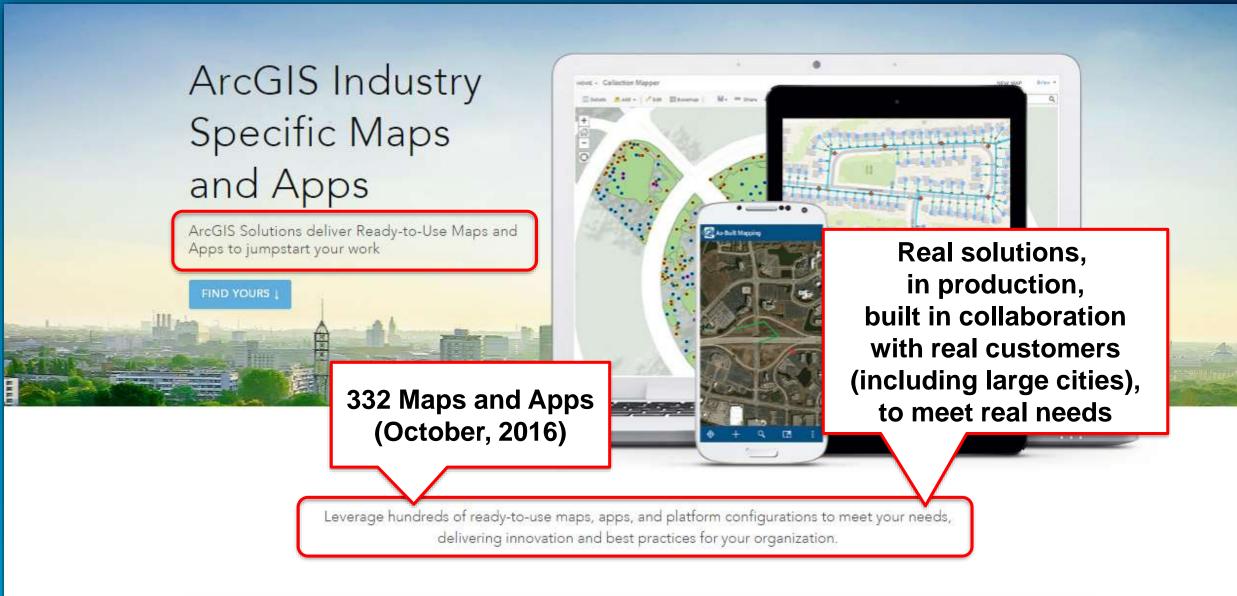


# **ArcGIS Solutions**

Real-world maps and apps to jumpstart your work

Shane Clarke Esri

sclarke@esri.com



Built by developers, fully supported by Esri, source code on GitHub

Local Government State Government

### What have you done with ArcGIS Solutions?

- 1. Deployed one or more of the ArcGIS Solutions
- 2. Looked at the ArcGIS Solutions and concluded they are not suitable
  - a. Because of dependency on Local Government Information Model
  - b. Because "our needs are different and unique"
- 3. Have no idea what ArcGIS Solutions consists of

### Why are ArcGIS Solutions important to you?

- Limited resources
- Unlimited demands
- Increasing complexity

Increase the impact of Geography and GIS

**ArcGIS Solutions = Your virtual development team, paid for by Esri!** 

### **ArcGIS Solutions are part of the ArcGIS Platform**

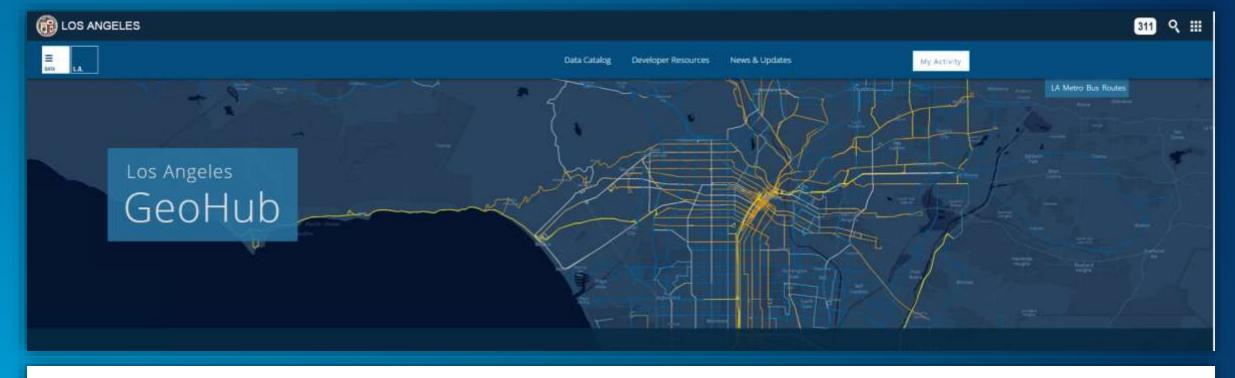


Every city has aspirations for the what they want to become.



#### Those aspirations get translated into actionable, real-world initiatives

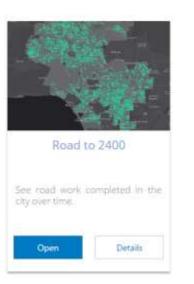




#### Applications











#### **ArcGIS for Local Government**

#### **Public Works**

Campus Editing Campus Place Finder Citizen Problem Reporter

#### SDOWER

My Government Services
Railroad Crossing Inventory
Street Tree Inventory
Street Furniture Inventory
Guardrail Inventory
Pavement Marking Inventory

Road Network Management
Road Closures
Plans and Drawings
Maintenance Agreements
Sidewalk Inventory
Bridge Inventory
Sign Inventory
Signal Inventory
Streetlight Inventory
Public Parking
Capital Project Planning





#### Land Records

Tax Parcel Editing
Deed Drafter
Public Land Survey Editing
Tax Parcel Map Book

Tax Parcel Viewer Value Dashboard Tax Reverted Property Floodplain Inquiry Data Reviewer for Parcels

#### Elections

Election Results
Election Polling Places



#### **Public Safety**

Flood Planning
Special Event Planning
Fire Station Wall Map
Fire Run Book
Pre-Incident Planning
AED inventory
Home Safety Inspection
Target Hazard Analysis
Fire Hydrant Inspection
Cell Phone Analysis
Incident Mapping

Public Information Map Impact Summary Map Damage Assessment My Hazard Information EM Maps CAMEO Tools Evacuation Zones Emergency Assistance Health and Safety Reports

Field Interview Card

#### Water Utilities

Water Distribution Map Sewer Network Map Stormwater Network Map Water Asset Locator Model Organization Network Editing DR for Water Utilities Map Change Request Proposed Water Design Water Leak Investigator Utility Isolation Trace Main Break Notification Drinking Water Advisory Outage Viewer Social Media Sentiment Capital Planning Capital Projects Pavement Coordination Water Service Request CSO Outfalls Sewer Service Lookup

Backflow Inspection

Hydrant Inspection Valve Exercise Inlet Inspection Field Notes Water Utility Mobile Map Manhole Inspection MS4 Inventory Micit Discharge Site Violations Water Violations Water Restrictions Green infrastructure Water Conservation SCADA Processor Customer Complaints High/Low Consumption Water Inventory Reports CCTV Processor Nighttime Flow Analysis Sub DMA

Leak Logger

Pressure Zone Analysis

#### Planning



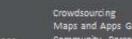
Site Selector
Live, Work, Locate
Park Locator
Address Data Management
Address Crowdsourcing
Data Reviewer for Addresses

Land Use Public Comment Land Use Public Notification Code Violation Events Calendar

#### Local Government

Information Model

Basemaps



Data Reviewer for Basemans Executive Dashboard Briefing Book



Model Organization



#### PUBLIC WORKS

Bridge Streetlery

Campus Place Location Capital Project Planning Courted Insurery My Car Services Parament Marking Incoming Name and Drawings Road Maintenance Agreements

**Boad Namers Editing** 

Sidewalk Inventory

Sign Inventory Smoother Street Tree inventory Streetlight inventory

PARKE AND GARDEN Enlaster faller

Enhalter Magne made Synt

STATE GOVERMUS

Model Organization Facts Corner Seasons Parks Color Burnings Water America Mappe

And B Orlina Moviel Organization for Emergency Management CAMED Toxic

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Common Operational Pictics Community Additions Community Parents Damage Assessment

Debra Reporting Emergency Assistance

Emergency Management Map Emergetion Zerose Floori Macring

Massel Mitigation Plan Status Medits and Substy Reports medical briefing moldani Status Dacht card Cagatin Planeing My Hanard Jelismanus

Note Survey Public information Map Acad Closson

PUBLIC SAFETY Special French Planning May

OCAL GOVERNMEN

## i am building A SMART COMMUNITY

esri.com/SmartSolutions

UTILITIES

#### ENVIRONMENT AND NATURAL RESOURCES

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Park & Restruction Locator

Pernit Some.

Water Guidly trapections Water Study States

#### FIEH AND WILDLIFE

Water faulty transcribes

Worker Guality Status

#### HEACTH

AviSS Order for State Government Health Sint Garcone Stellag My Health Services

#### TRANSPORTATION Crain Analysis

Coordinal Investory

Refrond Inspection

Breedight Sevenney

Street Sign Investory

Road Cleaner

SHINESP.

Water facility transmiss Water Goal's Status

Exploi Priced

Continued Seaso Direction Contomer Completes

Gata Recremen Orining Water Advisory

Creek Schanzacture High-Low Water Consequence

(Sint Stockarge Trace) lidet brapacitor

Coak Lagger Analysis

Local Community Information Nobel Mark Ereck No. Chapters Markola hapedon

Map Change Request for Water Stacking or Que Mag Surter

Nightlens First Analysis

Favorant Proper Coordinates Francus Zone Analysis Proposed Water Design.

Server Secretor Lauritage

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Water Look brinefigeter

Water SCHOOL Processed Water Service Request Water Utilities And S Online Model Organization Water Stilly Capital Planning Water Utility Mulche Map Water Utility Nationals Ealthing

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### **Categorization of ArcGIS Solutions**

#### **Industries**

Local Government

State Government

Parks and Gardens

**Electric** 

Gas

Water

**Telecommunications** 

**Emergency Management** 

Defense

### **Products/Applications**

**ArcGIS for Desktop** 

**ArcGIS Runtime** 

Collector for ArcGIS

**ArcGIS Maps for Office** 

GeoEvent Extension

Operations Dashboard for ArcGIS

Web AppBuilder for ArcGIS

Template Web Applications

**Model Organization** 

### **Implementation Patterns**

Data Management

Field Mobility

GeoEnablement

**Operational Awareness** 

Planning and Analysis

Community Engagement

### Categorization of ArcGIS Solutions – Workflows & Multi-Purpose Apps

#### Workflows

Photo Survey + Citizen Reporter + Problem Management + Operations Dashboard

Collector + Operations Dashboard + Story Maps

Citizen Problem Reporter + Citizen Problem Management + Citizen Problem Dashboard

### **Multi-Purpose Apps**

Collector for ArcGIS

Operations Dashboard for ArcGIS

Photo Survey

Adopta (Added September, 2016)

Citizen Problem Reporter + Citizen Problem Management + Citizen Problem Dashboard

Park/Events/Shelter Locator

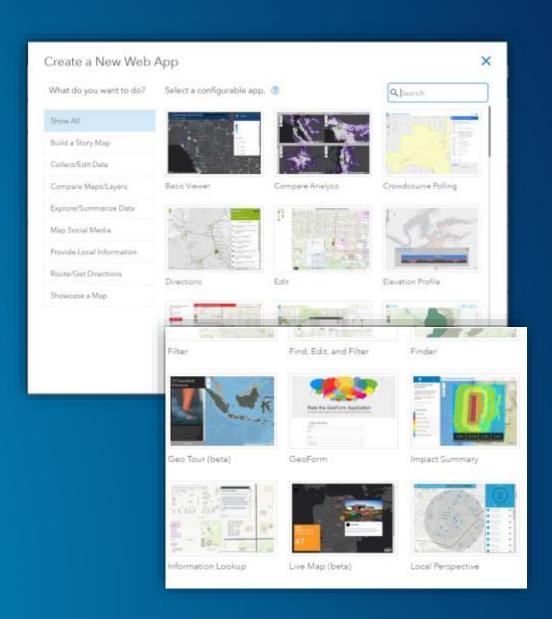
Template Web Apps (e.g. Directions, Local Perspective, GeoForm)

Web AppBuilder widgets (e.g. Near Me)

**Story Maps** 

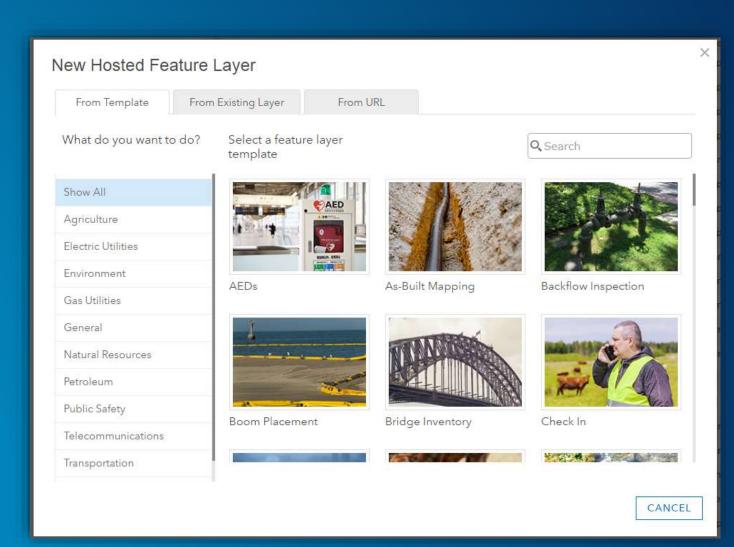
### **Template Web Apps**

- ArcGIS Online includes 29 template web apps
- Used by some ArcGIS Solution apps
- Do not require Local Government Information Model schema
- Most templates use responsive design
  - Will work on any screen size/device



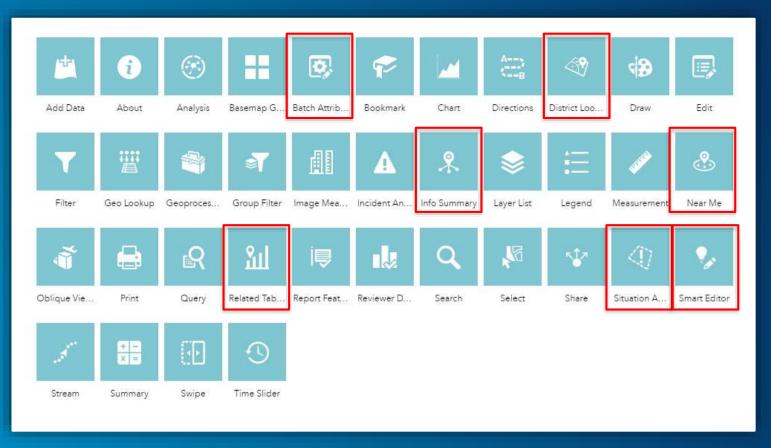
### **Collector for ArcGIS and Hosted Feature Layer templates**

- ArcGIS Online includes 56 Hosted
   Feature Layer templates
- To create go to My Content > Create > Feature Layer
- Includes complete schema
- Useful for rapid development of layers and web maps for use with Collector for ArcGIS



### Web AppBuilder Widgets

- Many Solutions are based on Web AppBuilder Widgets
- Custom widgets
  - require WAB Developer Edition
- Off-the-shelf widgets
  - available via ArcGIS Online,
     Portal for ArcGIS



### **Examples of Solutions using Web AppBuilder Widgets**

Widget	Custom Widget?	Solutions
Adopta	Yes	Adopt a Catch Basin / Hydrant / Park
District Lookup	No	Election Polling Places, School Locator
Info Summary	No	Transportation 511 (Road Conditions)
Near Me	No	Early Voting, My Government Services, Mosquito Spray Areas, My Health Services, My Hazard Information, AED Locator
Network Trace	Yes	Utility Discharge Trace, Illicit Discharge Trace
ParcelDrafter	Yes	Parcel Drafter
Related Table Charts	No	Election Results
Service Feasibility	Yes	Service Qualification, Point of Sale
Situation Awareness	No	Situational Awareness Viewer, Operations Response, Logistics Planning
Smart Editor	No	Mosquito Adulticide Planning, Mosquito Health Concerns, Events Coordination, Events Site Map

### Mosquito Control - Example of Workflow and Muli-Purpose Apps



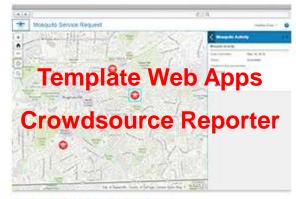
Mosquito Health Concerns

Local Government



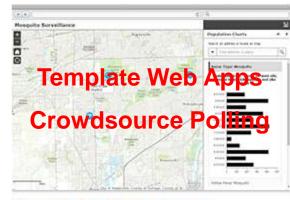
Mosquito Adulticide Planning

Local Government



Mosquito Service Request

Local Government



Mosquito Population Surveillance

Local Government



Mosquito Spray Exclusions

Local Government



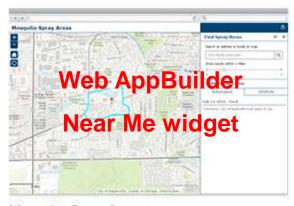
Mosquito Field Operations

Local Government



Mosquito Larvicide Reporting

Local Government



Mosquito Spray Areas

Local Government

ArcGIS Solutions - GALLERY COMMUNITY

#### Q SEARCH

#### esri

### Gallery

Search Solutions Gallery

Q

Show Me

#### All Industries

ArcGIS Industry Specific Maps and Apps: ArcGIS Solutions deliver Ready-to-Use Maps and Apps to jumpstart your work.

#### All

#### Industries

- Local Government
- State Government
- Parks and Gardens
- Electric
- ▶ Gas▶ Water
- 2
- Telecommunications
- ▶ Emergency Management
- Defense

#### Products/Applications

ArcGIS for Desktop

ArcGIS Runtime

Collector for ArcGIS

The class of filterance is an improved and the control of the cont

#### Historical Election Results

State Government





Collection Viewer

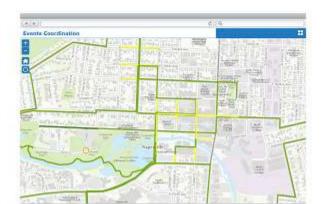
Parks and Gardens





Service Feasibility Widget

ArcGIS Solutions







#### Photo Survey

Home

Get Started

#### Overview

Photo Survey is a configuration of ArcGIS and a JavaScript application that can be used by local governments to publish street-level photo collections and conduct focused property surveys that may identify blight, damaged structures, or construction activity.

Photo Survey leverages location-enabled photos produced by many commercially available cameras and simplifies data processing so street-level photo

collections can be gathered on a regular basis. Photo collections can then be combined with relevant survey questions in an ArcGIS Online map, and shared with the Photo Survey application. Once complete, the Photo Survey application can be used by the general public and/or local government staff to review street-level photos and complete property surveys.

A.E.

WHAT YOU GET

WHAT'S NEW

DOWNLOAD

TRY IT NOW

Photo Survey



Photo Survey

Local Government



Wildlife Photo Survey



Photo Survey

**Emergency Management** 



Photo Survey

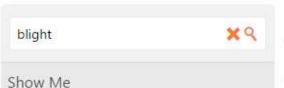


Blight Status

Local Government



### Gallery



#### All

#### Industries

- ▶ Local Government
- ▶ State Government
- Parks and Gardens
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- ▶ Water
- ▶ Telecommunications
- ▶ Emergency Management
- Defense

#### Products/Applications

ArcGIS for Desktop

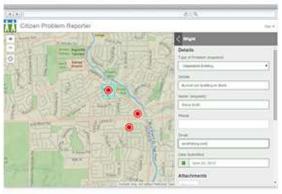
#### All Industries

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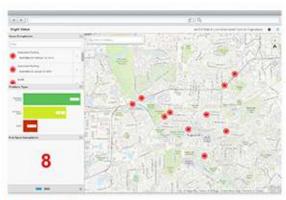
Photo Survey

Local Government



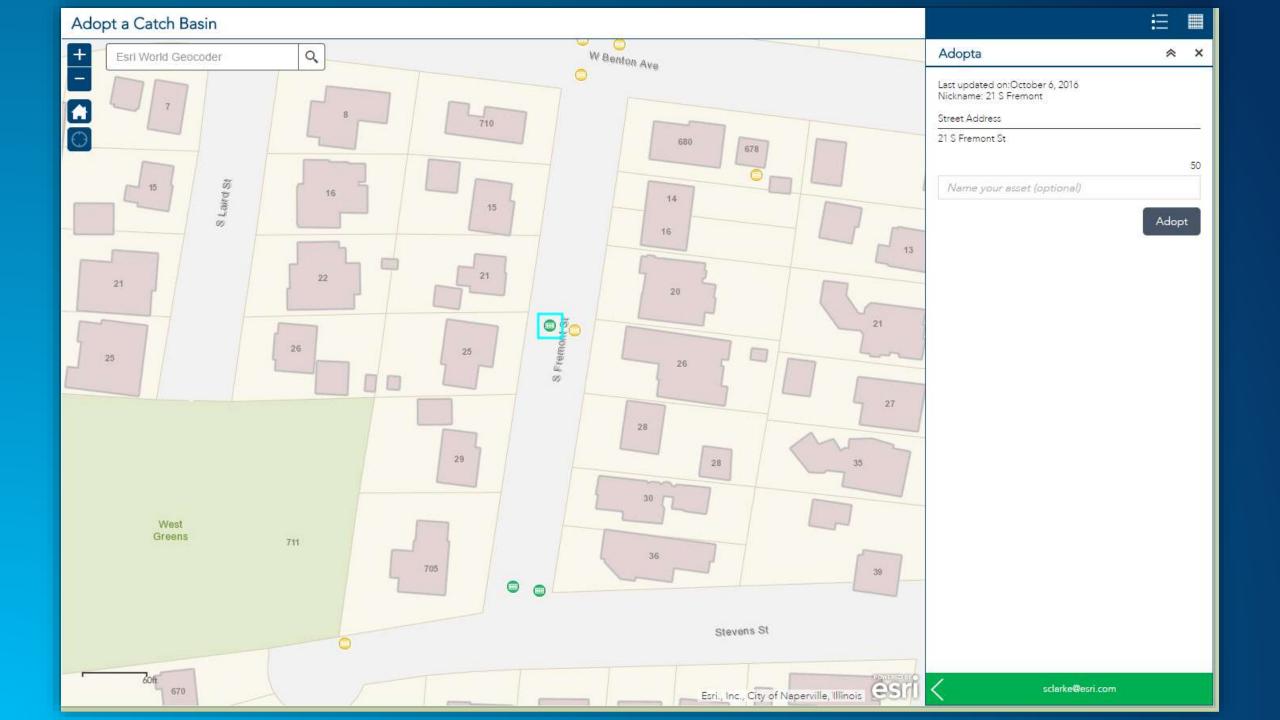
Citizen Problem Reporter

Local Government



Blight Status

Local Government



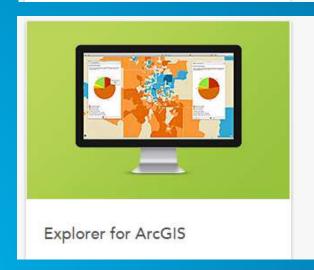
### **ArcGIS Apps for the Field**

Maximize the efficiency of your field workforce.

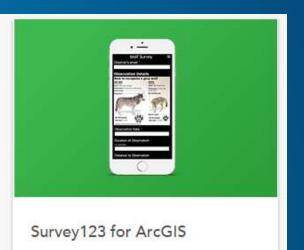






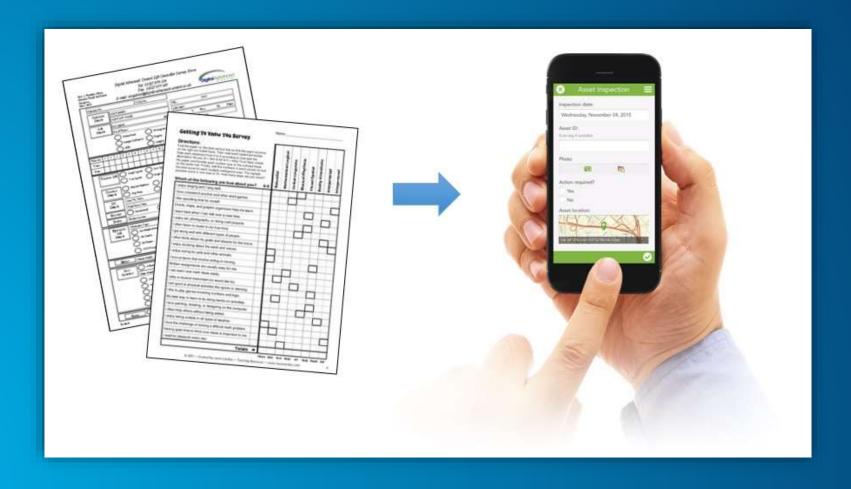




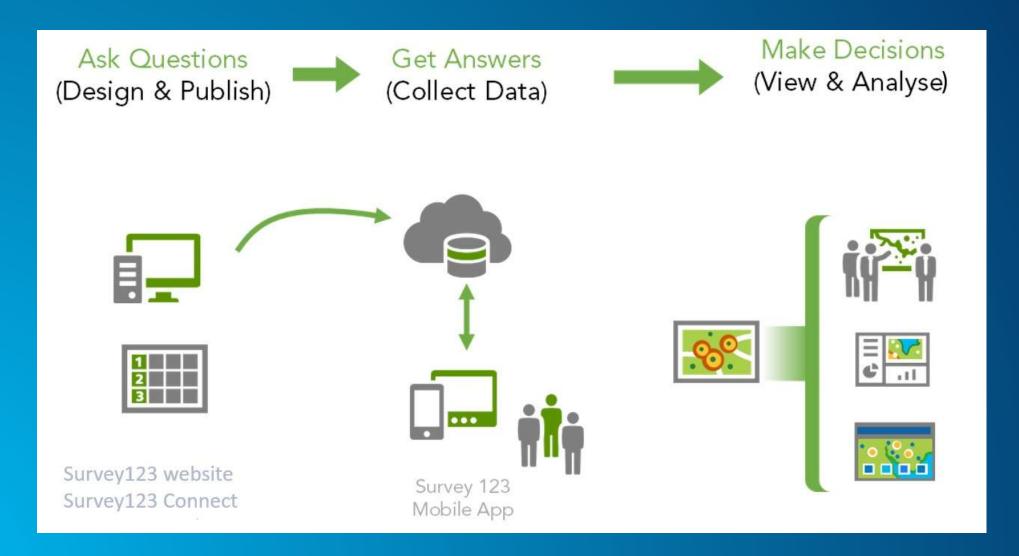


## **Survey123 for ArcGIS**

#### Form-centric data collection



### **Survey123 for ArcGIS**



### **ArcGIS Apps for the Office**

Make smarter, faster decisions in the office.



Creative Cloud (Beta)

### **ArcGIS Apps for the Community**

**Share information and crowdsource ideas.** 



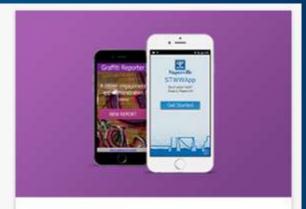
Esri Story Maps



ArcGIS Open Data



Configurable Apps



Quick Report Template



Crowdsource Reporter



Crowdsource Manager



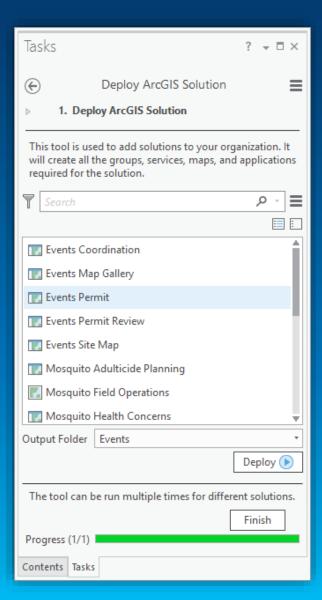
Crowdsource Polling



Photo Survey

### **Solution Deployment Tool**

- ArcGIS Pro tasks and tools
  - Discover, deploy and configure solutions in an ArcGIS Organization
- Help users:
  - Discover solution offerings available
  - Deploy the services, maps, and configurable apps to their organization
  - Configure the solution to meet specific needs in their organization
    - Add/Remove fields
    - Modify field domains and aliases
  - Load their data (if required)
- Works with ArcGIS Pro 1.4 and 1.3



### The ArcGIS Solutions pattern has changed

**LGIM released October, 2011** 

#### Initially

- Solutions required Local Government Information Model (LGIM)
- Consisted of custom apps
- Apps needed to be hosted on your own infrastructure (not ArcGIS Online)

#### Today

- Many Solutions don't require LGIM (or have minimal LGIM requirement)
- Most Solutions consist of
  - Configurations for COTS apps (Collector for ArcGIS, Operations Dashboard for ArcGIS, Story Maps, etc)
  - Configurations of template web apps
  - Configurations of Web AppBuilder for ArcGIS (using standard and/or custom widgets)
- Many apps can also be hosted in portal (ArcGIS Online/Portal for ArcGIS)
- Include many end-to-end workflows with multiple maps and apps

#### **Considerations**

- Understanding the current ArcGIS Solutions provides flexible methods for meeting a variety of needs – without developing custom apps
- ArcGIS Solutions consists of 332\* real solutions, developed in collaboration with real customers, to meet real needs
- Many of these needs must also exist at your city/county/organization
- Every city/county/organization has finite developer resources
- ArcGIS Solutions enables your city/county/organization to meet unmet needs without requiring developer resources
- ArcGIS Solutions are great for rapid app development and proof-of-concept
- Source code for apps available on GitHub (<a href="http://esri.github.io/#Local-Government">http://esri.github.io/#Local-Government</a>)

### **Next steps**

- Which of the ArcGIS Solutions correspond with current app needs in your city/county/organization?
- How can Esri help to deploy these apps?
- Keep up-to-date with new and updated apps, and Web AppBuilder updates in conjunction with ArcGIS Online updates: <a href="https://blogs.esri.com/esri/arcgis/">https://blogs.esri.com/esri/arcgis/</a>



# Thank you!

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