



Esri International Developer Summit
Palm Springs, CA

Building Offline Apps With Runtime SDKs – Part 1

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Agenda

- **Part One – Workflows and Data**
 - Overview
 - What can you build?
 - Where does the data come from?
 - Authoring and sharing content with Runtime Apps
- **Part Two – Using the APIs**
 - Mapping
 - Editing
 - GeoCoding
 - Networks

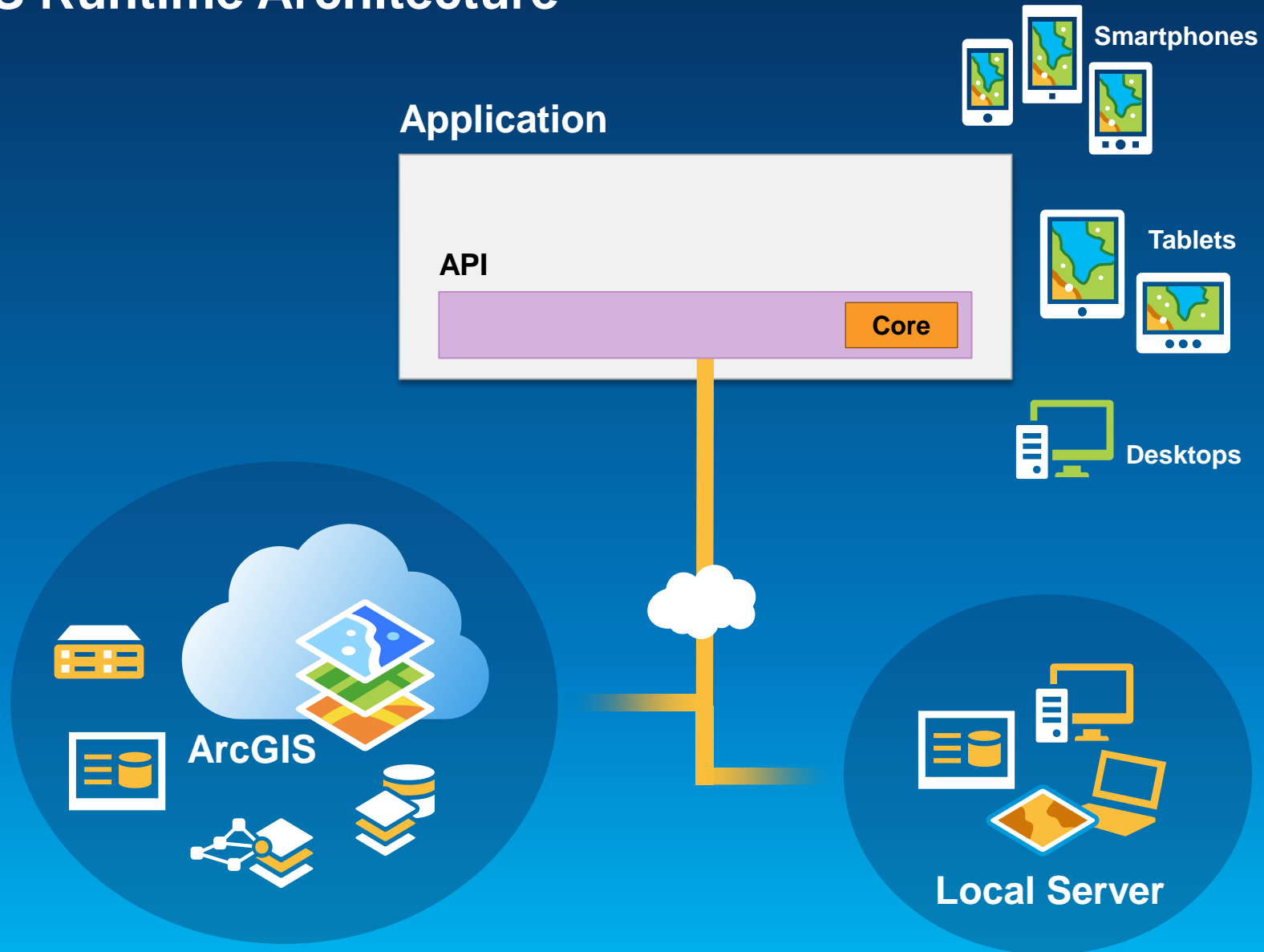
Offline Map Capabilities

Disconnected Use of the ArcGIS Platform

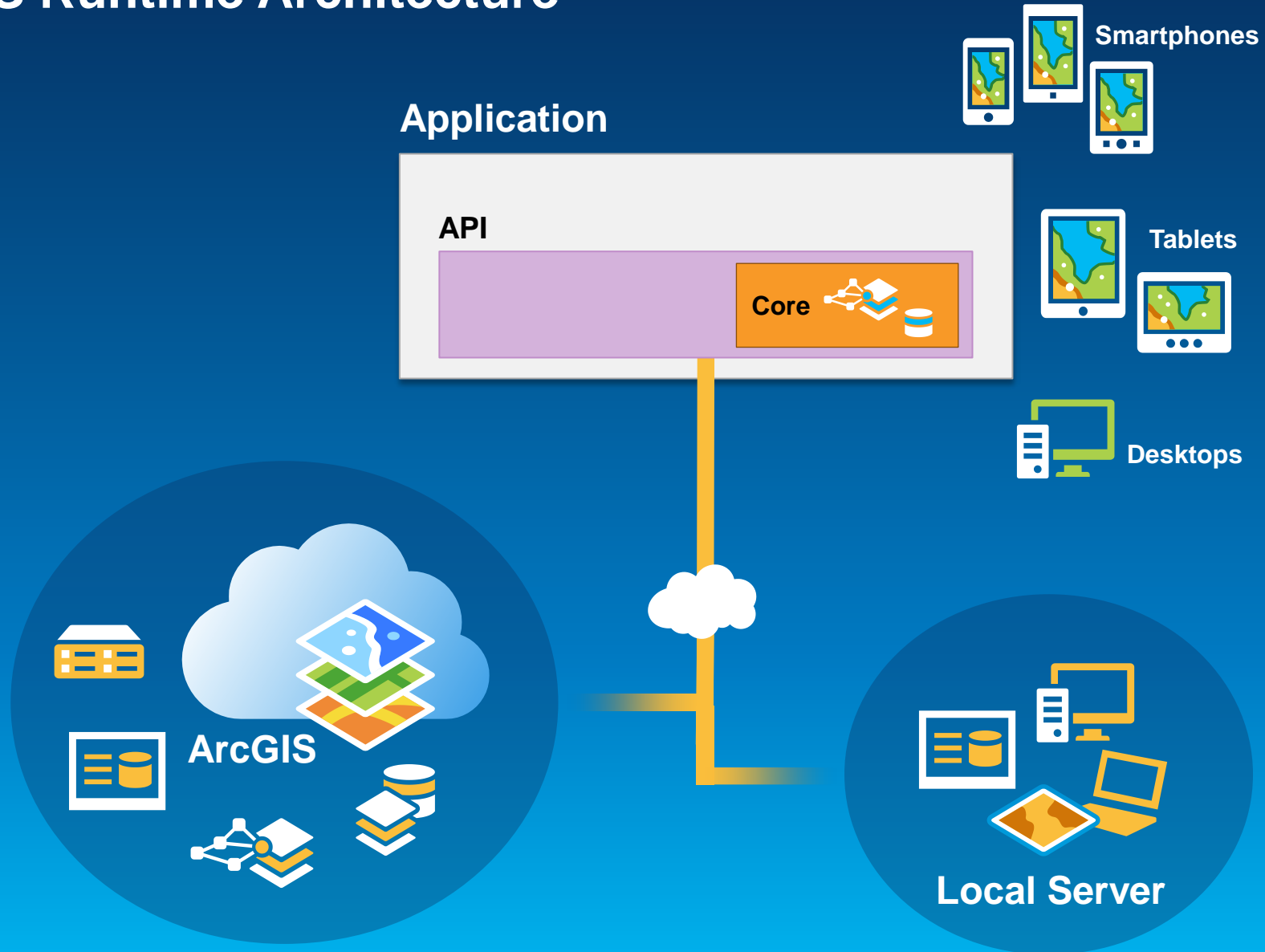
- Viewing and Interacting with Maps
- Querying Data
- Editing Features
 - Synchronization
- Find places and locations
- Get directions
- Pre-planned or On-demand Workflows
- Occasionally Connected Scenarios
- All Runtime SDKs*



ArcGIS Runtime Architecture



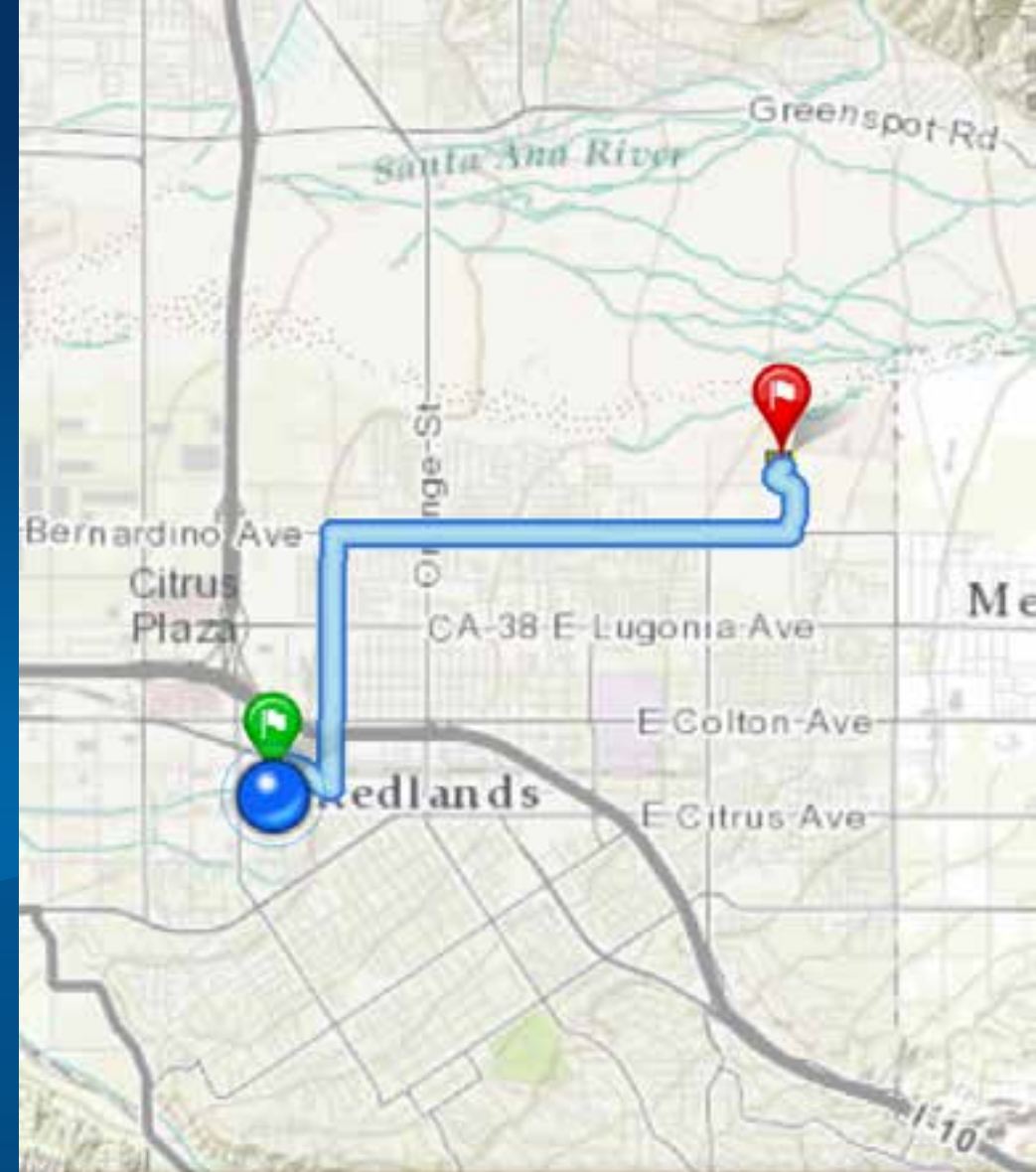
ArcGIS Runtime Architecture



Demo

Offline Capabilities

Justin

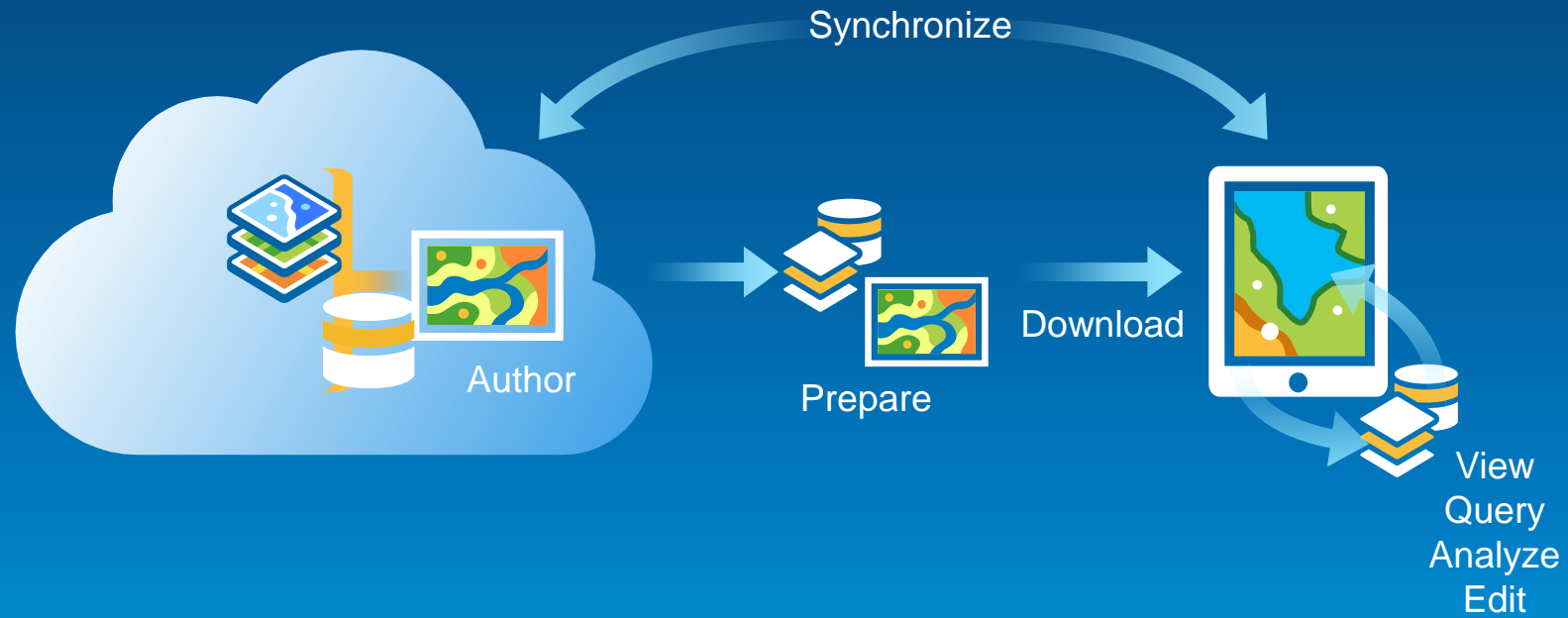


**Depart Current
location**

The ArcGIS Platform – Working Offline

- **All Aspects of the Platform Support Going Offline**
 - Online and Portal
 - Server
 - Desktop
- **New Workflows**
 - Critical for You to Understand These Workflows

From ArcGIS Online and Portal



Demo

Working With Hosted Services

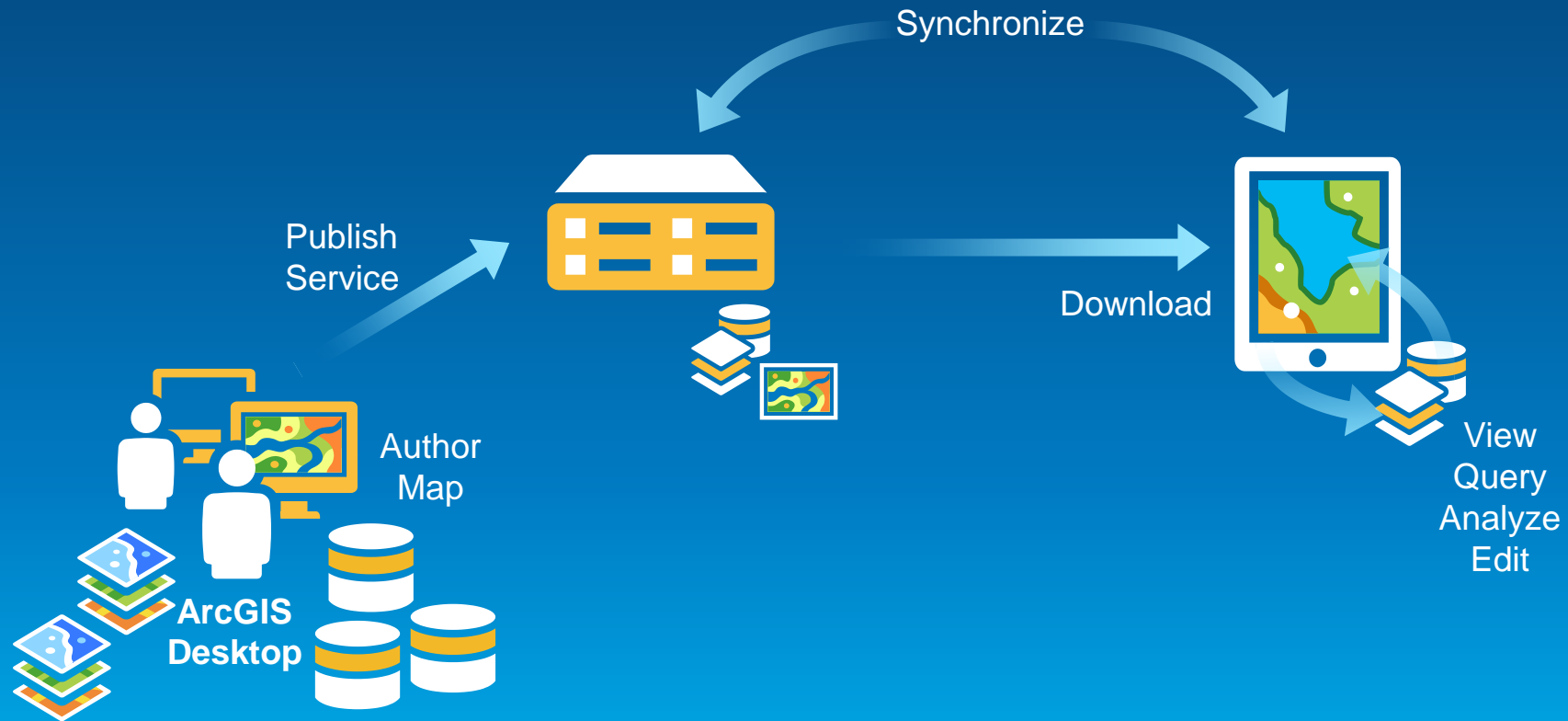
Justin

The screenshot shows the 'My Hosted Data' page on the ArcGIS for Developers website. The browser address bar indicates the URL is <https://developers.arcgis.com/en/hosted-data/>. The page features a search bar with the placeholder text 'Search Your Services' and a magnifying glass icon. Below the search bar is a 'Tags' section with a hand icon, listing various categories with checkboxes and counts in parentheses. The categories include: Climbing (1), Cloud (1), Federal (1), National (1), National Agriculture Imagery Program (1), Farm Service Agency (1), US Department of Agriculture (1), DOI (1), US Department of Interior (1), US Geological Survey (1), Aerials Express (1), i-cubed (1), DOQQ (1), USGS (1), NAIP (1), USDA FSA (1), aerial (1), satellite (1), imagery (1), United States (1), Mountains (1), and Arizona (1), Location Tracking (1). On the right side of the page, there is a sidebar with several map thumbnails, including one labeled 'Agriculture Image'.

ArcGIS Online Data Licensing

- **Always Review Data Usage Restrictions**
- **Supported Esri Services**
 - Basemaps
- **Esri Services Not Supported Offline**
 - Geocoding
 - Routing

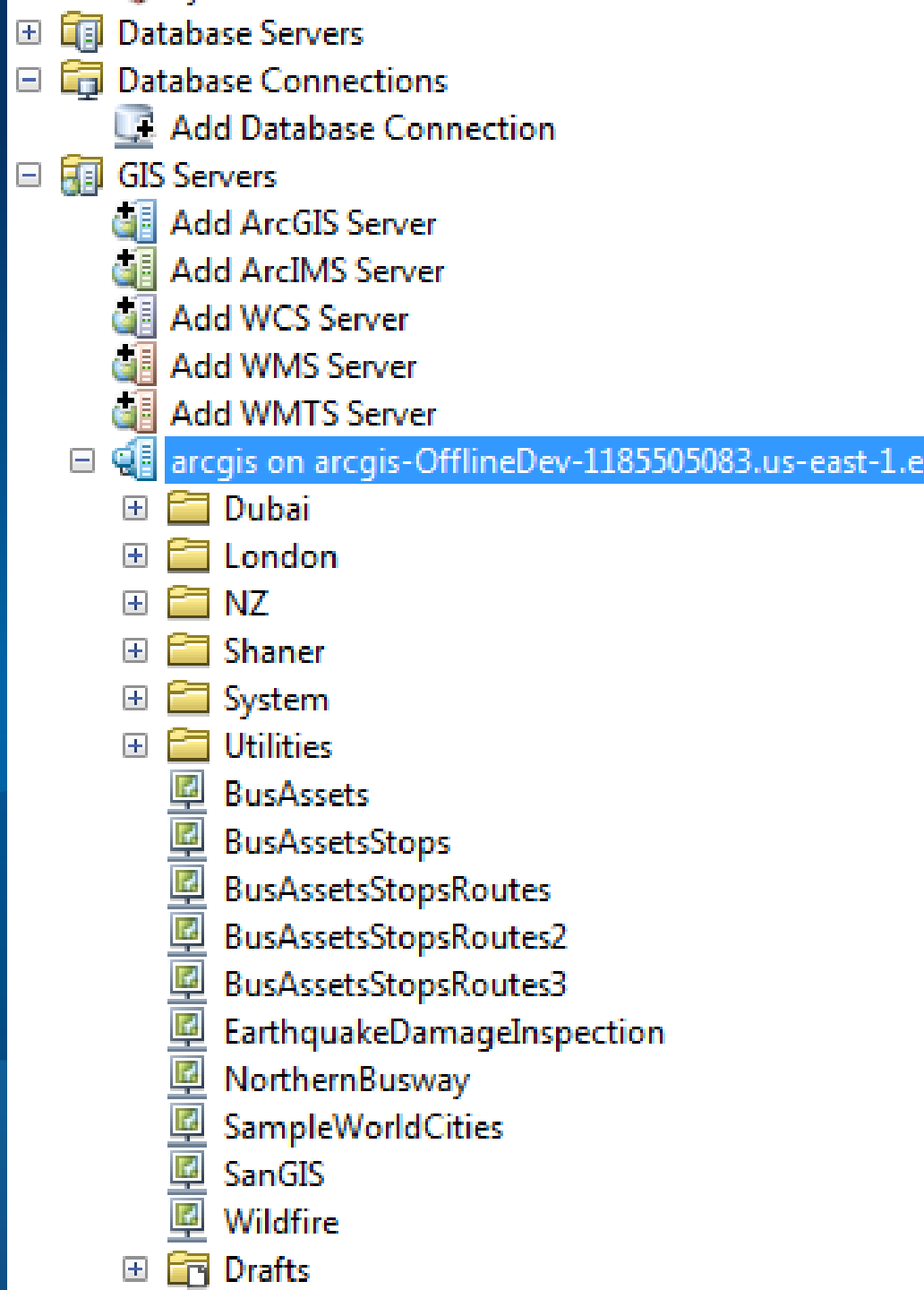
Offline With ArcGIS Server



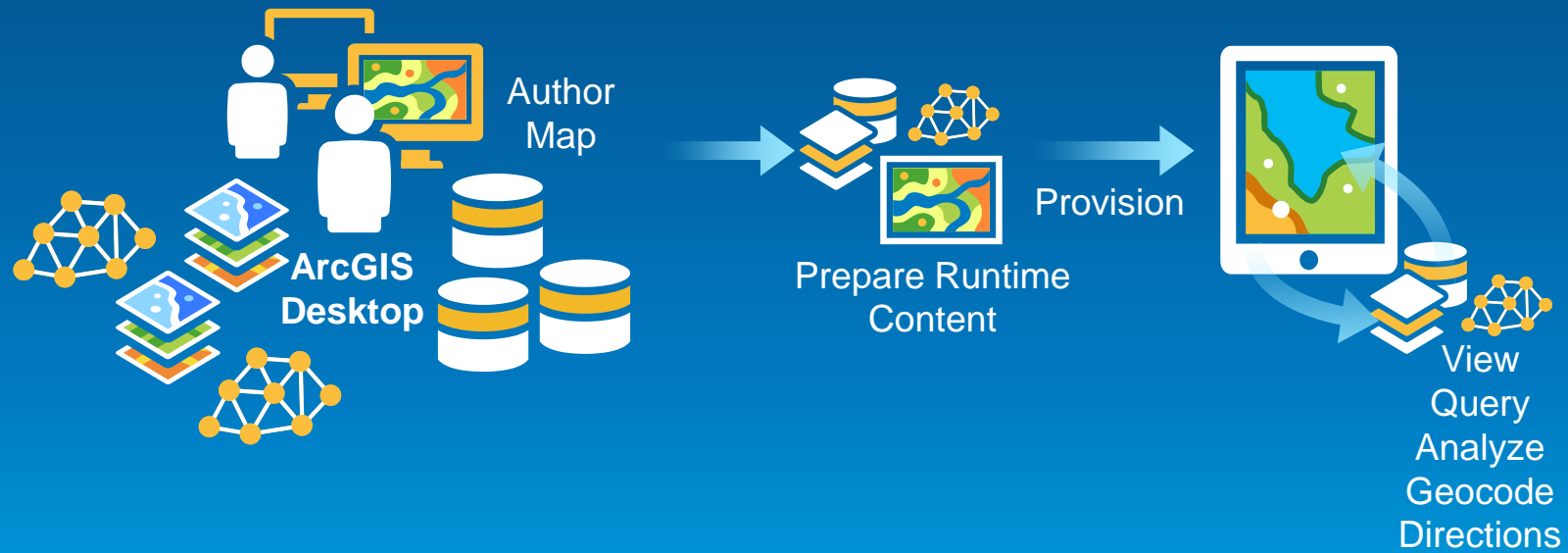
Demo

Working With ArcGIS Server

Justin



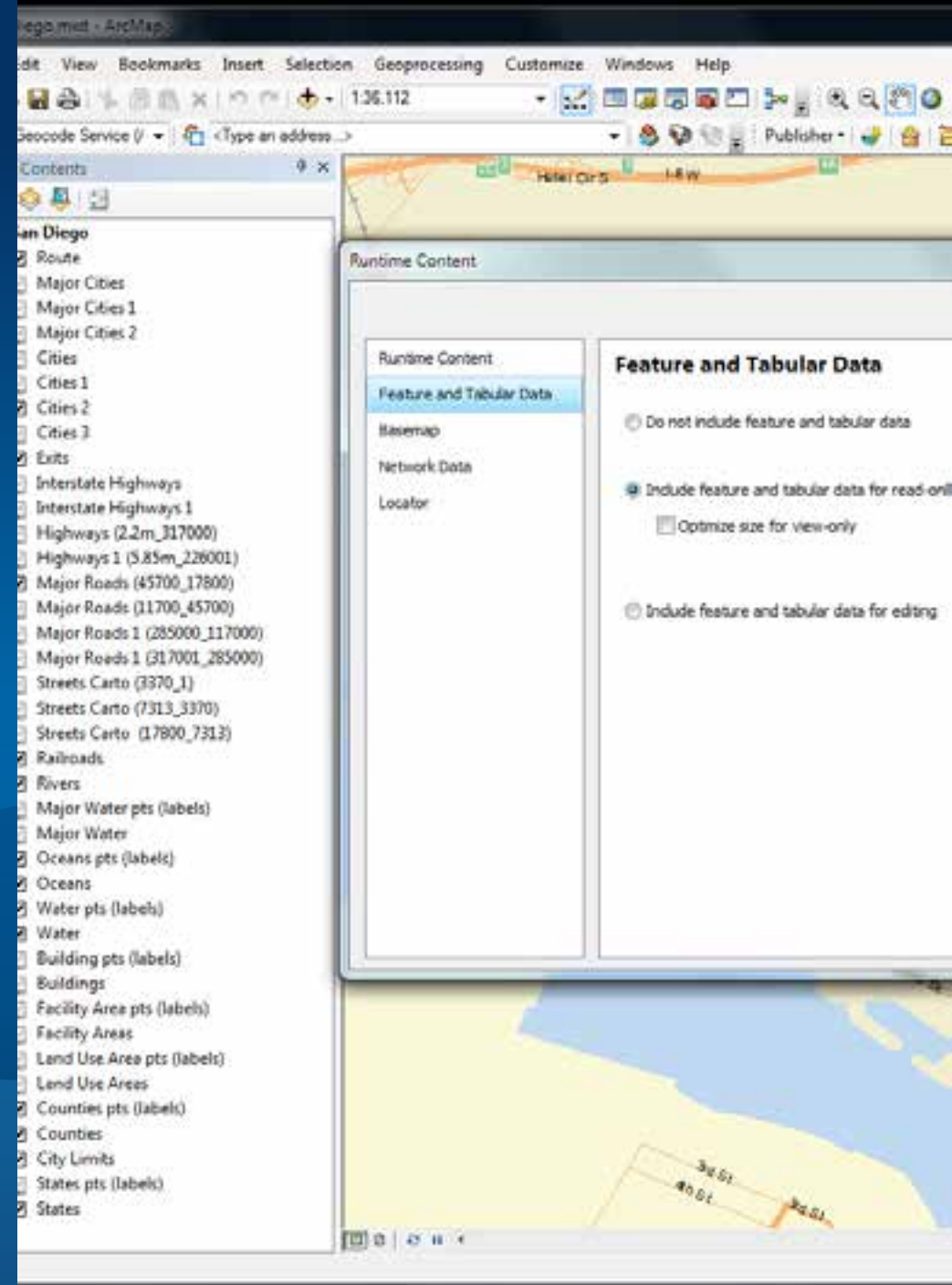
Offline With Desktop



Demo

Working With ArcGIS Desktop

Justin



Mixing and Matching

- **Possible to Take a Hybrid Approach**
 - Online basemaps
 - ArcGIS Server feature services
 - GeoCoding and routing from Desktop
- **This Will Be Common in Your Solutions**

Optimizing The Data Provisioning Process

- **Features and Basemap Content**
 - **On Demand** – Retrieves data from the server when requested
 - Uses server processing power and bandwidth for every client request
 - **Sideload** - Content created ahead of time and provisioned onto the device
 - Can help alleviate server load at busy times of the day
 - Commonly used for basemap tiles
 - Can work with feature data if the workflow is right
 - How often and how many features change on the backend?
- **Networks and Locators**
 - Sideload is the only option

Your Common Questions

- **Is Versioned Data Supported?**
- **Are Related Tables Supported?**
- **What About Attachments?**
- **Will My Existing ArcGIS Services Work?**
- **How Does Conflict Detection Work?**

Questions?



Understanding our world.