

# Mobile Product Development



## Customer Case Study: Mobile App development for a Monetization Company

Anshuman Jaiswal  
Tech Lead  
Think Future Technologies

### About the client

Small-Medium sized company offering free products with monetization options for the software publisher

### Business need addressed

Proof of Concept, Design and Implementation of new products with a quick Release to Market

### Solution

Have the best of breed Android Developers provide technical expertise to deliver project in a timely manner.

### Customer Speak

“It was great to have TFT provide us with their mobile development expertise. Both the products turned out to be exactly the way we wanted them to be. So much so that even today we do not have any in-house Mobile development resource and rely 100% on TFT”  
– Kobi, CTO

### Business Needs

Client is an Israel based startup company operating in monetization domain. Client was looking at ways to monetize apps on the mobile platform notably android. In this context, two products were conceptualized – Toolbar and ScreenSaver. These products offered monetization opportunities by pushing advertisements to the mobile user and were to be offered both as a B2C application and B2B Software Development Kit (SDK).

### Challenges

The products involved overriding some of the mobile device default Operating System functionality like the default screen as well as interacting with other applications installed and running on the device.

From Business perspective, the requirements were clear. However, since some of the features were being implemented the very first time, a Proof of Concept of some of the intended functionality needed to be carried out. This led to tweaking of some of the earlier requirements.

From technical perspective, the products required working with overriding some of the existing device functionality like a screen saver over the existing one or interacting with other applications. This demanded technical capability to research into what can / cannot be done with existing Android Development Kit calls. Compatibility with multiple versions of OS also presented a unique challenge.

From implementation perspective, offering of the features as an end user app as well as a highly configurable Partner SDK meant that care had to be taken in breaking the app into appropriate components and exposing the functionality as an API.

Some of the other features like Device Battery Consumption, customized pattern lock and provision of Email search also required deep technical insight into how Android Operating system works.

From UI/UX perspective, since the product features were extensions of OS supported functionality, the entire implementation had to plug into the device ecosystem in a seamless way to ensure a smooth UI/UX experience to the end user.

## TFT's Solution

TFT constituted a senior level Project team that already had experience on delivering Mobile projects. Some of the salient points of TFT's solution were—

- **Team Composition:** Built a core team having a Android Technical Lead, Two Senior Developers, One QA resource and a part time on-site Project Manager.
- **Project Management:** Since the customer was comfortable with Microsoft Technology stack, it was decided to use Team Foundation Server (TFS) for requirements management, task assignment and as a source code control system.
- **Proof of Concept (POC):** Two of the team members were assigned the task of carrying out research on how best to implement some of the feature and come up with reusable POCs. Rest of the team focused on the doable tasks.
- **Project Management:** For the initial two months, the project was carried out more as a Research & Development project. Thereafter, the sprint methodology was applied to the project execution. The sprint template in TFS was used for this purpose.
- **Provisioning of Android devices:** A matrix of various android devices, various resolutions and the OS version was created and the same requisitioned from TFT's Mobile Lab.
- **Quality Assurance:** QA team created test matrix and tested the implemented functionality on various devices as part of sprint. Special tests were created to ensure that the presence of these installed products did not impact the end-user's access and experience to the regular mobile features.
- **Server based Logger:** To help with debugging with problems on beta user devices, a server based logging component was built into the beta release of both the products
- **Performance** – To ensure that the new product did not degrade the performance of the device or impact the battery life, the QA team created automation utilities that simulated the user behavior for an extended period of time and measured the device performance with / without these products.

## Business Value Proposition

TFT not only brought to the table its technical and project management skills sets but also its experience of dealing with multitude of outsourced mobile projects to bear on these “bread-n-butter” products of the customer. Some of the other business values that can be recounted are—

- TFT's Android Technical team already had experience with working on Mobile platform especially in tweaking Operating System level features. The team also had a deep understanding of mobile platform and the implementation challenges that OS level products usually face.
- TFT's coding team had prior experience with product development and thus wrote code that used optimal System resources like memory, used concepts of caching and minimum communication with server (esp. for server logs).
- Having in-house Centers of Excellence (CoE) with expertise in back end development / automation / performance testing on mobile platform. This allowed the project team to leverage their skill sets on need basis.
- TFT's team flexibility to work with the client on Sunday / late hours to coincide with client's working days and time. This was especially useful towards the fag end of the project and near the delivery schedule when some tricky issues had to be addressed very quickly.
- Complete visibility to all the stakeholders at all times with proper Project Monitoring and Governance protocols.
- TFT's Mobile Labs was leveraged to provide access to various android platforms (brand, OS and resolution combination) for development and also devices for testing ensuring that the team was fully focused on the project and was fully productive.
- Customized and reusable components that were used in this project but could potentially be reused in future projects. Some of the examples were locking the screen, locking individual App, a sliding hover-bar UI component, Searching emails by asking for user authentication only once at the beginning and few more.

### About Think Future Technologies

TFT is leading provider of end-to-end IT services and Technology Management. With many pioneering and innovative firsts to its credit TFT has always led the way in powering the exceptional enterprises with continuum of Technology and its implementation.

We are provider of Best-in-class Enterprise Collaboration (ECP), Enterprise Application Services (EAS), QA & Testing and Support services. TFT has deep industry expertise, business strategy and program governance experience along with tools and methodologies for accelerated deployment of Microsoft solutions. TFT's Intellectual property frameworks illustrates unique invention of process combined with deep domain expertise in multiple industry verticals.

For more information, visit <http://www.tftus.com/>

### For more Information

Think Future Technologies Pvt Ltd

JMD Regent Square

Gurgaon, Haryana, India

[www.tftus.com](http://www.tftus.com)

Email: [info@tftus.com](mailto:info@tftus.com)

Phone: +91 124 2807000