

ArcGIS for Emergency Management- Configuring the Solutions

Jess Neuner

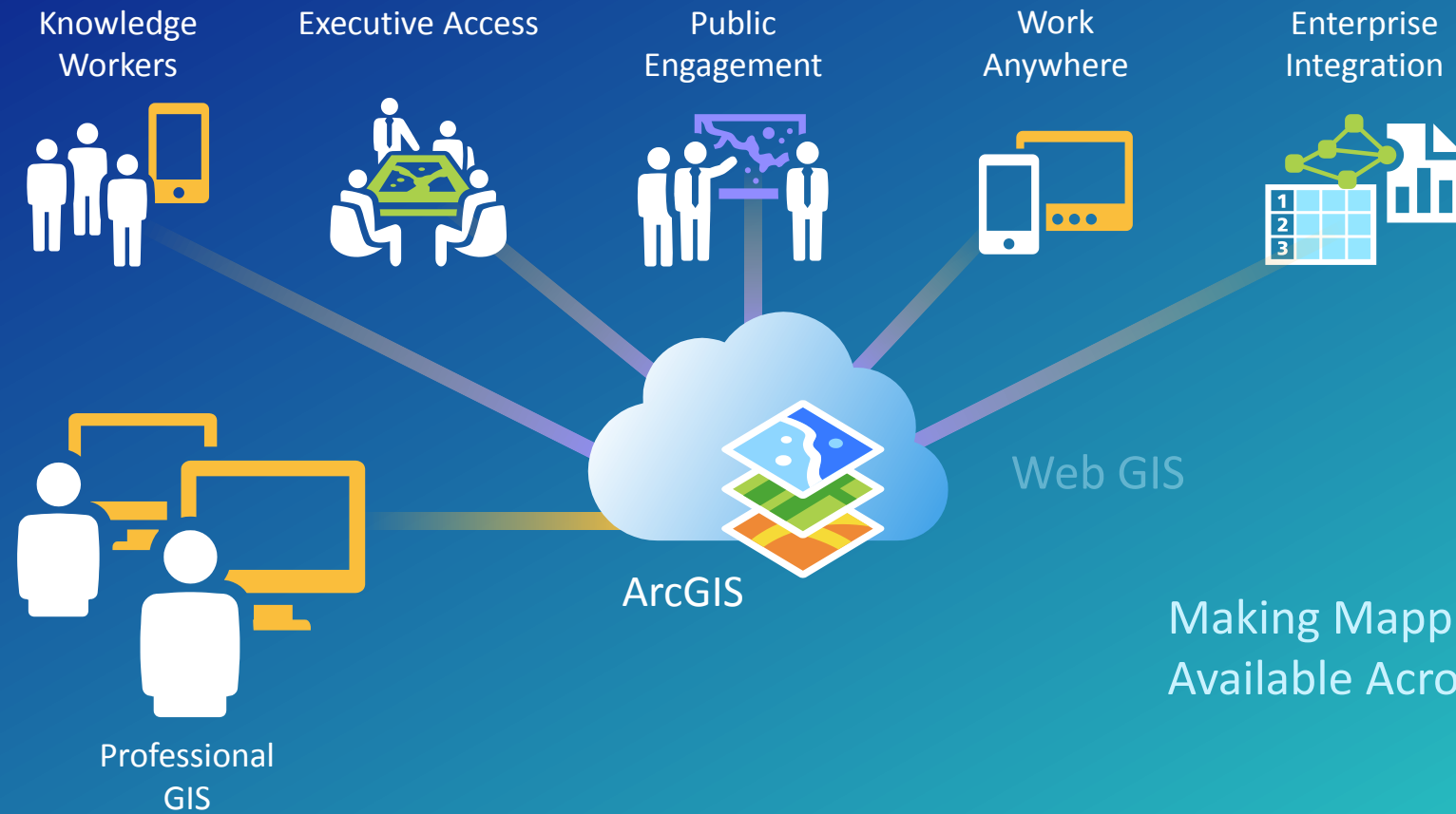
Nikki Golding

Agenda

- Introduction
- Solution Offering
- What's Next
- Your Feedback

ArcGIS as a Platform

Simple, Open, and Configurable



Transforming the Role of GIS

EXTENDING THE PLATFORM WITH SOLUTIONS

Ready to use workflows and apps that make implementation easier and sustainable.



ArcGIS for Emergency Management

ALIGNING OUR DEVELOPMENT TO SUPPORT EMERGENCY MANAGEMENT

Providing solutions that address the needs of the four phases

Mitigation

- Hazard Analysis
- Vulnerability Assessment
- Infrastructure Work
- Public Education

Recovery

- Economic Recovery
- Debris Management
- Housing
- Health and Social Services



Preparedness

- Emergency Response
- Planning
- Training and Exercises
- Partnership Building

Response

- Life Safety
- Incident Stabilization
- Evacuations and Shelters
- Mass Care

Our Mission ▶ **To help you...**



Emergency Management – June 2017

Mitigation

Hazard Assessment and Analysis
Hazard Vulnerability Analysis
Mitigation Dashboard
Mitigation Plan Status

Resilience

Community Resilience
Resilience Outreach
Resilience Dashboard

Preparedness

Flood Planning
Community Events
CAMEO Tools
Emergency Assistance
Evacuation Zones
My Hazard Information
Floodplain Inquiry
Community Parcels
Community Addresses

Response

Emergency Management Maps
Impact Summary Map
Public Information Map
Road Closures
Incident Briefing
Citizen Reports
Health & Safety Reports
Debris Reporting
Common Operational Picture
Situation Awareness Viewer
Operations Response
Logistics Planning
Incident Status Dashboard
Citizen Service Request
Photo Survey
Shelter Locator

Recovery

Damage Assessment
Photo Survey
Health and Safety Reports
Debris Reporting

Entire Organization

ArcGIS Online for Emergency Management
Community Parcels
Community Addresses
Crowdsource Manager
Crowdsource Reporter
Map and App Gallery

Emergency Management – June 2017

Mitigation

- Hazard Assessment and Analysis
- Hazard Vulnerability Analysis
- Mitigation Dashboard
- Mitigation Plan Status

Resilience

- Community Resilience
- Resilience Outreach
- Resilience Dashboard

Preparedness

- Flood Planning
- Community Events
- CAMEO Tools
- Emergency Assistance
- Evacuation Zones
- My Hazard Information
- Floodplain Inquiry
- Community Parcels
- Community Addresses

Response

- Emergency Management Maps
- Impact Summary Map
- Public Information Map
- Road Closures
- Incident Briefing
- Citizen Reports
- Health & Safety Reports
- Debris Reporting
- Common Operational Picture
- Situation Awareness Viewer
- Operations Response
- Logistics Planning
- Incident Status Dashboard
- Citizen Service Request
- Photo Survey
- Shelter Locator

Recovery

- Damage Assessment
- Photo Survey
- Health and Safety Reports
- Debris Reporting

Entire Organization

- ArcGIS Online for Emergency Management
- Community Parcels
- Community Addresses
- Crowdsource Manager
- Crowdsource Reporter
- Map and App Gallery

● What's New/Updated

How do you get started?

1. Organize your geographic content
2. Enable access via ArcGIS Online (ArcGIS Server or Hosted Services)
3. Create Focused Maps
4. Deploy Focused Apps



Who are your stakeholders?

How can we enable them to use GIS to do their job?

GIS Professional

Branch Chiefs

Director

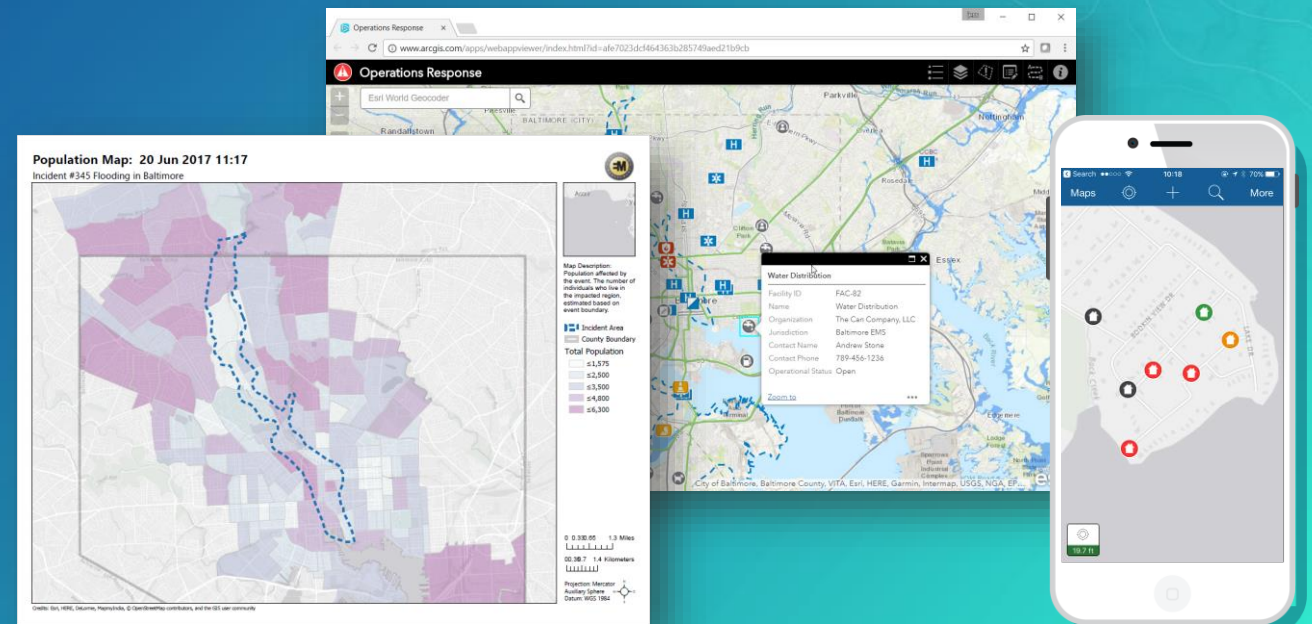
Citizens



Emergency Management Maps

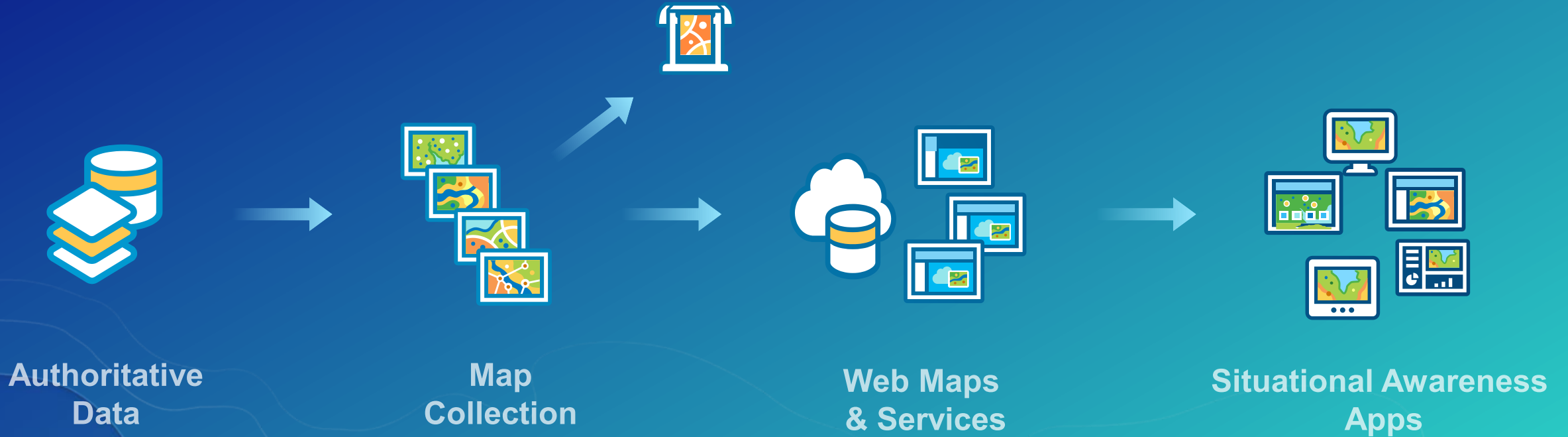
A foundation for Emergency Management Solutions

- Enables GIS support staff to:
 - Respond to an incident quickly with map products
 - Simplify the implementation of data and maps
 - Support decision makers with dynamic and actionable information
 - Share incident information via web based and hard copy products
 - Work online and offline



Emergency Management Maps

A foundation for Emergency Management Solutions



... sync workflows targeted for Pro 2.1

Emergency Management Maps

Solution components

Maps

Layers

Symbology

Layouts

Standardized products

Consistent format

Sharing Workflows

web based, digital, and hardcopy information products

Emergency Management Maps

A foundation for EM solutions

Texas EGRT
Eagle Technologies

Project

Map

Insert

Analysis

View

Edit

Imagery

Share

Cut

Copy

Paste

Clipboard

Explore

Bookmarks

Basemap

Add Data

Add Preset

Select

Select By Attributes

Select By Location

Attributes

Clear

Infographics

Measure

Locate

Pause

View Unplaced

Convert To Annotation

More

Labeling

Contents

Search

Drawing Order

1 - Situation Map

☒ World Light Gray Reference

☐ Assistance Requests

☐ Infrastructure

☐ Road Closures

☒ Incident Location

☒ Demographics

2015 Total Population

☐ ≤1600

☐ ≤2500

☐ ≤3500

☐ ≤4800

☐ ≤6500

☒ County Boundaries

☒ World Light Gray Canvas Base

1 - Situation Map

Layer Publishing

es Brooklandville Lake TOWSON

es Summit Park Bare Hills

es Mt Washington Pimlico Evergreen

es Forest Park Woodlawn Guilford Waverly

es Windsor Hills Mt Royal

es Rognel Heights Baltimore

es South Baltimore

1:144,674

76.5502064°W 39.37

Tasks

Emergency Management Ma

1. Using your data

☐ Delete sample data

☐ Append your data

☐ Use existing geodatabase

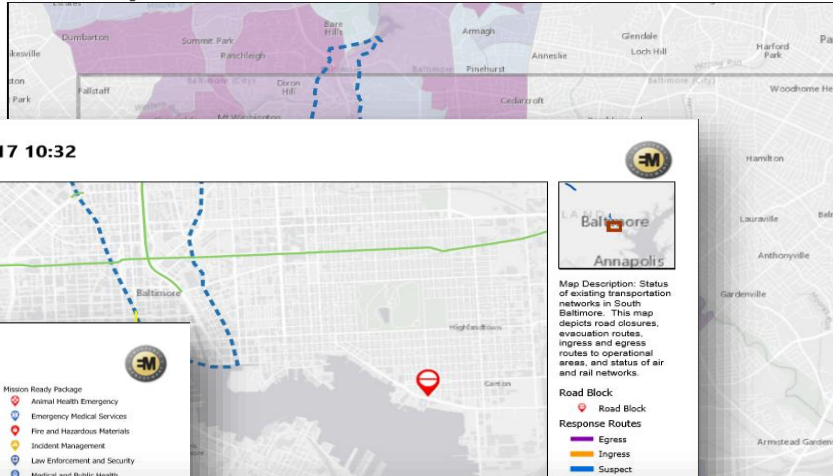
☐ Use existing web layers

☐ Using Esri Demographic d

2. Share with your Organization

Impact Analysis Map 2 Jun 2017 10:15

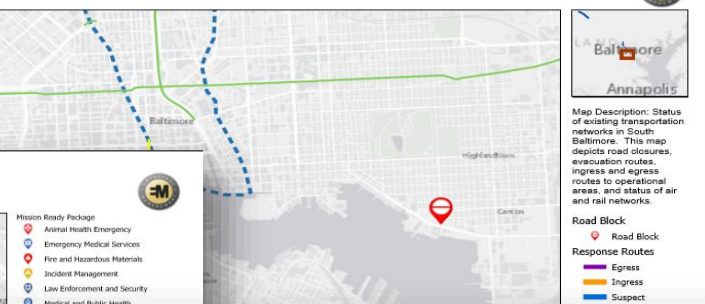
Baltimore Flooding



Counties	Baltimore City
Est. Population	91,798
Bridges	10
Hospitals	2
Road Closures	3
Schools	5

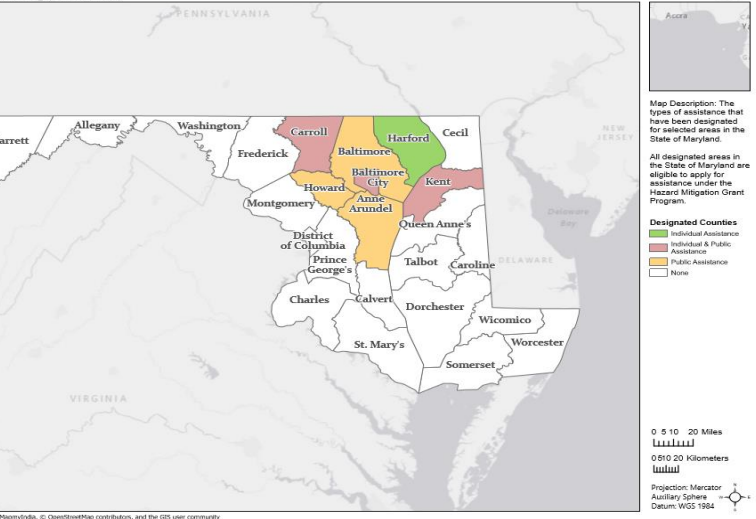
Transportation Map: 2 Jun 2017 10:32

Incident #345 Flooding in Baltimore



Declaration Map: 2 Jun 2017 10:32

Incident #345 Flooding in Baltimore



Getting started with EM Maps

esriurl.com/EMgtMaps

1. Download the template
2. Populate with your data
 - Operational data
 - Reference data
 - Esri Data and Maps, Living Atlas, other live feeds
3. Share layers and maps via ...
 - ArcGIS Online organization
 - Printed maps
 - Digital map books
 - ArcGIS Open Data site

... sync workflows targeted for Pro 2.1

Demo



Situational Awareness Solutions

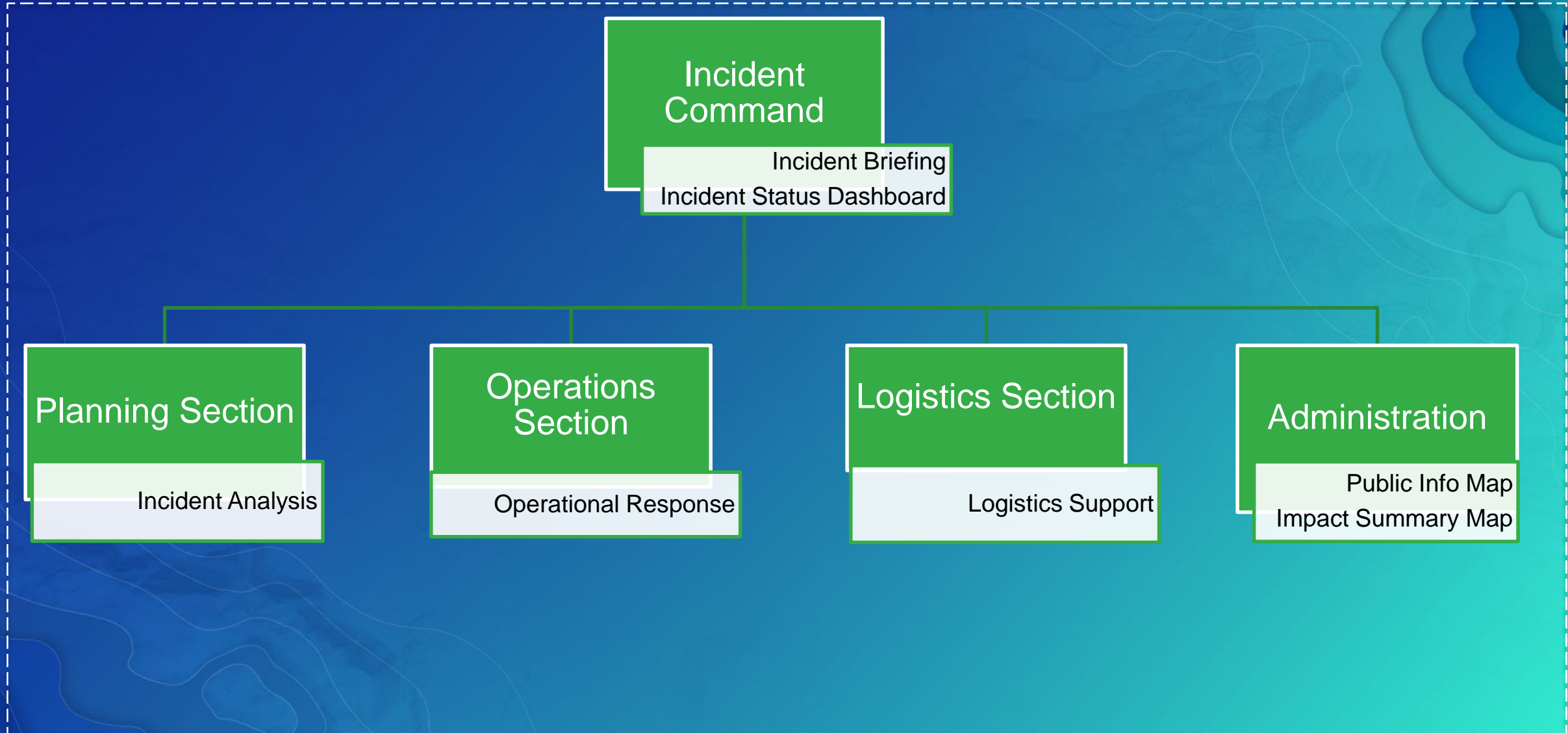
Suite of applications to support preparation and response to emergency situations

- **Allows Emergency Managers to:**
 - Identify threats or current hazards
 - Define the impact to people and places
 - Plan, execute and monitor response activities
 - Communicate essential information to public
- **Allows GIS support staff to:**
 - Leverage configurable applications to rapidly deploy decision support tools
 - Simplify the implementation of data and maps
 - Support decision makers with dynamic and actionable information
 - Remove information ambiguity using a structured framework for Emergency Management
 - Promote effective communication between agencies through intuitive maps

Situation Awareness

Suite of applications to support the Incident Command System

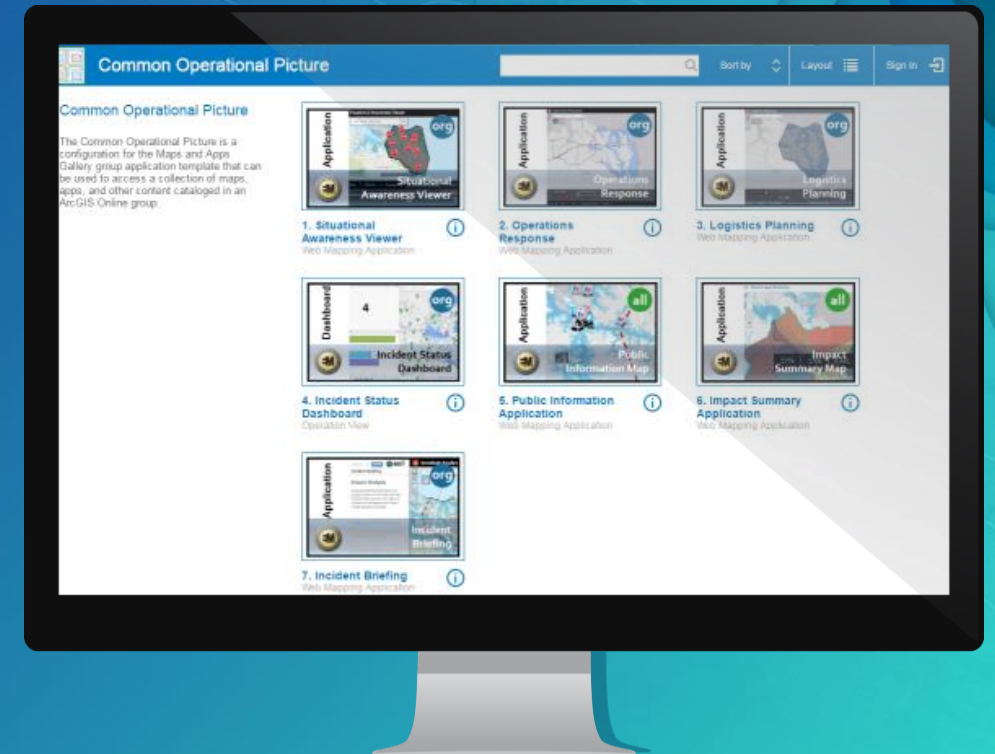
Common Operational Picture



Getting Started with Situational Awareness

esriurl.com/SitAware

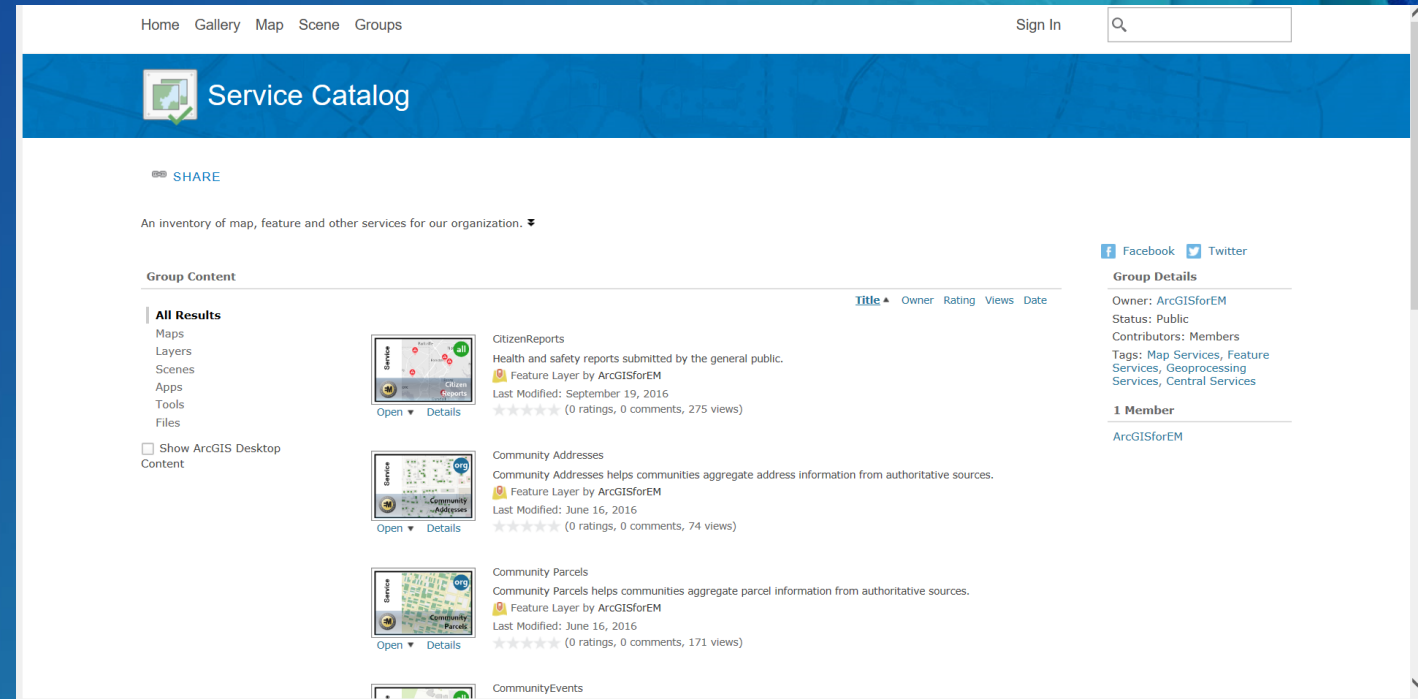
1. Organize your geographic content
2. Configure focused maps
3. Deploy Applications
4. Deliver Mission Focused Apps



1. Organize your Geographic Content

- Identify data sources
 - Incident Data
 - Authoritative Content
 - Local Jurisdictions
 - Reference Data
 - ArcGIS Online
 - HIFLD Open Data
 - Feeds (weather, traffic, etc)

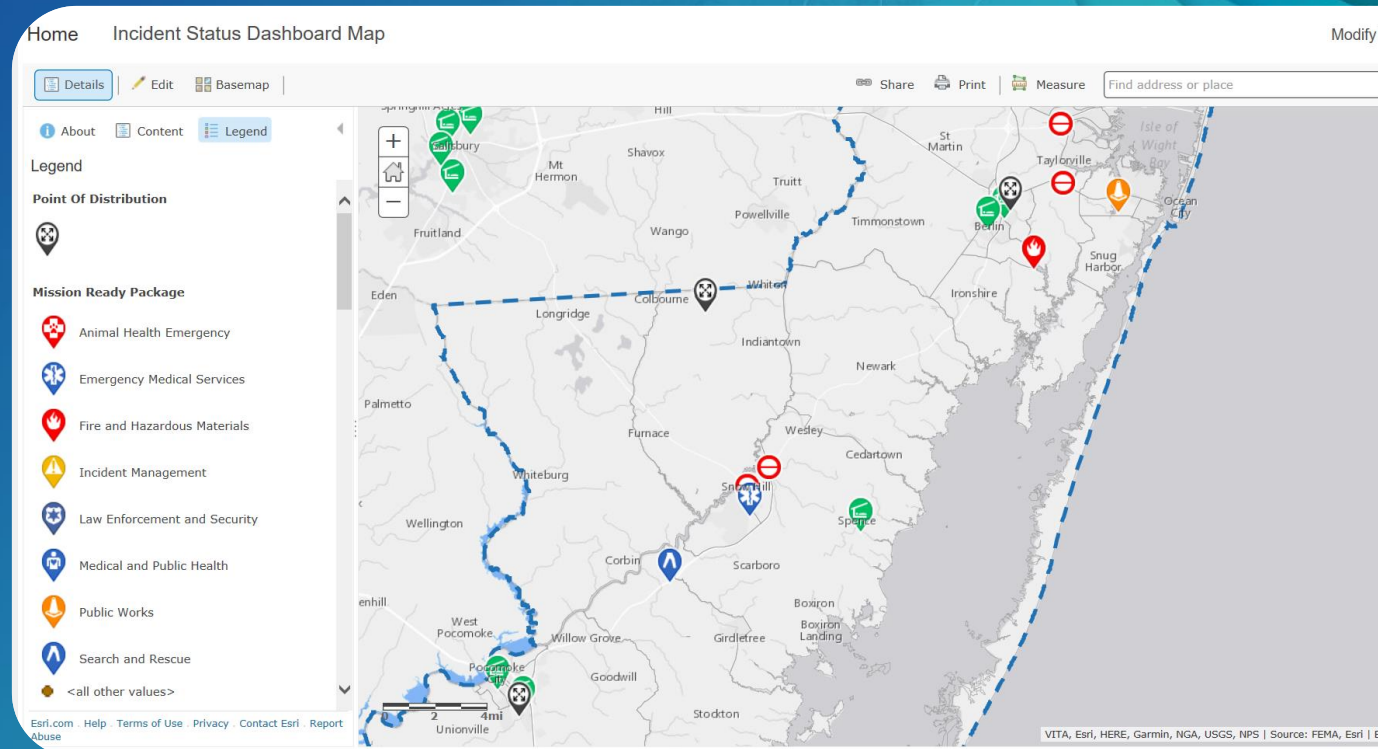
- Determine ArcGIS deployment pattern

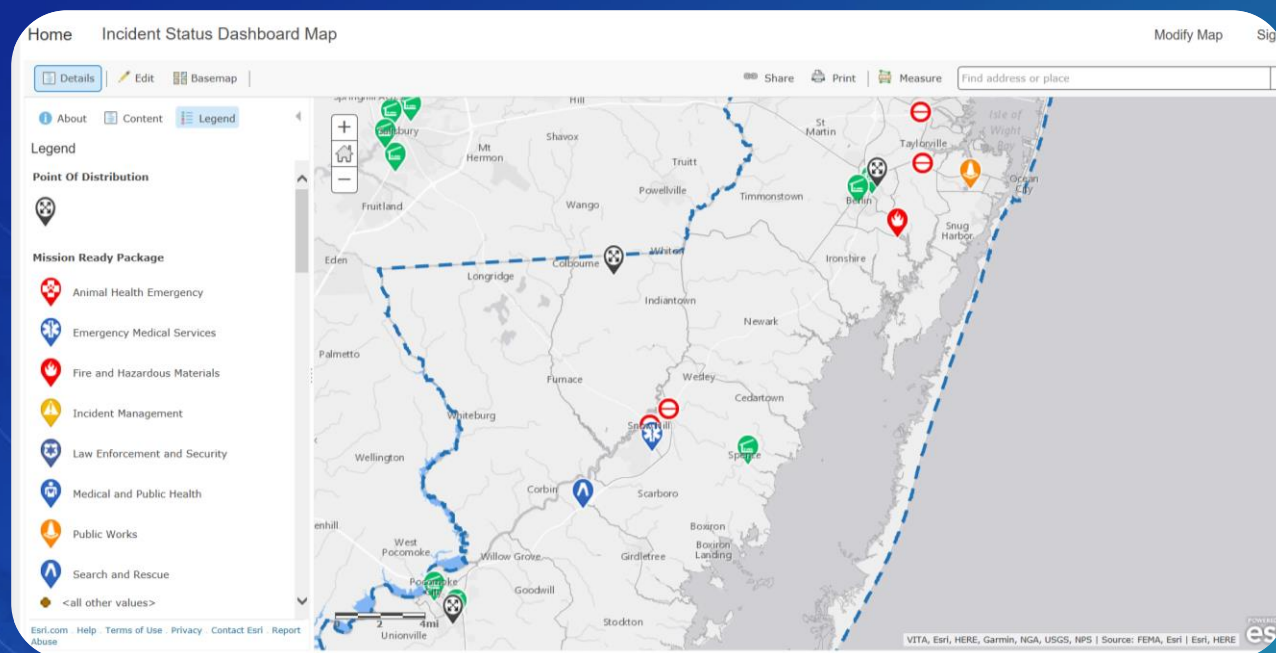


2. Configure focused maps

Consider who is consuming the map.

- Create information products for specific purposes
- Design purposeful pop ups
 - Visibility
 - Editable
 - Defines user experience in apps
- Layer symbols and visibility range





Information Products

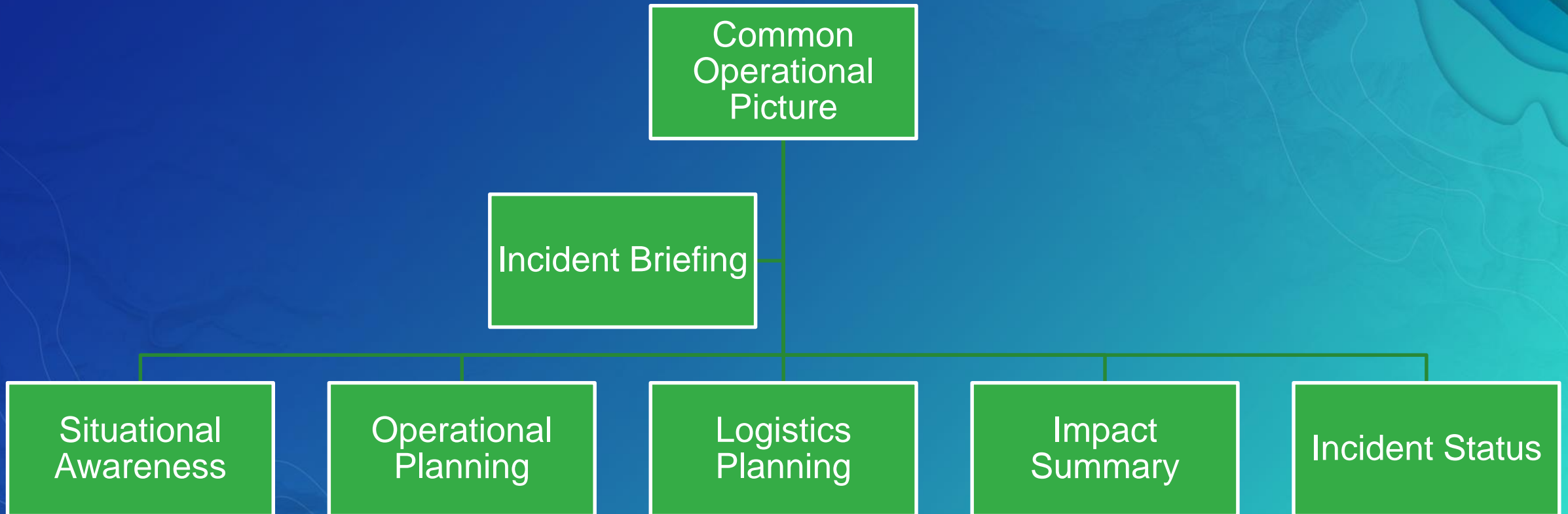
Organize your Geographic Content

....that powers focused maps

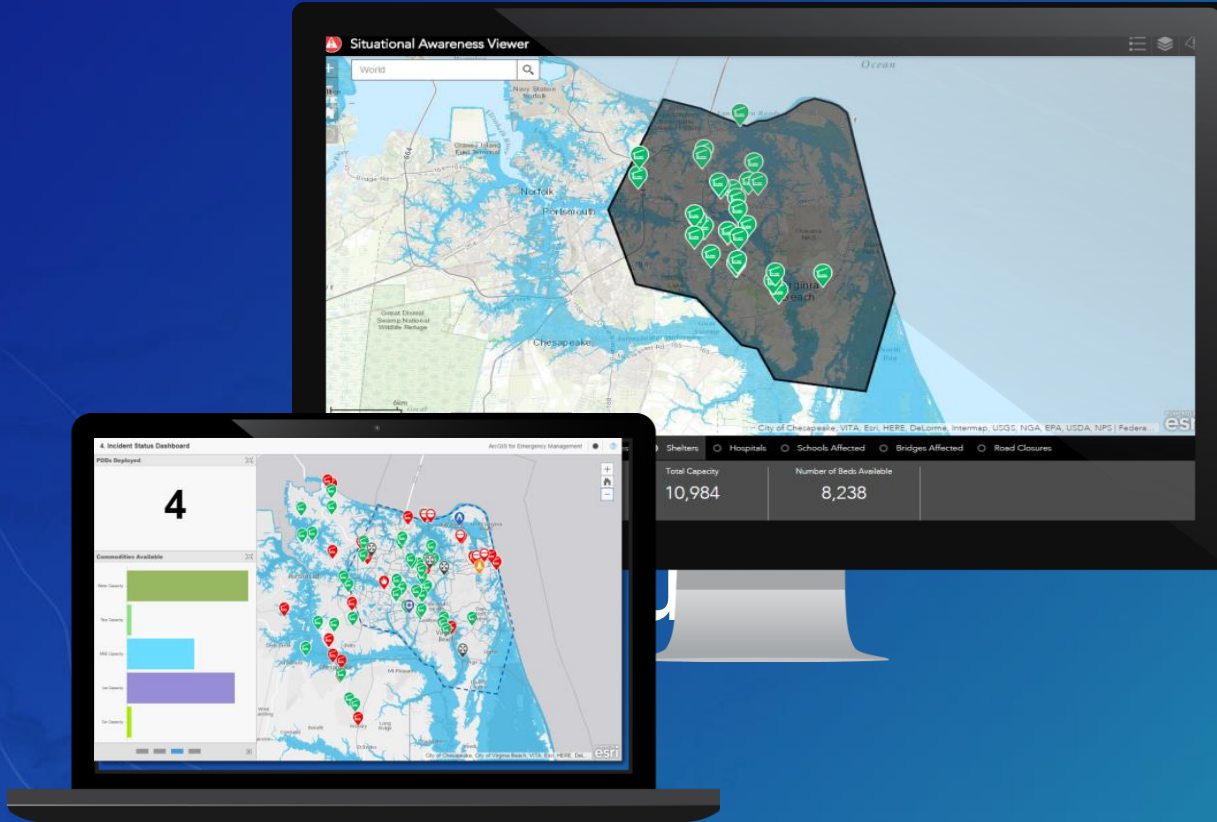
1. **Pick a deployment pattern**
2. **Publish your own services**
3. **Utilize the service catalog**
4. **Load/Append Data**
5. **Design and create information products**
6. **Share collateral with Groups**

Deploy Applications

Address the needs of various stakeholders

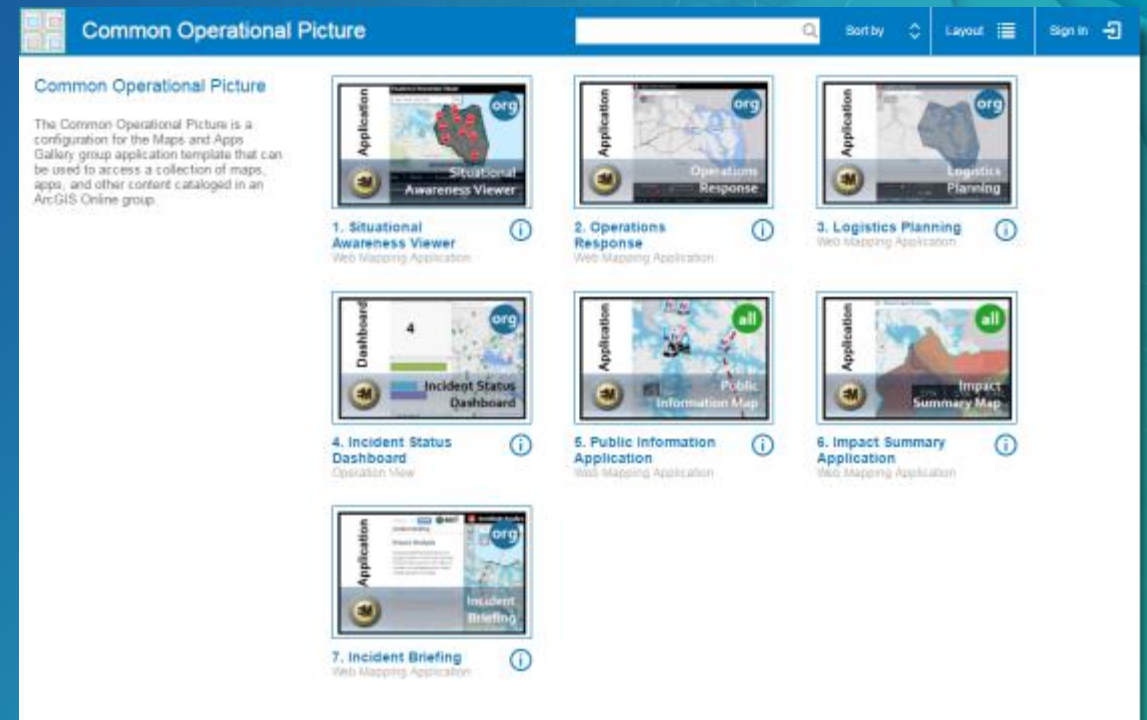


Configuring Apps



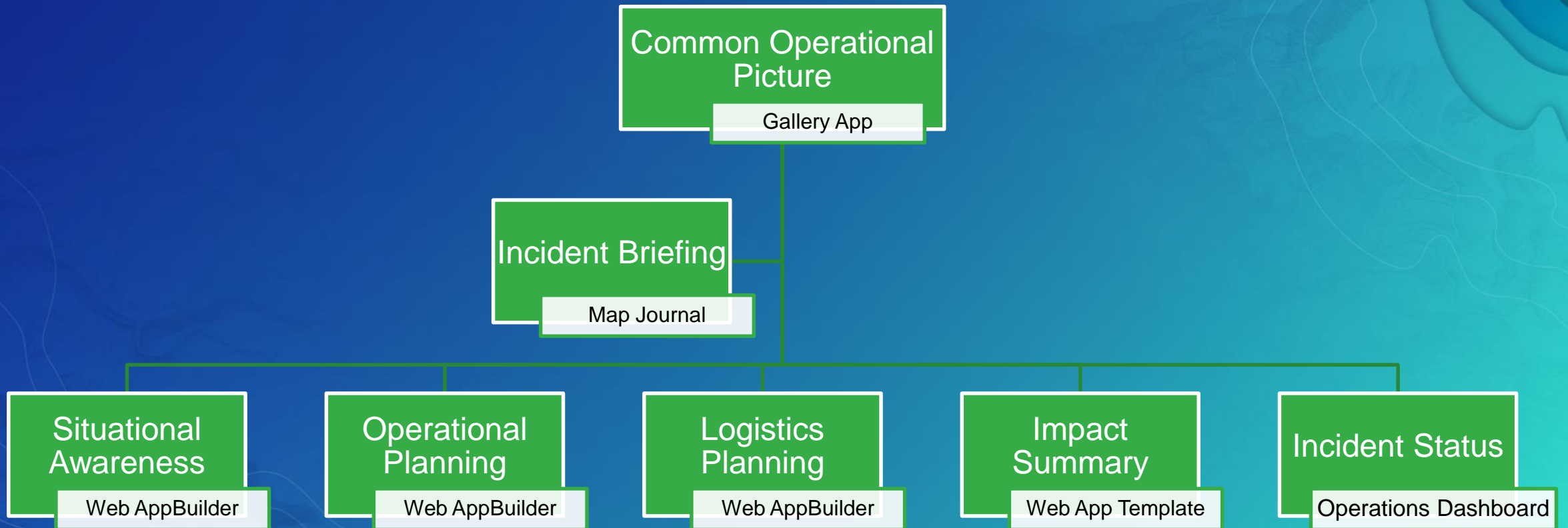
4. Deliver Mission Focused Applications

- Share maps and apps with groups
- Share group content in a Gallery App
- **Gallery App becomes the landing page**
 - Demonstration



Situational Awareness Solutions

A technology view



Repeatable Process

Web Apps

Situational
Awareness
Viewer

Operations
Response

Incident Status
Dashboard

Incident Briefing
Journal

...

Web Maps

Situational
Awareness

Operations
Response

Incident Status

...

Service Catalog

Shelters

Response
Teams

Incident
Area

Weather
Feed

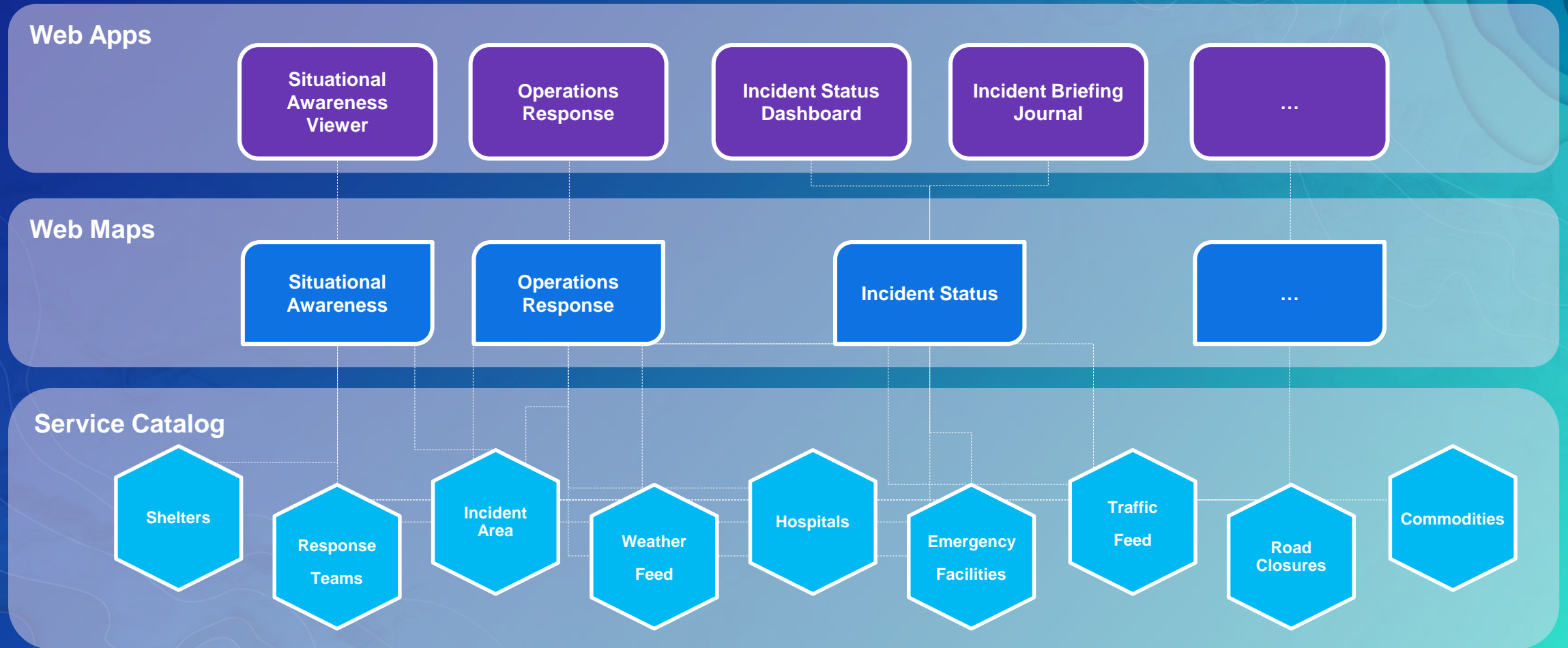
Hospitals

Emergency
Facilities

Traffic
Feed

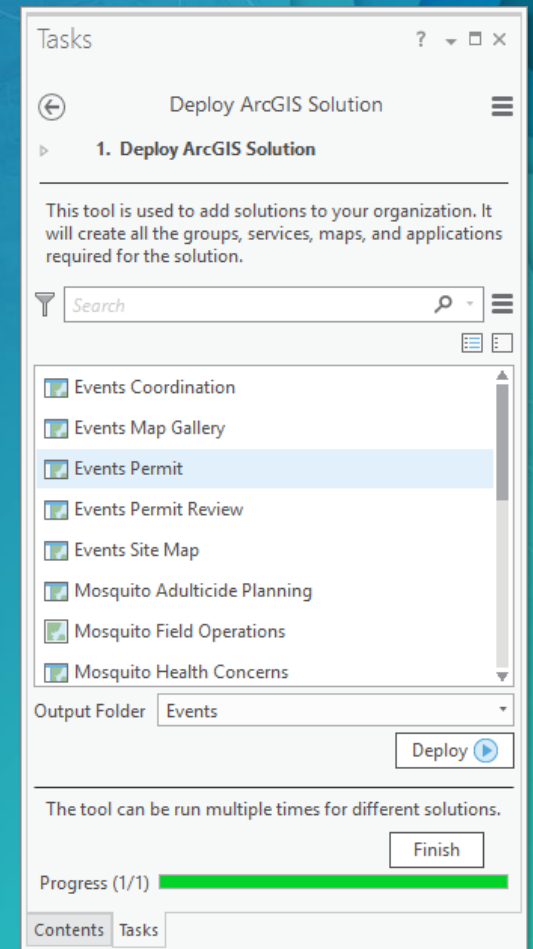
Road
Closures

Commodities



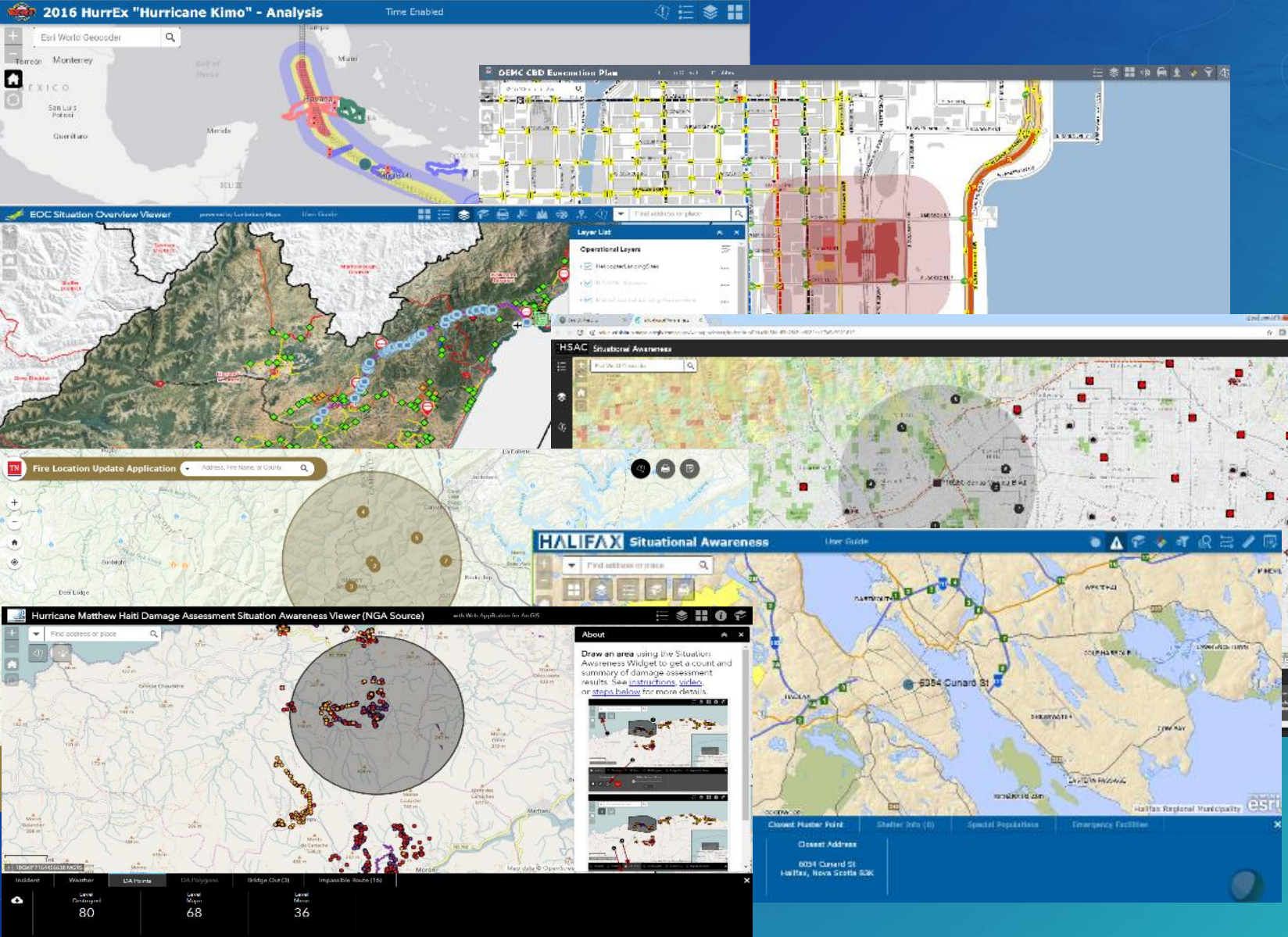
Solution Deployment Tool

- 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 fields
 - Modify field domains and aliases
 - Load their data (if required)



Impact (Value)

- GIS professionals can quickly discover and deploy ArcGIS solutions in their organization – projects value and innovation
- Standardize configuration approaches - helps organizations stay current and reduce cost of ownership
- Supports implementation of more comprehensive offerings – driving value of ArcGIS deeper in organization
- Delivered *with* ArcGIS and first step towards future SaaS offerings



Reporting

Snapshots

Layer visibility

Situational Awareness

Demo

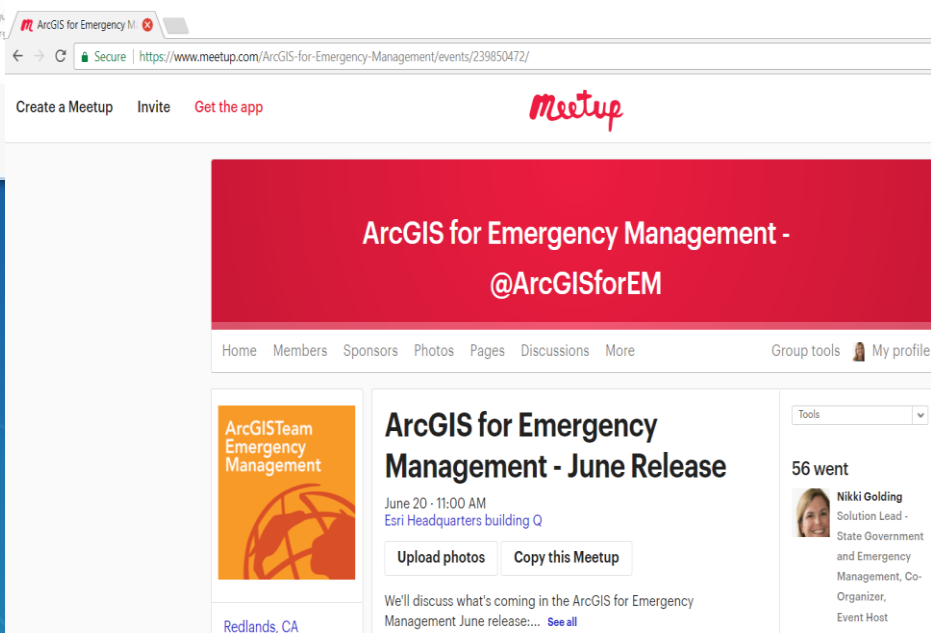
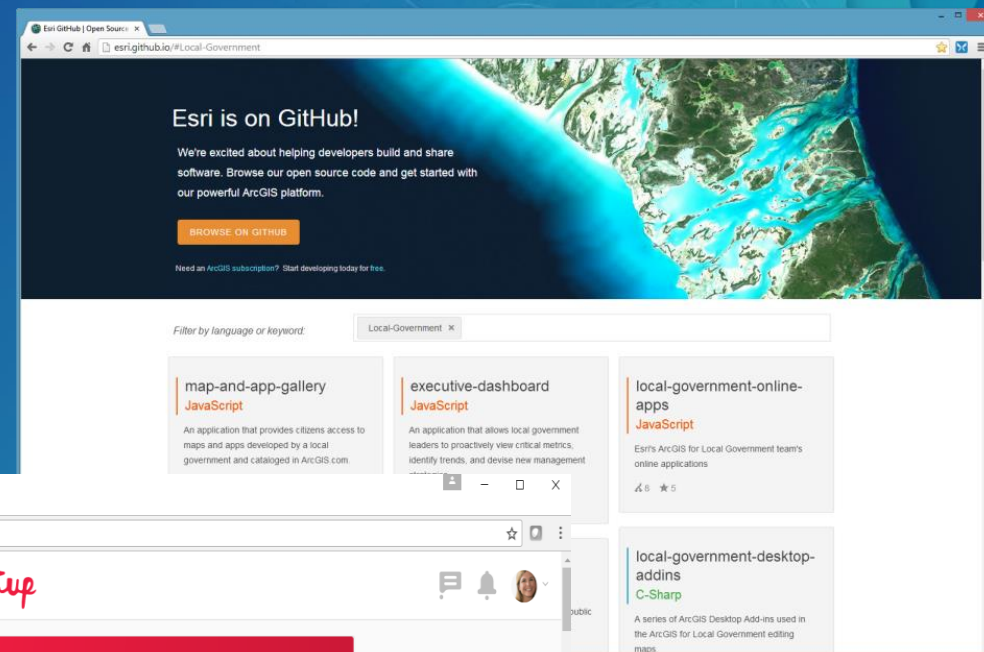
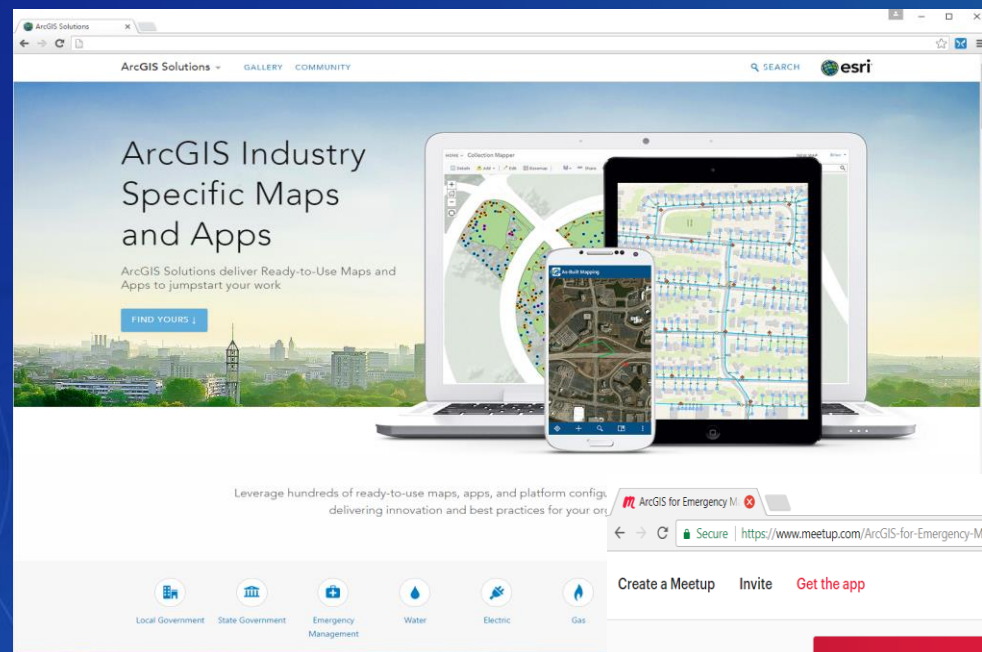


2017 Priorities

- Modernize solutions
 - ArcGISPro, WebApp Builder, 4.x API, Field Workflows
- UC Release
 - Environmental Screening, Transportation 511 updates, Field Workflows, Printing Dijit
- Post UC
 - Executive Dashboard, Environment, Agriculture, Field Workflows, Hub

Join the Community

It's not just about the technology



Closing

- Deliver solutions that enables success
 - Easier to deploy and sustain
- Evolve and grow the collection of apps
- Develop a community of users
- Provide a platform for partners to deploy their solutions

UC Events

- ArcGIS for Emergency Management Sessions
 - Two tech workshops
 - Two demo theatre sessions
- Solution Island
 - Focused conversations / support

The logo consists of the letters 'UC' in a large, bold, white sans-serif font, centered within a dark blue rectangular box.

Esri User Conference

Applying The Science of Where

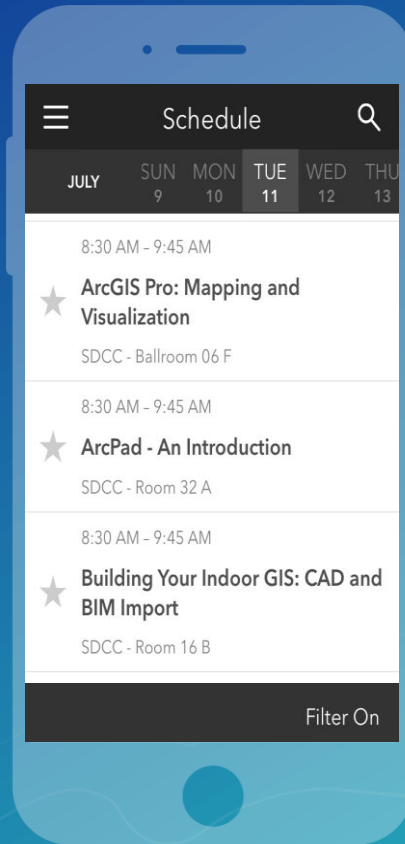
July 10 - 14, 2017 | San Diego, California

Please Take Our Survey on the Esri Events App!

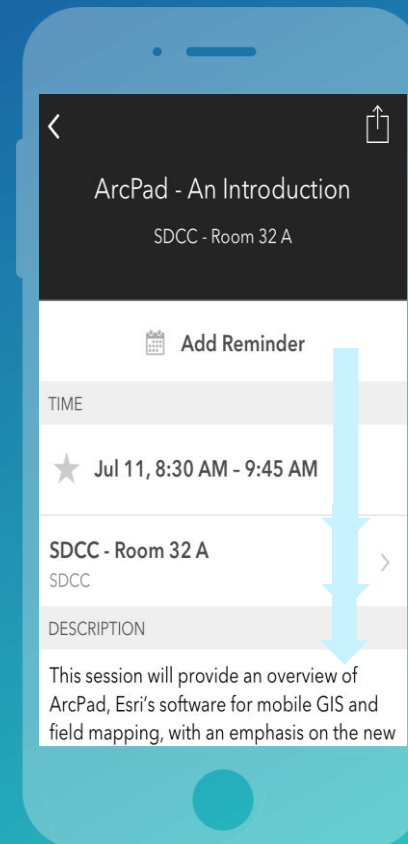
Download the Esri Events app and find your event



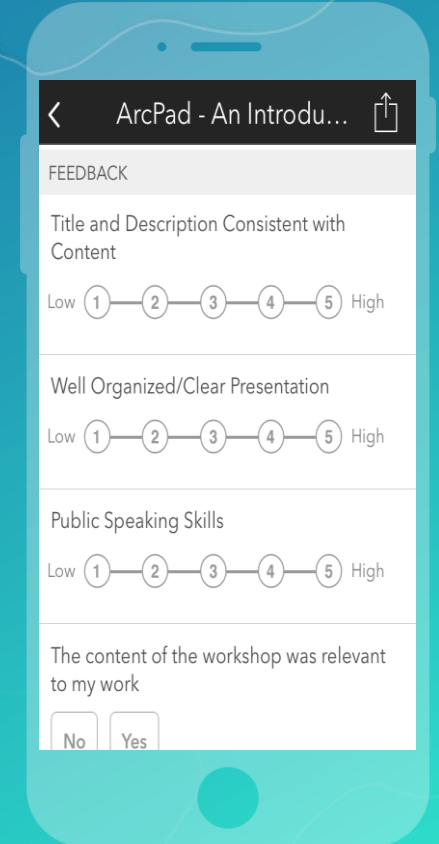
Select the session you attended



Scroll down to find the survey







Complete Answers and Select "Submit"



Thank you

Be innovative, aware, and know you are not alone

-  <http://solutions.arcgis.com/#Emergency-Management>
-  <https://www.meetup.com/ArcGIS-for-Emergency-Management>
-  [@ArcGISforEM](https://twitter.com/ArcGISforEM)
-  <http://esri.github.com>



esri

THE
SCIENCE
OF
WHERE