Enterprise Mobile Testing Trends

& Stats for 2018

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Kobiton

Introduction

If you live in an overcrowded city (Atlanta, in our case), you are acutely familiar with traffic. Probably road rage, too. You know how it feels to be late for something important and get stuck behind a slow-moving dump truck. It's not the truck driver's fault; he was likely assigned more stops that day than he has resources to handle. And his truck can only go so fast, compared to your sweet [insert your dream car here]. Nevertheless, every car around him is enraged. "Go faster! You're in the way! You're gonna make us miss ___!"

Road rage happens because there are too many people on the road trying to get to more places faster. A similar road rage is being caused by digital, mobile-first, DevOps strategy and the booming mobile app market in general.

We call it 'DevOps Road Rage.' While the business has been faster to adopt DevOps and CI/CD practices to meet rapid demand for flawless apps, QA can't get out from under increasing testing complexities and cost constraints. QA is the 'dump truck' stuck with limited resources, rising costs, and incrementally more to test – faster.

In this whitepaper, we will share data from our recent survey, "The Future of Mobile App Testing," and demonstrate how QA/Dev Managers can use Kobiton to fix the three main problems fueling DevOps Road Rage:

- Testing costs are unmanageable
- Testing processes are too slow
- Mobile app abandonment is becoming detrimental

Global mobile app revenues will more than double from $88 billion in 2016 to

$189 billion in 2020

Managing the costs of mobile testing

If your team becomes the company's cost center, you might also see some 'CFO Rage!' Unfortunately, QA fights that battle constantly, with the cost of good mobile test coverage out of control and rising. According to the survey, over the past year,

- 36 percent of organizations spent more than $100,000
- 66 percent spent more than $50,000
- Only 6 percent squeaked by having spent under $25,000

Rising Costs are Rampant

79% of respondents said they will spend more on mobile testing next year.

72% of survey respondants will increase tester headcount next year.

Why is mobile testing so expensive?

More frequent builds:

54% of survey participants are testing their apps on a DAILY basis.

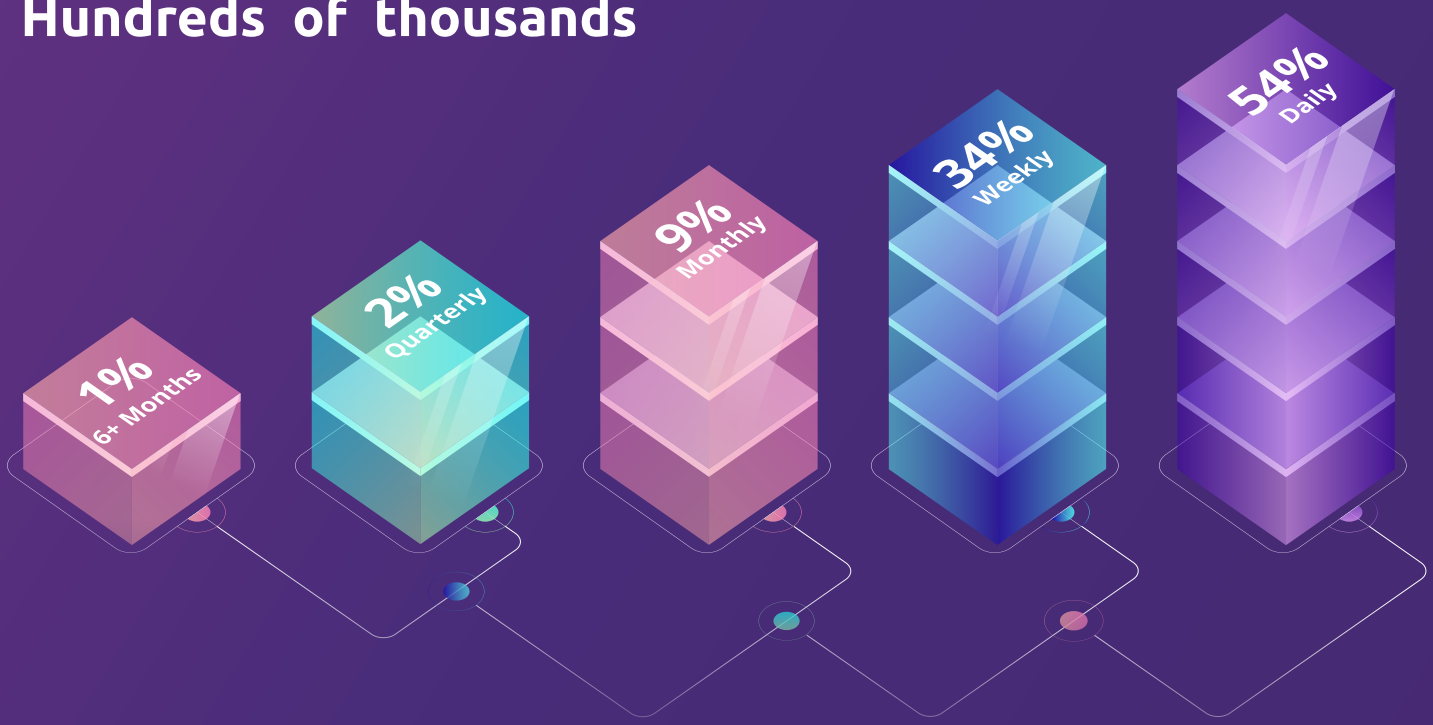
More apps:

31% of survey participants tested more than 10 apps last year.

More device/OS combinations:

Hundreds of thousands

The burning question is, how can enterprises get the **best possible** test coverage at the **lowest cost?**



Mobile App Testing Frequency Among Survey Participants

Strategies for managing cost

Test Automation

Test Automation can reduce inefficiencies; the problem is that QA Managers can't get organizational buy-in or budget to implement it. Most QA teams can hardly come up for air, let alone roll a time-intensive initiative like Test Automation. In fact, 'Organizational Buy-in for QA Needs' is the number-two biggest challenge in mobile testing, right behind 'QA is a DevOps Bottleneck.'

Mobile device labs

Mobile Device Labs can also cut the cost of testing, but choose wisely, Grasshopper. Most traditional labs, even the expensive ones, over-charge and under-deliver. See our paper on this topic: "7 Hidden Costs and Fails of Legacy Mobile Test Labs." The Cliff Notes: Legacy device labs use outdated technology, charge for capabilities you will never use and, in most cases, use simulators/emulators versus real devices. Research shows that in order to get good test coverage and certainty for your app (and thus cut defect-related costs), testers must have real devices.

Real devices are crucial

84% of respondents said that having the ability to test on real devices is paramount..

54% Described this ability as "very important"

30% Described this ability as "crucial"

You can build your own real-device lab, but this has proven difficulties:

Automated mobile testing.

Kobiton has introduced the concept of automated mobile testing to provide the best possible test coverage at the lowest cost. A streamlined autonomous mobile testing experience allows Dev and Test teams to centrally test, record, analyze and share both manual and automated test data on any app (web, native and hybrid) and any Android or iOS device, even those in-hand. None of this simulator B.S.; real devices only, like real customers use. Kobiton's modern UI and streamlined analytics help to identify more issues sooner in the build cycle, thus reducing app abandonment. A major player in the Human Resources industry recently increased the total addressable market for their mobile app by 12 percent using Kobiton's automated mobile testing engine.

34% of organizations can't get access to enough (or the right) devices, lack budget for real-device testing, or lack time to establish a mobile device lab.

75% of survey respondents said that open source integrations are valuable or extremely valuable.

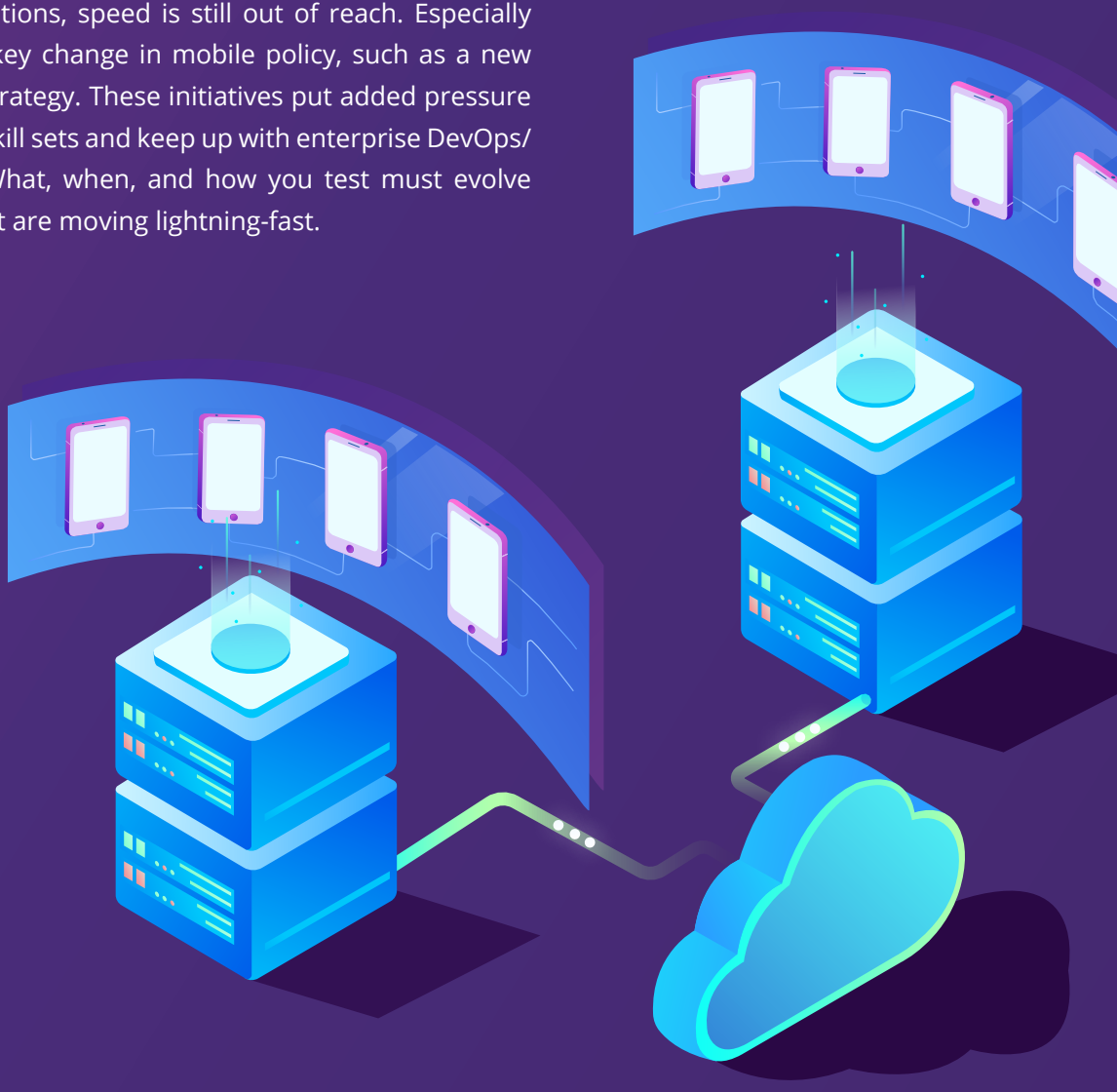
Open source integrations

Open source integrations save valuable time and bridge the gap to Test Automation. Many legacy mobile labs use proprietary IDE frameworks that require coding knowledge to implement. Their high barrier of entry is an enterprise bottleneck to Automation and a major contributor to DevOps Road Rage. Kobiton uses open source integrations that are super simple to set up and use with existing/preferred tools. Of those surveyed regarding what they want in a device cloud, **75 percent said that open source integrations are valuable or extremely valuable.** Testers can easily and remotely execute scripts on the Kobiton platform when seamlessly plugging into current Automation tools to reduce the time/cost of testing mobile apps.

CI/CD, mobile-first & the need for speed

Most of us aren't on the CI/CD train yet, but are headed that way fast. Rapid, automated software updates have worked out quite well for CI/CD "senseis" such as Etsy – which pulls off 50 deployments per day – and for Fidelity Worldwide Investment - where engineers met their firm rollout deadline for a critical trading application, resulting in a $2.3 million cost avoidance per year for that app alone! These enterprises have cracked the formula for optimizing cycle times and meeting rapidly evolving customer needs across a wide variety of app types, platforms, screen sizes, orientations, etc.

For the majority of organizations, speed is still out of reach. Especially when the enterprise has a key change in mobile policy, such as a new mobile app or mobile-first strategy. These initiatives put added pressure on QA to apply higher-level skill sets and keep up with enterprise DevOps/ CI/CD/Automation efforts. What, when, and how you test must evolve with enterprise priorities that are moving lightning-fast.



Where are your peers focusing most right now?

When asked about priorities, survey respondents said:

Top 3 Platforms Tested:

42% of respondents said they were focusing on Native iOS and Android Apps

21% are focusing on hybrid, native and web applications

14% are working exclusively on mobile web apps.

We expect these priorities to evolve at an increasing pace as the need for speed gets even stronger.

Kobiton accelerates speed to market

Kobiton accelerates and supports DevOps/CI/CD by allowing QA to perform all of the necessary test activities for any device, app or platform in a centralized portal with flexible deployment options. In contrast with legacy labs that use simulators and rigid deployment limitations, Kobiton is like finding an awesome off-road shortcut.

Anyone on the team can quickly access test data from real devices in a single view, improving collaboration and reducing the risk of missed defects or late-cycle issues. In addition, Kobiton accelerates speed to market and improves certainty by allowing teams to add data to the cloud from any device, whether on-premise or in the cloud. Kobiton empowers customers to deliver high-priority updates with greater speed and confidence than any other device cloud on the market.

Five star-worthy apps

Enterprises have DevOps Road Rage for a very good reason: at best there's big moola to be made, and at worst, huge losses. So it makes total sense that QA catches the heat for being the impediment. After all, their job is and always has been to break code and ensure a quality product. However, they know that the cost of incomplete testing is significant. This year companies will spend $450 Billion to acquire mobile app customers, and with 24 percent of users abandoning 36 percent of apps within the first 90 days due to technical issues, these companies stand to waste $163 Billion.

On the flip-side, better testing leads to fewer functionality and performance problems, empowering organizations to achieve **The Holy Grail: the five-star review.**

Isn't that why organizations test to begin with? Here's what the research says:

Why organizations test:

29% test to increase user engagement

28% test to prevent expensive bug fixes later in the dev process

17% test to prevent app abandonment

14% test to preserve or enhance their brand reputation

13% test to decrease the threat of security-related issues

"In this extremely competitive app market, QA is no longer just about missing fewer problems; it's about creating value that earns five-star reviews for your product."

What does this all mean for QA?

We know from our research that the biggest challenges facing QA teams is being the DevOps bottleneck (23 percent). DevOps Road Rage is an ultra-gross feeling for QA leaders. They are expected to speed up, automate processes, extend test coverage, screw up less, and deal with increasing costs under the same puny budget. DevOps Road Rage puts QA leaders in a constant dilemma: speed up like everyone else on the road, or ensure quality? The good news is you can do both.

Kobiton balances certainty with speed

Surviving DevOps Road Rage requires a mobile testing solution that can provide the right balance between speed and certainty... How much test coverage is "good enough" without slowing down the rest of the organization? That's exactly why we built Kobiton.

A different breed of device cloud

It's really ridiculous when you think about how expensive mobile labs have become in recent years. They charge about 70 percent more per minute than Kobiton; yet, their outdated technology and hidden costs prohibit enterprises from achieving awesomely effective and efficient testing.

Possible reasons to ditch your legacy device lab:

- Use of simulators/emulators
- Limited efficiency; inability to add local devices
- Often cannot support manual testing
- Has a high cost per minute & high barrier to adoption
- Requires coding skills to set up proprietary IDE frameworks
- Charges for outdated or unnecessary technologies
- Complicates/stalls enterprise DevOps/Automation/ CI/CD

In contrast, Kobiton uniquely:

- Uses real devices for the best test coverage
- Allows all test data in the cloud – public, private & local
- Supports both manual and automated test cases
- Charges below market cost; pay only for what you need
- Uses open source integrations; anyone can set up
- Includes roadmap integrations for CI/CD/Test Automation

About Kobiton

Kobiton is the only real-device mobile app testing platform that can effectively alleviate the QA bottleneck holding enterprises back from realizing the full ROI from their DevOps/CI/CD initiatives. Unlike traditional mobile labs, Kobiton delivers unmatched efficiency, performance and flexibility of deployment at a fraction of the cost. With the ability to test any app/platform/device/OS combination quickly and securely, your organization will be able to release faster, increase user engagement, and free up resources for high-level priorities.

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