

Contents

Introduction	3
When to use mobile app testing: Essential use cases	4
Why mobile app testing matters: Key statistics	5
Mobile app testing challenges	6
Best practices in mobile app testing	7
OpenText functional testing solutions	8
OpenText performance engineering solutions	9
Conclusion	10

Introduction

Mobile applications are not just tools but an integral part of our daily lives. From the moment we wake up to the second we close our eyes at night, these tiny marvels of technology keep us connected, informed, entertained, and productive. But behind the seamless user experiences and sleek interfaces lie a rigorous and essential process: mobile app testing.



When to use mobile app testing: Essential use cases



Functional testing

User authentication: Ensure login mechanisms (email, phone number, social login, etc.) work correctly.

Navigation flow: Verify that users can seamlessly navigate through screens without errors.

Form validation: Confirm if input fields correctly enforce rules (password strength, mandatory fields, etc.).

Payment processing: Test checkout processes and various payment methods (credit card, digital wallets, etc.).



Performance testing

Load handling: Assess how the app behaves under high user traffic conditions.

Battery consumption: Measure the apps impact on device battery life.

Network variability: Ensure the app functions properly under different network conditions (Wi-Fi, 3G/4G/5G).

App startup time: Evaluate how quickly the app launches under various scenarios.



Automated testing

Regression testing: Verify that new updates don't break existing functionality automatically.

Cross-device compatibility: Ensure the app works across multiple device models and screen sizes.

API testing: Validate data exchanges between the app and backend servers.

Ul element testing: Use automation to check responsiveness, layout accuracy, and accessibility compliance.



Manual testing

Exploratory testing: Allow testers to manually interact with the app to discover unexpected bugs.

Usability testing: Evaluate user experience, accessibility, and intuitiveness.

Real-world scenarios: Check app performance manually in environments with different lighting, device movements, and distractions.

Localization testing: Ensure proper language translation and adaptation to various regional settings.

Why mobile app testing matters: Key statistics

88% of mobile time spent

is in apps, not browsers.1

70% of users

will abandon an app due to prolonged loading times.²

60% of enterprises

expect to incorporate Al-driven testing into their mobile pipelines.³

71% of app uninstalls

occur due to crashes.4

86% of people

spend more time on apps than on websites.⁵

75% of companies

report that slow app releases cost them more than \$100,000/year.

- 1 Brainvire, The App-ocalypse Now? Discover 15 Mobile App Usage Statistics in 2025: Key Trends and Insights
- 2 Unbounce, Think Fast: The Page Speed Report Stats & Trends for Marketers
- 3 Medium, The Rise of Al in Mobile Testing: Automation Trends Shaping 2025
- 4 AppSamurai, 10 reasons for why people uninstall your app
- 5 Buglance, Impact of COVID-19 on mobile app Market and testing: Statistics, challenges and solutions, 2020
- 6 Kobiton, State of Mobile Automation & Al 2024



Mobile app testing challenges

Users expect seamless performance, quick response times, and intuitive interfaces. However, achieving these standards is easier said than done. Mobile app testing presents unique challenges that can affect the development process and the end product's success. Understanding these challenges is the first step toward addressing them effectively.

Here are some of the most significant challenges faced in mobile app testing:

- **Device fragmentation:** Test across various devices, operating systems, and screen sizes to ensure compatibility and performance.
- **User experience (UX) testing**: Test the app's usability, navigation, and overall user experience is vital to meet user expectations and provide an intuitive interface.
- Integration with other apps and services: Ensure the app integrates seamlessly with other apps, services, and APIs, which is critical for functionality and user experience.
- **Globalization and localization**: Test for different languages, regional settings, and cultural preferences is necessary to ensure the app is accessible and user friendly for a global audience.

Best practices in mobile app testing

As mobile app testing grows every year, trends and best practices arise.

Follow these best practices to ensure your tests are the highest quality.

- **Early and continuous testing:** Integrate testing early in the development process and conducting continuous testing throughout the lifecycle.
- **Test automation:** Leverage automation tools to increase test coverage, efficiency, and repeatability.
- Comprehensive test coverage: Ensure all functionalities, including edge cases, are thoroughly tested.
- **Real user conditions:** Simulate real-world conditions, including network variability and device fragmentation, to ensure a realistic testing environment.
- **Regular updates and maintenance:** Keep the test suite updated with new test cases and maintaining it to adapt to changes in the application and environment.



OpenText functional testing solutions

OpenText™ Functional Testing Lab for Mobile and Web offers a centralized, enterprise-level lab of real mobile devices, browsers, and emulators. It supports remote development, debugging, and testing, making it a flexible solution for mobile app testing.

OpenText™ Functional Testing facilitates mobile test automation on locally connected devices, emulators, and cloud devices. It supports Al-based object detection and integrates with OpenText Functional Testing Lab for Mobile and Web for comprehensive mobile testing.

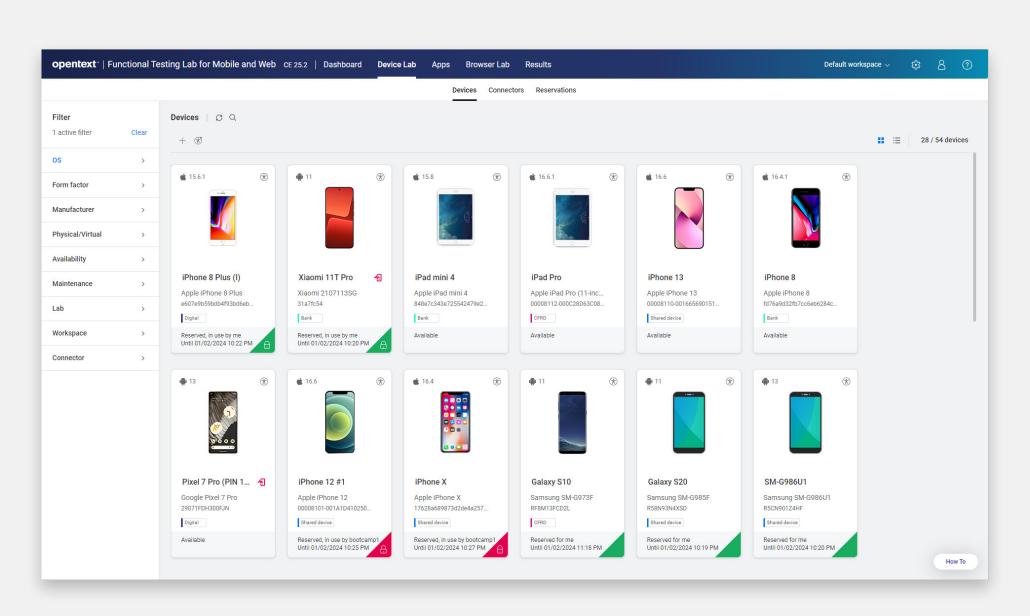
OpenText™ Functional Testing for Developers provides a shift-left solution for automating mobile apps and integrating test automation into continuous testing processes.

Key features and benefits

- Real-time device interaction: Interact with real devices in real time to provide a more accurate and realistic testing environment.
- **Cross-platform testing:** Support testing across various mobile platforms and devices to ensure maximum consistency.

- Enhanced debugging tools: Leverage advanced debugging tools to quickly identify and resolve issues and ensure a smoother testing process.
- Object recognition and visual testing: Ensure the elements of your mobile app are accurately identified and interact as expected.

Achieve faster time-to-market, improved app quality, and higher user satisfaction by using OpenText functional testing solutions.



OpenText performance engineering solutions

OpenText™ Core Performance Engineering offers easy planning, running, and scaling of performance tests without the need to manage infrastructure. It is perfect for organizations that require flexible and scalable performance testing solutions, especially for mobile applications.

OpenText™ Professional Performance Engineering supports a wide range of protocols and allows for detailed scripting and analysis. It is suitable for teams that need to conduct comprehensive performance testing on-premises.

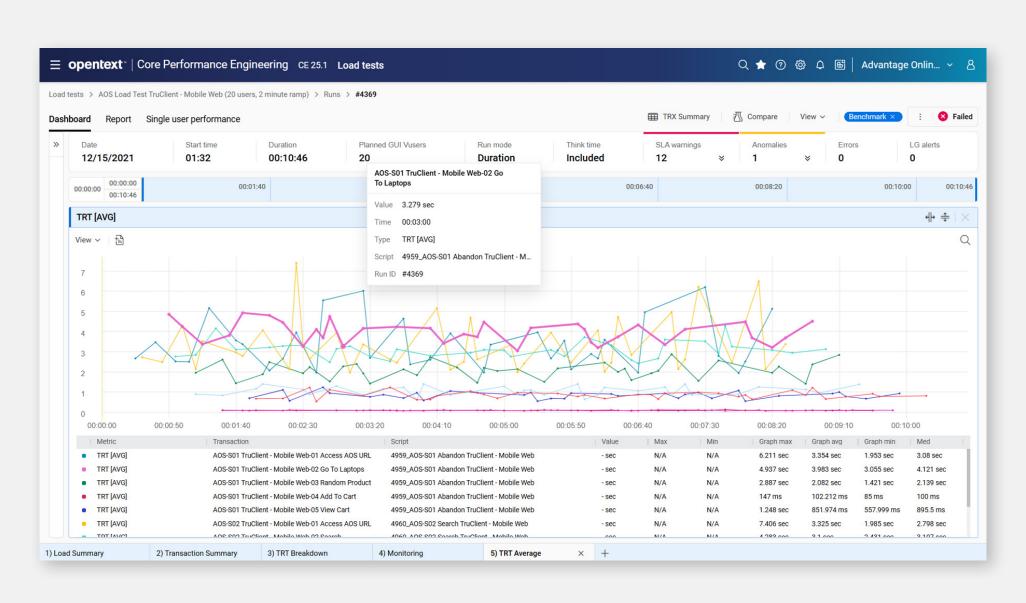
OpenText™ Enterprise Performance Engineering allows you to simulate real-world user scenarios and analyze how your mobile app performs under various conditions. It is great for collaborative teams and has flexible on-premises and cloud deployment options.

Key features and benefits

- Realistic user simulation: Ensure that your app can handle the demands of actual users by mimicing real-world user behaviors.
- **Protocol support:** Optimize versatility with a wide range of protocols for recording and testing interactions within your mobile apps.

- **Performance monitoring:** Track important performance metrics during tests to identify bottlenecks and issues before they impact users.
- **Cross-platform testing:** Ensure your app performs optimally regardless of the device or operating system it runs on.

Simplify your performance and load testing for quicker and more accurate tests with OpenText performance engineering solutions.



Conclusion

Mobile app testing is essential for ensuring the quality, functionality, and performance of applications. By exploring best practices, addressing challenges, and using advanced tools like OpenText functional testing solutions and OpenText performance engineering solutions, you can deliver high-quality mobile applications that meet user expectations and drive business success.

Visit the OpenText functional testing solutions web page >

Visit the OpenText performance engineering solutions web page >

Top 10 ways OpenText Functional Testing Lab for Mobile and Web helps produce high-quality mobile apps >

Mobile testing made easy with OpenText Functional Testing Lab for Mobile and Web blog >

Mobile Testing Hosting service overview >



About OpenText

OpenText, The Information Company, enables organizations to gain insight through market leading information management solutions, on premises or in the cloud. For more information about OpenText (NASDAQ: OTEX, TSX: OTEX) visit opentext.com.

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