

Challenges For Mobile Application Testing:

1. **Multitude Mobile device:** Over 500m Android devices shipped since Android 1.0, about 220m iOS devices have been shipped since 2007. The availability of the enormous number of mobile devices from handsets to smartphones, tabs, pads, and wearable tech, the presence of the multiple devices will affect the functionality of the mobile application. And the quality team does not guarantee that the tested application works well on the given device and will work 100% on another device even if it's from the same product family. The screen resolution, CPU, Memory, OS optimization, and hardware could be different.

2. **Operating System Fragmentation:** Different mobile phones have different operating systems. Fragmentation is a big issue for the Android application because the Android has 11 different operating systems. The percentage of the iOS devices is 93% who are using version 9 or 10, so the fragmentation issue of Apple's Operating system for the iOS devices is less than the Android.

3. **Types of mobile apps:** There are the different types of the mobile apps, these can be the native app, a web app, or a hybrid and all the apps containing the same contents. The testing of these applications is different from the other, so the implementation is also different from one another.

4. **Variety of Testing tools:** In the market, we can find the automation tools in the wide variety, but here the challenging factor is to decide which tool is best for the mobile application testing.

5. **Battery:** Mobile apps demands lots of batteries. Mobile apps consume more power. The use of multiple apps will drain the life of the battery. The mobile application testing company should have to be

focussed on the consumption of the power by mobile apps when designing the process of the testing.

6. Change in users Requirement: When the requirement of the user's change, then there is a need for frequent updates in the mobile application. The features of the mobile are also going to change. Every new change detects the new bug which should be fixed. The challenge in the testing is increasing because the development environment is changing rapidly.

7. Mobile Networks: People move from place to place as the change in the place it occurs. The network coverage is also changing. In the underground places, the signals are weak. At the time of the boarding of flight and take-offs, in that case, signals are also disrupted. Some apps need to work on the offline mode as well as ticket access etc. In that case, the tester has the challenges to test the application under different networks.

8. Usability: The success of mobile apps depends on the usability of mobile apps. The well-designed apps have an attractive interface. We can access the content easily. Navigation is also smooth. The image adjusts according to the size of the screen. Users can interact with the apps by the touch of the finger and also by the tapping. The company of mobile app testing should be sure that the interface elements work efficiently according to user comfort.