

A CHECKLIST FOR PUBLIC SAFETY GRADE GIS

Take Your GIS Data To The Next Level



STRATEGIES FOR SUCCESS

Released by the National 9-1-1 Program in October 2016, the NG9-1-1 Procurement Guidance document provides direction in the areas of contract negotiations, Service Level Agreements (SLAs), and security for agencies procuring Next Generation 9-1-1 (NG9-1-1) products and services. One aspect of the document explains that as 9-1-1 agencies begin to upgrade outdated systems, it becomes imperative that Geographic Information Systems (GIS) data is Public Safety Grade since it is used in an NG9-1-1 environment to locate emergency callers.

Therefore, as NG9-1-1 implementation and advanced location accuracy capabilities via indoor mapping occurs, GIS data takes on a mission critical role. For 9-1-1 agencies, this means new GIS data management needs, staffing impacts, and GIS data standards and compliance requirements. The GIS data is being used to locate emergency callers, reduce response times, and ultimately help save lives and protect property.

PUBLIC SAFETY AND GIS PROFESSIONALS CAN UTILIZE THIS CHECKLIST WHICH IS FOCUSED ON NG9-1-1 GIS READINESS STRATEGIES AND THE UTILIZATION OF PUBLIC SAFETY GRADE GIS DATA.

DETERMINE REGIONAL OR STATE NG9-1-1 STATUS FOR YOUR AGENCY

- Learn about regional and/or state GIS data models to ensure your agency is prepared.
- Research and get involved in furthering NG9-1-1 progress.

PROVIDE EDUCATION TO GIS AND PSAP STAKEHOLDERS

- Discuss the need for public safety grade GIS with local government partner agencies. GeoComm defines Public Safety Grade GIS as a system designed to capture, store, display, analyze, share, and manage data for the purposes of public safety and 9-1-1 emergency response. Any GIS utilized for the purposes of emergency response is expected to be accurate, secure, reliable, resilient, redundant, and diverse to remain operational in any emergency.
- Address the critical role of GIS data in 9-1-1 and NG9-1-1 and the importance of assessing, improving, and maintaining the GIS data to meet industry standards and best practices.

REVIEW DATA REQUIREMENTS FOR NG9-1-1

- Ensure you have the required data layers. The five data layers required for an NG9-1-1 system include: Road Centerline, Site/Structure Address Points, Public Safety Answering Point (PSAP) Boundary, Emergency Service Boundary, and Provisioning Boundary.
- Consider technological advancements and additional data needs for improving location accuracy - such as indoor 2D map development.
- Review local street names for NG9-1-1 eight-field breakdown.
- Determine local data scheme based on National Emergency Number Association (NENA) Standard for NG9-1-1 GIS Data Model. Mandatory attributes are required to be maintained at the local level. The Emergency Service Boundary layer may be maintained as a combined layer but must be provisioned to the NG9-1-1 network as separate layers.

ACHIEVE 98% OR GREATER SYNCHRONIZATION LEVEL BETWEEN THE MSAG, ALI DATABASE, AND GIS DATA

- Assess, improve, and maintain local GIS data since it replaces the Master Street Address Guide (MSAG) database in an NG9-1-1 system. MSAG, Automatic Location Information (ALI), and GIS data synchronization improves GIS data accuracy and assists in achieving NG9-1-1 requirements while also improving the accuracy of the GIS data on the PSAP map.

INITIATE AN ANALYSIS OF PSAP AND EMERGENCY SERVICE BOUNDARY LAYERS WITH NEIGHBORING JURISDICTIONS TO ENSURE RESOLUTION OF ANY GAP AND OVERLAPS THAT OCCUR

- Evaluate the PSAP Boundary layer since it is used by the Emergency Call Routing Function (ECRF) to perform a geographic query and determine which PSAP an emergency call is routed to.
- Begin discussions with neighboring jurisdictions for resolution of gaps and overlaps within PSAP and Emergency Service Boundary Layers. Developing intergovernmental agreements may be necessary for issue resolution.

DEVELOP/DOCUMENT A COMMUNICATION PLAN

- Establishing a communication plan between local public safety agencies and GIS personnel is critical for ensuring quality GIS data that is complete, accurate, and reliable for 9-1-1 emergency response during any routine or larger-scale emergency.

DEVELOP/DOCUMENT MAINTENANCE WORKFLOW APPROACH

- Create standard workflow documentation and store in a location known to designated PSAP and GIS staff to ensure consistency and knowledge transfer when needed.
- Develop and document maintenance your workflow approach. With the mission critical nature of GIS data in NG9-1-1, a focus on developing workflows for managing GIS-related errors is necessary.
- Establish a discrepancy resolution workflow that follows NENA NG9-1-1 standards.

DEVELOP A STAFFING APPROACH FOR ADDRESSING REQUIRED NG9-1-1 GIS NEEDS

- Provide a staffing plan that addresses GIS data needs 24 hours a day, 7 days a week, 365 days a year. Account for discrepancy resolution needs within the staffing approach. Staffing plans should consider the workflow for how local GIS data will be provisioned into the NG9-1-1 system.

UTILIZE GIS DATA MANAGEMENT SOLUTIONS THAT ARE BUILT WITH ACCURACY, SECURITY, RELIABILITY, RESILIENCY, REDUNDANCY, DIVERSITY, AND SCALABILITY.

- Ensure Public Safety Grade GIS data is used in your PSAP, 9-1-1, CAD, and NG9-1-1 solutions during any routine emergency, natural or man-made disaster.

GEOCOMM CAN HELP YOU COMPLETE ALL OF THE ITEMS LISTED IN THIS CHECKLIST



Contact us at geocomm@geo-comm.com to get help tackling your NG9-1-1 GIS checklist