

Employees are driving the mobility trend

Mobility brings improvements to the enterprise in terms of efficiency and lower operational costs. This means that, by investing in a mobile strategy, employees are given the tools needed to make better and faster decisions. Is delivering mobile applications really worth the effort and will they really add value to the business?



OutSystems, the enterprise Rapid Application Delivery (RAD) platform provider, says there is sufficient evidence that investing in mobile pays. In a recent Forrester survey, 75% of decision makers indicated that deploying mobile apps had increased worker productivity, while 65% acknowledged that mobile apps increased employee responsiveness and decision-making speed.

"Mobile is not a shot in the dark; it's something that has already proven its benefits," said OutSystems SA Director Craig Terblanche. "The way mobile apps achieve these benefits is by providing access to relevant information at the right time and place, in an easy-to-use, consumable and actionable form. This gives workers the insight and tools needed to accomplish more."

He said that employees are aware of this productivity increase and they are the ones driving the mobility trend. "They bring their own mobile devices to the workplace and expect to be able to access applications from their devices. The challenge is building and maintaining these applications in light of the evolving technology and device options."

Lots of technologies

There are a lot of technologies available to help enable mobile strategies. These include: frameworks, IDEs, debuggers and emulators. But before deciding on a mobile approach, a decision should be made on the type of mobile application to build.

There are three types of mobile applications to choose from: native applications, mobile web applications, and hybrid applications.

Native applications are mobile applications that are written in the sometimes-proprietary languages prescribed or allowed by the mobile OS manufacturer. Usually these apps provide a very rich user experience, because they are built specifically for

a particular device's hardware.

Terblanche said that, on the downside, for each device supported, a specific version of the app must be built. "This approach tends to require specific teams dedicated to each platform because of the uniqueness of each language and device or outsourcing to companies that specialise in building and supporting native apps."

Mobile web applications are increasingly rich mobile applications that are accessed via the device's web browser. These applications can take a variety of design forms. Historically, companies that went down the path of mobile web enablement created specific mobile-only versions of their websites or applications.

More recently, a methodology known as responsive design has taken hold. Enabled by advancing technologies, such as HTML5, responsive design allows developers to create one application that seamlessly responds to the form factor of the accessing device.

Hybrid applications

Hybrid applications leverage the power of native and simplicity of mobile web. This is achieved by building a thin native shell around a mobile web application. Companies use this technique most frequently, mainly to get the mobile app listed on a variety of app stores. A secondary use case for hybrid apps is to implement the most-used functions natively. Lastly, some companies use the native layer to gain access to additional local sensors or applications and data.

As to which application one should choose, Terblanche said that mobile web applications provide the quickest way to get started. "When compared with native apps, a mobile web app offers some very strong benefits."

It's not a whole new technology, the jump from web development to mobile is much smaller than having to learn native. Modern devices deal quite well with most recent and evolving web standards like HTML5 (HTML, CSS3 and JavaScript). The technology behind these standards is very powerful and can be used to build apps that provide a phenomenal user experience.

"Companies can now bridge the perceived gap between native and mobile web by directly integrating to the device platform giving their applications amazingly useful functions, such as utilising the device's camera, location sensors, and more," he explained.

There is also no need to install the app on users' devices, simply publish the app to the web server and it is ready. There is no need to force users to install a new app and when new versions are released, everyone stays up to date automatically.

When going native, it is necessary to build and maintain different versions of the app for each device supported. Given that mobile web applications are based on standards embraced by all modern devices, only one version of the application is needed to run across multiple devices.

Furthermore, in order to publish a native app to an app store, typically there is a need to go through an approval process. This extra step can add significant time to the delivery of new functionality. With mobile web applications, the app is published to a public stack and is immediately available to users. There is no extra step.

After deciding on the type of mobile applications to be built, it's time to pick an actual application to spearhead the mobile strategy.

Simple and fast-to-build application

"The best way to get started is to bet on a simple and fast-to-build application that quickly brings value to the business. This method provides a good sense for some of the challenges around mobile and lends the experience needed to graduate to more demanding applications," he said.

Even though existing web application development experience can be leveraged, there are still some big challenges when building mobile web applications. There are lots of technology frameworks and technical debates an IT team will want to hash over. On the other hand, these discussions can be eliminated and the focus put on the business problem.

"OutSystems Platform is the only open application platform that makes it easy to create, deploy and manage enterprise mobile and web applications that are extremely usable and look beautiful across multiple devices," he concluded.

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