2 Crucial Differences Between Native and Hybrid Mobile App Development

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Cost

Performance

Native

It will cost more. You will also have to provide funding to upgrade and maintain two versions of your mobile application.

It is designed and developed to satisfy one native operating system (OS) using programming and languages that are specific to that environment

Hybrid

It involves only one code base, the cost of cross-platform mobile application development is lower.

It runs on a single source code so there is typically an additional framework layer involved and this can cause slower performance.

If you are trying to decide whether to use native mobile application development or a hybrid mobile application development approach for your project, there are numerous considerations and you will, of course, have to look closely at your business requirements.

This article focuses on just two of the crucial differences between native and hybrid mobile application development and may be helpful in getting your discussions started.

First, let's explain the two approaches in a bit more detail.

Native Mobile Application Development
Using this process, developers will create separate code for a 'native' platform – that is iOS for Apple devices or Android for the Android devices. If your business wishes to satisfy user requirements for both operating systems (OS), you will have to create and maintain two versions of the mobile application.

Hybrid Mobile Application Development
This cross-platform approach allows developers to satisfy requirements for both iOS and Android by creating one code to serve both types of devices. This single mobile application project will produce a software product that will run on both operating systems (OS).

Now that we have reviewed the definitions of Native and Hybrid Mobile Application development, let's look at two of the crucial differences between these two approaches.

Cost
Native Mobile App – Because you will have to produce two versions of your mobile application, Native Apps will cost more. Of course, the cost of any mobile application development depends heavily on the complexity of the application. Where the application is leveraging specific features and functionality for a device, e.g., microphone, camera, GPS, Bluetooth, etc., the developers can use the existing feature and functionality to incorporate into the mobile application they are developing. When you are considering the costs of a Native Mobile Application, remember that you will also have to provide funding to upgrade and maintain two versions of your mobile application. You will also need to staff your projects with developers who have skills specific to the native operating system, so the cost of team members will be higher.

Hybrid Mobile App – Because the Hybrid Mobile Application approach for initial development and for upgrade and maintenance involves only one code base, the cost of cross-platform mobile application development is lower than Native App Development. However, as with Native app development, costs will vary, depending on the complexity of the application and the nature of the features and functionality you want to provide. Developer skills and resources are typically easier to find for cross-platform projects because the trend in the market is toward hybrid mobile applications. So, it will be easier to staff your project and the cost of a cross-platform project will be lower because you only have one team of developers.

Performance

Native Mobile App – The native mobile application is designed and developed to satisfy one native operating system (OS) using programming and languages that are specific to that environment. The performance for these mobile applications is smooth and the speed is typically impressive, resulting in high marks from users.

Hybrid Mobile App – Hybrid mobile applications run on a single source code so there is typically an additional framework layer involved and this can cause slower performance. Depending on the complexity of the mobile app and the type of features and function, this may result in a decrease in user experience.

Of course, there are numerous other considerations in choosing a mobile application development approach. The two we have discussed here will get you started. But, you will probably want to engage the experts to review your requirements and make recommendations to control your budget and your schedule and produce the right outcome.

Whether you decide on a web approach to mobile application development, a [cross-platform mobile application](), hybrid mobile app approach or a native app approach for [iPhone](), [iPad](), [Smart Watch]() or [Android](), you need to engage an IT consulting partner to help you conceive and develop your mobile application. For more information about mobile application development, visit our [Blog]().