

Understanding ArcGIS Platform: Location Services, APIs, and Tools for Developers

Courtney Yatteau

David Cardella

Agenda

- Why developers?
- What is ArcGIS Platform?
- What's new?

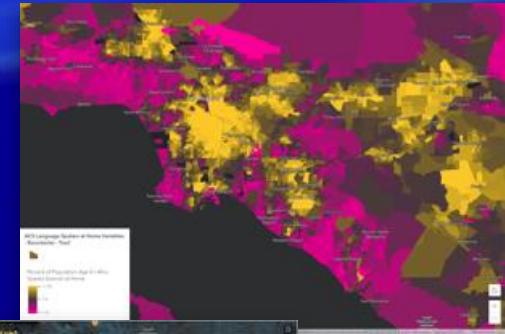
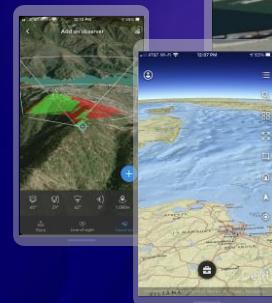
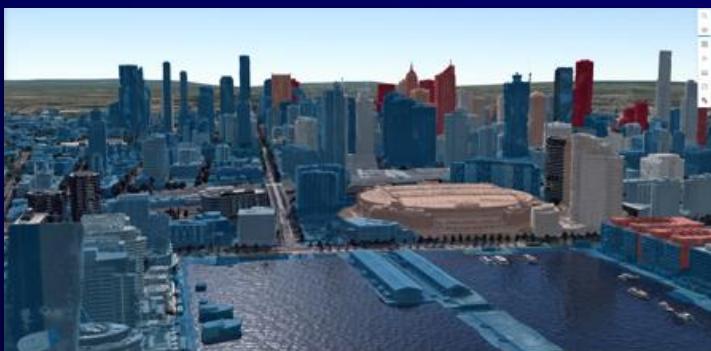
Developer Trends

- Developer influence
- May not want to invest in a full technology stack
- Open source is important
 - May want to use their own client technology
- In many cases the form of an API is more important than the features it has
- Simple, easy to understand business model that reduces friction of entry



ArcGIS Platform

- Provides a set of mapping and location services to developers in a form they expect
 - Services on demand
 - Variety of APIs
 - Clear business model that's consumption based
 - Use only the services that are needed
 - Put maps in apps



ArcGIS Location Services

Accessible by Developers in Many Ways



ArcGIS Location
Services

ArcGIS
Platform
Consumption

ArcGIS
Online
Users,
Consumption
(Credits)

ArcGIS
Pro
Users,
Consumption
(Credits)

ArcGIS
Enterprise
Users, Cores

ArcGIS Platform | A Location Platform-as-a-Service

Provides a set of mapping and location services to developers in a form they expect

Developer Experience

Mapping APIs
Open-Source Mapping Libraries
Developer Resources

Location Services

Content & Capabilities

Business Model
Consumption-Based



*An Intuitive Developer Experience
for Accessing and Using Location Services*

ArcGIS Platform | A Location Platform-as-a-Service

Provides a set of mapping and location services to developers in a form they expect

Developer Experience

- Mapping APIs
- Open-Source Mapping Libraries
- Developer Resources

Location Services

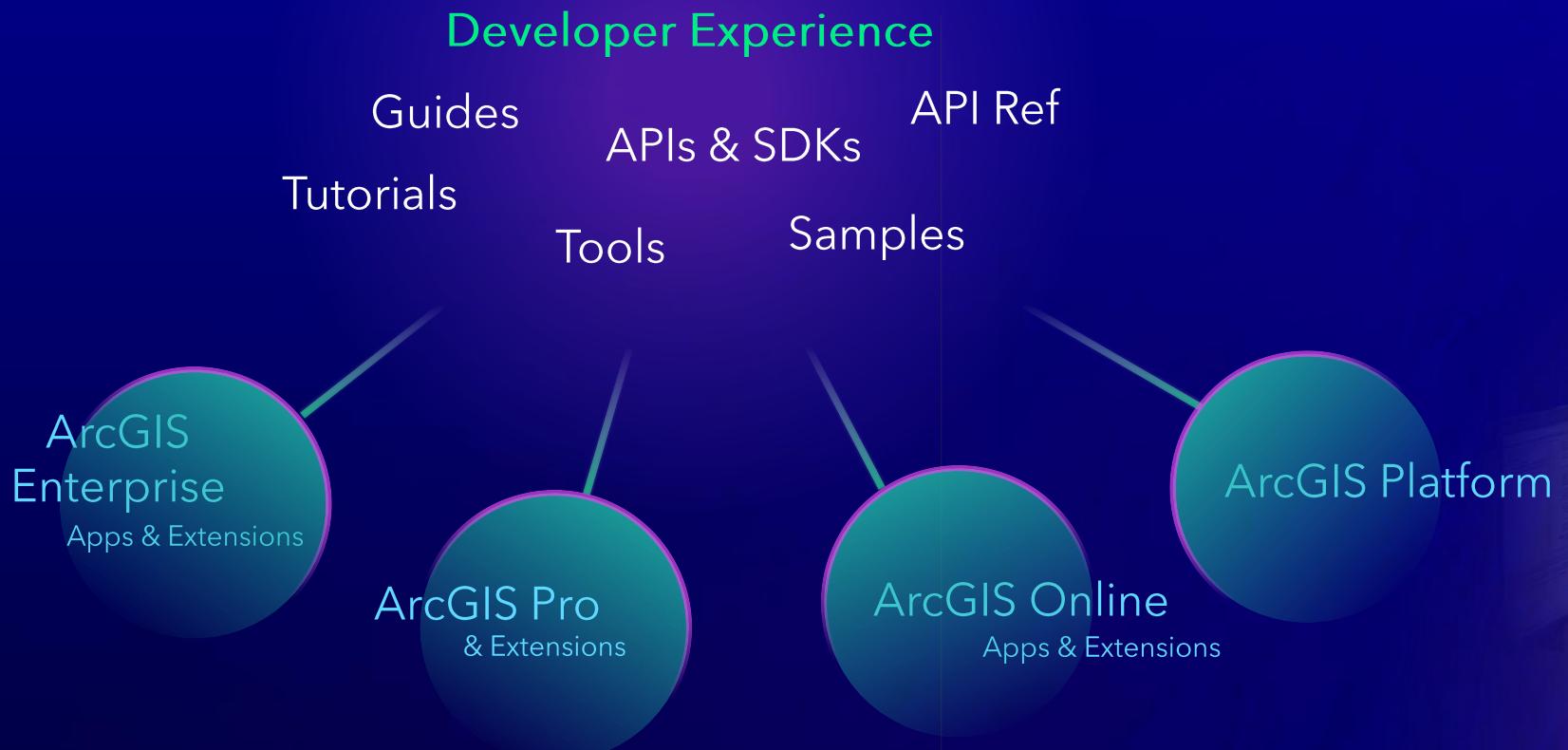
Content & Capabilities

Business Model
Consumption-Based



An Intuitive
for Accessing and

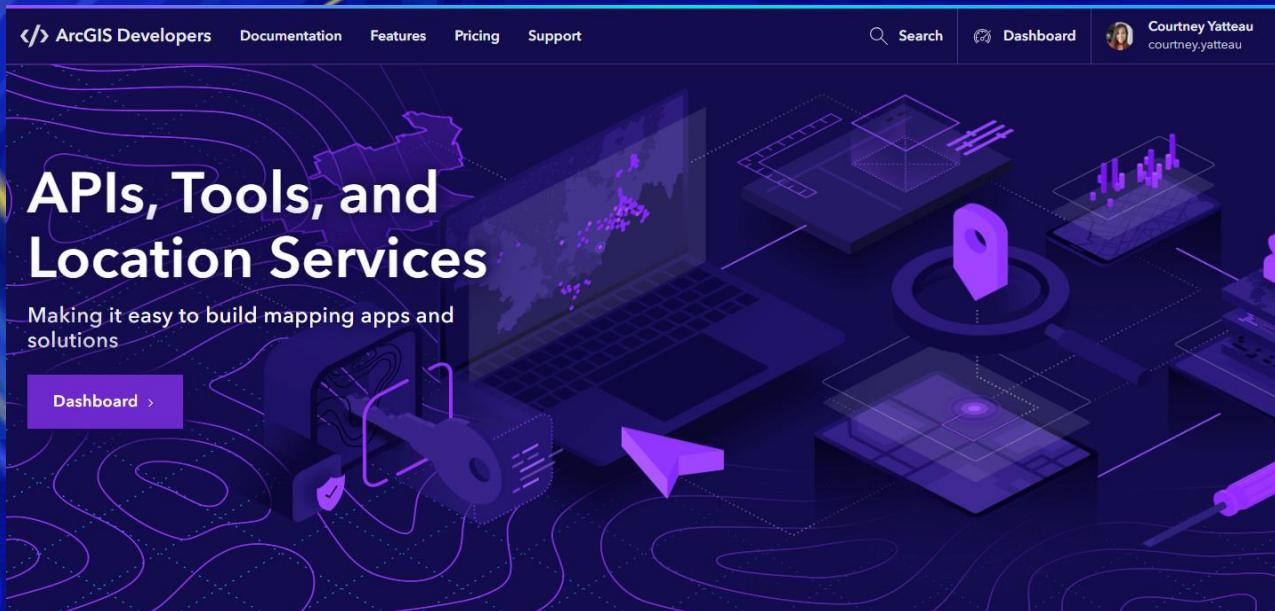
Comprehensive Developer Experience



Developer Experience | Authentication

- Services require authentication
- Variety of authentication methods
- API keys (New) and OAuth
- Industry standard





Developer Experience and Dashboard

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ArcGIS Mapping Libraries

Fully Featured APIs Engineered to Exploit the Full Capabilities of ArcGIS

Client-side analysis

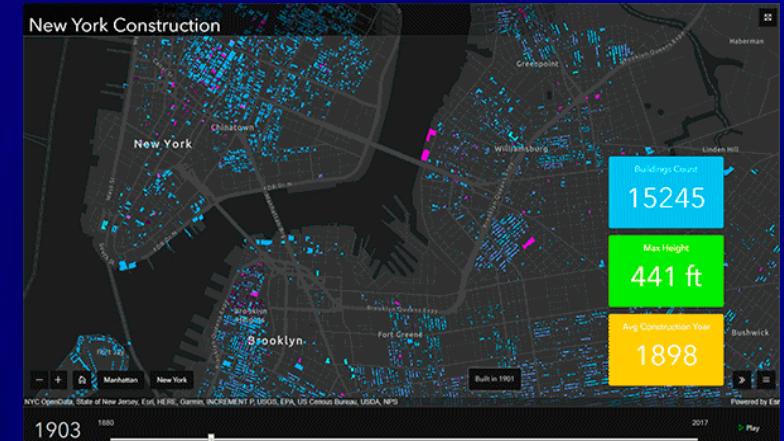
Performant

Support for many data sources

Support all your workflows

Widgets and native components

Cross platform, cross device



Working with Open-Source Web Mapping Libraries

Leverage Your Existing Investment

- Easily integrate ArcGIS location services
- ArcGIS REST JS: wrapper for using location services
- Support for Leaflet, OpenLayers, MapLibre, Cesium
- Documentation & samples



Basemaps



Geocoding

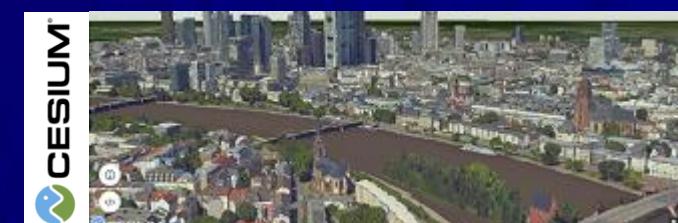
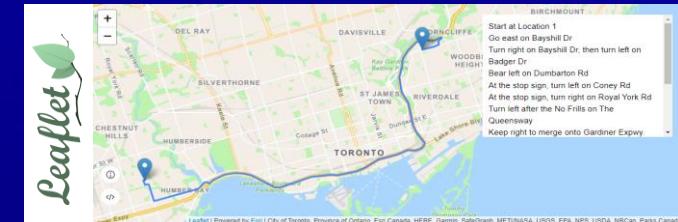


Routing



Demographics

...



ArcGIS Platform | A Location Platform-as-a-Service

Provides a set of mapping and location services to developers in a form they expect

Developer Experience

- Mapping APIs
- Open-Source Mapping Libraries
- Developer Resources

Location Services

Content & Capabilities

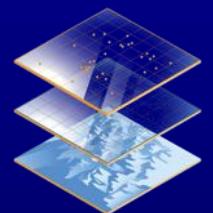
Business Model
Consumption-Based



An Intuitive
for Accessing and

ArcGIS Platform | A Collection of Location Services

Extensive Content and Powerful Capabilities



Basemaps



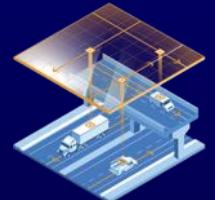
Data Hosting



Data Visualization



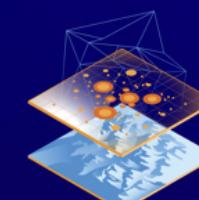
Geocoding & Search



Routing & Directions



Maps & Data



Spatial Analytics

Web

Mobile

Desktop



Online
& Offline

System-to-System

Indoors
& Outdoors

Deployment Options

Location Services | Basemaps, Data Hosting Visualization



Data
Visualization

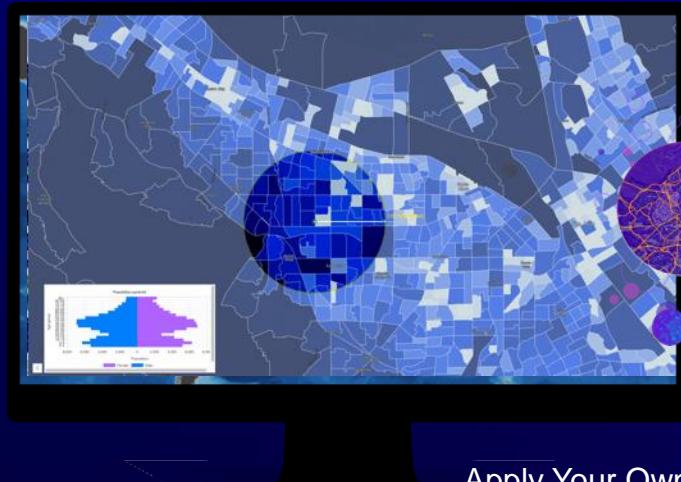


Data
Hosting

- Visualize, Edit & Analyze
- Secure, Scalable, Performant
- Maintain Data Ownership



Library of
Pre-Styled Maps



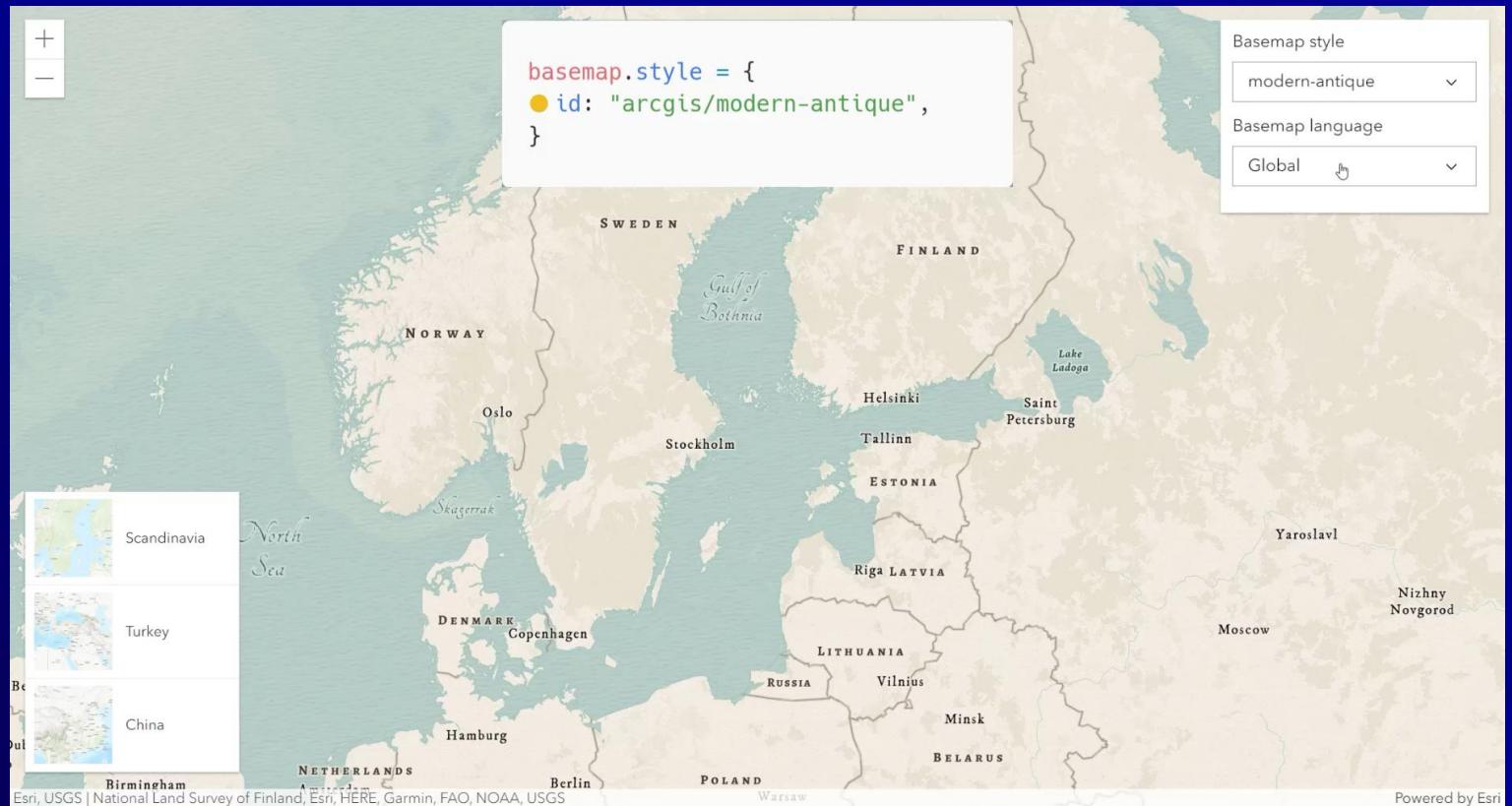
Apply Your Own
Custom Style



- Interactive Data-Driven Styling
- 2D and 3D
- Smart Mapping

Basemap Styles Service

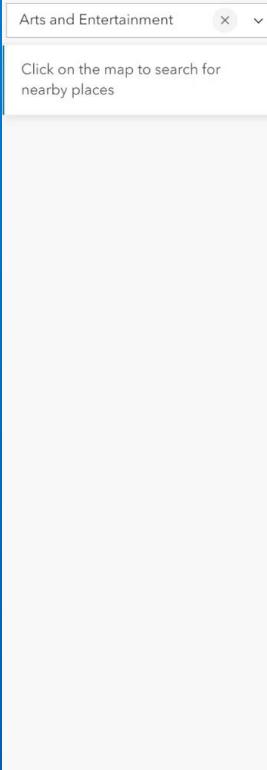
- New Styles API
 - Easily change styles
 - Language
- Just released (Beta)
 - World views
 - Add Places to basemaps



ArcGIS Places Service

On-demand location-based context

- High quality, rich, and ready-to-use data
- Global coverage with frequent updates
- Dozens of attributes
- Wide range of categories supporting multiple use cases



economic development

site selection

local search

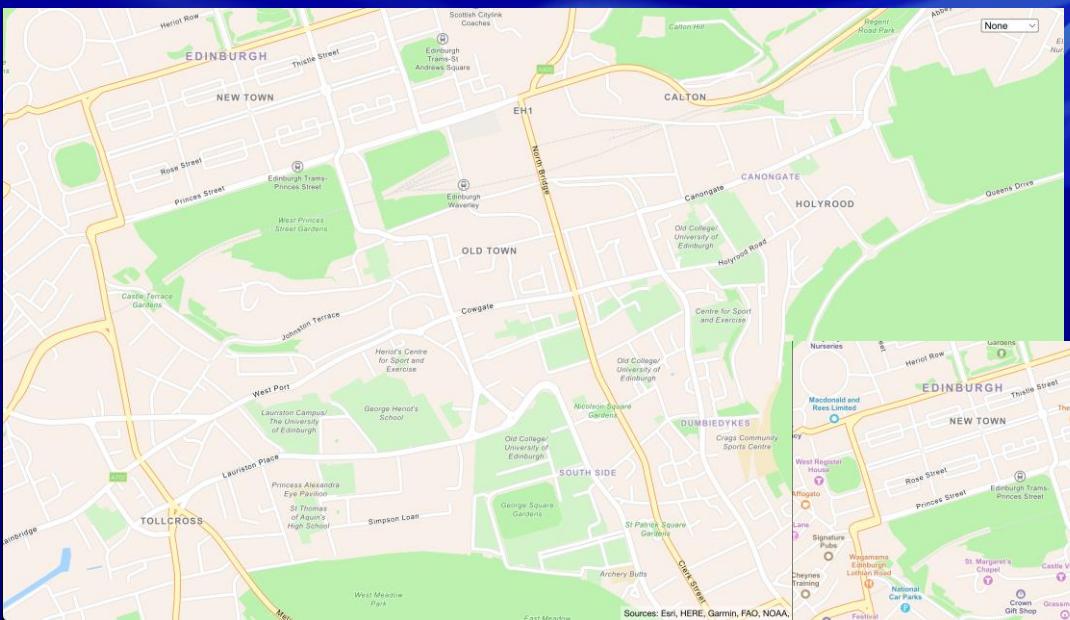
market analytics

econometrics & policymaking

transportation & infrastructure

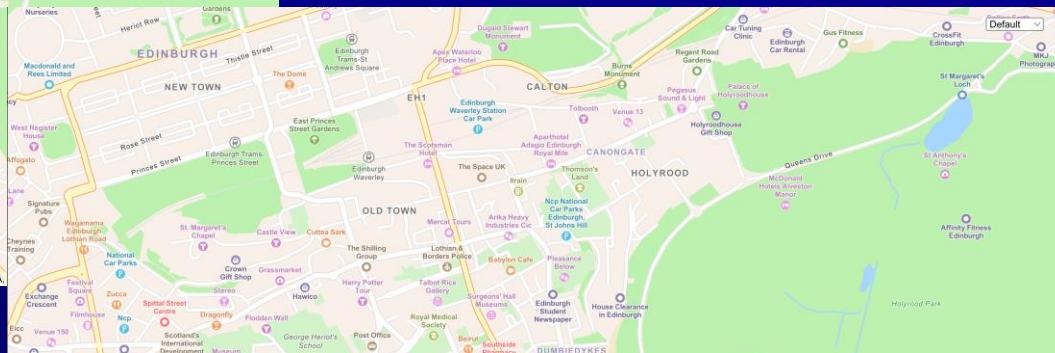
aid and equity

No Places

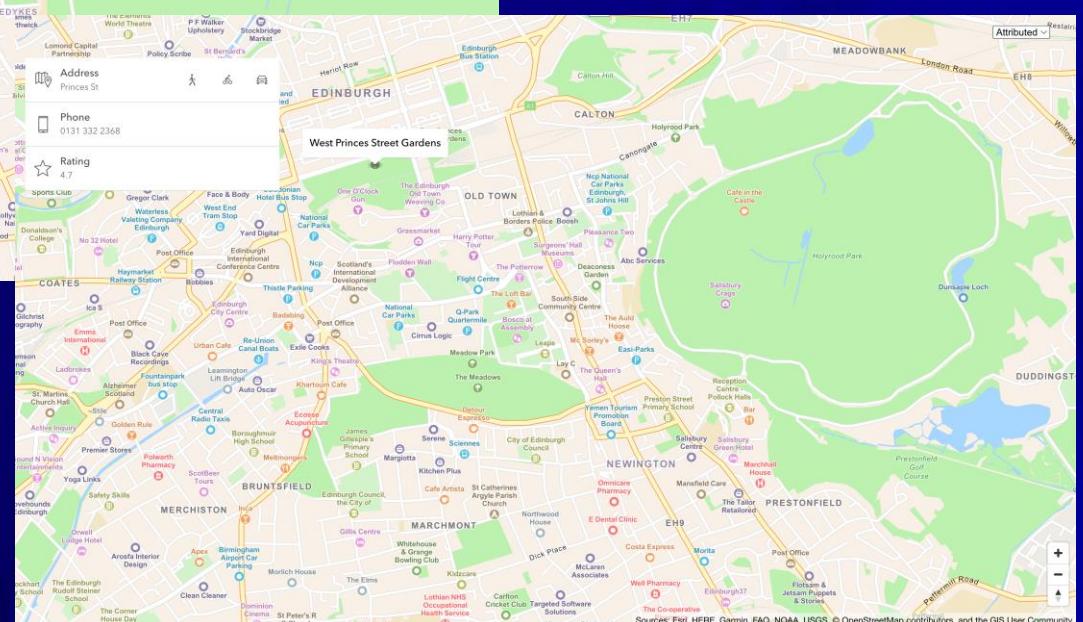


Places and Basemaps Options for Developers

With Cartographic Places

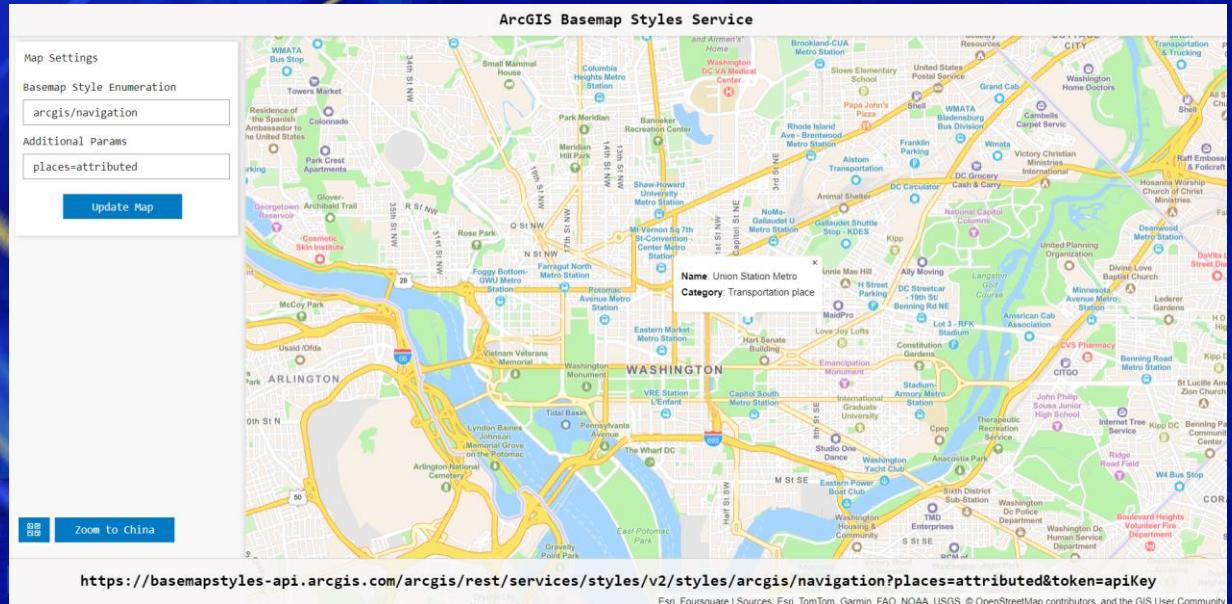


With Attributed Places



Enhancing Basemaps with ArcGIS Styles & Parameters

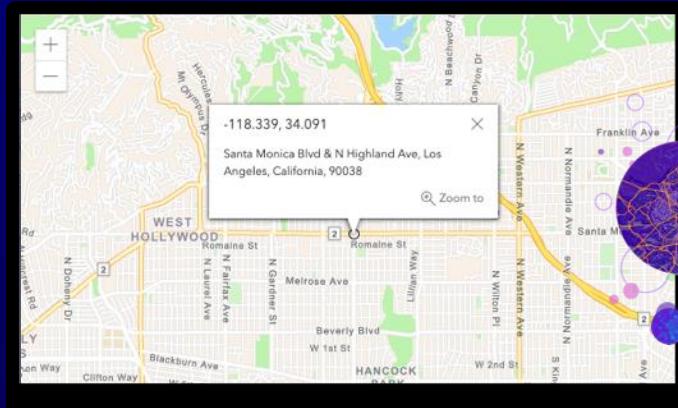
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Location Services | Geocoding/Search & Routing/Directions

Geocoding & Search

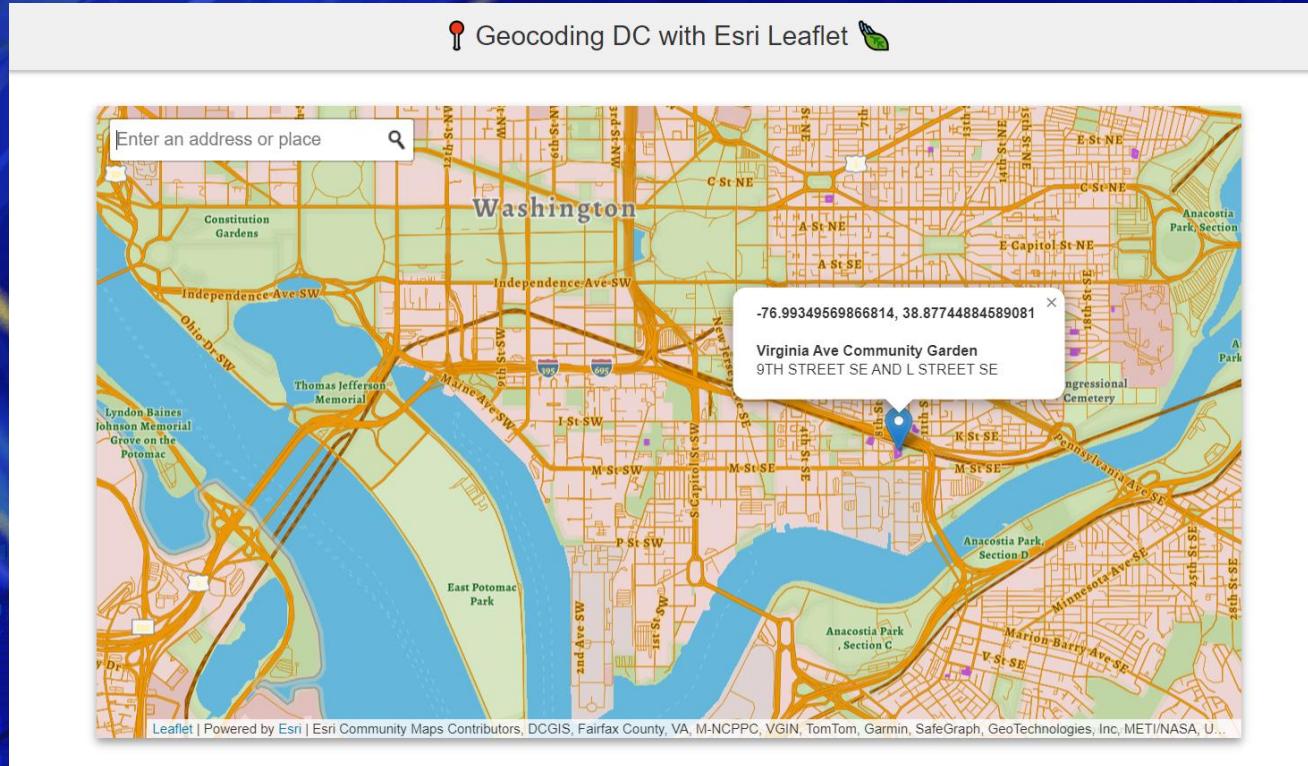
- Multiple Authoritative Sources
- Support for Local Languages and Address Formats



Global Coverage

Geocoding DC with Esri Leaflet

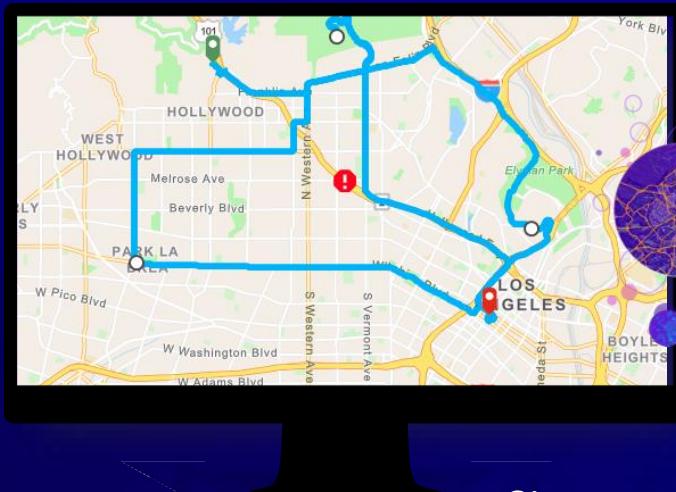
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Location Services | Geocoding/Search & Routing/Directions

Routing & Directions

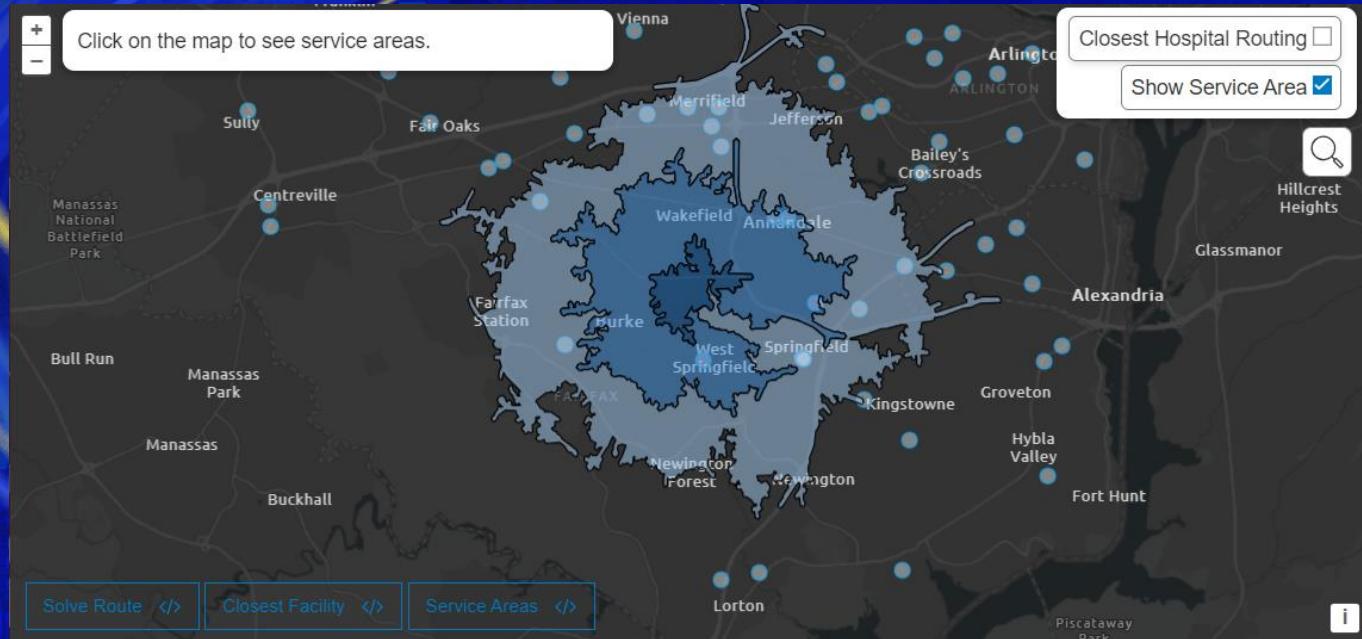
- Point-to-Point
- Multiple Vehicles
- Optimized Routes



Drive-Time Areas
(Isochrones)

Closest Facility

Origin-Destination
Matrices



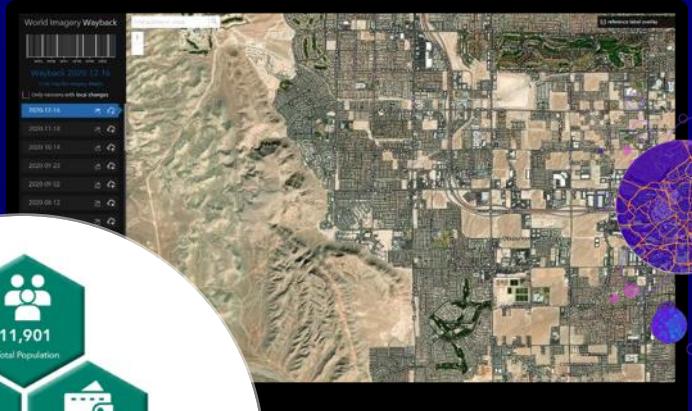
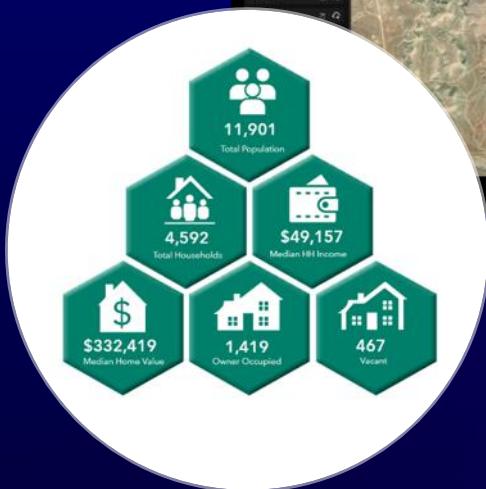
Routing through Fairfax County, VA

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Location Services | Maps and Data, Spatial Analytics

Maps & Data

- Demographics and Statistical Data
- Live Feeds
- Imagery
- Data Enrichment (GeoEnrichment)

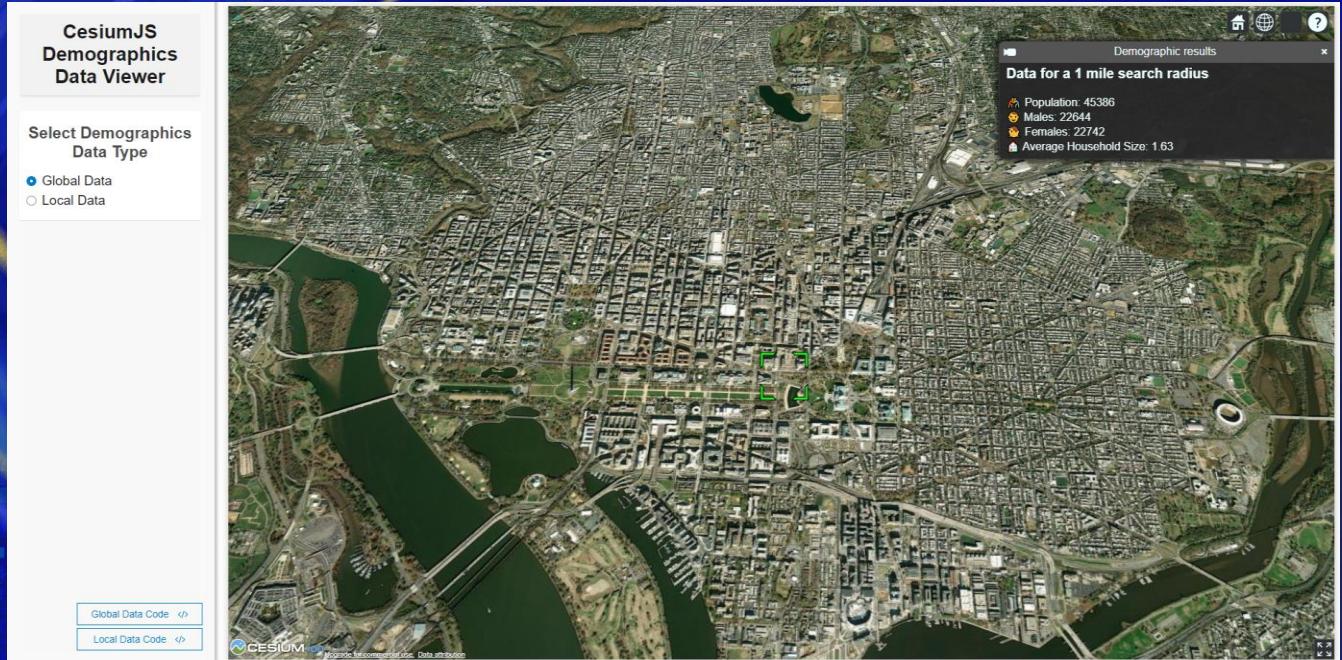


Authoritative,
Comprehensive & Global

Spatial Analytics

- Geometric Processing
- Attribute & Spatial Queries
- 2D & 3D
- Client & Server-Side Analytics





Demographics Data Viewer

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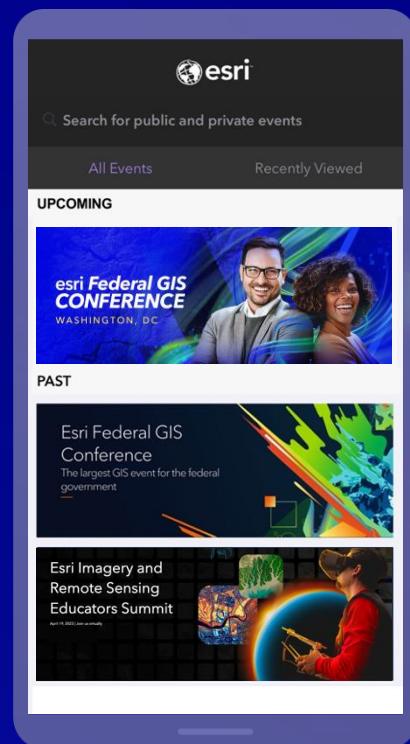
Important Things to Know

When using these open source libraries

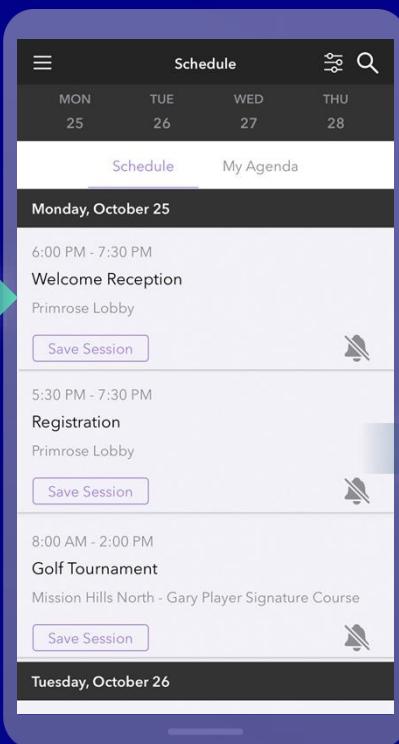
- Web map support
- Performance
- Direct REST API integration (*must use ArcGIS REST JS*)
- Visualization and other services support

Please Share Your Feedback in the App

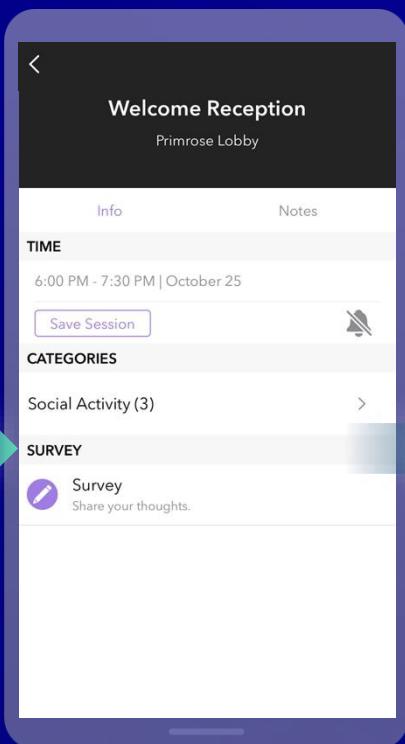
Download the Esri Events app and find your event



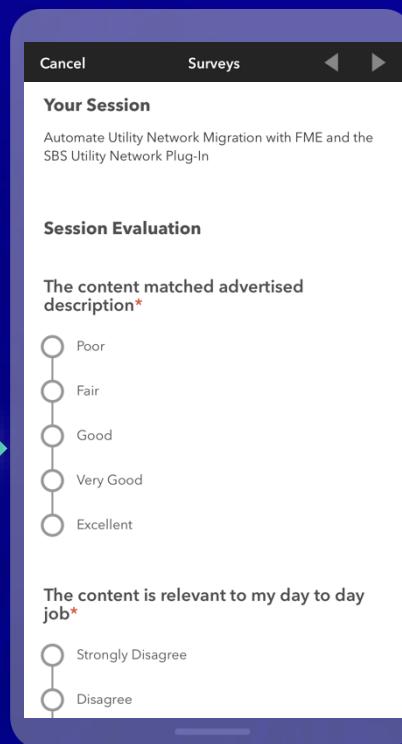
Select the session you attended



Scroll down to "Survey"



Log in to access the survey





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