# GEOSPATIAL FACT SHEET:
# NEXT GENERATION 9-1-1

**URISA**
Fostering Excellence in GIS
www.URISA.org

**WHAT TO KNOW ABOUT NEXT GENERATION 9-1-1 (NG9-1-1)**: 9-1-1 is going high tech. The next generation of 9-1-1 will be digital, not analogue; routing calls for service will be spatial, not tabular; and accurate, seamless data layers will be required to make it work properly. If you work with GIS in support of 9-1-1, this information will help you.

## Why is NG9-1-1 important to the GIS community?

- 9-1-1 as a system is changing. While traditional 9-1-1 was built on tabular data, NG9-1-1 is inherently spatial. A transition from the current system is in progress, and the GIS community needs to be aware that the routing of a 9-1-1 call is moving from a tabular to a GIS-centric call routing workflow.

- GIS data within 9-1-1 needs to be shared inside and outside of your 'normal' sharing environments. URISA promotes sharing data across departments, across organizations, and across geographic boundaries, and the removal of GIS data silos within 9-1-1 or within your organization

- We see a growing need for GIS jobs within Public Safety as an area of growth within our industry. GIS professionals generally possess the editorial, analytical, and programing skills that are required to support the mapping and collaborative tasks needed to build, implement, and maintain the NG9-1-1 technical environment.

- NG9-1-1 GIS data is moving to a common data model (schema) across all Public Safety Answering Points (PSAPs) due to its highly standardized architecture.

- NG9-1-1 is going to mean data quality is going to improve, in particular for the data layers that are used within the National Emergency Number Association (NENA) i3 architecture [address points, road centerlines, PSAP boundaries, and Emergency Service Boundaries (ESB)]. This improvement in data quality will potentially flow into all areas of GIS for local government.

**911.gov**

### What if my jurisdiction does not have GIS?

In areas that do not have GIS, general base map data can be pulled from outside sources (OpenStreetMap, US Census, etc.) to be utilized within NG9-1-1 and potentially beyond.

## What does GIS-Centric Call Routing mean?

- Call routing refers to the routing of the 9-1-1 call to the correct PSAP for emergency service response. This is separate from emergency service routing, which occurs after the 9-1-1 call reaches the correct PSAP and emergency resources are dispatched.

- In GIS terms, call routing is a point-in-polygon intersection function. The point is the caller location, either a civil address or coordinates, and the polygon is the area covered by the appropriate emergency response provider. Once the call is geographically located, it is routed to the correct PSAP for response.

## Why is URISA involved in NG9-1-1?

- GIS professionals will be tasked with creating and maintaining the call routing geographic data that route NG9-1-1 calls to the correct PSAP for response.

- Other geospatial areas in NG9-1-1:

  ◊ Accurate Municipal Addressing

  ◊ Creation of Extract, Translate, and Load (ETL) processes to facilitate incorporation of disparate databases.

## Who is working on NextGen 9-1-1 standards and/or guidelines?

- NENA - National Emergency Number Association
- URISA - Urban and Regional Information Systems Association
- IETF - Internet Engineering Task Force
- FGDC - Federal Geographic Data Committee
- NSGIC - National States Geographic Information Council


NENA THE 9-1-1 ASSOCIATION

## Where can you go to find more information?

- URISA International

- APCO - International Association of Public-Safety Communications Officials

- NENA

- 9-1-1.gov - US Department of Transportation National 9-1-1 Program

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## What are the URISA NG9-1-1 Initiatives?

- NG9-1-1 Taskforce – open to all URISA members. Please join us!

- Education of PSAP people on how to transition to NG9-1-1 via a NG9-1-1 webinar series

- Education of GIS professionals on what to expect and how to navigate the 9-1-1 environment.

- Serve as the conduit to local government on why supporting NG9-1-1 is important.

- Communicate to decision makers why resources for NG9-1-1 are important to the GIS authority, addressing authority, and 9-1-1 authority.

*Best Practices Documents*
*(sampling of available resources):*

*Federal Communications Commission (FCC):*
*The Consolidated Final Report Of The Task Force On Optimal PSAP Architecture (TFOPA)*

*North Carolina 911 Board:*
*North Carolina 2018 State 911 Plan*

*9-1-1.gov:*
*Next Generation 911 (NG9-1-1) Interstate Playbook*

### About URISA

URISA is an multi-disciplinary geospatial organization that provides professional education and training, a vibrant and connected community, advocacy for geospatial challenges and issues, and essential resources. URISA fosters excellence in GIS and engages geospatial professionals throughout their careers. For more information, visit www.urisa.org.