The role of GIS in Next Generation 9-1-1 and why preparing now makes sense.

January 29, 2019

Spatial IQ User Group Educational Webinar Series
Today’s Presenters

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AppGeo
Enter your questions here
Key Terms

- **NENA**: National Emergency Number Association
- **NG9-1-1**: Next Generation 9-1-1
- **PSAP**: Public Safety Answering Point
- **ESB**: Emergency Service Boundary
- **LVF**: Location Validation Function
- **ECRF**: Emergency Call Routing Function
- **RCL**: Road Centerlines
- **SSAP**: Site Structure Address Points
What is Next Generation 9-1-1 (NG9-1-1)?

- A set of interoperable network elements such as Broadband, ESInet
- Software applications and equipment
- **A GIS database that drives location validation and call routing services.**

NENA definition:
What is NG9-1-1?

“NG9-1-1 architecture places locally authoritative GIS data front and center in the mission critical workflow to determining which PSAP every 911 call should be sent to,” (URISA Newsletter, March 2016)
NG9-1-1 GIS Data Model

**Required**
- Road Centerlines ‘RCL’
- Addresses ‘SSAP’ (Site Structure Address Points)
- Emergency Service Boundaries ‘ESB’
- Provisional Boundaries

**Strongly Recommended**
- Street Name Alias
- Landmarks
- Landmark Alias
- State
- County
- Incorporated
- Unincorporated
- Neighborhood

**Recommended and others to consider**
- Railroad
- Hydrology Line
- Hydrology Polygon
- Cell Site Sector
- Mile Markers
- Parcels
- Hydrants
- Driveways
- Building Footprints
Why?

9-1-1 saves lives and needs accurate location data to succeed. The national effort to become NG9-1-1 ready involves your GIS data in a significant way.
The Massachusetts 911 Commission adopted a new requirement: all PSAPs **MUST** provide address data updates to the state twice a year in order to receive 911 funding.

DSET GIS team updates the GIS spatial mapping data used for locating CT’s 9-1-1 calls

Address points are being updated by DSET with building and tax parcel center address points for many of CT’s municipalities

RIGIS hosts the statewide Sites, Road Centerline and several other E-911 datasets

E911 field checks every address submitted to them
This effort can be moved forward at the local level to mutually **benefit all public services** relying on your local GIS data **WITHOUT burdening communities with redundant work.**
Local Government NG 9-1-1

Assessor
Transportation Department
Public Works Engineer
Fire Department
Police Department
Local Government NG 9-1-1
A **unified set of data** can tremendously benefit the accuracy of your emergency dispatch location data resulting also in the accuracy of address and street GIS data used by all public services.
Local Government NG 9-1-1

MapGeo cloud-hosted municipal GIS viewer
Do you have a 311 system in place?

- Non-emergency constituent reporting system for public services:
  - Trash pick up
  - Malfunctioning traffic lights
State and Federal Data Integration within your map viewers

- FEMA Data
- Census Data
- Critical Infrastructure
- Property Document Access
Case Studies

Barnstable, MA
Concho Valley COG, TX
West Hartford, CT
Case Studies

Out in the field, first responders can choose from a wide range of customized incident types, select layers to turn on or off to get the clearest picture, and use various tools to find coordinates and measure the area in question.
Takeaways

The benefits of 911/GIS integration

● Newer tools do a much better job of address assignment, maintenance, editing and utilization
● Fresh perspective on data/address maintenance for ongoing development
● Improved division of labor and focus on core competencies
Next Steps

The benefits of 911/GIS integration:

- A lot of State and Federal initiatives
- Opportunities and benefits of local level work
- AppGeo can help
Almost anything is possible
Questions?
Thank You!

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- **NOW Coalition Industry Leaders**, http://www.ng911now.org/#about

- **NENA NG911 GIS DATA MODEL: NG911 GIS DM: NENA-STA-006.1-2018,**
  https://drive.google.com/file/d/1ITiFpHEXXKAI3P6E0UJr4iK7W5si_gHK/view

- **Deadline Set for NextGen911 Upgrade and How that Impacts the GIS Community, The GIS Professional, Issue 271, URISA,**

- **NENA Status of NG9-1-1 Activity (February 2018),** https://www.nena.org/page/NG911_StateActivity

- **MassGIS and NextGen 911, working with the State 911 Department,**


- **Division of Statewide Emergency Telecommunications, CT, GIS,**