HARDIS GROUP

Expert opinion

Mobile applications: the five key quality factors

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With users becoming ever more demanding and mature with regard to the new technologies, the quality of mobile applications is a sine qua non for their adoption. In this respect, adapting the tests to the specificities of mobility is indispensable: here's a quick run-down in five points.

1 - Mobile terminals: multiple configurations

The surge in mobile terminals is first of all synonymous with the proliferation of possible configurations: device, screen size, operating system installed, browser used, etc. In parallel, habits have changed: users want to be able to access everything instantly while on the move, including their company's information system. With the mobile terminals provided by their company, but increasingly with their personal devices (BYOD), particularly the younger generations.

The time when all employees were equipped with the same fixed computer with a single configuration, or with the same type of mobile, is well and truly past! Now, whatever type of application is concerned (back-office, B2B or B2C), tests must be devised to adapt to the specific characteristics of mobility and to the growing number of possible configurations and uses.

2 - Performances on mobile: numerous usage contexts

The first particularity of mobility is its instantaneous nature. Whereas numerous applications used to work asynchronously (data being synchronized only in the company or by VPN), real-time access to data and updating in real time are the norm with mobility.

This particularity has an incidence on the design of mobile applications: they must be designed to offer optimal performance, both in terms of access to data and display, depending on the contexts in which they are used. In the test phase, it will thus be necessary to measure the response time for the different types of networks used (Wi-Fi, Edge, 3G, 4G, etc.) and the devices themselves, since their performance have an incidence on the display of HTML pages (reconstituted on the customer's device).

3 - Intuitiveness and ergonomics: usability takes priority

With mobility, the methods of exchange with the device, and therefore with the application, are substantially different from the user experience on a PC: the keyboard is generally touch-type and embedded in the screen, the size of which is necessarily much smaller than that of a PC.

When designing a mobile application, the design of the screens as much as their linkage is primordial for facilitating user adoption. So much so that it is now considered advisable to develop the interfaces upstream from the functionalities.

For the ergonomics and navigation tests, it is necessary to take into account the disparate nature of the target populations. And for B2B applications, to plan training sessions to facilitate the adoption of applications by types of users who are not yet at ease with the new technologies.

4 - Tests that are necessarily tooled up and evolutive

Testing is managing risks: even more than in other fields, it is not possible or even advisable to verify the behavior of a mobile application on all possible terminals with all possible configurations. It is therefore essential to determine the most appropriate scope of the test with regard to the contexts in which the app is to be used and the target populations. Moreover, since it is not possible to control all the configurations one by one, mobile tests must imperatively be conducted in tooled-up mode in order to be effective. And lastly, they must be evolutive, bearing in mind the regular changes of terminals and operating system versions.

So which tools should we choose in order to industrialize tests mobile tests? There are a very large number of open source and/or free solutions constituting a good introduction to the subject. However, in most cases it is necessary to combine the use of several of them in order to cover the entire scope of the test. Some publishers, such as HP and IBM, offer advanced tools. But in view of the investment they represent, the question arises whether to use them "on demand" in the cloud or to outsource mobile tests completely…

5 - Follow best practices in testing

While mobiles tests have their particularities, they are nonetheless still application tests. In this regard, the general best practices of the business must be complied with. We start by constructing a test strategy consistent with the objectives to be attained. But also by scheduling regular tests throughout the development phase, in order to avoid having to make overly large-scale corrections at the end of the process. And lastly, prioritizing the efforts put into the tests by concentrating on the most critical functionalities.

About Hardis Group

Hardis Group carries on the dual business of digital services company and software publisher. The company assists its clients from end-to-end in the transformation and performance of their information systems and supply chains, and also in their digital transition. With its dual historical positioning, Hardis Group has developed business expertise in the areas of insurance and e-health, distribution (retail and CPG), industry and energy, and logistics services. This expertise now allows it to provide its clients with global responses to their needs, in an agile approach characterized by co-construction, innovation and continuous improvement.
Since its creation in 1984, the company has built its growth on a pragmatic approach and values of efficiency and firm commitment both to its 2,500 clients and its 650 employees (25% of whom are also shareholders). Hardis Group posted turnover of €57.2 million in 2013. Hardis Group, which is based in Grenoble, has four branches, in Lyon, Paris, Lille and Nantes.
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