# A Mobile Test Lab?

Mobile app projects, big or small, each of them need to test their app before launch. There are many ways to do this, the use of emulators and simulators, cloud devices or real devices. If you're using real devices, are these your own? Is there a budget available for test devices? And do you buy or rent them? And which devices do you need?

"Just get the latest Samsung Galaxy and Apple iPhone!"

It's no surprise that Samsung and Apple hold the biggest shares of the worldwide smartphone market. But can you suffice testing only on their latest flagships? Well, maybe, if that is what your customer is using. You need to do research to find out what your target group is, which devices they are using, and which platform and version?

Worldwide Smartphone Vendor Market Share (Share in Unit Shipments). Source: IDC, Nov 2016
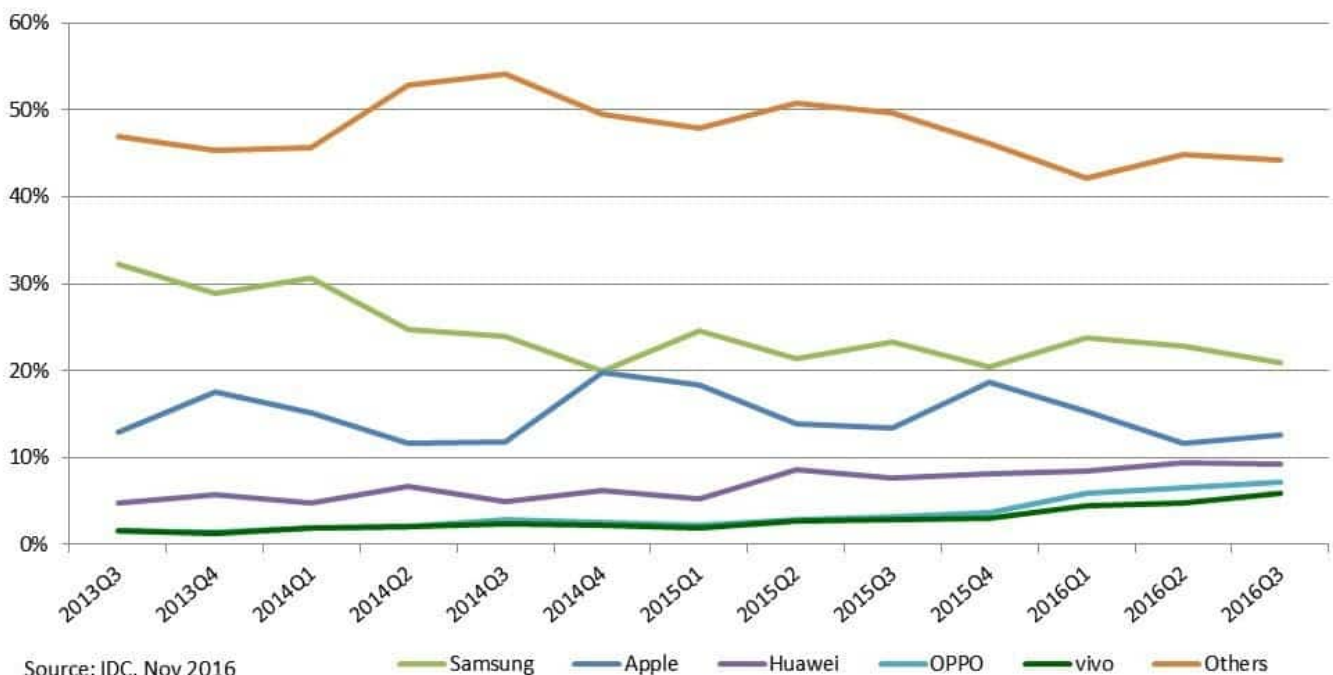
How do I find out what devices my users are using?

The answer is analytics, there are many tools available to build in to your app which will give you the insight needed. You can tag practically anything in your app which will show you exactly how many users you have, which devices they are using and which platform and version and what the users are doing with your app. Anything can be found if you set this up correctly. Have a look at some of these analytic examples:

- deviceatlas.com/device-data/explorer
- appbrain.com/stats
- info.perfectomobile.com/digital-test-coverage-index.html
- opensignal.com/networks/(network operators)
- gs.statcounter.com
- mixpanel.com/trends
- akamai.com/html/io/
- netmarketshare.com/browser-market-share.aspx
- developer.android.com/about/dashboards/index.html
- david-smith.org/iosversionstats/
- developer.apple.com/support/app-store/
- communities-dominate.blogs.com/

Does that mean I need to support every device my customer uses?

Only if your resources are infinite. Which they're not. You need to choose. You'll want to have a set of test devices that cover a big chunk of your users' devices, and a device your users might use in the future, and a device your users aren't using at all. Why test a device your users don't use? Simple, there might be a good reason people that use that phone don't use your app. It might just not work on that device. But since you can't buy or rent just every phone out there, a managed approach will do the trick. First, find out which device you want to support, and what type of test you want to execute. Next see if you want to acquire these devices, whether purchase or rent also a cloud-based solution can do the trick. For a relatively small amount you have access to a lot of different devices with a lot of different setups. Still I wouldn't recommend to do all your tests only on a cloud-based solution, you should always use some real devices. Because it's possible to test functionality on these cloud-devices, it's not possible to see the animations and feel the user experience, which you should.

How do you choose the right devices?

If you set up your analytics, you'll see the devices your users are using, which can be a lot. To get the right set you'll need to apply some rules. For instance, first use the top 3 used devices per Platform. Plus, get one device of your top 3 vendors. Get a device for every platform version that has more than 5% of your users. Also, have a look at the screen sizes, make sure you have some small and some big and something in between. Whatever you choose, make sure it's based on facts about your users.

Need some help?

If this research and analysis makes you dizzy and you would like some help, Polteq is here for you!

Robert Gorter