

Field Operations and ArcGIS

Pre-Conference

Collector for ArcGIS

Pre-Conference



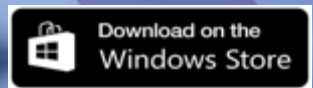
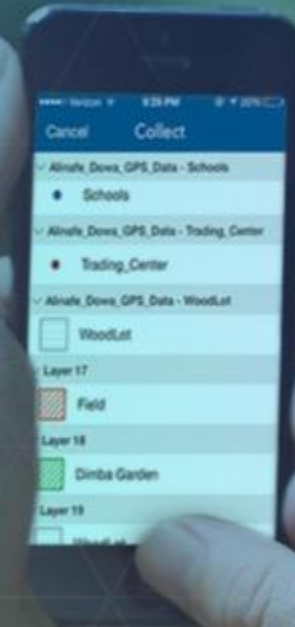


Collector for ArcGIS

Web Maps

Work Offline

High Accuracy GPS



Collector for ArcGIS| How is it being used?



Collect and Maintain Data



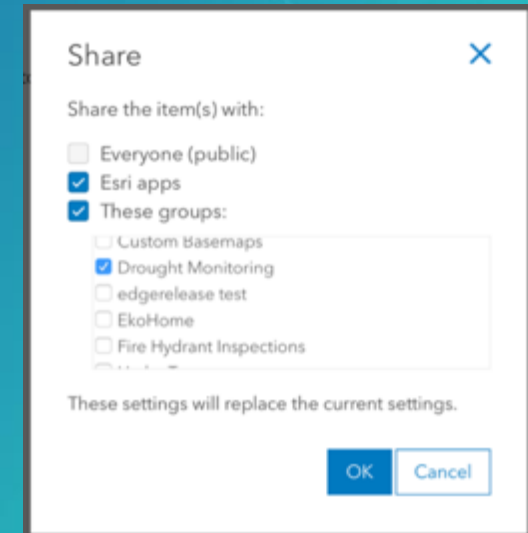
Capture Observations



Perform Rapid Assessments

Deploying Mobile Solutions| Collector uses Web Maps

- **Collector uses maps that include:**
 - Layers from 1+ feature services (editable)
 - Location Tracking layer (optional)
 - Basemap
 - Application settings
 - Offline Mode advanced settings
- **Share Maps to field workers using Groups:**
 - Create Named Users for each field worker
 - Invite field workers to groups
 - Share maps into groups



Collector for ArcGIS | Edit Using Feature Layers

- **Supported Types:**
 - ArcGIS Online (Hosted)
 - ArcGIS Server (On Premise)
- **Supported Operations:**
 - Editing options
 - Sync capabilities
- **Popups and fields:**
 - Define the form experience in Collector
 - Take advantage of Geodatabase capabilities
 - Domains and Subtypes
 - Related Tables
 - Feature Templates
 - Field validation
 - Editor tracking

[illegible]




Configure Attributes

Check the fields you want to display. Select a field to change its alias, order it, and format it.



Display	Field Name	Field Alias
<input type="checkbox"/>	{OBJECTID}	OBJECTID
<input checked="" type="checkbox"/>	{REPRESENT}	Owner / Occupant
<input checked="" type="checkbox"/>	{PRIMRES}	Primary Residence
<input checked="" type="checkbox"/>	{HABITABLE}	Habitable
<input checked="" type="checkbox"/>	{NUMOCCUP}	Number of Occupants
<input checked="" type="checkbox"/>	{STRINSUR}	Structure Insured
<input checked="" type="checkbox"/>	{EARINSUR}	Earthquake Coverage
<input checked="" type="checkbox"/>	{...}	...



OK


Create Features

  <Search> 

Damage to Residential Buildings

 Affected  Destroyed

 Inaccessible  Major

 Minor

Field Name	Data Type
SHAPE	Geometry
REPRESENT	Text
PRIMRES	Text
HABITABLE	Text
NUMOCCUP	Long Integer
STRINSUR	Text
EARINSUR	Text
FLOODINSUR	Text
FIREINSUR	Text
DEDUCT	Double
PREDISVAL	Double
STRLOSS	Double
TYPDAMAGE	Text

Click any field to see its properties.

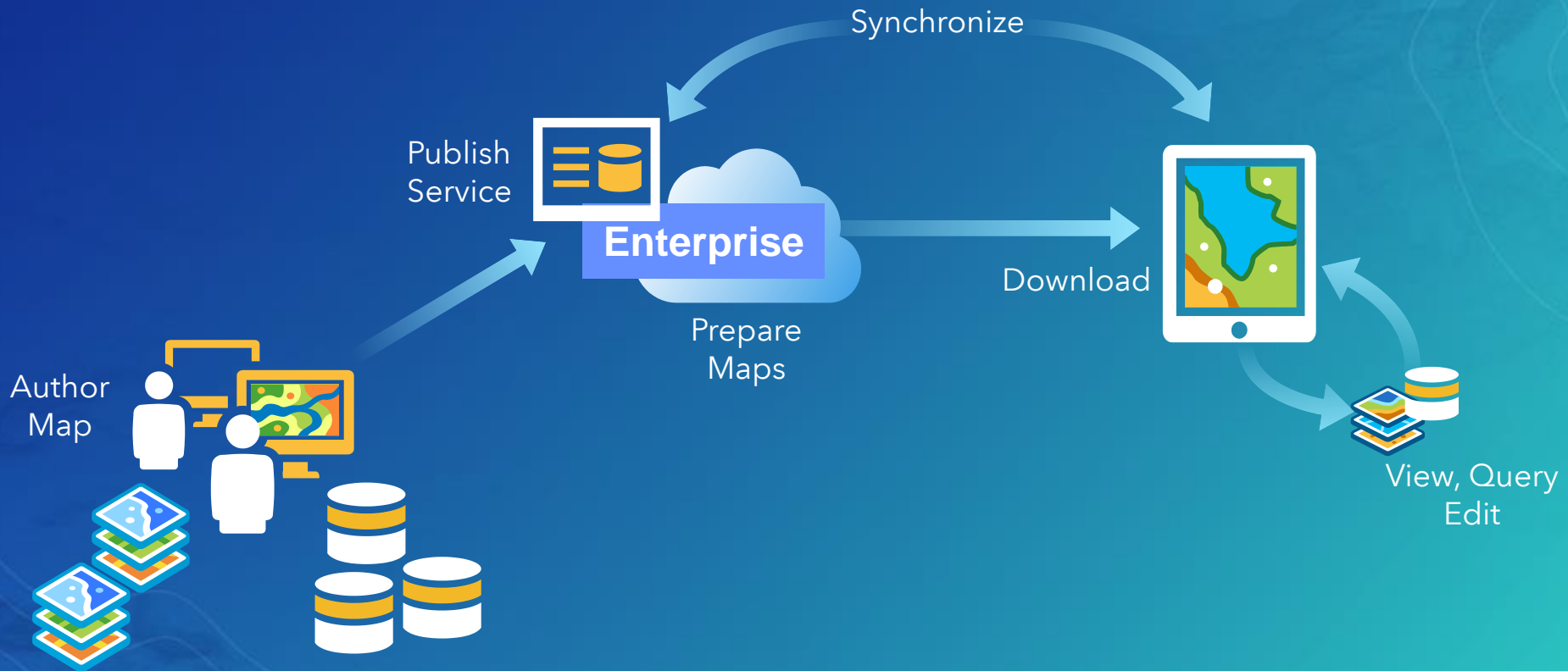
Field Properties

Alias	Extent of Damage	
Allow NULL values	Yes	
Default Value		
Domain	daDegreeDamage	
Length	20	

Import...

To add a new field, type the name into an empty row in the Field Name column, click in the Data Type column to choose the data type, then edit the Field Properties.

Collector | User-defined Offline Maps Data Workflow



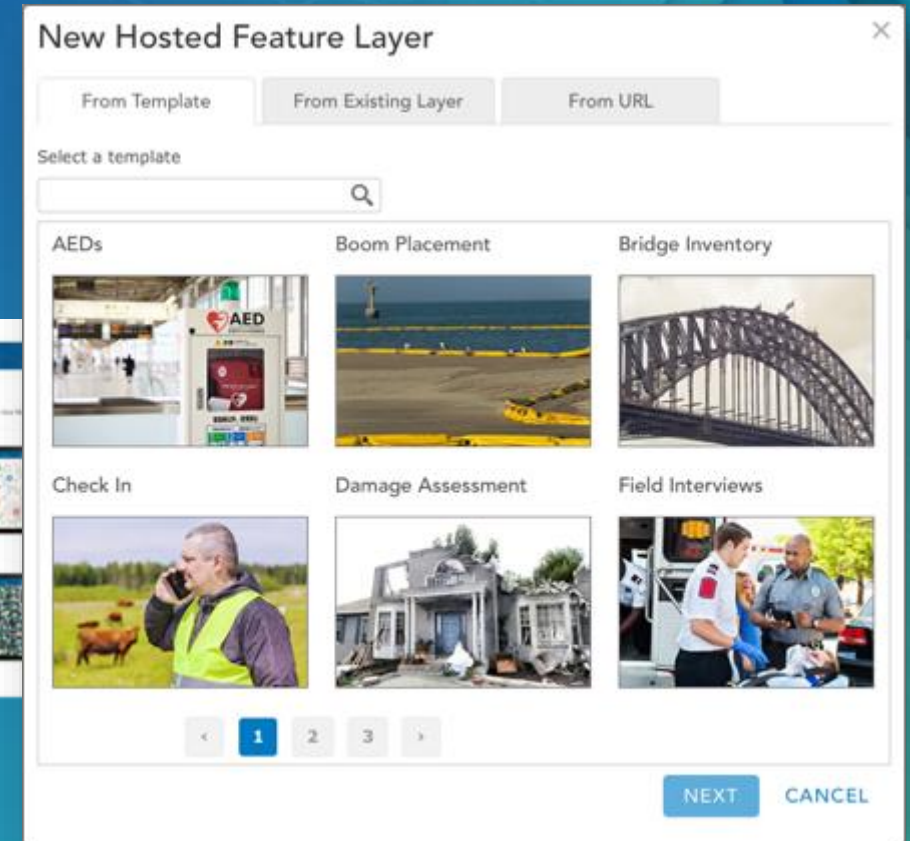
Collector for ArcGIS| Jump Start With Templates

- Templates for creating new feature layers
- Use directly or fine tune them with the map viewer

- Examples:

- AEDs Inventory
- Boom Placement
- Bridge, guardrail inventory
- Water quality assessment
- Environmental Impact

- Over 60 Collector-based Solution Templates!



Collector | New Feature Highlights

High Accuracy Data Collection

- Set a location provider
- Define a location profile
- Attach accuracy information to your data
- Receive alerts and notifications
- GPS averaging

Additional Enhancements

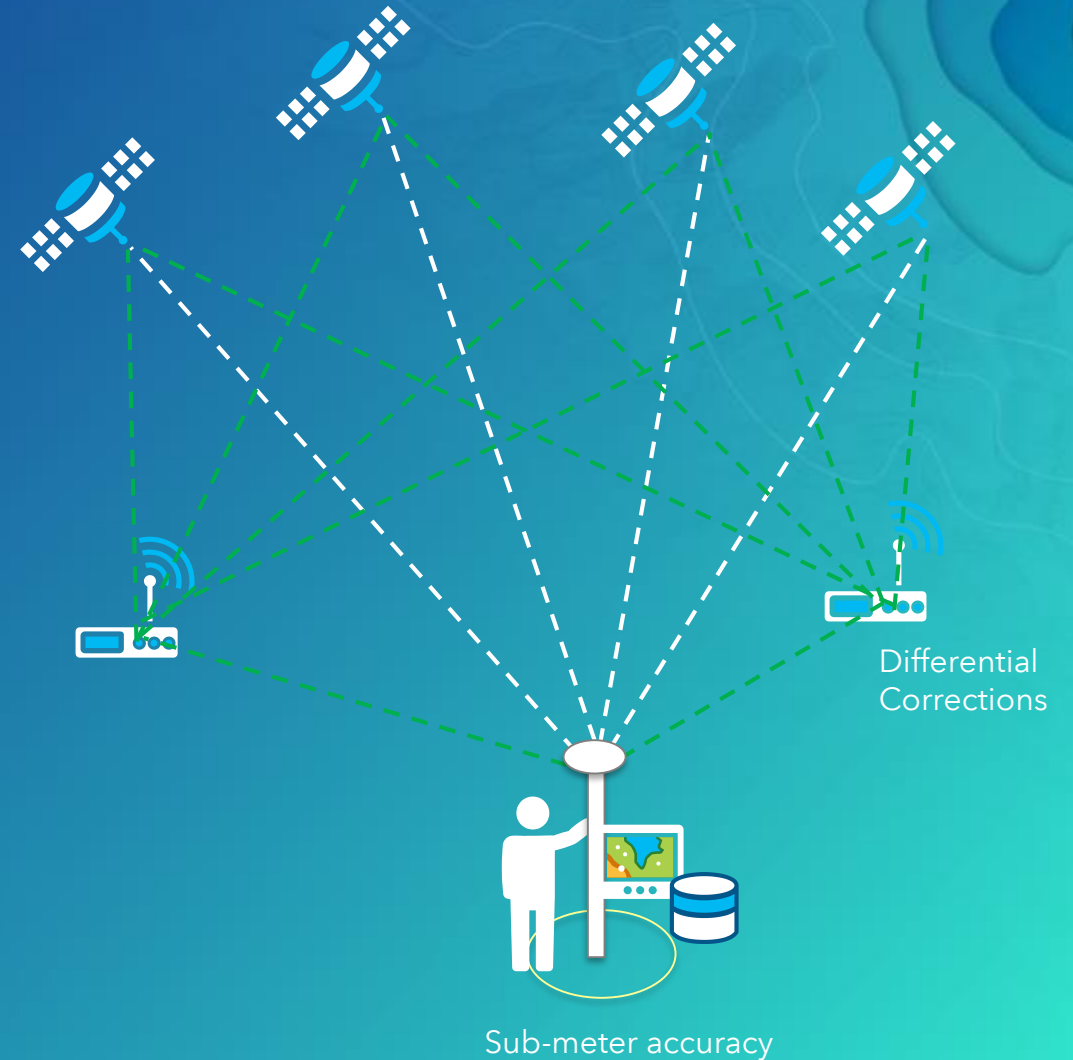
- SD card support for basemaps (Android)
- Renaming media

App Integration

- Workforce, Navigator

[Collector HA Python Scripts](#)

[Collector URL Scheme](#)



Collector | 10.4.x Highlights

High Accuracy Data Collection:

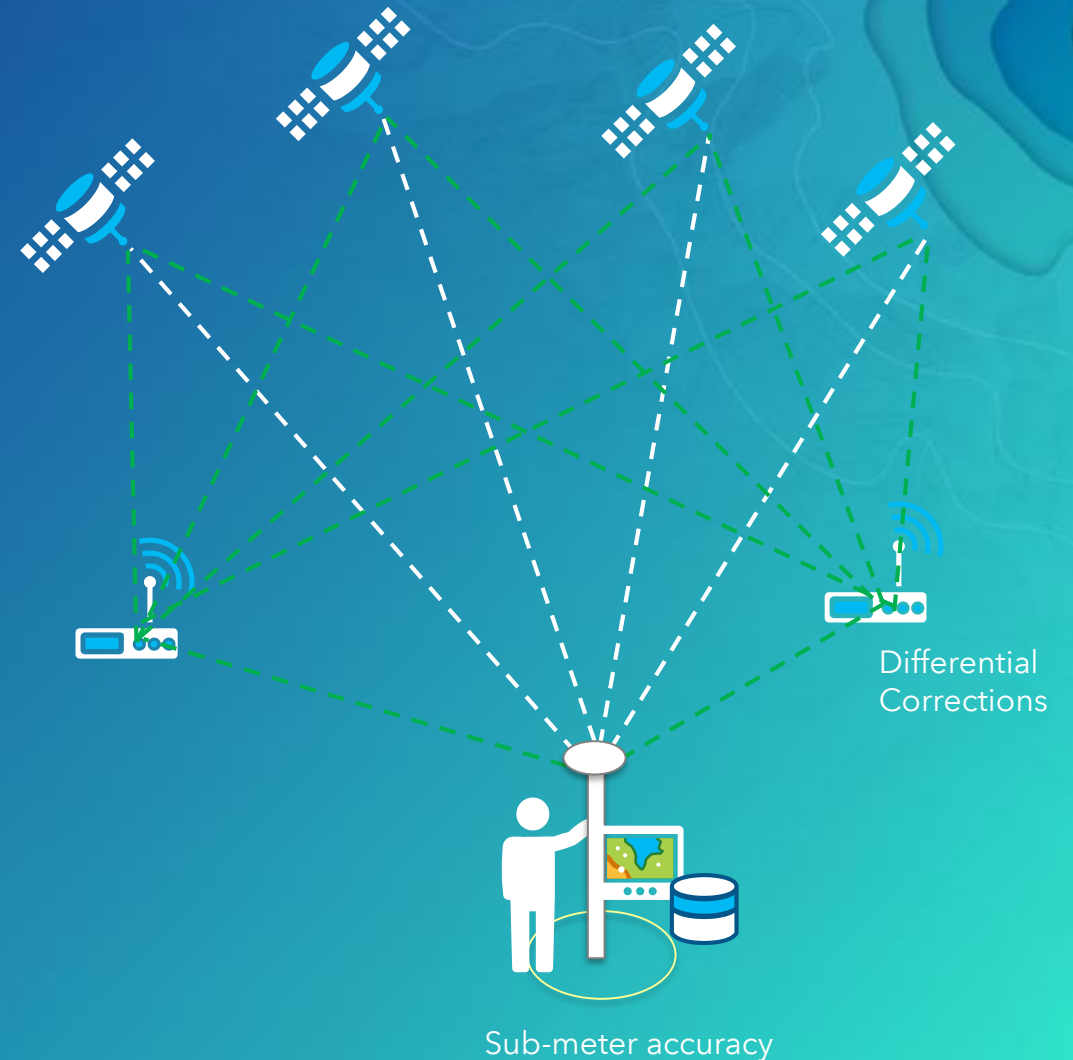
- Set a location provider
- Define a location profile
- Attach accuracy information to your data
- Receive alerts and notifications

App Integration

- Workforce, Navigator

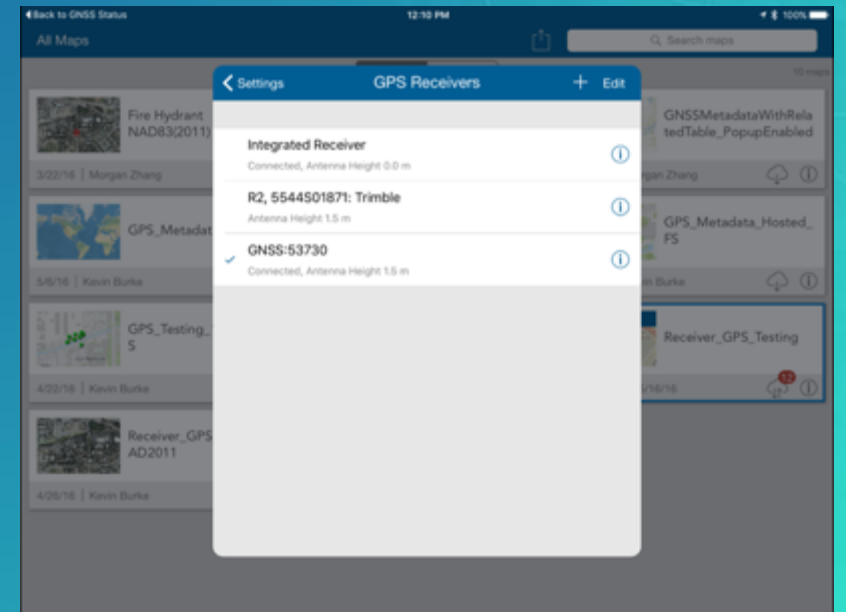
[Collector HA Python Scripts](#)

[Collector URL Scheme](#)



Collector| Location Provider

- Located in App Settings
- Support for:
 - Integrated Receivers
 - Bluetooth receivers (or serial on Windows)
- Connect to named receiver
- Specify Antenna Height



Collector| Location Profile

- Define the transformation used from receiver to map:
 - Integrated location sensor or External GNSS Receiver
- Input: Coordinate System used by GNSS receiver correction service
 - Always GCS (example: NAD_1983_2011)
- Output: Coordinate System used by Web Map's BaseMap
 - GCS or PCS
- Method: Datum transformation selection
 - Choices by map extent
- Name: Provide a memorable name for the profile

← Profile Details

Profile name
Yosemite National Park

GNSS receiver coordinate system
GCS North American 1983 HARN

Map coordinate system
GCS WGS 1984

Datum transformation
NAD1983_HARN_TO_WGS1984

Note: Custom and Grid-based Transformations are not supported!

Collector| GNSS Metadata

- Auto-populate accuracy information to point features
- Based on well-known fields added to your Feature Layer
- Scripts available to help automate attribute creation and popup configuration.

Doc:

<http://doc.arcgis.com/en/collector/ios/create-maps/gps-map-prep.htm>

Scripts

<https://github.com/Esri/collector-tools>

Attribute	Field alias	Field name	Field type	Domain
Receiver name	Receiver Name	ESRIGNSS_RECEIVER	String(50)	
Horizontal accuracy	Horizontal Accuracy (m)	ESRIGNSS_H_RMS	double	
Vertical accuracy	Vertical Accuracy (m)	ESRIGNSS_V_RMS	double	
Latitude	Latitude	ESRIGNSS_LATITUDE	double	
Longitude	Longitude	ESRIGNSS_LONGITUDE	double	
Altitude	Altitude	ESRIGNSS_ALTITUDE	double	
PDOP	PDOP	ESRIGNSS_PDOP	double	
HDOP	HDOP	ESRIGNSS_HDOP	double	
VDOP	VDOP	ESRIGNSS_VDOP	double	
Fix type	Fix Type	ESRIGNSS_FIXTYPE	Short	GNSSFixType (optional)
Correction age	Correction Age	ESRIGNSS_CORRECTIONAGE	double	
Station ID	Station ID	ESRIGNSS_STATIONID	Short	NumStationID (optional)
Number of satellites	Number of Satellites	ESRIGNSS_NUMSATS	Short	NumSatellites (optional)
Fix time	Fix Time	ESRIGNSS_FIXDATETIME	Date	
Average horizontal accuracy	Average Horizontal Accuracy (m)	ESRIGNSS_AVG_H_RMS	double	
Average vertical accuracy	Average Vertical Accuracy (m)	ESRIGNSS_AVG_V_RMS	double	
Number of positions averaged	Averaged Positions	ESRIGNSS_AVG_POSITIONS	Long	
Standard deviation	Standard Deviation (m)	ESRIGNSS_H_STDDEV	double	

Collector| Using Real-time Differential Corrections

- Improve accuracy from receiver
- Requires a subscription and connection*
- Optionally use 3rd party app to configure
- No post-processing support
- Need to understand your map's coordinate system and apply a location profile accordingly



Verizon LTE 12:39 PM 77%	
R2, 5544S01871: Trimble Done	
Updated just now	
Horizontal Accuracy (RMS)	31 cm
Vertical Accuracy (RMS)	31 cm
Fix Type	RTK Fixed
Station ID	--
Correction Age	8 seconds
Satellites (Used/Visible)	11/21
Correction Profile	ITRF08

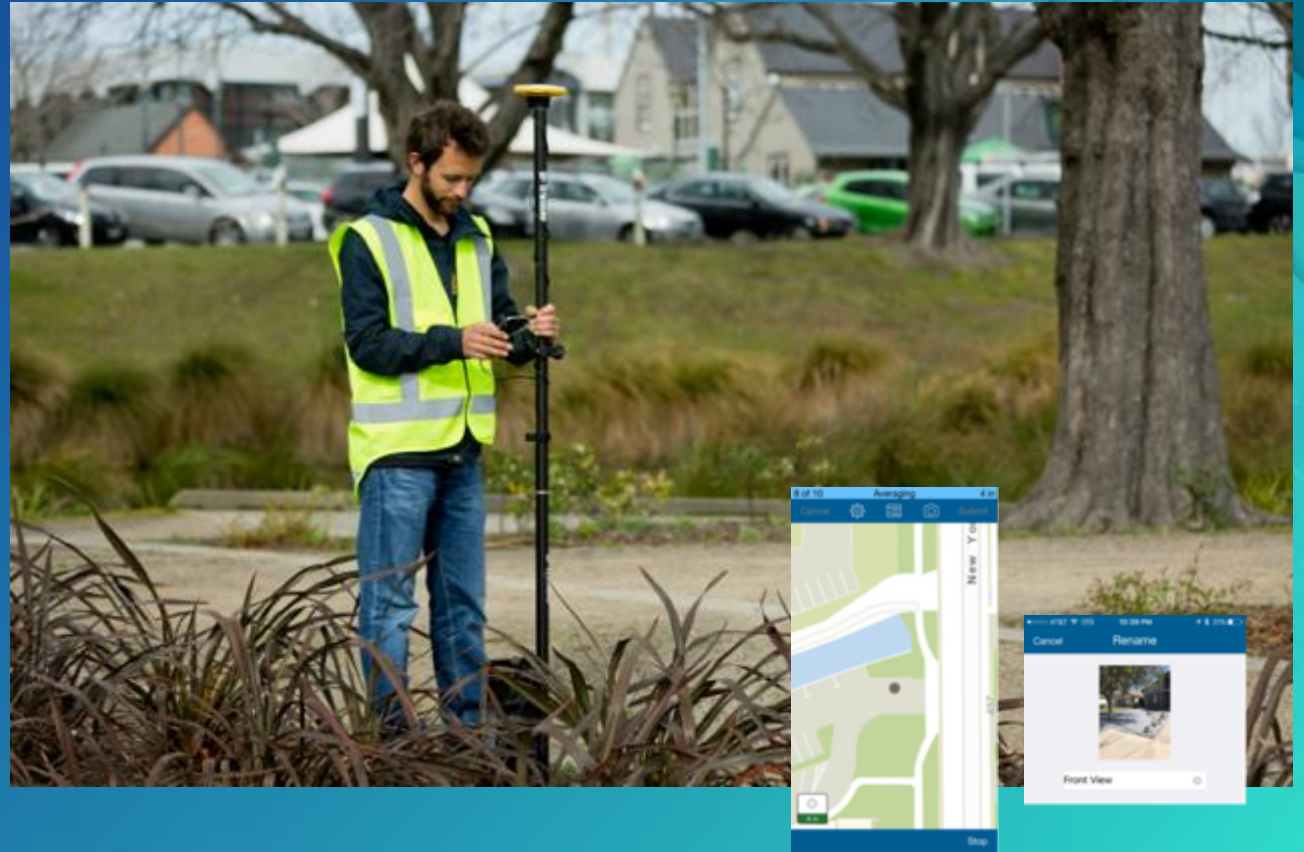
Collector What's Coming This Year

May 2017 (Released!)

- GPS averaging
- SD card support for basemaps (Android)
- Renaming media

Early Q3

- **Trimble Catalyst (Android)**
- 95% confidence interval
- Coordinate unit display



Collector – The Big New Thing

- Better maps
 - Labels, Advanced symbology
 - Vector basemaps
- High Accuracy
 - Support Z values
- New user experience
 - Collect experience
 - Map/Form experience
- Offline
 - Pre-planned workflows
- Smarter forms
 - More input types (Barcodes, QR codes)
 - Arcade expressions
 - Grouping, conditional visibility*
- Simpler deployments
 - Pre-configured settings
 - Restrictions

The screenshot displays the ArcGIS Collector mobile application interface. At the top, a status bar shows 'Carrier', signal strength, '5:21 PM', and battery level. Below this is a navigation bar with 'Cancel', 'Collect', and 'Submit' buttons. A banner indicates 'GPS accuracy 10 m'. The main map area shows a topographic view of Lake Louise with a blue circle highlighting a specific location. To the right of the map is a compass icon. Below the map, a section titled 'Wildfire Response Points:' contains a blue 'Update Point' button. Further down, a form displays the following information: 'Rotation' set to '90', 'Description' set to 'Facing east', 'Date' set to 'May 25, 2017', and 'Type *'.

Collector Timeline

Beta 1 - Early Q3

- Collect Workflow

Beta 2 - Q3

- Offline Workflow

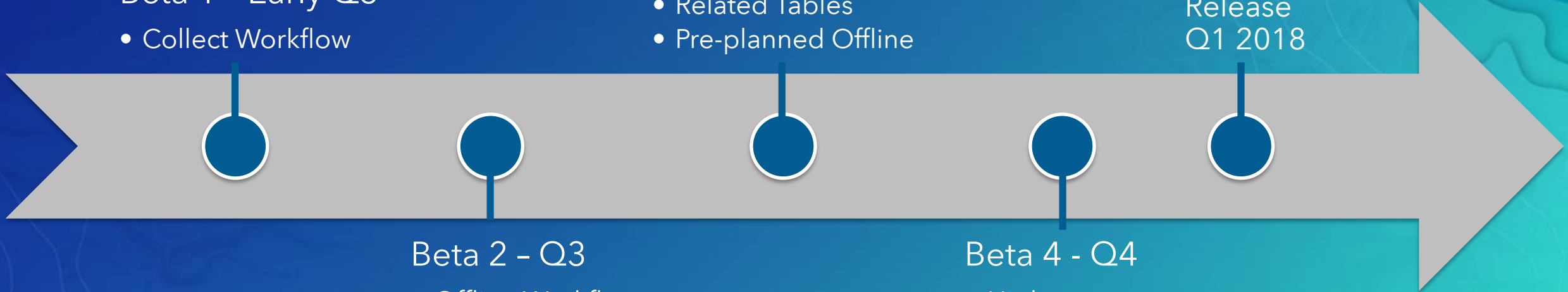
Beta 3 - Early Q4

- Related Tables
- Pre-planned Offline

Beta 4 - Q4

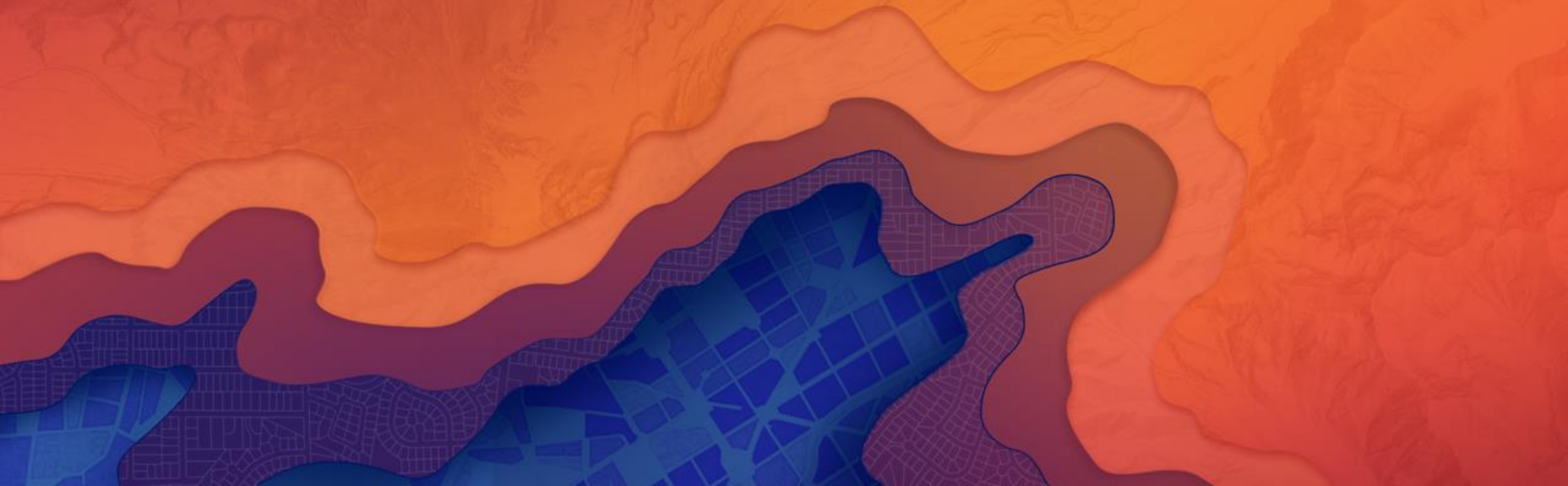
- High accuracy

Release
Q1 2018



Survey123 for ArcGIS

James Tedrick



a printed or typed document with blank spaces for insertion of required information

a printed or typed document with blank spaces for insertion of required information

[illegible]

Many Industries

Forestry

Public Safety

Government

Health

Transportation

Emergency Management

Many Needs

Incident Reports

Inspections

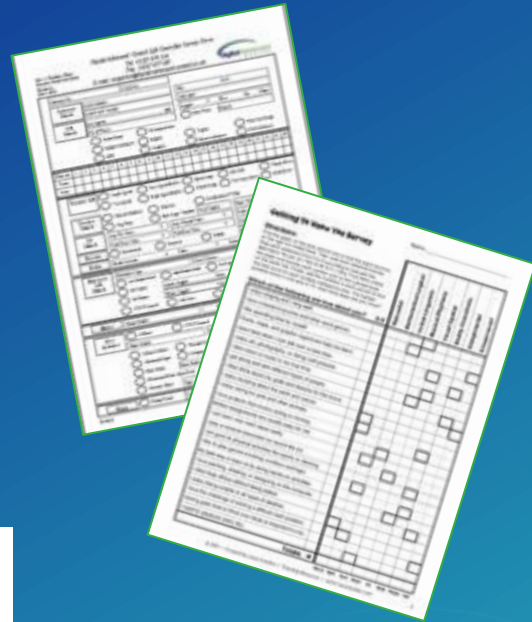
Damage Assessments

Asset Inventories

Interviews

Smart Forms for ArcGIS

Easily convert paper forms into Digital Smart ArcGIS Forms





Apps Are the New Workflows

Gulfport Energy Saves Time and Money with ArcGIS® Apps for Field Data Collection

Gulfport Energy is an independent oil and natural gas exploration and production company, headquartered in Oklahoma City, Oklahoma. To best serve its shareholders, the company is using technology to reduce costs while the market is tight and prepare for the inevitable rebound. Gulfport puts geographic information system (GIS) technology at the core of many critical activities and operations conducted in the office and the field.

Recently, Gulfport Energy deployed ArcGIS® apps for the field. The company's existing ArcGIS implementation included access to Collector for ArcGIS and Survey123 for ArcGIS at no additional cost, and use of the apps required minimal staff training. Previously, Gulfport had relied on third-party data collection services and applications, which were costly. Also, these came in paper forms, which made them difficult to share and led to inaccuracies.

Gulfport Energy used the Collector for ArcGIS app to identify suitable pad site locations as well as locating rights-of-way for above ground water pipelines. Collector—chosen for its map-centric workflow and ease of use for existing field crews—enables Gulfport to view and edit possible pad site locations to select the most suitable location. Collector helped to eliminate costly return trips to verify office analysis. Collector was also used in the waterline route planning to help secure rights-of-way while in the field. They now have more accurate data, have gained efficiencies in field workflows and are providing up-to-date pad site and rights-of-way maps that can be easily viewed and shared across departments.



Access to pipelines requires accurate rights-of-way data collection in the field.



[Home](#) > [Louisiana Region](#) > [News & Events](#) > [Community News](#) > Disaster Assessment – As Easy As 1-2-3

Disaster Assessment – As Easy As 1-2-3



*It will cut in half
the time it takes
us to complete
the assessment.*

Posted September 11, 2016, Todd James, Baton Rouge, LA

Red Cross Disaster Assessment teams are part of the first step in disaster response. They visit neighborhoods and homes immediately after a disaster to assess the level of damage incurred. The Red Cross and its partners—like the American Red Cross Way—use this information to provide financial aid and other resources. It takes two weeks to visit to every home, gather and enter the information into a system everyone who needs it to begin providing aid. It's vital that this process is fast to ensure families get the help they need and that donor and taxpayer money is used effectively.

After the record flooding that occurred in Louisiana, Disaster Assessment is being done a new way—a way that will make it faster and easier. Disaster Assessment 123 application and Red Cross teams are using it to get help to clients in just a few weeks. Survey123 allows the teams to enter information on the spot, so they don't then have to be entered into a system. And, in conjunction with the Disaster Event Management System, real time mapping of areas affected by flooding allows delivery to begin with days.

Sarah Perkins is a veteran Red Cross Disaster Assessment volunteer.

Inspections Saves \$40,000

gies Magazine

Field Technologies

ation has reduced inspection reporting processing from 30 minutes down to 5 for a

g, complex city that is getting bigger by the day — a challenging prospect for public have to juggle new construction projects and maintenance of aging infrastructure. Public Utilities Commission (SFPUC) is the third-largest municipal utility in the state drinking water and wastewater services to San Francisco, wholesale water to three and green hydroelectric and solar power to San Francisco's municipal departments, PowerSF, cleaner energy to residents and businesses in San Francisco.



The SFPUC's Wastewater Enterprise (WWE) operates and maintains the city's 1,000-mile-long combined sewer system and 17 pump stations that collect sewage from homes and businesses and stormwater in the same network of pipes, moving the wastewater to the three treatment plants for treatment and discharge to San Francisco Bay and the Pacific Ocean. With the city's steeply pitched streets and proximity to the ocean, maintaining the combined sewer system is critical, particularly during heavy rains.

ewer construction, inspectors from the SFPUC's Collection System Division are ecting and documenting exactly what is underground and how it was built.

viously documented these sewer inspections using handwritten notes and digital lining journal notes onto a digital map created by using Esri's ArcGIS platform and a s GeoCortex Essentials viewer. The digital photos had to be uploaded to the SFPUC's ll of the documents were printed and assembled for a report that had to be scanned he process took up to 30 minutes for each inspection.

Why Smart Forms in ArcGIS?

- **Reduce Errors**
 - During Data Capture
 - Transcribing data from paper to digital
- **Boost Field Data Capture productivity**
 - Precompute responses
 - Associate photos with alphanumeric data
- **Data: From the field to the office in Real Time**
- **All data captured is georeferenced**





1- Ask Questions

(Design & Publish)



2- Get Answers

(Capture Data)



3- Make Decisions

(View & Analyze)

1: Ask Questions (Tools for authoring your surveys)



- **Survey123 Web Designer:**
 - Build smart forms graphically right from your web browser
 - Very easy to get started.
 - Ideal for simple forms
- **Survey123 Connect:**
 - A downloadable desktop tool. Works in combination with Microsoft Excel.
 - Requires learning and familiarity with XLSForms specification
 - Complete smart form capabilities

1: Ask Questions (Publishing and Sharing)



- Publishing

- Survey123 Smart Forms are published into ArcGIS
- Forms are a new type of item
- Feature layers (new or existing) store captured data
- ArcGIS Online and ArcGIS Enterprise support

- Sharing

- Survey123 leverages the ArcGIS security model: Named Users and Groups
- You can define distinct security rules to:
- Field Users: Submit data to your survey
- Stakeholders: View the results of your survey

1: Ask Questions (Considerations for survey authors)



- What data must be captured?
 - Decide what questions will be included in your survey instrument
- User Input Validation rules
 - Add data constraints, calculations and smart defaults
- Optimized user experience
 - Decide what user input controls to use (Question Types and Appearances)
 - Logically organize your survey (Groups, Relevancy rules)
 - Web and/or Native
 - Branding
 - Style questions and survey

017 UC Field Apps Preference Survey

Overview Design Collaborate Analyze Data

Add Edit Theme Settings

1 Do you have some experience creating and working with web maps?

☐ Yes ☐ No

2 Do you have some experience creating and using feature services?

☐ Yes ☐ No

3 Which ArcGIS Field Apps have you used?

☐ Collector
☐ Explorer
☐ Navigator
☐ Operations Dashboard
☐ Survey123
☐ Workforce

4 How would you evaluate your current expertise of the ArcGIS Field Apps?

Design Preview Publish

Common Questions

<input type="checkbox"/> Single-line Text	<input type="checkbox"/> Multiple Text
<input type="checkbox"/> Single Choice	<input type="checkbox"/> Multiple Choice
<input type="checkbox"/> Dropdown	<input type="checkbox"/> Rating
<input type="checkbox"/> Number	<input type="checkbox"/> Date
<input type="checkbox"/> Time	<input type="checkbox"/> Geopoint
<input type="checkbox"/> Image	<input type="checkbox"/> Email
<input type="checkbox"/> Website	

Create & Publish a Survey



1- Ask Questions

(Design & Publish)



2- Get Answers

(Capture Data)



3- Make Decisions

(View & Analyze)

2: Get Answers



- **Survey123 WebForms**

- Capture data from a web browser. Can be embedded within a web site.
- Nothing to install.
- Online only. Add new data only.

- **Survey123 Field App**

- Available for download (Google Play,iOS, Windows, Mac)Leverage device sensors (external GPS, camera etc)
- Can work Online and Offline
- Can add new data and update existing features.

2: Get Answers



- **Private Surveys**

- Shared with a well-known group of users (secured access).
- Requires use of one ArcGIS accounts per every field user.
- Enables Editor Tracking capabilities.
- Ideal for sensitive data or when you want to understand who is doing what.

- **Public Surveys**

- Shared with everyone.
- No need for ArcGIS accounts. Anyone can submit data.
- Ideal for crowd-sourcing initiatives.



1- Ask Questions

(Design & Publish)



2- Get Answers

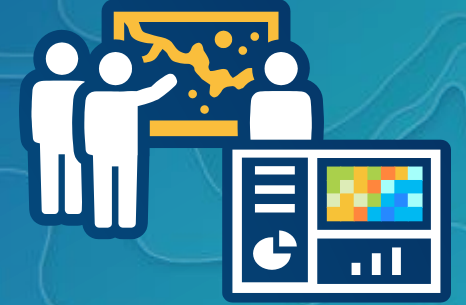
(Capture Data)



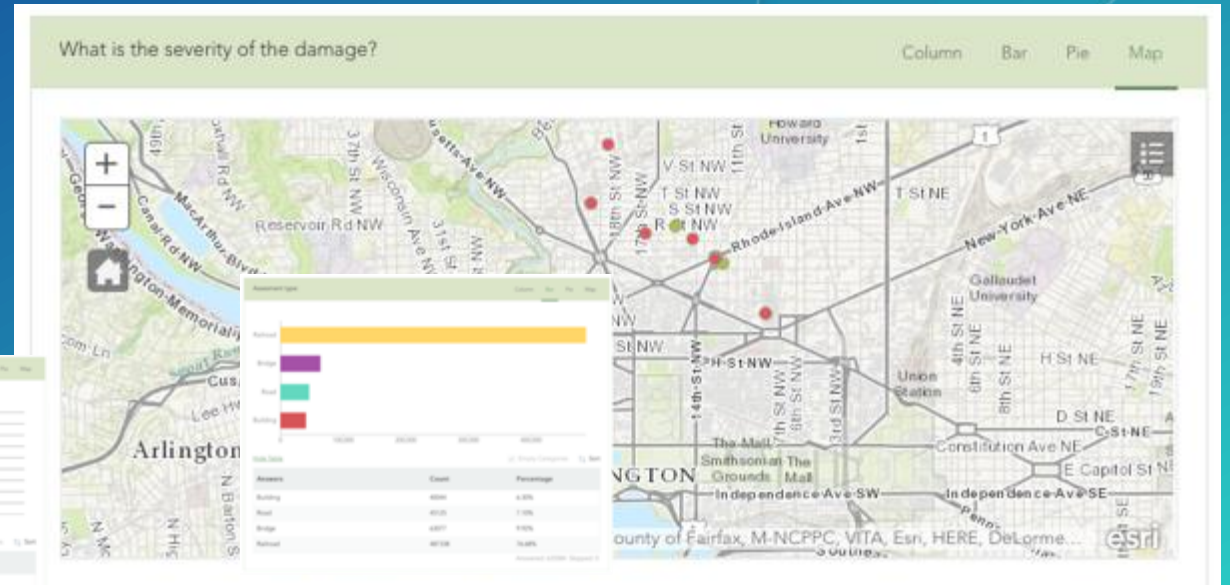
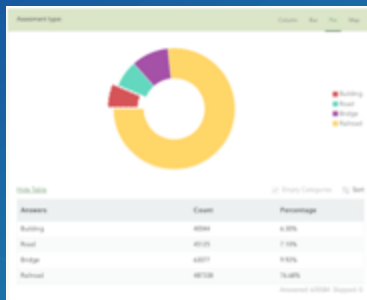
3- Make Decisions

(View & Analyze)

3: Make Decisions



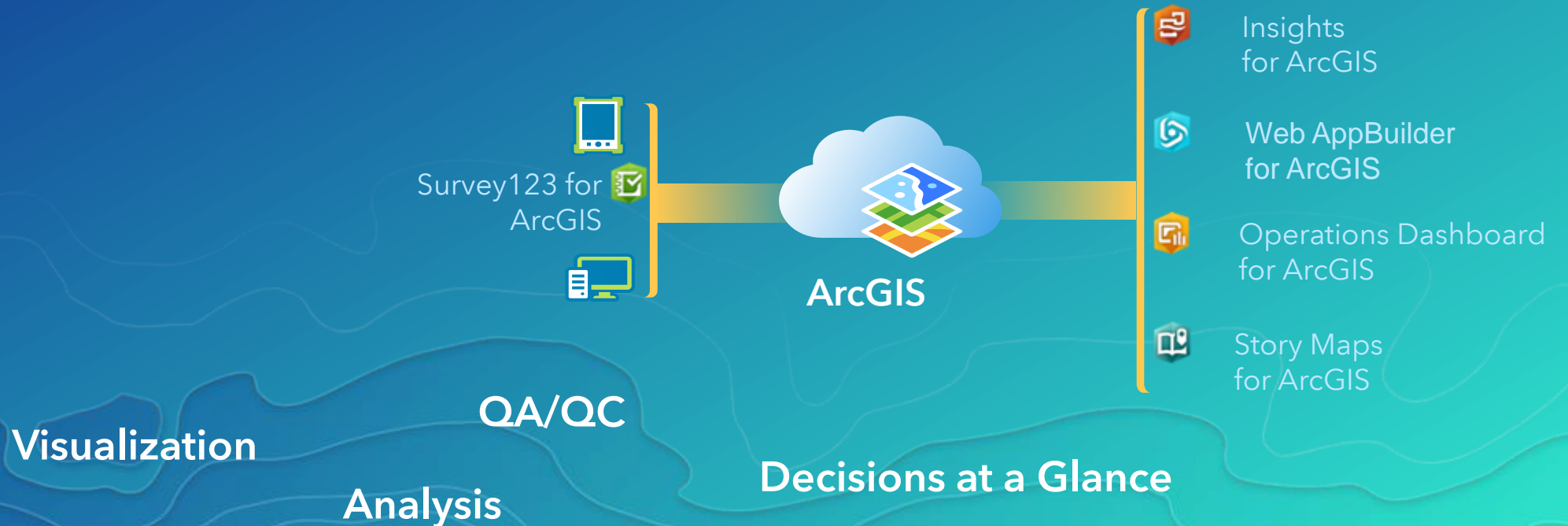
- Ready to use Reporting tools
 - Understand data submission patterns
 - Create detailed survey reports
 - Aggregate survey data
 - Selectively download data



3: Make Decisions

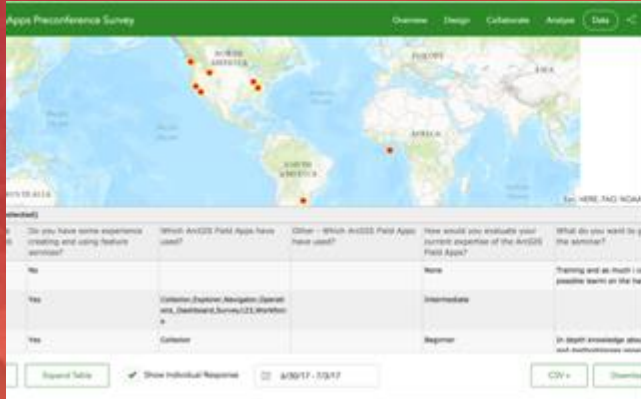


- Real-Time data collection
 - Survey123 submitted data is immediately available for visualization and analysis
- All data stored in ArcGIS Feature Services
- Multiple Uses of data



Survey Data & Results

Supporting Text





1- Ask Questions

(Design & Publish)



2- Get Answers

(Capture Data)



3- Make Decisions

(View & Analyze)

Let's Create a Form!

Workforce for ArcGIS

PRESENTER NAMES

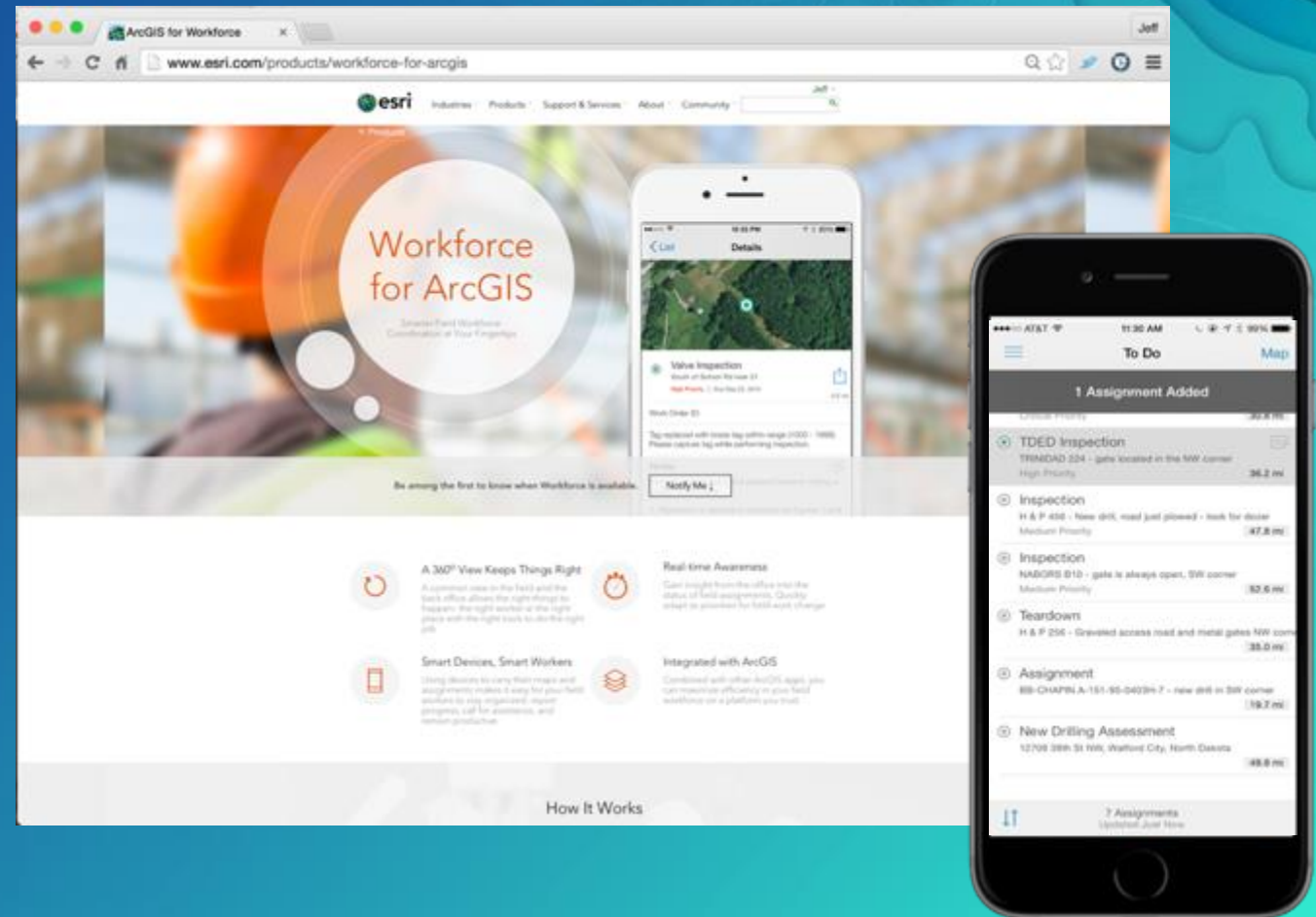
Coordinate your Field Workforce



Workforce for ArcGIS| Coordinating field to office workflows

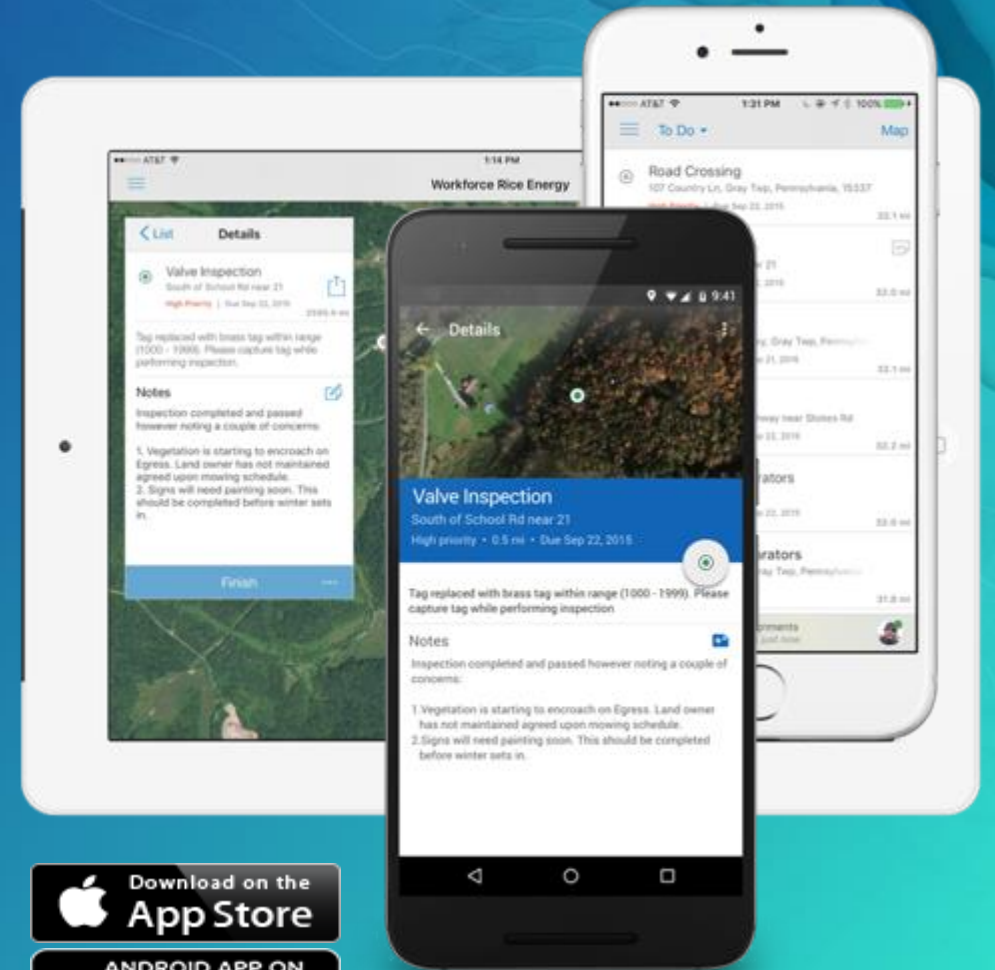


- Field workforce optimization
- Efficiently plan and assign work
- Receive assignments and report status from the field



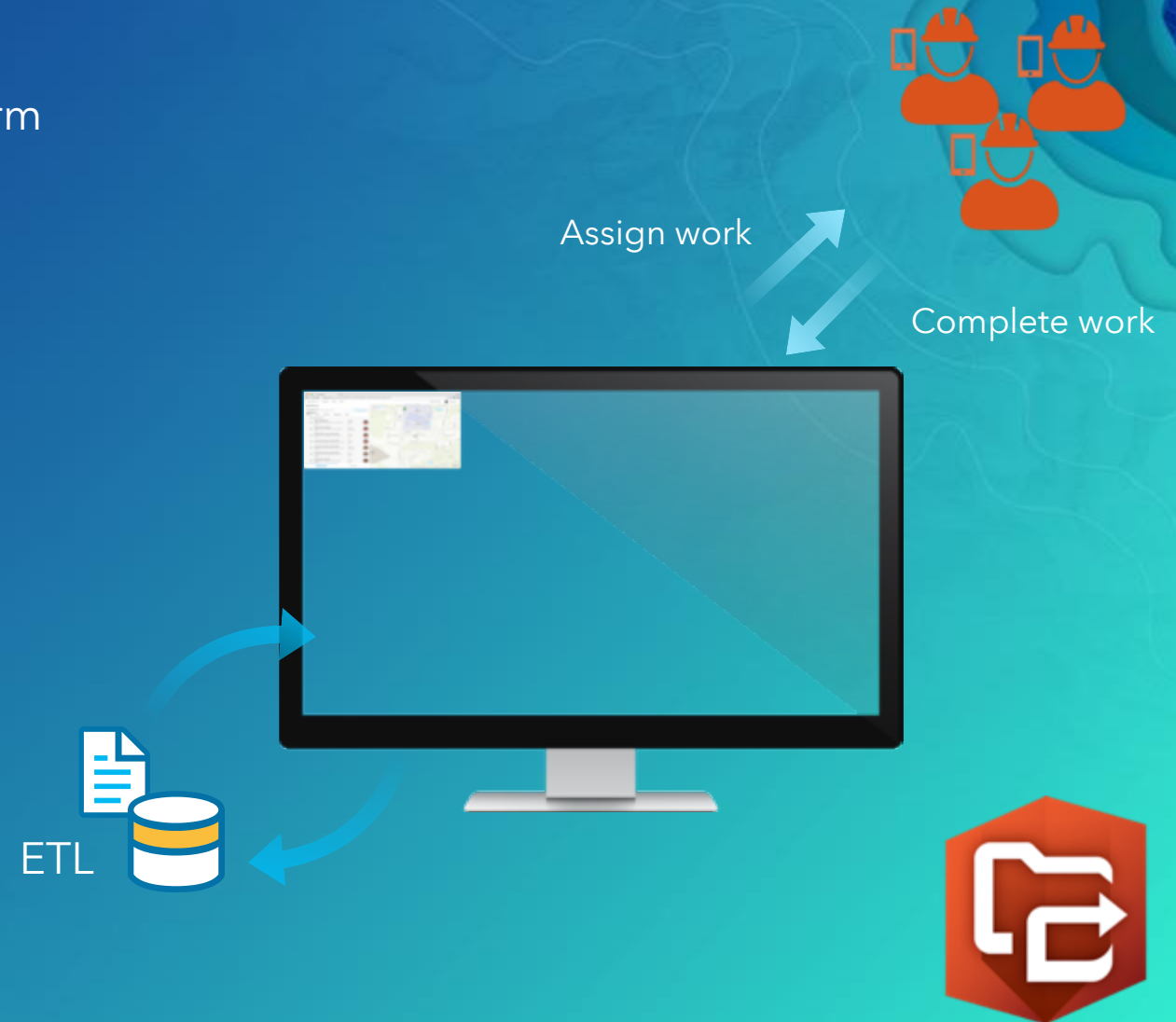
Workforce for ArcGIS | Coordinate

- View and complete work assignments
- Organize your work list
- Receive notifications
- Set your working status
- Add and edit notes
- View referenced attachments



Workforce for ArcGIS | Plan

- Fuse work management into the ArcGIS platform
- Create, Prioritize and Assign Work
- Manage planned work assignments
- React and respond to unplanned work



Workforce for ArcGIS | Administer Workforce Projects

- Create new Workforce Projects
- Configure assignment types
- Add Dispatchers and Mobile Workers
 - Contact Number, Job Title, Notes
- Configure maps and layers
- Configure apps

Assignment types specify the different kinds of work that your mobile workers need to perform. When creating a new work assignment, dispatchers choose from a list of assignment types.

Add an Assignment Type

Enter a new type... + Type

Assignment Type	
Valve Inspection	In Use
Water Filter Separators	In Use
Compressor Reading	In Use
Pigging	
Road Crossing	In Use
Corrosion Inspection	In Use
Site Inspection	In Use
PA One Call	In Use
Minor replacement	

Edit User Details

Contact Number
909-793-2853

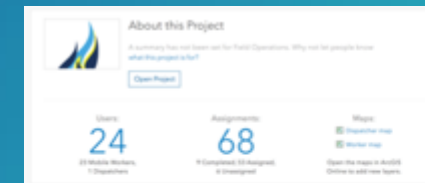
Adding a contact number allows mobile workers in this project to get in touch.

Job Title
Service Technician

Notes
Certifications
Measurement
Compressor
Confined spaces

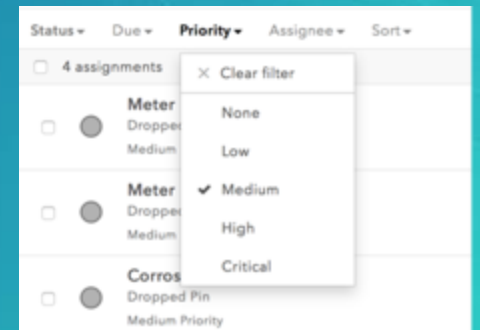
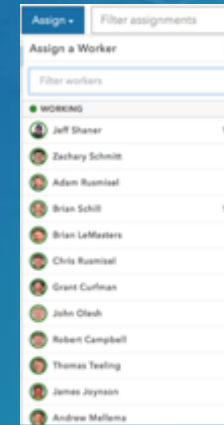
Add notes for this user to describe their skills and inventory.

Cancel Save



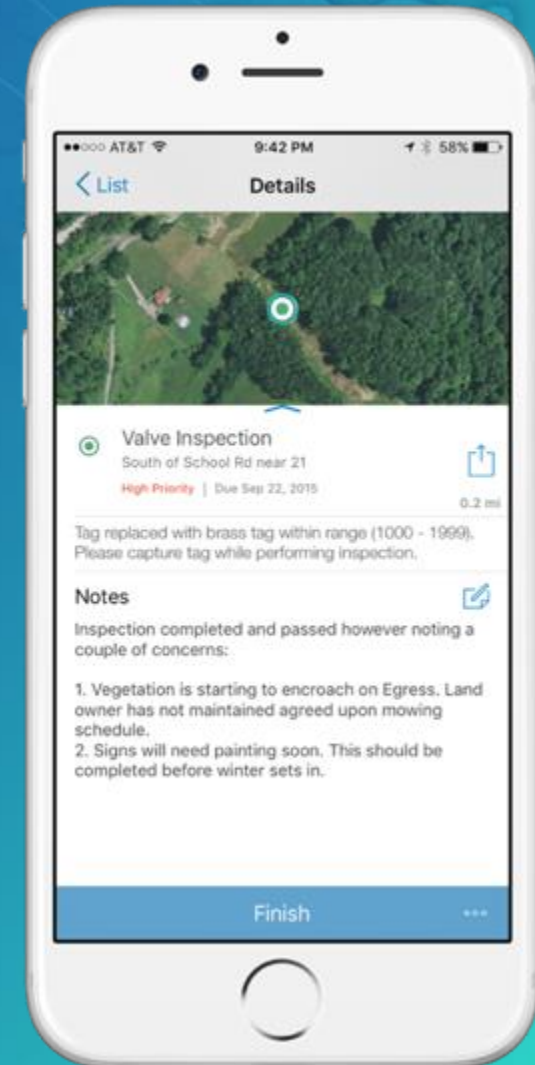
Workforce for ArcGIS | Dispatch work

- Create new work assignments
 - By Geocode
 - Using the Map
 - From features
 - Automatically
- Assign, re-assign and cancel work
 - Individually
 - In bulk
- Filter and sort assignments
- View all mobile workers
- Search the map



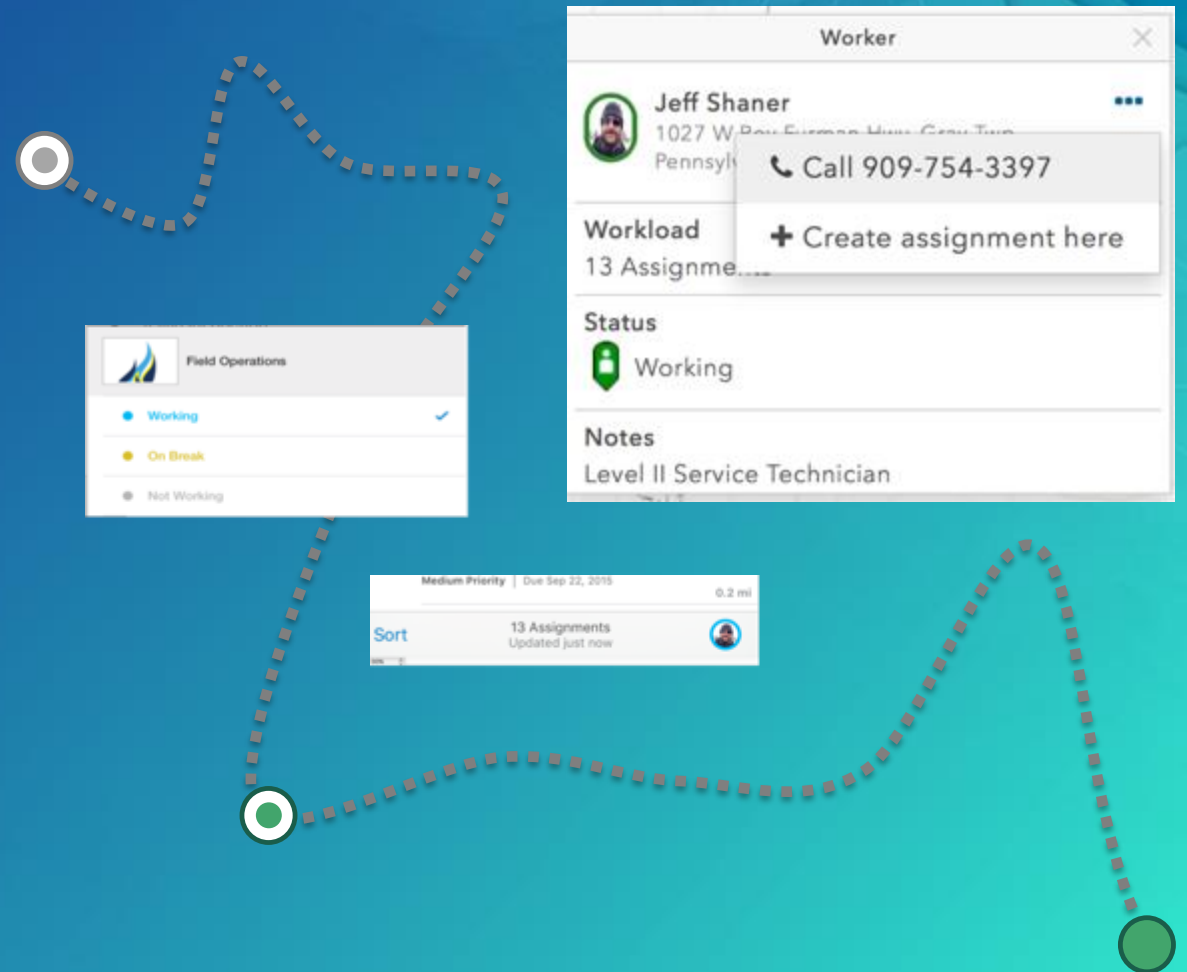
Workforce for ArcGIS | Work Assignments

- Properties of a Work Assignment
 - Status, Due Date, Priority, Assignee, Type
- States
 - Unassigned, Assigned, In Progress, Paused, Completed, Declined
 - Date/Time stamps
- Priorities
 - None, Low, Medium, High, Critical*
- Attachments
 - Documents, Pictures



Workforce for ArcGIS | Workers

- Dispatchers and Mobile Workers
- Worker Details
 - Contact Number, Title, Notes
- Worker Status
 - Working, On Break, Not Working
- Worker Location
 - Current Location, Location Tracks

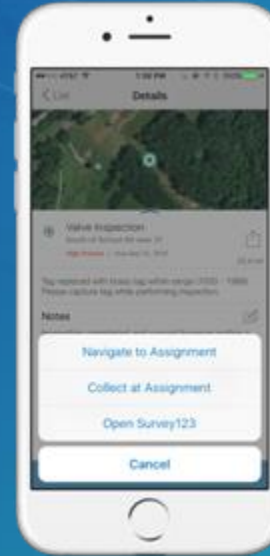


DEMO

Workforce for ArcGIS | Get to assigned work

- Integrated with ArcGIS Apps so you can:
 - Get to the location of work assignments using Navigator for ArcGIS

Open Navigator
and create a route



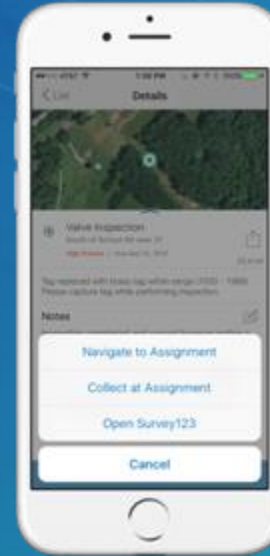
Return to Workforce
at destination



Workforce for ArcGIS | Collect at location

- Integrated with ArcGIS Apps so you can:
 - Get to the location of work assignments using Navigator for ArcGIS
 - Complete your work using:
 - Collector for ArcGIS

Open Collector
and go to location



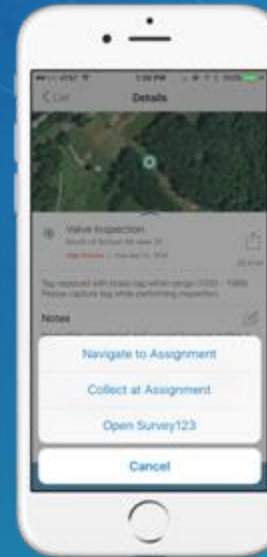
Return to Workforce
when finished



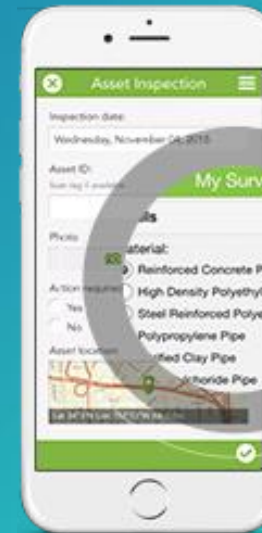
Workforce for ArcGIS | Survey at location

- Integrated with ArcGIS Apps so you can:
 - Get to the location of work assignments using Navigator for ArcGIS
 - Complete your work using:
 - Collector for ArcGIS
 - Survey123

Open Survey123



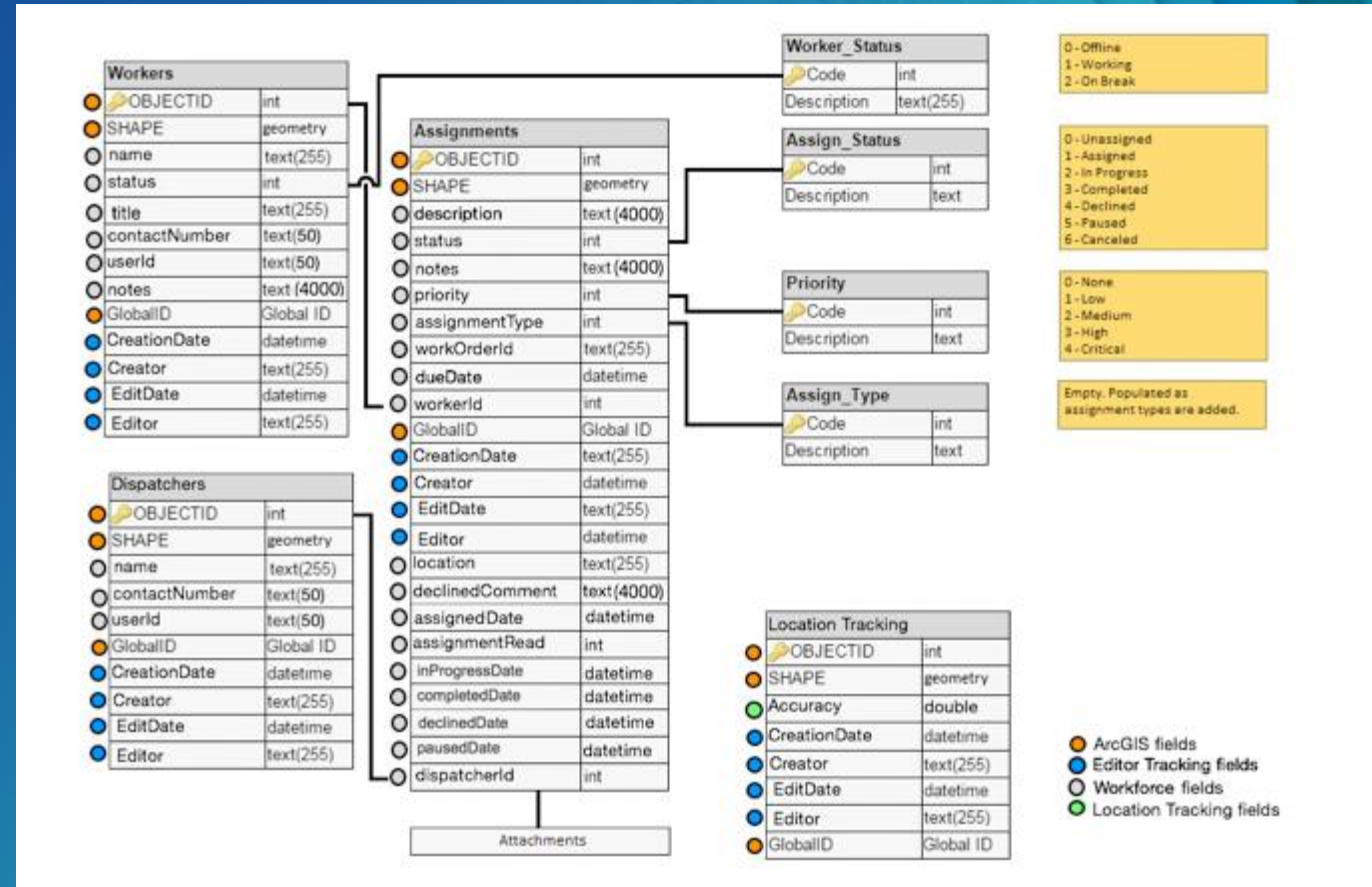
Return to Workforce when finished



DEMO

Workforce for ArcGIS | Workforce Project

- Workforce Project Item
- Maps
 - Dispatcher Web Map
 - Mobile Web Map
- Layers
 - Dispatchers
 - Workers
 - Assignments
 - Location Tracking
- Project Group
- Project Folder



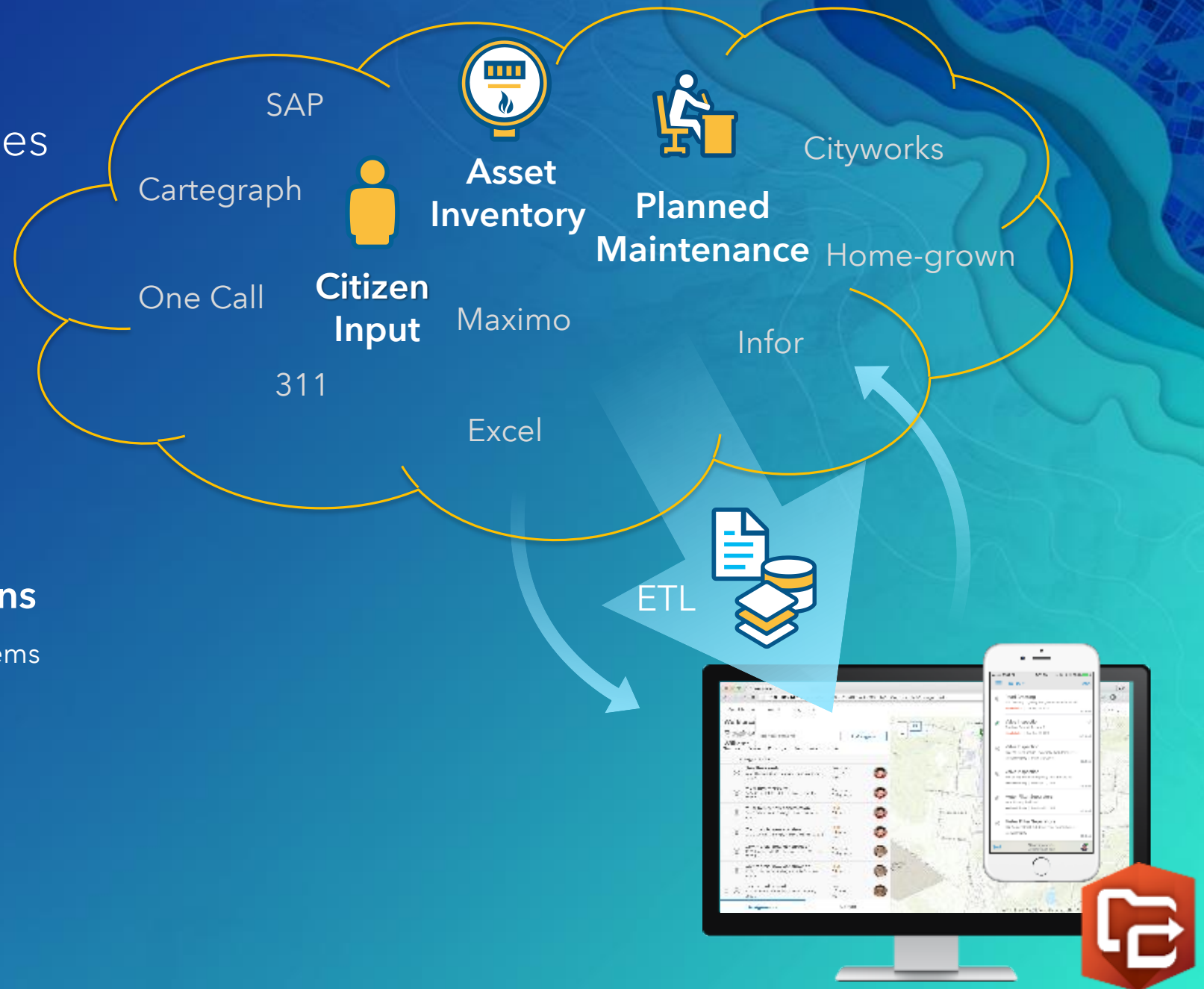
Workforce | Opportunities

- **Small organizations**

- A location solution to replace paper-based workflows
- Works seamlessly with ArcGIS apps for the field

- **Mid-to-large size organizations**

- Complement work management systems
- Partner opportunities
 - System Integrators
 - Customized solutions



Workforce | Release Details

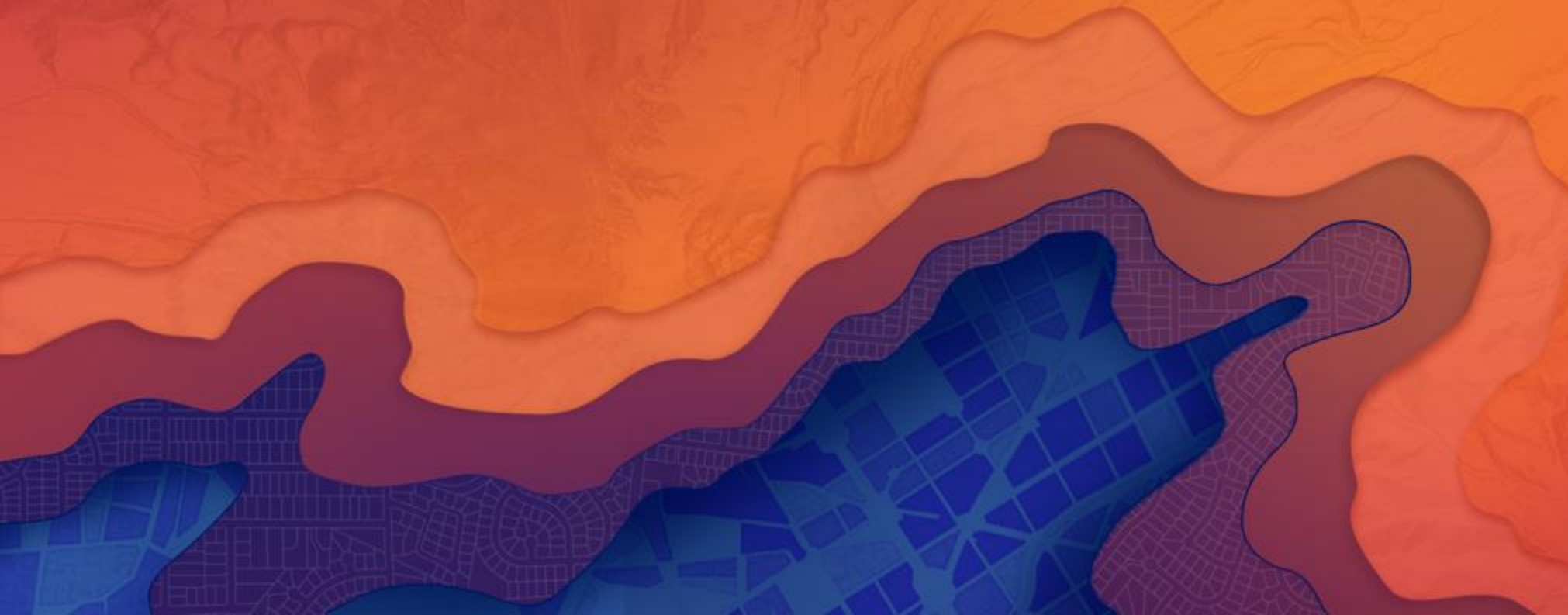
Release 17.0.1 – End of July 2017

Attach Photos

App Integration (pass Work Order ID and Location)

Hands On

SUBHEAD INFORMATION



Operations Dashboard for ArcGIS

Derek Law

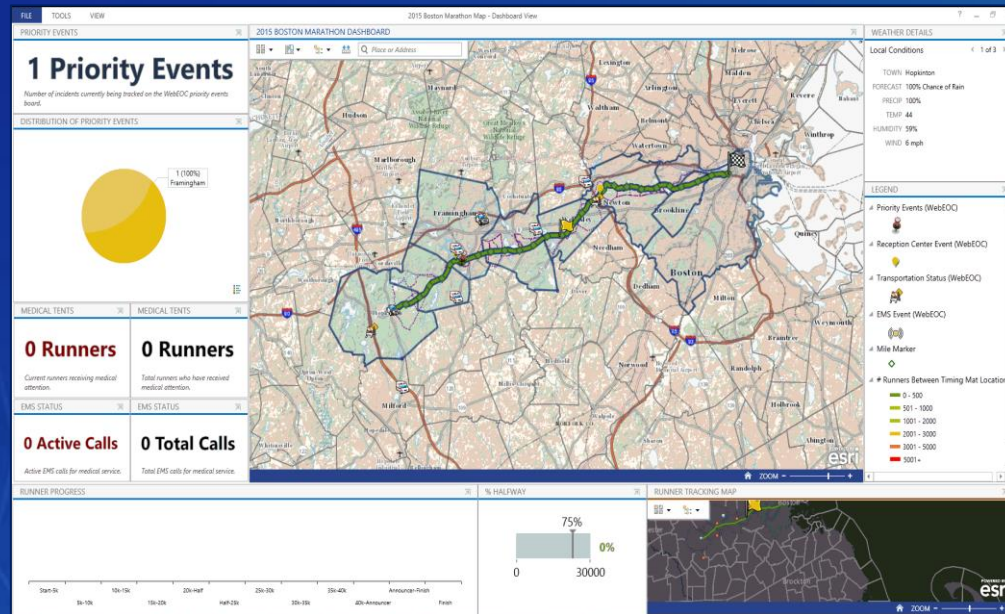
@GIS_Bandit

July 8th, 2017

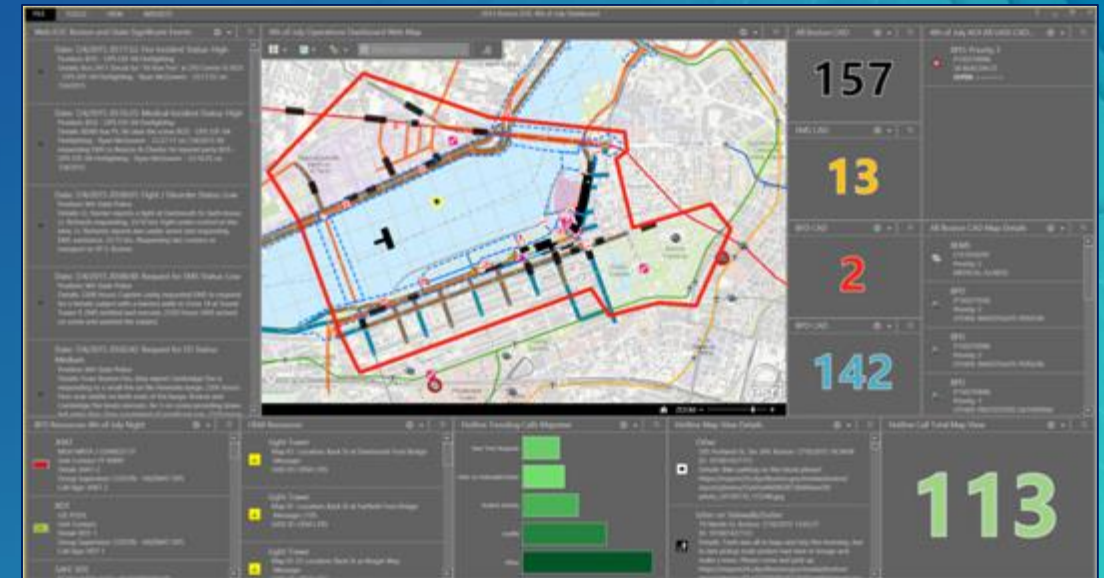
Agenda

- Product overview
- Workflow
 - Creating operation views
- Next beta release
- Summary

Operations Dashboard for ArcGIS – Customer Examples



Boston Marathon

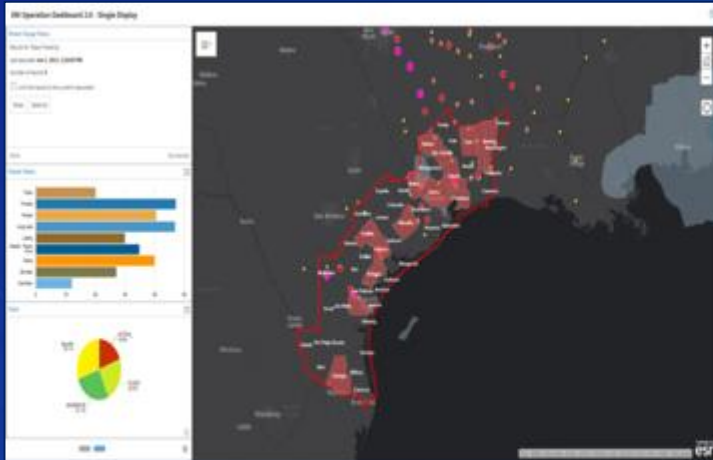


Independence Day Event security

City of Boston



Operations Dashboard for ArcGIS – Customer Examples



Flood Monitoring
US Army Corps of Engineers
Texas



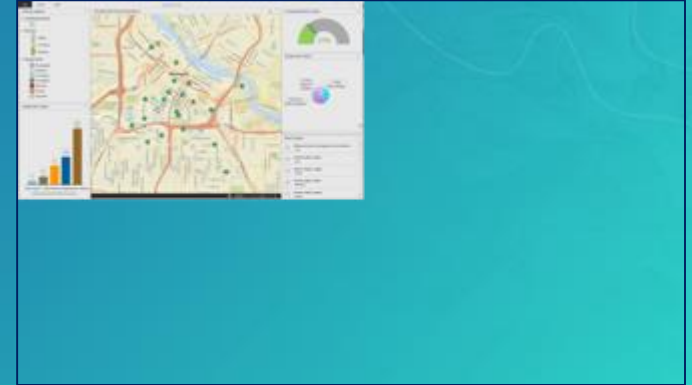
Race Monitoring
Ironman World Championship
Hawaii



Operations Dashboard for ArcGIS



- Configurable App that provides a common operating picture of systems and resources in your organization
- Enables monitoring, tracking, and reporting on assets
 - Support for real-time data
 - Includes key performance indicators (KPIs)
- Designed to support full spectrum of device platforms
- Cross platform extensibility and framework



Key Usage Patterns

- **Monitor and manage operations/assets**
 - Consume real-time data feeds
 - Provide common operational picture
- **Emergency Management**
 - Manage planned and unplanned events
 - Situational awareness
- **Executive summaries and reporting**
 - Visualize key performance indicators (KPIs)



2 Options to Work with Operations Dashboard

1. **Windows Desktop app**

- Separate download, stand-alone application
- Authoring and viewing app
- Supports single display and multidisplay view
- Requires ArcGIS account



2. **Web-browser based app**

- Access within ArcGIS Online and Portal for ArcGIS
- Viewing app
- Supports single display view only
- Supports anonymous access



Operations Dashboard for ArcGIS

- Works with **Operation View**
 - Consists of web map + widgets (info panels)
 - **Widget** → component that provides a specific type of functionality in the view
- When authoring operation view
 - Only in Windows Desktop app*
 - Single display or multidisplay view
 - Configuration user experience
 - No programming/development needed



Single display



Multidisplay

*Authoring will be possible in
Web browser app in future release

Operations Dashboard for ArcGIS – Workflow



Web map

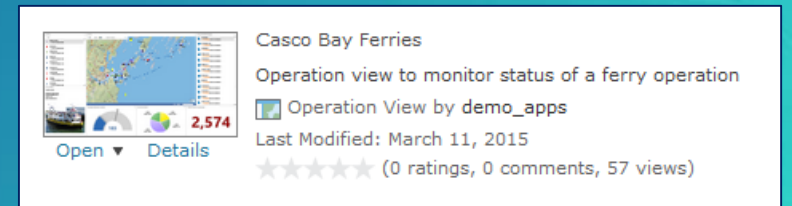


Operation view



Ops Dashboard app

1. Author web map
2. Create operation view
 - Decide single display vs. multidisplay
 - Configure data sources, widgets, map tools, feature actions
 - Position widgets in view layout
3. Share operation view with others
 - 'Operation view' is an item in ArcGIS organization



Types of Operation Views

- **Single display view**

- Required for web browser app
- Supports single map widget
- Widgets are organized into panels



- **Multidisplay view**

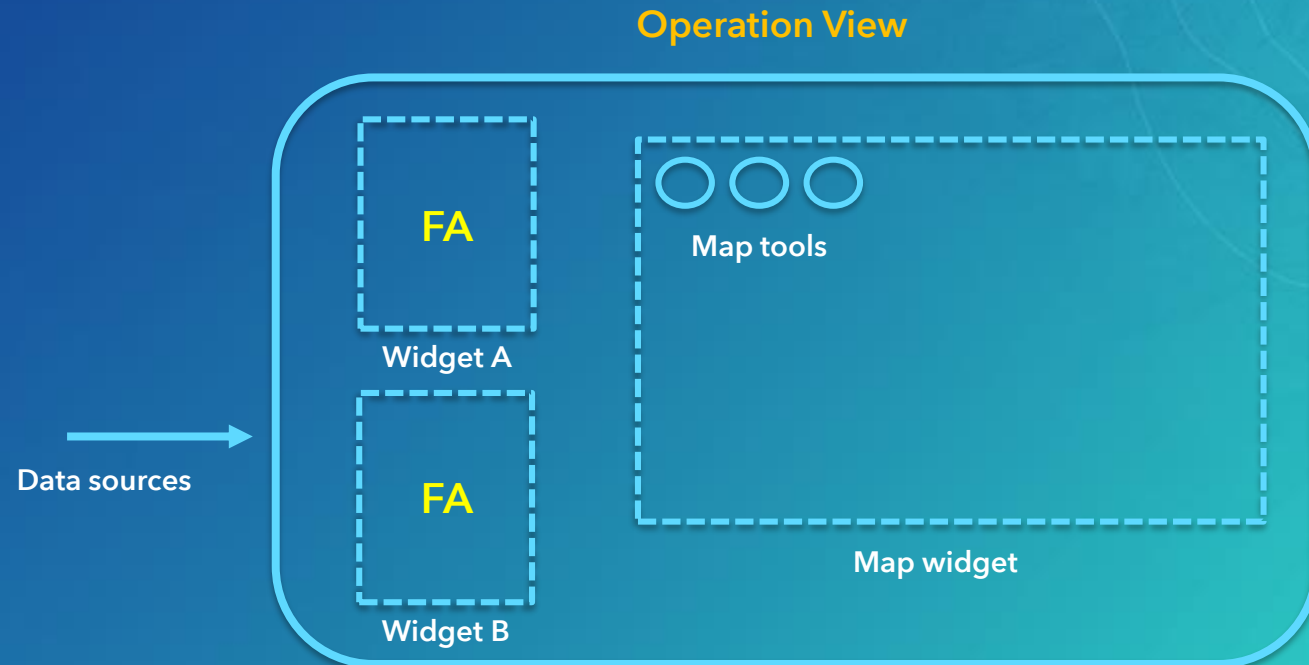
- Supports multiple map widgets
- Widgets can be organized across multiple displays
- Widgets can be sized, positioned, and docked anywhere in display



- Unattended display vs. interactive display

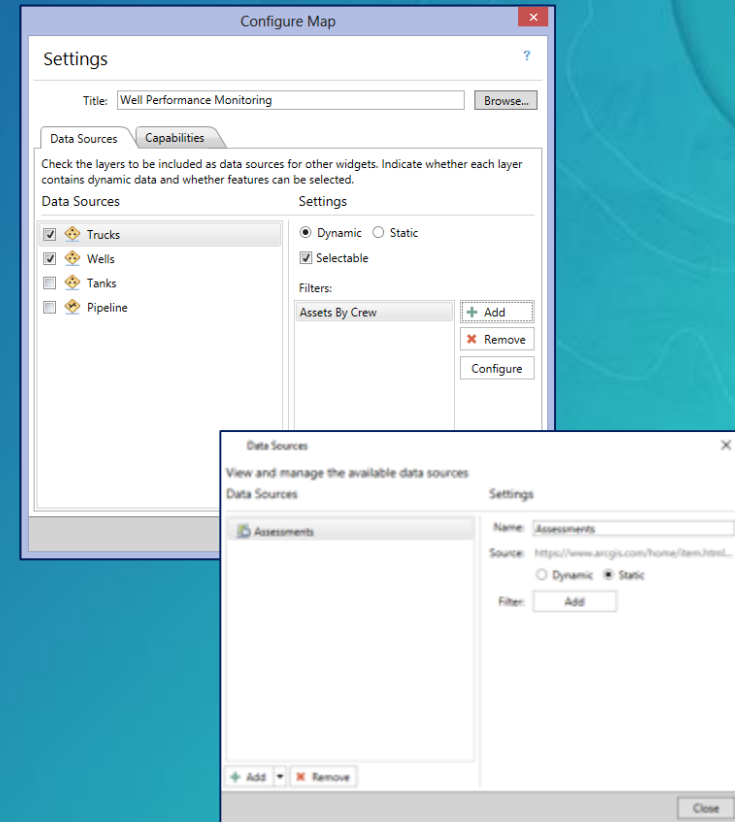
Configure Operation View

- 4 properties to configure
 1. Data sources
 2. Widgets
 3. Map tools
 4. Feature actions



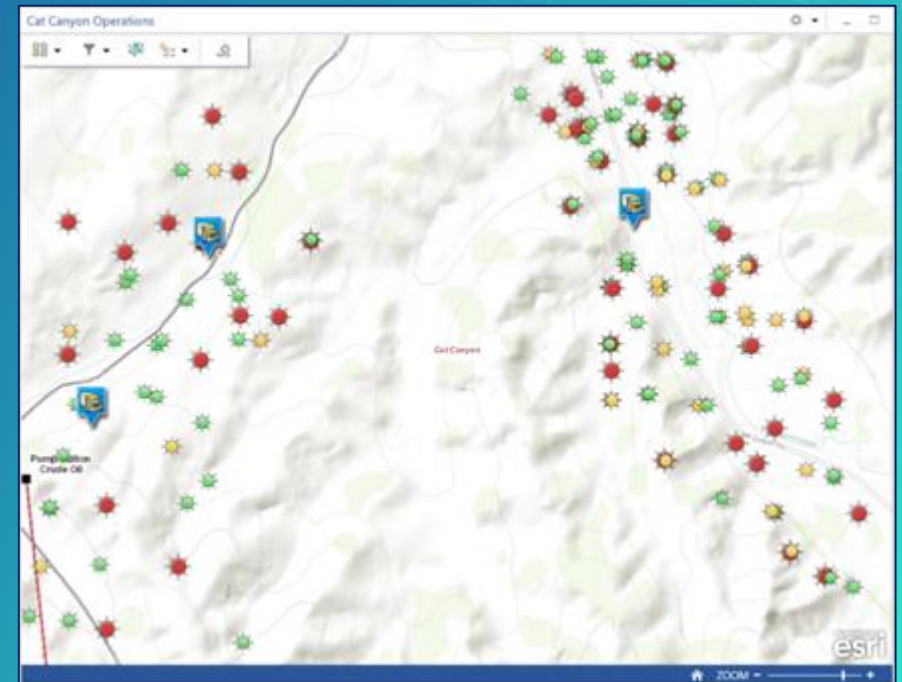
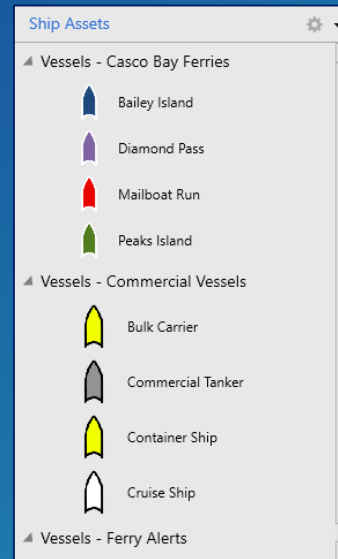
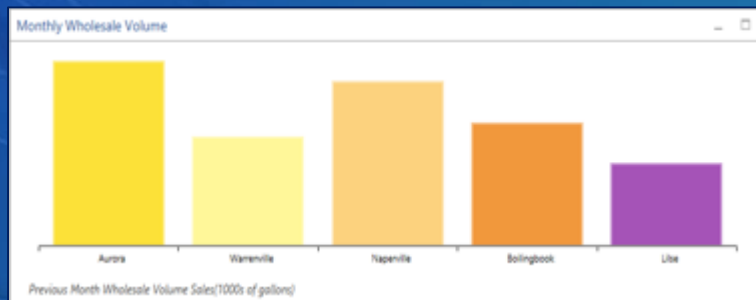
Configure Operation view – Data Sources

- **Data sources** → input data for widgets
- 2 options:
 1. From the web map
 - Select data layers in the web map
 - Determine if feature content(s) are selectable
 2. External source
 - Can add data from your ArcGIS organization and ArcGIS Servers
- Optional: define queries on data source(s)
- Works with real-time data
 - Input feature services














Configure Operation view – Widgets

- **Widgets** → component that provides a specific type of functionality in the view
 - Add to view (set position in UI), then configure its properties
 - Are dynamic and interactive
 - Optional: set feature action
 - Depends on the widget type



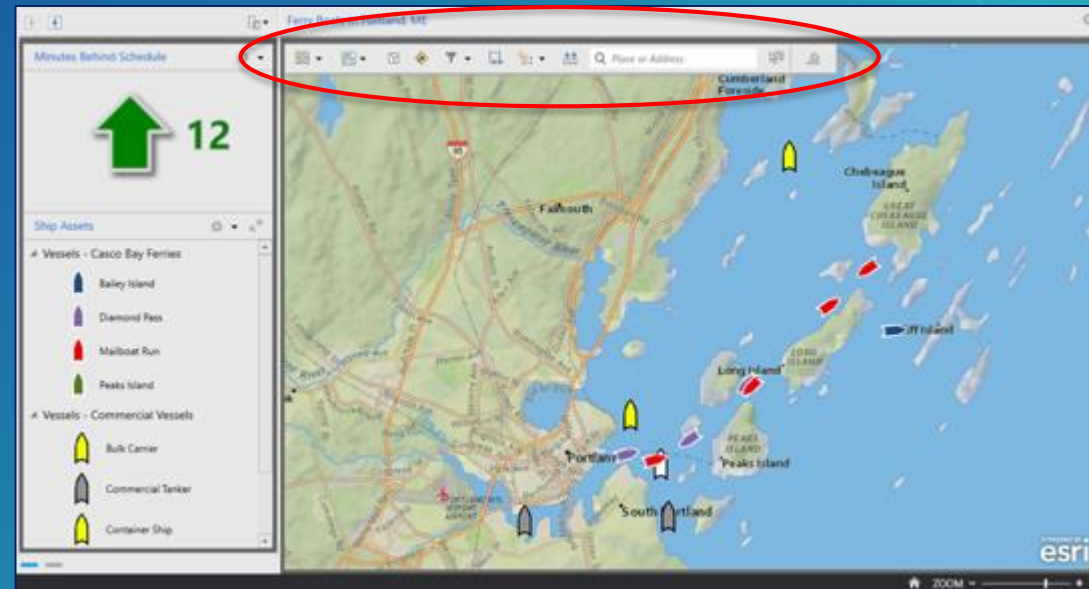
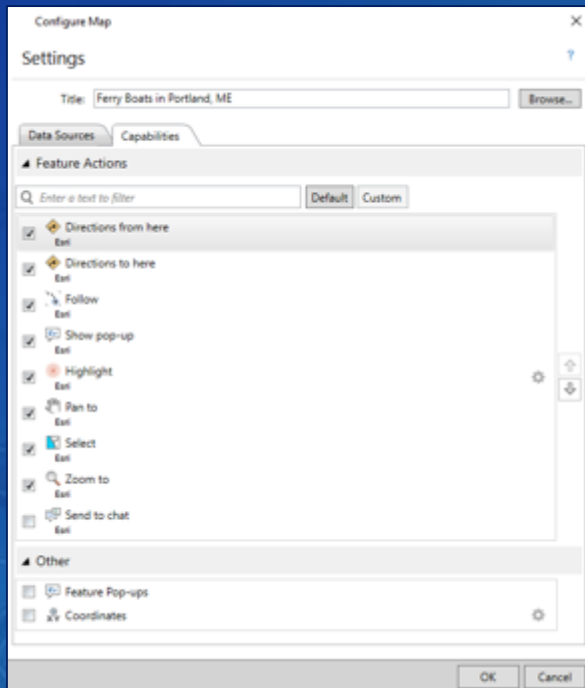
Available Widgets

- Map widget

 Bar Chart Display numeric values as a series of vertical or horizontal bars	 Description Displays a description as static text.	 Gauge Displays a value as a percentage of a target value.	 Legend A widget that displays the legend of the map.	 List A widget that displays a collection of features as ordered items.	 Pie Chart Display numeric values as a pie chart
 Histogram Graph distributions of values using intervals	 Feature Details Displays detailed information about a feature or row.	 Indicator A widget that depicts the state of the...	 Query Define a collection of queries to execute	 Summary A widget that displays the value of a...	

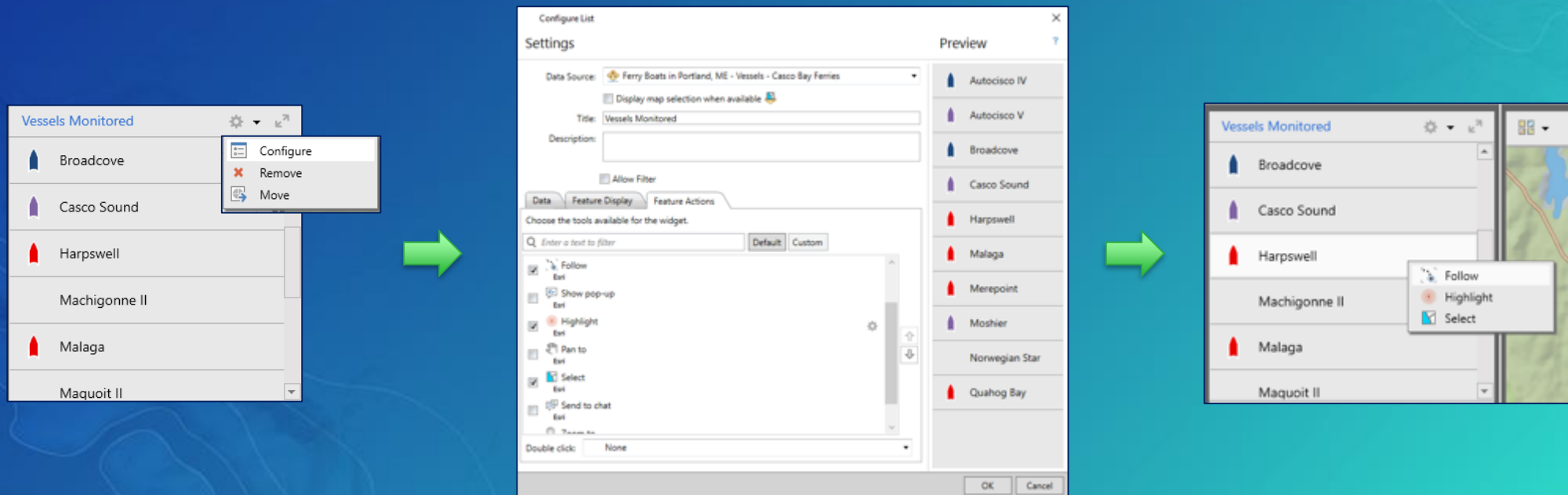
Configure Operation view – Map Tools

- **Map tools:** → action(s) that lets you do something on the map
 - “Functionality” in map widget
 - When enabled, a toolbar displays in the map widget



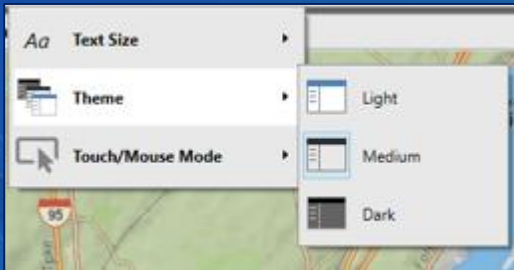
Configure Operation view – Feature Actions

- **Feature actions** → action that you can apply to feature(s), see result in the map
 - Enable in widget configuration
 - Example
 - List widget > Follow a feature, highlight a feature, select a feature, ...



Configure Operation View – User Interface

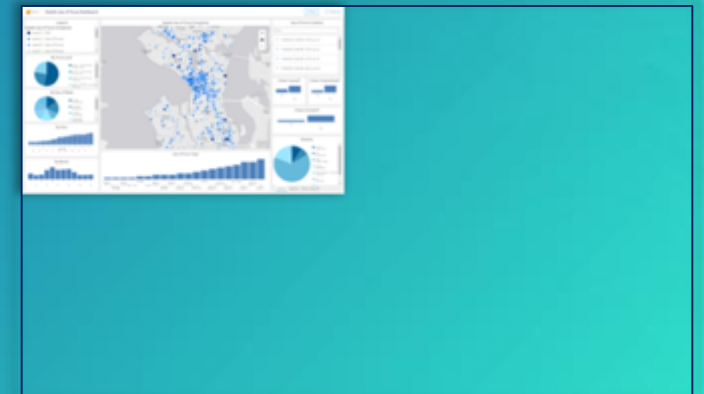
- Position widgets in operation view UI
 - Depends on single display vs. multidisplay
 - Single display has layout and panels
 - Multidisplay provides more flexibility
- Set text size
- Set theme
 - Light, medium, or dark



Next Update: Operations Dashboard for ArcGIS

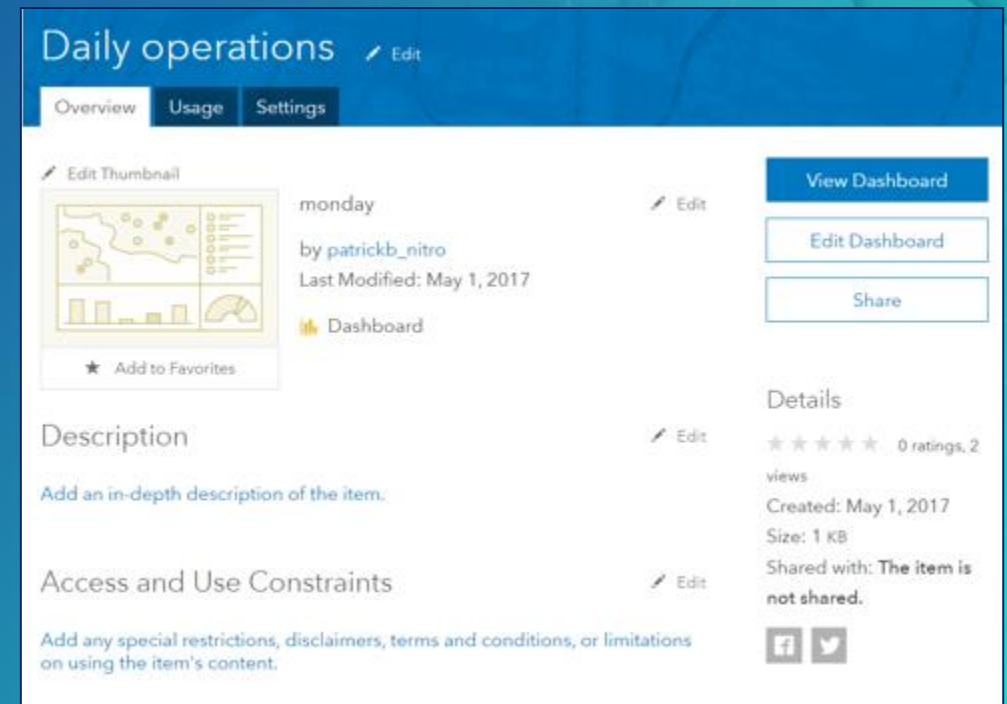
FYI: All content in this section is **NOT final** and may change

- Next generation web-browser based app
- Key enhancements
 - Authoring Dashboards in browser
 - New dashboard item type supports both unattended and interactive displays
 - Many productivity and configuration improvements
 - Modernized filtering and charting capabilities
 - New home page to help manage views
- Schedule release:
 - ArcGIS Online Q3 - 2017
 - ArcGIS Enterprise 10.6



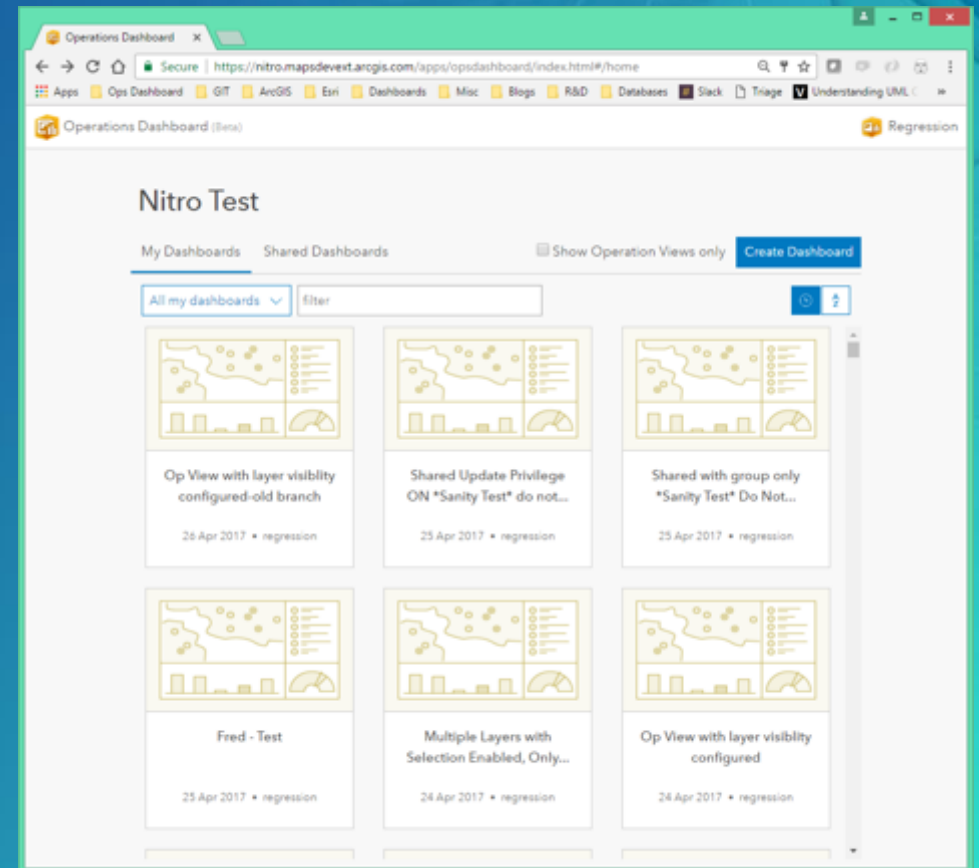
Dashboard – New Item Type

- Facilitates 'at-a-glance' decisions
- Works with new Operations Dashboard app
- Different from Operation View item
- Workflow
 - Web map → Dashboard → Share
- Operation Views are still supported in ArcGIS Platform



Operations Dashboard Home Page

- Entry point for new UE around dashboards
- Part of every ArcGIS Online organization
 - `<AGOL_URL>/apps/opsdashboard`
- Manage and share your dashboards



Hands-On Exercise

- Create an operation view of the precon data
- Use Windows desktop App
 - Open existing web map
 - Configure the operation view

Resources

- **Operations Dashboard for ArcGIS help documentation**
 - <http://doc.arcgis.com/en/operations-dashboard/>
- **Operations Dashboard for ArcGIS: Monitor Your Operations video**
- **Live training seminars**
 - Monitoring Data Using Operations Dashboard for ArcGIS
 - Power Decision Making with Operations Dashboard for ArcGIS
- **GeoNet space**
 - <https://geonet.esri.com/community/gis/applications/operations-dashboard-for-arcgis>