



## The Testbirds Whitepaper

# Mobile App Development in Enterprise: 8 Prerequisites for Success

*Before mobile apps can be developed and integrated into the company, several challenges have to be met. The following whitepaper highlights eight prerequisites for testing and establishing enterprise apps successfully within companies.*

### 1. Being aware of expectations

Before developing an enterprise app, the company must be aware that users – regardless if they are employees or clients – have the same expectations of enterprise apps as they have of consumer ones. These could be in regards to design, menu navigation and loading time. Even if there is no alternative, an app will only be regularly used if it fulfills these expectations. Extensive testing is one of the basic prerequisites to ensure the app won't be disappointing its users.

**Recommendation:** Create check lists for functionalities and expectations and integrate testing into project schedule.

### 2. Pooling company knowledge

What applications do the employees really want? Which processes, such as vacation days submission, need to be conducted by the new app? The employees are the company's biggest capital resource. When developing an enterprise app, their knowledge brings value, and thus they should be consulted. The employees know how the business is run, are familiar with existing processes and will often have very precise ideas as to which tools would be useful to facilitate daily working life. Furthermore, when integrating employees, security and intellectual property risks are lower, as internal information is less likely to fall into the hands of unauthorized people.

**Recommendation:** Implement a survey to help to learn more about employee expectations of the new app.

### 3. Creating acceptance

By integrating employees in the development process, enterprise apps are given a greater likelihood of acceptance and adoption. In particular, involvement of opinion leaders has great potential for stimulating broad acceptance of new mobile business solutions and combating reservation towards transformations and change. It's advisable to scale the level of employee involvement as development progresses: only key employees



are integrated in the early stages, when most mistakes and defects would be discovered. Then, a wider range of employees might be integrated once the bulk of mistakes have been addressed.

**Recommendation:** Integrate employees in the development process, but start by asking only key employees.

#### 4. Testing securely and tweaking usability

Usability is the key factor for an app to be successful both in the consumer and enterprise sector. Before release, applications should be tested by the target group to fully understand their wants and needs. For consumer apps, crowdtesting is already an established approach for quality assurance. When developing enterprise apps, it is recommended to integrate employees or customers in place of the crowd. Testbirds offers this opportunity with Bring-Your-Own-Crowd™. It enables companies to use the crowd platform infrastructure to distribute tests to their own crowd of employees or customers. This opportunity is particularly valuable in cases where internal company information is included on the app.

**Recommendation:** Test apps involving internal information exclusively with employees, to minimize security risks.

#### 5. Functional assessment

Are there some hidden bugs? Does the online form take too long to load? Dysfunctional apps cause user resentment and harm the company reputation. Extensive functional testing is a must for a successful enterprise app. To avoid organization blindness, testers from outside the development team should be included, so that there's a mix of staff and independent testers assessing the app. In many cases a mix of experienced testers and unbiased users offers the greatest benefit. .

**Recommendation:** Invest in extensive functional testing with employees and external testers.

#### 6. Ensuring compatibility with all devices

Bring your own device (BYOD) is common practice in many companies. However, it brings significant challenges when developing an enterprise app. When there is no standard company device, it must be ensured that applications work on as many devices and operating systems as possible. In view of the tremendous fragmentation of the market, particularly for Android, this is difficult to achieve via internal testing alone. In this case an external crowdtesting supplier, whose testers cover almost all available devices, can provide assistance.

**Recommendation:** Find a way to include as many devices and operating systems in the app testing process as possible.

#### 7. Estimating and offsetting costs in the right way

Extensive testing is an expense of app development. Companies avoiding these costs should keep in mind what damage would result if the developed applications are not accepted. Enterprise Apps can optimize internal processes, and lead to savings through efficiency. However, co-existence of digital and analog infrastructure can lead to serious additional costs. If employees are not satisfied by the company's official applications, they might look for an uncertified alternative, with security and financial consequences.

**Recommendation:** Integrate testing into budget planning from an early stage and treat it like any other fixed cost.

#### 8. Plan realistically

If companies decide to integrate their employees in the testing process, appropriate time resources need to be allocated to that purpose. A strong commitment is needed from all levels of the business, to accept that the employees will need to use their working time to test, and therefore other tasks may have to be reallocated.

**Recommendation:** Evaluate the time resources needed for testing and communicate that openly to all relevant stakeholders.

While the development process brings several challenges, if companies keep the above prerequisites in mind, Enterprise Apps have great potential to facilitate the company's IT strategy effectively. After all, both now and tomorrow, there is no avoiding mobile business.

### About Testbirds GmbH

Testbirds is a crowdtesting service provider headquartered in Munich, with offices in the UK, the Netherlands and Hungary. The company specializes in the testing of mobile apps, websites and other software for the entire device landscape (mobile, desktop, smart TV, wearables etc.) on all major operating systems.

Testbirds uses crowdtesting to facilitate software testing in today's fast-growing world of technology. They hold a worldwide network of testers (crowd) consisting of experts as well as consumers to test software under real world conditions. The crowd finds bugs and gives critical usability feedback, ensuring the highest-possible user experience before launch.

Extensive device ecosystems as well as increased user expectations challenge conventional testing methods. Testbirds offers in-depth and cost-effective quality assurance for web applications and mobile apps through the crowd on any device, with any target group, at any time. Today, crowdtesting is fast becoming a necessary tool for developers to help improve functionality and overall usability of any application.

Testbirds was founded in 2011 and supported by different institutions and partners.

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