

Cross-Platform-Game-App



possible supported devices by the app

Abstract

First of all the following thesis analyses requirements of a mobile app running on two different devices with diverse operating systems. Therefore the devices need to communicate as directly as possible. In order to get things going different communication solutions such as Bluetooth, WLAN, mobile telecommunication and NFC on modern smartphones will be examined.

Most important aspect is a direct link between the devices. As a result of the analysis it transpires that Bluetooth is only working within the same operating systems. Additionally NFC will not be usable because of the absence in apple products and the weak diffusion through different platforms. Another reason shown will be that any direct communication between two devices is not possible in every combination between mobile telecom providers and WLAN. Therefore current state-of-the-art apps have to work with a server in between to enable bidirectional communication.

Abstract (continuation)

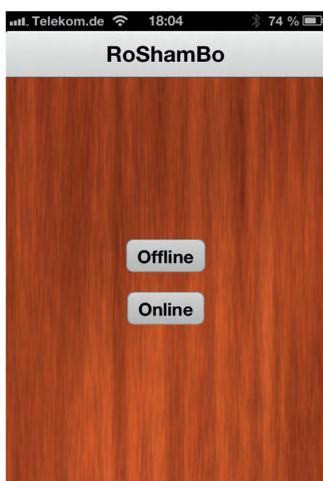
All gathered facts and cognitions will be considered during the implementation of an example cross-platform-gaming-app called "rock-paper-scissors" (or "roschambo"). Parallel to the technical examination of possible communication channels different web-app-frameworks like Sencha Touch and jQuery Mobile were analyzed too. As a result Sencha Touch will be used for the implementation.

In order to use qualified and established development processes all functional needs of the app as well as the server will be specified in a combined application architecture model.

Before finally all required development steps for publishing apps into the Apple App Store or the Google play store will be described in order to get the app running.



app examples



app examples

Result

Direct communication between different devices of several platforms in a WLAN is possible, but need the WLAN available at any time.

Communication in mobile telecommunication isn't possible unless using a server in between.

Future technologies like NFC and Wi-Fi direct maybe are able to manage direct communication throughout all platforms, if devices and operation systems will use the same technology inside.

Cross-platform-frameworks such as Sencha Touch could extend their use in mobile app development, if some improvements will be implemented. Writing your code only once and bring the same app to different platforms stores like iOS-AppStore or Android-PlayStore afterwards is really a big alternative to state of the art native development.



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