ArcGIS for Emergency Management: An Overview

Jeff Baranyi
Lindsay Thomas
Agenda

• Local Government Context
• Program Update
• ArcGIS for Emergency Management re-launch
• Demonstrations
• What's next
• Feedback / Questions
ArcGIS

A Complete System for Geographic Information

• Visualize
• Create
• Collaborate
• Discover
• Manage
• Analyze

Cloud

Online

Enterprise

ArcGIS Solutions
• Local Government
• State Government
• Utilities
• Defense
ArcGIS for Local Government

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 local government 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 local government
  - Size and skills of staff
  - Budget and time available to implement

• Empower the community to contribute
  - Users
  - Partners
ArcGIS For Local Government

Planning
- Park and Recreation Finder
- Land Use Public Comment
- Land Use Public Notification
- Community Planning
- Code Violation

Land Records
- Tax Parcel Editing
- Deed Drafter
- Tax Parcel Map Book
- Address Data Management
- Parcel Value for iPhone
- Tax Parcel Viewer
- Value Dashboard
- Community Addressing
- Data Reviewer for Parcels
- Data Reviewer for Addresses

Public Safety
- Flood Planning
- Special Event Planning
- Fire Station Wall Map
- Fire Run Book
- Pre-Incident Planning
- Target Hazard Analysis
- Fire Hydrant Inspection
- Cell Phone Analysis
- Public Safety COP
- Damage Assessment
- My Hazard Information
- EM Maps

Public Works
- Public Information Center
- Campus Editing
- Campus Place Finder
- Citizen Service Request
- SnowCOP
- My Government Services
- Water Utility Network Editing
- Water Utility Capital Planning
- Water Utility Mobile Map

Elections
- Election Results
- Election Polling Places

Local Government
- Information Model
- Basemaps
- Data Reviewer for Basemaps
- Executive Dashboard
- Maps and Apps Gallery

ArcGIS for Emergency Management: An Overview
A System View

Deploying ArcGIS for Local Government

Accessible from Maps and Apps website

- Mobile Apps
- Web Apps
- Printed Maps

- Editing Maps
- Map Services
- Mobile Apps
- Web Apps

Cataloged in ArcGIS Online

- Centralized Information Model
- Standard basemaps
- Common Feature / Map Services
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
The Community
Local Government Community

A destination for the community to learn and collaborate
Local Government Community

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

There’s a place where developers can contribute too

Esri is on GitHub!

We’re excited about helping developers build and share software. Browse our open source code and get started with our powerful ArcGIS platform.

Filter by language or keyword:

- 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 community

Making an Impact

More than 150K downloads
Over a 100 downloads/day
Re-launching ArcGIS for Emergency Management

http://solutions.arcgis.com – COMING SOON!
ArcGIS supports the Emergency Management Mission

ArcGIS
Apps
(Editing, Analysis, Visualization)
Content
Infrastructure

Mitigation

Preparedness

Response

Recovery

Photo – FEMA/Augustino

Photo – FEMA/Burkitt

Photo – FEMA/Llarguest

Photo – FEMA/Zumwaltt
ArcGIS for Emergency Management: An Overview
Information Products

• “If this seems like hard work, you are being astute and realistic. This is the mental heavy lifting necessary to create well-defined specifications for the information products you’re ultimately going to build.”

Roger Tomlinson, Chapter 6 – Describe the Information Products, Thinking about GIS
What is the best way to convey information on a map to the Public?
Where are my Table of Contents????

http://disasterresponse.maps.arcgis.com/apps/StorytellingTextLegend/index.html?appid=7fa5adb92fa34006aef32abfa49bbf0a
ArcGIS for Emergency Management

Response

Incident Command

EOC

Public

Preparedness

Recovery

Mitigation

Operations  Planning  Logistics  Finance

Incident

Organization

Public

Preparedness

Recovery

Mitigation

Organization
DEMOS

Model Organization
Operations Dashboard
Collector
My Hazard Information
Flex COP
Citizen Service Request
What’s new in the Public Safety COP Template?

- Key Performance Indicator (KPI) widget
- Find Closest Resource widget
- Dynamic Legend widget
- Ushahidi widget
- Updated Live Layer Report by Exception widget to work with Polygons
- Updated Bomb Threat widget with 2013 guidance

- Identify widget
- Advanced Drawing
- Weather RADAR looping widget
- Social Media widget combines several existing widgets and incorporates Twitter's new Oauth procedure
ArcGIS for Emergency Management

What will ship with the ArcGIS 10.2 release?

- ArcGIS Online Model Organization for Emergency Management
- Emergency Management Operations Dashboard Configurations – (Hurricanes and Earthquakes)
  - Damage Assessment Configuration
  - Watch Officer Configuration
  - Operations Section Chief Configuration
  - Custom widgets – Emergency Response Guide (ERG), Bomb Threat, Find Closest Resource
  - GeoEvent Processor configurations for live feeds and alerting
- Damage Assessment for Smartphones based on Collector
- My Hazard Information – based on My Gov Services
- Last release of Flex-based COP
  - Synced with National Guard Minuteman Viewer
What’s next – post UC

- 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.
Data model update -
In simple terms, it will describe:

- What happened? (Or is going to happen)
  INCIDENT
  - Site
  - Origin
  - Extent (perimeter)

- What we plan to do about it (pre-tense)?
  SPECIAL EVENTS

- What we are doing about it (present tense)?
  OPERATIONS / UNITS / ASSIGNMENTS

- What we did about it (past tense)?
Symbology

• Continue the path of creating a simple set of symbols
• Work with the user community on common initiatives where possible
  - NAPSG
• Focus on presentation in all parts of the platform (desktop, paper maps, Web, Mobile) so the symbols remain consistent
• Deliver an ArcGIS for Emergency Management Style
We want your feedback!

• Review existing content
  - Grade and hand back
• Suggestions for new areas / tools / workflows

• [http://ideas.arcgis.com/ideaList?c=09a300000004xET&category=Public+Safety](http://ideas.arcgis.com/ideaList?c=09a300000004xET&category=Public+Safety)
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
Questions

Please fill out the session evaluation

**Offering ID: 1366**

**Online** – www.esri.com/ucsessionsurveys

**Paper** – pick up and put in drop box

@GISPublicSafety & @ArcGISLocalGov

http://www.meetup.com/ArcGIS-for-Local-Government/

Thank you...