**Appium introduction**

Appium is an open-source tool for automating native, mobile web, and hybrid applications on iOS and Android platforms. **Native apps** are those written using the iOS or Android SDKs. **Mobile web apps** are web apps accessed using a mobile browser (Appium supports Safari on iOS and Chrome or the built-in 'Browser' app on Android). **Hybrid apps** have a wrapper around a "webview" -- a native control that enables interaction with web content. Projects like [Phonegap](http://phonegap.com/), make it easy to build apps using web technologies that are then bundled into a native wrapper, creating a hybrid app.

* Native App: iOS\_PTComms
* Web App: Read the News in Safari
* Hybrid App: UC Brower

Appium framework:

Android (Google’s)

* Instrumentation: Android 2.3+

Instrumentation framework is the heart of the Android test environment. You can test the application and accuracy control the application under this framework.

* UIautomator: Android 4.2+

iOS

* UIautomator

**Calabash vs. Appium**

|  |  |  |  |
| --- | --- | --- | --- |
| **Property** | **CALABASH** | **APPIUM** | **COMPARE** |
| Speed of execution | ~1.5 Sec per step | ~3 sec per step | Appium is about twice slower than Calabash. |
| Connection to API (Wireless/USB) | Wireless (iOS 6-)  USB (iOS 6+) | USB |  |
| Source Language | Ruby only | Java, Objective-C, JavaScript with Node.js (in promise, callback or generator flavors), PHP, Python, Ruby, C#, Clojure, or Perl |  |
| Run-loop Interface (Responsible for  smooth start and stop of the  test execution between cases ) | Buggy | Looks more stable | Looks much better under Appium, Calabash run-loop still needs to be tweaked with every new library. |
| Server/Client Architecture | Calabash server library needs to be built-into Application first and then thrown onto the device. | Appium server needs to be started on the driving box and nothing should be built into the Application. | Calabash has overhead of building library into the Application. |
| Readability of tests | Calabash is based on Gherkin (a language) | Gherkin is not available |  |
| Supported Application Types - Native/Web/Hybrid | Don't think it supports Web or Hybrid | Supports all three types |  |



