

Optimizing Field Operations with ArcGIS

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Agenda

- Notes from the field
- ArcGIS apps
 - Concepts
 - Demonstrations
- Q&A



Who are we?



Ismael Chivite



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Agenda

- **Notes from the field**
- **ArcGIS apps**
 - Concepts
 - Demonstrations
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The Taste of Clarkston, Michigan

4000+ visitors to the “Taste” festival

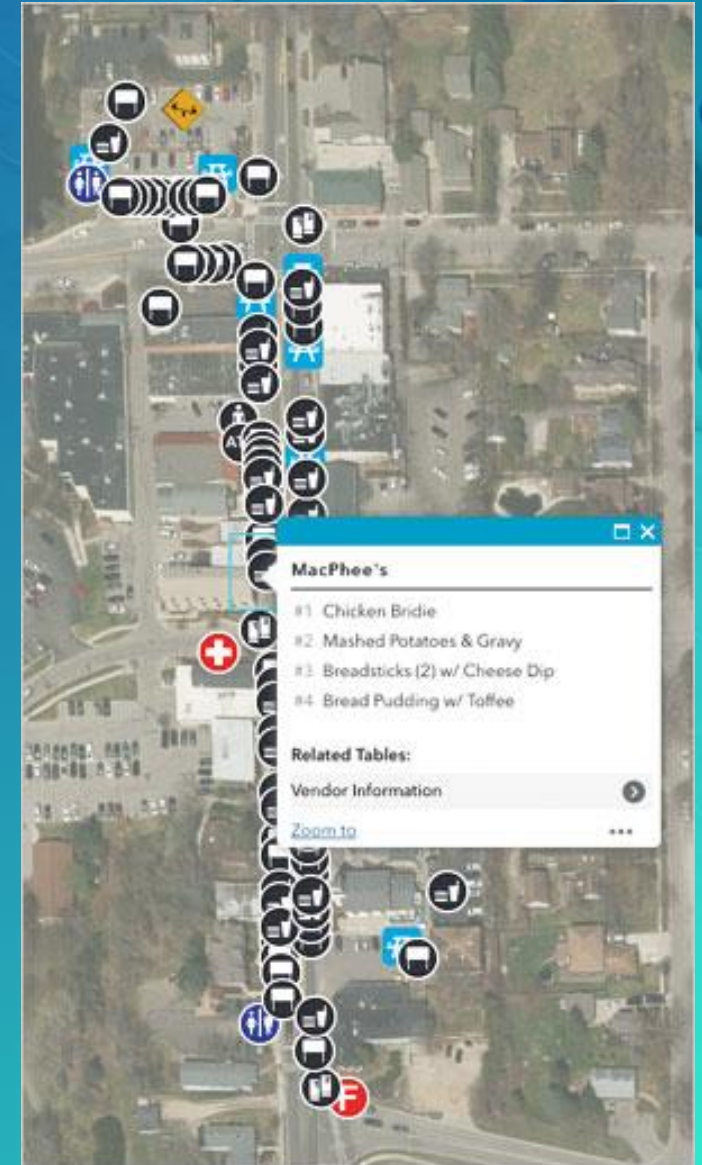
Logistics, Road Closures, Safety

Coordinate with few resources



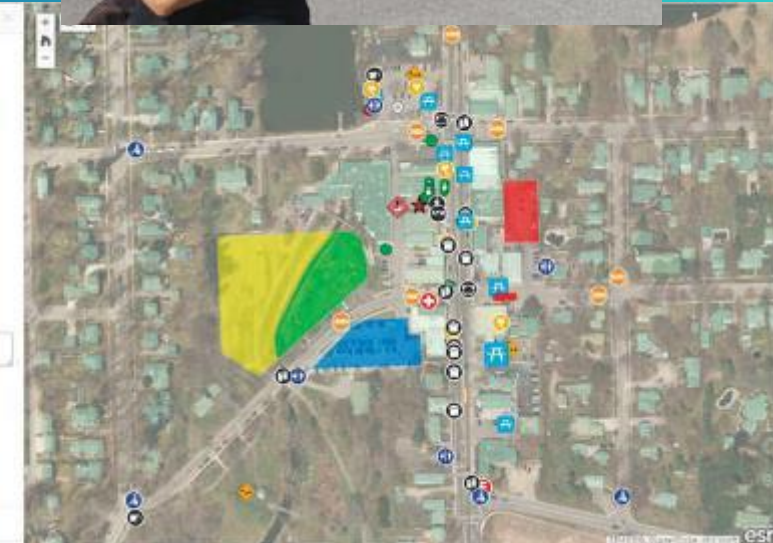
Before the event...

- **Planned location of stands using a Web Mapping Application**
- **Setup road closures, services and safety features accordingly**
- **Resulting map becomes the live foundation for the rest of the event coordination efforts**



During the event...

- Mobile phones used to locate incidents tasks and events.
- All parties working on top of a single information model
- Real-Time awareness and informed decision making

A screenshot of a web application interface titled "Create Assignments". The form includes several input fields and dropdown menus: "Assignment Type" with a dropdown arrow, "Location" with a search prompt "Search for an address or click on the map to add a new location", "Assigned to" with a dropdown arrow, "Priority" with a dropdown menu, "Due Date" with a date picker, and "Time" with a time picker. There is also a "Description" text area and an "Attachments" section with a note "Add an attachment using drag and drop or by selecting a file". At the bottom, there are "Create Assignments" and "Cancel" buttons.

The Taste of Clarkston, Michigan

Esri's Disaster Response Program

ArcGIS for Local Government Solution



Web AppBuilder
for ArcGIS



Workforce
for ArcGIS



Collector
for ArcGIS

Pima County, Arizona

Building and Site Development Division

6 inspectors serving over 1M people

Saving \$197,000 per year



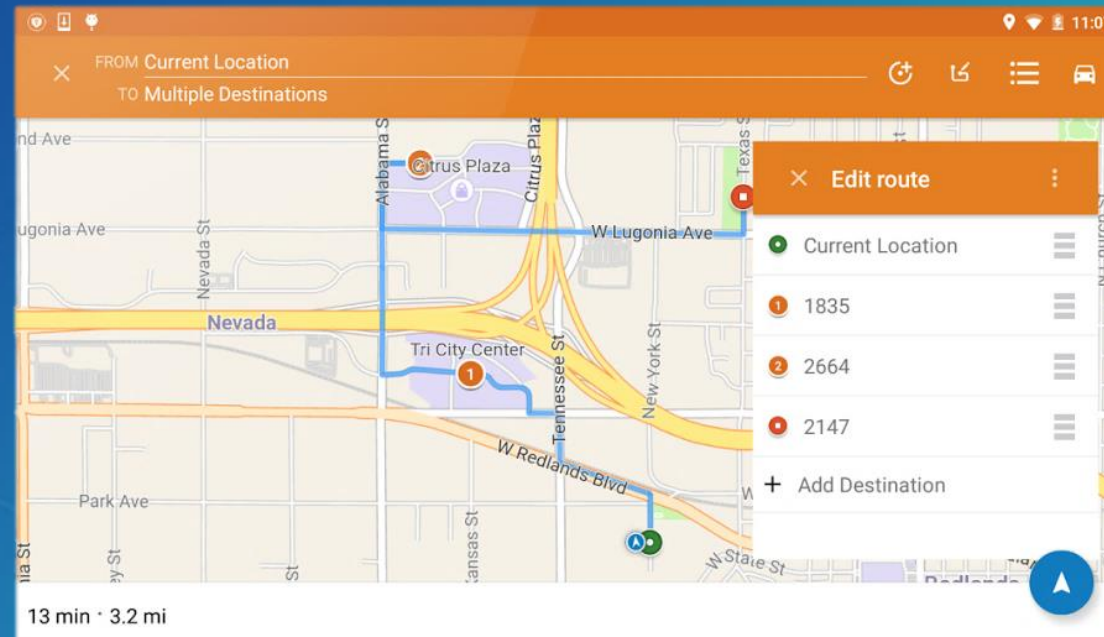
Before going into the field...

- Prepare map with County's addresses and network
- Plan schedule for the day using ArcGIS Desktop and Network Analyst
- Assign building inspections to field crews
- Communicate expected time of arrival to customers



While in the field...

- Turn by turn directions with Navigator for ArcGIS



Pima County, Arizona

Better customer service

Improved worker safety

Saving \$197,000 per year



Navigator
for ArcGIS

ArcGIS Desktop

Network Analyst

ArcGIS Online

<https://www.esri.com/library/fliers/pdfs/the-route-to-more-efficient-inspections.pdf>

San Francisco Public Utilities Commission

Routine Asset Inspections

1000-mile long network plus 7 pump stations

Integrating ArcGIS with IBM-Maximo and Sharepoint



Before going into the field...

- **Craft smart forms for asset inspections**
 - Input Data validation rules
 - Branching logic and smart defaults
 - Iterative form design with field inspectors
- **Schedule inspections through work order management system**

While in the field...

- **Inspection apps run on any device**
- **Easy to use, reliable**
- **Works even if disconnected**
- **Data immediately available in the back office for analysis**



“Now, thanks to this new app, we can access anything instantly through SharePoint in our organization, and that’s been a huge time-saver.”

Lewis Harrison, SFPUC’s Wastewater Enterprise Collection System Division

San Francisco Public Utilities Commission

Moved away from paper-based workflows

Inspection times reduced from 30 to 5 minutes

Saving tens of thousands of dollars a year



Survey123
for ArcGIS



California Governor's Office of Emergency Services

Emergency Response

Earthquakes, Flooding, Wildfires

Coordinate multiple agencies



Operations
Dashboard
for ArcGIS

<http://bit.ly/CalOES2017>



City of Rancho Cucamonga

Puente Institute

SSP Innovations

Wood Rogers, Inc

California DOT

BAK

Direct Relief

World Health Organization

Las Vegas Water District

California DOT

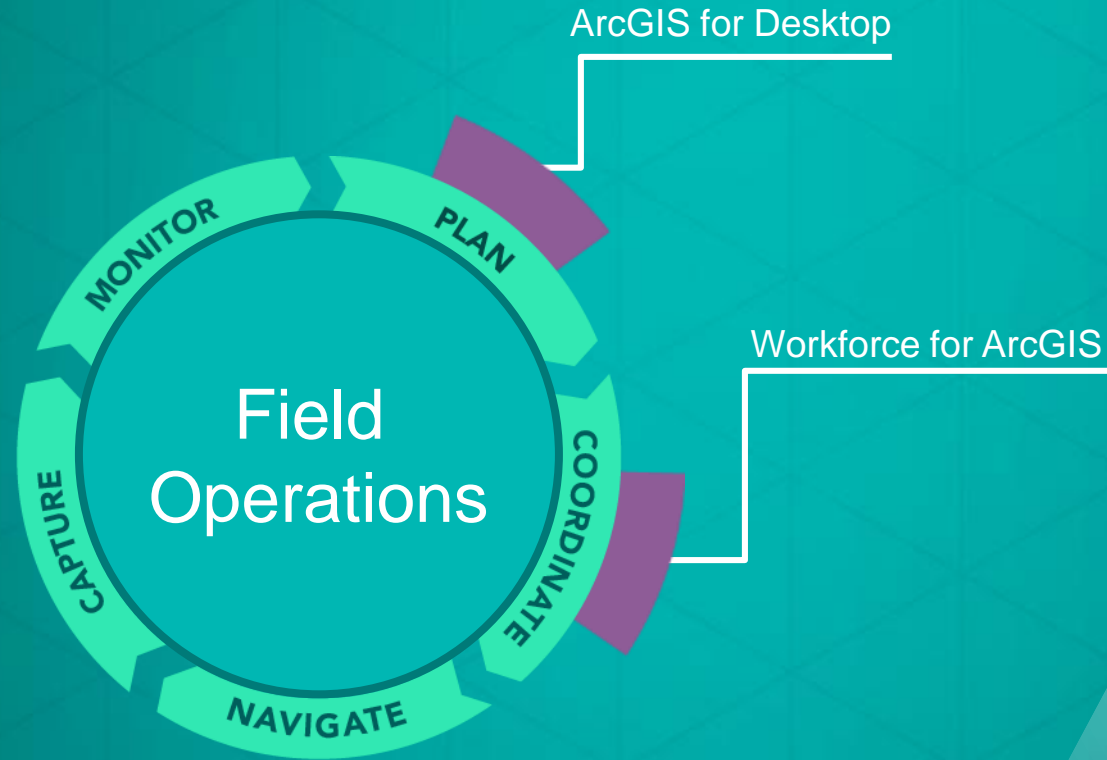
Frontier Precision

Ducks Unlimited

Abu Dhabi Systems & Information Centre



Workforce for ArcGIS



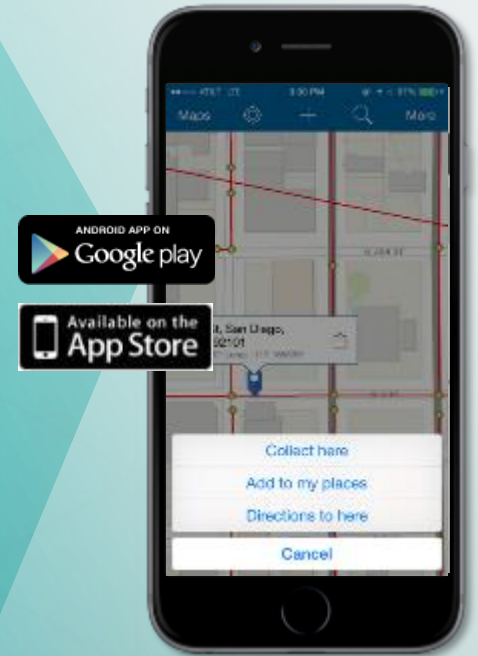
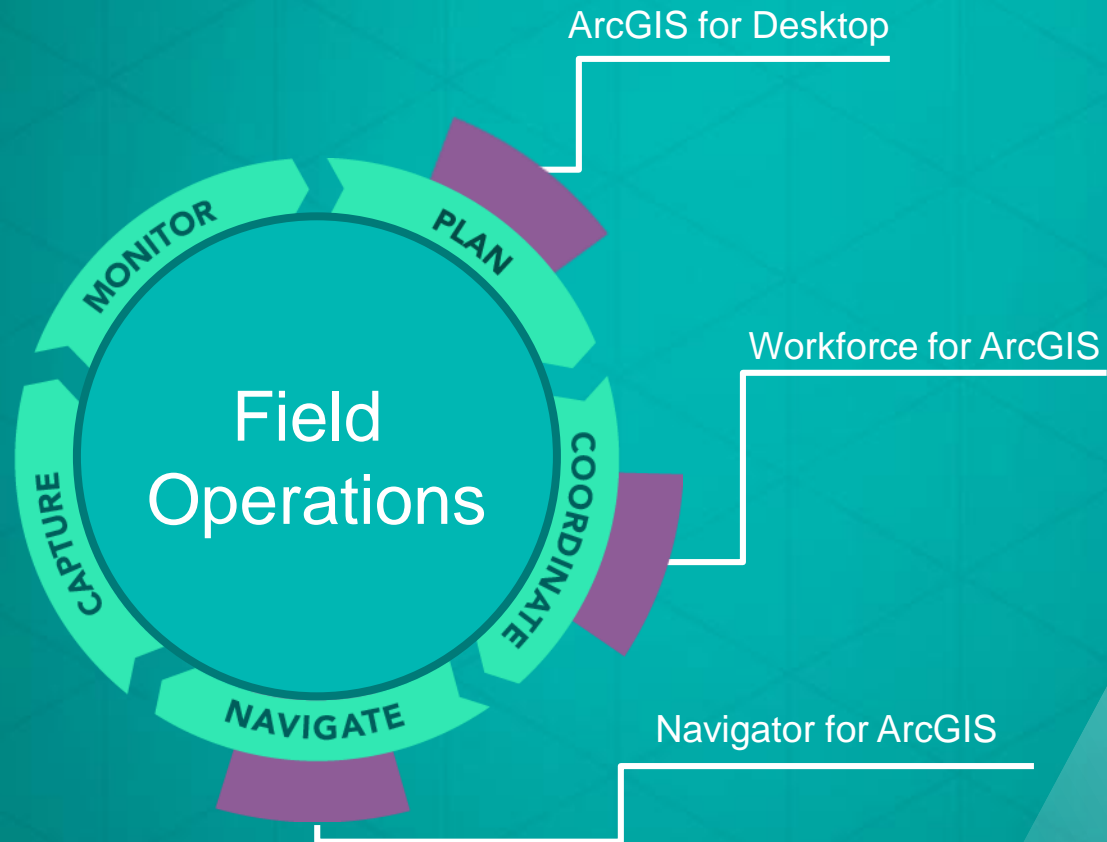
Dispatcher
Assigns Work



Field Workers
Receive Assignments

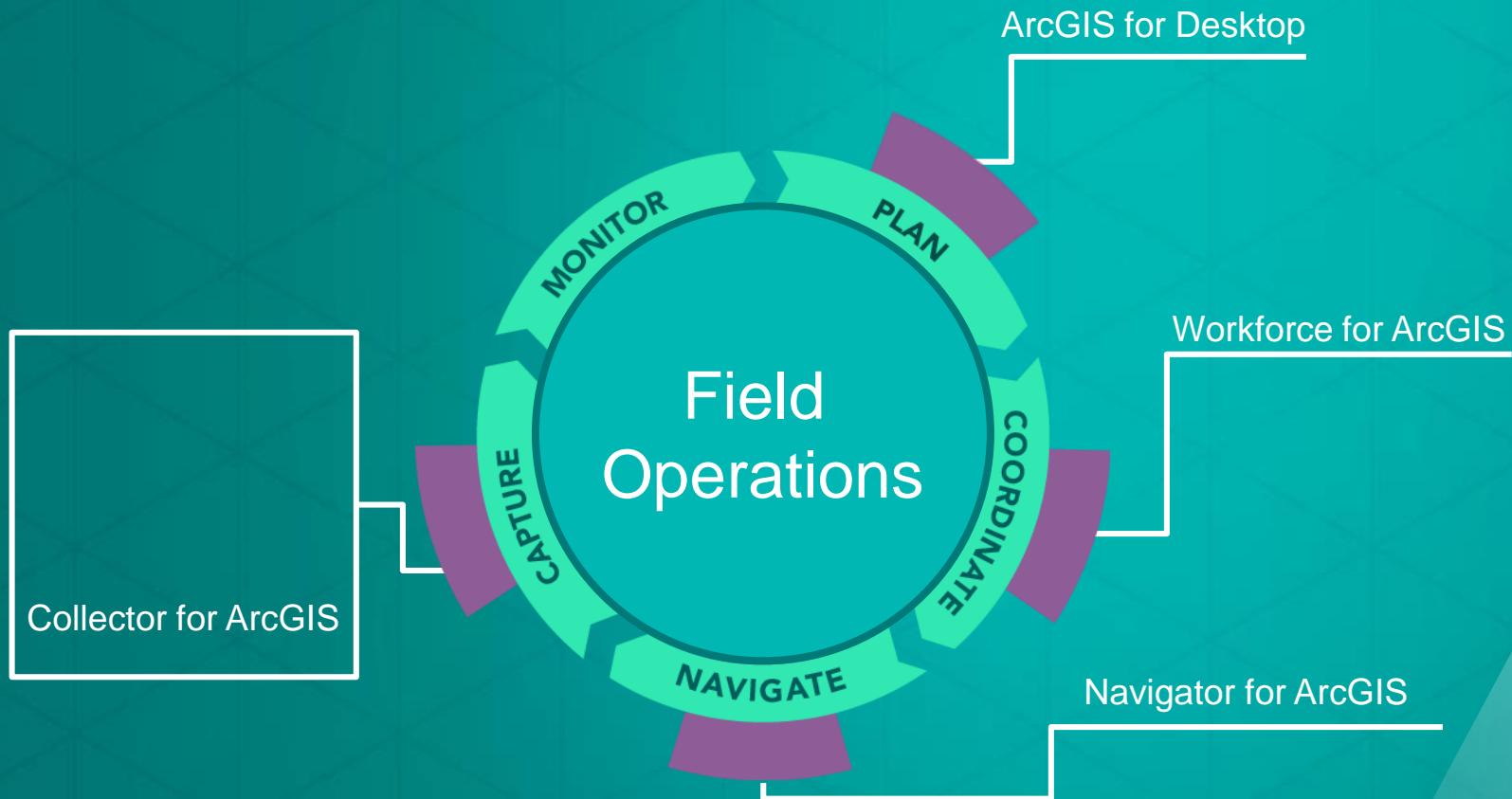
Track location of field crews
Coordinate field work

Navigator for ArcGIS



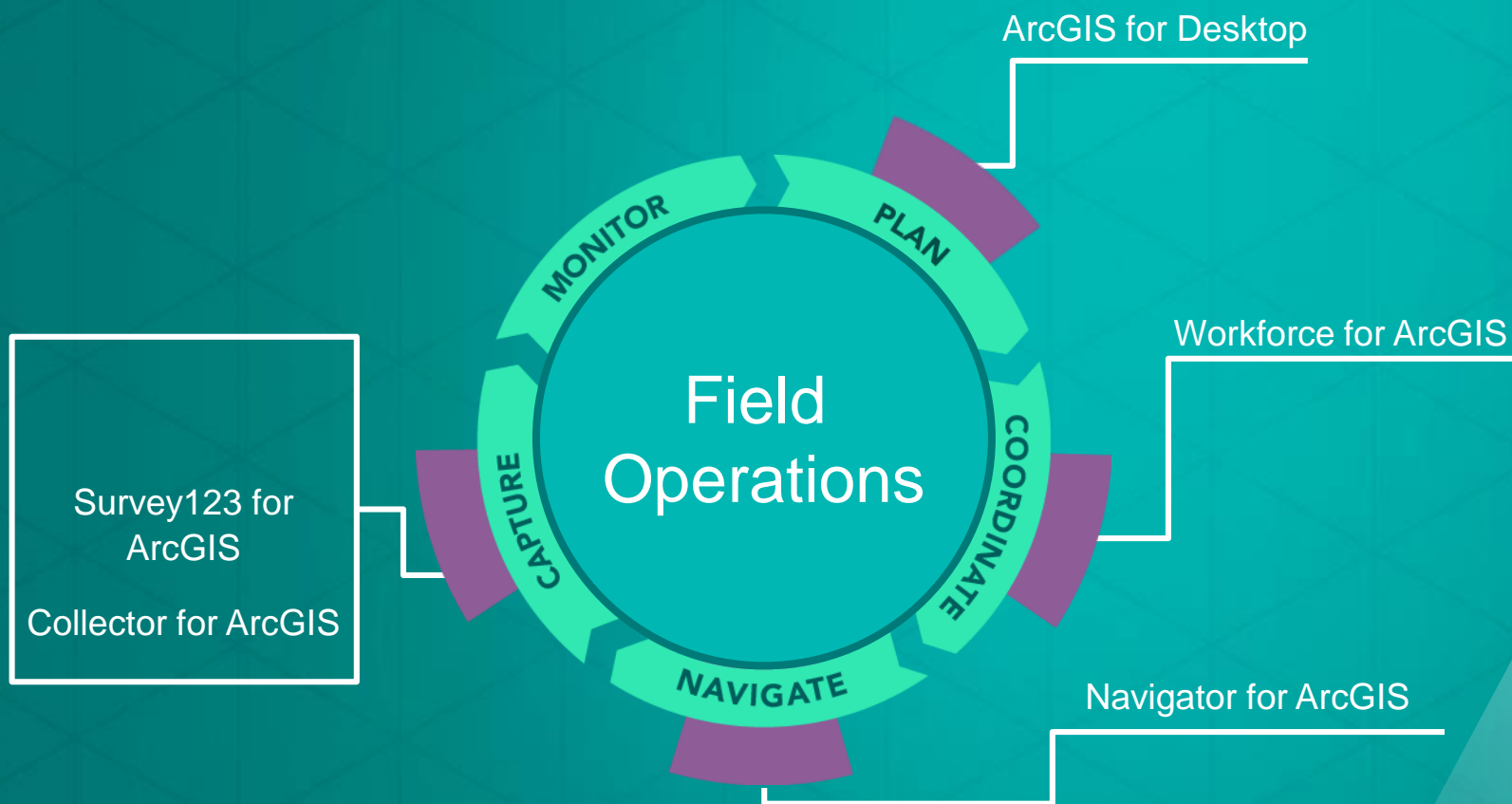
Driving directions
Your Own Maps

Collector for ArcGIS



Map Centric Data Collection
High Accuracy GPS

Survey123 for ArcGIS

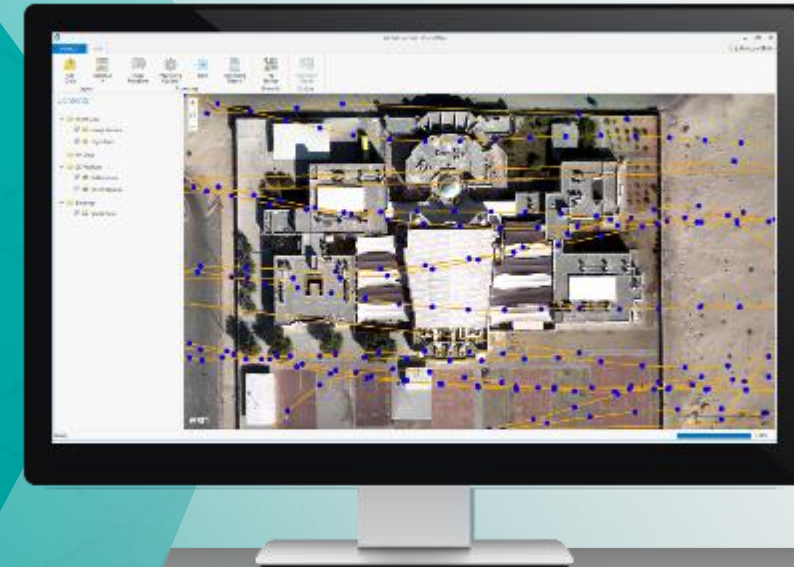
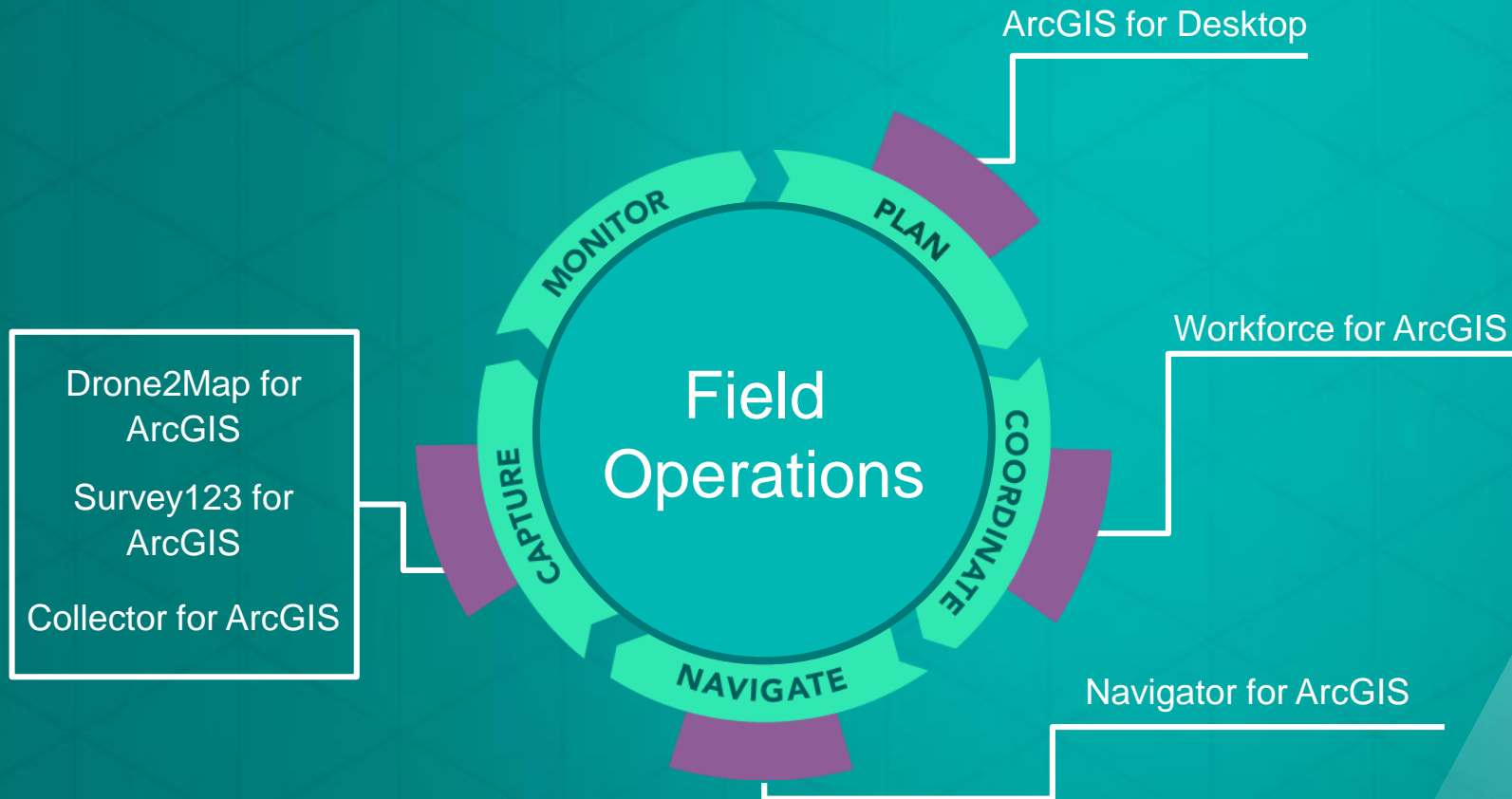


Smart Forms

Desktop, Web, Phone/Tablet

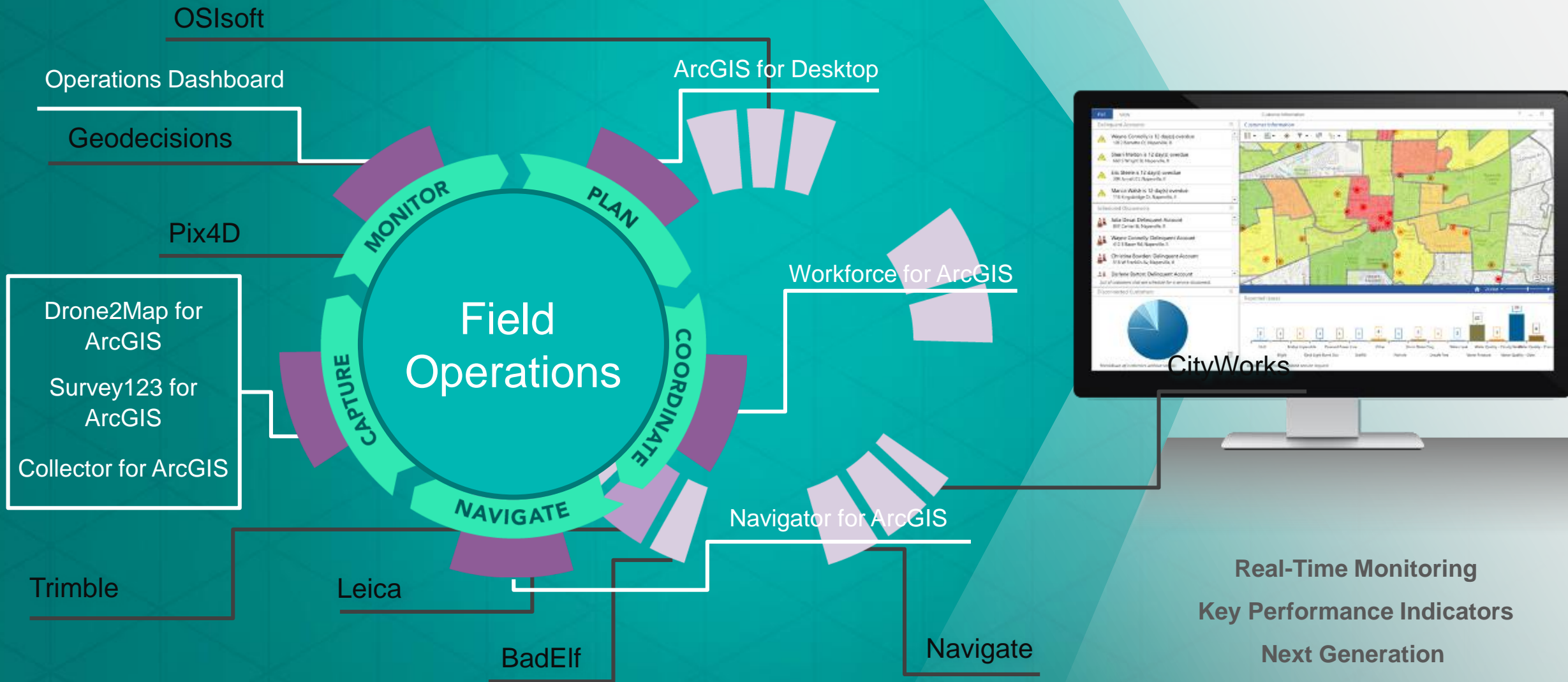
Source Code Available

Drone2Map for ArcGIS



Bring Drone Imagery easily into ArcGIS
2D Imagery, Point Clouds,
3D Meshes

Operations Dashboard



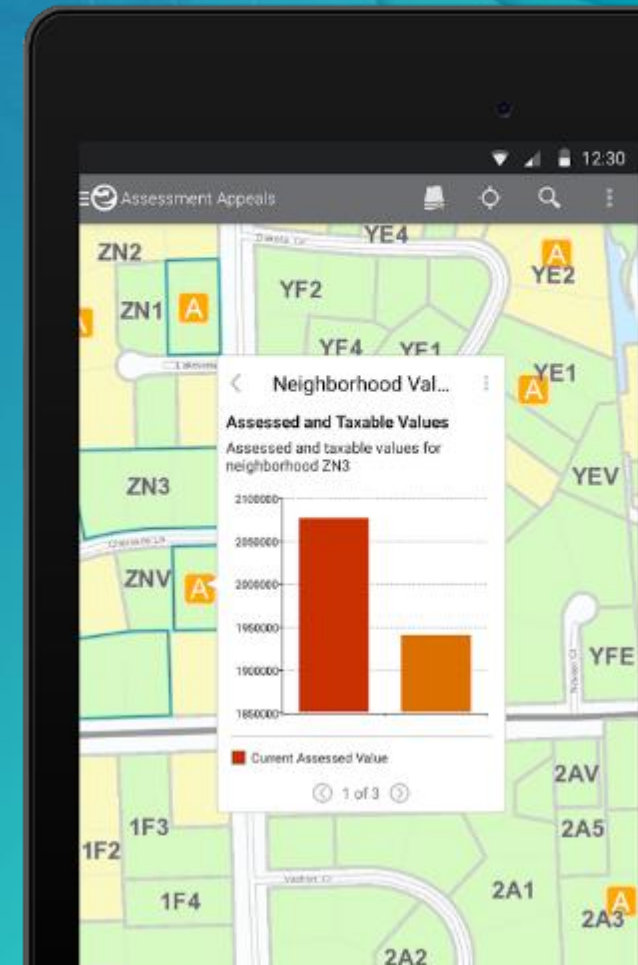


Explorer for ArcGIS

Free map viewer for smartphones and tablets

Maps on the go: for the Enterprise and Public

Works online and offline



Q & A

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