

Developing Mobile Apps for the Enterprise: The Three Rs

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*Discussion Transcript**

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Patte Johnson: Thank you for joining us for another Webtorials® Thought Leadership Discussion. Today our Webtorials analyst, Larry Hettick, will be speaking with Ojas Rege, VP of Strategy at MobileIron. Larry, I will let you have the floor.

Larry Hettick: Thanks, Patte. I'll start with a question that's kind of a broad question. Anyone who has a Smartphone is probably pretty familiar with mobile apps, but what makes a mobile enterprise app different from the typical consumer app that I might find preinstalled on my phone?

Ojas Rege: Well, it's a good question, Larry, and interestingly enough, the answer to that is everything and nothing, so what do I mean by that? From a users' perspective, their expectation of that enterprise app and its user experience, how easy it is to use, how well it's designed, their expectation is that there is no difference between that enterprise app and the consumer app. It should be just as easy, just as wonderful to use.

But interestingly enough, on the IT side, on the enterprise side, traditionally the expectation for enterprise apps has been very different. They've been very focused on security, very focused on comprehensive functionality and sometimes when you take those traditional enterprise aspects of application development and apply them to mobile, they don't exactly match what the user's expectation is.

Larry Hettick: Continuing on with a little bit about mobile app development, today, who bears the responsibility for mobile app development in a corporation or in a business? Is it the internal IT department or is it some other third-party supplier?

Ojas Rege: We're seeing across our customer base that the answer is very mixed and it's evolving. Most larger organizations have at least three different places where applications are being developed right now. They'll tend to have a central IT team that's building some of the core apps, but inevitably, there's app development happening in the line of business where they may have contracted someone to do it, so it's becoming very decentralized. And then, because there's such a plethora of really, really great business-quality applications in the Apple App Store or Google Play, they're utilizing those, as well.

So, moving forward for any IT organization, the app strategy that they need to put in place from a development perspective has to take all three of those into account. What do I do centrally? What do I do in a decentralized manner throughout my organization and where do I use, you know, a third-party packaged app provider to give me an application that my users can use directly?

And the second layer to that is then which of these applications that I'm building internally are built by employees and which are contracted, and that's also a new set of development capabilities that organizations need to bring on board.

Larry Hettick: I know that you've written a number of blogs and you've articulated what you call the three Rs that are needed to kind of successfully develop mobile enterprise apps. Can you tell me what those three Rs are?

Ojas Rege: Be happy to and I can give you a little context around it, too, which is what really drove me to put some thought into this area. I was getting a lot of questions from people around things like, "What development environment should I use? How should I secure my data?" These are all really, really key questions for mobile app development. But I realized in looking at the first generation of app development that's happened over the last few years, there were three much broader learnings that had come up that I ended up labeling the three Rs.

And what those three Rs were experience, architecture and role, and each of those, of course, has an R in it. But what was important about these were these were each – and I'm sure we'll talk about this a little bit today – but each of these had a set of learnings in them that sometimes were forgotten when people very quickly dove into application development.

These were more strategic points. How should the user experience evolve? What should my underlying architecture be? And what is the role of IT in actually making all this work? These are three very core pillars that you need

to have in place in order to put a great apps program together for the enterprise.

Larry Hettick: The user experience is the first R that's needed to develop an effective mobile app. What specifically does the developer need to consider from the users perspective when creating that app?

Ojas Rege: There is a great quote that has been attributed to many, many people over time, but I think it's generally settled down to Mark Twain and he said, "If I had more time, I would have written a shorter letter," and this is actually shockingly applicable to enterprise apps because what's happened in many organizations is there's a real rush to mobilize business process.

And so, what many organizations have done is they've taken the application that they built for the desktop – maybe their CRM system, their ERP system – and they try to cram all of that onto a little mobile screen because it feels like the quickest way to do that. They don't have to redesign it. They just make it smaller and similar to the Twain quote, it's not actually the right solution. You end up with a solution that is not particularly elegant, not particularly usable and in the end, not adopted. So, this rush to mobile apps has resulted in a set of – unfortunately I would say –for lack of a better word, just bad user experiences.

There's a mindset shift that's happening in the best enterprise mobile app development shops today and they have realized that user experience is actually the litmus test for whether or not someone is going to adopt your mobile app. It's not how many features it has. It has to have the right features, of course, but it's not how many features or how many menus or how deep it goes.

It's the user experience and the mindset now that people are moving to is that, "I am not actually building enterprise apps for my business. I'm actually building consumer apps for my employees," and the moment that an organization puts themselves in that mindset, "Oh, I should think of this as a consumer app. It just happens to be consumed by my employees," the development process changes. The way they look at interaction design changes and the end result is fundamentally different than it would have been otherwise.

Larry Hettick: Coming back to the second R representing architecture, two-part question. First of all, what do you mean by architecture and then, how does that get measured?

Ojas Rege: There are a lot of architectural shortcuts that sometimes people have had no choice but to take as they've gone and built out this first generation of mobile apps. And those shortcuts have made those apps very clunky and unsupportable. I'll give you an example and this happens all the time.

The VP of sales wants each salesperson to have all the product collateral on their iPad. So, what does he or she do? They hire a contractor. They build an app. The contractor is incredibly talented, very fast. You know, she built a beautiful app, right? The users love it. It's easy to use. It's impressive. Sales team loves it.

But the shortcut she took is she hard-coded all of the content, all the collateral into the app, so that means now that app is a GB [gigabyte] to download and every time a piece of collateral changes, the entire app needs to be updated. So, what was done there is a wonderful app was built, but they didn't think architecturally, "Do I have the APIs from the back so when content changes, it can automatically be set to the app?"

No. What they did is they actually hard-coded the content in, so on an on-going basis, they have to keep changing it and the application, frankly, is obsolete, literally the month after it's written. So, the contractor did, in that example, build the app that was requested, but because it did not have a solid architectural foundation or a solid data model, it's not a sustainable application.

Larry Hettick: So that's kind of an example of what happens when you don't use an appropriate architecture. On the flip side, what happens when developers do properly account for architecture and can you find a positive example to share with us?

Ojas Rege: Yes. The number one benefit of having the right architecture in place is time-to-market. Mobile application development is fast. It's iterative and if you have a service-oriented architecture in place where your mobile apps can consume the different data that your enterprise has and what does that basically mean? That means you have a good, solid API for your enterprise systems.

You'll be able to build mobile apps much, much faster. You'll be able to get them to your users faster. They're going to be happier and the other longer-term benefit of this is, remember, mobile application development environments change. One day you might be building an iOS app. One day you might build an Android app. One day might be a web app. If the data calls and the API calls and the back-end infrastructure is the same for all of those, then all you're doing is just changing the presentation layer.

So, the investment that an organization makes, an IT organization makes up-front in putting this foundation in place for the app development program is going to mean that your developers are going to be able to focus on what they do best, which is create great user experiences. They're going to be able to do them faster and they're going to be able to do them across all the different kinds of devices and application experiences you might want in the future, so it's a big competitive advantage over time.

Larry Hettick: On the final R, talking about role, whose role are you talking about in this case?

Ojas Rege: I'm talking about the role of IT. There's a tectonic shift that's happening in the way that IT is going to provide value to the organization in a mobile-first world. We talked about where apps would be developed. That was an earlier question that you asked me and I said it's going to be decentralized. So, what's the implication of that for IT and IT's role?

IT needs to be able to provide real tangible value to an app developer. In the mobile world, if IT doesn't have value to add and provide to the app developer, the app developer in the enterprise is just going to go around IT and in the end, you're going to have a very chaotic mix of applications, probably mostly not secured and IT is, in essence, going to be obsolete.

So, this is a very important time for every IT professional to really look in the mirror and ask themselves, "What are the services that I have to provide to my organization so that mobile app developers can do their job better?" In other words, the app developer now is a customer of IT, where that was not necessarily the case before.

Larry Hettick: So you talk about them taking kind of a hard look. Is there anything other than, you know, kind of assessing what their role is in all this that they should be doing specifically to help with the mobile enterprise app development?

Ojas Rege: In our experience, we've seen six key examples of value that IT can bring to the app developers and these have been the ones that have bubbled up from just many, many customer conversations and seen what worked and what didn't.

The first is that IT has to create a set of APIs. Apps need data, so IT is in the position to make sure that the right system APIs are available in a very well-formed manner for those app developers, so that's number one. Give me the APIs, right, and make sure they work.

Number two, developer sourcing. So, when the business says, "I want to go build an app," they don't know who the great iOS developers are. IT is in the best position to be a clearinghouse for contract developers, so that you can make sure that you're providing the right developers to the organizations that need them.

The third is plug-and-play security. So, if you give, as IT, your app developers a 100-page guide on how to secure an app, they will not read it. You have to give them very simple mechanisms to secure that application.

The fourth is user experience best practices. Here again, IT can be a bit of a clearinghouse and if IT sees all the apps that are being built in the enterprise, IT can add a lot of value to help the next enterprise developer build a better app.

And then, the final two are a consumer-grade discovery experience and tools to then measure adoption. The discovery experience is an enterprise apps store. IT is in the best position to create a wonderful enterprise apps store, consumer-grade quality that the app developers are going to come and want to use because they want to get their apps to their employees.

And then, finally, after you get those apps to the employees, you're going to need tools to drive and measure adoption. So, suddenly what IT is doing in this case with these six different items I mentioned is they're providing a set of services that the app developers in the organization can't live without.

Each of these services creates a lot of value for those app developers and if you create value for the app developer in your organization, they're going to come to you and the endpoint of that is going to be they're going to build a better app and you're going to be confident that the data is going to be secure because you're going to be able to give them the mechanisms that they need to ensure that.

This, however, is not the role that many IT organizations are in right now, and it's going to be a real wrenching transition for some organizations to be able to get there. But the endpoint is going to be faster mobile app development and the ability to take a business mobile in a much more effective and competitively-advantaged way.

Larry Hettick: That makes sense, great. So, before we wrap up, let's summarize just one more time again. What are those three Rs?

Ojas Rege: The first R is user experience. The second R is architecture and the third R is the changing role of IT.

Larry Hettick: Thanks and one last question. What role does MobileIron play in helping make mobile app development more effective?

Ojas Rege: MobileIron is a management and security platform for mobile apps content and devices in the enterprise. So, we were actually the innovator of the enterprise app store. We actually hold the patent on the enterprise app store and from day one when we launched MobileIron several years ago, our focus has been that mobile is about more than email. It's when business process gets to a user on a mobile device that real magic starts happening and what does that mean? That's an app, right?

And what we do as an organization is we provide the infrastructure for companies to be able to secure those applications effectively and in a way that's invisible to the user, so the end user gets what they want, but the enterprise is able to ensure that the data on that application is protected and that application can effectively get to that user whenever they need it.

Larry Hettick: Thanks so much for your time and I think you've shared some valuable insights that people can learn from and with that, Patte, I'll turn it back to you to wrap it up.

Patte Johnson: Well, thank you, Larry and Ojas, for this very insightful discussion. We invite our audience [to go to our website](#) to add your comments and questions. Thank you.

** The discussion has been edited slightly for clarity and length.*

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