AUTOMATED VEHICLE LOCATION

Effective: February 12, 2015
Replaces: New
Review: November 12, 2021

Resources:
None

I.   Purpose

The purpose of this policy is to identify the requirements for automated vehicle location reporting to enable unit location tracking in real time or near-real time for 911 call dispatching.

II.   Principles

A.   Automated Vehicle Location (AVL) is a combination of hardware and software which frequently and accurately determines the position of a vehicle and reports that position to a tracking and viewing system.

B.   The 911 System, on occasion, requires the assistance of non 911 ambulance providers who are not routinely dispatched to 911 calls.

C.   In cases where non 911 ambulance providers are called upon to assist the 911 system, automated vehicle location services, viewable to County Communications via the Common Regional Operating Picture (CROP), greatly assist in ensuring that the most appropriate unit is dispatched to each call.

D.   All permitted ambulances must publish their location data in accordance with this policy.

III.   Utilization and Ownership of AVL data

A.   All vehicle location data submitted by participating providers is solely for the purpose of dispatching 911 calls to the closest, most appropriate unit.

B.   Vehicle location data is only observable while a tracked vehicle is actively logged in to the 911 CAD.

C.   Vehicle location data is not stored by the EMS Agency or by County Communications.

D.   Vehicle location information is the property of the provider agency or organization responsible for maintaining and deploying the vehicle being tracked.

IV. External-System Security

A. Systems shall use the HTTP/s protocol for communications with the County Infrastructure.

B. AVL Systems shall install an X.509 certificate which identifies and electronically represents the respective provider organization for data exchanges from the AVL System to the County Infrastructure.

C. AVL Systems shall accept an X.509 certificate which identifies and electronically represents the County Infrastructure for data exchange from the County Infrastructure to the respective provider organization.

V. Unit Status Update

A. The Unit Status Update data exchange shall be issued on a periodic basis.

B. The Unit Status Update data exchange should be able to be issued at least every thirty (30) seconds by the AVL System. Nominal issuing period is projected to be about every sixty (60) seconds.

C. Non 911 ambulance provider systems shall use the non 911 ambulance Agency ID (alphanumeric) and system ID information supplied in the unit status update data exchange response to reconcile unit status against non 911 ambulance provider incidents in the AVL System.

D. Non 911 ambulance provider AVL Systems shall be able to receive and process a Unit Status Update response.

E. In addition, the Unit Status Update response shall contain a unit identifier, unit status and the provider organization and system IDs.

VI. Data Exchange Format

A. Data Exchanges shall consist of well-formed XML.

B. Data Exchanges shall conform to the APCO, NENA, NIEM and Information Exchange Package data exchange best practices and structures designed for provider organization AVL System and Alerting systems to support interoperability.

VII. Unit Status Update Type Data Exchange Message

A. A Unit Status Update exchange shall contain the following data elements in the request from the requesting AVL System:

1. Parent Element identifying Unit Status Update

2. Agency Event ID (alphanumeric)

3. System ID

4. Timestamp AVL System creates / sends request and for each unit in the requesting AVL System, a status containing:

   a. Unit # / Unit Identifier

   b. Unit Status Code (native to AVL System issuing the report)

   c. Unit Local Event Identifier (unit is assigned to a BLS Contractor event)

   d. Unit Remote Event Identifier (unit is assigned to a correlated remote event)