Mobile Incident Command Center

Darren Jones, GISP

GIS Analyst I

Roanoke County, VA

Mobile Incident Command Center

- Initiation
  - Time and costs
- Design Philosophy
- Applications
- ArcGIS Online Updates
  - What happens when the platform evolves mid-project
- Challenges and Solutions
- Wrap-up and what's next?

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Initiation Timeline

- 2014 – Proposed by Police
  - Reduce dependence on paper
  - Digital record of incidents
  - Reduce costs
    - Original system was proposed at >$100K and an annual ~$20K maintenance & hosting fee
  - Late 2014 Fire & Rescue come on board

- 2015 – First iteration of MICC ready for testing
  - Shared interface
  - Separate symbology
  - Added attachments

- 2016 – Wildfire and Hydrant Maintenance
  - Collector takes center stage
    - Disconnected Editing

- 2017 – Database redesign
  - New Schema
  - ArcGIS Online (AGOL) new temporal feature
    - Allows near real-time tracking of personnel

- Total Costs
  - 950+ hours development and testing
  - ~$19,000 in development costs
    - Employee time and salary, no external vendor

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Design Philosophy

- Shared Interface
  - Police and Fire & Rescue have some individual symbology

- Easy to use user interface
  - ArcGIS Online (AGOL) front end

- Browser and device agnostic
  - No required applications to view
    - Collector required for editing and personnel tracking
    - Survey123 required for survey model editing

- Offline editing

- Personnel tracking

- Data stored on County servers
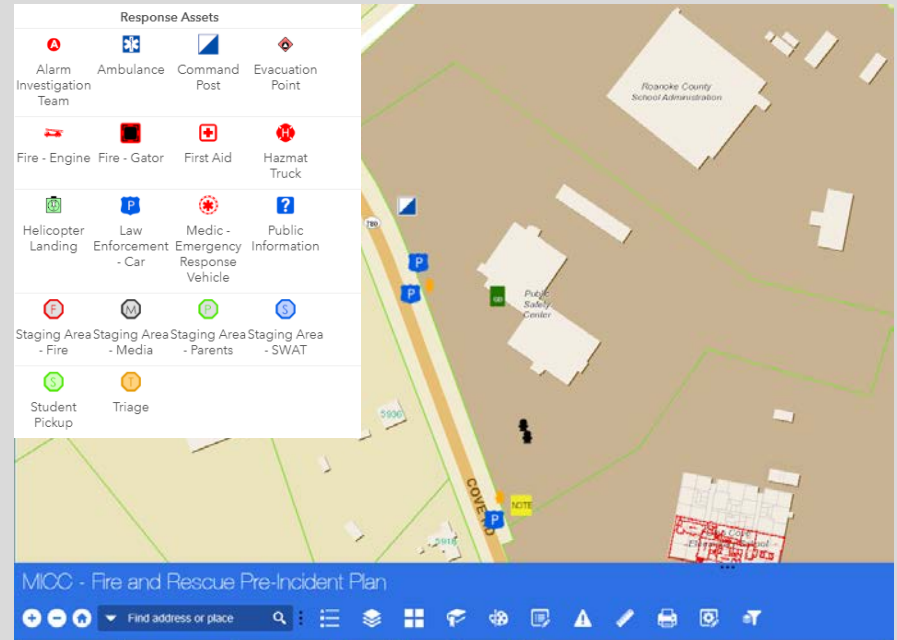 - Data consumed/edited through feature services

Applications

- Police Incident

- Fire & Rescue Pre-Incident Planning

- Wildfire Incident

- Hydrant Inventory

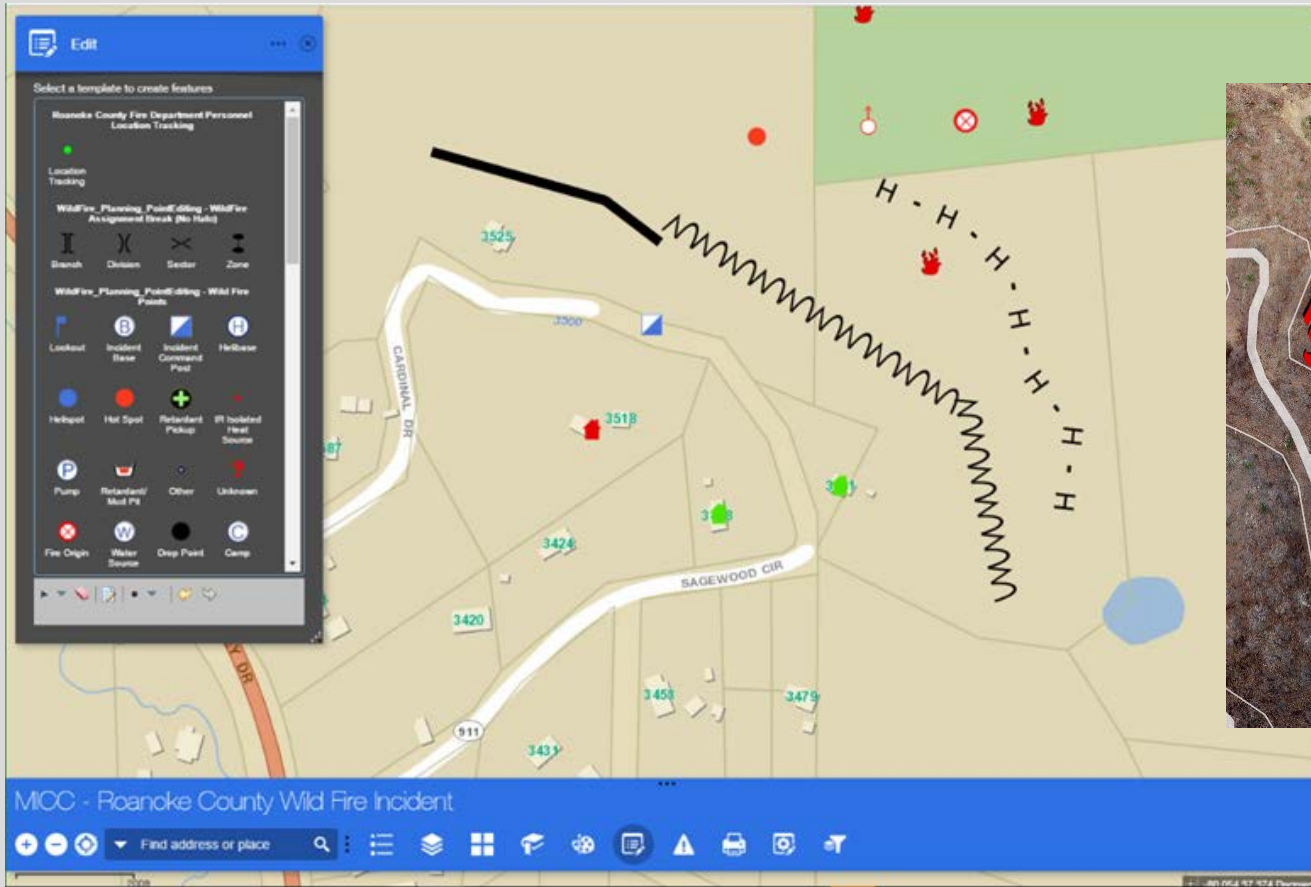- Damage Assessment

- Structure Triage
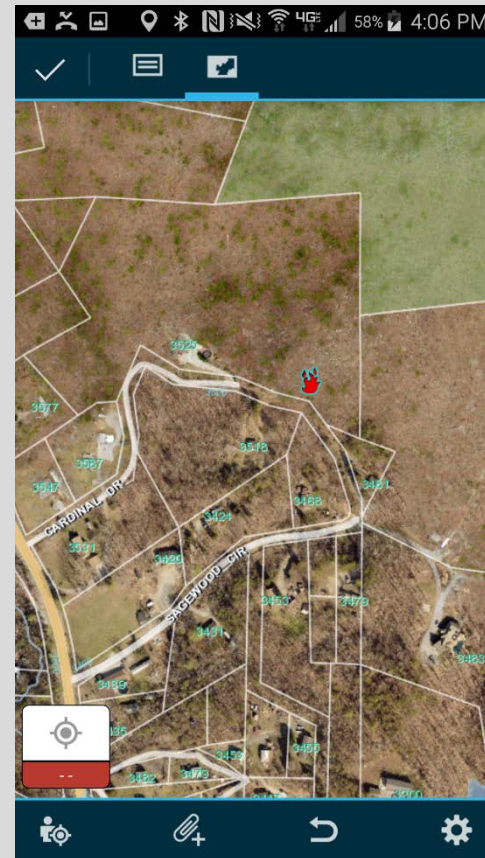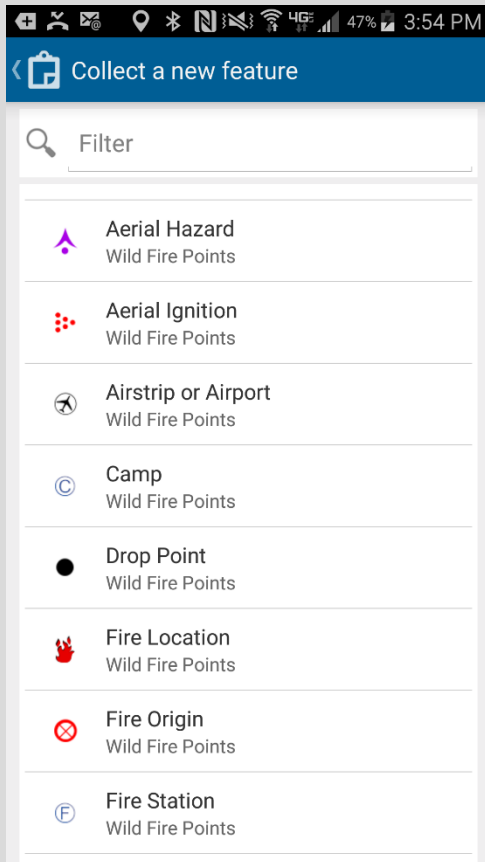
Applications

- Police Incident
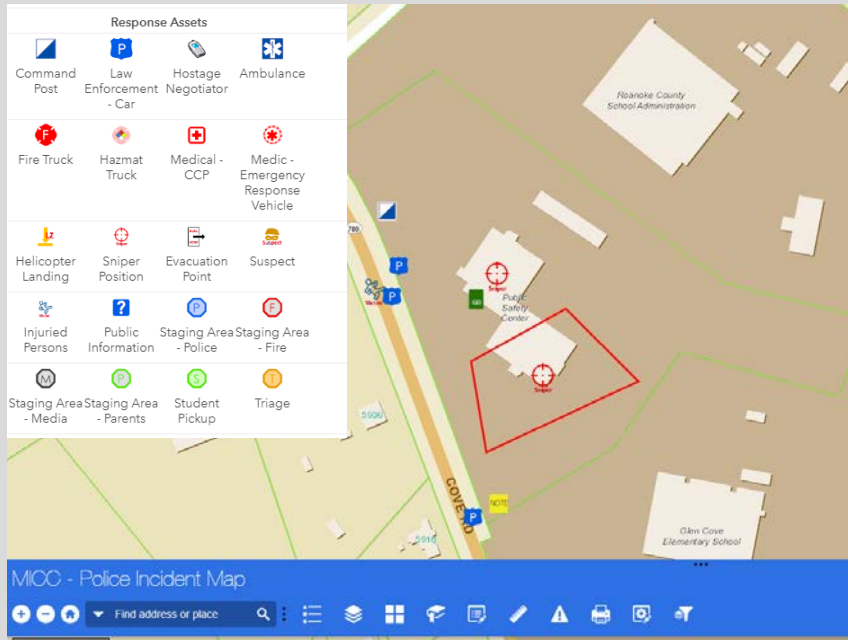
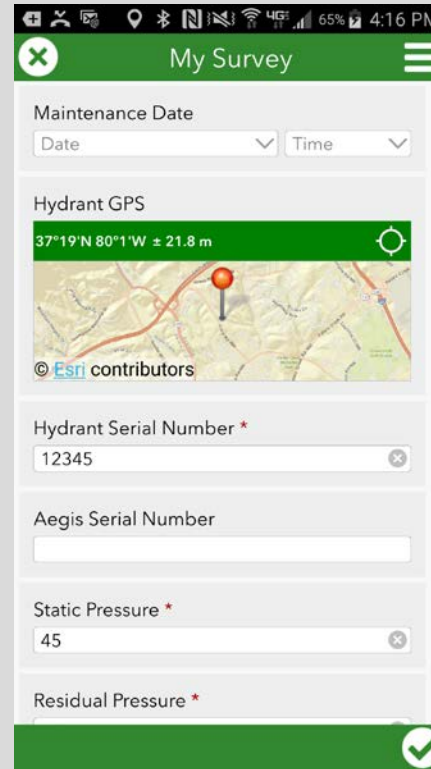Fire & Rescue Pre-incident Plan
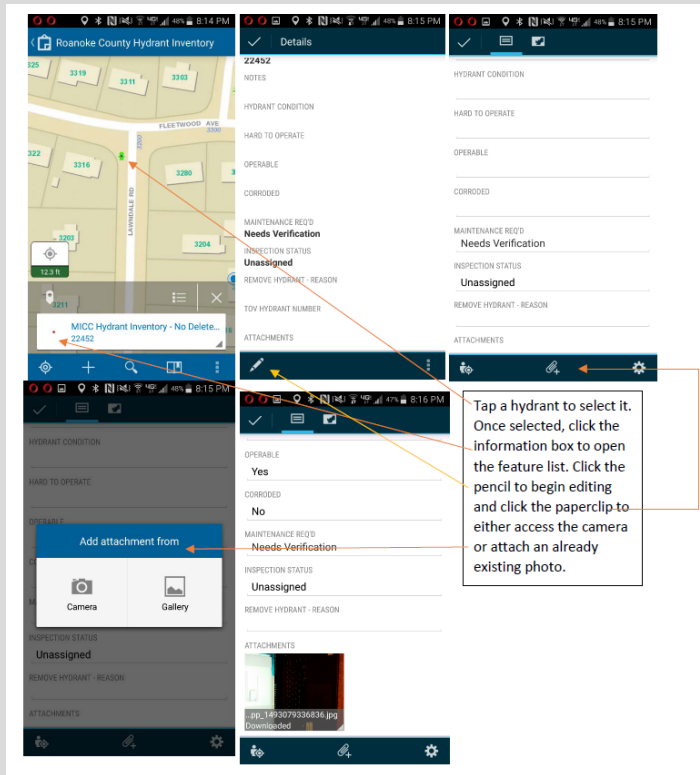
Wildfire Incident – Web Application

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Wildfire Incident - Collector

Hydrant Inventory

Transition from Collector to Survey123

Damage Assessment and Structure Triage

ArcGIS Online Platform

- Cloud Based (Amazon Web Services)

- Free Accounts

- Can create maps from local data or from the Living Atlas
  - Limited Storage of data
  - GIS editing in the palm of your hand

- Enterprise License Agreement (ELA)
  - Cost Based on size of locality by population
  - Grants allowable credits
    - Data storage
    - Analysis
    - Demographic Data and Income Reports

- Quarterly Updates across the platform
  - Occasionally causes application instability

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Challenges and Solutions

- Development
  - Original deployment had very beta application templates
    - Choose to use Local Government Information Model (LGIM) or go custom
  - Can use already existing templates to shorten development/deployment
  - Many partners who can assist
    - Can develop in house given lead time
  - New ArcGIS Pro deployment tools
    - Vastly decreases design time because of database integration
  - Challenges with platform
    - Updates and outright changes can delay the deployment
      - Editing online and offline with complex symbology is undergoing a revision

- Changes to Project
  - Scope Creep
  - Adjustments based on in-field testing
  - Security at project, application or layer level

- Application and Environment familiarity
  - Takes time to get used to the platform and the tools
  - Once you deploy one application others go quickly

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Wrap Up and What's Next

- Great platform to develop applications for localities
  - Great for other departments
    - Planning and Zoning
    - Code Enforcement
    - Public Works
  - Financially neutral when developing in house
  - Do not need local servers to drive data collection

- New Collector App
  - Easier editing complex symbology

- Finish porting applications to Survey123

- Updating Applications for new Public Safety mission
  - Modifying symbology for particular incidents/departments (SWAT, Patrol, etc)

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Thank You

Darren Jones

County of Roanoke

dsjones@roanokecountyva.gov

gis.roanokecountyva.gov

www.arcgis.com

www.esri.com

www.esri.com/training/

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