

# Esri Southwest User Conference

November 13–15, 2013 | Salt Lake City, Utah



## ArcGIS for Emergency Management: An Overview

Bryan Franey

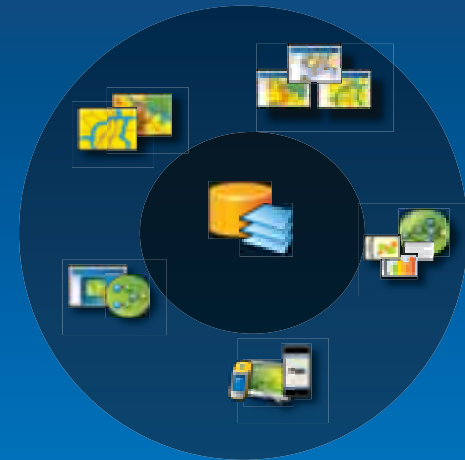
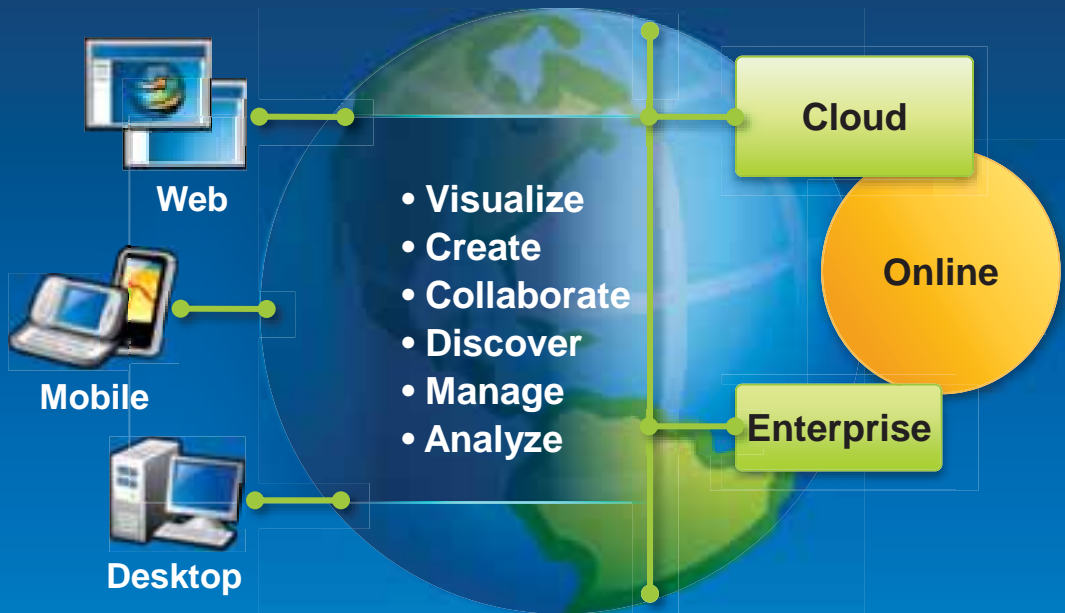


# Agenda

- **Local Government Context**
- **ArcGIS for Emergency Management**
- **Demonstrations**
- **What's next**
- **Feedback / Questions**

# ArcGIS

A Complete System for Geographic Information



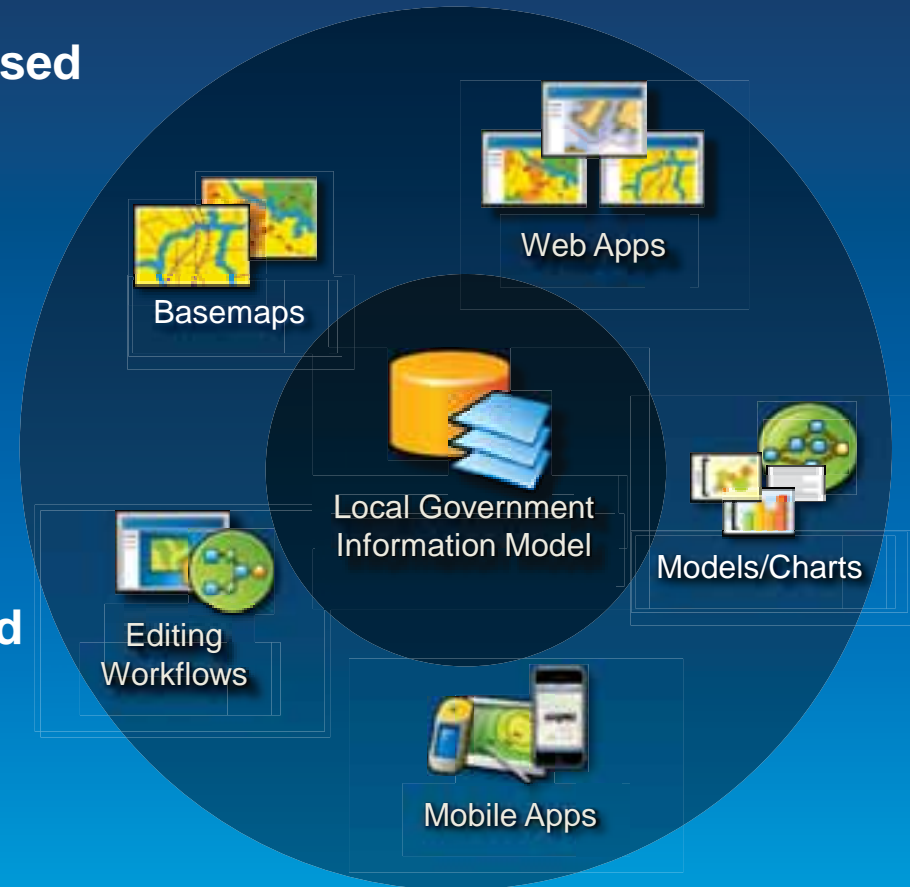
## ArcGIS Solutions

- Local Government
- State Government
- Utilities
- Emergency Management
- Defense

# ArcGIS for Emergency Management

A solution for Esri's local government customers

- **A series of useful maps and apps focused on local government work**
  - Organized into domains
  - Extensible, configurable
  - Freely available and fully supported
  - A foundation for Partner solutions
- **An online community**
  - Best Practices / Implementation Support
- **A network of Professional Services and Partner offerings**
  - Help users implement, sustain and enhance



.....Available on-premise and in the cloud

**Why are we doing it?**



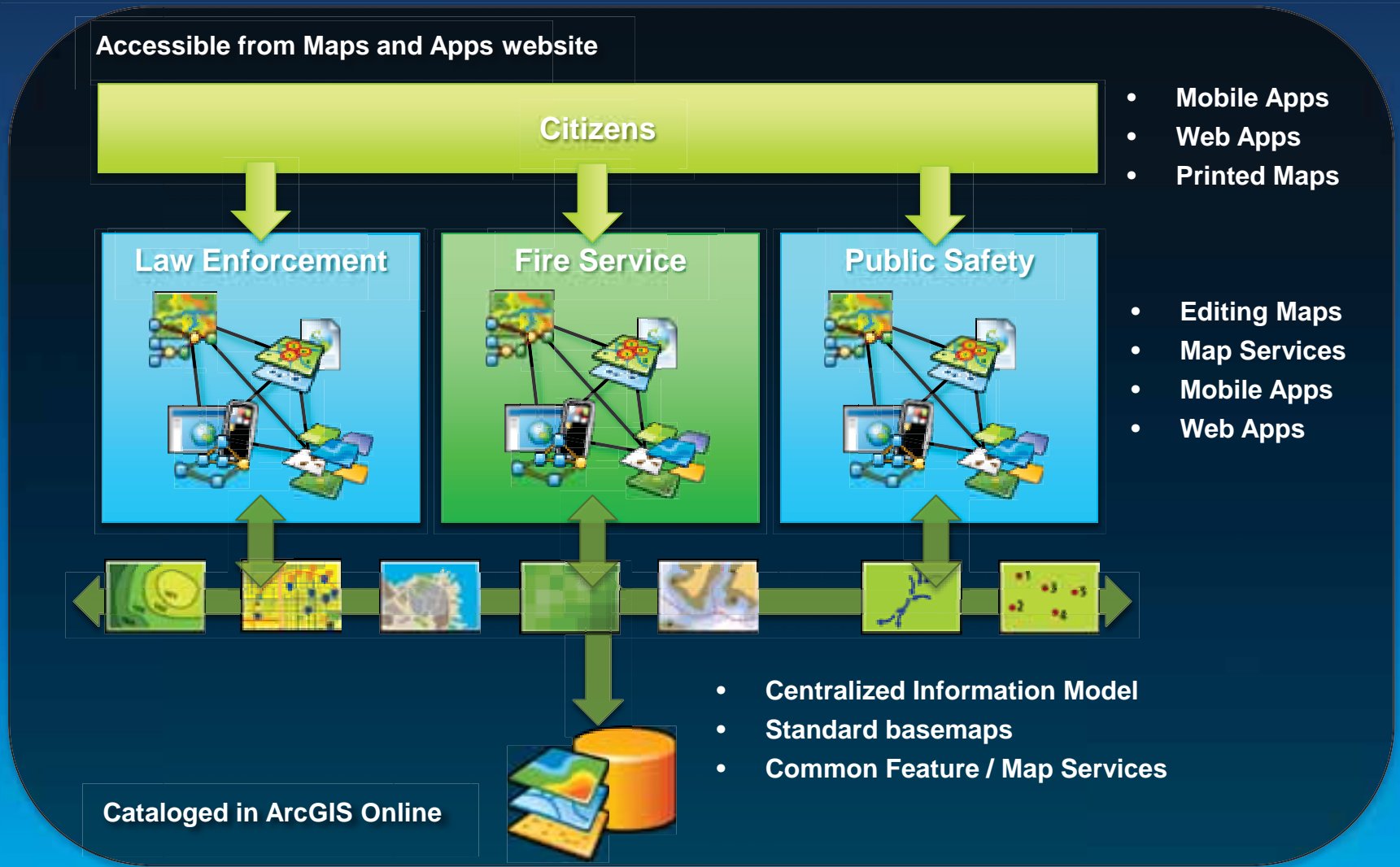
# Our Mission

Help increase the value of GIS in Emergency Management organizations

- **Make it easier to deploy ArcGIS**
  - Deliver applications quickly throughout your organization
  - Stay current with future releases / avoid legacy technology
  - Create a platform of geospatial data that can be leveraged by many
- **Address common constraints in emergency management**
  - Size and skills of staff
  - Budget and time available to implement
- **Empower the community to contribute**
  - Users
  - Partners

# A System View

## Deploying ArcGIS for Emergency Management



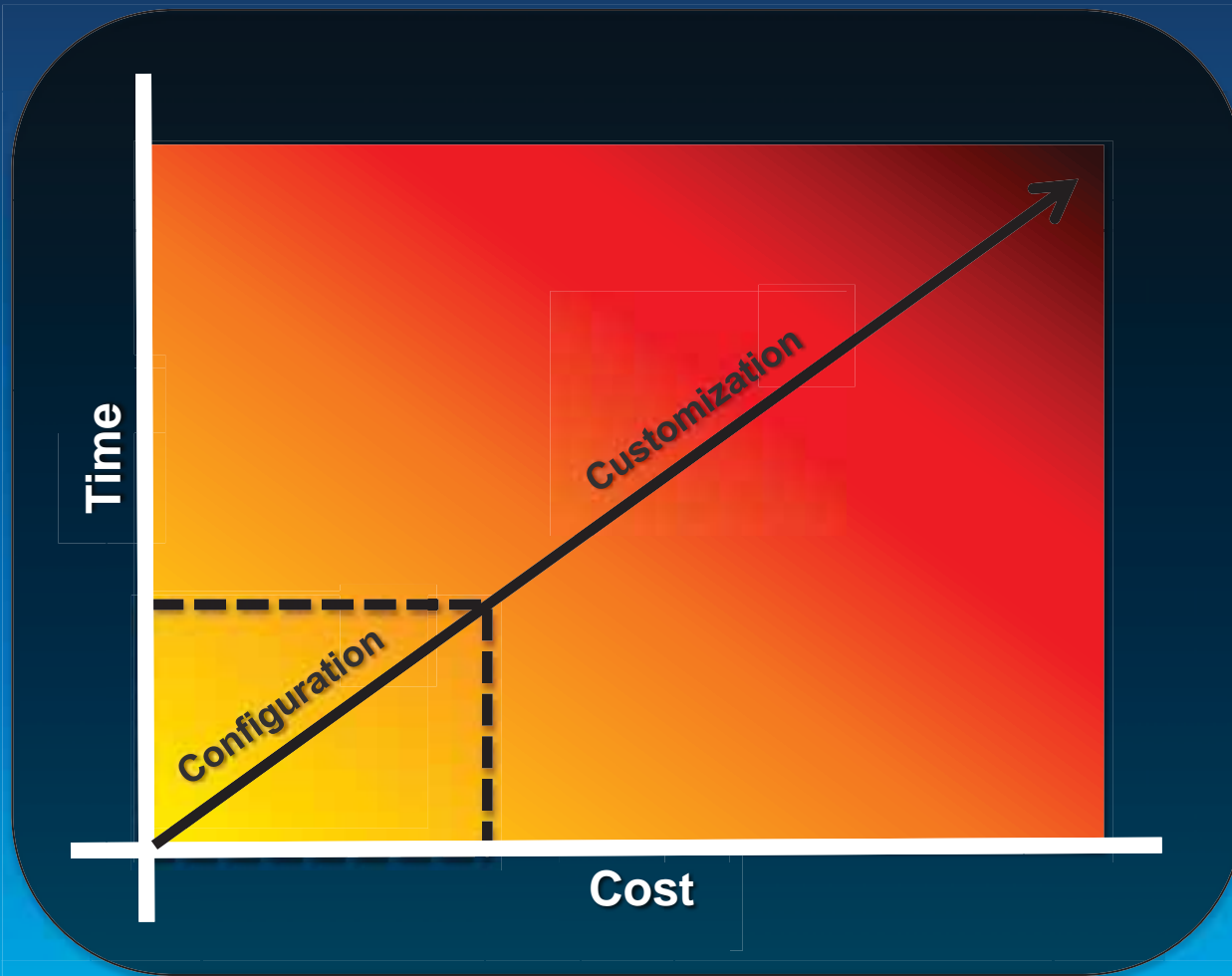
# Configurations Patterns

- **Influential factors**
  - COTS and configurable solutions strategy
  - Deployment time
  - Technical expertise
- **Three configuration patterns**
  - Complete system adoption
  - Publish and adopt
  - Sample code and customize
- **Where do you start?**
  - With your business requirements
  - Align them with maps and apps
  - Review system configuration patterns



# Configure vs. Customize

*Reduce cost, time and risk*



## Benefits

- Implement quickly
- Easy to add new features
- Simple to maintain
- Easy to extend

*.....your feedback affects future releases*

# The Community



# ArcGIS for Emergency Management

<http://solutions.arcgis.com> – Just Released

## ArcGIS Solutions

Deliver value by applying ArcGIS solutions to support the work of your organization. Share online maps and apps to extend the reach of your GIS.



ArcGIS for Local Government



ArcGIS for State Government



ArcGIS for the Military



ArcGIS for Intelligence



ArcGIS for Water Utilities



ArcGIS for Emergency Management

# Local Government Community

An ongoing dialog where users can learn from peers and share their success stories

The screenshot shows the Meetup.com interface for the 'ArcGIS for Local Government' group. The browser address bar displays 'www.meetup.com/ArcGIS-for-Local-Government'. The Meetup logo is in the top left, and the user 'Scott Oppenese' is logged in at the top right. The main header features the group name 'ArcGIS for Local Government' in a blue banner. Below this is a navigation menu with 'Home', 'Members', 'Sponsors', 'Photos', 'Pages', 'Discussions', and 'More'. On the right, there are links for 'Group info' and 'My profile'.

The main content area is divided into three columns:

- Left Column:** A globe icon representing the group's location, 'Redlands, CA', founded on 'Mar 5, 2010'. Below this is an 'About us' button and a sidebar with statistics: 'Members: 122', 'Group reviews: 0', 'Upcoming Meetups: 2', 'Past Meetups: 3', and 'Our calendar'.
- Middle Column:** A 'Welcome!' message with a '+ SCHEDULE A NEW MEETUP' button. Below this is a calendar view showing 'Upcoming 2', 'Past', and 'Calendar'. The featured event is 'Our second meeting... 11:00 AM (Pacific)' at 'Esri Cafe', 300 New York St, Redlands, CA, on 'Wed May 15 11:00 AM'. It shows 22 attendees and 2 comments. The event is hosted by 'Cynthia Thomas (ArcGIS for Local Government team member)'.
- Right Column:** A 'What's new' section with a photo of a group of people. It lists recent updates: 'New Meetup: Allison Mude replied Yes for Our second meeting... 11:00 AM (Pacific) 3 days ago' and 'New Meetup: Erin Kading replied Yes for Our second meeting... 11:00 AM (Pacific) 3 days ago'.

At the bottom of the page, there is a section titled 'Meetup at the Esri UC with fellow attendees'.


# Local Government Community

There's a place where developers can contribute too



The screenshot shows a web browser window displaying the Esri GitHub page for the Local Government Community. The page features a large satellite image of a river delta. The main heading is "Esri is on GitHub!" followed by a paragraph: "We're excited about helping developers build and share software. Browse our open source code and get started with our powerful ArcGIS platform." Below this is an orange button labeled "BROWSE ON GITHUB". A search filter is set to "Local". Three project cards are visible:

- park-and-recreation-finder** (JavaScript): An application that allows citizens to locate park and recreation opportunities in their community.
- public-safety-cop** (ActionScript): A collection of Flex widgets used in the Public Safety COP application to provide a common operational picture of an incident.
- local-government-online-apps** (JavaScript): Esri's ArcGIS for Local Government team's online applications.



This block shows a mirrored, inverted view of the content from the previous block, appearing as a reflection on a blue surface. It contains the same text and structure as the screenshot above, but is upside down.

# Emergency Management



# ArcGIS supports the Emergency Management Mission

## Mitigation



Photo – FEMA/Augustino

## Preparedness



Photo – FEMA/Llarguest

## ArcGIS

Apps  
(Editing, Analysis,  
Visualization)  
Content  
Infrastructure



Photo – FEMA/Burkitt



Photo – FEMA/Zumwalt



## Response



## Recovery

# New Madrid Seismic Zone Earthquake - National Level EXERCISE



**Layer List**

Layer Visibility

- Evacuation Points
- Resource Assignments
- Shelters
- Exclusion Hot Zones
- Incident Area
- County States - Total Score
- 4000 MLE Reports
- Kentucky Critical Infrastructure Site
- HAZUS Transportation Damage Est

**Social Media**

YouTube Flickr Twitter

Search YouTube for videos

Use this keyword:

At this location: lon: -87.57344 lat: 34.77714

Within this distance:  km

From the past:

**National County States**

**EOC**

DEATHS EOC SHELTER COMMS POWER HOSPITAL FAILURES

**Tools**

- Edit Data
- Emergency Response Guide
- Search
- Sketching Tools
- Bookmarks
- Print
- Information
- Chart Demographics
- Social Media
- Drive Times
- Routing
- Street View
- Chart 2



**MLRAD Reflectance**

2012-05-09 11:37 AM

WMO radar reflectance service courtesy of Iowa State University. Click 5500 for details.

min  max

Opacity

**Crew Tracking**

**Robert Brown**

Phone  
Note  
Email  
Time Stamp: Tue May 17 2011 06:25:49 AM

**Mark Garland**

Phone  
Note  
Email  
Time Stamp: Tue May 17 2011 06:07:12 AM

**Gregg Bayer**

Phone  
Note

**EOC**

DEATHS EOC SHELTER COMMS POWER HOSPITAL FAILURES





What your users want...



# ArcGIS for Emergency Management

## Response

### Incident Command



Operations



Planning



Logistics



Finance

### EOC



### Public



### Preparedness



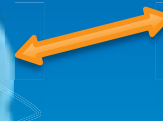
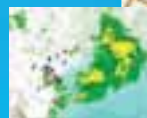
### Recovery



### Mitigation



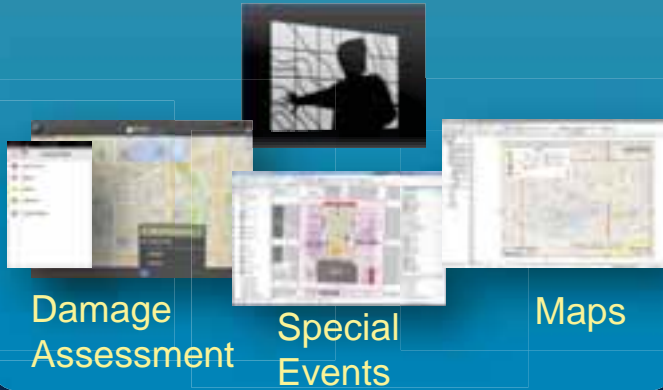
Organization



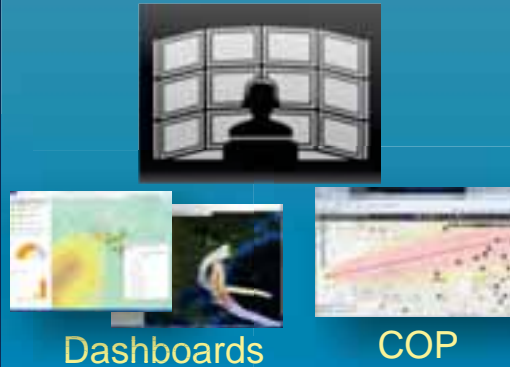
# ArcGIS for Emergency Management

## Response

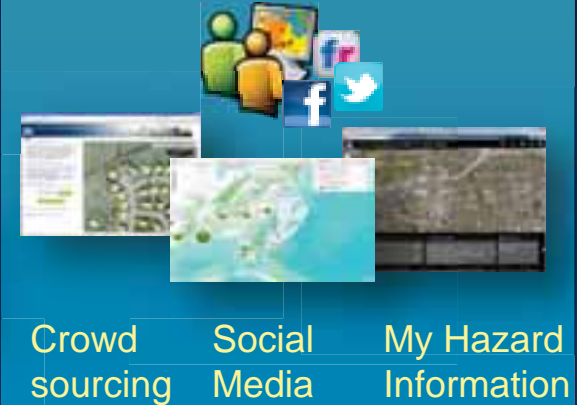
### Incident



### EOC



### Public



## Preparedness



## Recovery

Debris Removal

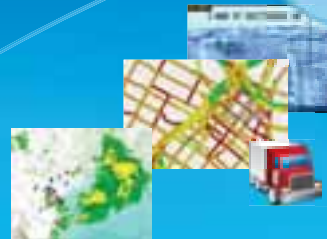


## Mitigation

Hazards & Vulnerability



Organization



New Apps

# DEMOS

Operations Dashboard  
Collector  
My Hazard Information  
Special Event Planning  
Citizen Service Request



# What's on the horizon?

- **Support Public Information Officer workflows (provide examples)**
- **Additional Operations Dashboard Configurations – focus on smaller natural and manmade events**
  - **Logistics Dashboard**
  - **Shelter Status Dashboard**
  - **Transportation Dashboard**
  - **Additional GeoEvent Processor configurations**
- **Hazard and Vulnerability Analysis**
- **Operations Planning**
- **Debris Removal Monitoring**
- **Leverage new applications – Explorer, Briefing book, etc.**

# Summary

- **Our Goals**

- **Deliver a “emergency management GIS” that enables your success**
- **Evolve and grow the collection of apps**
- **Provide a platform for partners to deploy their solutions**

- **We want your participation and involvement**

- **Download the maps and apps**
- **Provide feedback on existing content**
  - **Comments**
  - **E-mails**
  - **Meet with us at the UC, other events**
- **Identify opportunities for new content**
  - **Working together**



Understanding our world.