

Computer Aided Dispatch (CAD) Project

ACTIVE

Contract Opportunity

Notice ID

693JJ921R000029

Related Notice

693JJ920RQ000031

Department/Ind. Agency

TRANSPORTATION, DEPARTMENT OF

Sub-tier

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Office

693JJ9 NHTSA OFFICE OF ACQUISITION

General Information

- **Contract Opportunity Type:** Presolicitation (Original)
- **All Dates/Times are:** (UTC-04:00) EASTERN STANDARD TIME, NEW YORK, USA
- **Original Published Date:** Apr 02, 2021 01:26 pm EDT
- **Original Response Date:** Apr 19, 2021 02:30 pm EDT
- **Inactive Policy:** Manual
- **Original Inactive Date:** Dec 31, 2021
- **Initiative:**
 - None

Classification

- **Original Set Aside:**
- **Product Service Code:** R408 - SUPPORT- PROFESSIONAL: PROGRAM MANAGEMENT/SUPPORT
- **NAICS Code:** 3341 - Computer and Peripheral Equipment Manufacturing
- **Place of Performance:**

Description

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

The Master Glossary of the National Emergency Number Association (NENA) defines Computer Aided Dispatch (CAD) as "a computer based system, which aids Public Safety Answering Point (PSAP) Telecommunicators by automating selected dispatching and record keeping activities." CAD typically includes a suite of incident management software, integrating capabilities for call handling and dispatching, intelligent mapping, field communications, data reporting and analysis, and integration of selected applications. Because of the decentralized nature of 911 operations up until the advent of Next Generation (NG) 911, there are an unknown number of CAD vendors in the U.S. (Estimate: 50-200); and none of the components included in their systems are uniform. This creates significant challenges for 911 call and data transfer, which is a function inherent in the architecture of Next Generation 911 (NG911). It also creates a significant challenge for transferring call information to emergency responders via the Public Safety Broadband Network.

While one school of thought within the 911 community defines CAD as a separate function, apart from 911 call processing, the dispatch function is performed by more than half of the nation's PSAPs; arguably making it an inherent part of the 911 call taking and processing function. There also exists, no other community of CAD vendors that allows for an organized approach in working with CAD vendors. An International CAD Consortium does exist, but its primary function appears to be an annual conference to share information. As a result, the CAD vendor community is a large, disparate, unorganized entity; adding to the difficulty of addressing the issues related to CAD data sharing.

According to one source, the Mission Critical Communications online "Super Guide," a search for companies providing "CAD software systems" yielded 53 results. This list is by no means inclusive of all CAD companies. The actual number of CAD vendors is unknown, and estimated to be between 50 and 200 companies.

The advent of NG911 enables a transition from the legacy model of all PSAPs operating independently, to a ultimate national model of all PSAPs being interconnected. In the legacy system, transfer of 911 calls and data was not technically possible for the most

part. Because NG911 is based upon a digital, Internet-protocol model, it is interconnected by design. The current decentralized, disparate nature of CAD creates significant challenges for 911 call and data transfer. These challenges must be understood and addressed, for NG911 to function as intended.

In addition to PSAP to PSAP connectivity, the advent of FirstNet's National Public Safety Broadband Network (FirstNet) creates a network for emergency responders in the field that is also based upon a digital, Internet-protocol based model. Because of this transition, the current status of decentralized and disparate CAD vendors will also present challenges to 911 in sharing 911 call data and information emergency responders. To enable data transfer between 911 and FirstNet, the issues facing CAD must be understood and addressed.

There are currently a number of activities underway that begin to examine the CAD issue. How do they contribute to the overall goal of achieving data sharing within the 911 system, and between 911 and FirstNet? Is CAD/data uniformity of some measure advisable? Are efforts to interface disparate CAD systems a better solution? How should these questions be addressed? In order to achieve a nationally interconnected, seamless system of emergency communication systems, these questions should be answered.

Attachments/Links

Download All Attachments/Links

Attachments

Document	File Size	Access	Updated Date
693JJ921R000029 Presolicitation CAD.pdf (opens in new window)	142 KB	Public	Apr 02, 2021

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