



Esri International Developer Summit
Palm Springs, CA

Building Apps with ArcGIS Runtime SDK for iOS

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Topics

- Runtime Overview
- Offline*
- Popups
- Security
- Licensing*

* New at 10.2.2



ArcGIS Runtime

Runtime built using C++

EXPLOITS THE CAPABILITIES OF THE DEVICE

Functionality exposed to developers via an API
native to the platform

INTUITIVE TO LEARN

Common functionality set and conceptual model

EASES MULTI PLATFORM DEVELOPMENT

Device Platforms



PHONE



TABLET



LAPTOP

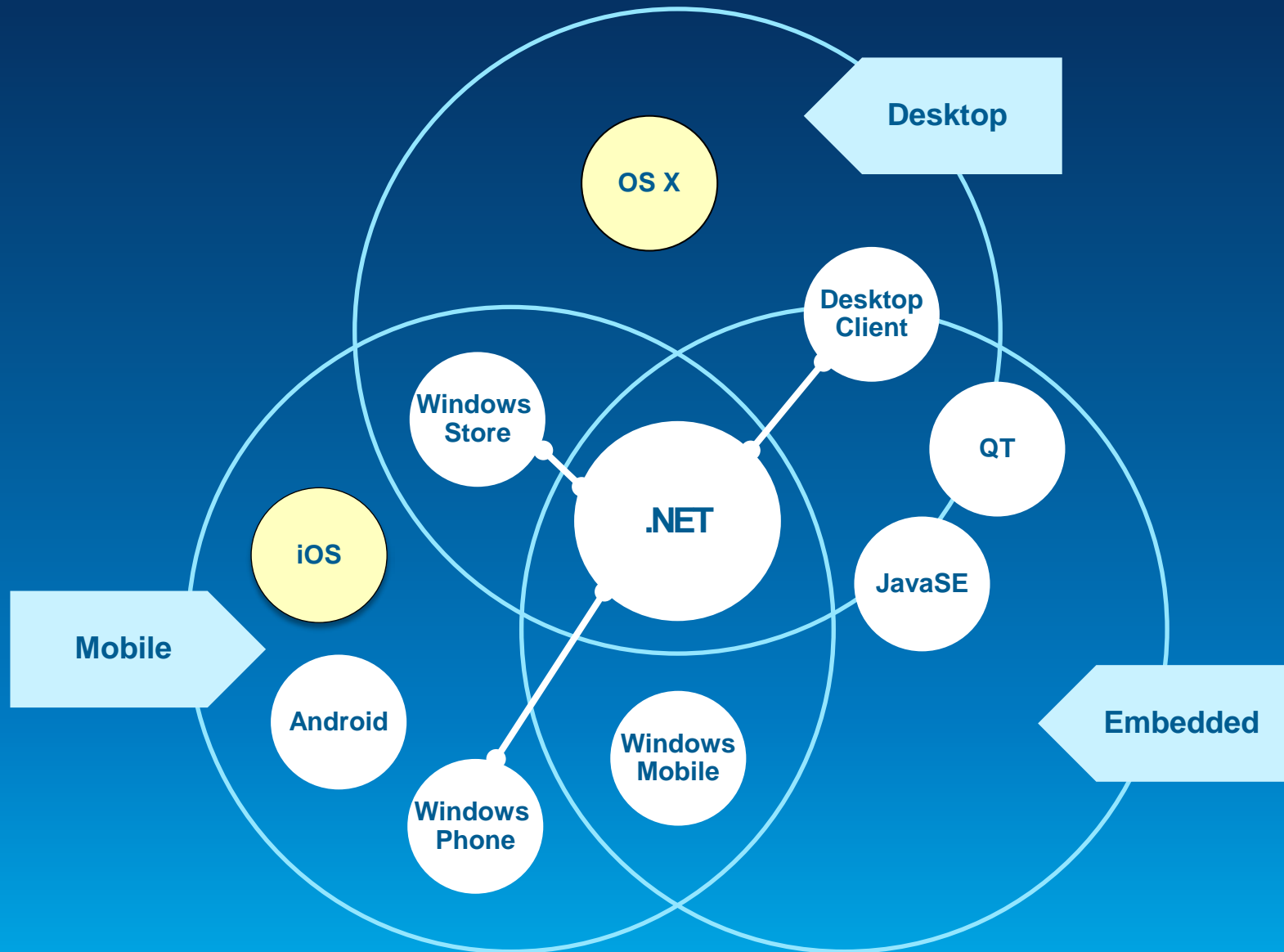


DESKTOP



EMBEDDED

Runtime platforms



Offline

No connection? No problem.

Take your data with you.



Offline

Getting data
onto the device.



http://www.maclife.com/files/u220903/phone_5_plugged_in_620px.png



In-depth

Building offline apps for iOS & Mac

Mojave, 2:30 – 3:30 PM

Building offline apps with Runtime - I & II

Primrose B, 4 – 6:30 PM

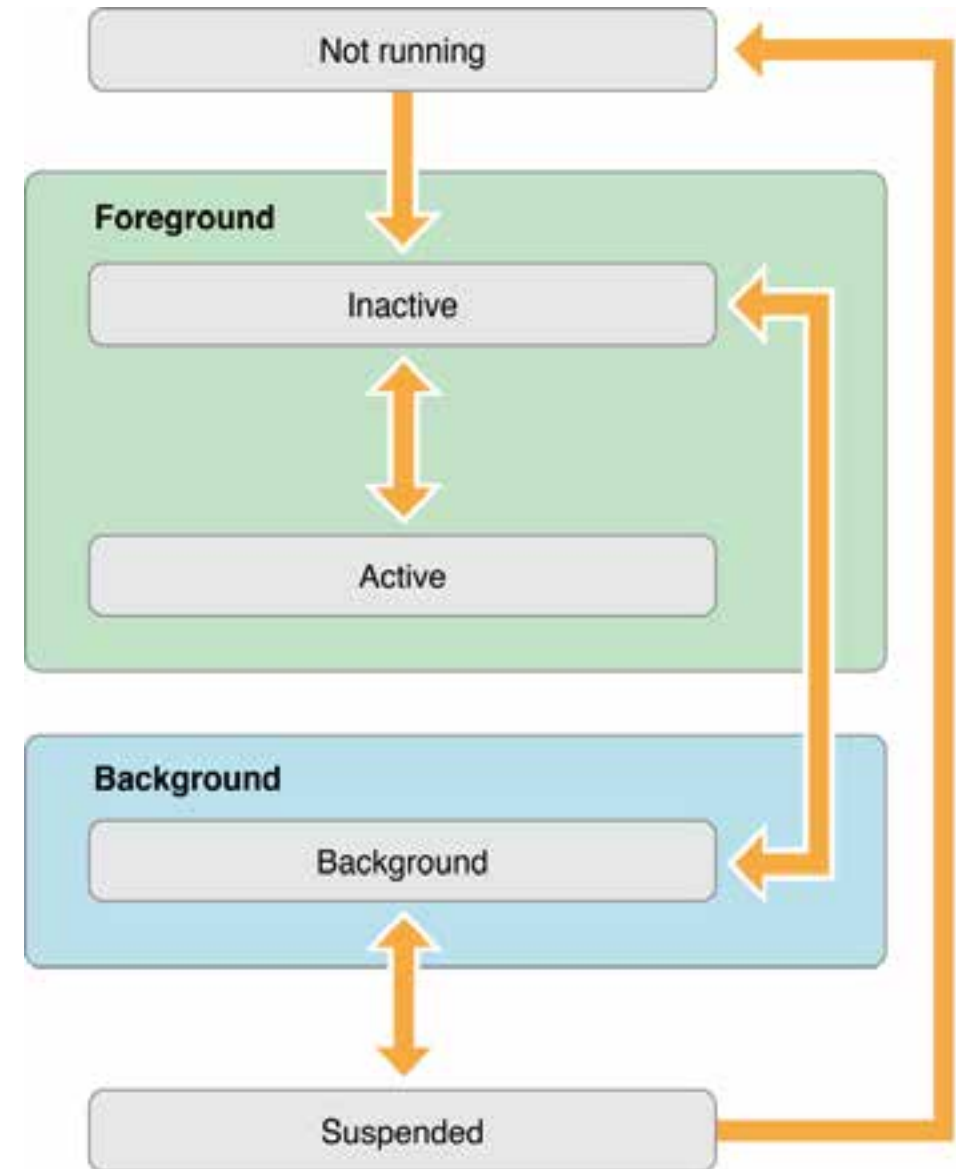
DEMO

Offline

Plan for interruptions.



Understand app state transitions



Offline

Be opportunistic.

Refresh content in the background



Background Fetch



Background Fetch (step 1)

```
// set background fetch interval so our app is called to update status
[[UIApplication sharedApplication] setMinimumBackgroundFetchInterval:
    UIApplicationBackgroundFetchIntervalMinimum];
```


Background Fetch (step 2 - check status)

```
#pragma mark Handle Background Fetch to check status

-(void)application:(UIApplication *)application performFetchWithCompletionHandler:(void (^)(UIBackgroundFetchResult))completionHandler
{
    //
    // check if we have any active resumeIDs
    if ([[AGSTask activeResumeIDs] allKeys] count) {
        //
        // this will trigger status checks for any active jobs. If a job is done
        // and a download is available, a download will be kicked off
        [AGSTask checkStatusForAllResumableTaskJobsWithCompletion:completionHandler];
    }
    else {
        //
        // we should call this right away so the OS sees us as a good citizen.
        completionHandler(UIBackgroundFetchResultNoData);
    }
}
```


Get back in the game.

Notify the user of new content.

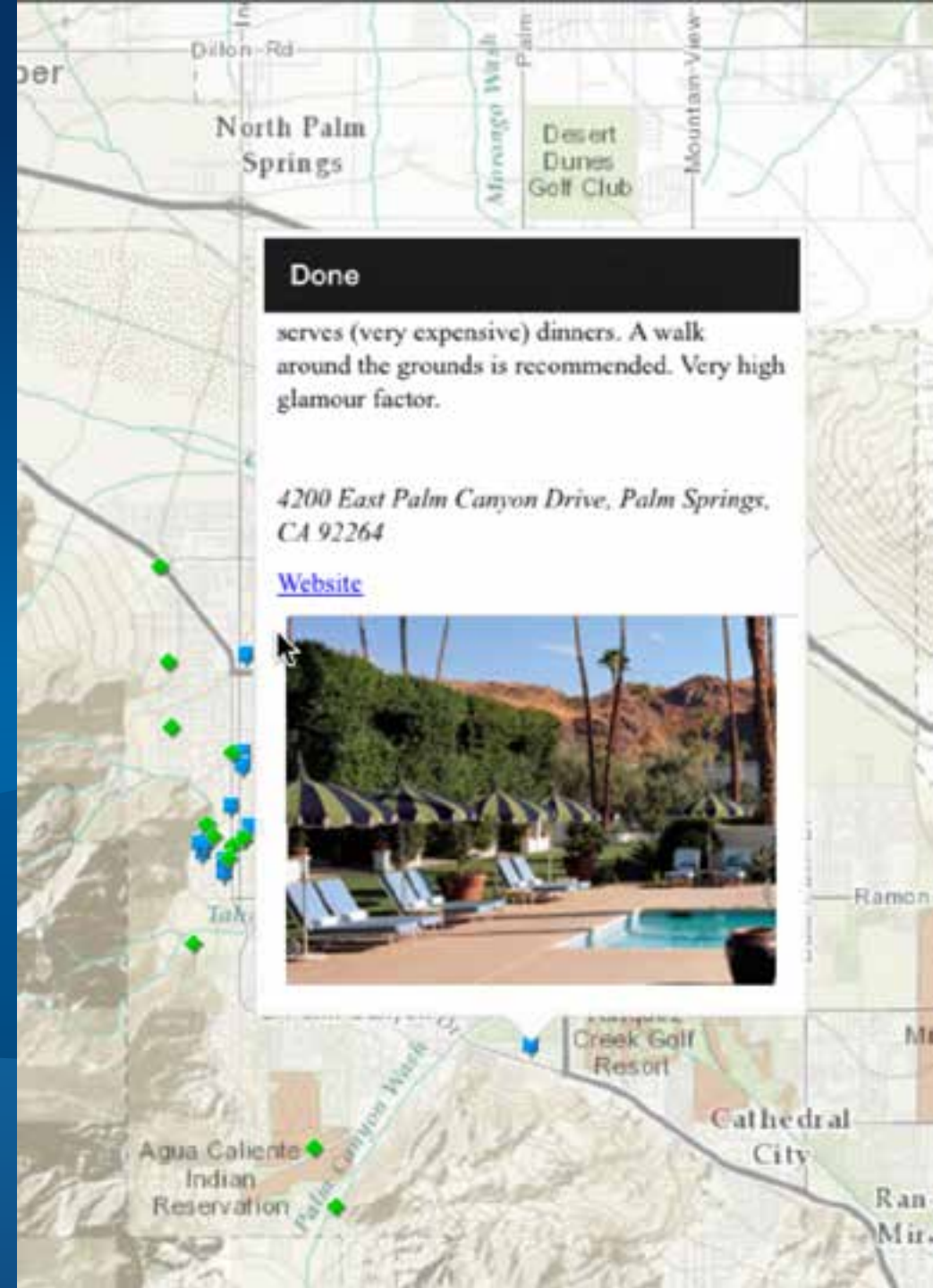
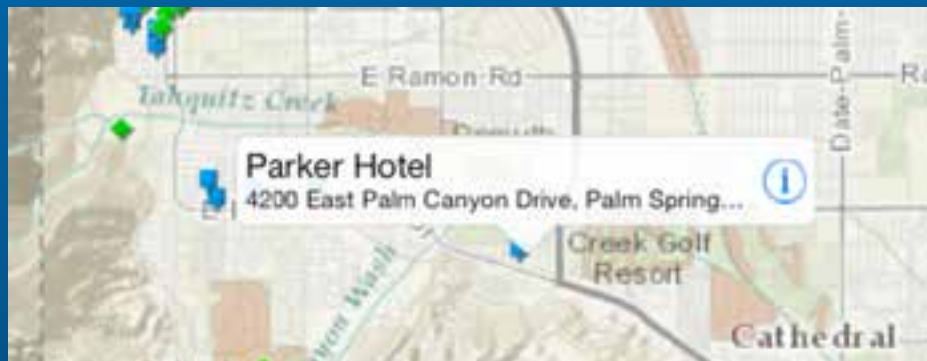


DEMO

Popups

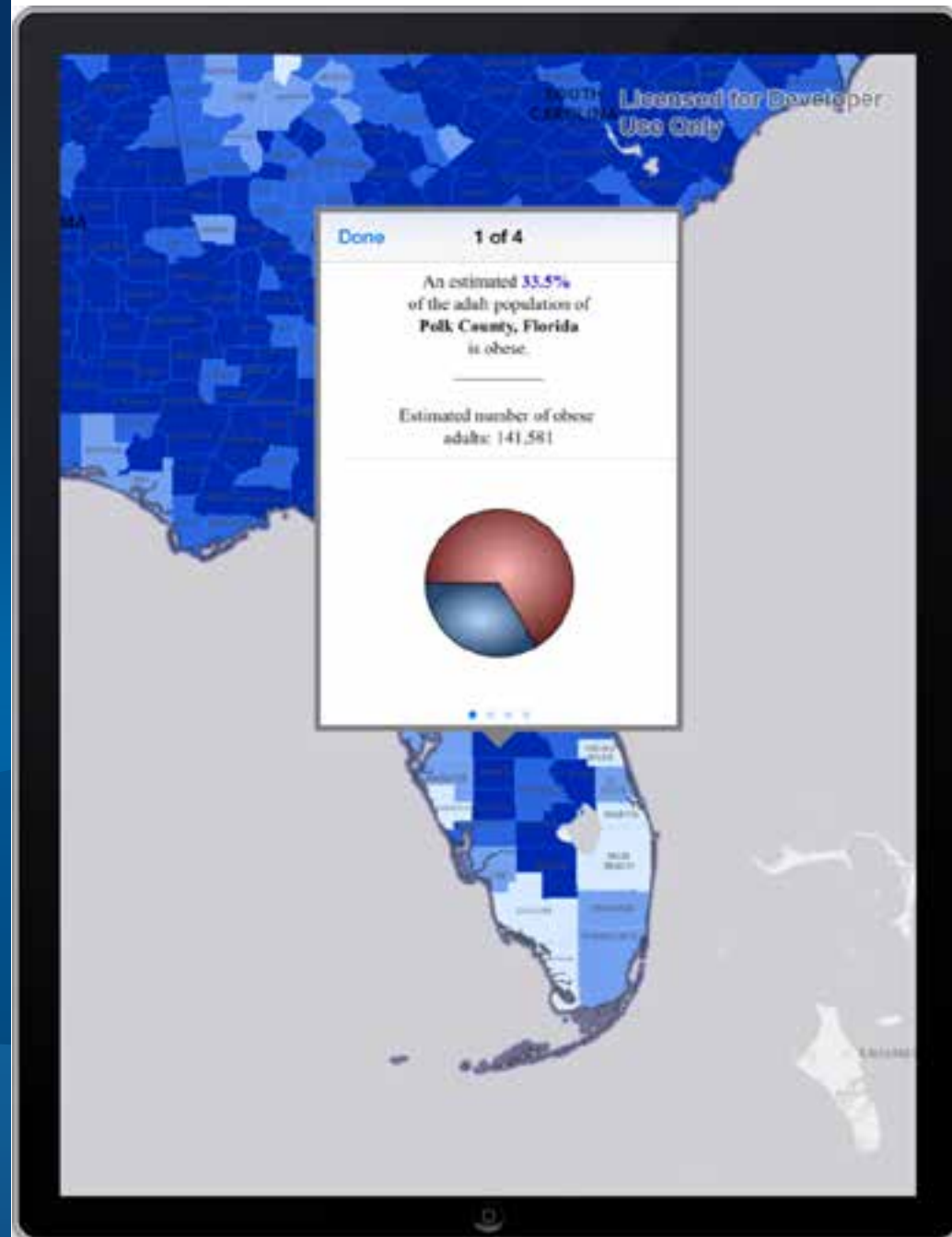
Explore maps with

Commentary, Pictures...



Popups

Explore maps with Charts...



Explore maps with Graphs...



List feature details

Attributes, pictures, videos, pdf files, office docs...

Done



Problem

Street Light Damage

Comments

Street light out

Name

Alexandra Wentzell

Phone Number

999-9999

Email Address

Alexandra@Alexandra.com

Date Submitted

3/28/11, 11:01 PM

Status

Unassigned

Building Name

Floor Number



Photo1.jpg

4.7 KB



Photo2.jpg

23.8 KB



Popups

Collect new information

Done

1 of 2



Edited by mobile_org on 5/21/12 at 11:32 AM

Meter Inspection Form

Readings 2012

97,067

Inspection Status

Pat

Inspection Comments

Good

FullAddress

Riverside, CA 92501

Work Order #

2,382

Delete

Edit

Cancel

Validate with the data model.

Cancel

Done

Comments

Street light out

16/255 



Popups

**Augment
with rich media.**

Done

Attachments



Add

Take Photo or Video

Choose From Library

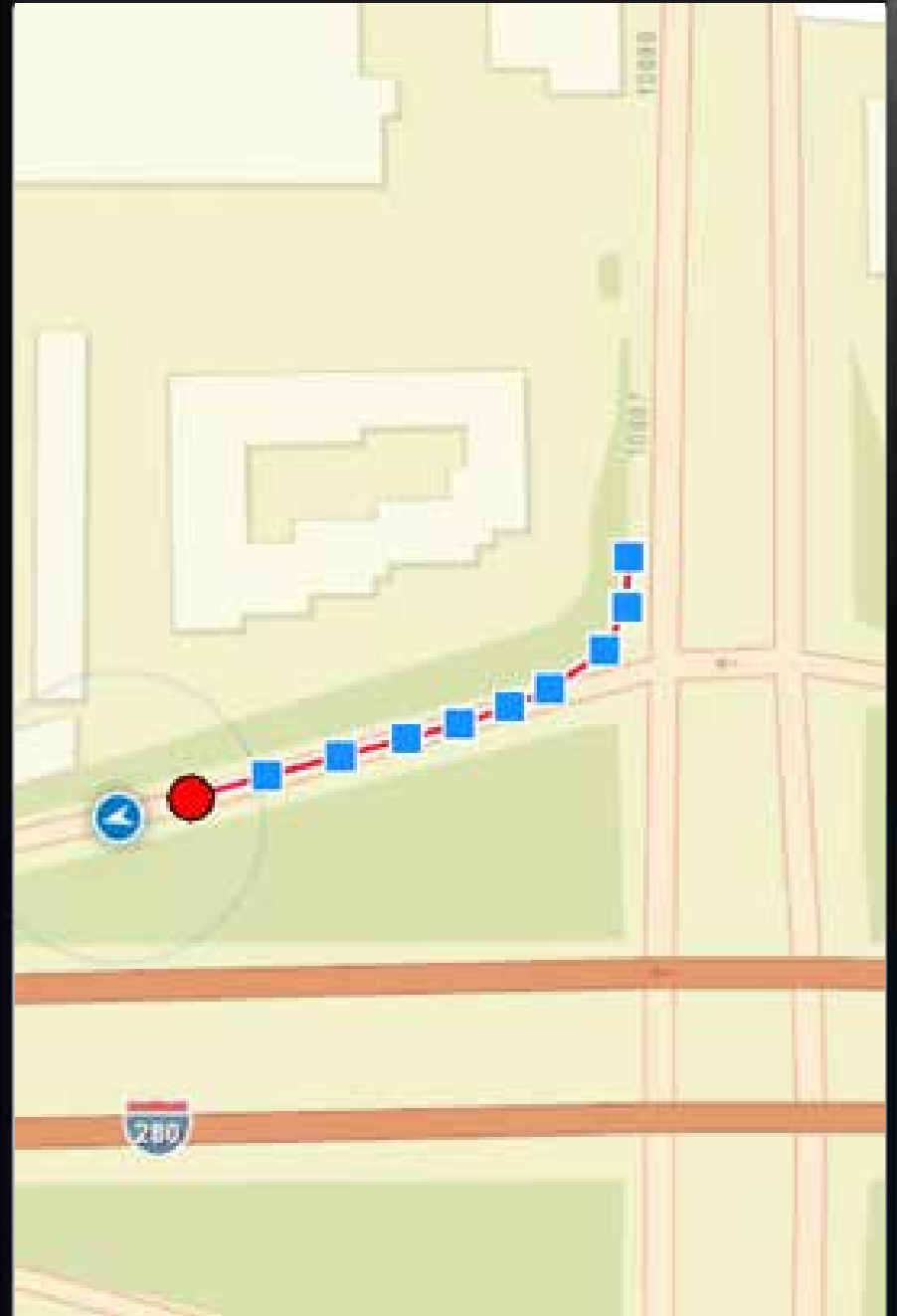
Cancel

Popups

Capture location with on-board GPS.

Cancel

Done



Write less code.

DEMO

Security

**Don't forget to
lock up.**



Security

Protect files with On-disk encryption



Security

Your choice

oAuth, HTTP, IWA, PKI Certificates...



Security

**Keychain is your
friend.**



DEMO

Licensing

**Same game,
new rules.**



Runtime Licensing

Development and Deployment Workflow



1. Download and Install



2. Develop and Test



3. Deploy and Distribute

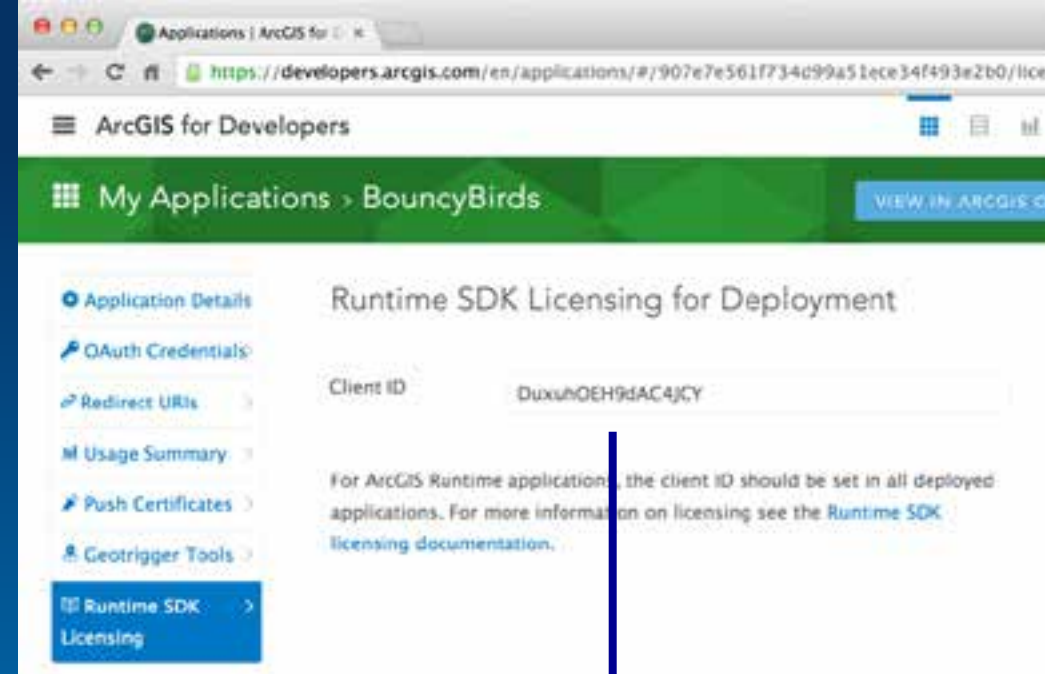
Development & Testing

All capabilities. Period.



Basic level

Connected capabilities
+
Offline map viewing



//Set client ID

```
[AGSRuntimeEnvironment  
setClientID:@"DuxuhOEh9dAC4JCY"  
error:&err];
```

Standard level

All capabilities, including offline routing, geocoding, editing, and sync.

//A) Set your authorization code

```
[[AGSRuntimeEnvironment license]  
setLicenseCode:@"<code>"];
```

OR

//B) Set license w/ org account

```
info = [[AGSLicenseInfo alloc]  
initWithPortalInfo:portalInfo];
```

```
[[AGSRuntimeEnvironment license]  
setLicenseInfo:info ];
```



Understanding our world.