Geographic Information System (GIS) Standardization Project

ACTIVE Contract Opportunity Notice ID 693JJ921R000012 Related Notice Department/Ind. Agency TRANSPORTATION, DEPARTMENT OF Sub-tier NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION Office 693JJ9 NHTSA OFFICE OF ACQUISTION

General Information

- Contract Opportunity Type: Presolicitation (Original)
- All Dates/Times are: (UTC-05:00) EASTERN STANDARD TIME, NEW YORK, USA
- Original Published Date: Jan 13, 2021 04:58 pm EST
- Original Response Date:
- Inactive Policy: Manual
- Original Inactive Date: Dec 12, 2021
- Initiative:
 - None

Classification

- Original Set Aside:
- **Product Service Code:** R410 SUPPORT- PROFESSIONAL: PROGRAM EVALUATION/REVIEW/DEVELOPMENT
- NAICS Code: 511210 Software Publishers
- Place of Performance:

Washington, DC 20590

USA

Description

The National 911 Program is housed within NHTSA's Office of Emergency Medical Services (EMS). It is responsible for the achieving the following tasks:

- 1. Improving coordination and communication among Federal, State and local emergency communication systems, emergency personnel, public safety organizations, telecommunication carriers, and telecommunications equipment manufacturers and vendors.
- 2. Developing, collecting and disseminating information and resources concerning best practices, procedures and technology used in implementation and operation of 911 services, and
- 3. Administering a grant program specifically for the benefit of 911 Public Safety Answering Points (PSAP).

A Geographic Information System (GIS) is a framework for gathering, managing, and analyzing geographical data. While GIS data are used for many different purposes in both the private sector and in public safety, the application of GIS technologies is very specific to providing 911 services. As the nation's 911 system migrates from existing, legacy systems to Next Generation 911 (NG911), all calls will be routed to the appropriate 911 call center, based on the geographic location of the caller, and their exact location will be automatically conveyed as part of their call. In the NG911 model, the 911 call will essentially "find" the appropriate 911 Public Safety Answering Point (PSAP), as opposed to the PSAP being required to "find" the 911 caller, as happens with the existing legacy 911 system. Emergency Responders will be assigned a response, based on location data, and responders will depend on GIS data to find the caller.

To date, the thousands of 911 call centers in the U.S. have not developed a nationally uniform, consistent GIS system or a mechanism for sharing GIS data. As NG911 continues to be deployed and calls are transferred from one jurisdiction to another, this lack of GIS consistency will pose multiple interoperation problems for 911 call takers and emergency responders. There are likely a number of technical and nontechnical challenges to standardizing and/or sharing GIS data and achieving truly interoperable 911 GIS data use among 911 agencies.

In the existing legacy 911 system, location database systems performed three main functions that have remained mostly unchanged for decades:

- 1. Validation of the 911 caller's location to a valid street address contained in a Master Street Address Guide (MSAG)
- 2. Assignment of Emergency Service Number (ESN) for emergency call routing and selective call transfers

3. Automatic delivery of location information associated with the telephone number calling 911 (Automatic Location Information or ALI).

In this legacy system, as the 911 Public Safety Answering Point (PSAP) receives a 911 call, the PSAP must "find" the 911 caller, using these technologies. NG911 utilizes GIS data for 911 Emergency Call Routing Functions (ECRF) AND Location Validation Functions (LVF). Using NG911 technology, the 911 call "finds" the appropriate PSAP – and does so faster. The Emergency Call Routing Function (ECRF) accurately routes 911 calls to the appropriate PSAP based on the caller's location and in a NG911 system, the ECRF along with the Location Validation Function (LVF) replace the current Master Street Address Guide (MSAG). Geospatial call routing enables more accurate call routing than traditional E911 systems and can reduce the number of 911 call transfers due to misrouted 911 calls. This in turn can help reduce emergency response times and save more lives and property. In addition to being used when routing 911 calls, NG911 systems use GIS data before a 911 call is placed to see if the address is valid for 911.

The NG911 Roadmap (Roadmap), published in early 2019, was a collaborative effort between the National 911 Program and 911 stakeholders from both the public and private sectors. It focuses on what needs to be done at the national level-by all members of the 911 community-to achieve a nationwide NG911 system of systems. The Roadmap identifies technical and nontechnical tasks that must be completed at the national level, to achieve a seamless, nationwide 911 system; and organizes these tasks into five groups of goals. The Technology (Tech) Goal seeks to stimulate adoption and enable implementation of NG911 technology by promulgating NG911 open standards and establishing means by which emerging technologies can be validated for compliance and security. This goal includes a task to "Design, implement, and operate a nationwide GIS data store" as a means to create and adopt technical and operational requirements for nationwide interconnection components will need to be defined and explored for feasibility. The Roadmap" developed by 911 stakeholders, calls for the "design, implementation, and operation of a nationwide GIS store;" and the "development of standards, requirements, and best practices for handling GIS data." The Strategic Plan for 911 Data and Information Sharing, also published in early 2019, was also developed a collaborative effort between the National 911 Program and 911 stakeholders from both the public and private sectors. This document was produced in response to a formal recommendation made by the Federal Communications Commission's (FCC) Task Force on Optimal PSAP [Public Safety Answering Point]

Architecture (TFOPA), in its report which recommended the "establishment of a national system that would enable the collection and analysis of standardized 911 administrative, operational, cost and computer-aided dispatch (CAD) data." Data uniformity, including GIS data uniformity, are mentioned several times as an essential element of a truly interoperable, seamlessly connected national 911 system. GIS is one of the basic building blocks of NG911 and many jurisdictions are replacing their MSAG databases with GIS. As the U.S. looks forward to a nationally interconnected, seamless 911 system of systems, what are some of the issues that will have to be overcome, in order for 911 calls and data to be successfully transferred among different jurisdictions? While standards for 911 GIS exist, how has their actual implementation resulted in variances that could cause problems when location data is transferred? A number of companies currently provide services to support 911 systems, and more than one national GIS organization exists, with differing perspectives on GIS deployment. How should these differences be addressed? Is data uniformity advisable, or are data exchange and data interface mechanisms a better solution? In order to achieve to a nationally interconnected, seamless 911 system of systems, these questions should be answered.

Solicitation Information:

This acquisition is being offered as full and open competition. The NAICS Code for the anticipated contract is **511210**. Contractors must be registered in the Systems for Award Management Database located at http://www.sams.gov, and must complete electronic representations and certification on the ORCA database located at http://orca.bpn.gov to be considered for contract award. It is the Government's intent to award a Cost-Plus Fixed Fee (CPFF) contact resulting from the solicitation, with or without discussions, to the responsible offeror whose proposal, conforming to the solicitation, is most advantageous to the Government based on the evaluation factors contained in the solicitation. It is the Offeror's responsibility to monitor the <u>https://beta.sam.gov/</u> for the release of the solicitation and amendments (if any). Potential Offerors will be responsible for downloading their own copy of the solicitation and amendments (if any). Requests for paper copies of the RFP will not be accepted. The **estimated** date for release of the solicitation is on or about <u>January 28</u>, <u>2021.</u>

Period of Performance: Twelve (12) months period of performance.Contract Award: The anticipated award date for the resultant contract is expected to be on or about July 31, 2021

No Further Procurement Information is Available at this time.

Attachments/Links

Download All Attachments/Links Attachments			
Document	File Size	Access	Updated Date
693JJ921R000012 Presolicitationpdf (opens in new window)	105 KB	Public	Jan 13, 2021

Contact Information

Contracting Office Address

- OFFICE OF ACQUISITION MANAGEMENT 1200 NEW JERSEY AVE SE, ROOM W51-30
- WASHINGTON, DC 20590
- USA

Primary Point of Contact

- Journey Gordon
- Journey.Gordon@dot.gov
- Phone Number202-366-1344

Secondary Point of Contact

- David Larson
- david.larson@dot.gov
- Phone Number2023664843