LOCAL GIS FOR COMMUNICATIONS
GIS in 911
Agenda

• Introductions

• 911 History without GIS

• Introduction of GIS - Enhanced 911 and Cell Phones

• GIS gets a boost - NextGen 911
911 without GIS.
First 911 call was placed in Haleyville AL on February 16th, 1968. 6 Days later the second was placed in Nome AK.
911 without GIS

- Keys to 911 success without GIS
  - Every home had a phone
  - Every phone had an address
  - Every address was in a database
Introduction of GIS
Introduction of GIS

- MSAG – Master Street Address Guide
Introduction of GIS

- Automatic number identification (ANI) and automatic location identifier (ALI)
Introduction of GIS
Introduction of GIS

GIS feeds both

ECC and CAD

Field Personnel and MDTs
Introduction of GIS

• Common Layers used in CAD and the Field
  • Jurisdictional Boundaries
  • Response Areas
    • Fire
    • Police
  • Address Points
  • Street Centerline
    • Alias field or table for alternate names or spelling
  • Common Place Names
    • Alias field or table for alternate names or spelling
  • Routable Network
    • Closest Facility and Route
Introduction of GIS

• Pros of GIS in CAD and the Field
  • Visual of the map helpful for all.
  • Data maintained by Jurisdiction

• Cons of GIS in CAD and the Field
  • Stopped at Jurisdictional Lines
  • Lack of communication between GIS and ECC
  • GIS personnel with little to no public safety background.
  • Updates too infrequent.
Enhance 911
GIS gets a boost!!!
GIS gets a boost!!!
GIS gets a boost!!!

- Required Data for Ng911
  - Provisioning Boundary
  - PSAP Boundary
  - ESZ (Emergency Service Zones)
    - Fire
    - EMS
    - Police
  - Address Points
  - Street Centerline
GIS gets a boost!!!

• GIS and NG911
  • Common data schema with NENA Data model
    • Now NENA working on version 3.
• ESInet Vendor
  • GIS data is used to geocode legacy data (MSAG and ANI/ALI)
  • Vendors can’t communicate with each other
  • Concerns over projections and transformations
• CAD 2 CAD
  • Lots of discussions on how to transfer calls and the data from one PSAP to another
    • This includes the GIS data.
  • Edge matching and lining up data
GIS gets a boost!!!

• 2021 Annual Report showing state progress for NG911.

• 24 states with no PSAP or no data submitted.

• As of today, Maryland has 21 of 24 Primary PSAP on NG911.

• [LINK]
GIS gets a boost!!!

North Carolina NextGen 911 - #NextGen911isNowGen911inNC

Emergency Services IP Network (ESInet) Status

Live on ESInet
124
Active Projects
1

99%
1%
GIS gets a boost!!!
GIS gets a boost!!!
Where to Next???

2. GIS Professionals that can speak public safety.
3. Engage with the community.
Peter Hanna
IT Specialist III
Montgomery County Police
peter.hanna@montgomerycountymd.gov
GIS Communications
Mapping in ArcGIS for Microsoft 365

Integrated Smart Mapping & Location Services

- Mapping
- Geocoding
- Geoenrichment
- Document Geotagging

Power Automate

Excel

Power BI

SharePoint

Teams

ArcGIS Online and Enterprise

Spatially Enable

Consistent Collaboration

Discover and Share

. . . Bringing Mapping to Everyone
ArcGIS for Teams
ArcGIS for Microsoft 365 Product Family

Create maps, share content, and manage data in a centralized location while leveraging ArcGIS.

1. ArcGIS where people are already collaborating
2. Real time map-based collaboration
3. Search, view, create, and share using natural language
Notify in ArcGIS
GIS & First Responder Communications

Charles Laird
Technology Specialist

NAPSG InSPIRE
November 16th, 2023
Program Overview

Who are we?

- Established July 2018
In the beginning…
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</table>

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**Note:** The table above represents a partial list of WEOs and their associated counties, along with various radio and mission statuses. The table is organized by WEO, followed by phone and core radio status, and status, and so on. The rightmost columns display various mission and status codes, such as Cache, VIPER, and STR. The table includes a header row with column headers such as WEO, Phone, Core Radio Status, Status, CBG, Phone, Core Radio Status, Status, EBO, Phone, Core Radio Status, Status, NCEM, Phone, Radio, Internet, NSHP Radio Cache, Total, Out, and Mission #. Each row contains specific information related to communication infrastructure and resource management, including availability and deployment statuses.
Where we are headed

• Comms information is inherently geo-spatial (asset here, person there, this area is using Channel 1)
• Current Force Laydown = Easy, for now // We know we need something automated
• Closely tied in with NC SAR Program and their work in Esri (don’t reinvent the wheel)
• SC ESF-2 had a ton of great ideas and implementations
• To close out, nice to haves for the future!