

REQUEST FOR PROPOSALS (RFP) FOR
Statewide Geographic Information System Data and
Managed Services in support of the State NG9-1-1
System

STATE OF SOUTH DAKOTA
OFFICE OF PROCUREMENT MANAGEMENT
523 EAST CAPITOL AVENUE
PIERRE, SOUTH DAKOTA 57501-3182

Statewide Geographic Information System (GIS) Data and Managed Services in support of the State NG9-1-1 System

PROPOSALS ARE DUE NO LATER THAN

[Redacted]

Comment [a1]: Insert date and time of the deadline for proposal submission. Include CDT or CST as appropriate.

RFP #:

[Redacted]

BUYER: Lisa Hubbard

EMAIL:

Lisa.Hubbard@state.sd.us

Comment [a2]: Insert RFP #

READ CAREFULLY

FIRM NAME: _____ AUTHORIZED SIGNATURE: _____

ADDRESS: _____ TYPE OR PRINT NAME: _____

CITY/STATE: _____ TELEPHONE NO: _____

ZIP (9 DIGIT): _____ FAX NO: _____

FEDERAL TAX ID#: _____ E-MAIL: _____

PRIMARY CONTACT INFORMATION

CONTACT NAME: _____ TELEPHONE NO: _____

FAX NO: _____ E-MAIL: _____

1.0 GENERAL INFORMATION

1.1 PURPOSE OF REQUEST FOR PROPOSAL (RFP)

The Next Generation 9-1-1 (NG9-1-1) system being developed by the State of South Dakota (State) will use a dynamic Geographic Information System (GIS) to make Emergency Call Routing Function (ECRF) and Location Verification Function (LVF) decisions. The South Dakota 9-1-1 Coordination Board (Board), recognizing the potential challenges associated with creating such data, is making its procurement the Project's top priority. Not only will the NG9-1-1 system need this data, but Statewide Public Safety GIS datasets will be of immense value to virtually all aspects of Public Safety in South Dakota.

Currently, numerous jurisdictions and 9-1-1 authorities throughout the State maintain GIS location data at the local level or within regionalized areas. The Board wishes to aggregate these various disparate GIS datasets into a single Statewide NG9-1-1 GIS dataset. This GIS map data will replace the traditional Master Street Address Guide (MSAG) database as the primary database for location-based call routing and location validation ECRF/LVF functions within the NG9-1-1 system.

Local GIS map data from numerous sources such as county, tribal, municipal or Public Safety Answering Point (PSAP) jurisdictions is typically stored in different schemas. Aggregating this data for provisioning within ECRF and LVF systems presents unique challenges for NG9-1-1 systems to properly function. The Board will look to the selected Offeror to establish the process and mechanisms necessary to compile, process and assimilate this local GIS data into a single NG9-1-1 dataset.

In addition to aggregating the GIS map data, the Offeror will also develop a system and process to ensure the data is kept as current as possible moving forward. Numerous key stakeholders will be involved in the development of the maintenance process, including local city and county GIS and Information Technology (IT) staff, tribal officials and vendors that maintain local GIS data for numerous cities and counties in the State.

The aggregation and maintenance of this GIS dataset must provide for near real time updates of the geospatial data and is expected to facilitate the following:

- Update receipt and integration of geospatial data from each 9-1-1 entity's GIS
- Provide the ability for authenticated users to upload daily GIS edits and changes through a secure browser-based portal
- Perform quality control and assurance on the data to meet accuracy standards
- Provide the ability to facilitate, coordinate and communicate resolution of conflicting geospatial datasets
- Execute live provisioning of the GIS map data into the NG9-1-1 ECRF/LVF system on a timely basis
- Assure dynamic (real time) changes to routing geospatial data

1.2 ISSUING OFFICE AND RFP REFERENCE NUMBER

The Bureau of Administration, Office of Procurement Management is the issuing office for this document and all subsequent addenda relating to it, on behalf of the State of South Dakota, Department of Public Safety (DPS). The reference number for the transaction is RFP # . This number must be referred to on all proposals, correspondence, and documentation relating to the RFP.

Comment [MAJ3]: Should this be offeror too?

Comment [SAS4]: No. This is referring to a third party mapping vendor and not to a potential respondent to this RFP.

Comment [a5]: Insert RFP #.

1.3 SCHEDULE OF ACTIVITIES (SUBJECT TO CHANGE)

- RFP Publication
- Deadline for Submission of Written Inquiries
- Responses to Offeror Questions
- Proposal Submission
- Oral Presentations/discussions (if required)
- Proposal Revisions (if required)
- Anticipated Award Decision/Contract Negotiation

Comment [RS6]: Office of Procurement recommends the following: At least 2 weeks after publication

Comment [RS7]: At least 2 weeks later

Comment [RS8]: At least 2 weeks later

Comment [RS9]: At least 3 weeks later

Comment [RS10]: At least 2 weeks later

1.4 SUBMITTING YOUR PROPOSAL

All proposals must be completed and received in the Office of Procurement Management by the date and time indicated in the Schedule of Activities. Proposals received after the deadline will be late and ineligible for consideration.

Technical Proposal

One original and [redacted] identical printed copies of the technical proposal shall be submitted in a separate sealed envelope, as well as ~~XX~~ digital copies on CD, thumb drive or similar media capable of review with a format providing the ability to insert comments (mark-up) within the provided documents.

Comment [a11]: Indicate how many copies you would like.

Comment [SAS12]: Indicate how many copies you would like.

Cost Proposal

The cost proposal must be in a separate sealed envelope and labeled "Cost Proposal".

One original and ~~XX~~ identical printed copies of the cost proposal shall be submitted in a separate sealed envelope. The cost proposal must contain the signature of a duly authorized officer and must be signed in ink.

Comment [SAS13]: Indicate how many copies you would like.

Comment [MAJ14]: Blue Ink? Check on this one too

Comment [MAJ15]: I suggest blue ink, check on this one too

All proposals must be signed, in ink, by an authorized representative to bind the Offeror to the proposal, and sealed in the form intended by the Offeror. Proposals that are not properly signed may be rejected. The sealed envelope must be marked with the appropriate RFP Number and Title. The words "Sealed Proposal Enclosed" must be prominently denoted on the outside of the shipping container. Proposals must be addressed and labeled as follows:

REQUEST FOR PROPOSAL # [redacted]
PROPOSAL DUE [redacted]
BUYER LISA HUBBARD
BUREAU OF ADMINISTRATION
OFFICE OF PROCUREMENT MANAGEMENT
523 EAST CAPITOL AVENUE
PIERRE SD 57501-3182

Comment [a16]: Insert RFP #

Comment [a17]: Insert Proposal Due Date

All uppercase letters and no punctuation are used in the address. The Office of Procurement Management address as displayed should be the only information in the address field. No proposal shall be accepted from, or no contract or purchase order shall be awarded to any person, firm or corporation that is in arrears upon any obligations to the State of South Dakota, or that otherwise may be deemed irresponsible or unreliable by the State of South Dakota.

1.5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

By signing and submitting this proposal, the Offeror certifies that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation, by any Federal department or agency, from transactions involving the use of Federal funds. Where the Offeror is unable to certify to any of the statements in this certification, the bidder shall attach an explanation to their offer.

1.6 NON-DISCRIMINATION STATEMENT

The State of South Dakota requires that all Offerors, vendors, and suppliers doing business with any State agency, department or institution, provide a statement of non-discrimination. By signing and submitting their proposal, the Offeror certifies they do not discriminate in their employment practices with regard to race, color, creed, religion, age, sex, ancestry, national origin or disability.

Comment [MAJ18]: I thought you weren't allowed to use Vendor?

Comment [SAS19]: This is an approved template provided by the State Purchasing Office.

1.7 MODIFICATION OR WITHDRAWAL OF PROPOSALS

Proposals may be modified or withdrawn by the Offeror prior to the established due date and time.

No oral, email, telephonic, telegraphic, or facsimile responses or modifications to informal, formal bids or Request for Proposals will be considered.

1.8 OFFEROR INQUIRIES

Offerors may email inquiries concerning this RFP to obtain clarification of requirements. No inquiries will be accepted after the date and time indicated in the Schedule of Activities. Inquiries must be emailed to Lisa Hubbard at Lisa.Hubbard@state.sd.us with the subject line "RFP # [redacted]".

Comment [a20]: Insert RFP Number

A copy of inquiries received and the State's response will be posted on the State's e-procurement system. Offerors may not rely on any other statements, either of a written or oral nature, that alter any specification or other term or condition of this RFP. Offerors will be notified in the same manner as indicated above regarding any modifications to this RFP.

1.9 PROPRIETARY INFORMATION

The proposal of the successful Offeror(s) becomes public information. Proprietary information can be protected under limited circumstances such as client lists and non-public financial statements. Pricing and service elements are not considered proprietary. An entire proposal may not be marked as proprietary. Offerors must clearly identify in the Executive Summary and mark in the body of the proposal any specific proprietary information they are requesting to be protected. The Executive Summary must contain specific justification explaining why the information is to be protected. Proposals may be reviewed and evaluated by any person at the

discretion of the State. All materials submitted become the property of the State of South Dakota and may be returned only at the State's discretion.

1.10 LENGTH OF CONTRACT

The Service provider(s) will provide professional services to the DPS, working directly with the State 9-1-1 Coordinator and the State 9-1-1 Coordination Board for up to five years with the option to renew for up to five additional years.

1.11 GOVERNING LAW

Venue for any and all legal action regarding or arising out of the transaction covered herein shall be solely in the State of South Dakota. The laws of South Dakota shall govern this transaction.

1.12 DISCUSSIONS WITH OFFERORS (ORAL PRESENTATION/NEGOTIATIONS)

An oral presentation by an Offeror to clarify a proposal may be required at the sole discretion of the State. However, the State may award a contract based on the initial proposals received without discussion with the Offeror. If oral presentations are required, they will be scheduled after the submission of proposals. Oral presentations will be made at the Offeror's expense.

This process is a Request for Proposal/Competitive Negotiation process. Each Proposal shall be evaluated, and each respondent shall be available for negotiation meetings at the State's request. The State reserves the right to negotiate on any and/or all components of every proposal submitted. From the time the proposals are submitted until the formal award of a contract, each proposal is considered a working document and as such, will be kept confidential. The negotiation discussions will also be held as confidential until such time as the award is completed.

END OF SECTION

2.0 STANDARD CONTRACT TERMS AND CONDITIONS

Any contract or agreement resulting from this RFP will include the State's standard terms and conditions as listed below, along with any additional terms and conditions as negotiated by the parties:

- 2.1** The Offeror will perform those services described in the Scope of Work, attached hereto as Section 3 of the RFP and by this reference incorporated herein.
- 2.2** The Offeror's services under this Agreement shall commence on _____ and end on _____, unless sooner terminated pursuant to the terms hereof.
- 2.3** The Offeror will not use State equipment, supplies or facilities. The Offeror will provide the State with its Employer Identification Number, Federal Tax Identification Number or Social Security Number upon execution of this Agreement.
- 2.4** The State will make payment for services upon satisfactory completion of the services. The TOTAL CONTRACT AMOUNT is an amount not to exceed \$ _____. The State will not pay Offeror's expenses as a separate item. Payment will be made pursuant to itemized invoices submitted with a signed state voucher. Payment will be made consistent with SDCL ch. 5-26.
- 2.5** The Offeror agrees to indemnify and hold the State of South Dakota, its officers, agents and employees, harmless from and against any and all actions, suits, damages, liability or other proceedings that may arise as the result of performing services hereunder. This section does not require the Offeror to be responsible for or defend against claims or damages arising solely from errors or omissions of the State, its officers, agents or employees.
- 2.6** The Offeror, at all times during the term of this Agreement, shall obtain and maintain in force insurance coverage of the types and with the limits as follows:
- A. Commercial General Liability Insurance:
- The Offeror shall maintain occurrence based commercial general liability insurance or equivalent form with a limit of not less than \$1,000,000.00 for each occurrence. If such insurance contains a general aggregate limit it shall apply separately to this Agreement or be no less than two times the occurrence limit.
- B. Professional Liability Insurance or Miscellaneous Professional Liability Insurance:
- The Offeror agrees to procure and maintain professional liability insurance or miscellaneous professional liability insurance with a limit not less than \$1,000,000.00.
- C. Business Automobile Liability Insurance:
- The Offeror shall maintain business automobile liability insurance or equivalent form with a limit of not less than \$1,000,000.00 for each accident. Such insurance shall include coverage for owned, hired and non-owned vehicles.
- D. Worker's Compensation Insurance:
- The Offeror shall procure and maintain workers' compensation and employers' liability insurance as required by South Dakota law.
Before beginning work under this Agreement, Offeror shall furnish the State with properly executed Certificates of Insurance which shall clearly evidence all insurance required in

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SOUTH DAKOTA DPS

DECEMBER 2013

this Agreement. In the event a substantial change in insurance, issuance of a new policy, cancellation or nonrenewal of the policy, the Offeror agrees to provide immediate notice to the State and provide a new certificate of insurance showing continuous coverage in the amounts required. Offeror shall furnish copies of insurance policies if requested by the State.

- 2.7** While performing services hereunder, the Offeror is an independent Offeror and not an officer, agent or employee of the State of South Dakota.
- 2.8** Offeror agrees to report to the State any event encountered in the course of performance of this Agreement which results in injury to the person or property of third parties, or which may otherwise subject Offeror or the State to liability. Offeror shall report any such event to the State immediately upon discovery.
- Offeror's obligation under this section shall only be to report the occurrence of any event to the State and to make any other report provided for by their duties or applicable law. Offeror's obligation to report shall not require disclosure of any information subject to privilege or confidentiality under law (e.g., attorney-client communications). Reporting to the State under this section shall not excuse or satisfy any obligation of Offeror to report any event to law enforcement or other entities under the requirements of any applicable law.
- 2.9** This Agreement may be terminated by either party hereto upon thirty (30) days written notice. In the event the Offeror breaches any of the terms or conditions hereof, this Agreement may be terminated by the State at any time with or without notice. If termination for such a default is effected by the State, any payments due to Offeror at the time of termination may be adjusted to cover any additional costs to the State because of Offeror's default. Upon termination the State may take over the work and may award another party an agreement to complete the work under this Agreement. If after the State terminates for a default by Offeror it is determined that Offeror was not at fault, then the Offeror shall be paid for eligible services rendered and expenses incurred up to the date of termination.
- 2.10** This Agreement depends upon the continued availability of appropriated funds and expenditure authority from the Legislature for this purpose. If for any reason the Legislature fails to appropriate funds or grant expenditure authority, or funds become unavailable by operation of law or federal funds reductions, this Agreement will be terminated by the State. Termination for any of these reasons is not a default by the State nor does it give rise to a claim against the State.
- 2.11** This Agreement may not be assigned without the express prior written consent of the State. This Agreement may not be amended except in writing, which writing shall be expressly identified as a part hereof, and be signed by an authorized representative of each of the parties hereto.
- 2.12** This Agreement shall be governed by and construed in accordance with the laws of the State of South Dakota. Any lawsuit pertaining to or affecting this Agreement shall be venued in Circuit Court, Sixth Judicial Circuit, Hughes County, South Dakota.
- 2.13** The Offeror will comply with all federal, state and local laws, regulations, ordinances, guidelines, permits and requirements applicable to providing services pursuant to this Agreement, and will be solely responsible for obtaining current information on such requirements.
- 2.14** The Offeror may not use subcontractors to perform the services described herein without the express prior written consent of the State. The Offeror will include provisions in its subcontracts requiring its subcontractors to comply with the applicable provisions of this Agreement, to indemnify the State, and to provide insurance coverage for the benefit of the State in a manner

consistent with this Agreement. The Offeror will cause its subcontractors, agents and employees to comply, with applicable federal, state and local laws, regulations, ordinances, guidelines, permits and requirements and will adopt such review and inspection procedures as are necessary to assure such compliance.

- 2.15** Offeror hereby acknowledges and agrees that all reports, plans, specifications, technical data, miscellaneous drawings, software system programs and documentation, procedures or files, operating instructions and procedures, source code(s) and documentation, including those necessary to upgrade and maintain the software program, and all information contained therein provided to the State by the Offeror in connection with its performance of services under this Agreement shall belong to and is the property of the State and will not be used in any way by the Offeror without the written consent of the State. Papers, reports, forms, software programs, source code(s) and other material which are a part of the work under this Agreement will not be copyrighted without written approval of the State.
- 2.16** The Offeror certifies that neither Offeror nor its principals are presently debarred, suspended, proposed for debarment or suspension or declared ineligible from participating in transactions by the federal government or any state or local government department or agency. Offeror further agrees that it will immediately notify the State if during the term of this Agreement Offeror or its principals become subject to debarment, suspension or ineligibility from participating in transactions by the federal government, or by any state or local government department or agency.
- 2.17** Any notice or other communication required under this Agreement shall be in writing and sent to the address set forth above. Notices shall be given by and to _____ on behalf of the State, and by _____, on behalf of the Offeror, or such authorized designees as either party may from time to time designate in writing. Notices or communications to or between the parties shall be deemed to have been delivered when mailed by first class mail, provided that notice of default or termination shall be sent by registered or certified mail, or, if personally delivered, when received by such party.
- 2.18** In the event that any court of competent jurisdiction shall hold any provision of this Agreement unenforceable or invalid, such holding shall not invalidate or render unenforceable any other provision hereof.
- 2.19** All other prior discussions, communications and representations concerning the subject matter of this Agreement are superseded by the terms of this Agreement, and except as specifically provided herein, this Agreement constitutes the entire agreement with respect to the subject matter hereof.

END OF SECTION

3.0 SCOPE OF WORK

Overview

South Dakota is the sixteenth largest state in terms of size, encompassing 77,123 square miles with a population of approximately 833,000 in 66 counties. Its population includes several Native American tribes which account for roughly 8.3 percent of the population. South Dakota's two largest cities are Sioux Falls and Rapid City. South Dakota contains 29 locally operated PSAPs. There are also four tribal PSAPs on Indian Reservations that are independent of the State.

In 2012 the State of South Dakota legislature provided funding for the NG9-1-1 project. Part of this project is to pursue the development of a seamless, Statewide 9-1-1 GIS digital map for the use and mutual benefit of the State's police, fire and emergency medical personnel, as well as comply with requirements for a NG9-1-1 network.

The State is soliciting proposal responses for the creation of an accurate digital base map encompassing the entire State. This specification establishes the minimum requirements for Offerors to provide the GIS base mapping request. Offeror responses shall include all of the services outlined in this RFP as a minimum level of performance. Additional, value added services will be quoted as options at the State's discretion. These options will be clearly identified and separately delineated in the Offeror's proposal response.

The project includes utilizing all existing and available source data and the management and coordination necessary to complete the Statewide aggregation of the digital centerline layer, address points layer, emergency services response boundary layers, other additional or supplemental layers as deemed necessary, and the synchronization of Automatic Location Identification (ALI)/GIS/ MSAG databases. Notwithstanding the details presented in this RFP, it is the responsibility of the Offeror to verify the completeness of the materials and the identified requirements to meet the intent of the specifications defined within the RFP. Any exceptions to the requirements identified herein must be clearly stated as such within the Offeror's response. Alternatives should also be clearly stated within the response, if applicable.

The successful Offeror shall possess demonstrated capabilities in the areas of GIS map development, road centerline development, address point development and MSAG development. The Offeror shall also demonstrate familiarity and experience in the design, development, utilization and maintenance of the GIS datasets necessary to support the needs of the State as it relates to this project.

The State acknowledges that the desired GIS solution may ultimately be provided by one or multiple providers. As such, Offerors to this RFP may wish to offer one, many or all of the services, functions and systems described herein. It is understood that in the event of a successful single Offeror, that Offeror will be responsible for all services provided by their proposed subcontractors if so utilized. The State must ultimately ensure that a fully functional and operating GIS data and management system is deployed within the State. Any needed function or methodology not specifically identified in this RFP and not included in an Offerors response, but necessary for a functional/operational system meeting the States requirements, shall be cause for the State to reject the proposal. It is the State's intent to provide the basic information required in this RFP and the Offeror(s) responsibility to propose any single or all items needed to ensure delivery of a fully functional and operational system.

High Level Requirements

Offerors must respond as either COMPLY, NOT COMPLY or EXCEPTION to the items detailed below. In addition, Offerors that are responding to this RFP are required to provide detailed responses immediately following each requirement.

If an Offeror takes EXCEPTION to a particular item, they must provide an alternative recommendation for how they intend to meet the requirement. If an Offeror's proposal does not fully meet any requirement, there must be a section labeled—"exceptions to requirements." In this section, every requirement that the proposal does not fully meet must be revealed and a proposed solution must be offered.

Provision for an "exception to requirements" section is not to be construed as a willingness to accept proposals, which do not meet all requirements. It is recognized that a potential Offeror may be able to provide a solution that exceeds the functionality desired, in a manner that has not been considered by the State of South Dakota. It is strongly recommended that all submitted proposals meet all requirements identified in this RFP.

Required features are represented by the use of the words must, shall, requirement or required. Some features may be listed as desirable. These features are desirable but not required. They are represented by the words may, should, desired or desirable. Desirables will be considered when evaluating proposals, but only after requirements are addressed.

Requirements as listed in this RFP section are not all-inclusive but are meant to provide a granular index of GIS requirements for the GIS map and associated maintenance and quality assurance protocols expected. Other sections provide requirements relating to project items that are not necessarily GIS related.

The following Scope of Work is provided in two parts, GIS Map Data Aggregation and GIS/ECRF/LVF Managed Services.

Data Development Standards

The following documents are relevant to this RFP. However, the RFP including Scope of Work (SOW) and Specifications take precedence over Applicable Documents.

- a. National Emergency Number Association (NENA) 02-010 Standard Data Formats for 9-1-1 Data Exchange and GIS Mapping (Exhibit 22 GIS Data Model v2.0)
- b. NENA 02-014 GIS Data Collection and Maintenance Standards
- c. NENA 71-501 Synchronizing GIS with MSAG and ALI (latest issue at time of RFP)
- d. NENA 08-003 Detailed Functional and Interface Standards for the NENA i3 Solution
- e. NENA NG9-1-1 United States Civic Location Data Exchange Format (CLDXF) (latest issue at time of RFP)
- f. NENA 71-003 NG9-1-1 GIS Data Model v1.0 (not yet published)

Source Data

The Offeror shall utilize as the primary source of data for this project GIS data developed and maintained at the local level. These primary sources of data encompass PSAPs, Tribal entities, County and Municipal governments, and South Dakota State Agencies.

A list of primary GIS data sources has been provided as Appendix A to this RFP. The State will make available to the successful Offeror an expanded matrix to include contact information for each of the PSAP locations, as well as any appropriate State Agencies. The GIS data typically available represents the following:

- Road centerlines
- Site/structure address points
- Emergency services boundaries (Fire, Police, Emergency Medical Services [EMS])
- Administrative boundaries (State, County, Municipal)

Additional source information that may be available to the selected Offeror include MSAG and ALI databases for each PSAP jurisdiction, if available.

The Offeror may have at its disposal additional sources of information that it wishes to utilize as a supplement in conjunction with the known available data sources. These additional sources may include relationships or partnerships with commercial firms, utilities, US Postal Service address datasets, etc.

The Offeror must describe within its proposal submission what additional data sources may be utilized and how it will supplement and improve upon the primary source data. Any such data sources contemplated for use by an Offeror shall be free of copyright restrictions prior to its use on this project.

Ownership of Data

In addition to the Terms and Conditions specified under Section 2.15, all data and other records supplied to the Offeror for this project shall remain the sole property of the State of South Dakota. All resources provided and collected in conjunction with the project shall be returned to the State upon completion of the project. The Offeror shall not, without written consent, copy or use such records, except to carry out contracted work, and will not transfer such records to any other party not involved in the performance of the contract pursuant to this RFP.

Additionally, all deliverables and project work components produced by the Offeror shall be deemed the sole property of the State and should not be reproduced or released to any individual, agency, private entity or commercial entity without written consent of the State.

The Offeror understands and acknowledges that the State is a governmental entity subject to the laws of the State of South Dakota and that any reports, data or other information supplied to the State is subject to being disclosed as a public record in accordance with the laws of the State of South Dakota. All proposals and other materials submitted become the property of the State.

GIS Map Data Aggregation

All GIS data layers aggregated for this project will be maintained as feature classes in an Environmental Systems Research Institute's (ESRI) file geodatabase in a WGS 84 Latitude/Longitude projection prior to provisioning and loading the data into the ECRF/LVF system.

The Offeror's geodatabase model must be in compliance with the NENA GIS Data Model standards for the NG9-1-1 i3 requirements. The GIS data layers listed below and their associated attribute data represents the GIS map data to be aggregated and provisioned for the ECRF/LVF functions within the NG9-1-1 system.

- Road Centerlines
- Site/Structure Address Points
- Administrative Boundary
 - State
 - County
 - Municipal
- Emergency Services Boundary
 - PSAP Boundary
 - Fire
 - Police
 - EMS
- Road Name Alias Table
- Cell Sector Location

It is expected that the selected Offeror will aggregate the specified GIS data layers and their representative attributes into a seamless Statewide dataset. The basis of this aggregated dataset will come from a combination of available source data from local PSAPs, Tribal entities, County and Municipal governments, South Dakota State Agencies, and any specific or unique data capabilities and resources derived from the Offeror.

In the process of aggregating the Statewide GIS map dataset, the Offeror will conduct a gap analysis in which they shall identify errors and discrepancies within the various local datasets. It is the State's expectation that the actual remediation of the identified errors and discrepancies will be conducted by the local entities. The Offeror shall provide sufficient information and guidance to the local entities for the remediation of their data.

The Offeror must submit a database modeling specification document that outlines the database schema representing the GIS layers to be developed, to include fields, descriptions, field types, etc.

3.1 Project Management/Coordination

The Offeror will provide the proper coordination and project management to ensure the success of the overall project. The Offeror is required to maintain regular contact with the State and prepare periodic progress and milestone reports throughout the project.

In addition to any other necessary or suggested project management services, the Offeror will provide the following:

3.1.1 Single Point of Contact

The Offeror will assign a single point of contact to serve as the primary project manager to coordinate all aspects of the project.

3.1.2 Project Kick-off Meeting

The Offeror will coordinate a project kick-off meeting with State representatives and project stakeholders. The Offeror's project manager shall attend the kick-off meeting in person at the State's designated meeting point.

3.1.3 Progress/Milestone Reports

To ensure on-going communications, project planning and overall awareness of progress, the Offeror will prepare weekly progress/milestone reports for the State, until otherwise advised. These reports are to include project progress and updates, completion statistics, State responsibilities, upcoming major task elements, actual deliverables and applicable quality assurance/quality control (QA/QC) metrics. In addition, the Offeror will include a final QC report at the conclusion of the project.

3.1.4 Project Closeout

Offeror shall conduct a site visit prior to overall project completion to summarize project results as confirmation of the State's expectations being met.

3.2 Road Centerlines

The Offeror must describe the methodology used to aggregate a Statewide road centerlines GIS data layer. The methodology description shall include how the Offeror will adhere to the NENA standard for NG9-1-1 GIS Data Model.

When aggregating the road centerlines layer, the following requirements shall be applied at a minimum:

3.2.1 Layer Requirements

3.2.1.1 Adherence to the NENA NG9-1-1 GIS Data Model standards.

3.2.1.2 Road centerlines must be broken at all intersections with other named and addressed road centerlines.

3.2.1.3 Road centerlines must be broken at the intersection points of the following boundaries: State, County, Municipal, and PSAP.

3.2.1.4 Address attributes will be compatible with the direction of digitizing for addressable road centerlines.

3.2.1.5 Invalid dangle nodes shall be corrected.

3.2.1.6 The Offeror shall identify all errors and discrepancies identified during the aggregation of this data layer and submit the identified errors and discrepancies to the local entity for remediation.

3.3 Site/Structure Address Points

The Offeror must describe the methodology used to aggregate a Statewide address structure point GIS data layer. The methodology description shall include how the Offeror will adhere to the NENA standard for NG9-1-1 GIS Data Model.

When aggregating the site/structure address points layer, the following requirements shall be applied at a minimum:

3.3.1 Layer Requirements

3.3.1.1 Adherence to the NENA NG9-1-1 GIS Data Model standards.

3.3.1.2 The Offeror shall identify all errors and discrepancies identified during the aggregation of this data layer and submit the identified errors and discrepancies to the local entity for remediation.

3.4 Administrative Boundary

The Offeror must describe the methodology used to aggregate Statewide administrative boundary GIS data layers containing State, County and Municipal boundaries. The methodology description shall include how the Offeror will adhere to the NENA standard for NG9-1-1 GIS Data Model.

When aggregating the administrative boundary layers, the following requirements shall be applied at a minimum:

3.4.1 Layer Requirements

3.4.1.1 Adherence to the NENA NG9-1-1 GIS Data Model standards.

3.4.1.2 The Offeror shall identify all errors and discrepancies identified during the aggregation of this data layer and submit the identified errors and discrepancies to the local entity for remediation.

3.5 Emergency Services Boundary

The Offeror must describe the methodology used to aggregate Statewide emergency services boundary GIS data layers containing PSAP Service areas and Police, Fire, EMS service areas. The methodology description shall include how the Offeror will adhere to the NENA standard for NG9-1-1 GIS Data Model.

When aggregating the emergency services boundary layers, the following requirements shall be applied at a minimum:

3.5.1 Layer Requirements

3.5.1.1 Adherence to the NENA NG9-1-1 GIS Data Model standards.

3.5.1.2 The Offeror shall identify all errors and discrepancies identified during the aggregation of this data layer and submit the identified errors and discrepancies to the local entity for remediation.

3.6 Road Name Alias Table

The Offeror must describe the methodology used to create a statewide road name alias table. The methodology description shall include how the Offeror will adhere to the NENA standard for NG9-1-1 GIS Data Model.

When creating the road name alias table, the following requirements shall be applied at a minimum:

3.6.1 Layer Requirements

3.6.1.1 Adherence to the NENA NG9-1-1 GIS Data Model standards.

3.7 Cell Sector Locations

The Offeror must describe the methodology used to create a Statewide cell sector locations GIS data layer. The methodology description shall include how the Offeror will adhere to the NENA standard for NG9-1-1 GIS Data Model.

When creating the cell sector locations layer, the following requirements shall be applied at a minimum:

3.7.1 Layer Requirements

3.7.1.1 Adherence to the NENA NG9-1-1 GIS Data Model standards.

GIS/ECRF/LVF Managed Services

The Offeror shall provide as a managed service a fully developed GIS change detection/update process capable of addressing data updates and discrepancy inquiries from the local 9-1-1 entities. The system

must also have the ability to perform QA/QC audit checks and data analysis on an on-going basis prior to provisioning of GIS data into the ECRF/LVF.

The Offeror shall provide the implementation and management of a NG9-1-1 ECRF and LVF as defined in the NENA 08-003 Detailed Functional and Interface Standards for the NENA i3 Solution.

The Offeror shall fully describe the implementation, system tools and processes, by which it will manage GIS data updates from the local 9-1-1 entities, provide for QA/QC auditing functions prior to provisioning the GIS data into the ECRF/LVF, and implement and manage a NG9-1-1 compliant ECRF/LVF system.

3.8 GIS Managed Services

- 3.8.1** The Offeror shall provide for a secure Web portal for local 9-1-1 entities to submit GIS update/change requests and the Offeror to communicate error/discrepancy feedback.
- 3.8.2** The Offeror shall provide the means for Web-enabled reports, performance measurements, discrepancy tracking, for GIS quality assurance and system status.
- 3.8.3** The Offeror shall provide the means for the State to view system and data metrics by means of a Web-enabled viewer/dashboard.
- 3.8.4** The Offeror shall provide process and usage training of the change management process to the local 9-1-1 entities.
- 3.8.5** The Offeror shall provide 24x7x365 customer support

3.9 Emergency Call Routing Function (ECRF)

The Offeror shall provide a clear description of the proposed ECRF, list its features and capabilities, discuss its error handling, default mechanisms and logging, and provide an overview of how it is deployed and achieves high reliability. The description must also discuss the GIS update process, frequency and the handling of error reports.

- 3.9.1** The Offeror shall (optionally) provide the NG9-1-1 ECRF as defined in the NENA 08-003 Detailed Functional and Interface Standards for the NENA i3 Solution.
- 3.9.2** The ECRF is a critical function in the delivery of emergency calls via the NG9-1-1 Routing Service. The Offeror shall supply an ECRF function that is at least 99.999 percent available and reliable.
- 3.9.3** The Offeror shall be responsible for secure and reliable ECRF Internet Protocol (IP) connections to at least two physically diverse points-of-presence (POPs) that are part of the South Dakota Emergency Services IP Network (ESInet). The Offeror must comply with IP addressing and security requirements as established by the South Dakota ESInet.
- 3.9.4** The ECRF must interface and provide location-based emergency call routing functionality via the RFC 5222 (Location-to-service Translation [LoST] protocol) and the functional specification of NENA 08-003.
- 3.9.5** The ECRF shall support LoST queries (via Transmission Control Protocol [TCP]) from ESRP(s), PSAP customer premise equipment (CPE), or any other permitted IP host within the South Dakota ESInet. The ECRF may rate-limit queries from sources other than provisioned ESRPs.

- 3.9.6 The ECRF shall log all connections, connection attempts, and LoST transactions.
- 3.9.7 All location information errors must be made available to the Providers for resolution and geocoding errors be written to a separate log or file, so that they may be easily handed off to the State GIS services vendor for investigation and correction.
- 3.9.8 The ECRF must be able to route locations based on geographical coordinates (LAT/LON) and based on civic addresses (house #, street, city, etc.).
- 3.9.9 The ECRF shall utilize the GIS database that supports the provisioning of all required map layers. The GIS data will include the road centerline and address range data, address structure points, PSAP boundaries, municipal boundaries and police, fire and EMS boundaries. Such map layers shall represent the geographical boundaries (polygons) of some service type, such as emergency, police, fire, ambulance, etc. The ECRF shall permit the association of each LoST request type to one of these layers.
- 3.9.10 The ECRF shall comply with GIS standards including but not limited to NENA NG9-1-1 GIS Data Model, NENA 02-010, and NENA 02-014.
- 3.9.11 The ECRF shall support updates to the GIS database without disruption of ECRF LoST service.
- 3.9.12 The ECRF (or associated administrative program) shall be able to validate GIS database changes before they are applied, for example, detect overlaps or gaps in layer geographical boundaries.
- 3.9.13 The Offeror shall provide a Web portal that permits administrative read-only access to the GIS database. This function may be rate-limited to avoid impacting emergency call delivery services.
- 3.9.14 The Offeror shall state the maximum number of queries per second the proposed ECRF can sustain for at least one minute under adverse but "all up" conditions.
- 3.9.15 The Offeror shall describe and list the features of the proposed ECRF, with particular emphasis on how it meets the specific requirements herein.

3.10 Location Validation Function (LVF)

The LVF is not a critical function involved in real-time emergency call delivery, but it must be available to Call Origination Providers and to the general public at large so these parties can verify that civic addresses or latitude/longitude will return PSAP or emergency responder Uniform Resource Identifiers (URIs). In many ways, the LVF is identical to the ECRF, but because the ECRF must be highly available, it is protected within the Core NG9-1-1 Routing Service security zone. The LVF is available to the general public via an LVF proxy in the public Internet in the Public Security Control Zone (PSCZ).

- 3.10.1 The Offeror shall (optionally) provide the NG9-1-1 Location Validation Function (LVF) as defined in the NENA 08-003 Detailed Functional and Interface Standards for the NENA i3 Solution.
- 3.10.2 At least two LVF instances shall be deployed.
- 3.10.3 The LVF shall be a separate instance of the ECRF-like processes running within the Core NG9-1-1 Routing Service security zone.

- 3.10.4** The LVF process shall utilize a separate database instance of the GIS database derived from the ECRF GIS database. The Offeror shall show how this separate GIS database instance will be kept synchronized with the ECRF GIS database in real-time or near real-time.
- 3.10.5** The LVF shall be accessed via a proxy server located within the PSCZ. The Core NG9-1-1 Service firewall shall then allow LVF access only from the proxy process.
- 3.10.6** The LVF shall provide a standard LoST interface via a TCP port. This port may be listed in a Domain Name Server (DNS) entry. Connections and transactions on this port shall be logged and shall be rate limited by the PSCZ proxy.
- 3.10.7** The Offeror shall also provide a user-friendly Web server portal located within the PSCZ to which Internet users can browse and manually enter civic addresses or geographic locations along with a service request type. The Web server shall query the LVF via the proxy and return a user friendly display with the results of the LoST query. An actual map display with the location of the user location is highly desired. This function shall be highly rate limited, e.g., five queries/day/source IP address.
- 3.10.8** The LVF proxy may also provide a LoST interface accessible by a credentialed connection that may be used by call origination providers or other authorized parties. This port may be used to support a much higher rate of machine-to-machine LVF LoST protocol queries.
- 3.10.9** The Offeror shall explain the proposed LVF implementation, with particular attention to the arrangement of the proposed components, user interface and features, and the security aspects of the LVF.
- 3.10.10** The Offeror must provide for a process for call origination providers to submit updates to GIS data or report discrepancies.

4.0 PROPOSAL REQUIREMENTS AND COMPANY QUALIFICATIONS

4.1 The Offeror is cautioned that it is the Offeror's sole responsibility to submit information related to the evaluation categories and that the State of South Dakota is under no obligation to solicit such information if it is not included with the proposal. The Offeror's failure to submit such information may cause an adverse impact on the evaluation of the proposal.

Comment [a21]: This must be left in. Do not delete this requirement.

4.2 **Offeror's Contacts:** Offerors and their agents (including subcontractors, employees, Offerors or anyone else acting on their behalf) must direct all of their questions or comments regarding the RFP, the evaluation, etc. to the buyer of record indicated on the first page of this RFP. Offerors and their agents may not contact any state employee other than the buyer of record regarding any of these matters during the solicitation and evaluation process. Inappropriate contacts are grounds for suspension and/or exclusion from specific procurements. Offerors and their agents who have questions regarding this matter should contact the buyer of record.

4.3 The Offeror may be required to submit a copy of their most recent audited financial statements upon the State's request.

4.4 Provide the following information related to at least three previous and current service/contracts, performed by the Offeror's organization, which are similar to the requirements of this RFP. Provide this information for any service/contract that has been terminated, expired or not renewed in the past three years.

- a. Name, address and telephone number of client/contracting agency and a representative of that agency who may be contacted for verification of all information submitted
- b. Dates of the service/contract
- c. A brief, written description of the specific prior services performed and requirements thereof

4.5 Personnel Overview

Provide a list of key personnel to be assigned to the project, to include a resume of their skills and experience as it relates to the scope of this project. In addition, a project manager will need to be identified and assigned. The assigned project manager will be made available for at least a monthly on-site visit for project review.

4.6 Subcontractor Disclosure

Full disclosure and details regarding the use of subcontractors must be clearly stated. Details should include the specific work phases that will be assigned to any one particular subcontractor. The State reserves the right to accept or reject any subcontractor proposed by the Offeror.

END OF SECTION

5.0 PROPOSAL RESPONSE FORMAT

5.1 All proposals must be organized and tabbed with labels for the following headings:

- 5.1.1 **RFP Form.** The State's Request for Proposal form completed and signed.
- 5.1.2 **Table of Contents.** The proposal should be page numbered and should have an index and/or table of contents referencing the appropriate page number.
- 5.1.3 **Executive Summary.** The one or two page executive summary is to briefly describe the Offeror's proposal. This summary should highlight the major features of the proposal. It must indicate any requirements that cannot be met by the Offeror. The reader should be able to determine the essence of the proposal by reading the executive summary. Proprietary information requests should be identified in this section.
- 5.1.4 **Detailed Response.** This section should constitute the major portion of the proposal and must contain at least the following information:
- 5.1.4.1 A complete narrative of the Offeror's assessment of the work to be performed, the Offeror's ability and approach, and the resources necessary to fulfill the requirements. This should demonstrate the Offeror's understanding of the desired overall performance expectations.
- 5.1.4.2 A specific point-by-point response, in the order listed, to each requirement in the RFP. The response should identify each requirement being addressed as enumerated in the RFP.
- 5.1.4.3 A clear description of any options or alternatives proposed.
- 5.1.5 **Cost Proposal.** Cost will be evaluated independently from the technical proposal. Offerors may submit multiple cost proposals. All costs related to the provision of the required services must be included in each cost proposal offered.
- The cost proposal must be submitted in a separate sealed envelope labeled "Cost Proposal" as outlined in section 1.4 of this RFP.
- See section 7.0 for more information related to the cost proposal.

END OF SECTION

Comment [SAS22]: Is this the form on page 1?

Comment [a23]: If items are renumbered, you need to double check this reference to make sure it is still correct. Delete if a sealed cost proposal is not required.

6.0 PROPOSAL EVALUATION AND AWARD PROCESS

6.1 After determining that a proposal satisfies the mandatory requirements stated in the Request for Proposal, the evaluator(s) shall use subjective judgment in conducting a comparative assessment of the proposal by considering each of the following criteria:

- 6.1.1 Specialized expertise, capabilities and technical competence as demonstrated by the proposed approach and methodology to meet the project requirements
- 6.1.2 Resources available to perform the work, including any specialized services, within the specified time limits for the project
- 6.1.3 Record of past performance, including price and cost data from previous projects, quality of work, ability to meet schedules, cost control and contract administration
- 6.1.4 Availability to the project locale
- 6.1.5 Familiarity with the project locale;
- 6.1.6 Proposed project management techniques
- 6.1.7 Ability and proven history in handling special project constraints

6.2 Experience and reliability of the Offeror's organization are considered subjectively in the evaluation process. Therefore, the Offeror is advised to submit any information which documents successful and reliable experience in past performances, especially those performances related to the requirements of this RFP.

6.3 The qualifications of the personnel proposed by the Offeror to perform the requirements of this RFP, whether from the Offeror's organization or from a proposed subcontractor, will be subjectively evaluated. Therefore, the Offeror should submit detailed information related to the experience and qualifications, including education and training, of proposed personnel.

6.4 The State reserves the right to reject any or all proposals, waive technicalities and make award(s) as deemed to be in the best interest of the State of South Dakota.

6.5 **Award:** The requesting agency and the highest ranked Offeror shall mutually discuss and refine the scope of services for the project and shall negotiate terms, including compensation and performance schedule.

- 6.5.1 If the agency and the highest ranked Offeror are unable for any reason to negotiate a contract at a compensation level that is reasonable and fair to the agency, the agency shall, either orally or in writing, terminate negotiations with the Offeror. The agency may then negotiate with the next highest ranked Offeror.
- 6.5.2 The negotiation process may continue through successive Offerors, according to agency ranking, until an agreement is reached or the agency terminates the contracting process

END OF SECTION

Comment [a24]: These evaluation criteria are required by state law. Additional evaluation criteria, including cost, can be included at the agency's discretion.

Comment [skw25]: There may be additions to these and need to add percentages.

7.0 COST PROPOSAL

PROJECT COST SHEET

Fee Description

GIS Map Data Aggregation

Project Management/Coordination (§3.1):	\$ _____
Road Centerlines (§3.2):	\$ _____
Site/Structure Address Points (§3.3):	\$ _____
Administrative Boundary (§3.4):	\$ _____
Emergency Services Boundary (§3.5):	\$ _____
Road Name Alias Table (§3.6):	\$ _____
Cell Sector Locations (§3.7):	\$ _____
Subtotal	\$ _____

GIS/ECRF/LVF Managed Services

GIS Managed Services (§3.8):	\$ _____
ECRF/LVF (§3.9 & 3.10):	\$ _____
Subtotal	\$ _____

TOTAL PROJECT FEE **\$ _____**

REQUEST FOR PROPOSALS (RFP) FOR
Statewide Geographic Information System Data and
Managed Services in support of the State NG9-1-1
System

Optional Items

_____	\$ _____
_____	\$ _____
_____	\$ _____
	Subtotal \$ _____

Offeror Company Name

Authorized Signature

Title

Date

DRAFT

APPENDIX A

SOURCE DATA

DRAFT

APPENDIX B

PSAP MAP AND WORKSTATIONS

DRAFT