Talking Points: GIS in the Next Generation 9-1-1 (NG9-1-1) Environment

These talking points are intended to assist 9-1-1 and GIS professionals in Virginia with explaining the importance of GIS in the NG9-1-1 environment.

- The Virginia 9-1-1 Services Board has started planning for the transition to a Next Generation 9-1-1 (NG9-1-1) system.
- The 2016 session of the General Assembly approved the 9-1-1 Services Board as the standard setting body for NG9-1-1 in the Commonwealth.
- At the center of NG9-1-1 is an Emergency Services IP Network or ESInet.
- The ESInet will contain several NG9-1-1 core services that perform functions such as cybersecurity, validating an incoming 9-1-1 call, routing a 9-1-1 call to the correct PSAP and providing all available data to the PSAP. Fortunately, the National Emergency Number Association (NENA) has defined many of these functions.
- NG9-1-1 will rely heavily on local geospatial data for routing calls. Significant effort will be needed to ensure the geospatial data is evaluated and optimized for use in NG9-1-1.
  - VITA ISP is currently evaluating GIS data
- Mission Critical GIS Data Layers
  - PSAP Boundaries – These must line up (no gaps or overlaps) between neighboring PSAPs to ensure that all of Virginia is covered by the correct PSAP.
  - Road Centerlines (RCL) – Each locality currently maintains and improves RCL data. This data is a required component for the NG9-1-1 environment for correctly processing 9-1-1 calls.
  - Address Points – RCL data is needed to process 9-1-1 calls however address points are critical when correctly identifying where an emergency is occurring.
  - The provisioning of these datasets for call routing needs to be determined.
- Localities must have resources and processes in place to ensure GIS data is current and accurate for the success of current 9-1-1 and NG9-1-1.

What to do in preparation for NG9-1-1

- Prioritize and make time to improve 9-1-1 GIS data and ensure consistency
  - Check for errors
  - Make sure updated address information is incorporated in GIS and communicated to other departments and agencies that rely on physical addresses
- Work with neighboring jurisdictions to identify and resolve PSAP boundary issues
  - Key personnel: GIS, public safety, emergency managers
- Verify that local GIS data meets minimum standards
  - Refer to VITA standards and NENA standards for more detail
- Verify that a structured 9-1-1 addressing process is in place
  - Review and reference applicable standards and best practices documents for reference (VITA, NENA, USPS)
- Verify that attribute tables are organized and consistent (e.g., consistent abbreviations, correct spelling)
- Verify that 9-1-1 GIS data is being updated regularly
- Verify that GIS data are topologically correct (e.g., no gaps, no overlaps, no undershoots)