911 **Datamaster**
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State of Nebraska

Response to RFP 5882 Z1

State of Nebraska State Purchasing Bureau
REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES

RETURN TO:
Name: State Purchasing Bureau
Address: 1526 K St. Suite 130
City/State/Zip: Lincoln, NE 68508
Phone: 402-471-6500

SOLICITATION NUMBER	RELEASE DATE
RFP 5882 Z1	July 20, 2018
OPENING DATE AND TIME	**PROCUREMENT CONTACT**
July 30, 2018 2:00 P.M. Central Time	Annette Walton / Jennifer Eloge

PLEASE READ CAREFULLY!
SCOPE OF SERVICE

The State of Nebraska (State), Department of Administrative Services (DAS), Materiel Division, State Purchasing Bureau (SPB), is issuing this Request for Proposal (RFP) Number 5882 Z1 for the purpose of selecting a qualified bidder to provide Quality Assurance/Quality Control (QA/QC) services with respect to Geographic Information Systems (GIS) data intended for use by Public Safety Answering Points (PSAPs) to facilitate the delivery of Next Generation 911 (NG9-1-1 services at a competitive and reasonable cost. A more detailed description can be found in Section V. The resulting contract may not be an exclusive contract as the State reserves the right to contract for the same or similar services from other sources now or in the future.

The term of the contract will be two (2) years commencing upon notice to proceed. The contract includes the option to renew for two (2) additional one (1) year periods upon mutual agreement of the Parties. The State reserves the right to extend the period of this contract beyond the termination date when mutually agreeable to the Parties.

ALL INFORMATION PERTINENT TO THIS REQUEST FOR PROPOSAL CAN BE FOUND ON THE INTERNET AT: http://das.nebraska.gov/materiel/purchasing.html.

IMPORTANT NOTICE: Pursuant to Neb. Rev. Stat. § 84-602.04, State contracts in effect as of January 1, 2014, and contracts entered into thereafter, must be posted to a public website. The resulting contract, the RFP, and the successful bidder's proposal or response will be posted to a public website managed by DAS, which can be found at http://statecontracts.nebraska.gov.

In addition and in furtherance of the State's public records Statute (Neb. Rev. Stat. § 84-712 et seq.), all proposals or responses received regarding this RFP will be posted to the State Purchasing Bureau public website.

These postings will include the entire proposal or response. Bidders must request that proprietary information be excluded from the posting. The bidder must identify the proprietary information, mark the proprietary information according to state law, and submit the proprietary information in a separate container or envelope marked conspicuously in black ink with the words "PROPRIETARY INFORMATION". The bidder must submit a detailed written document showing that the release of the proprietary information would give a business advantage to named business competitor(s) and explain how the named business competitor(s) will gain an actual business advantage by disclosure of information. The mere assertion that information is proprietary or that a speculative business advantage might be gained is not sufficient. (See Attorney General Opinion No. 92068, April 27, 1992) THE BIDDER MAY NOT ASSERT THAT THE ENTIRE PROPOSAL IS PROPRIETARY. COST PROPOSALS WILL NOT BE CONSIDERED PROPRIETARY AND ARE A PUBLIC RECORD IN THE STATE OF NEBRASKA. The State will then determine, in its discretion, if the interests served by nondisclosure outweighs any public purpose served by disclosure. (See Neb. Rev. Stat. § 84-712.05(3)) The bidder will be notified of the agency's decision. Absent a State determination that information is proprietary, the State will consider all information a public record subject to release regardless of any assertion that the information is proprietary.

If the agency determines it is required to release proprietary information, the bidder will be informed. It will be the bidder's responsibility to defend the bidder's asserted interest in non-disclosure.

To facilitate such public postings, with the exception of proprietary information, the State of Nebraska reserves a royalty-free, nonexclusive, and irrevocable right to copy, reproduce, publish, post to a website, or otherwise use any contract, proposal, or response to this RFP for any purpose, and to authorize others to use the documents. Any individual or entity awarded a contract, or who submits a proposal or response to this RFP, specifically waives any copyright or other protection the contract, proposal, or response to the RFP may have; and, acknowledges that they have the ability and authority to enter into such waiver. This reservation and waiver is a prerequisite for submitting a proposal or response to this RFP, and award of a contract. Failure to agree to the reservation and waiver will result in the proposal or response to the RFP being found non-responsive and rejected.

Any entity awarded a contract or submitting a proposal or response to the RFP agrees not to sue, file a claim, or make a demand of any kind, and will indemnify and hold harmless the State and its employees, volunteers, agents, and its elected and appointed officials from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and

expenses, sustained or asserted against the State, arising out of, resulting from, or attributable to the posting of the contract or the proposals and responses to the RFP, awards, and other documents.

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GLOSSARY OF TERMS

Acceptance Test Procedure: Benchmarks and other performance criteria, developed by the State of Nebraska or other sources of testing standards, for measuring the effectiveness of products or services and the means used for testing such performance.

Addendum: Something to be added or deleted to an existing document; a supplement.

After Receipt of Order (ARO): After Receipt of Order

Agency: Any state agency, board, or commission other than the University of Nebraska, the Nebraska State colleges, the courts, the Legislature, or any other office or agency established by the Constitution of Nebraska.

Agent/Representative: A person authorized to act on behalf of another.

ALI – Automatic Location Information.

Amend: To alter or change by adding, subtracting, or substituting.

Amendment: A written correction or alteration to a document.

Appropriation: Legislative authorization to expend public funds for a specific purpose. Money set apart for a specific use.

Award: All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the RFP. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

Best and Final Offer (BAFO): In a competitive bid, the final offer submitted which contains the bidder's (vendor's) most favorable terms for price.

Bid/Proposal: The offer submitted by a vendor in a response to a written solicitation.

Bid Bond: An insurance agreement, accompanied by a monetary commitment, by which a third party (the surety) accepts liability and guarantees that the vendor will not withdraw the bid.

Bidder: A vendor who submits an offer bid in response to a written solicitation.

Business: Any corporation, partnership, individual, sole proprietorship, joint-stock company, joint venture, or any other private legal entity.

Business Day: Any weekday, except State-recognized holidays.

Calendar Day: Every day shown on the calendar including Saturdays, Sundays, and State/Federal holidays.

Cancellation: To call off or revoke a purchase order without expectation of conducting or performing it at a later time.

Central Processing Unit (CPU): Any computer or computer system that is used by the State to store, process, or retrieve data or perform other functions using Operating Systems and applications software.

Change Order: Document that provides amendments to an executed purchase order or contract.

Collusion: An agreement or cooperation between two or more persons or entities to accomplish a fraudulent, deceitful, or unlawful purpose.

Commodities: Any equipment, material, supply or goods; anything movable or tangible that is provided or sold.

Commodities Description: Detailed descriptions of the items to be purchased; may include information necessary to obtain the desired quality, type, color, size, shape, or special characteristics necessary to perform the work intended to produce the desired results.

Competition: The effort or action of two or more commercial interests to obtain the same business from third parties.

Confidential Information: Unless otherwise defined below, "Confidential Information" shall also mean proprietary trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Nebraska Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive.

Contract: An agreement between two or more parties creating obligations that are enforceable or otherwise recognizable at law; the writing that sets forth such an agreement.

Contract Administration: The management of the contract which includes and is not limited to; contract signing, contract amendments and any necessary legal actions.

Contract Award: Occurs upon execution of the State document titled "Service Contract Award" by the proper authority.

Contract Management: The management of day to day activities at the agency which includes and is not limited to ensuring deliverables are received, specifications are met, handling meetings and making payments to the Contractor.

Contract Period: The duration of the contract.

Contractor: Any individual or entity having a contract to furnish commodities or services.

Cooperative Purchasing: The combining of requirements of two or more political entities to obtain advantages of volume purchases, reduction in administrative expenses or other public benefits.

Copyright: A property right in an original work of authorship fixed in any tangible medium of expression, giving the holder the exclusive right to reproduce, adapt and distribute the work.

Critical Program Error: Any Program Error, whether or not known to the State, which prohibits or significantly impairs use of the Licensed Software as set forth in the documentation and intended in the contract.

Customer Service: The process of ensuring customer satisfaction by providing assistance and advice on those products or services provided by the Contractor.

Default: The omission or failure to perform a contractual duty.

Deviation: Any proposed change(s) or alteration(s) to either the terms and conditions or deliverables within the scope of the written solicitation or contract.

Discrepancy Report: A report delivered by the Contractor to the local agency responsible for uploading GIS data describing errors and discrepancies in a GIS dataset that must be corrected before the dataset will be accepted for inclusion in the GIS repository.

ECRF: Emergency Call Routing Function.

EMS: Emergency Medical Services.

ESZ: Emergency Service Zone.

ESRI: Environmental Systems Research Institute, an international supplier of GIS software, web GIS and geodatabase management applications.

Evaluation: The process of examining an offer after opening to determine the vendor's responsibility, responsiveness to requirements, and to ascertain other characteristics of the offer that relate to determination of the successful award.

Evaluation Committee: Committee(s) appointed by the requesting agency that advises and assists the procuring office in the evaluation of bids/proposals (offers made in response to written solicitations).

Extension: Continuance of a contract for a specified duration upon the agreement of the parties beyond the original Contract Period. Not to be confused with "Renewal Period".

FDGC: The Federal Geographic Data Committee.

FID Number: Feature Identification Number.

GIS: Geographic Information Systems.

GIS Dataset: GIS data uploaded to the Contractor's portal for QA/QC review.

GIS Repository: A database maintained by the Commission which includes the most-recently uploaded GIS datasets from each PSAP in the State of Nebraska.

Free on Board (F.O.B.) Destination: The delivery charges are included in the quoted price and prepaid by the vendor. Vendor is responsible for all claims associated with damages during delivery of product.

Free on Board (F.O.B.) Point of Origin: The delivery charges are not included in the quoted price and are the responsibility of the agency. Agency is responsible for all claims associated with damages during delivery of product.

Foreign Corporation: A foreign corporation that was organized and chartered under the laws of another state, government, or country.

Installation Date: The date when the procedures described in "Installation by Contractor", and "Installation by State", as found in the RFP, or contract, are completed.

Interested Party: A person, acting in their personal capacity, or an entity entering into a contract or other agreement creating a legal interest therein.

Late Bid/Proposal: An offer received after the Opening Date and Time.

Licensed Software Documentation: The user manuals and any other materials in any form or medium customarily provided by the Contractor to the users of the Licensed Software which will provide the State with sufficient information to operate, diagnose, and maintain the Licensed Software properly, safely, and efficiently.

LVF: Location Validation Function.

Mandatory/Must: Required, compulsory, or obligatory.

May: Discretionary, permitted; used to express possibility.

Module (see System): A collection of routines and data structures that perform a specific function of software.

MSAG: Master Street Address Guide.

Must: See Mandatory/ Must and Shall/Will/Must.

National Institute for Governmental Purchasing (NIGP): National Institute of Governmental Purchasing – Source used for assignment of universal commodity codes to goods and services.

NENA: National Emergency Number Association.

Next Generation 911 (NG9-1-1): an Internet protocol-based system (1) comprised of networks, functional elements, and data bases that replicate basic 911 service and enhanced-911 service features and functions and provide additional capabilities and (2) designed to provide access to emergency services from all connected communications sources and to provide multimedia data capabilities for public safety answering points and other emergency services organizations. (Neb. Rev. Stat. §

NITC: Nebraska Information Technology Council.

Open Market Purchase: Authorization may be given to an agency to purchase items above direct purchase authority due to the unique nature, price, quantity, location of the using agency, or time limitations by the AS Materiel Division, State Purchasing Bureau.

Opening Date and Time: Specified date and time for the public opening of received, labeled, and sealed formal proposals.

Operating System: The control program in a computer that provides the interface to the computer hardware and peripheral devices, and the usage and allocation of memory resources, processor resources, input/output resources, and security resources.

Outsourcing: The contracting out of a business process which an organization may have previously performed internally or

has a new need for, to an independent organization from which the process is purchased back.

Payroll & Financial Center (PFC): Electronic procurement system of record.

Performance Bond: An insurance agreement, accompanied by a monetary commitment, by which a third party (the surety) accepts liability and guarantees that the Contractor fulfills any and all obligations under the contract.

Platform: A specific hardware and Operating System combination that is different from other hardware and Operating System combinations to the extent that a different version of the Licensed Software product is required to execute properly in the environment established by such hardware and Operating System combination.

Point of Contact (POC): The person designated to receive communications and to communicate.

Portal: A dedicated website operated by the Contractor through which GIS datasets are uploaded by local PSAPs for QA/QC review.

Pre-Bid/Pre-Proposal Conference: A meeting scheduled for the purpose of clarifying a written solicitation and related expectations.

Product: Something that is distributed commercially for use or consumption and that is usually (1) tangible personal property, (2) the result of fabrication or processing, and (3) an item that has passed through a chain of commercial distribution before ultimate use or consumption.

Program Error: Code in Licensed Software which produces unintended results or actions, or which produces results or actions other than those described in the specifications. A program error includes, without limitation, any Critical Program Error.

Program Set: The group of programs and products, including the Licensed Software specified in the RFP, plus any additional programs and products licensed by the State under the contract for use by the State.

Project: The total scheme, program, or method worked out for the accomplishment of an objective, including all documentation, commodities, and services to be provided under the contract.

Proposal: See Bid/Proposal.

Proprietary Information: Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serves no public purpose (see Neb. Rev. Stat. § 84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific named competitor(s) advantaged by release of the information and the demonstrated advantage the named competitor(s) would gain by the release of information.

Protest/Grievance: A complaint about a governmental action or decision related to a RFP or resultant contract, brought by a vendor who has timely submitted a bid response in connection with the award in question, to AS Materiel Division or another designated agency with the intention of achieving a remedial result.

PSAP: Public Safety Answering Point.

Public Proposal Opening: The process of opening correctly submitted offers at the time and place specified in the written solicitation and in the presence of anyone who wished to attend.

Quality Assurance/Quality Control (QA/QC): A combination of quality assurance, the process or set of processes used to measure and assure the quality of a product; and quality control, the process of meeting products and services to public safety standards. (NENA-REQ-002.1-2016, p. 11).

Recommended Hardware Configuration: The data processing hardware (including all terminals, auxiliary storage, communication, and other peripheral devices) to the extent utilized by the State as recommended by the Contractor.

Release Date: The date of public release of the written solicitation to seek offers.

Renewal Period: Optional contract periods subsequent to the original Contract Period for a specified duration with previously agreed to terms and conditions. Not to be confused with Extension.

Request for Information (RFI): A general invitation to vendors requesting information for a potential future solicitation. The RFI is typically used as a research and information gathering tool for preparation of a solicitation.

Request for Proposal (RFP): A written solicitation utilized for obtaining competitive offers.

Responsible Bidder: A bidder who has the capability in all respects to perform fully and lawfully all requirements with integrity and reliability to assure good faith performance.

Responsive Bidder: A bidder who has submitted a bid which conforms to all requirements of the solicitation document.

Shall/Will/Must: An order/command; mandatory.

Should: Expected; suggested, but not necessarily mandatory.

Software License: Legal instrument with or without printed material that governs the use or redistribution of licensed software.

Sole Source – Commodity: When an item is available from only one source due to the unique nature of the requirement, its supplier, or market conditions.

Sole Source – Services: A service of such a unique nature that the vendor selected is clearly and justifiably the only practical source to provide the service. Determination that the vendor selected is justifiably the sole source is based on either the uniqueness of the service or sole availability at the location required.

Specifications: The detailed statement, especially of the measurements, quality, materials, and functional characteristics, or other items to be provided under a contract.

Statutory: These clauses are controlled by state law and are not subject to negotiation.

Subcontractor: Individual or entity with whom the Contractor enters a contract to perform a portion of the work awarded to the contractor.

System (see Module): Any collection or aggregation of two (2) or more Modules that is designed to function, or is represented by the Contractor as functioning or being capable of functioning, as an entity.

Termination: Occurs when either Party, pursuant to a power created by agreement or law, puts an end to the contract prior to the stated expiration date. All obligations which are still executory on both sides are discharged but any right based on prior breach or performance survives.

Third Party: Any person or entity, including but not limited to fiduciaries, shareholders, owners, officers, managers, employees, legally disinterested persons, and subcontractors or agents, and their employees. It shall not include any entity or person who is an interested Party to the contract or agreement.

Trade Secret: Information, including, but not limited to, a drawing, formula, pattern, compilation, program, device, method, technique, code, or process that (a) derives independent economic value, actual or potential, from not being known to, and not being ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and (b) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy (see Neb. Rev. Stat. §87-502(4)).

Trademark: A word, phrase, logo, or other graphic symbol used by a manufacturer or vendor to distinguish its product from those of others, registered with the U.S. Patent and Trademark Office.

Upgrade: Any change that improves or alters the basic function of a product or service.

Vendor: An individual or entity lawfully conducting business in the State of Nebraska, or licensed to do so, who seeks to provide goods or services under the terms of a written solicitation.

Vendor Performance Report: A report issued to the Contractor by State Purchasing Bureau when products or services delivered or performed fail to meet the terms of the purchase order, contract, and/or specifications, as reported to State Purchasing Bureau by the agency. The State Purchasing Bureau shall contact the Contractor regarding any such report. The vendor performance report will become a part of the permanent record for the Contractor. The State may require vendor to cure. Two such reports may be cause for immediate termination.

Will: See Shall/Will/Must.

Work Day: See Business Day.

I. PROCUREMENT PROCEDURE

A. GENERAL INFORMATION

The RFP is designed to solicit proposals from qualified bidders who will be responsible for providing Quality Assurance/Quality Control (QA/QC) services cost with respect to Geographic Information Systems (GIS) data intended for use by Public Safety Answering Points (PSAPs) to facilitate the delivery of Next Generation 911 (NG9-1-1) services at a competitive and reasonable cost.

Proposals shall conform to all instructions, conditions, and requirements included in the RFP. Prospective bidders are expected to carefully examine all documents, schedules, and requirements in this RFP, and respond to each requirement in the format prescribed. Proposals may be found non-responsive if they do not conform to the RFP.

B. PROCURING OFFICE AND COMMUNICATION WITH STATE STAFF AND EVALUATORS

Procurement responsibilities related to this RFP reside with the State Purchasing Bureau. The point of contact (POC) for the procurement is as follows:

Name:	Buyer(s) Annette Walton / Jennifer Eloge
Agency:	State Purchasing Bureau
Address:	1526 K Street, Suite 130
	Lincoln, NE 68508
Telephone:	402-471-6500
E-Mail:	as.materielpurchasing@nebraska.gov

From the date the RFP is issued until the Intent to Award is issued, communication from the bidder is limited to the POC listed above. After the Intent to Award is issued, the bidder may communicate with individuals the State has designated as responsible for negotiating the contract on behalf of the State. No member of the State Government, employee of the State, or member of the Evaluation Committee is empowered to make binding statements regarding this RFP. The POC will issue any clarifications or opinions regarding this RFP in writing. Only the buyer can modify the RFP, answer questions, render opinions, and only the SPB or awarding agency can award a contract. Bidders shall not have any communication with, or attempt to communicate or influence any evaluator involved in this RFP.

The following exceptions to these restrictions are permitted:

1. Contact made pursuant to pre-existing contracts or obligations;
2. Contact required by the schedule of events or an event scheduled later by the RFP POC; and
3. Contact required for negotiation and execution of the final contract.

The State reserves the right to reject a bidder's proposal, withdraw an Intent to Award, or terminate a contract if the State determines there has been a violation of these procurement procedures.

C.   **SCHEDULE OF EVENTS**
The State expects to adhere to the procurement schedule shown below, but all dates are approximate and subject to change.

ACTIVITY		DATE/TIME
1.	Release RFP	June 20, 2018
2.	Last day to submit written questions	July 8, 2018
3.	State responds to written questions through RFP "Addendum" and/or "Amendment" to be posted to the Internet at: http://das.nebraska.gov/materiel/purchasing.html	July 16, 2018

4.	Proposal opening
	Location: State Purchasing Bureau
	    1526 K Street, Suite 130
	    Lincoln, NE 68508
		July 30, 2018
		2:00 PM
		Central Time

5.	Review for conformance to RFP requirements	July 30, 2018
6.	Evaluation period	July 31, 2018 Through August 15, 2018
7.	"Oral Interviews/Presentations and/or Demonstrations" (if required)	TBD
8.	Post "Intent to Award" to Internet at: http://das.nebraska.gov/materiel/purchasing.html	August 22, 2018
9.	Contract finalization period	August 22, 2018 Through September 20, 2018
10.	Contract award	September 21, 2018
11.	Contractor start date	October 1, 2018

D. **WRITTEN QUESTIONS AND ANSWERS**
Questions regarding the meaning or interpretation of any RFP provision must be submitted in writing to the State Purchasing Bureau and clearly marked "RFP Number 5882 Z1; QA/QC for GIS datasets Questions". The POC is not obligated to respond to questions that are received late per the Schedule of Events.

Bidders should present, as questions, any assumptions upon which the bidder's proposal is or might be developed. Proposals will be evaluated without consideration of any known or unknown assumptions of a bidder. The contract will not incorporate any known or unknown assumptions of a bidder.

It is preferred that questions be sent via e-mail to as.materielpurchasing@nebraska.gov, but may be delivered by hand or by U.S. Mail. It is recommended that bidders submit questions using the following format.

RFP Section Reference	RFP Page Number	Question

Written answers will be posted at http://das.nebraska.gov/materiel/purchasing.html per the Schedule of Events.

E. **PRICES**
All prices, costs, and terms and conditions submitted in the proposal shall remain fixed and valid commencing on the opening date of the proposal until the contract terminates or expires.

The State reserves the right to deny any requested price increase. No price increases are to be billed to any State Agencies prior to written amendment of the contract by the parties.

F. **SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS (Statutory)**
All bidders must be authorized to transact business in the State of Nebraska and comply with all Nebraska Secretary of State Registration requirements. The bidder who is the recipient of an Intent to Award will be required to certify that it has complied and produce a true and exact copy of its current (within ninety (90) calendar days of the intent to award) Certificate or Letter of Good Standing, or in the case of a sole proprietorship, provide written documentation of sole proprietorship and complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at http://das.nebraska.gov/materiel/purchasing.html. This must be accomplished prior to execution of the contract.

G. **ETHICS IN PUBLIC CONTRACTING**
The State reserves the right to reject bids, withdraw an intent to award or award, or terminate a contract if a bidder commits or has committed ethical violations, which include, but are not limited to:

1. Offering or giving, directly or indirectly, a bribe, fee, commission, compensation, gift, gratuity, or anything of value to any person or entity in an attempt to influence the bidding process;
2. Utilize the services of lobbyists, attorneys, political activists, or consultants to influence or subvert the bidding process;
3. Being considered for, presently being, or becoming debarred, suspended, ineligible, or excluded from contracting with any state or federal entity;
4. Submitting a proposal on behalf of another Party or entity; and
5. Collude with any person or entity to influence the bidding process, submit sham proposals, preclude bidding, fix pricing or costs, create an unfair advantage, subvert the bid, or prejudice the State.

The bidder shall include this clause in any subcontract entered into for the exclusive purpose of performing this contract.

Bidder shall have an affirmative duty to report any violations of this clause by the bidder throughout the bidding process, and throughout the term of this contract for the successful bidder and their subcontractors.

H. **DEVIATIONS FROM THE REQUEST FOR PROPOSAL**
The requirements contained in the RFP become a part of the terms and conditions of the contract resulting from this RFP. Any deviations from the RFP in Sections II through VI must be clearly defined by the bidder in its proposal and, if accepted by the State, will become part of the contract. Any specifically defined deviations must not be in conflict with the basic nature of the RFP, requirements, or applicable state or federal laws or statutes. "Deviation", for the purposes of this RFP, means any proposed changes or alterations to either the contractual language or deliverables within the scope of this RFP. The State discourages deviations and reserves the right to reject proposed deviations.

I.   **SUBMISSION OF PROPOSALS**
Bidders should submit one proposal marked on the first page: "ORIGINAL". If multiple proposals are submitted, the State will retain one copy marked "ORIGINAL" and destroy the other copies. The bidder is solely responsible for any variance between the copies submitted. Proposal responses should include the completed Form A, "Bidder Contact Sheet". Proposals must reference the RFP number and be sent to the specified address. Please note that the address label should appear as specified in Section I B. on the face of each container or bidder's bid response packet. If a recipient phone number is required for delivery purposes, 402-471-6500 should be used. The RFP number should be included in all correspondence.

Emphasis should be concentrated on conformance to the RFP instructions, responsiveness to requirements, completeness, and clarity of content. If the bidder's proposal is presented in such a fashion that makes evaluation difficult or overly time consuming the State reserves the right to reject the proposal as non-conforming.

By signing the "Request for Proposal for Contractual Services" form, the bidder guarantees compliance with the provisions stated in this RFP.

The State shall not incur any liability for any costs incurred by bidders in replying to this RFP, in the demonstrations and/or oral presentations, or in any other activity related to bidding on this RFP.

The Technical and Cost Proposals Template should be presented in separate sections (loose-leaf binders are preferred) on standard 8 ½" x 11" paper, except that charts, diagrams and the like may be on fold-outs which, when folded, fit into the 8 ½" by 11" format. Pages may be consecutively numbered for the entire proposal, or may be numbered consecutively within sections. Figures and tables should be numbered consecutively within sections. Figures and tables should be numbered and referenced in the text by that number. They should be placed as close as possible to the referencing text.

J.   **BID PREPARATION COSTS**
The State shall not incur any liability for any costs incurred by bidders in replying to this RFP, including any activity related to bidding on this RFP.

K.   **FAILURE TO COMPLY WITH REQUEST FOR PROPOSAL**
Violation of the terms and conditions contained in this RFP or any resultant contract, at any time before or after the award, shall be grounds for action by the State which may include, but is not limited to, the following:

1.   Rejection of a bidder's proposal;
2.   Withdrawal of the Intent to Award;
3.   Withdrawal of the Award;
4.   Termination of the resulting contract;
5.   Legal action; and
6.   Suspension of the bidder from further bidding with the State for the period of time relative to the seriousness of the violation, such period to be within the sole discretion of the State.

L.   **BID CORRECTIONS**
A bidder may correct a mistake in a bid prior to the time of opening by giving written notice to the State of intent to withdraw the bid for modification or to withdraw the bid completely. Changes in a bid after opening are acceptable only if the change is made to correct a minor error that does not affect price, quantity, quality, delivery, or contractual conditions. In case of a mathematical error in extension of price, unit price shall govern.

M.   **LATE PROPOSALS**
Proposals received after the time and date of the proposal opening will be considered late proposals. Late proposals will be returned unopened, if requested by the bidder and at bidder's expense. The State is not responsible for proposals that are late or lost regardless of cause or fault.

N.   **PROPOSAL OPENING**
The opening of proposals will be public and the bidders will be announced. Proposals **WILL NOT** be available for viewing by those present at the proposal opening. Vendors may contact the State to schedule an appointment for viewing proposals after the Intent to Award has been posted to the website. Once proposals are opened, they become the property of the State of Nebraska and will not be returned.

O.   **REQUEST FOR PROPOSAL/PROPOSAL REQUIREMENTS**
The proposals will first be examined to determine if all requirements listed below have been addressed and whether further evaluation is warranted. Proposals not meeting the requirements may be rejected as non-responsive. The requirements are:

1.	Original Request for Proposal for Contractual Services form signed using an indelible method;
2.	Clarity and responsiveness of the proposal;
3.	Completed Corporate Overview;
4.	Completed Sections II through VI;
5.	Completed Technical Approach; and
6.	Completed State Cost Proposal Template.

P. **EVALUATION COMMITTEE**

Proposals are evaluated by members of an Evaluation Committee(s). The Evaluation Committee(s) will consist of individuals selected at the discretion of the State. Names of the members of the Evaluation Committee(s) will not be published prior to the intent to award.

Any contact, attempted contact, or attempt to influence an evaluator that is involved with this RFP may result in the rejection of this proposal and further administrative actions.

Q. **EVALUATION OF PROPOSALS**

All proposals that are responsive to the RFP will be evaluated. Each evaluation category will have a maximum point potential. The State will conduct a fair, impartial, and comprehensive evaluation of all proposals in accordance with the criteria set forth below. Areas that will be addressed and scored during the evaluation include:

1. Corporate Overview should include but is not limited to:
   a. the ability, capacity, and skill of the bidder to deliver and implement the system or project that meets the requirements of the RFP;
   b. the character, integrity, reputation, judgment, experience, and efficiency of the bidder;
   c. whether the bidder can perform the contract within the specified time frame;
   d. the quality of bidder performance on prior contracts;
   e. such other information that may be secured and that has a bearing on the decision to award the contract;
2. Technical Approach; and,
3. Cost Proposal.

Neb. Rev. Stat. §73-107 allows for a preference for a resident disabled veteran or business located in a designated enterprise zone. When a state contract is to be awarded to the lowest responsible bidder, a resident disabled veteran or a business located in a designated enterprise zone under the Enterprise Zone Act shall be allowed a preference over any other resident or nonresident bidder, if all other factors are equal.

Resident disabled veterans means any person (a) who resides in the State of Nebraska, who served in the United States Armed Forces, including any reserve component or the National Guard, who was discharged or otherwise separated with a characterization of honorable or general (under honorable conditions), and who possesses a disability rating letter issued by the United States Department of Veterans Affairs establishing a service-connected disability or a disability determination from the United States Department of Defense and (b)(i) who owns and controls a business or, in the case of a publicly owned business, more than fifty percent of the stock is owned by one or more persons described in subdivision (a) of this subsection and (ii) the management and daily business operations of the business are controlled by one or more persons described in subdivision(a) of this subsection. Any contract entered into without compliance with this section shall be null and void.

Therefore, if a resident disabled veteran or business located in a designated enterprise zone submits a proposal in accordance with Neb. Rev. Stat. §73-107 and has so indicated on the RFP cover page under "Bidder must complete the following" requesting priority/preference to be considered in the award of this contract, the following will need to be submitted by the vendor within ten (10) business days of request:

1. Documentation from the United States Armed Forces confirming service;
2. Documentation of discharge or otherwise separated characterization of honorable or general (under honorable conditions);
3. Disability rating letter issued by the United States Department of Veterans Affairs establishing a service-connected disability or a disability determination from the United States Department of Defense; and
4. Documentation which shows ownership and control of a business or, in the case of a publicly owned business, more than fifty percent of the stock is owned by one or more persons described in subdivision (a) of this subsection; and the management and daily business operations of the business are controlled by one or more persons described in subdivision (a) of this subsection.

Failure to submit the requested documentation within ten (10) business days of notice will disqualify the bidder from consideration of the preference.

Evaluation criteria will be released with the RFP.

R.   **ORAL INTERVIEWS/PRESENTATIONS AND/OR DEMONSTRATIONS**
The State may determine after the completion of the Technical and Cost Proposal evaluation that oral interviews/presentations and/or demonstrations are required. Every bidder may not be given an opportunity to interview/present and/or give demonstrations; the State reserves the right, in its discretion, to select only the top scoring bidders to present/give oral interviews. The scores from the oral interviews/presentations and/or demonstrations will be added to the scores from the Technical and Cost Proposals. The presentation process will allow the bidders to demonstrate their proposal offering, explaining and/or clarifying any unusual or significant elements related to their proposals. Bidders' key personnel, identified in their proposal, may be requested to participate in a structured interview to determine their understanding of the requirements of this proposal, their authority and reporting relationships within their firm, and their management style and philosophy.   Only representatives of the State and the presenting bidder will be permitted to attend the oral interviews/presentations and/or demonstrations. A written copy or summary of the presentation, and demonstrative information (such as briefing charts, et cetera) may be offered by the bidder, but the State reserves the right to refuse or not consider the offered materials. Bidders shall not be allowed to alter or amend their proposals.

Once the oral interviews/presentations and/or demonstrations have been completed, the State reserves the right to make an award without any further discussion with the bidders regarding the proposals received.

Any cost incidental to the oral interviews/presentations and/or demonstrations shall be borne entirely by the bidder and will not be compensated by the State.

S.   **BEST AND FINAL OFFER**
If best and final offers (BAFO) are requested by the State and submitted by the bidder, they will be evaluated (using the stated BAFO criteria), scored, and ranked by the Evaluation Committee. The State reserves the right to conduct more than one Best and Final Offer. The award will then be granted to the highest scoring bidder. However, a bidder should provide its best offer in its original proposal. Bidders should not expect that the State will request a best and final offer.

T.   **REFERENCE AND CREDIT CHECKS**
The State reserves the right to conduct and consider reference and credit checks. The State reserves the right to use third parties to conduct reference and credit checks. By submitting a proposal in response to this RFP, the bidder grants to the State the right to contact or arrange a visit in person with any or all of the bidder's clients.   Reference and credit checks may be grounds to reject a proposal, withdraw an intent to award, or rescind the award of a contract.

U.   **AWARD**
The State reserves the right to evaluate proposals and award contracts in a manner utilizing criteria selected at the State's discretion and in the State's best interest. After evaluation of the proposals, or at any point in the RFP process, the State of Nebraska may take one or more of the following actions:

1.   Amend the RFP;
2.   Extend the time of or establish a new proposal opening time;
3.   Waive deviations or errors in the State's RFP process and in bidder proposals that are not material, do not compromise the RFP process or a bidder's proposal, and do not improve a bidder's competitive position;
4.   Accept or reject a portion of or all of a proposal;
5.   Accept or reject all proposals;
6.   Withdraw the RFP;
7.   Elect to rebid the RFP;
8.   Award single lines or multiple lines to one or more bidders; or,
9.   Award one or more all-inclusive contracts.

The RFP does not commit the State to award a contract. Once intent to award decision has been determined, it will be posted to the Internet at:
http://das.nebraska.gov/materiel/purchasing.html

Grievance and protest procedure is available on the Internet at:
http://das.nebraska.gov/materiel/purchasing.html

Any protests must be filed by a bidder within ten (10) business days after the intent to award decision is posted to the Internet.

II. TERMS AND CONDITIONS

Bidders should complete Sections II through VI as part of their proposal. Bidder is expected to read the Terms and Conditions and should initial either accept, reject, or reject and provide alternative language for each clause. The bidder should also provide an explanation of why the bidder rejected the clause or rejected the clause and provided alternate language. By signing the RFP, bidder is agreeing to be legally bound by all the accepted terms and conditions, and any proposed alternative terms and conditions submitted with the proposal. The State reserves the right to negotiate rejected or proposed alternative language. If the State and bidder fail to agree on the final Terms and Conditions, the State reserves the right to reject the proposal. The State of Nebraska is soliciting proposals in response to this RFP. The State of Nebraska reserves the right to reject proposals that attempt to substitute the bidder's commercial contracts and/or documents for this RFP.

The bidders should submit with their proposal any license, user agreement, service level agreement, or similar documents that the bidder wants incorporated in the contract. The State will not consider incorporation of any document not submitted with the bidder's proposal as the document will not have been included in the evaluation process. These documents shall be subject to negotiation and will be incorporated as addendums if agreed to by the Parties.

If a conflict or ambiguity arises after the Addendum to Contract Award have been negotiated and agreed to, the Addendum to Contract Award shall be interpreted as follows:
1. If only one Party has a particular clause then that clause shall control;
2. If both Parties have a similar clause, but the clauses do not conflict, the clauses shall be read together;
3. If both Parties have a similar clause, but the clauses conflict, the State's clause shall control.

A. GENERAL

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The contract resulting from this RFP shall incorporate the following documents:

1. Request for Proposal and Addenda;
2. Amendments to the RFP;
3. Questions and Answers;
4. Contractor's proposal (RFP and properly submitted documents);
5. The executed Contract and Addendum One to Contract, if applicable; and,
6. Amendments/Addendums to the Contract.

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a future contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to the executed Contract with the most recent dated amendment having the highest priority, 2) executed Contract and any attached Addenda, 3) Amendments to RFP and any Questions and Answers, 4) the original RFP document and any Addenda, and 5) the Contractor's submitted Proposal.

Any ambiguity or conflict in the contract discovered after its execution, not otherwise addressed herein, shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

B. NOTIFICATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			**Contract Manager:** Jim Shepard jims@911datamaster.com 512-656-7713

Contractor and State shall identify the contract manager who shall serve as the point of contact for the executed contract.

Communications regarding the executed contract shall be in writing and shall be deemed to have been given if delivered personally or mailed, by U.S. Mail, postage prepaid, return receipt requested, to the parties at their respective addresses set forth below, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or three (3) calendar days following deposit in the mail.

C.   **GOVERNING LAW (Statutory)**
Notwithstanding any other provision of this contract, or any amendment or addendum(s) entered into contemporaneously or at a later time, the parties understand and agree that, (1) the State of Nebraska is a sovereign state and its authority to contract is therefore subject to limitation by the State's Constitution, statutes, common law, and regulation; (2) this contract will be interpreted and enforced under the laws of the State of Nebraska; (3) any action to enforce the provisions of this agreement must be brought in the State of Nebraska per state law; (4) the person signing this contract on behalf of the State of Nebraska does not have the authority to waive the State's sovereign immunity, statutes, common law, or regulations; (5) the indemnity, limitation of liability, remedy, and other similar provisions of the final contract, if any, are entered into subject to the State's Constitution, statutes, common law, regulations, and sovereign immunity; and, (6) all terms and conditions of the final contract, including but not limited to the clauses concerning third party use, licenses, warranties, limitations of liability, governing law and venue, usage verification, indemnity, liability, remedy or other similar provisions of the final contract are entered into specifically subject to the State's Constitution, statutes, common law, regulations, and sovereign immunity.

The Parties must comply with all applicable local, state and federal laws, ordinances, rules, orders, and regulations.

D.   **BEGINNING OF WORK**

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The bidder shall not commence any billable work until a valid contract has been fully executed by the State and the successful Contractor. The Contractor will be notified in writing when work may begin.

E.   **CHANGE ORDERS**

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The State and the Contractor, upon the written agreement, may make changes to the contract within the general scope of the RFP. Changes may involve specifications, the quantity of work, or such other items as the State may find necessary or desirable. Corrections of any deliverable, service, or work required pursuant to the contract shall not be deemed a change. The Contractor may not claim forfeiture of the contract by reasons of such changes.

The Contractor shall prepare a written description of the work required due to the change and an itemized cost sheet for the change. Changes in work and the amount of compensation to be paid to the Contractor shall be determined in accordance with applicable unit prices if any, a pro-rated value, or through negotiations. The State shall not incur a price increase for changes that should have been included in the Contractor's proposal, were foreseeable, or result from difficulties with or failure of the Contractor's proposal or performance.

No change shall be implemented by the Contractor until approved by the State, and the contract is amended to reflect the change and associated costs, if any. If there is a dispute regarding the cost, but both parties agree that immediate implementation is necessary, the change may be implemented, and cost negotiations may continue with both Parties retaining all remedies under the contract and law.

F. NOTICE OF POTENTIAL CONTRACTOR BREACH

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

If Contractor breaches the contract or anticipates breaching the contract, the Contractor shall immediately give written notice to the State. The notice shall explain the breach or potential breach, a proposed cure, and may include a request for a waiver of the breach if so desired. The State may, in its discretion, temporarily or permanently waive the breach. By granting a waiver, the State does not forfeit any rights or remedies to which the State is entitled by law or equity, or pursuant to the provisions of the contract. Failure to give immediate notice, however, may be grounds for denial of any request for a waiver of a breach.

G. BREACH

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

Either Party may terminate the contract, in whole or in part, if the other Party breaches its duty to perform its obligations under the contract in a timely and proper manner. Termination requires written notice of default and a thirty (30) calendar day (or longer at the non-breaching Party's discretion considering the gravity and nature of the default) cure period. Said notice shall be delivered by Certified Mail, Return Receipt Requested, or in person with proof of delivery. Allowing time to cure a failure or breach of contract does not waive the right to immediately terminate the contract for the same or different contract breach which may occur at a different time. In case of default of the Contractor, the State may contract the service from other sources and hold the Contractor responsible for any excess cost occasioned thereby.

The State's failure to make payment shall not be a breach, and the Contractor shall retain all available statutory remedies and protections.

H. NON-WAIVER OF BREACH

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The acceptance of late performance with or without objection or reservation by a Party shall not waive any rights of the Party nor constitute a waiver of the requirement of timely performance of any obligations remaining to be performed.

I. SEVERABILITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the provision held to be invalid or illegal.

J. INDEMNIFICATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

1. **GENERAL**

The Contractor agrees to defend, indemnify, and hold harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all third party claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State for personal injury, death, or property loss or damage, arising out of, resulting from, or attributable to the willful misconduct, negligence, error, or omission of the Contractor, its employees, subcontractors, consultants, representatives, and agents, resulting from this contract, except to the extent such Contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

2. **INTELLECTUAL PROPERTY**

The Contractor agrees it will, at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all claims, to the extent such claims arise out of, result from, or are attributable to, the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the Contractor or its employees, subcontractors, consultants, representatives, and agents; provided, however, the State gives the Contractor prompt notice in writing of the claim. The Contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the Contractor has indemnified the State, the Contractor shall, at the Contractor's sole cost and expense, promptly modify the item or items which were determined to be infringing, acquire a

license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality. At the State's election, the actual or anticipated judgment may be treated as a breach of warranty by the Contractor, and the State may receive the remedies provided under this RFP.

3. **PERSONNEL**

The Contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any claim with respect to withholding taxes, worker's compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel, including subcontractors and their employees, provided by the Contractor.

4. **SELF-INSURANCE**

The State of Nebraska is self-insured for any loss and purchases excess insurance coverage pursuant to Neb. Rev. Stat. § 81-8,239.01 (Reissue 2008). If there is a presumed loss under the provisions of this agreement, Contractor may file a claim with the Office of Risk Management pursuant to Neb. Rev. Stat. §§ 81-8,829 – 81-8,306 for review by the State Claims Board. The State retains all rights and immunities under the State Miscellaneous (Section 81-8,294), Tort (Section 81-8,209), and Contract Claim Acts (Section 81-8,302), as outlined in Neb. Rev. Stat. § 81-8,209 et seq. and under any other provisions of law and accepts liability under this agreement to the extent provided by law.

5. The Parties acknowledge that Attorney General for the State of Nebraska is required by statute to represent the legal interests of the State, and that any provision of this indemnity clause is subject to the statutory authority of the Attorney General.

K. **ATTORNEY'S FEES**

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

In the event of any litigation, appeal, or other legal action to enforce any provision of the contract, the Parties agree to pay all expenses of such action, as permitted by law and if order by the court, including attorney's fees and costs, if the other Party prevails.

L. **ASSIGNMENT, SALE, OR MERGER**

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

Either Party may assign the contract upon mutual written agreement of the other Party. Such agreement shall not be unreasonably withheld.

The Contractor retains the right to enter into a sale, merger, acquisition, internal reorganization, or similar transaction involving Contractor's business. Contractor agrees to cooperate with the State in executing amendments to the contract to allow for the transaction. If a third party or entity is involved in the transaction, the Contractor will remain responsible for performance of the contract until such time as the person or entity involved in the transaction agrees in writing to be contractually bound by this contract and perform all obligations of the contract.

M. CONTRACTING WITH OTHER NEBRASKA POLITICAL SUB-DIVISIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			911 Datamaster will make services available at the same professional services rate as was used for this quotation.

The Contractor may, but shall not be required to, allow agencies, as defined in Neb. Rev. Stat. §81-145, to use this contract. The terms and conditions, including price, of the contract may not be amended. The State shall not be contractually obligated or liable for any contract entered into pursuant to this clause. A listing of Nebraska political subdivisions may be found at the website of the Nebraska Auditor of Public Accounts.

N. FORCE MAJEURE

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

Neither Party shall be liable for any costs or damages, or for default resulting from its inability to perform any of its obligations under the contract due to a natural or manmade event outside the control and not the fault of the affected Party ("Force Majeure Event"). The Party so affected shall immediately make a written request for relief to the other Party, and shall have the burden of proof to justify the request. The other Party may grant the relief requested; relief may not be unreasonably withheld. Labor disputes with the impacted Party's own employees will not be considered a Force Majeure Event.

O. CONFIDENTIALITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

All materials and information provided by the Parties or acquired by a Party on behalf of the other Party shall be regarded as confidential information. All materials and information provided or acquired shall be handled in accordance with federal and state law, and ethical standards. Should said confidentiality be breached by a Party, the Party shall notify the other Party immediately of said breach and take immediate corrective action.

It is incumbent upon the Parties to inform their officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable by 5 U.S.C. 552a (m)(1), provides that any officer or employee, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

P. EARLY TERMINATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The contract may be terminated as follows:

1. The State and the Contractor, by mutual written agreement, may terminate the contract at any time.
2. The State, in its sole discretion, may terminate the contract for any reason upon thirty (30) calendar day's written notice to the Contractor. Such termination shall not relieve the Contractor of warranty or other service obligations incurred under the terms of the contract. In the event of termination the Contractor shall be entitled to payment, determined on a pro rata basis, for products or services satisfactorily performed or provided.
3. The State may terminate the contract immediately for the following reasons:
   a. if directed to do so by statute;
   b. Contractor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;
   c. a trustee or receiver of the Contractor or of any substantial part of the Contractor's assets has been appointed by a court;
   d. fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its Contractor, its employees, officers, directors, or shareholders;
   e. an involuntary proceeding has been commenced by any Party against the Contractor under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) calendar days; or (ii) the Contractor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the Contractor has been decreed or adjudged a debtor;
   f. a voluntary petition has been filed by the Contractor under any of the chapters of Title 11 of the United States Code;
   g. Contractor intentionally discloses confidential information;
   h. Contractor has or announces it will discontinue support of the deliverable; and,
   i. In the event funding is no longer available.

Q. CONTRACT CLOSEOUT

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

Upon contract closeout for any reason the Contractor shall within 30 days, unless stated otherwise herein:

1. Transfer all completed or partially completed deliverables to the State;
2. Transfer ownership and title to all completed or partially completed deliverables to the State;
3. Return to the State all information and data, unless the Contractor is permitted to keep the information or data by contract or rule of law. Contractor may retain one copy of any information or data as required to comply with applicable work product documentation standards or as are automatically retained in the course of Contractor's routine back up procedures;
4. Cooperate with any successor Contactor, person or entity in the assumption of any or all of the obligations of this contract;
5. Cooperate with any successor Contactor, person or entity with the transfer of information or data related to this contract;
6. Return or vacate any state owned real or personal property; and,
7. Return all data in a mutually acceptable format and manner.

Nothing in this Section should be construed to require the Contractor to surrender intellectual property, real or personal property, or information or data owned by the Contractor for which the State has no legal claim.

III. CONTRACTOR DUTIES

A. INDEPENDENT CONTRACTOR / OBLIGATIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

It is agreed that the Contractor is an independent contractor and that nothing contained herein is intended or should be construed as creating or establishing a relationship of employment, agency, or a partnership.

The Contractor is solely responsible for fulfilling the contract. The Contractor or the Contractor's representative shall be the sole point of contact regarding all contractual matters.

The Contractor shall secure, at its own expense, all personnel required to perform the services under the contract. The personnel the Contractor uses to fulfill the contract shall have no contractual or other legal relationship with the State; they shall not be considered employees of the State and shall not be entitled to any compensation, rights or benefits from the State, including but not limited to, tenure rights, medical and hospital care, sick and vacation leave, severance pay, or retirement benefits.

By-name personnel commitments made in the Contractor's proposal shall not be changed without the prior written approval of the State. Replacement of these personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

All personnel assigned by the Contractor to the contract shall be employees of the Contractor or a subcontractor, and shall be fully qualified to perform the work required herein. Personnel employed by the Contractor or a subcontractor to fulfill the terms of the contract shall remain under the sole direction and control of the Contractor or the subcontractor respectively.

With respect to its employees, the Contractor agrees to be solely responsible for the following:

1. Any and all pay, benefits, and employment taxes and/or other payroll withholding;
2. Any and all vehicles used by the Contractor's employees, including all insurance required by state law;
3. Damages incurred by Contractor's employees within the scope of their duties under the contract;
4. Maintaining Workers' Compensation and health insurance that complies with state and federal law and submitting any reports on such insurance to the extent required by governing law; and
5. Determining the hours to be worked and the duties to be performed by the Contractor's employees.
6. All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination alleged against the Contractor, its officers, agents, or subcontractors or subcontractor's employees)

If the Contractor intends to utilize any subcontractor, the subcontractor's level of effort, tasks, and time allocation should be clearly defined in the bidder's proposal. The Contractor shall agree that it will not utilize any subcontractors not specifically included in its proposal in the performance of the contract without the prior written authorization of the State.

The State reserves the right to require the Contractor to reassign or remove from the project any Contractor or subcontractor employee.

Contractor shall insure that the terms and conditions contained in any contract with a subcontractor does not conflict with the terms and conditions of this contract.

The Contractor shall include a similar provision, for the protection of the State, in the contract with any subcontractor engaged to perform work on this contract.

B. **EMPLOYEE WORK ELIGIBILITY STATUS**

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of an employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1.   The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at http://das.nebraska.gov/materiel/purchasing.html

        The completed United States Attestation Form should be submitted with the RFP response.

2.   If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

3.   The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

C. **COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION (Statutory)**

The Contractor shall comply with all applicable local, state, and federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits Contractors of the State of Nebraska, and their subcontractors, from discriminating against any employee or applicant for employment, with respect to hire, tenure, terms, conditions, compensation, or privileges of employment because of race, color, religion, sex, disability, marital status, or national origin (Neb. Rev. Stat. §48-1101 to 48-1125).   The Contractor guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The Contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this RFP.

D. **COOPERATION WITH OTHER CONTRACTORS**

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

Contractor may be required to work with or in close proximity to other contractors or individuals that may be working on same or different projects. The Contractor shall agree to cooperate with such other contractors or individuals, and shall not commit or permit any act which may interfere with the performance of work by any other contractor or individual. Contractor is not required to compromise Contractor's intellectual property or proprietary information unless expressly required to do so by this contract.

E.   PERMITS, REGULATIONS, LAWS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The contract price shall include the cost of all royalties, licenses, permits, and approvals, whether arising from patents, trademarks, copyrights or otherwise, that are in any way involved in the contract. The Contractor shall obtain and pay for all royalties, licenses, and permits, and approvals necessary for the execution of the contract. The Contractor must guarantee that it has the full legal right to the materials, supplies, equipment, software, and other items used to execute this contract.

F.   OWNERSHIP OF INFORMATION AND DATA / DELIVERABLES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The State shall have the unlimited right to publish, duplicate, use, and disclose all information and data developed or obtained by the Contractor on behalf of the State pursuant to this contract.

The State shall own and hold exclusive title to any deliverable developed as a result of this contract. Contractor shall have no ownership interest or title, and shall not patent, license, or copyright, duplicate, transfer, sell, or exchange, the design, specifications, concept, or deliverable.

G.   INSURANCE REQUIREMENTS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The Contractor shall throughout the term of the contract maintain insurance as specified herein and provide the State a current Certificate of Insurance/Acord Form (COI) verifying the coverage. The Contractor shall not commence work on the contract until the insurance is in place. If Contractor subcontracts any portion of the Contract the Contractor must, throughout the term of the contract, either:
1.   Provide equivalent insurance for each subcontractor and provide a COI verifying the coverage for the subcontractor;
2.   Require each subcontractor to have equivalent insurance and provide written notice to the State that the Contractor has verified that each subcontractor has the required coverage; or,
3.   Provide the State with copies of each subcontractor's Certificate of Insurance evidencing the required coverage.
The Contractor shall not allow any subcontractor to commence work until the subcontractor has equivalent insurance. The failure of the State to require a COI, or the failure of the Contractor to provide a COI or require subcontractor insurance shall not limit, relieve, or decrease the liability of the Contractor hereunder.

In the event that any policy written on a claims-made basis terminates or is canceled during the term of the contract or within (two (2) years of termination or expiration of the contract, the Contractor shall obtain an extended discovery or reporting period, or a new insurance policy, providing coverage required by this contract for the term of the contract and two (2) years following termination or expiration of the contract.

If by the terms of any insurance a mandatory deductible is required, or if the Contractor elects to increase the mandatory deductible amount, the Contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

Notwithstanding any other clause in this contract, the State may recover up to the liability limits of the insurance policies required herein.

1. **WORKERS' COMPENSATION INSURANCE**
    The Contractor shall take out and maintain during the life of this contract the statutory Workers' Compensation and Employer's Liability Insurance for all of the contactors' employees to be engaged in work on the project under this contract and, in case any such work is sublet, the Contractor shall require the subcontractor similarly to provide Worker's Compensation and Employer's Liability Insurance for all of the subcontractor's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the state in which the work is to be performed, including Occupational Disease. **The policy shall include a waiver of subrogation in favor of the State. The COI shall contain the mandatory COI subrogation waiver language found hereinafter**. The amounts of such insurance shall not be less than the limits stated hereinafter. For employees working in the State of Nebraska, the policy must be written by an entity authorized by the State of Nebraska Department of Insurance to write Workers' Compensation and Employer's Liability Insurance for Nebraska employees.

2. **COMMERCIAL GENERAL LIABILITY INSURANCE AND COMMERCIAL AUTOMOBILE LIABILITY INSURANCE**
    The Contractor shall take out and maintain during the life of this contract such Commercial General Liability Insurance and Commercial Automobile Liability Insurance as shall protect Contractor and any subcontractor performing work covered by this contract from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this contract, whether such operation be by the Contractor or by any subcontractor or by anyone directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than limits stated hereinafter.

    The Commercial General Liability Insurance shall be written on an **occurrence basis**, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury, and Contractual Liability coverage. **The policy shall include the State, and others as required by the contract documents, as Additional Insured(s). This policy shall be primary, and any insurance or self-insurance carried by the State shall be considered secondary and non-contributory. The COI shall contain the mandatory COI liability waiver language found hereinafter.** The Commercial Automobile Liability Insurance shall be written to cover all Owned, Non-owned, and Hired vehicles.

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REQUIRED INSURANCE COVERAGE

COMMERCIAL GENERAL LIABILITY

General Aggregate	$2,000,000
Products/Completed Operations Aggregate	$2,000,000
Personal/Advertising Injury	$1,000,000 per occurrence
Bodily Injury/Property Damage	$1,000,000 per occurrence
Medical Payments	$10,000 any one person
Damage to Rented Premises (Fire)	$300,000 each occurrence
Contractual	Included
Independent Contractors	Included

If higher limits are required, the Umbrella/Excess Liability limits are allowed to satisfy the higher limit.

WORKER'S COMPENSATION

Employers Liability Limits	$500K/$500K/$500K
Statutory Limits- All States	Statutory - State of Nebraska
Voluntary Compensation	Statutory

COMMERCIAL AUTOMOBILE LIABILITY

Bodily Injury/Property Damage	$1,000,000 combined single limit
Include All Owned, Hired & Non-Owned Automobile liability	Included
Motor Carrier Act Endorsement	Where Applicable

UMBRELLA/EXCESS LIABILITY

Over Primary Insurance	$5,000,000 per occurrence

PROFESSIONAL LIABILITY

All Other Professional Liability (Errors & Omissions)	$1,000,000 Per Claim / Aggregate

COMMERCIAL CRIME

Crime/Employee Dishonesty Including 3rd Party Fidelity	$1,000,000

CYBER LIABILITY

Breach of Privacy, Security Breach, Denial of Service, Remediation, Fines and Penalties	$10,000,000

MANDATORY COI SUBROGATION WAIVER LANGUAGE

"Workers' Compensation policy shall include a waiver of subrogation in favor of the State of Nebraska."

MANDATORY COI LIABILITY WAIVER LANGUAGE

"Commercial General Liability & Commercial Automobile Liability policies shall name the State of Nebraska as an Additional Insured and the policies shall be primary and any insurance or self-insurance carried by the State shall be considered secondary and non-contributory as additionally insured."

If the mandatory COI subrogation waiver language or mandatory COI liability waiver language on the COI states that the waiver is subject to, condition upon, or otherwise limit by the insurance policy, a copy of the relevant sections of the policy must be submitted with the COI so the State can review the limitations imposed by the insurance policy.

3. **EVIDENCE OF COVERAGE**
The Contractor shall furnish the Contract Manager, with a certificate of insurance coverage complying with the above requirements prior to beginning work at:

911 Director
Nebraska Public Service Commission
300 The Atrium, 1200 N Street
P.O. Box 94927
Lincoln, NE 68509

These certificates or the cover sheet shall reference the RFP number, and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration, and amounts and types of coverage afforded. If the State is damaged by the failure of the Contractor to maintain such insurance, then the Contractor shall be responsible for all reasonable costs properly attributable thereto.

Reasonable notice of cancellation of any required insurance policy must be submitted to the contract manager as listed above when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

4.   DEVIATIONS

The insurance requirements are subject to limited negotiation. Negotiation typically includes, but is not necessarily limited to, the correct type of coverage, necessity for Workers' Compensation, and the type of automobile coverage carried by the Contractor.

H.   ANTITRUST

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

The Contractor hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

I.   CONFLICT OF INTEREST

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

By submitting a proposal, bidder certifies that there does not now exist a relationship between the bidder and any person or entity which is or gives the appearance of a conflict of interest related to this RFP or project.

The bidder certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its services hereunder or which creates an actual or an appearance of conflict of interest.

The bidder certifies that it will not knowingly employ any individual known by bidder to have a conflict of interest.

The Parties shall not knowingly, for a period of two years after execution of the contract, recruit or employ any employee or agent of the other Party who has worked on the RFP or project, or who had any influence on decisions affecting the RFP or project.

J.   STATE PROPERTY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

The Contractor shall be responsible for the proper care and custody of any State-owned property which is furnished for the Contractor's use during the performance of the contract. The Contractor shall reimburse the State for any loss or damage of such property; normal wear and tear is expected.

K.   SITE RULES AND REGULATIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The Contractor shall use its best efforts to ensure that its employees, agents, and subcontractors comply with site rules and regulations while on State premises. If the Contractor must perform on-site work outside of the daily operational hours set forth by the State, it must make arrangements with the State to ensure access to the facility and the equipment has been arranged. No additional payment will be made by the State on the basis of lack of access, unless the State fails to provide access as agreed to in writing between the State and the Contractor.

L.   ADVERTISING

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The Contractor agrees not to refer to the contract award in advertising in such a manner as to state or imply that the company or its services are endorsed or preferred by the State. Any publicity releases pertaining to the project shall not be issued without prior written approval from the State.

M.   NEBRASKA TECHNOLOGY ACCESS STANDARDS (Statutory)

Contractor shall review the Nebraska Technology Access Standards, found at http://nitc.nebraska.gov/standards/2-201.html and ensure that products and/or services provided under the contract are in compliance or will comply with the applicable standards to the greatest degree possible. In the event such standards change during the Contractor's performance, the State may create an amendment to the contract to request the contract comply with the changed standard at a cost mutually acceptable to the parties.

N.   DISASTER RECOVERY/BACK UP PLAN

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

The Contractor shall have a disaster recovery and back-up plan, of which a copy should be provided upon request to the State, which includes, but is not limited to equipment, personnel, facilities, and transportation, in order to continue services as specified under the specifications in the contract in the event of a disaster.

O.   DRUG POLICY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
(initialed)			

Contractor certifies it maintains a drug free work place environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State.

IV. PAYMENT

A.   PROHIBITION AGAINST ADVANCE PAYMENT (Statutory)

Payments shall not be made until contractual deliverable(s) are received and accepted by the State.

B.   TAXES (Statutory)

The State is not required to pay taxes and assumes no such liability as a result of this solicitation. Any property tax payable on the Contractor's equipment which may be installed in a state-owned facility is the responsibility of the Contractor.

C.   INVOICES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
signed			911 Datamaster would prefer quarterly invoices and payment subject to State inspection of work in progress.

Invoices for payments must be submitted by the Contractor to the Commission with sufficient detail to support payment at the following address: Nebraska Public Service Commission, Attention: Business Manager, P.O. Box 94927, Lincoln, NE 68509. The terms and conditions included in the Contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract.

D.   INSPECTION AND APPROVAL

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
signed			

Final inspection and approval of all work required under the contract shall be performed by the designated State officials.

E.   PAYMENT

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
signed			911 Datamaster would prefer quarterly invoices and payment subject to State inspection of work in progress.

State will render payment to Contractor when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the Contractor as solely determined by the State. (Neb. Rev. Stat. Section 73-506(1)) Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408). The State may require the Contractor to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any services provided by the Contractor prior to the Effective Date of the contract, and the Contractor hereby waives any claim or cause of action for any such services.

F.   **LATE PAYMENT (Statutory)**

The Contractor may charge the responsible agency interest for late payment in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408).

G.   **SUBJECT TO FUNDING / FUNDING OUT CLAUSE FOR LOSS OF APPROPRIATIONS**

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

The State's obligation to pay amounts due on the Contract for a fiscal years following the current fiscal year is contingent upon legislative appropriation of funds. Should said funds not be appropriated, the State may terminate the contract with respect to those payments for the fiscal year(s) for which such funds are not appropriated. The State will give the Contractor written notice thirty (30) calendar days prior to the effective date of termination. All obligations of the State to make payments after the termination date will cease. The Contractor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date. In no event shall the Contractor be paid for a loss of anticipated profit.

H.   **RIGHT TO AUDIT (First Paragraph is Statutory)**

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
[initialed]			

The State shall have the right to audit the Contractor's performance of this contract upon a 30 days' written notice. Contractor shall utilize generally accepted accounting principles, and shall maintain the accounting records, and other records and information relevant to the contract (Information) to enable the State to audit the contract. The State may audit and the Contractor shall maintain, the Information during the term of the contract and for a period of five (5) years after the completion of this contract or until all issues or litigation are resolved, whichever is later. The Contractor shall make the Information available to the State at Contractor's place of business or a location acceptable to both Parties during normal business hours. If this is not practical or the Contractor so elects, the Contractor may provide electronic or paper copies of the Information. The State reserves the right to examine, make copies of, and take notes on any Information relevant to this contract, regardless of the form or the Information, how it is stored, or who possesses the Information. Under no circumstance will the Contractor be required to create or maintain documents not kept in the ordinary course of Contractor's business operations, nor will Contractor be required to disclose any information, including but not limited to product cost data, which is confidential or proprietary to Contractor.

The Parties shall pay their own costs of the audit unless the audit finds a previously undisclosed overpayment by the State. If a previously undisclosed overpayment exceeds one percent (.1%) of the total contract billings, or if fraud, material misrepresentations, or non-performance is discovered on the part of the Contractor, the Contractor shall reimburse the State for the total costs of the audit. Overpayments and audit costs owed to the State shall be paid within ninety days of written notice of the claim. The Contractor agrees to correct any material weaknesses or condition found as a result of the audit.

V. PROJECT DESCRIPTION AND SCOPE OF WORK

The bidder should provide the following information in response to this RFP

A. PROJECT OVERVIEW

The Commission is seeking a Contractor to provide Quality Assurance/Quality Control (QA/QC) services with respect to Geographic Information Systems (GIS) datasets in order to verify that GIS data used by Public Safety Answering Points (PSAPs) in Nebraska complies with the National Emergency Number Association (NENA) NG9-1-1 data model.

As more fully described below, the Contractor's role will be to analyze GIS data uploaded by local agencies in order to confirm compliance with Nebraska Information Technology Council (NITC) and NENA standards for use in NG9-1-1 applications.

B. PROJECT ENVIRONMENT

The Commission is the statewide implementation and coordinating authority for 911 service in the State of Nebraska, with the statutory responsibility to plan, implement, coordinate, manage, maintain, and provide funding assistance for a cost-efficient 911 service system pursuant to the Nebraska 911 Service System Act, Local governing bodies are responsible for the dispatch and provision of emergency services within their respective jurisdictions. However, the Commission provides funding and other assistance to PSAPs across the state.

Some Nebraska PSAPs serve a single city or county, while others serve multiple counties or parts of counties. Some PSAPs are governed by local boards, while others are operated by local law enforcement. Some PSAPs operate independently, while others are organized into cooperative regions to share resources and provide mutual back-up. Currently, the local governing bodies that operate the PSAPs throughout the State are responsible to maintain GIS data for each PSAP at the local level. Although a few Nebraska PSAPs use in-house personnel to maintain GIS data, most PSAPs contract for 911-related GIS services from approved "vendors of choice" selected through an earlier RFP process. Nebraska PSAPs are responsible for uploading copies of their most recent GIS datasets on a monthly basis to an online GIS repository maintained by the Commission. Presently, there is no single authoritative statewide 9-1-1 GIS dataset.

To prepare for next generation 911, the Commission is undertaking a quality assurance/quality control project to confirm that the GIS data used by Nebraska PSAPs comply with NITC and NENA standards and is appropriate to support the spatial routing of 911 calls in the NG9-1-1 environment.

C. PROJECT REQUIREMENTS

The Contractor will be required to maintain a secure web portal through which Nebraska PSAPs or their representatives will upload GIS data to be analyzed by the Contractor. Access to the portal must be limited to authorized users via login and password or other similar secure authentication. The portal must require each person authorized to upload GIS datasets to identify the applicable jurisdiction, geographic area and type of dataset before a file will be accepted for uploading.

The portal must be capable of accepting GIS data in any ESRI format. The portal should automatically reject GIS datasets that are incomplete or defective and immediately notify the local agency if an attempted upload was unsuccessful. The portal should return, prior to QA/QC review, GIS datasets having any of the following characteristics, and provide notice to the uploading party to correct any such errors:

1. No data in the file
2. Incompatible dataset due to improper or missing field names
3. Lack of defining information, e.g., county name, dataset
4. Improper file format
5. MSAG not included with Street Centerline file
6. Missing or improperly formatted FDGC metadata
7. Incorrect data naming convention

Datasets that do not have any of the above-referenced errors should automatically be accepted for QA/QC review by the Contractor's secure portal.

D. **SCOPE OF WORK**

The Contractor will analyze each GIS dataset uploaded to the portal to identify any errors and discrepancies based on NITC and NENA standards. After review, the Contractor will return datasets that are shown to have errors and/or discrepancies to the uploading agency, along with a discrepancy report listing the items that need to be corrected in order to achieve compliance with the standards. Each such discrepancy report must be accompanied by a shapefile of areas where the topology is incorrect. The local PSAP or its representatives will be responsible to correct all the items listed in the discrepancy report. After correction, the local PSAP or its representative will be expected to resubmit the revised GIS dataset via the Contractor's dedicated portal for further QA/QC review.

GIS data that is confirmed by the Contractor to meet all required standards will be accepted for provisioning to the NG9-1-1 environment and uploaded by the Contractor to the Commission's GIS repository. The Contractor will also notify the Commission's GIS Specialist and the PSAP responsible for uploading the file that the dataset meets all required standards and is ready for use.

E. **TECHNICAL REQUIREMENTS**

The specific NITC and NENA standards that apply to this project are the following:

1. NITC Standards & Guidelines
   a. 3-201. Geospatial Metadata Standard
   b. 3-202. Land Record Information and Mapping Standard
   c. 3-205. Street Centerline Standard
   d. 3-206. Address Standard

2. NENA Standards
   a. NENA 02-014
   b. NENA 71-501
   c. NENA REQ-002.1-2016
   d. NENA STA-005.1.1-2017
   e. NENA STA-006 NG9-1-1 Data Model

In the event of any conflict between NITC standards and NENA standards, NITC standards shall control.

3. The GIS datasets to be reviewed by Contractor after being uploaded by to the secure portal will consist of the following GIS layers:

   a. Street Centerlines (with accompanying MSAG);
   b. Street/Structure address points (with accompanying ALI);
   c. PSAP boundaries;
   d. Emergency service zones (police, fire, EMS); and,
   e. Political boundaries (used to define the provisioning of GIS data).

4. The Contractor shall review Street Centerline Layer data to identify, at a minimum, the following items:

   a. Comparison of MSAG vs. Street Centerline segments to minimum 98% match;
   b. Comparison of ALI to Street Centerline to minimum 98% match with road name;
   c. Overlapping address ranges between jurisdictions;
      i. Region free of overlaps: 98% unique ranges;
   d. Misalignments;
      i. Overlaps
      ii. Gaps
      iii. Overhangs
      iv. Duplicate features
      v. Incorrectly named road segments
   e. Road segments running the wrong direction;
   f. Road segments not broken at intersections and/or ESZ boundaries;
   g. Road name consistency;
   h. Misaligned road segments at county and jurisdictional boundaries;
   i. Required metadata; and,
   j. General compliance with applicable NITC and NENA standards.

5. The Contractor shall review jurisdictional boundary Polygon Layers to identify, at a minimum, the following items:

a. Redundancy, misalignment and others errors in topology;
        i. Overlaps
        ii. Gaps
    b. Duplication of features between PSAPs;
        i. ESZ numbers match
        ii. ESZ numbers do not match
    c. County boundaries alignment to neighboring counties;
    d. Correct boundaries (police, fire, EMS) included in the ESZ boundary;
    e. Fields within each layer conform to NITC and NENA standards for names, content, and format;
    f. Required metadata; and,
    g. General compliance with applicable NITC and NENA standards.

6. The Contractor shall review Address Point Layers to identify, at a minimum, the following items:

    a. Placement of Address Points on Street Centerline address ranges;
    b. Comparison of ALI to Address Points to minimum 98 percent match to full address;
    c. Discrepancies between the telephone number (TN) list and site/structure address point layer;
    d. Multi-address structure address formats;
    e. Fields within each layer conform to NITC and NENA standards for names, content, and format;
    f. Required metadata; and,
    g. General compliance with applicable NITC and NENA standards.

In addition to the foregoing, the Contractor will also review each uploaded dataset to determine compatibility with GIS data provided by adjoining counties. Adjoining county data will be reviewed to identify any overlaps and gaps, Street Centerline alignments, stacked roads and inconsistent road names. Resolution of inconsistencies in adjoining counties' datasets will be the responsibility of the counties involved.

Please describe how your company will meet all of the above requirements.

> **Bidder Response:**
>
> Please see document "911 Datamaster Technical Approach"

F. CONTRACTOR REQUIREMENTS

1. QA / QC PROJECT METHODOLOGY
Contractor shall deliver a QA/QC Project Plan proposing Contractor's methodology for accomplishing the Project and satisfying all requirements in this RFP.

> **Bidder Response**
>
> Please see document "911 Datamaster Contractor Requirements"

2. DETAILED ACTION PLAN
Please provide a detailed action plan that includes specifics on how implementation will be accomplished.

> **Bidder Response:**
>
> Please see document "911 Datamaster Contractor Requirements"

3. CONTRACTOR REPORTS TO PSAPs

Upon completion of its review of any GIS dataset uploaded by a PSAP or its representative, the Contractor will create and deliver a report in electronic format to both the PSAP responsible for uploading the file and the Commission's GIS Specialist.

Please submit a copy of your proposed form of the report with your response.

> **Bidder Response:**
>
> Please see document "911 Datamaster Contractor Requirements"

4. DISCREPANCY REPORT

In the case of an uploaded GIS dataset that contains errors or discrepancies, the Contractor's report shall be a Discrepancy Report in tabular format, organized by unique object identifiers, listing all errors, discrepancies and other items of note that require correction in order to achieve compliance with applicable NITC and NENA standards. Each Discrepancy Report shall also be accompanied by a shapefile of any areas where the topology in the related dataset is incorrect. In addition, the Discrepancy Report for each dataset that includes a Street Centerline layer shall state the match rate percentage between the Street Centerline layer and the MSAG.

Please submit a copy of your proposed form of the report with your response.

> **Bidder Response:**
>
> Please see example report in "Appendix A""

5. COMPLIANCE REPORT

In the case of an uploaded GIS dataset that is determined by the Contractor to be in compliance with all applicable NITC and NENA standards, the Contractor shall deliver to the related PSAP a report stating that the dataset is ready for use and has been accepted for inclusion in the Commission's GIS Repository, along with any additional information the Contractor deems appropriate. In addition, the Compliance Report for each accepted dataset that includes a Street Centerline layer shall state the match rate percentage between (i) the Street Centerline layer and the MSAG and (ii) the Address Points layer and the ALI.

Please submit a copy of your proposed form of the report with your response.

> **Bidder Response:**
>
> Please see document "911 Datamaster Contractor Requirements"

6. CONTRACTOR REPORTS TO COMMISSION

The Contractor shall provide the Commission with a copy of each Discrepancy Report, Compliance Report, and a monthly summary of other communications the Contractor delivers to any PSAP. In addition, The Contractor will be required to deliver periodic reports to the Commission's GIS Specialist on a monthly basis, listing by jurisdiction each GIS dataset reviewed by the Contractor in the prior period, including the results of each review. Each periodic report shall also include a list of all GIS datasets currently undergoing QA/QC review, organized by PSAP. In addition, each periodic report shall also include the completion date of the most recent QA/QC review conducted for each PSAP in Nebraska, along with a list of each PSAP, if any, for which no GIS dataset was submitted to the Contractor for review. The Commission must also be notified in the event any PSAP fails to make necessary changes within thirty (30) days to a GIS dataset that has been rejected for uploading or has been the subject of a Discrepancy Report.

Please submit a copy of your report with your response.

> **Bidder Response:**
>
> Please see document "911 Datamaster Contractor Requirements"

7. PERIODIC REMINDERS TO UPLOAD GIS DATA

Local agencies will be expected to upload revised GIS datasets to the secure portal for review on at least a monthly basis. The Contractor will be required to send reminder notices via e-mail to each PSAP that has gone 85 or more days without uploading a new or revised dataset for QA/QC review. Each such reminder must include a hyperlink to the Contractor's secure portal, along with the dates and a general description of the PSAP's previous uploads to the portal.

> **Bidder Response:**
>
> Please see document "911 Datamaster Contractor Requirements

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Training must also be made available to local agencies and designated Commission personnel on the Contractor's QA/QC process.

      a.   **Please describe how you will approach and accomplish training local agencies and Commission personnel.**

Bidder Response:
Please see document "911 Datamaster Training Approach"

G.   **DELIVERABLES**

Please see Cost Proposal Template.

VI. PROPOSAL INSTRUCTIONS

This section documents the requirements that should be met by bidders in preparing the Technical and Cost Proposal. Bidders should identify the subdivisions of "Project Description and Scope of Work" clearly in their proposals; failure to do so may result in disqualification. Failure to respond to a specific requirement may be the basis for elimination from consideration during the State's comparative evaluation.

Proposals are due by the date and time shown in the Schedule of Events. Content requirements for the Technical and Cost Proposal are presented separately in the following subdivisions; format and order:

A.   PROPOSAL SUBMISSION

1.   REQUEST FOR PROPOSAL FORM
By signing the "RFP for Contractual Services" form, the bidder guarantees compliance with the provisions stated in this RFP, agrees to the Terms and Conditions stated in this RFP unless otherwise agreed to, and certifies bidder maintains a drug free work place environment.

The RFP for Contractual Services form must be signed using an indelible method (not electronically) and returned per the schedule of events in order to be considered for an award.

Sealed proposals must be received in the State Purchasing Bureau by the date and time of the proposal opening per the Schedule of Events. No late proposals will be accepted. No electronic, e-mail, fax, voice, or telephone proposals will be accepted.

It is the responsibility of the bidder to check the website for all information relevant to this solicitation to include addenda and/or amendments issued prior to the opening date. Website address is as follows: http://das.nebraska.gov/materiel/purchasing.html

Further, Sections II through VII must be completed and returned with the proposal response.

2.   CORPORATE OVERVIEW
The Corporate Overview section of the Technical Proposal should consist of the following subdivisions:

a.   BIDDER IDENTIFICATION AND INFORMATION
The bidder should provide the full company or corporate name, address of the company's headquarters, entity organization (corporation, partnership, proprietorship), state in which the bidder is incorporated or otherwise organized to do business, year in which the bidder first organized to do business and whether the name and form of organization has changed since first organized.

b.   FINANCIAL STATEMENTS
The bidder should provide financial statements applicable to the firm. If publicly held, the bidder should provide a copy of the corporation's most recent audited financial reports and statements, and the name, address, and telephone number of the fiscally responsible representative of the bidder's financial or banking organization.

If the bidder is not a publicly held corporation, either the reports and statements required of a publicly held corporation, or a description of the organization, including size, longevity, client base, areas of specialization and expertise, and any other pertinent information, should be submitted in such a manner that proposal evaluators may reasonably formulate a determination about the stability and financial strength of the organization. Additionally, a non-publicly held firm should provide a banking reference.

The bidder must disclose any and all judgments, pending or expected litigation, or other real or potential financial reversals, which might materially affect the viability or stability of the organization, or state that no such condition is known to exist.

The State may elect to use a third party to conduct credit checks as part of the corporate overview evaluation.

c.   CHANGE OF OWNERSHIP
If any change in ownership or control of the company is anticipated during the twelve (12) months following the proposal due date, the bidder should describe the circumstances of such change and

indicate when the change will likely occur. Any change of ownership to an awarded vendor(s) will require notification to the State.

d.   OFFICE LOCATION

The bidder's office location responsible for performance pursuant to an award of a contract with the State of Nebraska should be identified.

e.   RELATIONSHIPS WITH THE STATE

The bidder should describe any dealings with the State over the previous five (5) years. If the organization, its predecessor, or any Party named in the bidder's proposal response has contracted with the State, the bidder should identify the contract number(s) and/or any other information available to identify such contract(s). If no such contracts exist, so declare.

f.   BIDDER'S EMPLOYEE RELATIONS TO STATE

If any Party named in the bidder's proposal response is or was an employee of the State within the past eighteen (18) months, identify the individual(s) by name, State agency with whom employed, job title or position held with the State, and separation date. If no such relationship exists or has existed, so declare.

If any employee of any agency of the State of Nebraska is employed by the bidder or is a subcontractor to the bidder, as of the due date for proposal submission, identify all such persons by name, position held with the bidder, and position held with the State (including job title and agency). Describe the responsibilities of such persons within the proposing organization. If, after review of this information by the State, it is determined that a conflict of interest exists or may exist, the bidder may be disqualified from further consideration in this proposal. If no such relationship exists, so declare.

g.   CONTRACT PERFORMANCE

If the bidder or any proposed subcontractor has had a contract terminated for default during the past five (5) years, all such instances must be described as required below. Termination for default is defined as a notice to stop performance delivery due to the bidder's non-performance or poor performance, and the issue was either not litigated due to inaction on the part of the bidder or litigated and such litigation determined the bidder to be in default.

It is mandatory that the bidder submit full details of all termination for default experienced during the past five (5) years, including the other Party's name, address, and telephone number. The response to this section must present the bidder's position on the matter. The State will evaluate the facts and will score the bidder's proposal accordingly. If no such termination for default has been experienced by the bidder in the past five (5) years, so declare.

If at any time during the past five (5) years, the bidder has had a contract terminated for convenience, non-performance, non-allocation of funds, or any other reason, describe fully all circumstances surrounding such termination, including the name and address of the other contracting Party.

h.   SUMMARY OF BIDDER'S CORPORATE EXPERIENCE

The bidder should provide a summary matrix listing the bidder's previous projects similar to this RFP in size, scope, and complexity. The State will use no more than three (3) narrative project descriptions submitted by the bidder during its evaluation of the proposal.

The bidder should address the following:

i.   Provide narrative descriptions to highlight the similarities between the bidder's experience and this RFP. These descriptions should include:

    a)   The time period of the project;
    b)   The scheduled and actual completion dates;
    c)   The Contractor's responsibilities;
    d)   For reference purposes, a customer name (including the name of a contact person, a current telephone number, a facsimile number, and e-mail address); and
    e)   Each project description should identify whether the work was performed as the prime Contractor or as a subcontractor. If a bidder performed as the prime Contractor, the description should provide the originally scheduled completion

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date and budget, as well as the actual (or currently planned) completion date and actual (or currently planned) budget.

    ii.   Contractor and subcontractor(s) experience should be listed separately. Narrative descriptions submitted for subcontractors should be specifically identified as subcontractor projects.

    iii.   If the work was performed as a subcontractor, the narrative description should identify the same information as requested for the Contractors above. In addition, subcontractors should identify what share of contract costs, project responsibilities, and time period were performed as a subcontractor.

i.   **SUMMARY OF BIDDER'S PROPOSED PERSONNEL/MANAGEMENT APPROACH**

The bidder should present a detailed description of its proposed approach to the management of the project.

The bidder should identify the specific professionals who will work on the State's project if their company is awarded the contract resulting from this RFP. The names and titles of the team proposed for assignment to the State project should be identified in full, with a description of the team leadership, interface and support functions, and reporting relationships. The primary work assigned to each person should also be identified.

The bidder should provide resumes for all personnel proposed by the bidder to work on the project. The State will consider the resumes as a key indicator of the bidder's understanding of the skill mixes required to carry out the requirements of the RFP in addition to assessing the experience of specific individuals.

Resumes should not be longer than three (3) pages. Resumes should include, at a minimum, academic background and degrees, professional certifications, understanding of the process, and at least three (3) references (name, address, and telephone number) who can attest to the competence and skill level of the individual. Any changes in proposed personnel shall only be implemented after written approval from the State.

j.   **SUBCONTRACTORS**

If the bidder intends to subcontract any part of its performance hereunder, the bidder should provide:

    i.   name, address, and telephone number of the subcontractor(s);
    ii.   specific tasks for each subcontractor(s);
    iii.   percentage of performance hours intended for each subcontract; and
    iv.   total percentage of subcontractor(s) performance hours.

3.   **TECHNICAL APPROACH**

The technical approach section of the Technical Proposal should consist of the following subsections:

    a.   Understanding of the project requirements;
    b.   Proposed development approach;
    c.   Technical requirements;
    d.   Contractor requirements and
    e.   Deliverables.

VII. **COST PROPOSAL REQUIREMENTS**

This section describes the requirements to be addressed by bidders in preparing the State's Cost Proposal template. The bidder must use the State's Cost Proposal template. The bidder should submit the State's Cost Proposal template in accordance with Section I Submission of Proposal.

THE STATE'S COST PROPOSAL TEMPLATE AND ANY OTHER COST DOCUMENT SUBMITTED WITH THE PROPOSAL SHALL NOT BE CONSIDERED CONFIDENTIAL OR PROPRIETARY AND IS CONSIDERED A PUBLIC RECORD IN THE STATE OF NEBRASKA AND WILL BE POSTED TO A PUBLIC WEBSITE.

A. **COST PROPOSAL**

This summary shall present the total fixed price to perform all of the requirements of the RFP. The bidder must include details in the State's Cost Proposal supporting any and all costs.

The State reserves the right to review all aspects of cost for reasonableness and to request clarification of any proposal where the cost component shows significant and unsupported deviation from industry standards or in areas where detailed pricing is required.

B. **PRICES**

Prices quoted shall be net, including transportation and delivery charges fully prepaid by the bidder, F.O.B. destination named in the RFP. No additional charges will be allowed for packing, packages, or partial delivery costs. When an arithmetic error has been made in the extended total, the unit price will govern.

Form A
Bidder Contact Sheet
Request for Proposal Number 5882 Z1

Form A should be completed and submitted with each response to this RFP. This is intended to provide the State with information on the bidder's name and address, and the specific person(s) who are responsible for preparation of the bidder's response.

Preparation of Response Contact Information	
Bidder Name:	911 Datamaster Inc.
Bidder Address:	7500 College Blvd., Suite 500 Overland Park, KS 66210
Contact Person & Title:	Jim Shepard, Vice President
E-mail Address:	jims@911datamaster.com
Telephone Number (Office):	913-469-6401
Telephone Number (Cellular):	512-656-7713
Fax Number:	954-212-4625

Each bidder should also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Communication with the State Contact Information	
Bidder Name:	911 Datamaster Inc.
Bidder Address:	7500 College Blvd., Suite 500 Overland Park, KS 66210
Contact Person & Title:	Jim Shepard, Vice President
E-mail Address:	jims@911datamaster.com
Telephone Number (Office):	913-469-6401
Telephone Number (Cellular):	512-656-7713
Fax Number:	954-212-4625

REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM

By signing this Request for Proposal for Contractual Services form, the bidder guarantees compliance

BIDDER MUST COMPLETE THE FOLLOWING

with the procedures stated in this Request for Proposal, and agrees to the terms and conditions unless otherwise indicated in writing and certifies that bidder maintains a drug free work place.
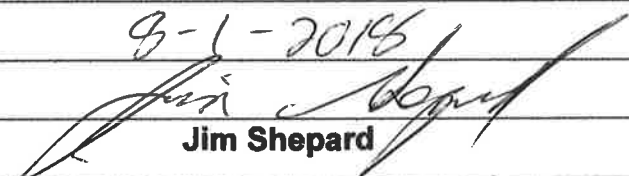
Per Nebraska's Transparency in Government Procurement Act, Neb. Rev Stat § 73-603 DAS is required to collect statistical information regarding the number of contracts awarded to Nebraska Contractors. This information is for statistical purposes only and will not be considered for contract award purposes.

_____ NEBRASKA CONTRACTOR AFFIDAVIT: Bidder hereby attests that bidder is a Nebraska Contractor. "Nebraska Contractor" shall mean any bidder who has maintained a bona fide place of business and at least one employee within this state for at least the six (6) months immediately preceding the posting date of this RFP.

_____I hereby certify that I am a Resident disabled veteran or business located in a designated enterprise zone in accordance with Neb. Rev. Stat. § 73-107 and wish to have preference, if applicable, considered in the award of this contract.

_____ I hereby certify that I am a blind person licensed by the Commission for the Blind & Visually Impaired in accordance with Neb. Rev. Stat. §71-8611 and wish to have preference considered in the award of this contract.

FORM MUST BE SIGNED USING AN INDELIBLE METHOD (NOT ELECTRONICALLY)

FIRM:	**911 Datamaster Inc.**
COMPLETE ADDRESS:	**7500 College Blvd., Suite 500** **Overland Park, KS 66210**
TELEPHONE NUMBER:	**913-469-6401**
FAX NUMBER:	**954-212-4625**
DATE:	*9-1-2018*
SIGNATURE:	*(signature)*
TYPED NAME & TITLE OF SIGNER:	**Jim Shepard**

911 Datamaster Bidder Identification and Information

Corporate name:	911 Datamaster
Headquarters:	7500 College Blvd., Suite 500
	Overland Park, KS 66210
Entity Organization:	Corporation
Incorporation State:	Kansas
Established:	1992
Other Names / Org Types:	None

911 Datamaster Financial Statements

911 Datamaster is a privately held organization that has been in business for over 25 years. Since we are not a publicly traded company, we do not require financial audits. We are reluctant to give financial information which could be used by competitors in a document that may become available to the public. Below, we have included a bank statement to indicate our liquidity.

We specialize in offering public safety NG9-1-1, GIS / Spatial, and Traditional solutions and services. We currently provide public safety solutions for many jurisdictions throughout the United States.

High profile sites include:

- Greater Harris County (Houston, TX)
- CenturyLink National (Including metros of Orlando and Phoenix)
- State of New Hampshire
- State of Maine
- State of Rhode Island
- State of Vermont
- Pittsburgh, PA
- Phoenix, AZ
- Washington, D.C.
- Mid-America Regional Council (Kansas City)
- NSA (National Security Agency)
- National Aeronautics and Space Administration (NASA)
- Pentagon

911 Datamaster Office Location

We anticipate that this work will be done out of our Austin Texas location.

911 Datamaster's Relationship to the State

We have no employees that were employed by the State.

911 Contract Performance

We will not be utilizing subcontractors for this effort.

Bank of America

Home Loans

July 16, 2018

Bank Reference Letter: Bank of America

This letter is provided at our customer's request to inform the following:

Name of customer:	911 DATAMASTER INC
Account number:	002860743686
Date of account opening:	12/07/1998
Average Monthly Balancing maintained in US Dollar or Equivalent:	$616,628.00

We confirm that this relationship is maintained in a satisfactory manner.

I can be contacted at the following numbers/email.

Respectfully,

Alexandra "Allie" Ryan

AVP, Financial Center Manager
Bank of America - Shawnee Crossings FC
KS8-765-0101, 22425 W 66th St Shawnee KS 66226
T 913.441.1067 - F 913.667.5456
alexandra.l.ryan@bankofamerica.com

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911 Datamaster's Summary of Bidder's Corporate Experience

911 Datamaster has both the software and professional services to perform the Quality Assurance / Quality Control (QA / QC) activities outlined by the State. Some comparable projects are detailed below.

1. **State of Texas EGDMS Support**
   a. **Time Period:** See chart.
   b. **Scheduled and Actual Dates:** See chart.
   c. **Responsibilities:**
      i. Identify and remediate topological errors with polygons, road centerlines, and address points (not all counties had an address point layer).
      ii. Identify and remediate attribution errors with polygons, road centerlines, and address points (not all counties had an address point layer)
      iii. Compare GIS data to ALI and MSAG and provide feedback on necessary changes to non-GIS data.
   d. **Subcontractors Used:** None
   e. **Representative population:** 2.9 million

Project Description: The State of Texas is undertaking a statewide effort to aggregate high quality GIS data to move forward with NG9-1-1 efforts. The data is being aggregated in an Enterprise Geospatial Database Management System (EGDMS). 911 Datamaster has assisted many of the participating 9-1-1 Councils of Governments (COGs) and 9-1-1 Regional Planning Commissions (RPC) by performing an initial analysis which is consistent with Nebraska's scope. We also performed subsequent data remediation to get the data compliant with the NENA GIS Data Model and to correct errors discovered during the analysis. The COGs / RPCs we assisted are outlined in the table below.

COG / RPC	# of Counties	Population Served	Dates of Service	Contact
Alamo Area COG	8	201,500	08/2013-08/2015	Juan Ramos JuRamos@aacog.com
Central Texas COG	7	250,300	02/2016-08/2017	Jwana Sartor jwana.sartor@ctcog.org
Galveston County 9-1-1	1	184,100	04/2016-05/2017	Jack Wilkins jackw@galco911.org
Golden Crescent RPC	6	169,800	07/2014-09/2015	Lesley Sciba lesleys@gcrpc.org
Houston-Galveston COG	8	651,500	03/2015-06/2017	Becky Stoneman Becky.Stoneman@gulfcoast911.org
Lower Rio Grande Valley Development Council	2	768,500	Ongoing	Joe Garcia jgarcia@lrgvdc911.org
Middle Rio Grande Valley Development Council	9	165,800	Ongoing	John Sheedy john.sheedy@mrgdc.org

Nortex RPC	9	79,300	04/2017-08/2018	Tim Bryant tbryant@nortexrpc.org
South Texas Development Council	4	324,500	Ongoing	Amanda Tienda atienda@ci.laredo.tx.us
Texoma COG	3	132,000	09/2017-02/2018	Michael Schmitz mschmitz@texoma.cog.tx.us

2. **Northern Illinois Next Gen Alliance (NINGA)**
   a. **Time Period:** See chart.
   b. **Scheduled and Actual Dates:** See chart.
   c. **Responsibilities:**
      i. Identify and remediate topological errors with polygons, road centerlines, and address points (not all counties had an address point layer).
      ii. Identify and remediate attribution errors with polygons, road centerlines, and address points (not all counties had an address point layer)
      iii. Compare GIS data to ALI and MSAG and provide feedback on necessary changes to non-GIS data.
   d. **Subcontractors Used:** None
   e. **Representative population:** 1 million
   f. **Project Description:** The Northern Illinois Next Generation Alliance (NINGA), a 9-1-1 group comprised of 10 counties, has selected NG-911, Inc. of Williamsburg, Iowa, as the integrator for a Next Generation 9-1-1 project. 911 Datamaster is a key supplier of most NG9-1-1 core services including ALI/LIS, Spatial Interface, and LVF/ECRF. 911 Datamaster has also conducted GIS analysis project for each county. In some cases, 911 Datamaster also performed GIS data remediation.

The area served on this project is:

County	Population Served	Dates of Service	Contact
Boone	53,859	Ongoing	Jeanine Kaplan jeaninekaplan@boonecountysheriff.com
Bureau	34,314	Ongoing	Diana Stiles the.director@buecomm.com
Carroll	14,620	Ongoing	Matthew T Magill mattmag@gmail.com
DeKalb	104,622	Ongoing	Glenna Johnson gjohnson@dekalbcounty.org
Jo Daviess	22,552	Ongoing	Mike Moser mmoser@jodaviess.org
Lee	35,132	Ongoing	Shelley Dallas sdallas@countyoflee.org
McHenry	307,729	Ongoing	Theresa K. Carlson mcetsb@co.mchenry.il.us
Ogle	52,850	Ongoing	Sandy Beitel SBeitel@Oglecounty.org
Stephenson	46,943	Ongoing	June Dillman jdillman@freeportpd.com
Whiteside	57,832	Ongoing	Karl Kovarik kkovarik@whiteside.org
Winnebago	291,844	Ongoing	Sandy Stanell Sandy.Stansell@rockfordil.gov

3. **Greater Harris County 9-1-1 Emergency Network (GHC)**
   a. **Time Period:** 06/2011 - current.
   b. **Scheduled and Actual Dates:** Ongoing effort.
   c. **Responsibilities:**
      i. Identify and remediate topological errors with polygons, road centerlines, and address points.
      ii. Identify and remediate attribution errors with polygons, road centerlines, and address points.
      iii. Compare GIS data to ALI and MSAG and provide feedback on necessary changes to non-GIS data.
   d. **Subcontractors Used:** None
   e. **Representative population:** 4.5 million

Project Description: GHC provides 9-1-1 service to Houston, the fourth largest city in the United States and the surrounding areas in Harris and Fort Bend counties. 911 Datamaster has deployed our entire suite of GIS products at GHC and have performed analysis like the scope required for Nebraska.

Thorough training efforts have allowed us to implement SpatialStation and SpatialCentral (SI) in such a way that GHC can perform a complete analysis of their data on a nightly basis as well as perform the data analysis required between neighboring jurisdictions. Automated and scheduled analysis in SpatialStation provides both detailed validation and comparison reports as well as the Routability report which identifies the most critical issues found in the data that must be addressed because they will negatively impact 9-1-1 call routing.

While SpatialStation identifies errors for the user as they are created during the daily editing process to encourage resolution immediately, these reports provide a clear picture of the health of the database as a whole. Nightly automated updates from SpatialStation to SpatialCentral ensures GHC is notified of any new errors that are introduced in the database between them and their neighbors. 911 Datamaster services all the entities that contribute data to their spatial interface to add cohesiveness to their database and the surrounding areas.

Contact:

Stan Heffernan

stanheff@911.org

State of Nebraska

Technical Approach

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1 911 Datamaster Technical Approach

The following 'approach' recommended below provides a robust, flexible, and expandable solution to fulfill the goals of the Quality Assurance / Quality Control (QA / QC) needs of the State of Nebraska, with respect to Geographic Information Systems (GIS) data intended for use by Public Safety Answering Points (PSAPs) to facilitate the delivery of Next Generation 9-1-1 (NG9-1-1) services at a competitive and reasonable cost. The technologies to be leveraged in both the proposed applications for use on site, as well as those used in spatial data development / management services, are based on a strong foundation of experience with both large scale public safety system deployments and NG 9-1-1 GIS data development.

1.1 Our Understanding of the Project Requirements

911 Datamaster has extensive experience in assisting 9-1-1 agencies in preparing their GIS data for use in a NG9-1-1 environment, and specifically for those Functional Elements that require this data (for example, the Emergency Call Routing Function (ECRF)). Most agencies never envisioned that GIS data would be used for functions such as call routing. GIS data has historically been used for mapped automatic location identification (ALI), computer-aided design (CAD), and similar visual representations to aid call-takers with situational awareness. As a result, the industry in general, did not focus in detail on:

- Complete attribution for all features (for example, there is no need to know what "county -left" and "county-right" are for a road feature).

- Good geometry for all features (for example, address points (APs) coincident to each other have no impact on map display).

- Congruency of GIS data with Enhanced 9-1-1 (E9-1-1) data (for example, do my road center lines (RCLs) match my Master Street Address Guide (MSAG)? Do my APs match my ALI?).

These areas of concern are critical when deploying NG9-1-1. 911 Datamaster understands that this project requires appropriate analysis of the required GIS datasets for the State and reporting on potential errors that might affect Next Generation Core Services (NGCS). 911 Datamaster has developed the technology and the professional services to perform this work.

1.2 Proposed Approach

We will utilize our existing GIS technology and work flows to perform the QA / QC services requested by the State. At a high-level this encompasses the following:

- SpatialCentral™ will be used to aggregate GIS data from authorized users and provide feedback on completeness in near real time.

- 911 Datamaster analysts will take each PSAP's data and further analyze it using SpatialStation™ in order to produce specific statistical reports, as well as feedback on specific features that have potential errors.

- 911 Datamaster will provide the PSAPs with statistics on submitted data and potential errors identified. The PSAPs will be responsible for correcting any errors and resubmitting corrected data.

- This process can continue until each PSAP reaches the State's desired level of quality and accuracy.

- SpatialStation will use the GIS data to compare against the MSAG and ALI records.

911 Datamaster believes that this approach should be executed as a continuous, iterative process rather than one driven by batch processing and long delays, as is the case with other solutions. As part of this approach, we recommend resolving all attribution and geometric issues with GIS features before comparing them to their "traditional" E9-1-1 counterparts. Specifically, as the RCL layer reaches an

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agreed upon level of quality, it can then be compared to the MSAG and ALI with more accurate results. Likewise, on the AP layer, identified GIS specific issues should be resolved before comparing it to MSAG and ALI.

- Upload SpatialCentral
- See upload error
- See feature errors
- Collaborate

- 911 Datamaster analysts use SpatialStation to determine potential errors

Aggregate | Analyze

Improve | Report

- PSAPs correct attribution
- PSAPs correct geometry
- PSAPs mark exceptions

- PSAPs will receive statistics and feature errors.
- Compliance Reporting
- Commission Reports

Compare GIS to MSAG and ALI

High Level Approach

2 Technical Requirements

2.1 SpatialCentral

SpatialCentral provides a powerful and intuitive platform to efficiently and seamlessly improve Multi-Jurisdictional GIS Data QA / QC processes needed to support NG9-1-1.

SpatialCentral will serve as the hub for this project. Counties will upload data, retrieve results, and work on any inter-jurisdictional problems (e.g., gaps/overlaps in polygons between counties). 911 Datamaster staff will use the data to perform in-depth analysis using SpatialStation which is described below.

SpatialCentral was designed and developed as a Spatial Interface (SI) per the National Emergency Number Association's (NENA) definition. 911 Datamaster has expanded its functionality beyond that of just an SI so that it can serve as a master GIS repository and collaboration tool. SpatialCentral will serve as the hub for PSAP interaction for this proposed effort. As a web-based application it will provide a secured mechanism to allow authorized users to log in and upload the data needed for the QA / QC process at any time. SpatialCentral provides a simple mechanism to field map the PSAP data to the NENA GIS Data Model attributes. Therefore, the incoming data does not have to share the same attribute field names as described in the Data Model. SpatialCentral field mapping will also indicate 'mandatory' attribution fields that must be present and populated per the NENA NG9-1-1 GIS Data Model requirements. The initial attribute field mapping setup in SpatialCentral can be done by the PSAP user or by 911 Datamaster's GIS staff. Data that does not meet minimum standards will be rejected.

After data is uploaded, SpatialCentral transforms all data to WGS-84 format (if needed) to facilitate inter-agency comparisons. SpatialCentral will then perform the QA / QC checks described in the Request for Proposal (RFP) with the exception of the MSAG and ALI comparisons. Our approach will be to take each PSAP's GIS data and identify significant geometry and attribution errors for the PSAP to correct at the source. These errors will be conveyed back to the PSAP from 911 Datamaster's GIS analysts who will use SpatialStation (see below) to produce statistical reports, as well as an "error layer" which the PSAPs can load to identify errors to be corrected or to be marked as an exception due to real world observations (for example, an AP with an "odd" street number may be on the "even" side of a RCL; this may be a legitimate exception based on field observation).

Our recommended approach is to perform the ALI and MSAG comparisons after the GIS data has reached an agreed upon level of quality. The rationale for this is that comparing ALI / MSAG to uncorrected GIS features is counterproductive. We believe using this approach will reduce re-work by the PSAPs.

SpatialCentral also provides online access to the potential errors including inter-jurisdictional errors. The online aspect of the application provides a method for multiple PSAPs to view an error to enable simultaneous collaboration on problem resolution. A good example of this is the resolution of gaps and overlaps between PSAP polygons. Both PSAPs can see a graphical map using SpatialCentral that identifies the error and displays it to all parties the same way, at the same time. It is then up to the PSAPs to plan how to correct the error at the source and resubmit updated data.

SpatialCentral Key Functions and Features:

- Serves as a vendor agnostic SI for NG9-1-1 systems.
- Supports NENA NG 9-1-1 GIS Data Model database formatting.
- Provides a secure user and administrator login management system.
- Supports a variety of GIS database formats for uploading.
- Able to upload local data in 'complete' or 'incremental' steps, when used with SpatialStation, to expedite throughput.

- Leverages an automated QA / QC Process that runs on both newly uploaded GIS Data and existing neighboring GIS Data.

- Potential errors are automatically reported back to the submitting agency and are actionable through SpatialStation software.

- Neighboring agencies view a common user interface in resolving border inaccuracies.

- Provides an online map-based display of GIS validation results and query capabilities.

- Error file downloading.

- Activity history logging and reporting.

- Good data is automatically passed along to LVF / ECRF, Map Display or CAD System in NENA standardized format.

- Integrates with SpatialStation for timed or on-demand incremental GIS updates to the master SpatialCentral database.

- Supported by 911 Datamaster's comprehensive, 24/7/365 software support.

911 Datamaster will make SpatialCentral available for purchase to the State of Nebraska at a discounted price if 911 Datamaster is awarded this QA / QC project.

2.2 SpatialStation

911 Datamaster has worked on a number of state and regional projects that are similar in size and scope to the Nebraska Assessment. We utilize our custom, Esri-based, Public Safety GIS data management software tool suite SpatialStation® to perform this analysis. This same software can be used for data remediation, as well as ongoing 9-1-1 GIS operations.

SpatialStation will be used by our GIS staff to perform in-depth analysis on the submitted data. Individualized results will be delivered back to each County for resolution. The Counties can correct data and resubmit it to SpatialCentral as often as they want. The process will continue until the required quality rate is met.

SpatialStation is fully supported and is constantly being enhanced. It allows a local jurisdiction's data to be field mapped in accordance with the NG9-1-1 GIS Data Model so that all data is consistent and compliant with established schema formatting standards. SpatialStation also integrates seamlessly with 911 Datamaster's SpatialCentral (SI) and DataNexus (Location Validation Function / ECRF) applications to facilitate 'automated' call routing database updating.

SpatialStation performs all of the State's specified GIS data quality control validations including:

- Twelve attribution and geometry checks on APs.
- Twenty-two attribution and geometry checks on RCLs.
- Four attribution and geometry checks on polygons.
- Match comparison between MSAG records and RCLs.
- Match comparison between ALI records and RCLs.
- Match comparison between ALI records and APs.

SpatialStation Key Functions and Features:

- GIS edits prompt users for required 9-1-1 attribute inputs.
- Configuration options for accessing a variety of datasets simultaneously.

- Administrator password protection for configuration settings.
- ALI change build / export.
- MSAG and Change MSAG build / export.
- Polygon gap analysis.
- Multi-database Emergency Service Number (ESN) comparison.
- Enhanced / simplified ArcGIS editing tools.
- Auto field population utility.
- Retains pending / valid statuses and notes.
- Individual user edits tracking.
- Visual feature edits history review capability.
- Full GIS metrics reporting package.
- Integrated GIS editing and traditional 9-1-1 database management workflows.
- Single step data upload process to DataNexus and / or SpatialCentral.
- Numerous user configurable tolerances and application functionality refinement controls.
- Complete online documentation for users.

911 Datamaster will make SpatialStation available for purchase to PSAPs at a discounted price if we are awarded the QA / QC project.

3 Deliverables

Our approach is an iterative and allows a PSAP to upload data, receive feedback, correct data, and re-upload data. This "rinse and repeat" method allows PSAPs to have as many of these iterations as they desire.

The deliverables for each iteration will be:

- **A Routability Report Card:** This one-page summary of data quality is a visual representation of the usability of the GIS data in a NG9-1-1 call routing environment.

- **Discrepancy Report:** Provides more detail on the types of errors by layer type (for example, PSAP polygons, RCLs, APs, and so on.)

- **Error Layer:** An Esri compliant data file that contains potential errors. The PSAPs can use this layer to adjust GIS data prior to another evaluation iteration.

Other high-level deliverables include:

- **Monthly Summary Reports:** This report will show progress for each county.

- **Training:** We will hold multiple training sessions to describe how to use SpatialCentral. This training will also contain some tips on resolving errors.

Appendix A: Acronyms, Abbreviations, and Definitions

This appendix contains information about terminology used in this document and in the 9-1-1 environment.

Term	Definition
ALI	Automatic Location Identification
AP	Address Point
CAD	Computer-aided Design
ECRF	Emergency Call Routing Function
ESN	Emergency Service Number
GIS	Geographic Information System
LVF	Location Validation Function
MSAG	Master Street Address Guide
NENA	National Emergency Number Association
NGCS	Next Generation Core Services
PSAP	Public Safety Answering Point
QA	Quality Assurance
QC	Quality Control
RCL	Road Centerline
RFP	Request for Proposal
SI	Spatial Interface

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State of Nebraska

Personnel/Management Approach

Table of Contents

1 911 Datamaster Management Approach

Our project approach is based on leveraging our technology. We are a technology company that supplements our industry-leading software with professional services. This differentiates us from professional services companies that supplement their expense staff with moderate technology. We purposely keep our staffing lean because we know that our technology will support rapid, near continuous processing and reporting on the State's GIS data.

Another characteristic of our project approach is that we are an "agile" organization. We believe in short, repeatable "sprints" of activities. From our CEO down through our Managers, we have all been trained in the "Scrum™" methodology. Scrum is a process framework that has been used to manage work on complex efforts since the 1990s. Scrum is not a process, technique, or definitive method. Rather it is a framework within which we can employ various processing and techniques.[1]

This project will benefit from Scrum characteristics:
- Work will be organized into "Sprints". Most likely these sprints will be at the county level.
- Brief Status meetings between 911 Datamaster and the stake holder will occur daily. These 15 minute calls give a constant flow of status and roadblocks.
- Brief Status meetings internal to 911 Datamaster will occur daily. These 15 minute calls allow us to identify roadblocks and identify way to improve the QA process.
- The "Sprint Review" will be held at the end of each sprint for 911 Datamaster to demonstrate to the stake holder the work that has been completed
- At the end of each sprint, there will be a "Retrospective" where we can discuss lessons learned and ways to improve our processes, technology, and/or staff.

2 Project Staffing

911 Datamaster is proposing the following team for the State's project:
- Executive Sponsor: Jim Shepard, ENP. Vice President of Operations.
  Primary responsibility is overall success of the project and a high level of customer satisfaction
- Project Manager: Kristen Strobel, Services Manager
  Primary responsibility is the day to day management of project activity and proactive reporting and communication with the stakeholders.
- Technical Advisors:
  Primary responsibilities are to provide guidance on adherence to standards, proper alignment of processes, data, and applications, and stakeholder consulting as needed.
  - Richard Kelly, Vice President
  - Jim Kringle, Senior Systems Engineer
- GIS Analysts:
  Primary responsibilities include configuring each counties data for analysis, executing data analysis, communicating with agency staff on data needs, reporting back error, and providing tactical advice on how to resolve errors in the most efficient method possible.
  - Alexis Sheehy, GIS analyst
  - Ashley Jenkins, GIS analyst
  - Cecelia Levin, Senior GIS analyst

These professionals will be organized as follows:

---

[1] "The Scrum Guide" by Ken Schwaber and Jeff Sutherland
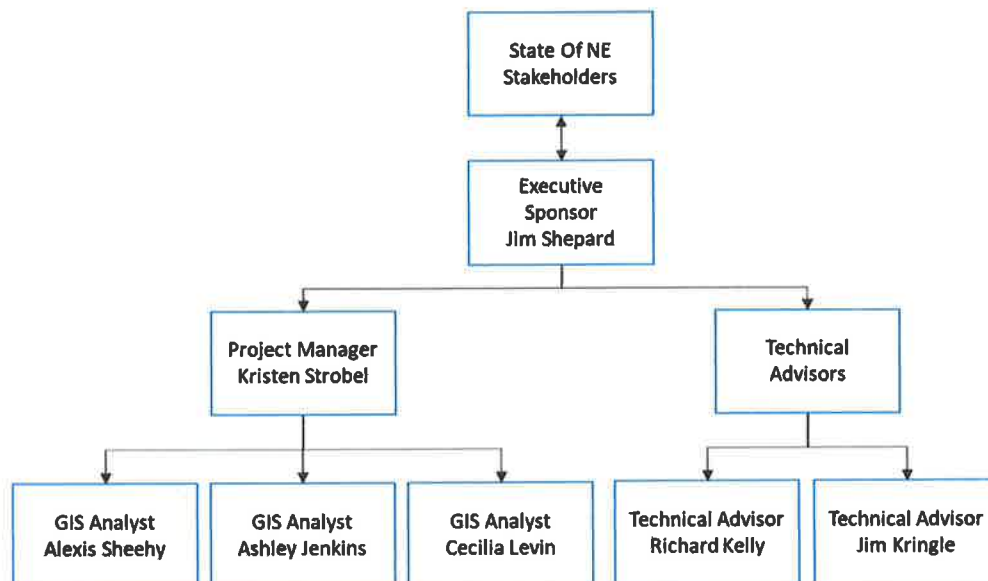
3 Resumes

Resumes of the professionals that are anticipated to be involved in making the State's project successful are included on the following pages.

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P: 913 469 6401
F: 952 212 4625
911Datamaster.com

Jim Shepard, ENP

**Vice President of Product Evolution
911 Datamaster, Inc.**

Education

BA | 1987 | TEXAS A&M

Major: Business Analysis

MA | 1991 | UNIVERSITY OF TEXAS

Business Administration

Experience

14 years

Affiliations

Mr. Shepard has over a decade of 9-1-1 leadership experience. He also provides industry guidance as Chairman of the NG9-1-1 Institute and Co-Chair of NENA's Development Steering Council which oversees all standards development work. Prior to entering the 9-1-1 industry, Mr. Shepard was a Senior Manager at Deloitte Consulting's Telecommunications Practice where he ran numerous statewide projects.

Our support for NENA standards runs deep. Mr. Shepard is currently or concluded (Work Group finished their effort) involvement with the following NENA efforts:

- Development Steering Council: Co-chair

- NG9-1-1 Data Transition Workgroup: Developed design concepts and guidelines for transitioning data and data processes from a traditional 9-1-1 environment to a NG9-1-1 environment: Work Group Chair

- GIS Data Model Work Group - Creating the GIS database schema to be used throughout NG9-1-1 applicable applications and functions: Work Group Member

- Forest Guide Work Group - Creating the specifications for a national forest guide to enable ECRF discovery processes necessary for NG9-1-1: Work Group Leader

- LVF / ECRF Work Group: Developing the standards for the provisioning and operation of LVF/ECRFs: Work Group Member

- NG9-1-1 Institute: Works with the Congressional NG9-1-1 Caucus for the advancement of 9-1-1: Chairman of the Board of Directors.

- LTD Workgroup: Developing the end-to-end architecture for the i3 design specifications: Work Group Member

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Select Project Experience

911 DATAMASTER WORK WITH GREATER HARRIS COUNTY 9-1-1

* Integrated our DBMS and ALI system to displace AT&T and serve the approximate 4,000,000 citizens of Harris and Fort Bend counties.

911 DATAMASTER WORK WITH THE TEXAS 9-1-1 ALLIANCE

* Developed and deployed a functional LVF/ECRF that covers approximately 85% of the State of Texas.
* Working on deploying a Spatial Information Function (SIF) for aggregation of GIS data on a statewide basis.

911 DATAMASTER WORK WITH CENTURYLINK

* Integrated our DBMS and ALI system to serve the sixteen states.
* Developed and deployed a functional LVF/ECRF that will eventually serve all of CenturyLink's footprint.

911 DATAMASTER WORK WITH STATE OF MAINE

* Served as 911 Datamaster's project manager for the implementation of ALI/LDB and DBMS to support a statewide NG9-1-1 effort.

HBF GROUP, INC.

Executive Vice President

* Managed all corporate operations for the development, deployment, and support of advanced E911 applications. Responsible for all aspects of software development, quality assurance, and client support. Worked with current and potential customers to determine the optimal deployment of technology to support 911 operations.

Select References

Agency	Reference	Email	Phone #	Address
Galveston County 9-1-1	Jack Wilkins	jackw@galco911.org	409-935-3911	1353 FM 646 West, Suite 101 Dickinson, TX 77539
Golden Crescent RPC	Lesley Sciba	lesleys@gcrpc.org	361-578-1587	1908 N. Laurent, Suite 600 Victoria, TX 77901
MRGV Development Council	John Sheedy	john.sheedy@mrgdc.org	830-876-3533	307 West Nopal Street, Carrizo Springs, TX 78834
Ogle County IL	Sandy Beitel	SBeitel@Oglecounty.org	815-732-1119	202 S. 1st St. Oregon, Illinois 61061

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Kristen Strobel

Services Manager
911 Datamaster, Inc.

Education

BA | 1997 | TEXAS A&M

Major: Geography

CERTIFICATIONS

Certified ScrumMaster ®

Experience

With over 14 years of experience in all aspects of Geographic Information Systems (GIS) accompanied by excellent leadership, communication, and project management skills, I am a strong team player eager to develop new methods for improving efficiency and data availability.

Affiliations

Mrs. Strobel has worked on GIS from data input and display to database design and analysis, managed the development of multiple GIS and database related applications, and created organization-wide GIS processes and trained peers.

Mrs. Strobel is currently involved with the following NENA efforts:

- Workgroup GIS Data Stewardship for Next Generation 9-1-1

Professional Experience

2014 – PRESENT   911 DATAMASTER, INC

- GIS Analyst from November 2014 to October 2015 tasked with improving GIS data quality for multiple agencies to be compliant with State mandated Next Generation 9-1-1 GIS data standards.

- Promoted to Spatial Product Specialist in October 2015 to focus on testing new spatial product releases, develop product documentation, install and upgrade new releases, train new and existing users, and provide customer support.

- Promoted to GIS Supervisor in April 2016 to lead the team of GIS Analysts throughout project lifecycles, implement more efficient processes and improve process documentation. Additional responsibilities include proposing and prioritizing future software enhancements, giving product demonstrations, and analyzing potential customers' GIS data to generate statements of work and pricing.

- Promoted to Services Manager in July 2016 to manage the GIS Data Services team to enhance customers' current spatial data to meet requirements for tomorrow's Next Generation 9-1-1 as well as managing the Traditional Data Services team to support today's 9-1-1 call routing processes and challenges. This combination of Services provides the knowledgeable support system 9-1-1 agencies need to guide them

through the otherwise arduous transition to NG9-1-1. Also overseeing the development of a more robust product training program of courses and materials to ensure 911 Datamaster customers are fully engaged and knowledgeable of product features and enhancements for all 9 software products.

2005 – 2013 SELF-EMPLOYED SMALL BUSINESS OWNER

- Launched a product sales business as well as a mobile service business. Grew a sales team of independent consultants and coached them to achieve their goals by focusing on marketing and customer retention. Made timely contacts with customers to ensure customer satisfaction and with potential hostesses to manage successful events.

2002 – 2005   GIS COORDINATOR / SENIOR PLANNER, CITY OF AUSTIN, TEXAS

- Acted as the GIS Coordinator and served as the Neighborhood Planning Department representative for cross-departmental GIS issues. Responsibilities included directing and administering the development of the Neighborhood Planning and Zoning GIS database and an Internet application used to provide City employees and the general public with permitted and conditional use information about specific lots within the adopted neighborhood plan areas. Other general responsibilities that support neighborhood planning included providing demographic mapping and analysis as well as re-zoning trend analysis, assisting staff with data and map needs, providing training to co-workers on more advanced GIS techniques, and creating and implementing standard procedures for data capture and analysis.

2000 – 2002   GIS ANALYST / PLANNER III, CITY OF AUSTIN, TEXAS

- Primary focus on analyzing census data and developing growth trend reports as well as creating future transportation networks. Assisted in developing operating procedures and GIS coverages for monitoring Austin's growth, creating documentation and training co-workers in these processes, as well as providing analysis of development in the City of Austin and answering citizen questions. Other key responsibilities included developing and evaluating plans for creating and managing the long range transportation plan GIS coverage as well as prioritizing tasks to create the transportation GIS coverage and provide updates as needed by Austin City Council.

1998 – 2000   GIS TECHNICIAN, CITY OF AUSTIN, TEXAS

- Computer mapping skills and GIS knowledge focused on developing address point and street line layers in ArcInfo as well as utilizing ArcView to query and analyze address, legal description, and jurisdiction information and maintaining a tabular spatial database. Additional responsibilities included addressing newly recorded subdivisions, processing street name changes, training co-workers, assigning legal addresses, and providing customer service. Responsibilities required the ability to research, interpret, and analyze city and county legal records, survey data, subdivision plats, site plans, and aerial photographs.

1997 – 1998   FIRST AMERICAN FLOOD DATA SERVICES

- Researched legal descriptions and utilized hands-on mapping skills to make flood plain determinations.

1996 – 1996   BRAZOS COUNTY APPRAISAL DISTRICT

- Volunteer intern responsible for editing property ownership maps, drawing City of Bryan subdivision maps from metes and bounds, finalizing aerial photo index maps, and digitizing soil maps.

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Select References

Agency	Reference	Email	Phone #	Address
Houston-Galveston COG	Becky Stoneman	Becky.Stoneman@gulfcoast911.org	713-627-3200	P.O. Box 22777 Houston, TX 77227-2777
Golden Crescent RPC	Lesley Sciba	lesleys@gcrpc.org	361-578-1587	1908 N. Laurent, Suite 600 Victoria, TX 77901
Ogle County IL	Sandy Beitel	SBeitel@Oglecounty.org	815-732-1119	202 S. 1st St. Oregon, Illinois 61061

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Richard Kelly

Director of GIS & Geospatial Technologies
911 Datamaster, Inc.

Education
BA | TEXAS STATE UNIVERSITY
Major: Geography with a concentration in Cartography and Photogrammetry

MA | TEXAS SOUTHERN UNIVERSITY
Applied Geography specializing in Geographic Information Systems

Experience
18 years of Public Safety experience as well as more than 20 in GIS related work for 9-1-1 applications.

Affiliations
Mr. Kelly has worked on improving 9-1-1 GIS data and related QA/QC processes for nearly two decades. He has held several prominent positions serving local Government, including Director of Information Services at the Capital Area Planning Council of Governments in Austin, Texas where he gained the following experience in supporting Public Safety.

- Was responsible for coordinating the GIS efforts regarding 9-1-1 mapping operations for a ten-county area covering 8600 square miles.
- Worked with the Texas Commission on State Emergency Communications on developing a comprehensive' 9-1-1 GIS / Mapping Best Practices' guidance manual.
- Developed and coordinated the Geographic Information Systems Planning Council representing GIS interests from ten counties and the communities they serve.
- Past Chair of the Texas Association of Regional Councils (TARC) Regional Technology Committee, which reviewed new technology issues with emphasis on GIS and mapping systems.
- Represented the twenty-four Councils of Governments in Texas as the TARC representative on the Texas Geographic Information Council, which was made up of representatives from all Texas State agencies that use GIS.
- Researched, and developed reports on, statutes and implementation strategies for regional and local governments.
- From RFP to flight, coordinated multi-jurisdiction orthophotography projects covering nearly 11,000 square miles for a contract in excess of $2 million.
- Coordinated the implementation of all agency work in the GIS, Planning, and Solid Waste areas of operation, with a staff of seven, within established governmental policy, timeline and budgetary restrictions.

- Supported GIS activities for Planning, Aging, Economic Development and Homeland Security program areas in the Central Texas Region as well as provided professional GIS guidance to State agencies and local governments outside of the region.
- Experienced in regularly working with numerous public agencies at the State, County and City level to achieve cooperative goals.
- Worked regularly with the LCRA and the Texas Colorado River Floodplain Coalition on data acquisition / sharing initiatives for floodplain and DFIRM information updating.
- Our support for NENA standards runs deep. Mr. Kelly is currently involved with the following NENA standards and guidelines document efforts:

  - Development of Site/Structure Address Point GIS Data for 9-1-1 (WG Co-Chair)
  - Provisioning & Maintenance of GIS Data to ECRF-LVF (WG member)
  - NG9-1-1 GIS Data Model Workgroup (WG member)
  - 9-1-1 Data Management (WG member)

Select Project Experience

- Provided technical assistance to a large Account Management team and their customers regarding solution designs for telephony and mapping based products for 18 states. Identified local government technical and operational needs, assessed their technical capabilities and presented the benefits and risks of proposed technical solutions.
- Performed as a technical resource and liaison to corporate project management, product management, research & development, and customer service teams on all applicable technical issues related to GIS and mapping.
- Acted as primary software development contact for a multimillion dollar corporation during development of new versions of mapping applications by drafting specifications, working directly with code developers and assisting in prioritization of feature development as well as testing of alpha and beta versions, including technical documentation review.
- Established and documented processes to streamline corporate Solutions Engineering operations and documentation processes for GIS solutions.
- Worked on GIS related project solution designs, including developing detailed engineering documentation and support, for numerous large and small-scale projects including various military installations and the Oglala Sioux Tribe and Bureau of Indian Affairs.

Select References

Agency	Reference	Email	Phone #	Address
Galveston County 9-1-1	Jack Wilkins	jackw@galco911.org	409-935-3911	1353 FM 646 West, Suite 101 Dickinson, TX 77539
Golden Crescent RPC	Lesley Sciba	lesleys@gcrpc.org	361-578-1587	1908 N. Laurent, Suite 600 Victoria, TX 77901
DeKalb County IL	Glenna Johnson	gjohnson@dekalbcounty.org	815-899-4559	150 North Main Street, Sycamore, IL 60178

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James William Kringle

Geospatial Solutions Architect
911 Datamaster, Inc.

Education

AAS | 2017 | PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE

Geographic Information Systems (GIS)

Experience

Broad GIS knowledge and experience, Advanced skills with ESRI software including ArcMap, ArcCatalog, and ArcServer. Experience with administering ArcSDE for SQL Server. Proficient with Intergraph products including Geomedia Professional, LPS, and Erdas. Extensive experience with Cassidian 911 CPE. Experience troubleshooting LAN and WAN networks. Experience with coordinating data from different agencies. Proficient with database theory, design, and practice. Familiarity with E911 administration systems in Texas. Understanding of wire-line and wireless 911 call delivery networks. Basic PSTN troubleshooting skills. Experience with providing local and remote support to multiple PSAPs. Familiarity with PSAP operations. Experience designing and delivering training for dispatchers. Frequent presenter and contributor to the TX 911 GIS user group. NENA member and active in NG911 GIS working groups. Experience with PC, Apple, and Linux computing.

Professional Accomplishments

- Selected to present "9-1-1 Data, In One Dimension", at the 2009 national NENA/URISA Addressing Conference in Rhode Island.
- Recipient of the 2011 Texas NENA GIS Professional of the Year Award.
- Selected to present "Next Generation Data for Next Generation 9-1-1" at 2012 TNRIS Texas GIS Forum.
- Published contributor to NENA Documents: 71-501 Synchronizing Geographic Information System databases with MSAG & ALI, 71-502 An Overview of Policy Rules for Call Routing and Handling in NG9-1-1.

Professional Experience

2013 – PRESENT GEOSPATIAL SOLUTIONS ARCHITECT, 911 DATAMASTER, INC

- Design software and workflow solutions for 911 data management.
- Educate business partners about solutions.
- Support customers.

2010 – 2013 911 GIS SPECIALIST, SOUTH PLAINS ASSOCIATION OF GOVERNMENTS

- Responsible for maintaining GIS to support 911.
- Provide training and support to GIS users.
- Ensure efficiency of GIS procedures and modernize software.

- Coordination of equipment maintenance vendors.
- Publish maps and map books for first responders and local governments.
- Maintain ALI mapping software at PSAP.
- Train dispatchers on CPE and map software packages.
- Respond to technical support needs of regional partners.
- Assist with quarterly supervisor and advisory committee meetings.
- Plan, design, and build a wide area network to support PSAP data delivery and equipment monitoring.
- Resolve issues and implement solutions at PSAPs.

2007 – 2010   GIS COORDINATOR, LUBBOCK EMERGENCY COMMUNICATION DISTRICT

- Responsible for maintaining GIS to support 911.
- Respond to address requests.
- Publish maps and map books for first responders.
- Provide updated map data to field technicians to install at PSAPs.
- Train dispatchers on ALI mapping software.

Select References

Agency	Reference	Email	Phone #	Address
Alamo Area COG	Juan Ramos	JuRamos@aacog.com	210-362-5200	8700 Tesoro Drive Suite 160 San Antonio, Texas 78217-6221
Houston-Galveston COG	Becky Stoneman	Becky.Stoneman@gulfcoast911.org	713-627-3200	P.O. Box 22777 Houston, TX 77227-2777
LRGV Development Council	Joe Garcia	jgarcia@lrgvdc911.org	956-682-3481	301 W. Railroad, Weslaco TX 78596.

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Alexis Sheehy

GIS Analyst
911 Datamaster, Inc.

Education

CERTIFICATION | 2017 | AUSTIN COMMUNITY COLLEGE

Geographic Information Systems (GIS)

BA | 2015 | UNIVERSITY OF TEXAS

Economics

Experience

ArcMap, ArcGIS Pro, Business Analyst, Illustrator, InDesign, Access, Excel, and Word.

Professional Experience

2017 – PRESENT GIS ANALYST, 911 DATAMASTER, INC

- Perform data assessments to help 911 public agencies identify critical errors in their geographic data
- Participate in National Emergency Number Association (NENA) Civic Location Data Exchange Format (CLDXF) workgroup
- Coordinate data exchanges with 911 authorities and provide guidance on NENA standards for Next Generation 911 (NG911) readiness

2016 – 2017 NEXT GENERATION 9-1-1 GIS INTERN, ACC INC

- Reviewed and validated topology of data in the Texas Commission on Emergency Communications' (CSEC) 9-1-1 Program
- Assessed the spatial accuracy of 911 data according to the National Standard for Spatial Data Accuracy (NSSDA)
- Produced county assessment reports for Regional Planning Commissions

2015 – 2016   RESEARCH ANALYST, TEXAS FORENSIC SCIENCE COMMISSION

- Used geographic resources and databases to prepare detailed maps for commission reports
- Designed and built a case database, and migrated 20,000+ case files into an organized and searchable format
- Performed literature and case reviews on current forensic science topics

2008 – 2013 RESEARCH ASSOCIATE, TOXSTRATEGIES

- Generated multimedia reports and presentations based on diverse toxicological research topics

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- Updated and maintained chemical literature databases for multiple clients
- Worked with outside database architect to create a ground-up, internal company database and subsequently built it into a critical 50,000+ document reference tool
- Performed quality assurance on client deliverables, including statistical, mathematical and chemical calculations

References

Amanda Tienda; Director of 9-1-1, City of Laredo and South Texas Council of Governments
956-794-1788; atienda@ci.laredo.tx.us

Sean Moran; GIS Department Chair, Austin Community College
512-223-4944; smoran@austincc.edu

Lynn R. Garcia; General Counsel, Texas Forensic Science Commission
512-936-7986; lynn.garcia@fsc.texas.gov

Tanner Markley; Commercial Acquisitions, Scenic Capital
512-300-1487; tmarkley@scenicpg.com

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Cecilia Levin

Senior GIS Analyst
911 Datamaster, Inc.

Education

BS | NORTHEASTERN ILLINOIS UNIVERSITY

Geography and Environmental Studies

Experience

Microsoft Office (Word, Excel, PowerPoint), ESRI ArcGIS Suite 10.4.1, 911Datamaster Spatial Station, Motorola Premier CAD (PCAD) and Motorola Premier One (P1CAD) dispatching system.

Professional Experience

2015 – PRESENT SENIOR GIS ANALYST, 911 DATAMASTER, INC

- Analyze customer GIS data and remediate issues as necessary to achieve an agreed upon level of quality. Tasks include:
    - Perform data analysis to produce statistical analyses, reports and maps
    - Editing: Point, line and polygon features
    - ALI/MSAG/RCL reconciliation
    - Identify, format, integrate, document and back up data.
    - Integrate aerial imagery to calculate and update existing databases and maps.
- Assist customers to implement workflows that will support the ongoing health of their GIS data.
- Reintegrate customer data into a production environment.
- Provide training to support the customer's ability to maintain their data.
- Deliver feedback on spatial products and perform QA tasks when requested.

2010 – 2015 GIS ANALYST, COOK COUNTY 911 ETSB

- Effectively managed multiple priorities in connection with GIS implementation and maintenance of an Enterprise and Personal GIS database, providing critical information for the operation of the Cook County 911 Communications Center. Priorities include:
    - Data Transfers: SDE, Feature classes, shapefiles, etc.
    - Data Analysis
    - Editing: Point, line and polygon features
    - Basic SQL inquiries
    - Data conversion from NAD27 to NAD83
- Utilized strong technical abilities while maintaining the ETSB GIS database and its various applications; the Motorola Premier One Computer Aided Dispatch (P1CAD) System and the Master Street Address Guide (MSAG) including associated data and maps.

- Directly responsible for creating GIS procedure for P1CAD system which is specific to Cook County ETSB.

- Create accurate and detailed maps for P1CAD Desktop and Mobile clients; expertly handled all full data uploads to the system.

- Served as coordinator of Quality Assurance procedures for major initiatives, ensuring that all processes are properly executed in a timely manner.

2001 – 2006   DIGITAL CARTOGRAPHER, COOK COUNTY HIGHWAY DEPARTMENT

- Utilized cartographic and geographic information systems to develop and maintain various Cook County Highway Department mapping applications while assisting in the research, maintenance and output of the department database. Assisted Head of Map Division in the design phase.

- Participated directly in the design and creation of GIS applications, consistently completing all project elements on time and adhering to all strict project requirements.

- Selected scales, calculated distances and made projections during the map editing process; reviewed and checked for accuracy within the given information.

- Became adept at communicating information through the use of color, symbols, style and other means, using software to compile and produce graphs for specialized and general use.
Displayed well-developed interpersonal, communication and presentation skills while training department personnel who use the database or application software.

2000 – 2001 GIS SPECIALIST (INTERN), JONES LANG LASALLE

- Created thematic maps and demographic analysis using information software including iMark and Infomark.

References

Natasha Allen-Victor
GIS/Database Manager
Cook County ETSB
9511 W. Harrison
Des Plaines, IL 60016
847-294-4452
Natasha.allen-victor2@cookcountyil.gov

Martin Bennett
Cook County Executive Director of Communications & ETSB
Cook County ETSB
9511 W. Harrison
Des Plaines, IL 60016
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Michael Hammer
GIS Program Coordinator
Cook County GIS Department
69 W. Washington St
Chicago, IL 60602
312-603-1776
Michael.Hammer@cookcountyil.gov

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Ashley B. Jenkins

GIS Analyst
911 Datamaster, Inc.

Education

MS | 2016 | TEXAS STATE UNIVERSITY

Geography

BS | 2013 | TEXAS STATE UNIVERSITY

Geography

AWARDS

Martha Sue Baker Scholarship – May 2013

Experience

ArcGIS, Python, Public Speaking, Microsoft Office Suite, Remote Sensing/ERDAS, TerraScan/LiDAR, GPS data collection and post processing, and AutoCAD.

Professional Experience

2017 – PRESENT GIS ANALYST, 911 DATAMASTER, INC

- Help 9-1-1 public agency customers identify and correct both topology and attribution errors in their geographic data
- Identify training opportunities and develop product curriculum(s)
- Provide live software demonstrations to current and potential clients
- Create web tutorials for company website addressing clients' FAQs

2017 – PRESENT ADJUNCT PROFESSOR – GIS, AUSTIN COMMUNITY COLLEGE

- Structuring introductory GIS content into lesson plans, lab assignments and lectures
- Creating, administering and grading exams and course projects and assignments
- Assist young professionals develop a solid foundational knowledge of GIScience and GISystem

2015 – 2016   GRADUATE INSTRUCTIONAL ASSISTANT, TEXAS STATE UNIVERSITY

- Instruct two Advanced Geographic Information Systems (GIS) laboratory sections
- consisting of roughly twenty junior/senior undergraduate students each. Class is
- conducted twice a week per lab section for an hour and twenty minutes each
- Hold office hours twice a week to provide additional student support

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- Help students understand the conceptual framework behind the GIS functions performed in lab activities
- Assist with ArcMap trouble-shooting
- Inspect each of the assignment's associated data files and report any issues to faculty supervisor prior to the assignment's release date
- Lead the class in a step-by-step computer demonstration for each lab assignment
- Demonstrations included: editing and digitizing features, georeferencing areal images, geocoding street addresses, managing databases, performing SQL, surface modeling, hotspot analysis, network analysis, ArcMap model builder, etc.

References

Sean Moran (512) 223-4944, Austin Community College

Brian Cooper, PhD (512) 245-6750, Texas State University

Nathan Currit, PhD (512) 245-3198, Texas State University

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Contractor
Req.

911 Datamaster Contractor Requirements

QA / QC PROJECT METHODOLOGY

We are planning on an iterative approach that allows counties to upload data often to get timely feedback on GIS features that may require correction. After the initial data load which will require some field mapping, the time to process subsequent data sets is significantly reduced. Details of this project plan are shown in the section below.

DETAILED ACTION PLAN

The following is a project plan for accomplishing the scope of this project. Years 2-4 are substantially the same tasks as Year 1. We anticipate that the number of counties involved in active iteration through the QA process will decrease as some counties hit the quality threshold as specified by the State.

Task Name	Duration	Start	Finish
Year 1			
	1d	10/01/18	10/01/18
Establish authorized user logins	7d	10/02/18	10/10/18
Initial Data Load and Analysis	21d	10/11/18	11/08/18
Feedback to PSAP	21d	11/09/18	12/07/18
November 2018 Status Meeting	1d	11/05/18	11/05/18
Iterate through data upload and analysis	14d	12/10/18	12/27/18
December 2018 Status Meeting	1d	12/03/18	12/03/18
Iterate through data upload and analysis	14d	12/28/18	01/16/19
Iterate through data upload and analysis	14d	01/17/19	02/05/19
Begin GIS comparison to ALI/MSAG	21d	12/14/18	01/11/19
Feedback to PSAPs on GIS to ALI/MSAG	7d	01/14/19	01/22/19
Iterate GIS comparison to ALI/MSAG	21d	01/23/19	02/20/19
Continuous improvement using steps above	80d	02/21/19	06/12/19
Monitoring and improving	79d	06/13/19	10/01/19
January 2019 Status Meeting	1d	01/07/19	01/07/19
February 2019 Status Meeting	1d	02/04/19	02/04/19
March 2019 Status Meeting	1d	03/04/19	03/04/19
April 2019 Status Meeting	1d	04/01/19	04/01/19
May 2019 Status Meeting	1d	05/06/19	05/06/19
June 2019 Status Meeting	1d	06/03/19	06/03/19
July 2019 Status Meeting	1d	07/08/19	07/08/19
August 2019 Status Meeting	1d	08/05/19	08/05/19
September 2019 Status Meeting	1d	09/02/19	09/02/19
Year 2: Monitoring and improving	262d	10/01/19	09/30/20
Year 3 (optional): Monitoring and improving	261d	10/01/20	09/30/21
Year 4 (optional): Monitoring and improving	261d	10/01/21	09/30/22

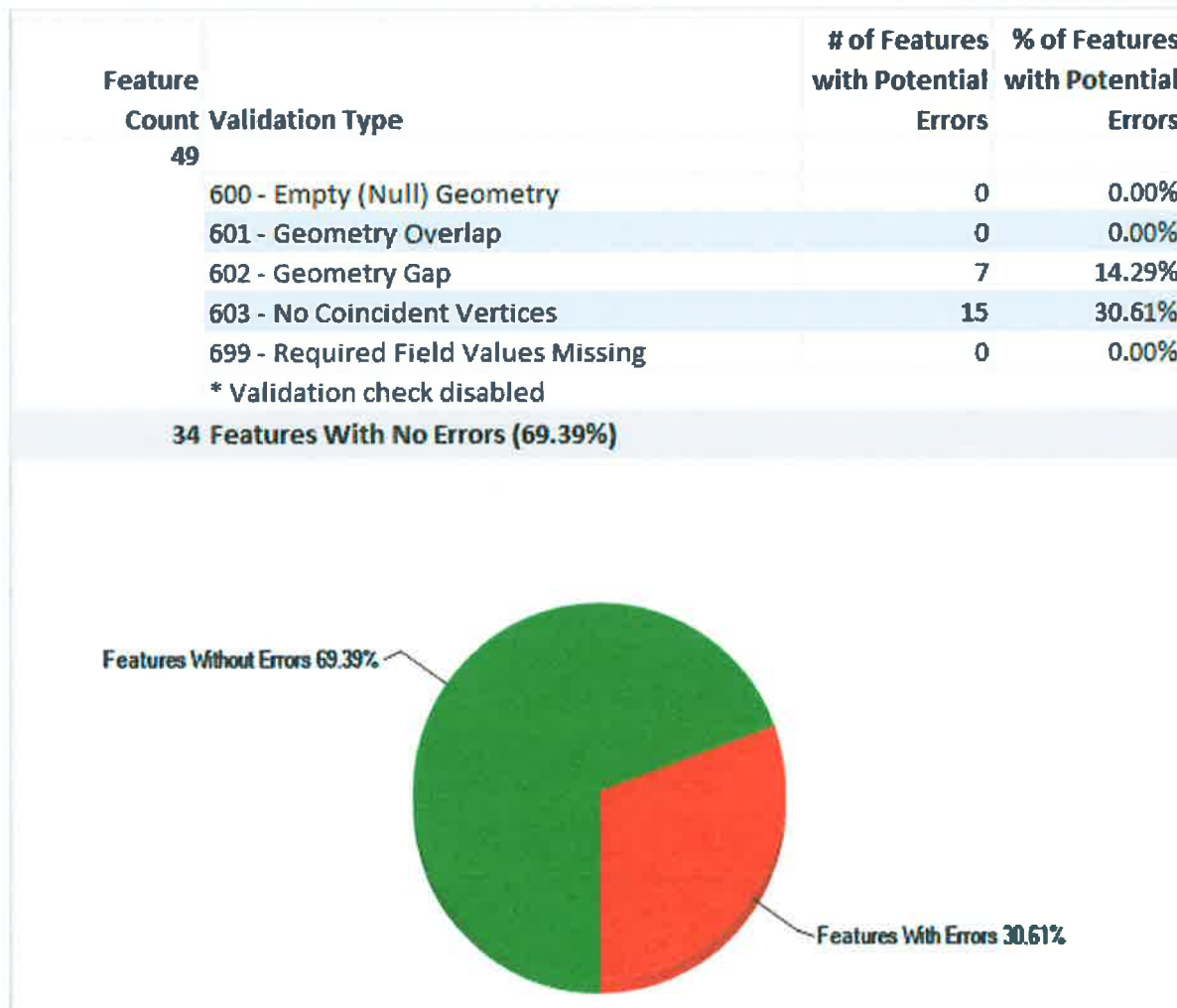| Task Name	Duration	Start	Finish
Year 2: Monitoring and improving	262d	10/01/19	09/30/20
Year 3 (optional): Monitoring and improving	261d	10/01/20	09/30/21
Year 4 (optional): Monitoring and improving	261d	10/01/21	09/30/22

DISCREPANCY REPORT

In the case of an uploaded GIS dataset that contains errors or discrepancies, the Contractor's report shall be a Discrepancy Report in tabular format, organized by unique object identifiers, listing all errors, discrepancies and other items of note that require correction in order to achieve compliance with applicable NITC and NENA standards. Each Discrepancy Report shall also be accompanied by a shapefile of any areas where the topology in the related dataset is incorrect. In addition, the Discrepancy Report for each dataset that includes a Street Centerline layer shall state the match rate percentage between the Street Centerline layer and the MSAG.

For each uploaded GIS dataset, 911 Datamaster will produce a discrepancy report. This report will include:

- Error Type
- Global Unique ID
- Identifying attribution of the feature.

We also will produce summary statistics for each layer such as these:

Feature Count	Validation Type	# of Features with Potential Errors	% of Features with Potential Errors
49			
	600 - Empty (Null) Geometry	0	0.00%
	601 - Geometry Overlap	0	0.00%
	602 - Geometry Gap	7	14.29%
	603 - No Coincident Vertices	15	30.61%
	699 - Required Field Values Missing	0	0.00%
	* Validation check disabled		
34 Features With No Errors (69.39%)			

Features Without Errors 69.39%
Features With Errors 30.61%

MSAG to Contiguous RCL

Feature Count	Comparison Type	Occurrence Count	Occurrence %
31,357		21,613	
	5020 - MSAG to Contiguous RCL - Exact Matches	596	2.76%
	5021 - MSAG to Contiguous RCL - Partial Matches	20,707	95.81%
	5022 - MSAG to Contiguous RCL - No Matches	310	1.43%

Partial Match 95.81%

Exact Match 2.76%

No Match 1.43%
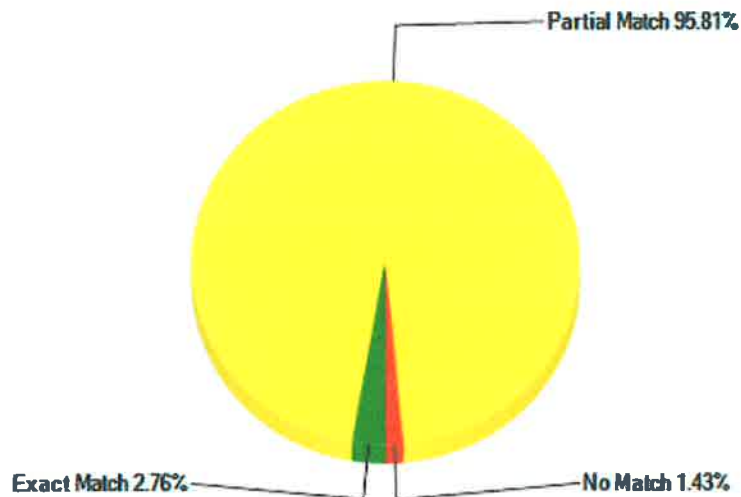
In addition, we will send a GIS layer containing errors so that this layer can be imported into the County's GIS to quickly identify erroneous features.

COMPLIANCE REPORT

For each dataset uploaded by a County, 911 Datamaster will produce a one page "Routability Report Card". Once each critical layer reaches a "green" status, the County's GIS is sufficient for use in an NG9-1-1 environment. Note that subsequent edits to the good data may degrade quality.

An example of the Routability Report Card is shown below:

☷ SpatialStation™ Routability Report Card for 2/22/2018

Grades by Feature Class

A No Critical Issues found in AP, RCL, PSAP, ESN, Fire, Law, or EMS features

B Less than 10% of AP or RCL features have Critical Issues

C 10% or more of AP or RCL features have Critical Issues
    or

* PSAP, ESN, Fire, Law and/or EMS features provide required information that is needed for use in determining a PSAP to route a call to as well as the emergency responders for that location. Any Critical issues found in these layers must be addressed prior to using data for call routing in ECRF.

MANATEE COUNTY

Layer Type	% Error	Current Critical Issues
	2/22/2018	
AP	**0.01%**	- Not In Polygon - Required Field Values Missing
EMS	**14.29%**	- Geometry Gap
Fire	**13.06%**	- Geometry Overlap - Geometry Gap
Law	**16.30%**	- Geometry Overlap - Geometry Gap
PSAP	**0.00%**	
RCL	**32.64%**	- Address Range Overlap - Address Range Zero - Not In Polygon - Required Field Values Missing

NOTE: 911 Datamaster makes no claim as to the results of any analysis, using data provisioned by the data provider, regarding its completeness, correctness or timeliness. All analysis results indicating 'potential' data issues should be considered as recommendations for the data provider to review and make corrections where appropriate. Data provider, therefore, accepts all liability for the potential errors indicated in their submitted data. Accordingly, data provider hereby irrevocably releases and holds harmless 911 Datamaster, and waives any and all present or future claims, damages, losses, expenses, liabilities and causes of action arising from the development, implementation or use of any data submitted for analysis or the results provided to them.

The match rate of individual layers will be presented as shown in the discrepancy reports above.

CONTRACTOR REPORTS TO COMMISSION

The Contractor shall provide the Commission with a copy of each Discrepancy Report, Compliance Report, and a monthly summary of other communications the Contractor delivers to any PSAP. In addition, The Contractor will be required to deliver periodic reports to the Commission's GIS Specialist on a monthly basis, listing by jurisdiction each GIS dataset reviewed by the Contractor in the prior period, including the results of each review. Each periodic report shall also include a list of all GIS datasets currently undergoing QA/QC review, organized by PSAP. In addition, each periodic report shall also include the completion date of the most recent QA/QC review conducted for each PSAP in Nebraska, along with a list of each PSAP, if any, for which no GIS dataset was submitted to the Contractor for review. The Commission must also be notified in the event any PSAP fails to make necessary changes within thirty (30) days to a GIS dataset that has been rejected for uploading or has been the subject of a Discrepancy Report.

Please submit a copy of your report with your response.

In addition to each county's discrepancy reports, compliance reports, a communication summary, 911 Datamaster will provide a tabular summary depicting the current status for each county. A copy of this summary is shown on the next page.

911 Datamaster

Summary Report:

County	Last Upload Date	Polygon Error Count	Polygon Error %	Road Error Count	Road Error %	AP Error Count	AP Error %
County 1							
County n							
TOTAL							

MSAG to Contiguous RCL						
Exact Match		Partial Match		No Match		
Count	%	Count	%	Count	%	

RCL to Contiguous MSAG						
Exact Match		Partial Match		No Match		
Count	%	Count	%	Count	%	

ALI Unique Address to AP						
Exact Match		Partial Match		No Match		
Count	%	Count	%	Count	%	

ALI Unique Address to RCL						
Exact Match		Partial Match		No Match		
Count	%	Count	%	Count	%	

PERIODIC REMINDERS TO UPLOAD GIS DATA

SpatialCentral, the portal used by the counties, automatically sends an email at a configurable interval. This email will include a link to the portal for them to begin uploading again.

Additionally, our analysts can provide more timely reminders when there is a joint expectation of a faster turnaround.

CUSTOMER SERVICE RESPONSIBILITIES

911 Datamaster will provide:

- A customer service telephone number
- A customer service telephone email
- A link to our Help Desk Portal
- A link to an online version (which can be downloaded in PDF format) of the SpatialCentral User Guide including frequently asked questions.

911 Datamaster Training Approach

911 Datamaster will provide online, live training for SpatialCentral as this is the main tool for the agencies. We will offer this training at multiple times to accommodate users' schedules. Additionally, we will provide a link to a recorded session for users who cannot make the scheduled time or those who simply require a refresher on the application's features.

The material covered in the training will match the content in the User Training Manual which will be provided electronically. A copy of the table of contents for this manual is shown below.

911 Datamaster

GIS Data Assessment
Prepared for
XYZ County

A Confidential / Proprietary Document
February 21, 2018

NOTE: 911 Datamaster makes no claim as to the results of any analysis, using data provisioned by the data provider, regarding its completeness, correctness or timeliness. All analysis results indicating 'potential' data issues should be considered as recommendations for the data provider to review and make corrections where appropriate. Data provider, therefore, accepts all liability for the potential errors indicated in their submitted data. Accordingly, data provider hereby irrevocably releases and holds harmless 911 Datamaster, and waives any and all present or future claims, damages, losses, expenses, liabilities and causes of action arising from the development, implementation or use of any data submitted for analysis or the results provided to them.

NG9-1-1 Routability Metrics

Address Points (AP) are a precise way of reflecting a single 9-1-1 address location in a GIS database. The following validation checks have been performed for the AP data provided, with regards to the APs themselves as well as when compared to the Polygon layers.

1. APs with Empty (Null) Geometry
2. APs Not Covered by Polygons
3. APs in Multiple Polygons
4. AP Required Field Values Missing
5. AP Attribute Has No USPS Standard Abbreviation Match

While not as precise as address points, Road Centerlines (RCLs) are a basic layer for use in determining an address location when and address point for a location lookup is not available in a GIS database. The following validation checks have been performed for the RCL data provided, with regards to the RCLs themselves as well as when compared to the Polygon layers.

6. RCLs with Empty (Null) Geometry
7. RCLs Not Covered by Polygon
8. RCL Required Field Values Missing
9. RCL Attribute Has No USPS Standard Abbreviation Match
10. RCL Address Range '0'
11. RCL Address Range Overlap

PSAP, ESZ and or Law/Fire/EMS polygons provide required information that is needed for use in determining a PSAP to route a call to as well the emergency responders for that locations. The following validation checks have been performed for each Polygon data layer provided.

12. Polygons with Empty (Null) Geometry
13. Polygons with Geometry Gaps
14. Polygons with Geometry Overlaps
15. Required Field Values Missing

::: SpatialStation™ Routability Report Card for 2/2/2018

Grades by Feature Class

A No Critical Issues found in AP, RCL, PSAP, ESN, Fire, Law, or EMS features

B Less than 10% of AP or RCL features have Critical Issues

C 10% or more of AP or RCL features have Critical Issues

or

* PSAP, ESN, Fire, Law and/or EMS features provide required information that is needed for use in determining a PSAP to route a call to as well as the emergency responders for that location. Any Critical issues found in these layers must be addressed prior to using data for call routing in ECRF.

MANATEE COUNTY

Layer Type	% Error	Current Critical Issues
	2/22/2018	
AP	0.01%	- Not In Polygon - Required Field Values Missing
EMS	14.29%	- Geometry Gap
Fire	13.06%	- Geometry Overlap - Geometry Gap
Law	16.30%	- Geometry Overlap - Geometry Gap
PSAP	0.00%	
RCL	32.64%	- Address Range Overlap - Address Range Zero - Not In Polygon - Required Field Values Missing

NOTE: 911 Datamaster makes no claim as to the results of any analysis, using data provisioned by the data provider, regarding its completeness, correctness or timeliness. All analysis results indicating 'potential' data issues should be considered as recommendations for the data provider to review and make corrections where appropriate. Data provider, therefore, accepts all liability for the potential errors indicated in their submitted data. Accordingly, data provider hereby irrevocably releases and holds harmless 911 Datamaster, and waives any and all present or future claims, damages, losses, expenses, liabilities and causes of action arising from the development, implementation or use of any data submitted for analysis or the results provided to them.
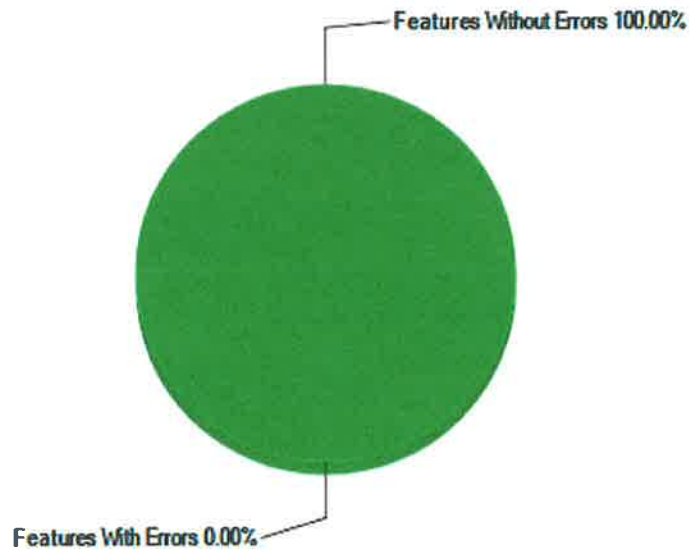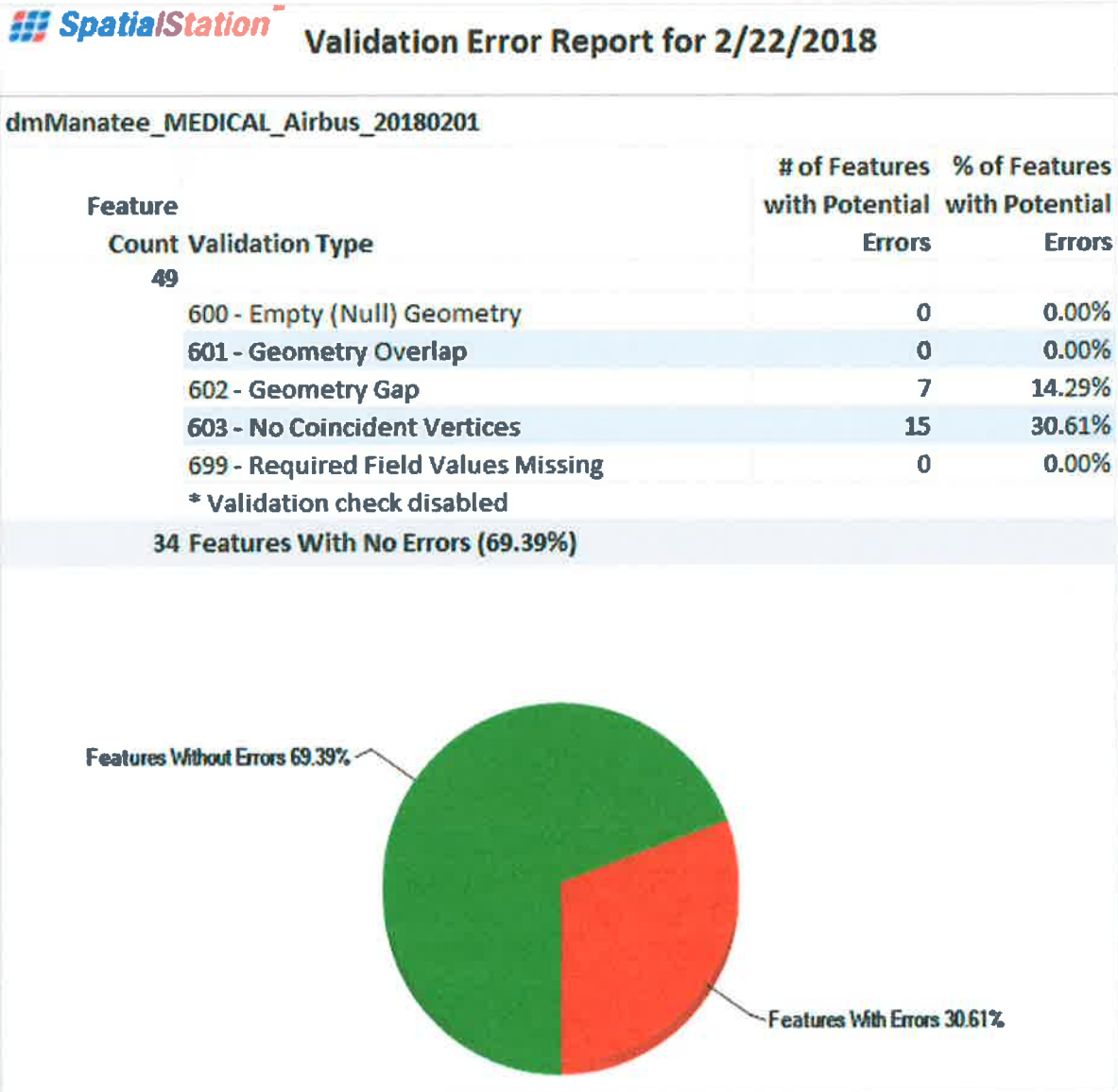
Polygon Geometry & Attribution
PSAP Layer

SpatialStation™ Validation Error Report for 2/22/2018

dmManatee_PSAP_Airbus_20180201

Feature Count	Validation Type	# of Features with Potential Errors	% of Features with Potential Errors
16			
	600 - Empty (Null) Geometry	0	0.00%
	601 - Geometry Overlap	0	0.00%
	602 - Geometry Gap	0	0.00%
	603 - No Coincident Vertices	0	0.00%
	699 - Required Field Values Missing	0	0.00%
	* Validation check disabled		
16	Features With No Errors (100%)		

Features Without Errors 100.00%

Features With Errors 0.00%

Polygon Geometry & Attribution
EMS Layer

SpatialStation™ Validation Error Report for 2/22/2018

dmManatee_MEDICAL_Airbus_20180201

Feature Count	Validation Type	# of Features with Potential Errors	% of Features with Potential Errors
49			
	600 - Empty (Null) Geometry	0	0.00%
	601 - Geometry Overlap	0	0.00%
	602 - Geometry Gap	7	14.29%
	603 - No Coincident Vertices	15	30.61%
	699 - Required Field Values Missing	0	0.00%
	* Validation check disabled		
	34 Features With No Errors (69.39%)		

Features Without Errors 69.39%

Features With Errors 30.61%

Confidential / Proprietary Information

Polygon Geometry & Attribution Fire Layer
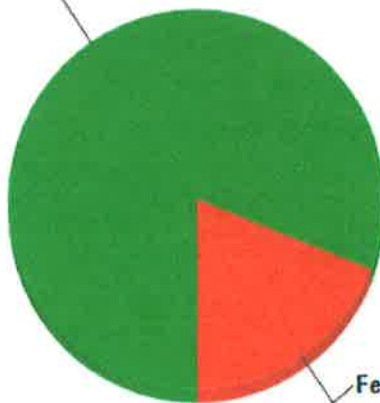
SpatialStation Validation Error Report for 2/22/2018

dmManatee_FIRE_Airbus_20180201

Feature Count	Validation Type	# of Features with Potential Errors	% of Features with Potential Errors
222			
	600 - Empty (Null) Geometry	0	0.00%
	601 - Geometry Overlap	4	1.80%
	602 - Geometry Gap	27	12.16%
	603 - No Coincident Vertices	29	13.06%
	699 - Required Field Values Missing	0	0.00%
	* Validation check disabled		
180	**Features With No Errors (81.08%)**		

Features Without Errors 81.08%

Features With Errors 18.92%

Polygon Geometry & Attribution Law Layer

SpatialStation — Validation Error Report for 2/22/2018

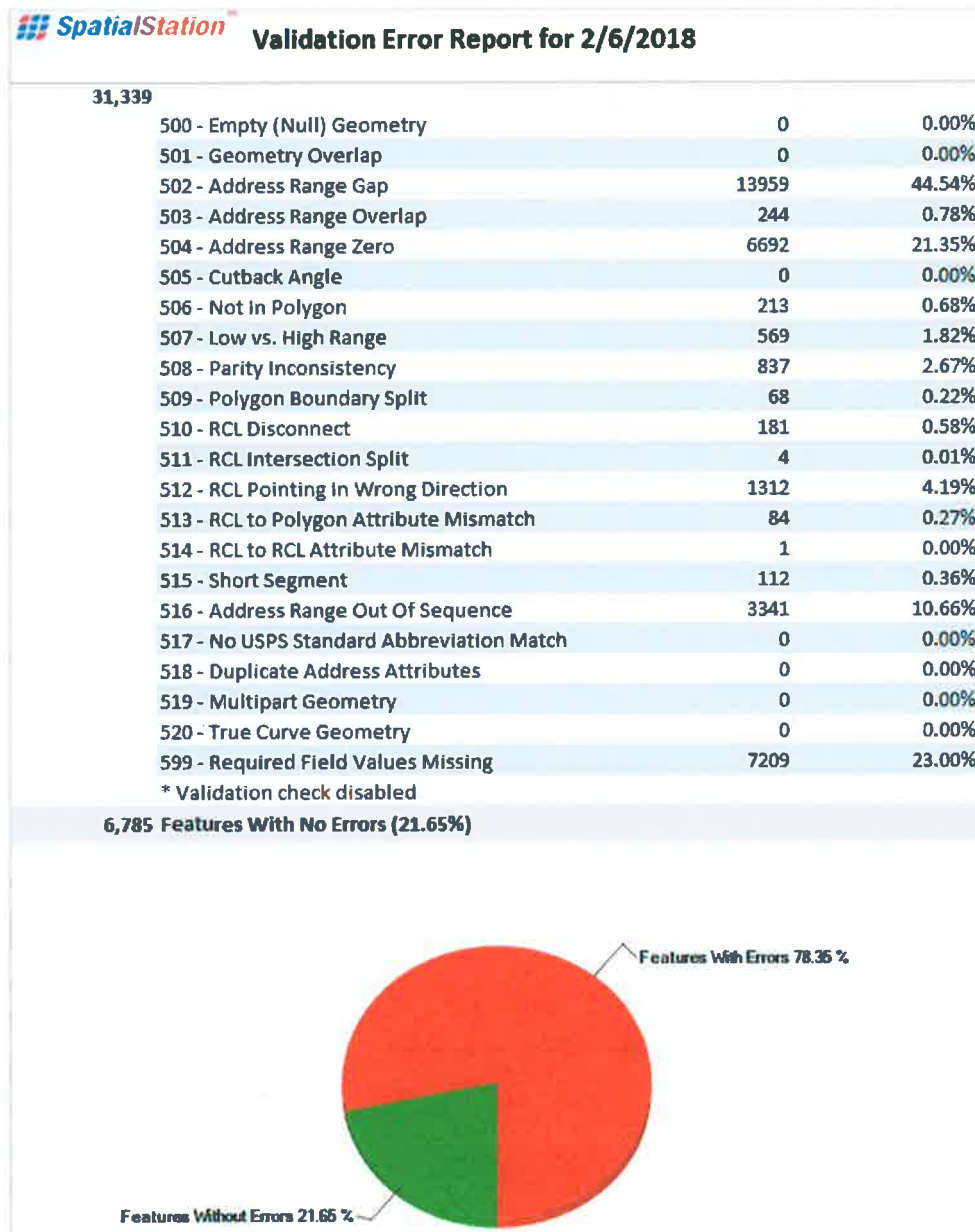### dmManatee_LAW_Airbus_20180201

Feature Count	Validation Type	# of Features with Potential Errors	% of Features with Potential Errors
92			
	600 - Empty (Null) Geometry	0	0.00%
	601 - Geometry Overlap	4	4.35%
	602 - Geometry Gap	14	15.22%
	603 - No Coincident Vertices	18	19.57%
	699 - Required Field Values Missing	0	0.00%
	* Validation check disabled		
73	Features With No Errors (79.35%)		
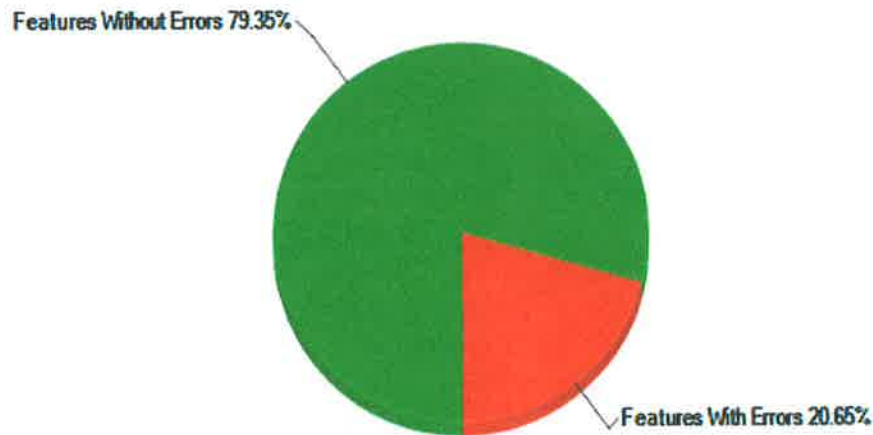
Features Without Errors 79.35%
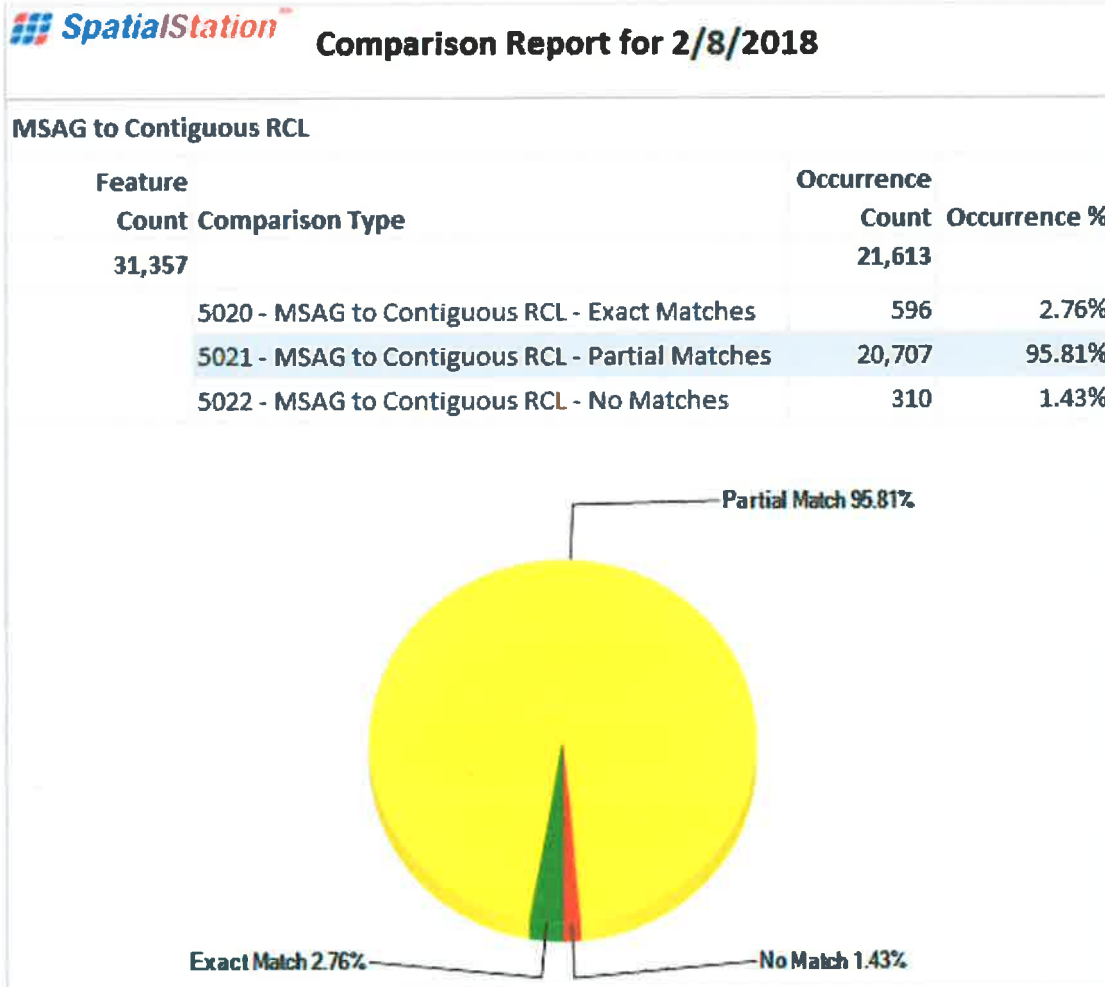
Features With Errors 20.65%

While not as precise as address points, Road Centerlines (RCLs) are a basic layer for use in determining an address location when an address point is not available in a GIS database. The following validation checks have been performed for the RCL data provided, with regards to the RCLs themselves as well as when compared to the Address Point (AP) and Polygon layers. Three major categories of analyses are typically performed on RCL data: Geometry Analysis, Attribution Analysis and Tabular Database Comparison Analysis. Below are the results of the Geometry and Attribution analyses.

SpatialStation **Validation Error Report for 2/6/2018**

31,339		
500 - Empty (Null) Geometry	0	0.00%
501 - Geometry Overlap	0	0.00%
502 - Address Range Gap	13959	44.54%
503 - Address Range Overlap	244	0.78%
504 - Address Range Zero	6692	21.35%
505 - Cutback Angle	0	0.00%
506 - Not In Polygon	213	0.68%
507 - Low vs. High Range	569	1.82%
508 - Parity Inconsistency	837	2.67%
509 - Polygon Boundary Split	68	0.22%
510 - RCL Disconnect	181	0.58%
511 - RCL Intersection Split	4	0.01%
512 - RCL Pointing In Wrong Direction	1312	4.19%
513 - RCL to Polygon Attribute Mismatch	84	0.27%
514 - RCL to RCL Attribute Mismatch	1	0.00%
515 - Short Segment	112	0.36%
516 - Address Range Out Of Sequence	3341	10.66%
517 - No USPS Standard Abbreviation Match	0	0.00%
518 - Duplicate Address Attributes	0	0.00%
519 - Multipart Geometry	0	0.00%
520 - True Curve Geometry	0	0.00%
599 - Required Field Values Missing	7209	23.00%
* Validation check disabled		

6,785 Features With No Errors (21.65%)

Features With Errors 78.35 %

Features Without Errors 21.65 %

Confidential / Proprietary Information

MSAG to RCL Comparison

The MSAG to RCL comparison checks highlight any inconsistencies between the street names and ranges present in the MSAG and those in the GIS RCLs. This analysis identifies how many one or more partial matches exist between MSAG records and RCLs. Those fields highlighted in the list below are required in the GIS data for partial match detection. RCL records that do not contain the required values will not be considered for partial matches and identified as no match.
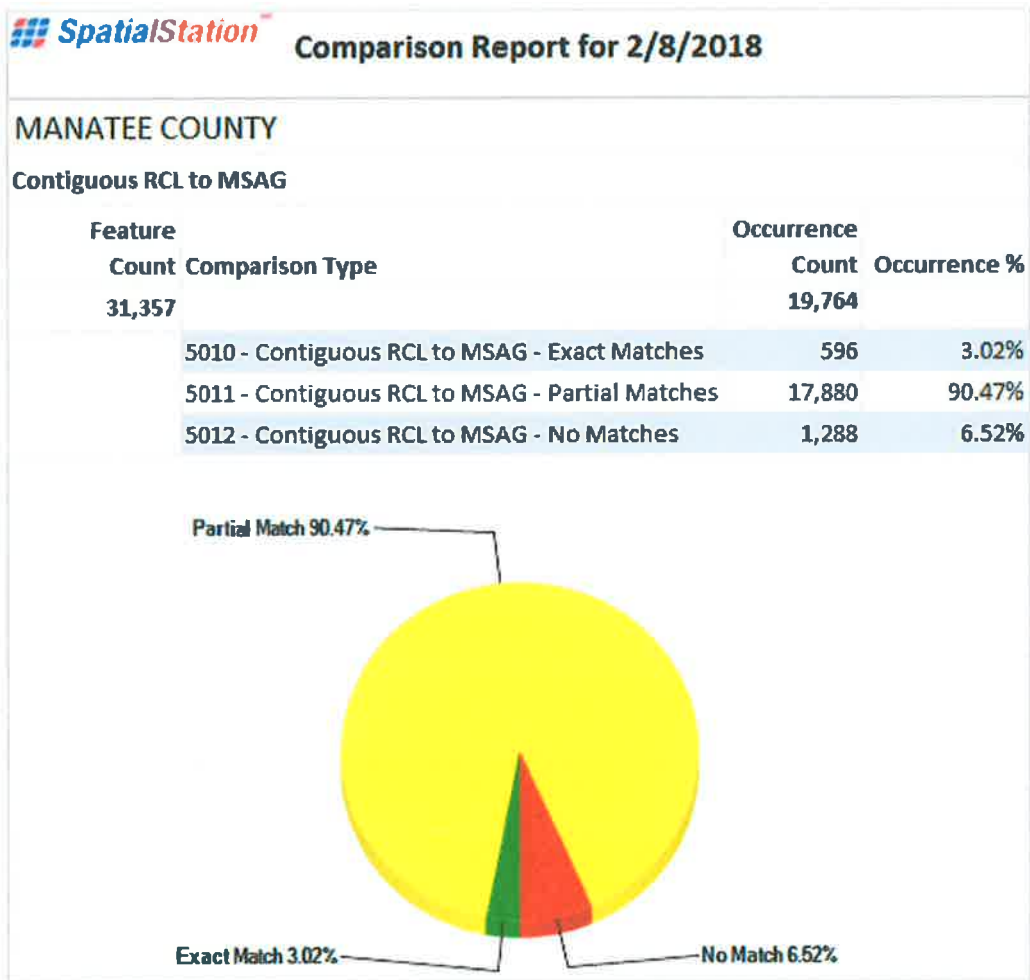
1. Low Range (lowest address number)
2. High Range (highest address number)
3. Prefix Directional
4. Street Name
5. Street Type
6. Post Directional
7. OEB (Odd, Even, or Both addressing)
8. Community Name
9. County Code
10. State
11. ESN #

SpatialStation Comparison Report for 2/8/2018
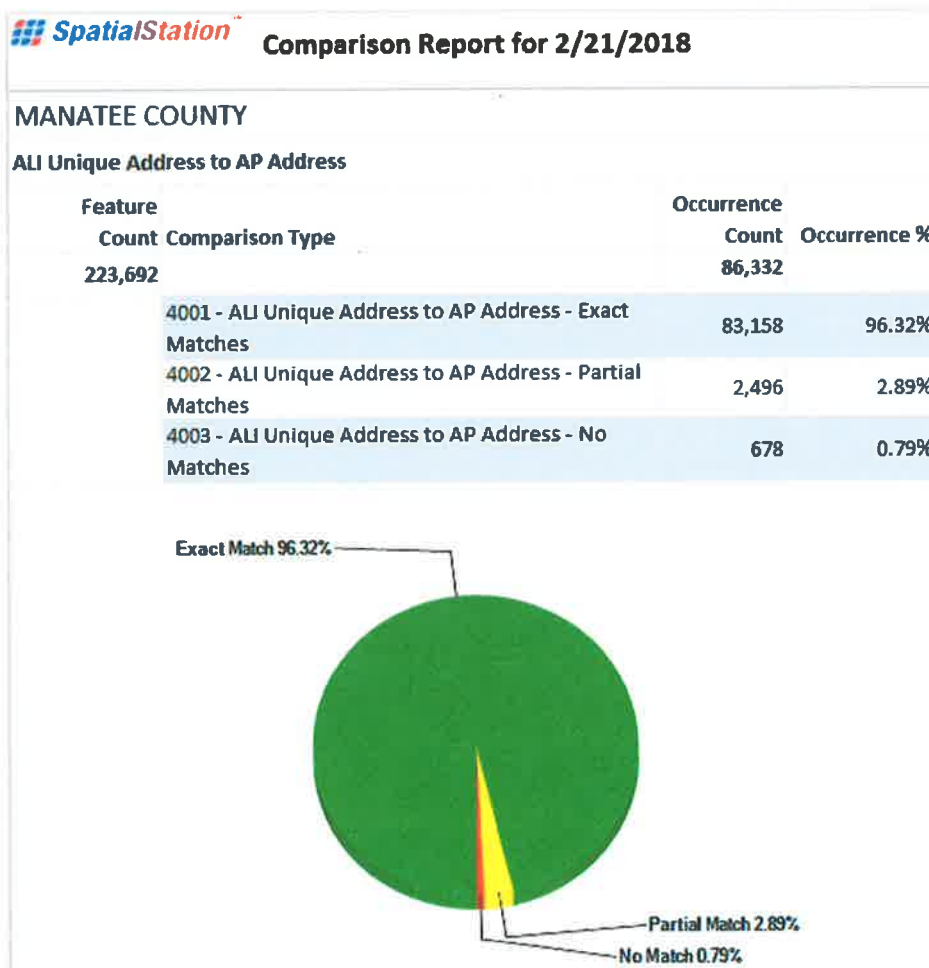
MSAG to Contiguous RCL

Feature Count	Comparison Type	Occurrence Count	Occurrence %
31,357		21,613	
	5020 - MSAG to Contiguous RCL - Exact Matches	596	2.76%
	5021 - MSAG to Contiguous RCL - Partial Matches	20,707	95.81%
	5022 - MSAG to Contiguous RCL - No Matches	310	1.43%

Partial Match 95.81%

Exact Match 2.76%

No Match 1.43%

Confidential / Proprietary Information

The RCL to MSAG comparison checks identify those RCLs not represented in the MSAG. This analysis identifies how many one or more partial matches exist between MSAG records and RCLs. Those fields highlighted in the list below are required in the GIS data for partial match detection. RCL records that do not contain the required values will not be considered for partial matches and identified as no match.

1. Low Range (lowest address number)
2. High Range (highest address number)
3. Prefix Directional
4. Street Name
5. Street Type
6. Post Directional
7. OEB (Odd, Even, or Both addressing)
8. Community Name
9. County Code
10. State
11. ESN #

SpatialStation   Comparison Report for 2/8/2018

MANATEE COUNTY

Contiguous RCL to MSAG

Feature Count	Comparison Type	Occurrence Count	Occurrence %
31,357		19,764	
	5010 - Contiguous RCL to MSAG - Exact Matches	596	3.02%
	5011 - Contiguous RCL to MSAG - Partial Matches	17,880	90.47%
	5012 - Contiguous RCL to MSAG - No Matches	1,288	6.52%

Partial Match 90.47%
Exact Match 3.02%
No Match 6.52%

AP Geometry & Attribution

Address Points (AP) are a precise way of reflecting a single 9-1-1 address location in a GIS database. The following validation checks have been performed for the AP data provided, with regards to the APs themselves as well as when compared to the Road Center Line (RCL) and Polygon layers. Three major categories of analyses are typically performed on AP data: Geometry Analysis, Attribution Analysis and Tabular Database Comparison Analysis. Below are the results of the Geometry and Attribution analyses.

SpatialStation **Validation Error Report for 2/6/2018**

MANATEE COUNTY (ESN - <All>)

dmManatee_Addresses_Airbus_20180129

Feature Count Validation Type	# of Features with Potential Errors	% of Features with Potential Errors
223,688		
400 - Empty (Null) Geometry	0	0.00%
401 - Geometry Overlap	25404	11.36%
402 - AP Out of Sequence	28627	12.80%
403 - AP to Polygon Attribute Mismatch	34	0.02%
404 - AP to RCL Attribute Mismatch	35282	15.77%
405 - Coincident with RCL	4	0.00%
406 - Not In Polygon	3	0.00%
407 - In Multiple Polygons	0	0.00%
408 - Parity Mismatch	1915	0.86%
409 - No USPS Standard Abbreviation Match	0	0.00%
410 - Duplicate Address Attributes	53159	23.76%
499 - Required Field Values Missing	30	0.01%
* Validation check disabled		

151,159 Features With No Errors (67.58%)

Features Without Errors 67.58 %

Features With Errors 32.42 %

ALI to AP Comparison

Ideally every unique ALI address will have an AP address that can be used for locating an emergency call. The unique ALI address to AP address comparison checks identify any inconsistencies between the addresses present in the ALI and those in the GIS APs. This comparison specifically identifies how many exact, partial, or no matches exist between ALI database records and APs. The following AP attributes are used for this partial match process. Those fields highlighted in the list below are required in the GIS data for partial match detection. AP records that do not contain the required values will not be considered for partial matches and identified as no match.

1. House #
2. House # Suffix
3. Prefix Directional
4. Street Name
5. Street Suffix
6. Post Directional
7. Community Name
8. County Code
9. State
10. ESN #

SpatialStation — Comparison Report for 2/21/2018

MANATEE COUNTY

ALI Unique Address to AP Address

Feature Count	Comparison Type	Occurrence Count	Occurrence %
223,692		86,332	
	4001 - ALI Unique Address to AP Address - Exact Matches	83,158	96.32%
	4002 - ALI Unique Address to AP Address - Partial Matches	2,496	2.89%
	4003 - ALI Unique Address to AP Address - No Matches	678	0.79%

Exact Match 96.32%
Partial Match 2.89%
No Match 0.79%

ALI to RCL Comparison

Ideally every unique ALI address will have an RCL address range that can be used for locating an emergency call. The unique ALI address to RCL comparison checks identify any inconsistencies between the addresses present in the ALI and the address ranges in the GIS RCLs. This comparison specifically identifies how many exact, partial, or no matches exist between ALI database records and RCLs. Those fields highlighted in the list below are required in the GIS data for partial match detection. RCL records that do not contain the required values will not be considered for partial matches and identified as no match.

1. House # range for left and right sides (both high and low)
2. House # Suffix
3. Prefix Directional
4. Street Name
5. Street Suffix
6. Post Directional
7. Community Name
8. County Code
9. State
10. ESN #

SpatialStation   Comparison Report for 2/21/2018

ALI Unique Address to RCL

Feature Count	Comparison Type	Occurrence Count	Occurrence %
223,692		86,332	
	4101 - ALI Unique Address to RCL - Exact Matches	38,901	45.06%
	4102 - ALI Unique Address to RCL - Partial Matches	45,831	53.09%
	4103 - ALI Unique Address to RCL - No Matches	1,600	1.85%

Partial Match 53.09%
Exact Match 45.06%
No Match 1.85%
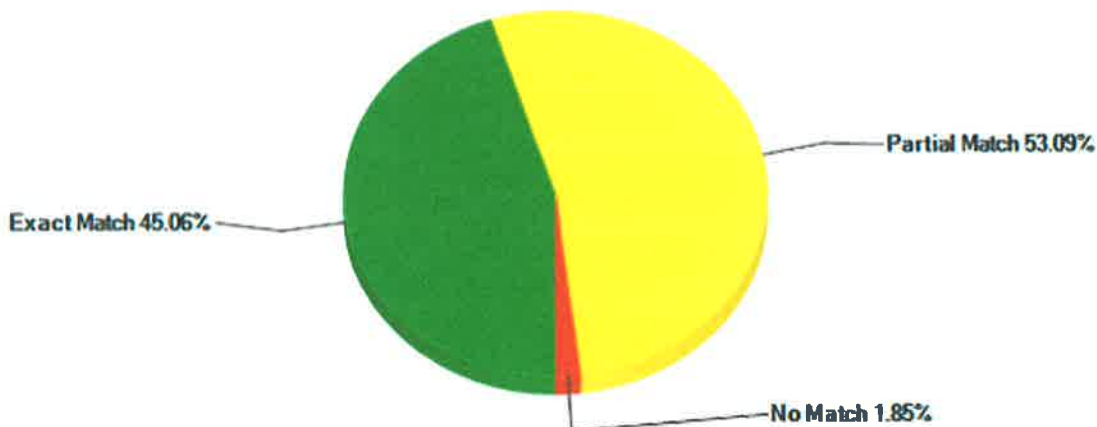
Appendix A - Terms, Acronyms

Term	Definition
ALI	Automatic Location Information
AP	Address Point
ECRF	Emergency Call Routing Function
ESN	Emergency Service Number
ESZ	Emergency Service Zone
GIS	Geographic Information System
GIS Data Element	Refers to a single 'point', 'line' or 'polygon' feature in the GIS data
High	Common 9-1-1 reference to the highest numerical value of an address range.
Low	Common 9-1-1 reference to the lowest numerical value of an address range.
LVF	Location Validation Function
MSAG	Master Street Address Guide
PC	Personal Computer
RCL	Road Centerline
SPS	SpatialStation

Appendix B – Analysis Examples

AP Geometry Analysis

APs with Empty (Null) Geometry — Code 400
Null geometry can be created unintentionally by users or software. Null geometry essentially means a tabular record is represented in a map database without a graphic representation.
Impact: Records that lack geometry cannot be shown on a map or used for geocoding.

AP Geometry Overlap — Code 401
Address points that are on top of one another, or that are too tightly grouped together, are identified for review. Perfectly coincident APs, when on top of each other for example, could have been caused inadvertently in the process of digitizing them.
Impact: The stacking of APs can lead to incorrect automated call routing due to poor proximity of points to the actual locations of the structures they represent.
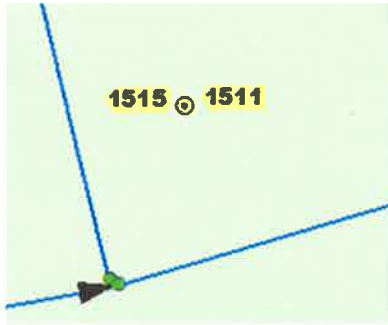
APs Coincident with RCLs — Code 405
APs represent a set of conditions that are found on one or the other side of an RCL. They typically should not coincide with the RCL.
Impact: APs coincident with RCLs could lead to incorrect automated call routing due to poor proximity of points to the actual locations of the structures they represent.

APs Not Covered by Polygons — Code 406
Every AP should be contained within one and only one polygon per configured feature class. Gaps or overlaps in the polygon layer create places where AP to Polygon errors can occur.
Impact: APs that do not fall within a polygon cannot be used for automated call routing because the process of point-in-polygon determination cannot be completed.
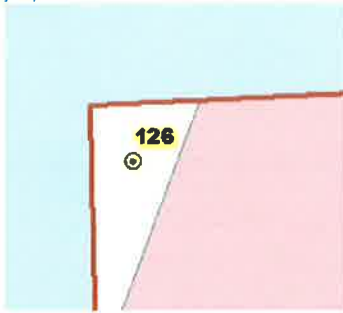
APs in Multiple Polygons — Code 407

APs have a single attribute per polygon that describes its location. This error situation usually indicates that polygons in a feature class are overlapping in error.

Impact: A point cannot be in two places at one time, i.e. two counties at once or two ESZs at once, thus this problem can impact the automated call routing process.

AP Attribution Analysis

AP Out of Sequence — Code 402

This condition occurs when an AP's address number is greater than both its neighboring APs' address numbers, is less than both of its neighboring APs' address numbers or is otherwise not consistent in numbering with its neighbors. This indication that the address number does not follow the expected numerical sequence helps identify problems where an incorrect address may be entered.

Impact: If a point is incorrectly located, and the situation not corrected, incorrect location identification can occur such as with a point-in-polygon determination, for automated call routing.
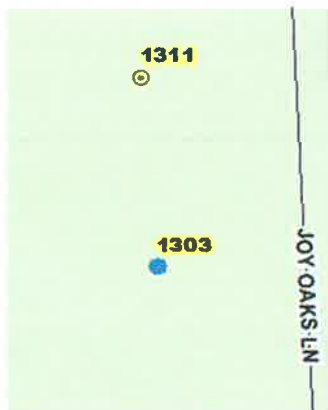
AP to Polygon Attribute Mismatch — Code 403

APs often contain attributes that relate information that originates from another feature class. For example, the Community or ESN attributes of an AP describes which polygon features the AP is within. An error condition exists if the attributes that relate to the polygons do no match the polygon's attributes.

Impact: Not synching up the attribute data between the APs and polygons can cause a conflict of which attribute is correct, the address point or the polygon attribute.
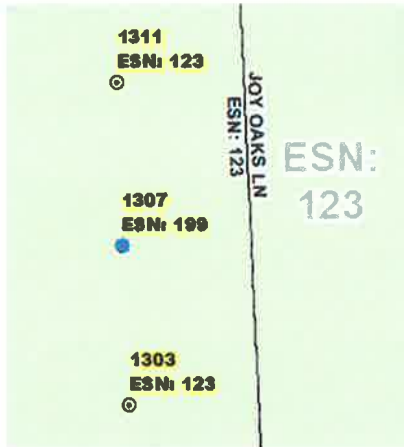
AP to RCL Attribute Mismatch — Code 404

APs often contain attributes that relate information that originates from another feature class. An AP usually reflects address information associated with the RCL from which it was assigned. When the AP attributes that relate to the RCL do not agree with the attribution of the RCL an error condition exists.

Impact: If the AP is in error and left uncorrected an incorrect attribute could impact the automated call routing process.

AP Parity Mismatch — Code 408

Most addressing systems assign even addresses to one side of a thoroughfare and odd addresses to the other. An even numbered address on the odd side of an RCL usually indicates an error condition. Addressing schemes that do not use parity can be found in communities that use lot numbering schemes for example.

Impact: If the AP location is in error and left uncorrected this problem can impact the automated call routing process. For example, an AP on the wrong side of the road may route incorrectly if it lies within the incorrect PSAP polygon.
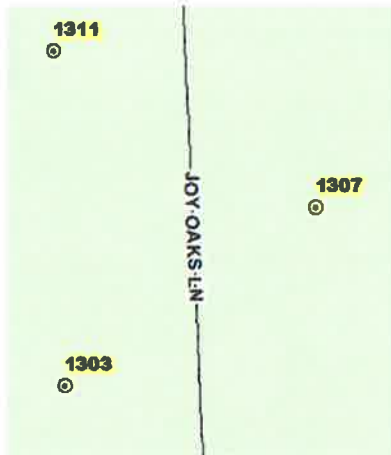
AP Attribute Has No USPS Standard Abbreviation Match — Code 409
Identifies a 'Prefix Direction', 'Post Type', or 'Post Direction' abbreviation as not being USPS publication 28 compliant (see Appendix B – References on Postal Standards).
Impact – Non-standard abbreviations can cause problems in NG9-1-1 systems where their values are not recognized. (ex. LVF/ECRF).

AP Has Duplicate Address Attributes — Code 410
Duplicate attribution for two or more APs are present in the same feature class (nulls and zeros are excluded).
Impact - Subaddressing is typically needed to make a more precise determination location and thus avoid feature duplication, which should not be present in an NG9-1-1 system.

Required Field Values Missing — Code 499
A minimum set of attributes needed to accomplish the purpose of the AP feature class is defined. Any feature that does not have complete attribution will be found in error. Note that not all required attributes will have values while others must always contain a value. For example, a directional field may not have a value if none is needed to describe the address, but all APs should have a name field value.
Impact: If critical location information values are missing, such as street name, calls may not geocode properly, or at all.

RCL Geometry Analysis

RCLs with Empty (Null) Geometry — Code 500
Null geometry can be created unintentionally by users or software. , Null geometry essentially means a tabular record is represented in your map database without a graphic representation.
Impact: Records that lack geometry cannot be shown on a map or used for geocoding.

RCL Geometry Overlap — Code 501
An RCL typically should not physically overlap another except when describing bridges or overpasses. To ensure proper topology development, an RCL should only connect to another RCL at an endpoint.

Impact: Overlapping RCLs can reduce spatial accuracy for geocoding purposes as they may be the symptom of RCL segments that are either too long or in the wrong location.
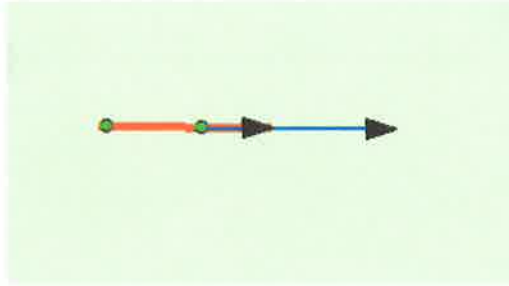
RCL Cutback Angle — Code 505

Cutback angles are computed among the vertices that make up an RCL. If the angle made by vertices in sequence is larger than a threshold, the geometry of the line is suspect. Roadways in the real world have a realistic limit to the sharpness of curves. Geometry that contains angles sharper than the threshold may have been created incorrectly.
Impact: Additional length to RCLs as well incorrect line direction in these types of errors could create errors in geocoding and subsequent point-in-polygon determinations.
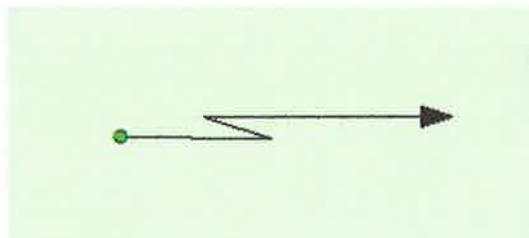
RCLs Not Covered by Polygon — Code 506

Every RCL should be contained within one and only one polygon per configured polygon feature class. Gaps for example in the polygon layer can create places where RCLs are not covered by a polygon and thus an error can occur.
Impact: RCLs that do not fall within a polygon cannot be used for automated call routing because the process of point-in-polygon determination cannot be completed.
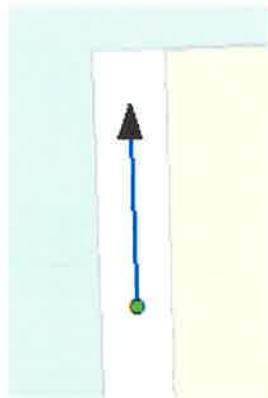
RCLs Not Split at Polygons — Code 509

Polygon features that share related attributes to the RCL are places where RCLs must be segmented to maintain consistent attributes. Where RCLs cross polygons lines, attribution

of the RCLs will need to take in to account the attribution of the polygons within which they lie.

Impact: If an RCL is not completely within a single polygon feature or lies completely along the polygon border, yet has attribution for only one polygon, the attribution of the line may be inconsistent with polygon attribution.
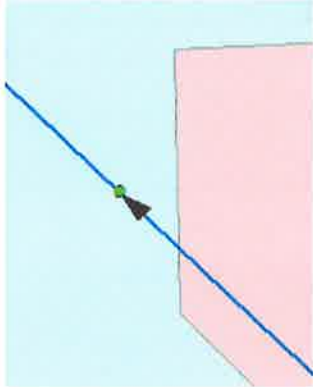
RCL Disconnect — Code 510

To ensure proper topology, an RCL should only connect to another RCL at an endpoint. Connected RCLs should have their endpoints perfectly coincident. Digitizing with incorrect snapping and tolerance settings can create these errors.

Impact: Improper connectivity between segments can adversely affect some application functionality, such as shortest distance determination along RCLs.
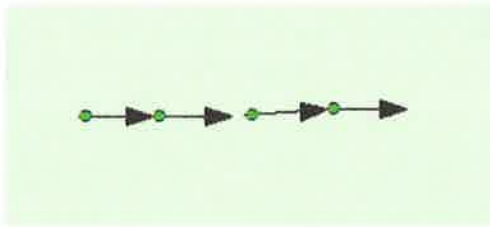
RCLs Not Split at Intersections — Code 511

An RCL should not physically overlap another except when describing bridges or overpasses in some systems. To ensure proper topology, an RCL should only connect to another RCL at an endpoint and be broken at all intersections (unless an overpass or bridge is present.

Impact: Roads not broken at intersections can indicate two vertical levels where only one may be present. They can also indicate same level intersections, where there may not be one, when all roads are broken at all intersections. Care must be taken in determining whether roads that intersect should be broken or not when they cross.
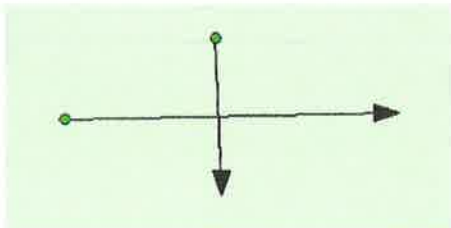
RCLs Pointing in Wrong Direction — Code 512

RCL segments that are drafted in a direction inconsistent with contiguous RCL segments are identified. RCLs should 'flow' in the direction of increasing address range attribution.
**Impact:** Incorrect road direction can adversely affect geocoding by executing the process in the wrong direction.
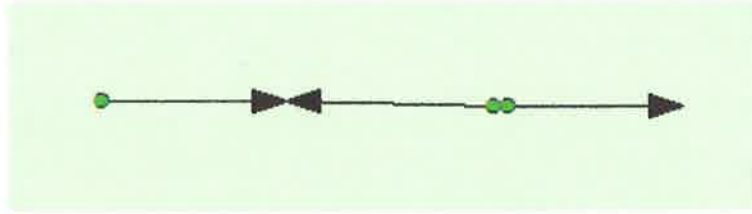
Short Segment — Code 515
RCLs under a certain length may have been created in error and likely do not correctly reflect reality. These should be reviewed and eliminated if unneeded.
Impact: Numerous, unnecessary RCL segments can impact the automated call routing process by potentially extending search/processing time.
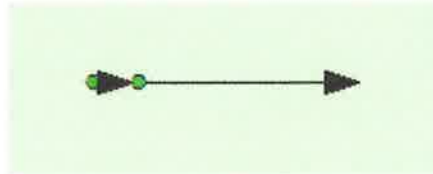
RCL Attribution Analysis

RCL Address Range Gap — Code 502
In addressing systems that use continuous address ranges, any unaccounted for addresses may be an error and should be verified for completeness. An example of a gap is where a line segment's highest address is 980 and the adjoining, continuing segment's lowest address is 1060, leaving addresses between 980 and 1060 unrepresented. Block and range addressing commonly used in developed areas will contain address gaps that are likely not errors.
**Impact:** If the address ranges for an RCL match the actual ranges on the ground then this may actually be considered a problem. In fact, not only is this the preferred representation but improvements in GIS data representation may increase the number of gaps in the RCLs over time.
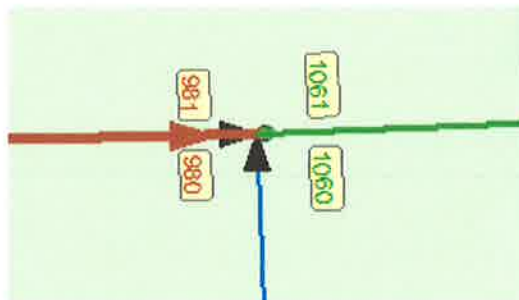
RCL Address Range Overlap — Code 503
An address should only appear one time in the RCL feature class. Adjoining, contiguous segments are checked to ensure that address ranges do not overlap between them.

Impact: Incorrect or conflicting information can impact geocoding so that calls may not geocode properly, or at all.
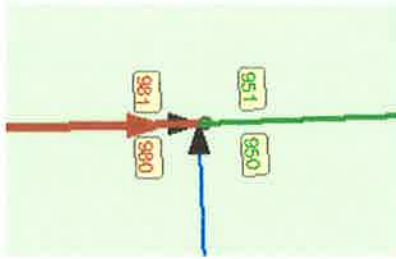
RCL Address Range '0' — Code 504

An address range that has a Lo and Hi attribute value of zero. These are identified as potential errors and should have ranges added to them if available.

Impact: Address ranges of 0 to 0 cannot be used in the geocoding process, though they may be valid in many cases (such as one side of a road running along a cliff such that no house can be addressed on the cliff side of the road).
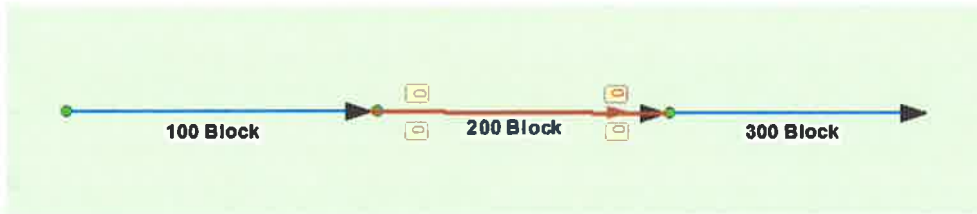
RCL Low vs. High range Conflict — Code 507

The high address range left and right should be a greater number than the low address range left and right. Ranges that have the greater number in the low range will lead to geocoding errors since the interpolation will work in reverse, the addresses will appear to decrease in the direction of the line instead of increasing.

Impact: Ranges that have the greater number in the low range will lead to geocoding errors since the interpolation will work in reverse, the addresses will appear to decrease in the direction of the line instead of increasing.
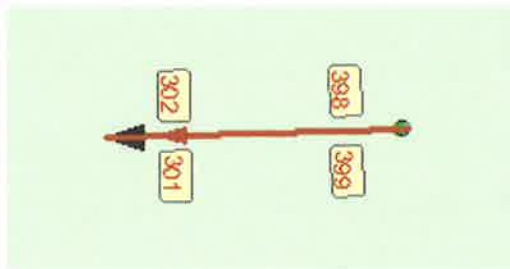
RCL Parity Inconsistency — Code 508

Most addressing systems assign continuous even addresses to one side of a thoroughfare and continuous odd addresses to the other. An even number address range for one RCL on the odd side of other RCLs may indicate an error condition. Addressing schemes that do not use parity are often found in communities that use lot numbering for their addressing.

Impact: Not identifying the parity could cause a point in polygon placement error routing to the incorrect PSAP.
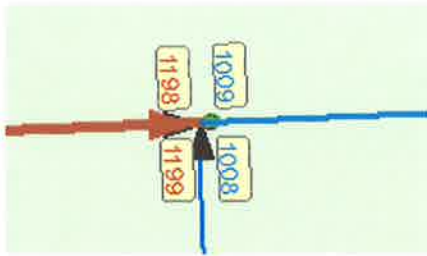
RCL to Polygon Attribute Mismatch — Code 513

RCLs often contain attributes that relate information that originates from the polygon feature class. When the RCL attributes that are related to the Polygon layer do not agree with the attribution of the Polygons an error condition exists.

Impact: Not synching up the attribute data between the RCLs and polygons can cause a conflict of which attribute is correct, the road centerline or the polygon attribute.
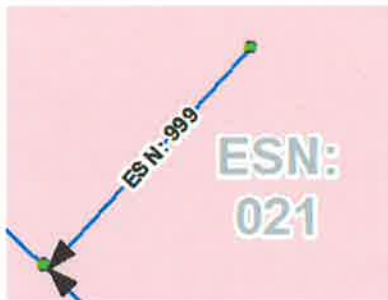
RCL to RCL Attribute Mismatch — Code 514

RCLs that represent adjacent, contiguous features are checked for consistent attribution. Related RCLs with mismatching attributes may indicate an error condition.

Impact: If an RCL segment is in error and left uncorrected an incorrect attribute could impact the automated call routing process.

RCL Address Range Out Of Sequence — Code 516

RCLs that represent adjacent, contiguous features are checked for consistent address ranging. The error segment has an address range that numerically is not consistent between its contiguous neighbors.

Impact: If an RCL is incorrectly addressed, and the situation not corrected, incorrect location identification can occur, such as with a point-in-polygon determination for automated call routing.
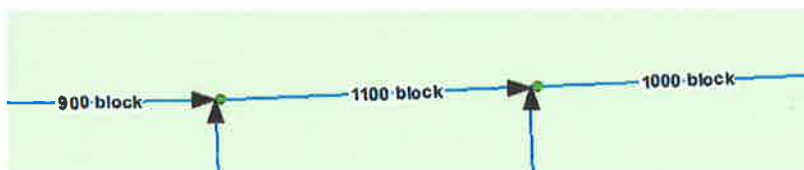
Required Field Values Missing — Code 599

A minimum set of attributes needed to accomplish the purpose of the RCL feature class as defined. Any feature that does not have complete attribution is found in error. Note that not all required attributes will have values, but others must always contain a value. For example, a directional field may not have a value if none is needed but all RCLs should have a name field value.

Impact: If critical location information values are missing, such as street name, calls may not geocode properly, or at all.

RCL Attribute Has No USPS Standard Abbreviation Match — Code 517

Identifies a 'Prefix Direction', 'Post Type', or 'Post Direction' abbreviation as not being USPS publication 28 compliant (see Appendix B – References on Postal Standards).

Impact – Non-standard abbreviations can cause problems in NG9-1-1 systems where their values are not recognized. (ex. LVF/ECRF).

RCL Has Duplicate Address Attributes — Code 518

Duplicate attribution for two or more APs are present in the same feature class (nulls and zeros are excluded).

Impact – Duplicate RCLs should not be present in NG9-1-1 functional elements such as the LVF or ECRF.

Polygon Geometry Analysis

### Polygons with Empty (Null) Geometry — Code 600

Null geometry can be created unintentionally by users or software. Null geometry essentially means a tabular record is represented in your map database without a graphic representation.

Impact: Records that lack geometry cannot be shown on a map or used for geocoding.

Polygons with Geometry Overlaps — Code 601

ESZ, Community, and most other polygons used in 9-1-1 are geographically exclusive; no space can have more than one value. Overlaps are sources of error and should be eliminated.

Impact: Having more than one polygon cover any geomorphic space will adversely impact point in polygon analysis and subsequent call routing.
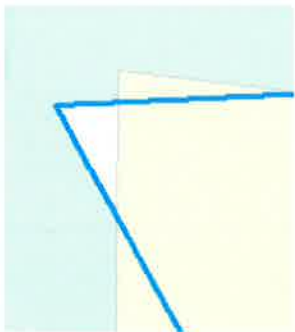
Polygons with Geometry Gaps — Code 602

Polygons that have gaps between each other should in a single layer should not be present, unless they represent more than one non-contiguous jurisdiction polygon.
Impact: Unintentional gaps between polygons can lead to the inability of an LVF or ECRF to operate properly when a spatial query falls within a polygon gap.

Polygons with No Coincident Vertices — Code 603
Identifies vertices between adjacent polygons that do not match or are missing between the two.
Impact: Allows the User to develop a tighter association between coincident polygon boundary lines such that a transformation (as when data is reprojected) of two polygons adjacent to each other will generate as few new boundary line gaps/overlaps as possible when this process occurs (ex. changing from State Plane to WGS84).

Required Field Values Missing — Code 699
A minimum set of attributes needed to accomplish the purpose of the polygon feature class is defined. Any feature that does not have complete attribution will be found in error.
Impact: If critical location information values are missing, such as responder information in an ESZ layer, assigning the correct responder to a location may not work. Will not be able to auto populate created features.

Appendix C – References

SpatialStation was designed to help GIS users build, validate and report on mission critical spatial data to support the requirements of 9-1-1 Next Generation 9-1-1 (NG9-1-1) functionality for public safety and emergency response. The National Emergency Number Association (NENA) in the U.S. supports the 9-1-1 industry by providing guidance on policy, technology, operations, and education issues. Regarding Next Generation 9-1-1, NENA has developed the following policy guidance documents related to the creation, maintenance and use of GIS Data for NG9-1-1. (http://www.nena.org)

- NENA GIS Data Collection and Maintenance Standards
  (NENA Document # 02-014)

- NENA Information Document for Synchronization Geographic Information Systems Databases with MSAG & ALI
  (NENA Document # 71-501)

- NENA Standard for NG9-1-1 GIS Data Model
  (NENA Document # 71-003)

- NENA Next Generation 9-1-1 Data Management Requirements
  (NENA-REQ-002.1-2015)

- NENA Information Document for Development of Site/Structure Address Point GIS Data for 9-1-1
  (NENA-INF-014.1-2015)

- NENA Standards for the Provisioning and Maintenance of GIS data to ECRF/LVF
  (Pending Release)

- NENA Detailed Functional and Interface Standards for the NENA i3 Solution
  (Pending Release)