




Automating NG9-1-1 Data Validation and Aggregation for the State of Arkansas


Case Study: The State of Arkansas


“1Spatial’s technology enables our NG9-1-1 geospatial data to be in a consistent, standardized format and validated via a uniform set of rules so that everybody is ‘singing from the same sheet of music.’ That becomes critical when integrating data from 80 different jurisdictions. Our goal as a state is not to centralize data validations for the individual jurisdictions. Rather, we want to empower them to do so themselves by providing a robust and intuitive set of tools, and we are supporting them in doing that. We want the localities doing that work so that when the data gets to us for loading into our NGCS, it’s a streamlined process with clean data.”

- Jonathan Duran, Arkansas Geographic Information Office Deputy Director

 **Industry** Government

 **Customer** The State of Arkansas

 **Challenge** Implementation of a statewide Emergency Service IP Network facilitated by the aggregation of geospatial data layers from numerous local government entities to support Next Generation 9-1-1 (NG9-1-1) requirements for geospatial based call routing.

 **Solution** Public Safety NG9-1-1 Enterprise Solution that establishes an automated NG9-1-1 workflow for data validation and integration to support the state-wide build-out.

Key Benefits:

- Enables the State to provide the locals with a user-friendly portal for data validation which produces a geospatial report identifying the issues and their exact location. The local entity can then download the report and bring it into their system of choice for data cleanup, making the process much easier and more efficient.
- Provides the State with a dashboard to monitor how the locals are progressing over time (e.g. to show if their data is improving or declining) so the State can further support those who are struggling. The State can also see if particular validation rules are causing the majority of user issues, enabling the State to provide further guidance/ education on those particular requirements.

The State of Arkansas

The Arkansas 911 Board is responsible for the planning, operation, and implementation of the statewide NG9-1-1 Service, as well as the distribution of funds for the maintenance and improvement of the system. In 2020, they began searching for tools to support their transition to Next Generation 9-1-1 (NG9-1-1). NG9-1-1 aims to improve emergency response times, enhance public safety, and better meet the needs of a technologically advanced society.

The Arkansas 911 Board chose to bring in a vendor for the State NG9-1-1 Implementation instead of building an in-house system. The Board wanted Public Safety Answering Points (PSAPs) to govern their own data, eliminating the need to delegate quality assurance and control responsibilities to the Arkansas GIS Office. After a competitive bid process, 1Spatial's Public Safety NG9-1-1 Enterprise Solution was selected. It was chosen for its ability to deliver the required functionality within a few months, in addition to its flexibility to support other data initiatives.

Challenge

To implement geospatial 9-1-1 call routing, it takes significant coordination with local data providers to aggregate the National Emergency Number Association (NENA) required datasets (Address Points, Road Centerlines, Emergency Service Boundaries, PSAP Boundaries, and Provisioning Boundaries). NENA has published, and continues to author, new standards for geospatial data supporting NG9-1-1. Arkansas will use these standards as a statewide baseline for provisioning data into the State's Next Generation Core Services (NGCS).

Solution

To meet Arkansas's NG9-1-1 data needs, they implemented 1Spatial's Public Safety NG9-1-1 Enterprise Solution. This solution includes 1Integrate and 1Data Gateway preconfigured with the NENA-based NG9-1-1 Rules Package, serving all state and local governments (including contractors). It aggregates data from PSAPs, validates NG9-1-1 datasets, and produces a spatial report for the PSAP. To facilitate adoption, 1Spatial and the Arkansas GIS Office hosted training sessions for counties and PSAPs.

Advantages of the Solution

1Spatial deployed the solution based on Arkansas-specific requirements, focusing on configuration over custom development. The solution was operational within three months, allowing PSAPs to directly work with the system and improve their NG9-1-1 data. The quick deployment resulted in an immediate return on investment for Arkansas.

The configurable nature of the solution ensures timely compliance with NENA's standards and guidelines. The 1Spatial

Public Safety NG9-1-1 Enterprise Solution empowers counties and PSAPs to operate independently, automating data submittal once it meets State standards. PSAPs can easily drag-and-drop data into the validation/aggregation portal and receive spatial pinpoint accuracy reports, enabling a more efficient data clean-up process.



Watch the Solution Overview



Benefits

1Spatial's Public Safety NG9-1-1 Enterprise Solution provides the following benefits to the State of Arkansas:

- Precisely demarcates gaps, overlaps, and incomplete data.
- Converts local data to Arkansas's Data Standard for NG9-1-1.
- Precisely pinpoints problems/errors within and between jurisdictions.
- Consistently measures progress over time as improvements are executed.
- Provides a common platform for efficient data rollups, from Arkansas PSAPs to the State.
- Enable continuous, secure, and consistent updates, realizing significant economies of scale.



Future

NENA continually updates geospatial data standards for NG9-1-1, and 1Spatial is actively involved with NENA to remain current with these updates. Arkansas adopts these standards as a statewide baseline, providing data to the State's NGCS. 1Spatial's implementation may expand to support a data validation/integration workflow for Arkansas's statewide parcel layer, with ongoing discussions with the Arkansas GIS Office.

Book a demo >>>

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<https://go.1spatial.com/ng911-demo>

