

## Case Study:

### Ensuring effective Test Optimization for Mobile Application Testing

#### **Client:**

Client is one of the largest publishing group controlled by an American diversified mass media corporation. The media corporation is the largest media conglomerate in terms of revenue. They are also the world's largest publisher of children's books and magazines.

#### **Testing Assignment:**

A beta testing task, 3 iOS Applications (storybooks/games targeted for children) were to be validated across multiple devices and O.S versions. Expected turnaround time was 2 days.

#### **Challenges:**

Genre of Devices: It is a fact that every few days, a new smartphone is launched in the market. The biggest challenge that one faces while testing for mobile applications is to make sure it caters to the demands of all genre of devices.

Variety of devices mean various screen resolutions, screen sizes etc. In order to cater to the needs of each device, one could easily come to a conclusion that number of devices available is directly proportional to the efforts per cycle.

So in a nutshell, one can infer that cost to test the application is directly proportional to the number of devices. The greater the number of devices to support for an application the higher would be the testing costs.

Different OS Versions: The other major challenge that one faces is different OS versions that are rolled out in the market on a frequent basis. The challenge here is not only to make sure that application is working on the newer versions but also taking care of the customers who use older versions.

This would invariably mean a large customer base for which one need to cater to the demands and thus would basically mean an increase in the cost.

### **Solutions:**

We at QA InfoTech understand the challenges involved in testing mobile applications. In order to ensure we cater to the needs of the large customer base and keep in mind the cost involved to test the application on various devices and different OS versions, we emphasize on a methodical and planned approach to systematically distribute the testing across various devices/O.S combinations. This is done by creating a Test optimization matrix using the Application usage statistics, the most widely used mobile sets and our experience/analysis from past data.

Here are some inferences from past data analyses that we have done:-

- a) Functional issues are more OS dependent rather than on the Device size or screen resolution
- b) User interface issues are more specific to a device size or screen resolution rather than on the OS and have the following trends
  - a. Different devices with same screen size and OS version would give identical results
  - b. Devices with different screen size but identical OS version would give different results

Our Test Optimization plan furnishes a consolidated view rather than targeting all devices with 100% test coverage on all. We target the list of devices that would cover different screen resolutions, screen sizes and OS version and thus cover different genre of devices.

### **Client Benefits:**

Using the above stated approach, we were successfully able to reduce the efforts and thus the cost by 30%. The deliverables were highly quality orientated and testing was completed well within the allocated time of 2 days. We had reported multiple new bugs/defects which were earlier not reported by Client's in house quality team. Client was very appreciative of our work and we have been having 100% repeat business from them.