Building Apps with the ArcGIS Runtime SDK for iOS

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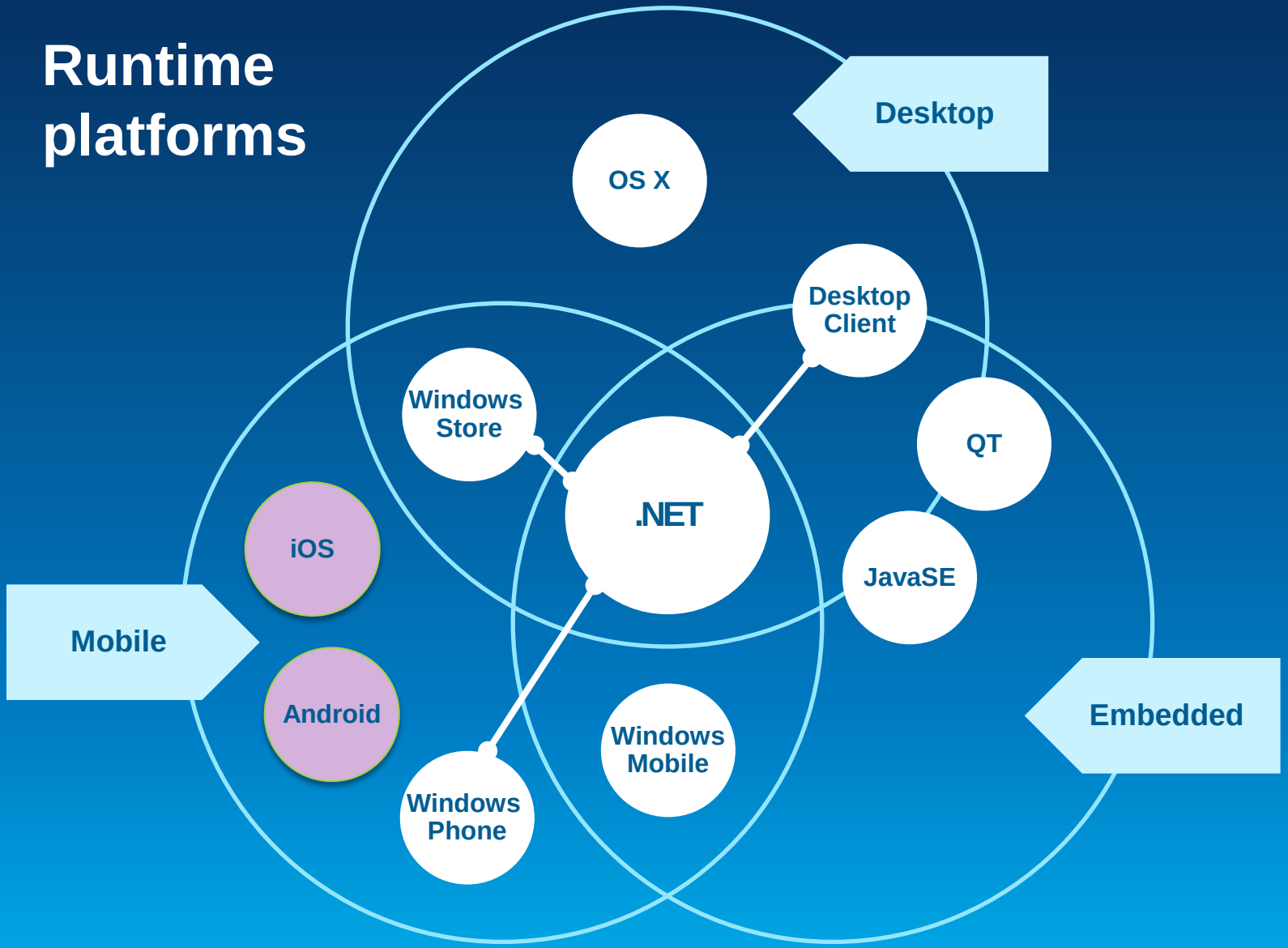
ArcGIS Runtime SDKs

10.2 Released!

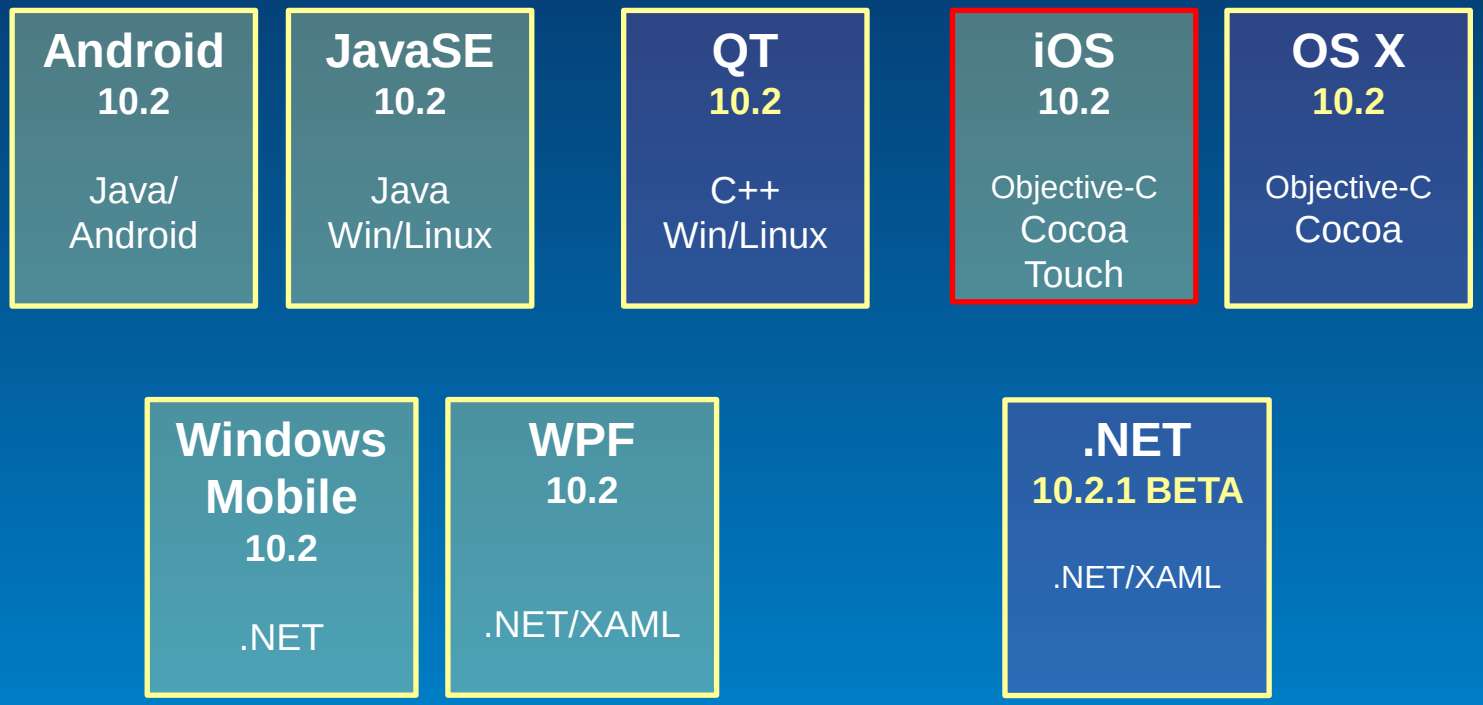
Runtime platforms



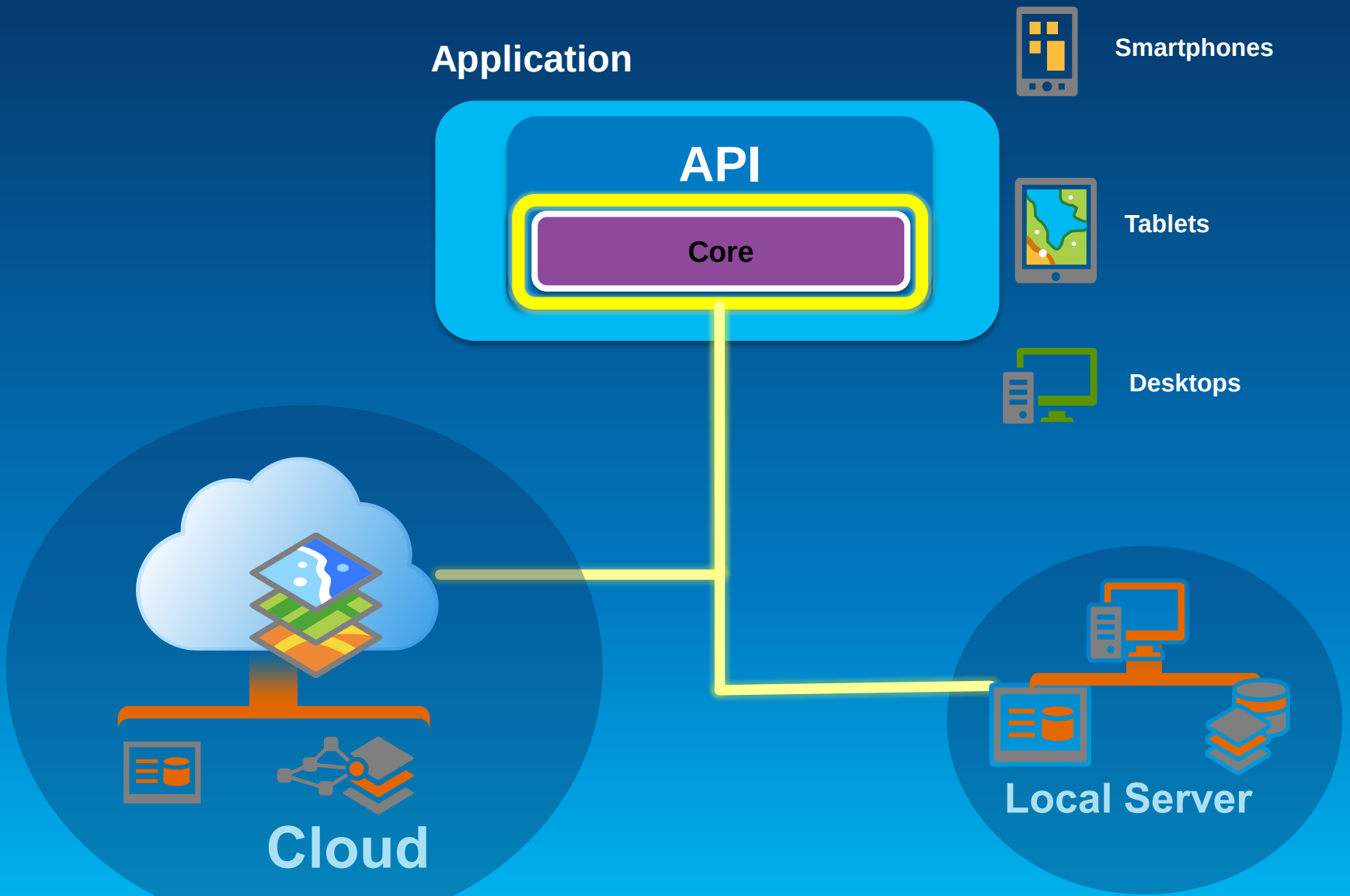
They do lots…

- Blazing fast maps
- High-quality cartography and symbology
- Use maps, layers, and data from the ArcGIS cloud
- Edit, geocode, route, and query
- Perform analysis
- So much more

SDK Platforms



Runtime API Architecture



ArcGIS Runtime SDK for iOS

- **Build native applications using Objective-C**
  - **iPhone 4 & 4S, 5, iPod Touch, iPad**
  - **iOS 6.0 and up**

Before you begin…

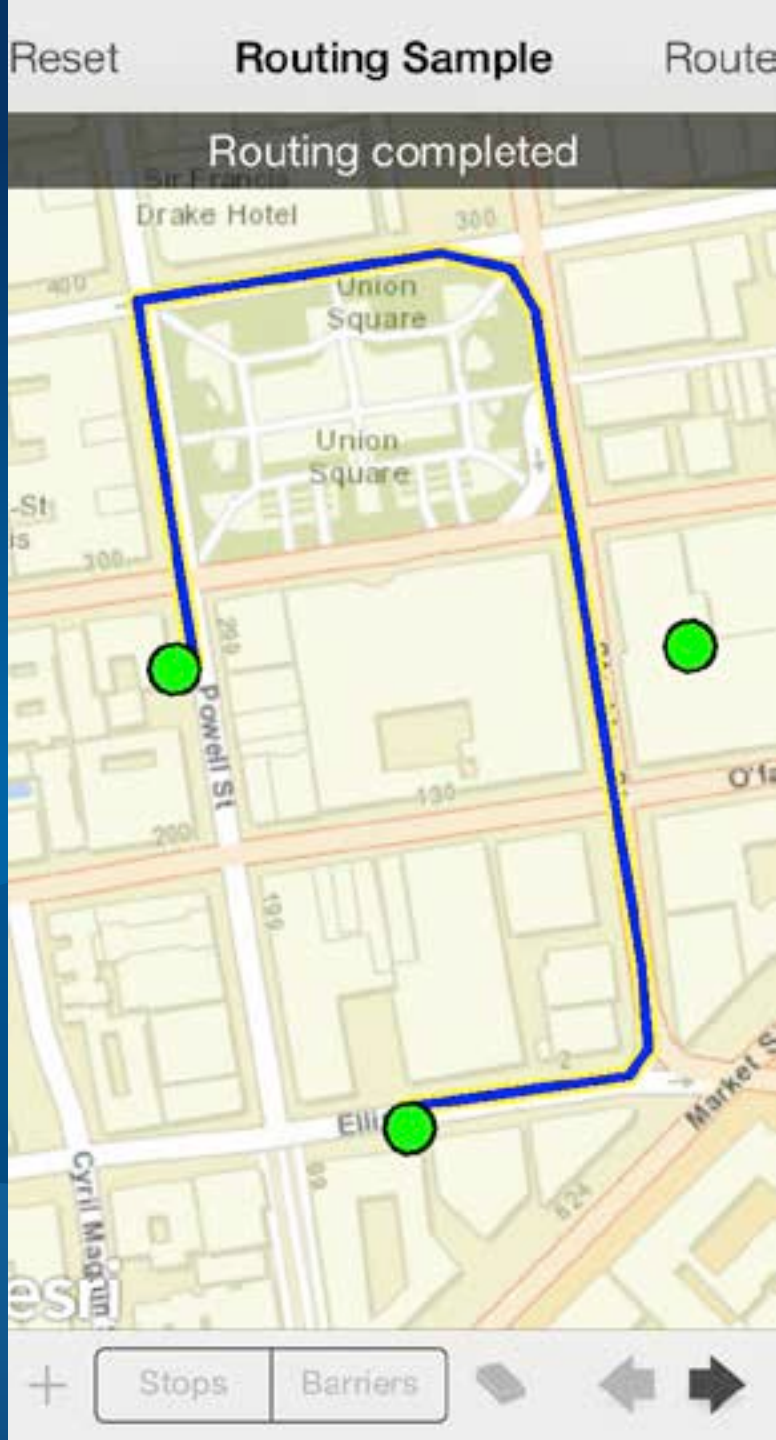
- Intel-based Mac
  - OSX 10.7, 10.8 and 10.9 (Lion & Mountain Lion
  - and Mavericks)

- Xcode (IDE) from the App Store
  - Simulator
  - iOS SDK
- ArcGIS Runtime for iOS v10.2

To test and deploy on actual hardware or older iOS…

- Join Apple's iOS Developer Program
  - Standard : AppStore distribution
  - Enterprise : In-House distribution

The ArcGIS Runtime SDK for iOS



What you can do with the SDK

- Display maps
- Perform analysis
- Visualize results
- Collect data

Displaying a Map

- **UI Component : AGSMapView**
  - **Responds to gestures**
    - **Pinch to zoom & rotate**
    - **Drag to pan**
    - **Tap & Hold to magnify**
  - **Displays GPS location**
    - **Auto pan**

Adding data to your map

- Mashup layers
  - ArcGIS Server Tiled layer
  - ArcGIS Server Dynamic layer
  - ArcGIS Server Image
  - Bing
  - Open Street Map
  - Graphics
  - Sketch

- Display WebMaps
  - ArcGIS.com
  - ArcGIS Portal

WebMap and the Portal API

- **WebMap**
  - **Saved Mashup**
  - **Configured symbols**
  - **Defined Popups**
  - **Saved in ArcGIS.com**

Performing Analysis

- Using Tasks
  - Query, Find, Identify Task
    - Search for features In the map

  - Geoprocessing Task
    - Spatial analysis using GP tools and models

  - Locator
    - Geocode and reverse geocode addresses
    - ArcGIS World Geocoder (POI, Global Find, etc.)

Performing Analysis

- Contd.
  - Geometry Service
    - Perform geometry operations on the server
  - Routing Task
    - Point-to-point and multipoint driving directions
    - Barriers, Time Windows, Best Sequence

  - Closest Facility Task
    - Find nearest facility
  - Service Area Task
    - Compute drive times and service areas

Performing Analysis (native)

- Contd.
  - Geometry Engine
    - native, high performance engine for performing geometric operations on the device

Visualizing Results

- Graphics
  - Geometry
  - Attributes
  - Symbol
- Symbols
  - Picture, Marker, Line, Fill
  - Composite
  - Text

Visualizing Results

- Contd.
  - Renderers
    - Simple
    - Unique Value
    - Class Breaks
    - Temporal

Collecting Data

- Using Feature layers & Popups
  - Feature Layers edit data through Feature Services
  - Popups provide UI to
    - Display and edit attributes
    - Manage attachments
    - View charts, media
  - Popups configured through WebMaps
    - Attributes to display & edit
    - User friendly aliases and hints
    - Formatting for numbers, dates

Collecting Data

Using Popups

- **Edit feature**
  - **Attributes**
  - **Geometry**
  - **Attachments**

Managing Attachments

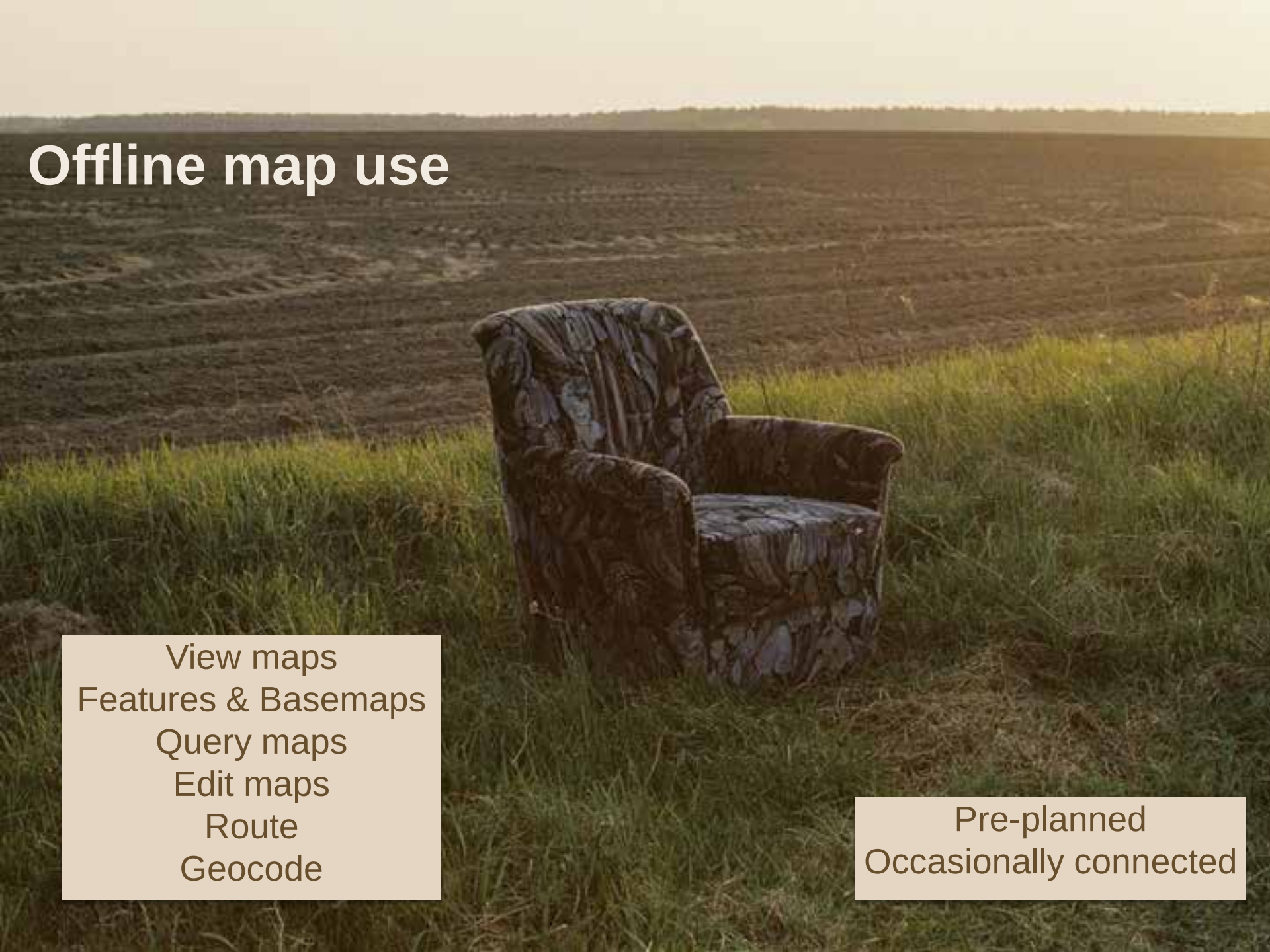
Using Popups

- View & Download
- Add
- Delete

Offline map use

Disconnected Editing and more…

Offline map use



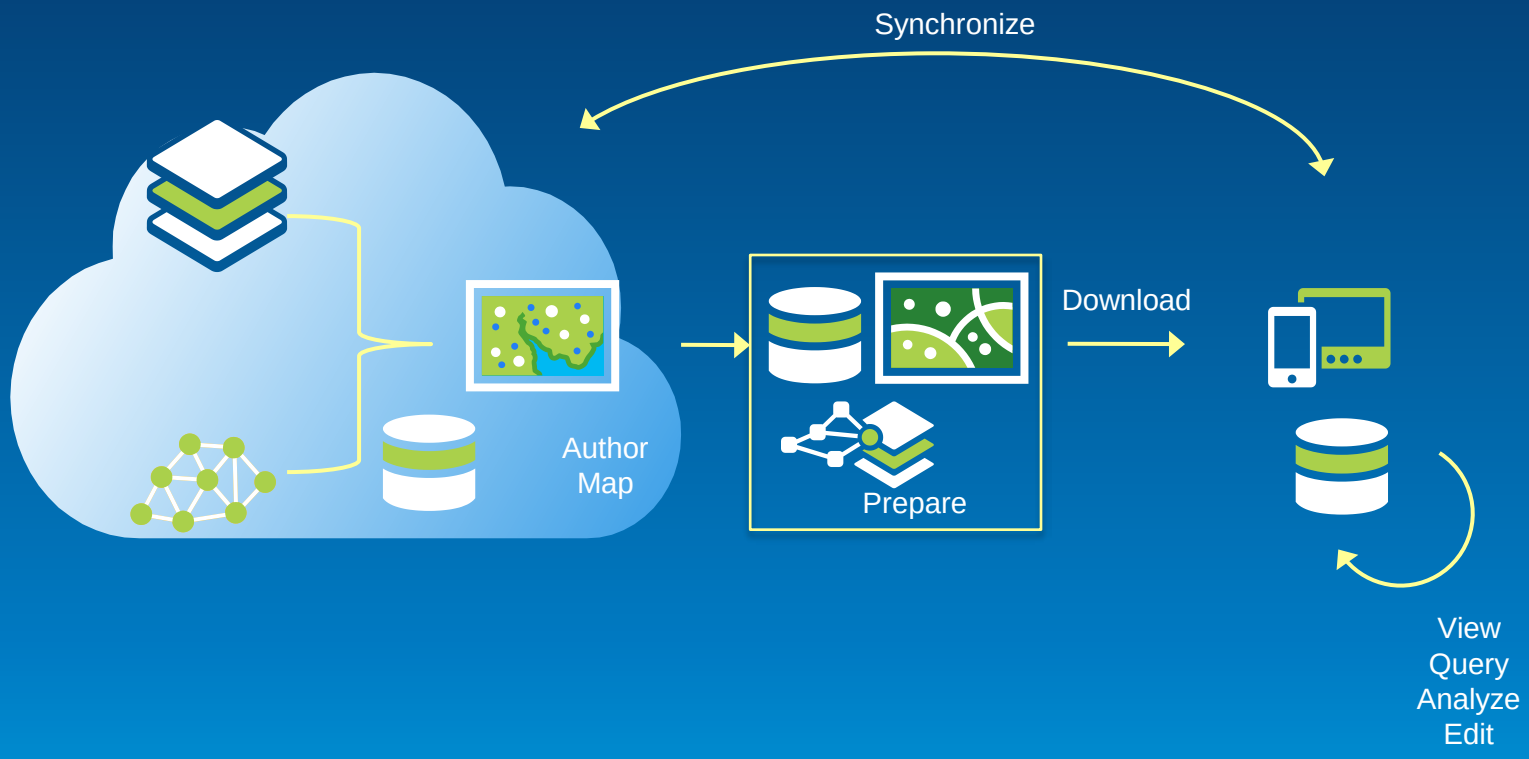
View maps
Features & Basemaps
Query maps
Edit maps
Route
Geocode

Pre-planned
Occasionally connected

Offline ArcGIS

- Disconnected use of the ArcGIS platform
  - Viewing/interacting with maps
  - Querying data
  - Editing features
    - Synchronization
  - Spatial intelligence
    - Find places and locations
    - Get directions
  - Pre-planned or on demand workflows
  - Occasionally connected scenarios
- All Runtime SDKs

From ArcGIS Online



Workflows

- **Pre-planned**

- **On-demand**

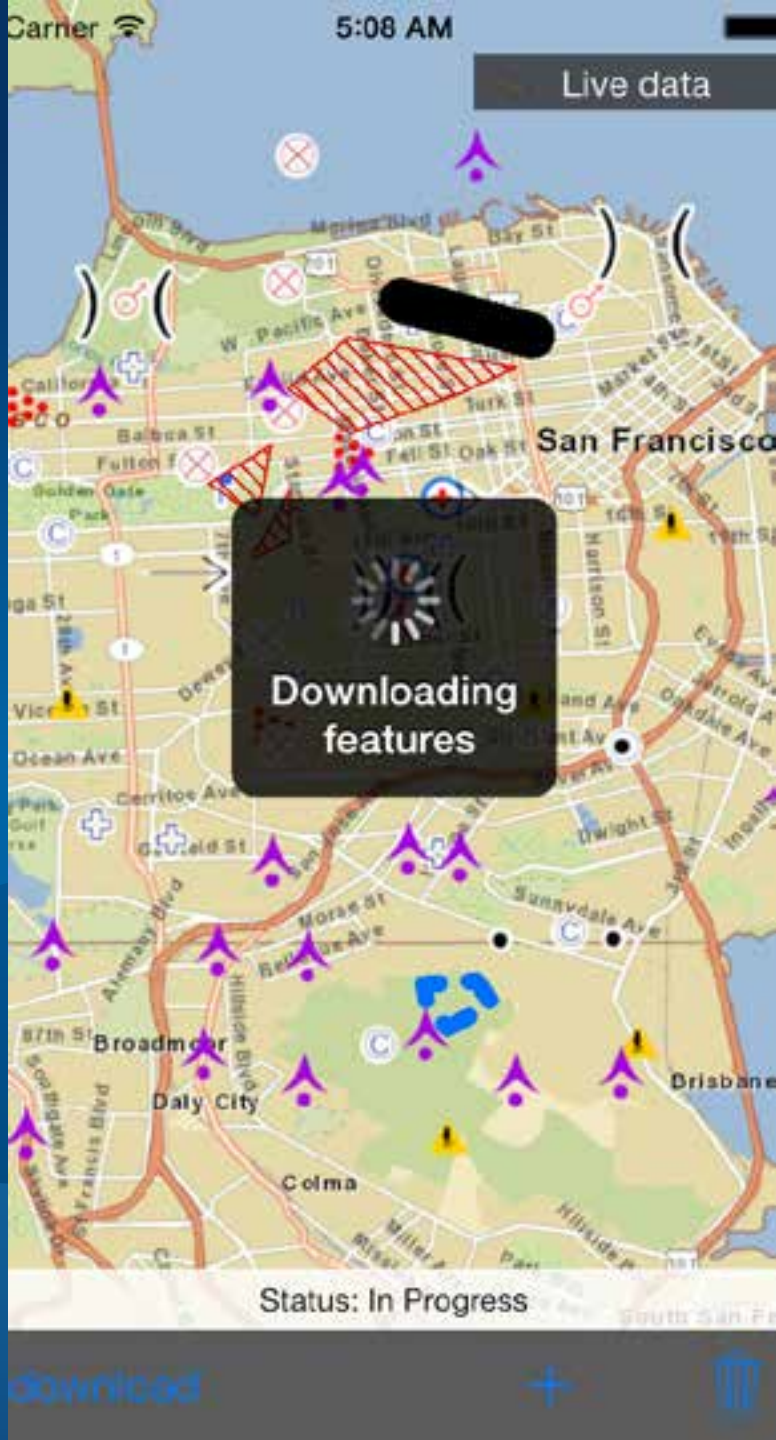
- **Occasionally connected**

Demo

Download a tile cache

Demo

Geodatabase Sync



What are we working on right now?

- Offline Mapping
- Performance
- Geotriggers
- 3D
- Data Support
  - Kml, shp, raster
- Vector maps

- **The road ahead session is Wednesday at 14:00**

Get more information on ArcGIS

http://developers.arcgis.com

http://arcgis.com

http://www.esri.com

@esri

@arcgis_runtime

Understanding our world.