



**Mobilebox**  
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# Introduction

**Enterprise Mobile Apps** refer to either employee-facing apps – which typically focus on the mobile workforce and operational improvements – or customer-facing apps.

How to identify a successful app? A variety of metrics are typically considered. Some are more focused on the **value proposition** your app offers its users and how they are going to engage with the app, while others look at the **technical aspects** of the app such as performance, errors, and crashes. Ultimately technical factors will almost always have an impact on the User Experience (UX) delivered by your app and therefore on the way people engage with it.

Whether you're focused on employee-facing or customer-facing apps, when it comes to making them successful, many of the fundamentals remain the same.

This White Paper focuses on (and hopefully solves) the fundamental dilemma that lies within measuring the metrics that make an Enterprise App successful and explores to a lesser extent the challenges related to building an Enterprise App.

As a decision maker in your company, we are assuming you are willing to put everything in place to execute your mobile strategy and that you want to fulfill the following trends:

- ▶ A need for instant communication
- ▶ A need to engage with your increasingly large mobile workforce
- ▶ A need to remain competitive



# Large Companies are Using Enterprise Mobile Apps to:

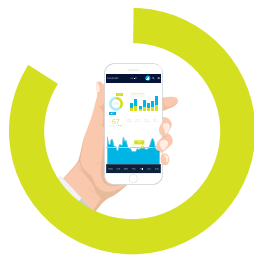
Communicate with workers, customers and stakeholders instantly

**47%**

of companies have improved their internal communication with mobile apps



Gather Big Data and feedback



**84%**

of users state accurate data capture as high importance

Companies who don't have an enterprise mobile strategy are at risk of:

**61%**  
Inefficient operations

**51%**  
Outdated or redundant features

**47%**  
Losing out on new/renewing clients

<https://fliplet.com/blog/enterprise-mobile-apps-statistics/>

And if that's the case, your business is probably among the 70% of companies who say that the enterprise mobile app world today is different than 2 years ago, and you likely understand the importance of having an enterprise mobile app strategy. You're also probably among the 66% of organizations that are expected to increase their investment in enterprise mobile apps within the next 3 years.



# Building an App is the Easy Part

The demand for mobile applications continues to increase, and meeting this demand is proving challenging for organizations. Sourcing experienced developers, scaling development and delivery, and modernizing processes are among the most commonly cited barriers to mobility initiatives.

"While mobile applications become impossible to ignore and require new investments in application development platforms and tools, most organizations are challenged to improve the speed and agility of their application development processes."

The first challenges you'll need to overcome when it comes to building and delivering Enterprise mobile apps are:

## Talent

Building mobile apps require a different set of competencies than web and other traditional IT systems. It's also a more recent industry which explains a shortage in skilled professionals. *"As a result of having fallen into app development as a business necessity, organizations are typically lacking in basic app development life cycle skills such as user experience (UX) design, quality assurance, mobile-specific back-end data integration and mobile-oriented security needs."*

[Gartner: How To Build A Successful Mobile App Development Team](#)

## Security

According to a survey conducted by TechValidate and Red Hat, 45% of respondents said security was one of their top challenges when developing enterprise mobile apps. Unsurprisingly, mobile-oriented security needs require specialized expertise much the same as mobile app development does, presenting a number of unique challenges. Organizations that issue devices to employees, as opposed to using a

bring your own device (BYOD) model, are able to exercise much more control over security as company-issued devices can be set to limit what employees can access on the device and how the device is used. For example, disabling native apps, forcing the use of whitelisted apps, adding remote device locking and wiping functionality, etc.

## API Strategy

Another challenge in the development of enterprise apps is creating an API strategy. In order to power your apps, you will need APIs to expose the business functions needed to enable certain actions. As an example, an app built for field customer services employees would need an API to expose maintenance appointment schedules, and to allow users to close completed appointments.

## A "Never Ending Delivery" Culture

Even though building an app comes with many challenges, compared to making the app successful in the long run, the building phase is rather simple.

The process of delivering the app to the market (whether internal or customer-facing) never ends. Constant product iterations need to become part of the organization's DNA as mobile evolves constantly and – unlike web applications – if your product doesn't keep pace it won't function.

Furthermore, this type of continuous improvement DNA keeps your business on its toes, allows you to collect feedback and learnings, and apply them to subsequent product releases to improve your product and consistently provide a better user experience. Customer expectations are high, and if you are not able to encourage engagement or continue to solve their pain points, you will suffer high user abandonment rates.

# The Risks of Not Delivering a Good App

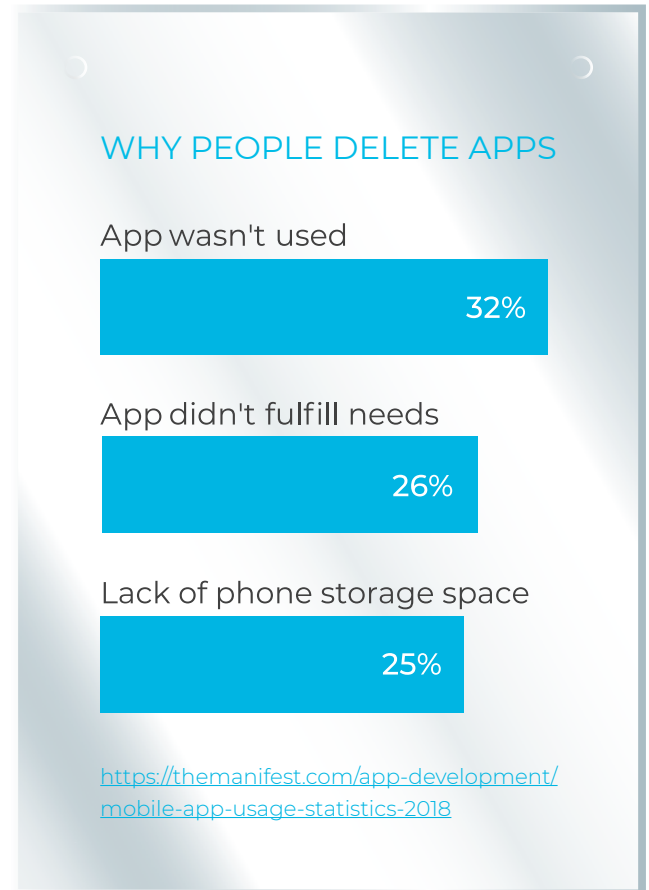
Most people delete an app because they aren't using it or it doesn't meet their needs. Per [The Manifest Survey](#), a surprising 25% of people delete an app simply because they need **storage space** on their phone.

As a business, you work hard to create mobile apps and we've touched on some of the many challenges that come with building such app. Having users – whether they are employees or customers – download your app and later on delete it – for whatever reason – is a frustrating and costly situation.

According to the above research, over half of respondents had deleted an app one week or less prior to being surveyed.

So, on top of everything we said above, delivering a good UI/UX which improves the Customer Experience (CX) and drives engagement is not enough. Developers also need to optimize the size of the enterprise apps they build to ensure it's not deleted by users down the line.

With this comes yet another challenge which we call the Observer Effect.



PEOPLE DELETE APPS DUE TO LACK OF USE  
AND LACK OF STORAGE SPACE

# The Observer Effect Challenge

After you've built your app, the next step is to make sure it's delivering on its promise. But how do you know if your app is successful? In order to assess its success, you need to set a series of KPIs and be able to measure them.

You may find yourself with numerous KPIs to track because your customers' experience while using your app is impacted by a **multitude of** variables: the device they're using, the network through which they are connected, the app version they're on, UI and UX, crashes, and more. In order to monitor these variables, enterprises install on average 16 software development kits (SDKs) in each one of their mobile apps.

Overall, KPIs can be categorized into 3 buckets:

- ▶ **Adoption** – This can include metrics on how/where the customer finds your app (i.e. through your website, the app store, or an advertisement), how frequently they use it, and more.
- ▶ **Performance** – Important performance metrics include data on crashes, latency, and errors.
- ▶ **Customer Experience** – A broad category that covers session length, in-app purchases or other interactions, and how often customers request support for or via the app.

In order to monitor all these KPIs, you need to use mobile analytics solutions, in the form of SDKs.).

The global mobile analytics market is a growing category, likely to attain \$5 billion by the end of 2023. This proves there is a real need to monitor and understand mobile apps.

But most SDKs are very specialized, meaning they only look at a narrow set of data. Therefore, to track many KPIs, developers need to use many categories of SDKs and that comes at a cost.

Not only from a monetary perspective, but also from an app size and performance perspective: every SDK increases the size of your app and potentially hampers its performance. This is a risk enterprises can't afford to take.

This is exactly like the Observer Effect: the minute you start observing a situation or phenomenon, your observation necessarily changes that phenomenon. This is often the result of instruments that, by necessity, alter the state of what they measure in some manner. In the case of mobile apps, these instruments are the SDKs.

That's why enterprises are very reluctant to add SDKs to their apps and they choose their SDK stack very carefully.

Moreover, in order to truly understand how customers are experiencing your app, many enterprises try to use session replay tools, which in most cases are not very high quality and have too high an impact on the app performance.

But there is another solution.

Mobilebox addresses the challenge of knowing exactly what's going on with your mobile app while keeping the app small and providing a positive UX. Enterprises no longer have to choose one or the other: it really is possible to have the best of both worlds.

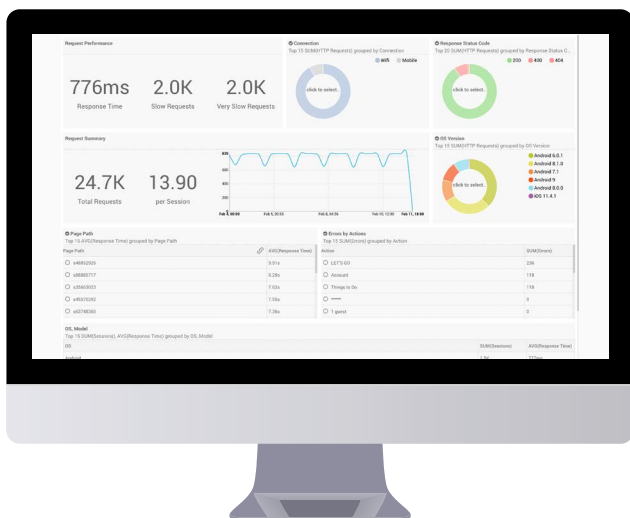
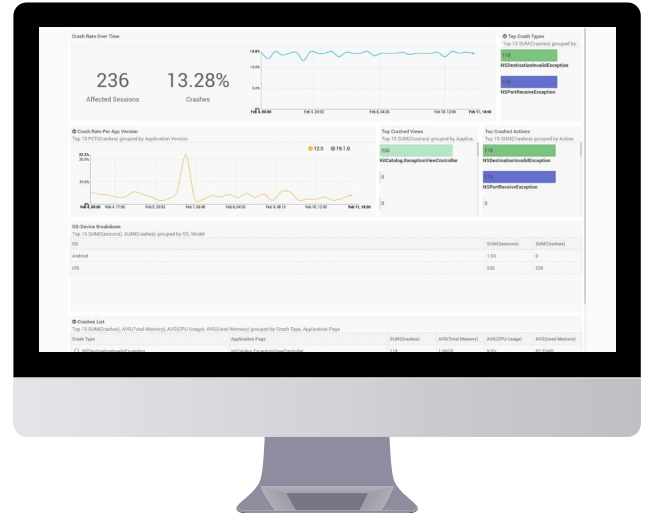
Mobilebox works as a Single Import-Level SDK that can be leveraged across the entire organization, from marketing to development to customer service.

By providing the most accurate and the only real-time session replay in the market to date, Mobilebox gives full visibility into customers' interactions. It correlates between customer actions and CPU/Memory/Battery; enables team collaboration, and so much more.

# What Do You Need in a Mobile SDK?

## Crash Analytics

App crashes are often identified as a “deal breaker” for mobile customers. If your app crashes too frequently, customers will stop using it and eventually uninstall it. Crash analytics allow you to investigate crash scenarios by identifying the type and quantity of crashes, what screen they occur on, and what actions happened directly before the crash. The ability to view the crash rate per app version can also help in determining whether a new release is causing crashes, or whether an old version needs to be forcefully retired due to performance issues.



## Network Performance

Your app's performance may be directly impacted by what network users are connected to – whether it's their mobile service provider, home network, or a public WiFi hotspot. The network connection is a vital component for transmitting data between mobile devices and servers, and issues with the connection can lead to latency issues, errors, and more.

## Device Performance Monitoring

The three main components for device monitoring are CPU Usage, Memory Usage, and Battery Life. These three metrics are important both for monitoring app performance and for improving the UX. If your app is serving as a drain on any of these resources, it may lead users to uninstall it. Memory leaks are of special concern, and the Average Memory Usage by App Version feature can determine where these leaks originate.



## Engagement Analysis

Technical performance is only one part of app performance. You also need to have a clear picture of user engagement. Where are your users spending the most time in your app? Are they struggling with certain actions? Are they updating their app when new versions become available? These metrics can not only determine areas for improvement within the app, but also drive market segmentation for campaigns.



## Struggle Insight

What are your users' pain points, and how do they react to them? Mobilebox not only tracks issues like crashes and errors, it can also track over 15 types of actions, including rage clicks, zooming in and out, and the other small actions we all take when an app isn't working how we'd like it to. As with other metrics, you can track these by version, to see if a new release is more plagued by issues than previous versions.



## Version Adoption

As discussed earlier, new versions are a necessity in the mobile world. As technology evolves and customer expectations change, you'll release new versions of your app. Over time, you may find it useful to have metrics to measure how many users are using each version of your app. Additionally, each time you release a new version, you can track the adoption trends to determine if users are upgrading as expected, or if they need reminders or motivation.



There are so many metrics that combine to create a total picture of the success of your enterprise mobile app. It's simply not practical to have to use a handful of SDKs to track everything! Mobilebox is the one-stop solution the industry has been waiting for.





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