PHILADELPHIA OFFICE OF EMERGENCY MANAGEMENT
SUPPORTING REAL-TIME EMERGENCY MANAGEMENT WITH THE ARCGIS PLATFORM

Brian Wells – Philadelphia OEM
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| COOP - Backup Site | • What if a disaster destroys local IT infrastructure? |
| Scalable | • How many users during an emergency? |
| Flexible | • The unknown emergency. |
| Accessible | • Users need visibility from all devices and all locations. |
| Integrated | • EM Offices use multiple systems and forms of communication. |
| User friendly | • Frequency of use? |
| Real Time | • The clock is always ticking during an emergency. |
| Notifications | • Timely, streamlined communication is critical. |
| Historical Data | • Context leads to more informed decision making |
**GIS Program Goals**

**2014**

- Local servers/environment
- Flex-Based Situational Awareness Portal
- Only Accessible on City Network
- Limited Real Time Data
- PDF Maps
- Desktop mapping and Analysis

**Present**

- Cloud AWS environment
- Accessible anywhere
- Catalog of live data
- Application based event logging
- Geo Event Notifications
- Configurable mission focused apps
- Mobile Apps
- Location Tracking
- Operations Dashboards
- Real time data analysis and processing
Cloud Environment

Offsite Backup
COOP

Scalable
Accessible
Flexible

Integrated
Historical Data
Real-time Data
Automated Notifications

AGOL\ WAB
Dev
Applications

GeoEvent/
AGS Services

PostgreSQL
Database
Real-Time Data and Systems Integration With GeoEvent Processor

Offsite Backup COOP, Scalable, Accessible, Flexible, Integrated, Historical Data, Real-time Data, Automated Notifications

- Fire CAD, AVLs
- Staff Locations
- Hospital Info, Patient Contacts
- Power Outage Info
- Weather Feeds
- PennDOT Road Conditions
- Event Feeds (e.g., Delegate Buses)
- Social Media
- 311
- Mobile and Desktop Data capture

Geo Event Processor AGS

Notifications
- Slack
- Email
- Report

Web Apps
- CityView (24x7 Watch Command App)
- WAB Dev
- Event Specific Apps

Mobile Apps
- Location Tracking
- Event Layers
- Other Tools

Operations Dashboard
- High-Level Overview
- Geo-Event enriched data
- Live Feeds

Data Types
- Feature
- Stream
- JSON
CityView – WAB DEV

Wigets

- Layer Profiles
- Quick Layer Toggle
- Pictometry Oblique Imagery Viewer
- Cyclomedia Street Viewer
- GeoFence Creation Tool
- Dynamic Event Widget
- Situation Awareness

Live Layers Displayed

- Septa – train, bus, and trolley
- PECO Power Outages
- Fire Events
- Medical Events
- Fire Vehicle Locations
- Medic Vehicle Locations
- Social Media
- OEM Staff Locations
- 311 Calls
- OEM Monitored Events: Resources, Mass Care Sites, Events
- PennDOT Road Incidents
- Weather conditions: Lightning, Precipitation, Radar, Wind
Quickly Integrate Live Data
Configure Apps

2016 DNC
~300 delegate buses tracked; feed integrated night before

SEPTA PUBLIC TRANSPORTATION STRIKE
Mobile tracker app deployed to city shuttle bus operators same day.
Notifications and Integrations

Example:
Send alerts for events based on user defined Geo-Fence to Slack Channel

Rest in

Filter on Geo-Fence

Geo-Tag Area with GeoFence Name

Send Notification to Slack (json/webhook)
Dynamic Event Widget

- Event Data - Capture, store, and send notifications
  - Event Overview
  - Resource Deployment
  - Mass Care Sites
  - Staff Deployment
  - Notes
  - Communications
  - Attachments
  - Notifications
  - Archiving

- Regional Integration Center
  - Staff monitor live feeds 24/7
  - Track emergencies and events through levels of escalation
Dynamic Event Widget

Notication
• Map displays critical infrastructure & sensitive locations
• Notification fields are auto-populated based on proximity

Archive Data
• Provides spatially-enabled historical data
• Centralized data store for operations metrics
Mobile App - Tracker

- Android App
- Staff Deployment
  - Emergency Manager live tracking, stream service
  - Staff arrive on scene, geo-fence triggers an alert

- Features
  - User enabled tracking
  - Tracking Interval
  - Event Layout
QUESTIONS?