

ArcGIS Apps for Smartphones

David Cardella, Esri mobile product manager, discusses and demonstrates maps and apps via ArcGIS for Smartphones, ArcGIS for Windows Mobile, and ArcGIS for Android.

<http://video.esri.com/watch/223/arcgis-apps-for-smartphones>

Video Transcription

00:01 The mobile market has exploded.

00:03 We're not going to spend too much time this morning talking about all the trends associated with this...

00:08 ...but there are a couple we feel are very important to you.

00:12 So probably as no surprise, experts are predicting that there's going to be more people using smartphones...

00:18 ...than feature phones within a year.

00:21 But what's important is that your customers' GIS now can become more accessible by a larger market than ever before.

00:32 Just as important is that in the last year usage of maps on mobile devices has increased 46 percent.

00:42 So we've got an emerging smartphone market, and they're using maps.

00:48 To enable you to target this new market, we're doing two things.

00:53 We're putting ArcGIS in the hands of people it didn't reach before...

00:57 ...and we're giving you the tools to build solutions for them.

01:01 Since submitting ArcGIS in Apple's App Store and the Microsoft Marketplace last summer, we've had well over 125,000 downloads.

01:12 Why am I telling you this? Well, ArcGIS is in the hands of people it would never have reached before.

01:19 They would never have been exposed to it.

01:22 They're using the application.

01:24 They're being exposed to the capabilities of the system.

01:28 It's being showcased to them, and they're demanding more.

01:32 Through mobile APIs, we're giving you the ability to give them more.

01:38 So let's take a look at the ArcGIS application and specifically some functionality that we've released since last summer.

01:46 Here we have an iPhone.

01:49 I'll start up the application.

01:52 And it displays a map of the Esri campus.

01:55 This map is actually special because it allows me to collect or edit data.

02:00 This capability is new since last November.

02:05 So there are various different types of features we can collect.

02:07 I think what I'm going to do is, I'm going to propose a new location for a park.

02:12 So let's get into our area of interest.

02:16 Now at any time during the editing process, I can tap and hold to bring up the magnifier...

02:23 ...and that'll give me more fine-grained experience.

02:27 So let's move this park a little bit closer to the road.

02:32 Should I make a mistake at any point, I can simply take the device, give it a little shake and undo.

02:44 We also have a button for that; you don't really need to shake it.

02:47 Okay. That's great. It's a good location. Let's add a little bit of data and we're done.

02:56 So this is a brand new feature we've created. It's being posted back to ArcGIS Server.

03:01 It's being stored in a feature service.

03:05 Also late last year, we released the first ArcGIS application running on Windows Phone.

03:13 So here I have a Windows Phone; let's start up the application.

03:16 This application is the exact same application I just showed you. It's got a similar user experience.

03:24 It's got a similar user workflow. It's got the exact same capabilities.

03:29 So here it opens up to our new feature.

03:31 I can tap on the feature to get at some of the data that we've created, but I can also add more data.

03:39 In this case, I'm going to add an attachment that will be a photo that is stored already on my device.

03:47 Now this photo will be posted back to the server.

03:50 I can also attach other types of documents, videos, PDFs, Word documents.

03:57 Okay. So we've attached this photo. It's part of our service. It's being stored on ArcGIS Server.

04:07 I'd like to show you something completely new.

04:11 It's ArcGIS running on Android.

04:14 Now, the application isn't available yet, but it will be in the April/May time frame.

04:21 So until then, I would like to show you just some of the stuff we've been working on for this platform.

04:26 The application opens up in this case to the gallery because that's the state in which I last left it.

04:30 But I've got the same user experience, and the same capabilities, in this application that I do across the platforms.

04:38 So here's our recreation map that we've been working with this morning.

04:41 Let's go ahead and open that up and we see our new feature that we've created.

04:47 Let's get a little tighter on that.

04:52 Also available in this application is the ability to collect data, the exact same capability that we're providing on the other platform.

05:02 So here we'll create a drinking fountain for our new park.

05:07 So what have we showed you here today?

05:09 Well, we've showed you ArcGIS running on all three platforms, iOS, Windows Phone, and now Android.

05:20 Let's talk a little bit about the schedule.

05:22 Our goal when releasing apps and APIs is to release them in three- to four-month intervals.

05:29 This allows us to put capabilities in your hands faster.

05:33 A couple of dates of note. Late last year we updated the iOS application to include editing.

05:40 We also launched the first ArcGIS application running on Windows Phone.

05:45 And in the April/May time frame we've got a couple of other exciting releases.

05:50 We'll have the first ArcGIS application running on Android.

05:55 We'll have a significant update to the iOS application as well.

06:00 Which includes bookmarks, legend, and the ability to change basemaps.

06:05 When we release an application we're also going to release its corresponding API.

06:12 The version numbers will be the same, the capabilities will be the same.

06:16 So what does this mean? Well, for example, when iOS Version 2.0 hits the App Store, we'll also release 2.0 of the API.

06:25 It'll have the same capabilities.

06:27 So the capabilities you see in the application will also be available to you at the API level.

06:32 Currently, all three APIs are in public beta.

06:36 The brand new Android API, as well as some significant updates to both Windows Phone and iOS...

06:44 ...including an improved editing experience, the ability to sketch, and also routing.

06:50 Geoprocessing also supported in all of the APIs.

06:54 So you can take your customers' advanced analysis and build it into their custom workflows.

07:01 Up until now we've been talking about native applications.

07:06 Applications that get downloaded to the device and run directly on the device.

07:11 Well, you also have another option available to you, and that is to build a custom web application that runs within the browser of your...

07:20 ...mobile device. To help illustrate this, let's take a look at this browser. It's a desktop browser.

07:27 It's using the JavaScript viewer to display the map we've been working with this morning.

07:33 Here's the same viewer, the same map, on a mobile device.

07:37 The text is small. The user experience, not quite what we would like.

07:44 Now here is a custom mobile web application built using the ArcGIS API for JavaScript and HTML5.

07:52 It's displaying the same map, but we have full control over the user experience.

07:57 And we can tailor it to best fit this form factor.

08:03 Another interesting thing about mobile web applications is that they can run cross mobile browser as well as cross-platform.

08:13 So this brings us to an interesting question.

08:15 It's actually a very common question that we get from business partners almost on a weekly basis and that is...

08:21 ...should I build a native application or should I build a mobile web application? 00:08:26

08:30 Market penetration. Do I need to take advantage of the market penetration that the app stores and the marketplaces provide me?

08:39 Cost-effective. Is it cost-effective for me to build an application for multiple platforms?

08:46 Functionality. User experience.

08:51 Do I get the same functionality and the same user experience if I build a native application versus a mobile web application?

08:59 So these are just some of the factors that you're going to need to consider in order to make this decision.

09:05 However, our goal and our commitment to you is to provide you with the tools in order to build an application...

09:14 ...that best serves your customers' business model.