

To whom it may concern:

Geo-Comm, Inc. (GeoComm), one of Nebraska's pre-qualified Geographic Information Systems (GIS) services providers specializing in public safety GIS, respectfully submits comments to the Nebraska Public Service Commission (PSC) regarding Application No. 911-058/PI-188. GeoComm has reviewed the Next Generation Telephone Communications Study conducted by Mission Critical Partners (MCP) and is commenting relatively only to the GIS components.

GeoComm's NG9-1-1 GIS implementation experience over the last four years includes overcoming many of the GIS challenges that come along with implementing a NENA i3 system. These projects include a pilot project in North Carolina in 2010, an i3 NG9-1-1 implementation of both Emergency Call Routing Function (ECRF) and Location Validation Function (LVF), and enterprise GIS data management and provisioning in Texas; and end-to-end enterprise GIS data management, ECRF/LVF and tactical 9-1-1 PSAP mapping in the State of Maine. Further, GeoComm's staff is involved in or leading the NENA GIS workgroups and GIS standards development. We understand the standards and recommendations from both a participation and comprehension standpoint, and further from an implementation standpoint.

The State of Nebraska is in a good position to deploy a statewide NG9-1-1 GIS data layer starting with the GIS data in the Nebraska PSC repository. As MCP points out in the study, the GIS data the State already has is a good start towards an NG9-1-1 GIS dataset statewide. The NG9-1-1 GIS data model recommendations from NENA are still being drafted, as is a site/structure (address points) GIS data recommendation. In these recommendations, there will be required and recommended layers and GIS attributes. When these are published, the State of Nebraska will want to review them in detail, or hire a consultant to assist them, to determine a statewide GIS data layer and attributes standard. As MCP indicates, enhancing the State's existing GIS data to meet anticipated standards and recommendations will be part of a larger NG9-1-1 implementation project. It is something the State could begin work on now. Further consideration of the budget needed for this work will be needed if the State determines they would like address points as part of the statewide GIS dataset.

Address Point Layer for NG9-1-1

An address point layer related to NG9-1-1 is beneficial for:

- Ensures accuracy in NG9-1-1 call routing.
- An address point layer provides the core location validation database for NG9-1-1 and can validate sub-address elements of building name, unit, room, seat, and place type, unlike tabular 9-1-1 Master Street Address Guides (MSAGs).
- It also provides the core emergency call routing GIS database for devices referenced by civic address locations, such as wireline telephones and other fixed location devices.
- There is also a critical linkage between caller location and NG9-1-1 additional data associated with a location for discovering additional premise, owner, and tenant data using an ECRF.
- An address point layer is able to store more finite information about a location than an MSAG or road centerline; such as building name, unit, room, etc.
- Discovers additional data about a location.

NENA 71-001 v1 NG9-1-1 Additional Data describes several informational data structures that can be associated with a 9-1-1 call. The call data structure includes device specific information, such as make, model, and type of device, from which a 9-1-1 call is placed. The call data structure includes human information, such as emergency contacts and potentially other information such as electronic health records. The Public Safety Answering Point (PSAP) data structure includes information added by the PSAP, such as call taker notes. Finally, the location data structure can include information about a premise such as:

- Owner and tenant contact information
- Security contact information
- Building maintenance and structural engineering contacts
- Floor plans
- HVAC, alarm, and sensor status
- Automatic defibrillator locations
- Surveillance

A location data structure for a premise is referenced by a Uniform Resource Identifier/Uniform Resource Locator (URI/URL). The additional location information URI/URL is an attribute field within an address point layer provisioned to the NG9-1-1 ECRF. An authorized application, such as a PSAP mapping system, discovers the additional location data URI/URL by querying an ECRF provisioned with an address point layer containing the additional location data URI/URL attribute field. Therefore, address point layers are critical for discovering NENA 71-001 NG9-1-1 Additional Data associated with a location.

Further, Nebraska should be aware of the growing trend towards statewide address point layers in the following states (this list is not all-inclusive): Massachusetts, New York, North Dakota, Kansas, at a county level up in Tennessee, and at a district or COG level in Texas.

GeoComm recommends the State consider:

- Adopting statewide GIS data standards including definition around NENA required and recommended layers.
- Using the existing county-level funding models, request that the counties identify the costs for modifying existing GIS data to meet the statewide standards, including address point layers.
- Making appropriate apportionments to counties to update the GIS data to meet the State's standards.
- Investigating needed updates and enhancements to the Nebraska PSC data repository for future integration with an i3 ECRF/LVF.
- Determining the requirements and make updates and enhancements to the data repository (could be completed as part of the larger implementation).

By taking these steps, the State may more realistically determine the budget requirements for GIS data enhancements to meet their NG9-1-1 needs.

GeoComm looks forward to the opportunity to work with the State of Nebraska as steps are taken to implement a NG9-1-1 system. Please do not hesitate to contact me to discuss these considerations. I can be reached at 800-335-4255 or via e-mail at sgross@geo-comm.com.

Sincerely,



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