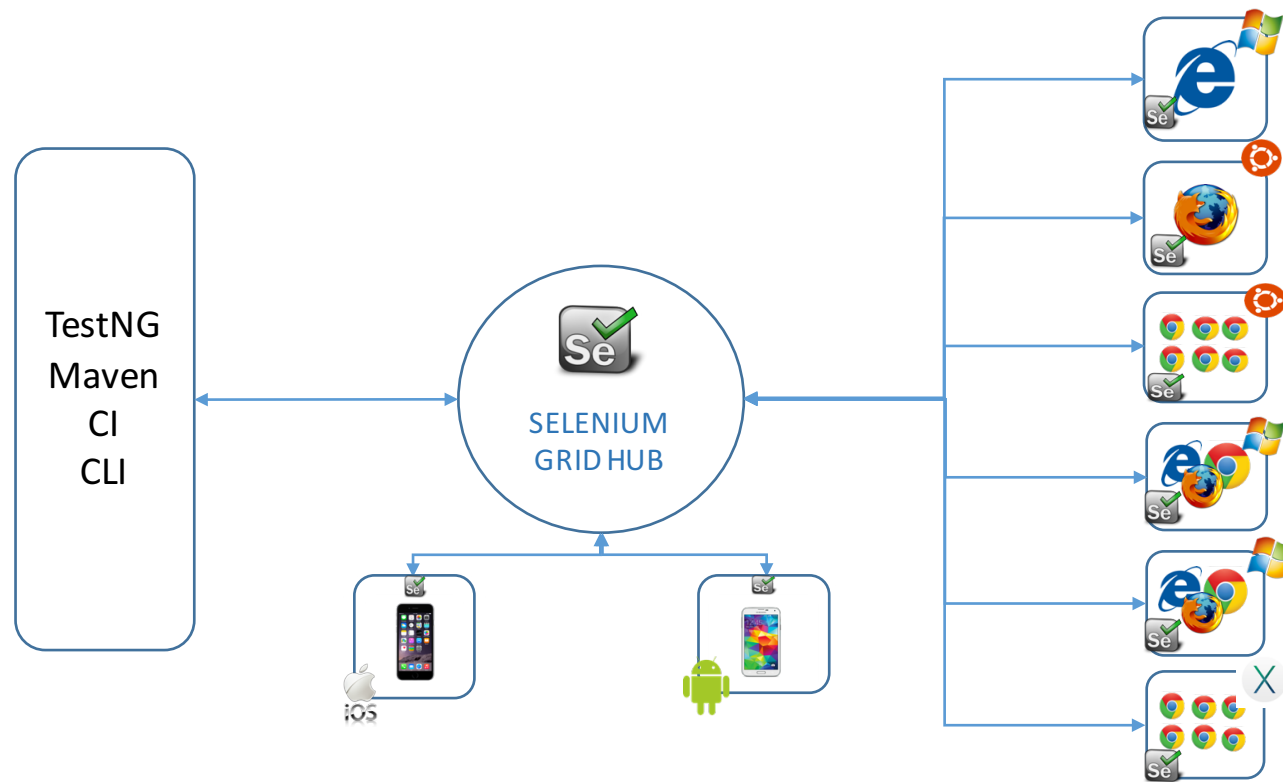
The problem

The solution - Selenium Grid

TestNG
Maven
CI
CLI

SELENIUM
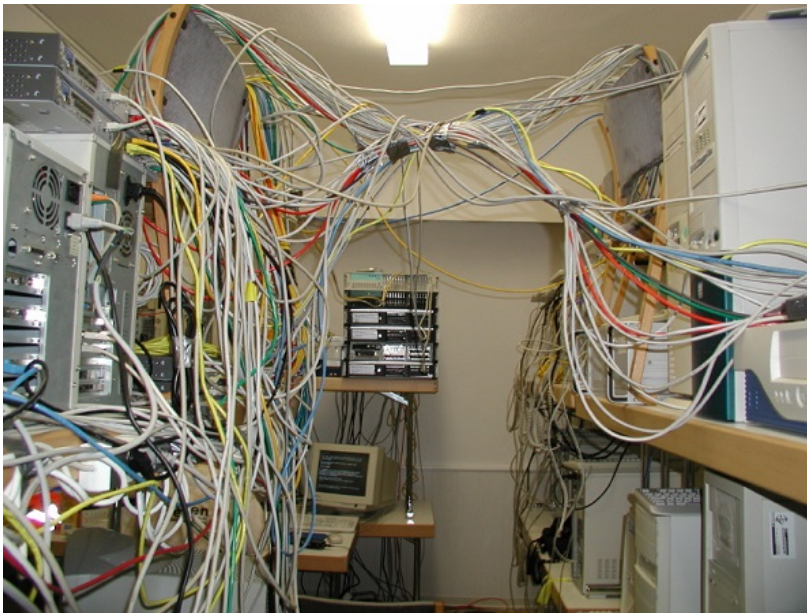GRID HUB

The problems with the solution

Inhouse

- Setup

- Operation

- Maintenance

- Open source version is missing lots of features for enterprise usage

Cloud

- Security

- Price

- Performance

- Control

Selenium Grid - inhouse or cloud?

Thoughts to consider

Inhouse or cloud?

- Security

- Scalability

- Performance

- Pricing

- Reporting and monitoring

- Target applications

Security

- Inhouse: secure
- Cloud: potential security concerns. No-go for CH banks ☺.

Scalability

- Inhouse solutions scale much better
- More tests != more expensive
- More parallel tests != more expensive

Performance

- Widely reported performance issues with cloud providers
- No control over performance with cloud solutions
- Inhouse solutions should be close to the CI and the application under test
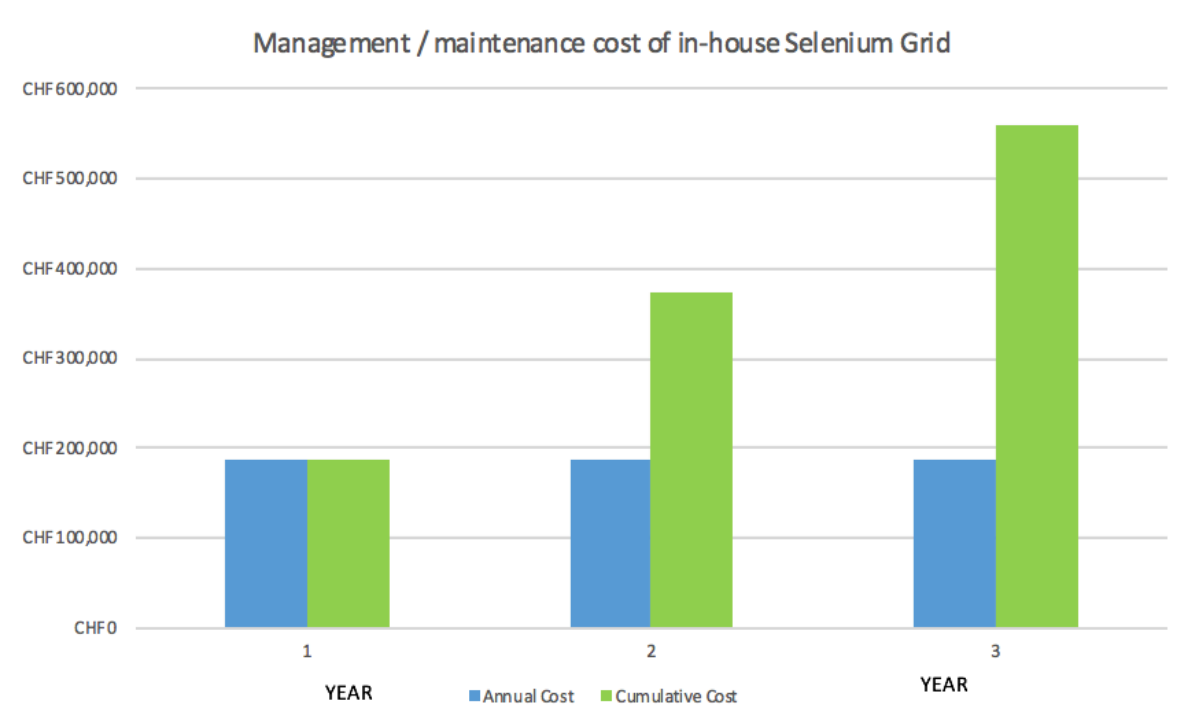
Price

- Cloud seems cheap at first BUT
  - Becomes very expensive when scaling

- Self built in-house solutions require 1-2 very good engineers full time to operate and manage an enterprise grade Selenium Grid + the initial setup cost (6-12 person months)

Financials (in-house / self-built Selenium Grid)

- **Building** your own Enterprise Scale Selenium Grid: 3-6 months (1-2 "good" engineers)
- Does not include features like video reporting, live view, extended logging etc.)
- **Operating** costs: 150 – 180K / year

Assumptions:
- Cost for building the Selenium Grid are not included
- Internal cost / hour: CHF 150
- "advanced" customer: Grid nodes don't need to be configured seprarately
- Browser: Firefox, Chrome, IE/Edge, Safari Mac
- Parallel slots: 50

Management / maintenance cost of in-house Selenium Grid
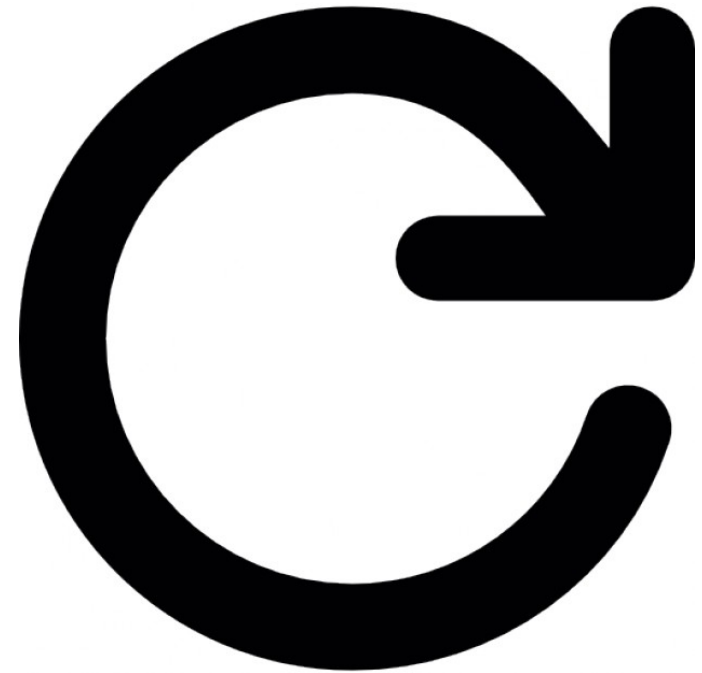

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SOLUTIONS

Reporting & Monitoring

- Out of the box Selenium Grid does not provide any reporting & monitoring capabilities

- Cloud solutions leave the reporting to the user

- Inhouse solutions can be built with custom reporting tailored to the organization's needs

Keeping things up to date

- Cloud: no problem
- In-house: problem

Target applications

Web… probably

Mobile … very likely

Summary

Inhouse
- Fast
- Secure
- Scalable
- Full control
- Management + maintenance effort
- Big commitment
- $$$$$$$$$

Cloud
- Easy access
- Security concerns
- Does not scale well
- No control
- Low commitment
- $$$$$

One last thing…

SELENIUM BOX

SELENIUM BOX – WHAT IS IT?

Selenium Box is a

secure

in-house

auto-maintenance

auto-scaling

Selenium Grid solution

for running cross browser and mobile Selenium tests

SELENIUM BOX – WHO IS IT FOR?

Selenium Box is designed for organizations that require

Security and data privacy

Scalability and running many tests in a short time

A maintenance and worry free Selenium Grid

Support for all major browsers (incl. IE/Edge and Mac Safari and older versions)

Seamless integration with all common CI systems

In-house engineering resources to focus on core competencies rather than building a Selenium Grid and test
infrastructure

Full control over the Selenium Grid

MORE INFORMATION

http://www.element34.net/seleniumbox

FAQ: http://www.element34.net/faq-selenium-box

White paper: http://bit.ly/e34-selenium-box-whitepaper

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