WHY MOBILE APPS FAIL

FAILURE TO LAUNCH

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www.perfectomobile.com/WhyMobileAppsFail
Perfecto Mobile partners with leading organizations worldwide to help them deliver better apps faster. Many of these organizations are in the early days of their mobile program and frequently look for guidance and industry benchmarks to help them better understand the challenges involved in mobile app development and testing. As a result, Perfecto Mobile fielded a survey to determine top challenges for testers and end users alike, and provide recommendations to help solve these issues.

We asked a series of questions about mobile app testing obstacles, user feedback, and solutions to prevent defects. We received nearly 900 responses representing a range of geographies and verticals, and the results are summarized below in Why Mobile Apps Fail.

THREE KEY FINDINGS WERE CONCLUDED FROM THE SURVEY.

1. A whopping 44% of QA is coming from your users
   According to our research, users identify almost half of total app defects! Dev/Test teams need to focus on a strategy to improve mobile app quality; there is no excuse to make your users your testers.

2. Device compatibility needs attention now
   Top app issues as reported by end users are predictable, with UI, performance and monitoring related problems named as the top three. The fourth issue reported, however, is device compatibility, with 45% of users experiencing issues on this topic. Solving device compatibility is low hanging fruit in comparison to the top three challenges and can be solved easily with a cloud based device lab.

3. An alarming 63% of testers admit that they are unable to sufficiently cover the number of test cases or test across all the different devices and OS versions that are required for full coverage support
   Today's Dev/Test teams struggle to keep up with the pace of mobile. Implementing an automated testing platform with real device access via the cloud can minimize the struggle.
When asked to rank the types of issues most encountered by mobile app users, the following issues were at the top of the list:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Interface Issues</td>
<td>58%</td>
</tr>
<tr>
<td>Performance</td>
<td>52%</td>
</tr>
<tr>
<td>Functionality</td>
<td>50%</td>
</tr>
<tr>
<td>Device Compatibility</td>
<td>45%</td>
</tr>
<tr>
<td>Missing Functionality</td>
<td>29%</td>
</tr>
<tr>
<td>OS Compatibility</td>
<td>23%</td>
</tr>
<tr>
<td>Security</td>
<td>14%</td>
</tr>
<tr>
<td>Backend Services Available</td>
<td>10%</td>
</tr>
<tr>
<td>Backend Services Functionality</td>
<td>10%</td>
</tr>
</tbody>
</table>

* Respondents could choose more than one answer, results may add to more than 100%
"AFTER TWO BAD EXPERIENCES, I'LL TRY SOMETHING ELSE"

Users uncover almost half of application defects

44% of defects are found by users

20% Public user reviews (e.g. in app stores)

24% Direct user feedback

WHY THIS HAPPENS

Mobile app testing is fraught with challenges

- Insufficient device coverage: 63%
- Lack of reliable automation: 48%
- Needs more time for testing: 47%
- Unclear/shifting product requirements: 42%
- Maintaining current test environment: 39%
- Integration with existing tools: 27%
- Achieving continuous delivery: 23%
- Other: 6%

HERE’S THE SOLUTION

The top 3 most critical measures to reduce mobile app defects are:

More functional testing +

More device/OS coverage = Fewer user errors

More performance testing
IMPROVING APP QUALITY

TO ANSWER THE CHALLENGE OF INSUFFICIENT DEVICE COVERAGE, FORM A STRONGER STRATEGY.

Behind every good app is a good mobile strategy. The user experience differs in almost every scenario, including different operating systems (Android, iOS, etc.), OS versions (Jellybean, KitKat, iOS7, etc.), carrier networks (Verizon, AT&T, Sprint, etc.) and devices (Samsung Galaxy S4, S4, S5 iPhone 5, 5C, 5S), and each contributes to an endless possibility of use-case issues. Mobile isn’t a binary mindset, and not planning for the tremendously fragmented market will cause an app to fail. Broad market stats about mobile adoption are important to consider when formulating a device coverage strategy, but paying attention to market trends is not enough. The most important question to answer in order to ensure sufficient coverage is “What devices are my target users using?” Analyzing your user traffic should help you formulate a real-device strategy and give you the most comprehensive coverage.

LACK OF RELIABLE AUTOMATION IS A KEY CHALLENGE, SO USE A TOOL THAT CAN SUPPORT CONTINUOUS, UNATTENDED TESTING.

What is the real goal of implementing automated testing? The ability to deliver better apps faster. The only way to solve this challenge is to ensure that your solution can do the following:

- Develop cross-device, keyword-based automation scripts and run them across real devices in parallel, while connected to live networks
- Create a scalable and dynamic solution, where you can write one script and execute it across multiple platforms and devices
- Integrate with the tools you are already using

There’s no need to reinvent the wheel. Look for a sustainable solution, one that supports hybrid object analysis, for a highly effective automated testing experience.

TOO MANY TEST SCRIPTS, NOT ENOUGH TIME. YOU NEED SPEED.

If you wait too long for the next release, you risk dropped users who find other apps with more frequent updates, bug fixes, and a more reliable user experience.

Speed is always a major factor, but not only in terms of how long the app takes to open or perform a transaction. The best apps are developed and tested in an agile environment. To facilitate this, test automation should be approached with re-use in mind, as automation components can accelerate script development by 50% or more. Planning for parallel execution will also allow quicker time-to-market, better quality, and increased scalability.
OVERCOMING QUALITY CHALLENGES

THREE STEPS TO BETTER USER EXPERIENCE

1. **Focus resources on testing**
   - Use a Cloud-based Device-as-a-Service: provides access to any device/OS/network combination on-demand, so you can focus your resources on testing, not managing devices.

2. **Embrace automation**
   - Improve efficiency: embracing automation allows you to test more with fewer resources and greater consistency.

3. **Deploy a monitoring system**
   - Stay one step ahead of your users: deploy a monitoring system that will provide early warning signs and alert you to performance issues before they impact users.

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http://www.perfectomobile.com/content/free-trial-registration

About Perfecto Mobile
Perfecto Mobile is transforming the way enterprise organizations go mobile, enabling them to develop, test, deploy and monitor their mobile applications and services and go-to-market with confidence. Perfecto Mobile’s cloud-based MobileCloud™ Platform and end-to-end mobile quality product suite enables users to remotely access a large selection of real mobile devices connected to local cellular networks around the world and leverage them throughout the mobile application delivery lifecycle – from development, functional and performance testing to monitoring and support. The MobileCloud™ is available either as an enterprise private cloud or a sharable public cloud.