

STATE OF ALASKA RFP NUMBER 2020-1200-4534
ADDENDUM FOUR



DEPARTMENT OF PUBLIC SAFETY
ADMINISTRATIVE SERVICES
PROCUREMENT SECTION
4805 DR. MARTIN LUTHER KING JR. AVENUE
ANCHORAGE, ALASKA 99507



THIS IS NOT AN ORDER

DATE ADDENDUM ISSUED: May 12, 2020

RFP TITLE: 9-1-1 Call Intake System

PROPOSAL DEADLINE DATE IS NOT CHANGED: May 26, 2020 @ 1:30 p.m. local Alaska time

Addendum Four to RFP 2020-1200-4534 9-1-1 Call Intake System serves to answer questions (all other terms and conditions remain the same):

Question 1: The RFP states that if responses don't adhere to the requirements of the RFP, that the proposal will be considered as non-responsive (I'm paraphrasing). The RFP also requires that all hardware, unless proprietary hardware, is to be supplied by IT. If a vendor is non-compliant to this requirement for backroom hardware only, but can explain why they have this requirement regarding backroom hardware, will the entire response be deemed non-responsive?

Answer: *DPS has determined that the implementation of proprietary hardware and operating system environments for substantial system components (i.e., servers, client workstations and network components) would be detrimental to operational support as well as being in opposition to the State's information system sustainability goals. Proprietary devices for minor subsystem interfaces will be allowed. DPS Purchasing will independently assess the percentage allocation of proprietary items in vendor proposals; proposals that include proprietary components over two percent (2.0%) of the one-time costs will be deemed non-responsive.*

Question 2: Attachment 2 Cost Proposal Form provides sub-sets of pricing for DPS Fairbanks, DPS Anchorage, and FNSB. How would the State prefer related software and implementation costs for Ft. Wainwright be shown?

Answer: *All scope of services for Ft. Wainwright should be attributed to FNSB.*

Question 3: Will the State consider adding a line item to the Attachment 2 Cost Proposal Form for providing technical guidance and network architecture design services?

Answer: *Yes. See added Line 18 on the updated Attachment 2 Cost Proposal Form attached separately. The updated copy must be used in response to the solicitation.*

Question 4: Will proposals that include COTS be accepted and, if so, will the State issue Amendment allowing for additional line items to be included in the Attachment 2 Cost Form?

Answer: *Common Off the Shelf (COTS) can refer to hardware and/or software. In general, DPS and FNSB will acquire generally available hardware, operating system and database management software following this procurement based on the awarded vendor's infrastructure requirements.*

Question 5: In the Attachment 3 Detailed Requirements & Responsive Document, the Discussion cells appear to be set up as single-line text entry only. Will the State allow vendors to edit this Attachment 3 to modify the Discussion cells, allowing for multi-line text?

Answer: *Vendors shall not alter Attachment 3 aside from the identified response areas, however, Attachment 3 has been updated to allow for multi-line text. See Attachment 3 – Updated.*

This is a mandatory return Addendum and must be returned with an authorized signature to the issuing office with the proposal.

STATE OF ALASKA RFP NUMBER 2020-1200-4534
ADDENDUM FOUR

Vendor Name

Authorized Signature

Typed or Printed Name of Authorized Signatory

Date

Signature: Kelly Pahlau
Kelly Pahlau
DPS Procurement Officer
Desk: 907.269.8493
Email: kelly.pahlau@alaska.gov

End of Addendum Four

ATTACHMENT 3 - Updated

DETAILED REQUIREMENTS & RESPONSIVE DOCUMENT

Vendor Name: _____

This document must be returned for your proposal to be considered responsive.

This section presents the required functional, technical and operational characteristics of the required systems and services. These requirements are presented in a tabular format; this section is formatted for use as a “turn-around” form where the proposing vendor may use a word processing application to directly enter their responses. Where “State” is identified, this should be interpreted as DPS, OIT, and/or FNSB.

Each of the enumerated items requires an affirmative narrative response from proposing vendors; vendor response areas are indicated by shading. Any supporting graphics or exhibits to responses must be clearly labeled in Discussion boxes and attached to the end of the document.

Any clarification or exceptions to the State’s requirements must be clearly stated in the narrative response. Note that changes or edits to the State’s requirements are prohibited.

Next to each requirement statement is a box (entitled “Code”) for proposer entry of one of the codes below:

<u>Response Code</u>	<u>Definition</u>
FP	Fully Provided with no exceptions
CU	Customization (Change to source code required)
CO	Configuration (Setup required with built-in tools and procedures but no change in source code is required)
NV	Provided in the next version of the software at no additional cost
RT	Provided with proposed Reporting Tools
NA	Not Available
TP	Third Party Software Required to Fully Provide Requirement

Note: Vendors must use one code only per requirement. Any requirement that is answered in any other way may be treated as non-responsive. The selected vendor must warrant that the content of its proposal accurately reflects the software's capability to satisfy the functional requirements as included in this RFP. The detailed requirements in this RFP will become part of the selected software vendor's contract.

Additional uncoded sections request specific narrative responses regarding system architecture, functionality or the provision of vendor services.

BUNDLE 1 – PSAP PROVISIONING

FUNCTIONAL REQUIREMENTS

Compliance with Standards

The proposed system shall comply with the most recent and current editions of the following national standards and recommendations for system architecture, configuration, database management and performance (or better alternate).

Requirement	Code	Discussion
1. NENA 001.1.2: Next Generation 9-1-1 Public Safety Answering Point Requirements		
2. NENA 02-010: Recommended Formats & Protocols For ALI Data Exchange, ALI Response & GIS Mapping.		
3. NENA 08-501 (TID): Technical Information Document on the Network Interface to IP Capable PSAP.		
4. NENA 57-750: NG9-1-1 System and PSAP Operational Features and Capabilities Requirements Document		
5. NENA 58-001 (OID): IP PSAP 9-1-1 System Features and Capabilities Operational Information Document.		
6. NENA INF-016.2: Emergency Services IP Network Design		
7. NENA INF-003.1.1: Potential Points of Demarcation in NG9-1-1 Networks		
8. NENA 019.1: NG9-1-1 Call Processing Metrics		

System Integration

Requirement	Code	Discussion
1. Headsets: System to integrate with call taker/dispatch headsets and provide a two-way audio path with press-to-talk from radio consoles as well as telephony applications.		
2. CAD Systems: System to integrate with multiple CAD applications for transfer of E9-1-1 ANI/ALI as well as Wireless 9-1-1 location information and Text-to-911 dialog information.		
3. Smart911: System to integrate with Smart911 for outbound transfer of ANI information.		
4. Logging Recorders: System to integrate with logging recorders at each individual dispatch center.		
5. Master Clock: System to utilize locally-provided time synchronization source (NetClock) or Network Time Protocol (NTP).		
6. IP-based PBXs: Proposed system to integrate with Voice over IP-based private telephone systems.		

Management Information

Requirement	Code	Discussion
1. System to provide for periodic Management Information System (MIS) reporting of transaction volumes and system performance. a. Detail of MIS reporting to provide for individual PSAP and/or Statewide volumes and call taking performance. b. MIS reporting to provide for time of day and day of week summary reporting c. MIS reporting to provide for detailed and summary reporting of time-to-answer, time-to-transfer, and call duration. d. Reporting application to provide for selection of sorting or indexing keys by any formatted field. e. MIS to capture and report System Availability and response time to PSAP inquiries (e.g., ALI display). f. MIS and reporting application to allow access all captured data elements.		
2. MIS reporting to be fully initialized prior to operational use of system by State and PSAPs; this includes procedures, routines and scripts for daily and periodic reporting.		
3. What is the proposed system's ability to archive call detail information into State-provided SQL servers and archive storage?		
4. How does the proposed system support Quality Assurance reviews of call taker performance?		

CAD Mapping Integration

Requirement	Code	Discussion
1. What is the proposed system’s ability to interface with computer aided dispatch platforms?		
2. What CAD products have you developed ANI/ALI integrations?		
3. Identify the proposed approach to CAD integration, citing Open System Interconnection (OSI) layers and protocols to be implemented.		
4. How is the proposed system architected to provide for display of error messages in case of interface issues?		

BUNDLE 1

TECHNICAL REQUIREMENTS

This section specifies additional technical requirements, including connectivity, hardware, database, system performance, capacity, maintenance and security for the proposed system.

Connectivity and Network

Inquiry	Discussion
1. What are the connectivity and minimum network performance requirements of your proposed system? a. Within a physical PSAP? b. Between PSAPs? c. Between PSAPs and State Data Center? d. Remote access for technical support?	
2. What are the recommended protocols for the statewide wide area network (e.g., MPLS, BGP, etc?)	
3. Describe the design for communications among servers including WAN connectivity for off-site backup servers.	

Inquiry	Discussion
4. Describe your approach and recommendations for network node and link redundancy (e.g., dual NICs, device allocation, routing protocols, etc.)	
5. What system interruptions or hardware failures would cause loss of a call-in-progress? What is your remedy for these scenarios?	

Hardware and Operating Systems

Inquiry	Discussion
1. What are the server hardware, operating system and database management (SQL) requirements of your proposed system?	
2. What are the workstation hardware and operating system requirements of your proposed system?	
3. Outline your recommended system architecture, including client/server environment, database resiliency, web browser, third-party products, etc.	

Database Management System

Inquiry	Discussion
1. Ability to support locally-administered backup and recovery policies.	
2. Ability to support online centralized backup storage.	
3. What Structured Query Language (SQL) language capabilities are supported in the proposed configuration?	
4. What application software integration capabilities (APIs) are provided?	
5. What is the process for restoration of a failed database server? a. Application server b. Telecommunications server c. Database server	
6. What is the estimated time to restore databases in the proposed configuration?	

System Security

Inquiry	Discussion
1. Describe any exceptions or qualifications with respect to compliance with NENA standard 75-001: Security for Next-Generation 9-1-1 and NENA NG9-1-1 Security Information Document.	
2. What application security tools are proposed? How are user profiles organized for separation of administrative roles?	
3. Describe how access restrictions to the following areas are managed: a. Administrative tools b. Application/configuration access c. Query/reporting tools d. System generated reports	
4. What is included in the user security profile? How is the security profile defined?	

Performance Requirements

Requirement	Code	Discussion
1. System is to provide 99.999% availability, measured on a 24 hour per day, 7-day per week basis, accumulated over a one-year period. Vendor to note any exceptions.		
2. System is to support automated, unassisted restoration from outages. Describe your proposed approach to fault tolerance.		
3. System to provide positive, affirmative alert of off-line status or error conditions of servers and network nodes. Describe your approach for notifying end users and system administrators of error conditions.		
4. The system shall use appropriate redundancy to ensure that no single component failure will jeopardize any major function or performance capability.		
5. Describe your proposed approach for system recovery and restoration. What is the estimated time to restore application and telecommunications servers in the proposed configuration?		

System Capacity

Requirement	Code	Discussion
1. System storage and processing capacity shall be based on the following indicators of initial required system capacity: Service Population (Estimate) 400,000 Admin Calls (Estimate) 400,000 911 Calls (Annual Estimate) 100,000		
2. System shall retain a minimum of five (5) years of call history in an online configuration.		

BUNDLE 1

VENDOR MAINTENANCE AND SUPPORT REQUIREMENTS

This section identifies the administrative, maintenance and support requirements of the proposed system.

Terms Defined

Updates are defined as any modification to application code or supporting objects, typically associated with a change in the minor version number (version enumeration: “major number [decimal] minor number”).

Upgrades are defined as an application with a later major version identifier, typically having substantially new functions and features.

Critical Problems are defined by the State’s authorized reporting individual and generally pertain to call answering and the retrieval of ALI information for use in answering emergency calls for service.

Serious Problems are defined by the State’s authorized reporting individual and generally pertain to administrative or non-critical features of the system.

Unless stated otherwise, a Business Day is defined as Monday through Friday, 8:00 AM to 5:00 PM Alaska Time.

Requirement	Code	Discussion
1. Vendor to apply all manufacturer recommended updates to application software during operational life of system (five years). Identify any contingent requirements (e.g., currency of software version).		
2. Vendor to provide a minimum one-year warranty after system acceptance by the State. Warranty to include correction of Critical and Serious issues reported during warranty period.		
3. Maintenance provider needs to respond to reports of Critical problems within one (1) hour of notification.		
4. Maintenance provider needs to ensure that any Critical issue is resolved within (i.e., time to restore does not exceed) four hours from initial notification.		
5. Maintenance provider needs to respond to reports of Serious problems within the first business day after notification.		
6. Maintenance provider needs to ensure that Serious problems are resolved within one Business Day after the first Business Day of notification.		
7. Maintenance vendor to maintain on-going trouble report tracking system and historical records of trouble reports. State to be provided access to trouble reporting (ticketing) system for case review.		
8. Proposed system to provide error logs and diagnostic information sufficient to support remote vendor troubleshooting.		
9. State to acquire and provide spare parts for warehousing locally. Identify the minimum recommended spares package.		
10. Vendor to ensure that all image, backup, profile and configuration information sufficient to restore any particular platform is provided and sustained locally.		

Requirement	Code	Discussion
11. Vendor to utilize remote access for system and application diagnostics and maintenance. Vendor to coordinate Virtual Private Network (VPN) or other secure access requirements with OIT.		
12. The State intends to allocate local and remote technical support staff for the proposed platform. As necessary, the maintenance provider needs to anticipate the need for on-site, factory-trained staff, capable of supporting the installation and diagnosis of issues with this platform. Describe the minimum necessary qualifications of local maintenance support personnel.		
13. Ability for the State to administer appropriate system features and configuration without voiding warranty or support agreements.		
14. Vendor to provide full set of technical and maintenance documentation at the primary installation locations.		
15. Vendor to coordinate all maintenance activities with each installation location. Vendor and customers need to agree to migration checklist and notification schedule for any activities impacting public safety operations.		
16. Vendor needs to proactively coordinate and communicate with other service providers and carriers to resolve system installation and operational issues.		

System Update Process

Inquiry	Discussion
1. How are application patches deployed? How are updates staged before promotion to production? What is the impact on live operations?	
2. How are 'hot fixes' applied (i.e., updates applied to operational/live system)?	
3. What is the application update frequency?	
4. Remote access by the vendor is presumed for both updates and technical support. What (if any) updates are proposed for installation by local resources?	

BUNDLE 1

REQUIRED IMPLEMENTATION SERVICES

This section specifies the implementation services to be provided by the contractor. The contractor shall assume total "turn-key" responsibility for the design, delivery, implementation, functional operation, and performance of the proposed system. The contractor shall develop a work breakdown structure and schedule; establish and maintain the project tracking system; and manage the ongoing project. Required implementation deliverables include:

- A. **Project Management Plan**, provided at initiation of work program. Project Management Plan to include identification of named individuals, their roles and contact information. Plan to include vendor's project communications, status reports and periodic meetings.
- B. **Implementation Plan and Project Schedule** as initial deliverables. Implementation Plan to include description of State, FNSB, vendor and third-party task responsibilities; data conversion/data migration plan; and Project Schedule to identify critical path elements and target milestone dates.
- C. **Detailed System Design** for installation, initialization and system operation. The contractor shall prepare detailed specifications of recommended system hardware, application software, interfaces, databases, operating procedures, training programs, testing plans, cut-over plans, and documentation libraries. When accepted by the State, this document is envisioned as a payment milestone. When the implementation is completed, this document would be updated by Vendor with any final edits and 'as built' documentation.
- D. **Acceptance Test Plan and Test Procedures**; documentation to be provided thirty (30) days in advance of scheduled testing activities with State and PSAP participation.
- E. **Training Plan, Syllabus, Training Materials and Training Schedule**; documentation to be provided thirty (30) days in advance of training sessions.
- F. **Periodic Project Status**; written status reports, provided no less than monthly through the duration of implementation project; status meetings in person or via teleconference at least monthly and more frequently as project activity accelerates

Overall System Implementation and Performance

Requirement	Code	Discussion
1. The contractor shall be generally responsible for system design, application software and overall system implementation activities. The contractor shall accept the responsibility for the performance of all of these tasks either by the contractor's personnel or their subcontractor(s).		
2. For tasks to be performed by an agency or agencies other than the contractor or its subcontractors, the contractor shall provide the necessary information and guidance in a concise, efficient and timely manner to ensure the proper performance of these tasks.		
3. The contractor shall demonstrate through the successful completion of the preliminary and final acceptance tests that the system will perform as specified in this RFP, the contractor's proposal, and all accepted design documents.		

Project Planning and Management

Requirement	Code	Discussion
1. Develop a final breakdown of the project into phases, tasks, and subtasks. Prepare a written description of each phase, task, and subtask and identify staff assignments and responsibilities (particularly State, FNSB or PSAP staff).		
2. With customer agreement, finalize the project schedule, identifying the scheduled completion date of each phase and task.		
3. Set up and initialize a project status tracking system. The tracking system shall be established and maintained so as to enable the State's project director and the contractor project manager to readily determine, at any time upon demand, the current level of progress to date on the entire project and any phase, task, or subtask, in terms of schedule days and dollars expended versus planned.		
4. Closely monitor the status and progress of the project on a continuous basis. Advise the State immediately of any problems, issues, changes or opportunities. At the end of each month, submit to the State a written progress report identifying tasks completed during the month; the status of ongoing activities; and plans for the next month. The report should also cover any current problems or opportunities.		

Detailed Design

Requirement	Code	Discussion
1. Finalize the hardware configuration in cooperation with State and FNSB participation. Provide any technical specifications and configuration information needed for the State to order or implement hardware or equipment.		
2. Finalize the functional application software specifications and configuration settings.		
3. Finalize the interface definitions. Specify the hardware and software requirements of each interface in sufficient detail to enable those responsible for the external system to prepare their systems for connection with the new system.		
4. Finalize the database functional capabilities. Prepare and submit documentation describing the structure and organization of the databases. Prepare detailed forms and instructions for data collection, data load, conversion, and validation.		
5. Finalize the training program. Prepare and submit a detailed training syllabus and detailed outlines of all training and evaluation materials.		
6. Finalize the testing program. Submit a detailed outline of the final acceptance test plan and testing materials (e.g., test cases).		
7. Finalize and submit a detailed outline and progression of the go-live/cut-over plan.		
8. Prepare and submit a detailed outline for each major deliverable document.		
9. Submit all of the detailed design materials to the State for review and approval. Obtain State approval to proceed with scheduling and installation.		

Procurement and Installation

Requirement	Code	Discussion
1. Contractor will provide test equipment and staffing to support installation, testing and certification of carrier circuits, including 9-1-1 trunks and admin line provisioning.		
2. State will install all computer operating systems, database management systems and other required support software. Contractor will develop, deliver and install application software. Contractor to perform preliminary testing and debugging to ensure proper operation of the software configuration. Proposer to declare most recent operating platforms (e.g., server operating system and SQL versions).		
3. State will interconnect the system to all of the external interfacing systems. Contractor to independently verify the proper operation of all interfaces.		
4. Jointly with State and PSAP personnel, conduct a thorough review of all installation work. Verify that all required subsystems and equipment have been procured, delivered, and installed. Review test results to verify that the systems are ready for training, acceptance testing, and cut-over. Obtain State and FNSB approval to proceed with training.		

Acceptance Testing

Requirement	Code	Discussion
1. Prepare all test equipment, test scenarios, test data sets, operator instructions, checklists, worksheets, evaluation forms, and other materials necessary to conduct the final acceptance test.		
2. In the presence of State and PSAP representatives, conduct a complete and thorough test of the entire system using the previously developed and approved acceptance test plan and test materials. The test shall include operation of all elements of the system under peak workloads. Vendor to document and certify test results.		
3. Jointly with State and PSAP representatives, evaluate the acceptance test results. Identify any areas where the system fails to meet specifications. Vendor to develop plans for corrective action.		
4. Implement any necessary changes to correct deficiencies uncovered in the acceptance tests. In the presence of the State and PSAP representatives, conduct retests of the affected portions of the system or, at the option of the State, the entire system. Upon successful conclusion of all elements of the test, submit a report to the State describing the current status of the system and its readiness for phase over.		

Training

Requirement	Code	Discussion
1. Vendor will complete functional testing and obtain customer acceptance of installed system prior to training and beneficial use.		
2. Prepare and provide all equipment, training scenarios, data files, manuals, visual aids, handouts, test sheets, and other materials required for training programs.		
3. Conduct classroom and hands-on system operational training for participant staff in both Fairbanks and Anchorage. The training shall cover routine operation and usage of all elements of the system.		
4. Conduct classroom and hands-on system support training for State and FNSB technical staff in Alaska. Training on system shall cover familiarization with the subsystems, configuration, and documentation as well as all of the operating procedures including preventive and remedial maintenance procedures which will become local responsibilities. Software support training shall include a thorough walk-through of the application documentation.		
5. Training Curricula to include: <ul style="list-style-type: none"> a. <i>PSAP Call Taker Training</i> – Routine operation of the system including system configuration, call routing, peripherals, call taker applications and user interfaces. b. <i>Supervisory Training</i> – Routine operation of management functions, such as periodic reporting, ad hoc reporting, and interpretation of report information. c. <i>Administration & Maintenance Training</i> – Performance of all routine system administration and periodic maintenance tasks, including periodic reports, error and alert messages, system logs, configuration management, password administration, system recovery, etc. d. <i>Carrier Training</i> – Data entry, maintenance and update procedures for ALI DBMS. 		

Requirement	Code	Discussion
6. Proposed training schedules to be coordinated and mutually agreed to with no less than thirty (30) days' notice.		
7. Vendor to make available online training through recorded or live/interactive sessions for the operational life of the system. If interactive, then no less than four times annually.		

Operational Cut-Over

Requirement	Code	Discussion
1. Jointly with State and PSAP staff, conduct a final review to determine if the systems, facilities, staff and plan are ready for cut-over. Identify and correct any deficiencies, and obtain State approval to proceed		
2. Execute the cut-over of the system into full operation. The contractor shall function as the transition manager, directing and coordinating the efforts of its staff, other contractors, carriers, and the State's PSAPs. Vendor shall have on-site technical presence during cutover.		

Performance Validation Period

Requirement	Code	Discussion
The first ninety (90) calendar days of system performance following the completion of all parts of the operational phase over shall be considered a performance validation period. During this period the system must demonstrate its specified performance, availability, and functionality in a live operational environment. Any deficiencies which become apparent during the monitoring period will result in an extension of the monitoring period as long as required for correction and retest.		

Documentation

Requirement	Code	Discussion
1. The contractor shall prepare, finalize, and deliver to the State all final documentation in accordance with the approved documentation plan. The system shall be completely documented as of Final Acceptance, including installation and configuration notes, to include “as built” drawings and a full set of configuration and application software documentation. All documentation to be provided in electronic formats.		
2. The documentation shall be at a level of detail which provides answers to technical or operational questions without recourse to the contractor or other vendors. Documentation shall include at least operations manuals, network engineering and maintenance documentation, installation instructions, application system software and database documentation.		
3. State and FNSB shall be granted a license to duplicate documentation for internal use including participating PSAPs.		

Final Review and System Acceptance

Requirement	Code	Discussion
1. The State will make final payment only upon successful completion of at least the following items: <ul style="list-style-type: none">a. Transfer of all product licenses with associated terms and conditions to the State.b. Acceptance by the State of all test reports, documentation, training, and final review reports.c. Completion as per the terms and conditions of the initial and amended contract.d. Completion as per the Statement of Work.e. Completion as per the RFP, proposal, and Accepted Design documents.f. Completion of the Performance Monitoring Period.g. Acceptance and written approval by the State.h. Completion of the final review shall complete the project and commence the Warranty phase.		

Warranty Control Period

Requirement	Code	Discussion
1. The contractor shall tabulate and administer all warranties applicable to the system, subsystems, software and services supplied.		
2. The warranty control period shall be deemed completed when all warranties have expired or have been deemed complete by mutual agreement.		

BUNDLE 2 – ALI DBMS

FUNCTIONAL REQUIREMENTS

Compliance with Standards

The proposed system shall comply with the most recent and current editions of the following national standards and recommendations for system architecture, configuration, database management and performance (or better alternate).

Requirement	Code	Discussion
1. NENA 02-010: Recommended Formats & Protocols For ALI Data Exchange, ALI Response & GIS Mapping.		
2. NENA 02-011: Recommended Data Standards for Local Exchange Carriers, ALI Service Providers & 911 Jurisdictions.		
3. NENA 08-501 (TID): Technical Information Document on the Network Interface to IP Capable PSAP.		
4. NENA 58-001 (OID): IP PSAP 9-1-1 System Features and Capabilities Operational Information Document.		
5. NENA 71-001: Standard for NG9-1-1 Additional Data.		
6. NENA 006: NG9-1-1 GIS Data Model		
7. NENA 004.1.1: NG9-1-1 United States Civic Location Data Exchange Format (CLDXF)		
8. NENA 002.1: NG9-1-1 Data Management Requirements		

Geographic Information Systems

Requirement	Code	Discussion
1. What is your conformance with NENA 71-501: Information Document for Synchronizing Geographic Information System databases with MSAG & ALI?		
2. What is the proposed ability to provide electronic messaging between end users (call takers, ALI database administrators, and GIS analysts) for reporting of addressing, MSAG and mapping issues?		
3. What national standards and best practice recommendations do your applications and geographic data management support (e.g., FGDC United States Thoroughfare, Landmark, Postal Address Data Standard, etc?)		

Automatic Location Information Database Management

Requirement	Code	Discussion
1. What is your product capability to support ALI database management applications?		
2. What are the key functions and features of your ALI database applications?		
3. What is the ability to transfer GIS files to ALI database applications (MSAG) with minimal conversion or translation?		
4. What are the daily administrative and database management requirements of FNSB staff?		
5. How does your database architecture support the integrity of FNSB's legitimate (statutory) addressing authority?		
6. What is the ability to export a telephone number and address database for use in outbound notification systems?		

BUNDLE 2

TECHNICAL REQUIREMENTS

This section specifies additional technical requirements, including connectivity, hardware, database, system performance, capacity, maintenance and security for the proposed system.

Connectivity and Network

Inquiry	Discussion
1. What are the connectivity and minimum network performance requirements of your proposed system? a. Within a physical PSAP? b. Between PSAPs? c. Between PSAPs and State Data Center? d. Remote access for technical support?	
2. What are the recommended protocols for the statewide wide area network (e.g., MPLS, BGP, etc?)	
3. Describe the design for communications among servers including WAN connectivity for off-site backup servers.	

Inquiry	Discussion
4. Describe your approach and recommendations for network node and link redundancy (e.g., dual NICs, device allocation, routing protocols, etc.)	
5. What system interruptions or hardware failures would cause loss of a call-in-progress? What is your remedy for these scenarios?	

Hardware and Operating Systems

Inquiry	Discussion
1. What are the server hardware, operating system and database management (SQL) requirements of your proposed system?	
2. What are the workstation hardware and operating system requirements of your proposed system?	
3. Outline your recommended system architecture, including client/server environment, database resiliency, web browser, third-party products, etc.	

Database Management System

Inquiry	Discussion
1. Ability to support locally-administered backup and recovery policies.	
2. Ability to support online centralized backup storage.	
3. What Structured Query Language (SQL) language capabilities are supported in the proposed configuration?	
4. What application software integration capabilities (APIs) are provided?	
5. What is the process for restoration of a failed database server? a. Application server b. Telecommunications server c. Database server	
6. What is the estimated time to restore databases in the proposed configuration?	

System Security

Inquiry	Discussion
1. Describe any exceptions or qualifications with respect to compliance with NENA standard 75-001: Security for Next-Generation 9-1-1 and NENA NG9-1-1 Security Information Document.	
2. What application security tools are proposed? How are user profiles organized for separation of administrative roles?	
3. Describe how access restrictions to the following areas are managed: a. Administrative tools b. Application/configuration access c. Query/reporting tools d. System generated reports	
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Performance Requirements

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2. System is to support automated, unassisted restoration from outages. Describe your proposed approach to fault tolerance.		
3. System to provide positive, affirmative alert of off-line status or error conditions of servers and network nodes. Describe your approach for notifying end users and system administrators of error conditions.		
4. The system shall use appropriate redundancy to ensure that no single component failure will jeopardize any major function or performance capability.		
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System Capacity

Requirement	Code	Discussion
1. System storage and processing capacity shall be based on the following indicators of initial required system capacity: Service Population (Estimate) 400,000 Admin Calls (Estimate) 400,000 911 Calls (Annual Estimate) 100,000		
2. System shall retain a minimum of five (5) years of call history in an online configuration.		

BUNDLE 2

VENDOR MAINTENANCE AND SUPPORT REQUIREMENTS

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Terms Defined

Updates are defined as any modification to application code or supporting objects, typically associated with a change in the minor version number (version enumeration: “major number [decimal] minor number”).

Upgrades are defined as an application with a later major version identifier, typically having substantially new functions and features.

Critical Problems are defined by the State’s authorized reporting individual and generally pertain to call answering and the retrieval of ALI information for use in answering emergency calls for service.

Serious Problems are defined by the State’s authorized reporting individual and generally pertain to administrative or non-critical features of the system.

Unless stated otherwise, a Business Day is defined as Monday through Friday, 8:00 AM to 5:00 PM Alaska Time.

Requirement	Code	Discussion
1. Vendor to apply all manufacturer recommended updates to application software during operational life of system (five years). Identify any contingent requirements (e.g., currency of software version).		
2. Vendor to provide a minimum one-year warranty after system acceptance by the State. Warranty to include correction of Critical and Serious issues reported during warranty period.		
3. Maintenance provider needs to respond to reports of Critical problems within one (1) hour of notification.		
4. Maintenance provider needs to ensure that any Critical issue is resolved within (i.e., time to restore does not exceed) four hours from initial notification.		
5. Maintenance provider needs to respond to reports of Serious problems within the first business day after notification.		
6. Maintenance provider needs to ensure that Serious problems are resolved within one Business Day after the first Business Day of notification.		
7. Maintenance vendor to maintain on-going trouble report tracking system and historical records of trouble reports. State to be provided access to trouble reporting (ticketing) system for case review.		
8. Proposed system to provide error logs and diagnostic information sufficient to support remote vendor troubleshooting.		
9. State to acquire and provide spare parts for warehousing locally. Identify the minimum recommended spares package.		
10. Vendor to ensure that all image, backup, profile and configuration information sufficient to restore any particular platform is provided and sustained locally.		

Requirement	Code	Discussion
11. Vendor to utilize remote access for system and application diagnostics and maintenance. Vendor to coordinate Virtual Private Network (VPN) or other secure access requirements with OIT.		
12. The State intends to allocate local and remote technical support staff for the proposed platform. As necessary, the maintenance provider needs to anticipate the need for on-site, factory-trained staff, capable of supporting the installation and diagnosis of issues with this platform. Describe the minimum necessary qualifications of local maintenance support personnel.		
13. Ability for the State to administer appropriate system features and configuration without voiding warranty or support agreements.		
14. Vendor to provide full set of technical and maintenance documentation at the primary installation locations.		
15. Vendor to coordinate all maintenance activities with each installation location. Vendor and customers need to agree to migration checklist and notification schedule for any activities impacting public safety operations.		
16. Vendor needs to proactively coordinate and communicate with other service providers and carriers to resolve system installation and operational issues.		

System Update Process

Inquiry	Discussion
1. How are application patches deployed? How are updates staged before promotion to production? What is the impact on live operations?	
2. How are 'hot fixes' applied (i.e., updates applied to operational/live system)?	
3. What is the application update frequency?	
4. Remote access by the vendor is presumed for both updates and technical support. What (if any) updates are proposed for installation by local resources?	

BUNDLE 2

REQUIRED IMPLEMENTATION SERVICES

This section specifies the implementation services to be provided by the contractor. The contractor shall assume total "turn-key" responsibility for the design, delivery, implementation, functional operation, and performance of the proposed system. The contractor shall develop a work breakdown structure and schedule; establish and maintain the project tracking system; and manage the ongoing project. Required implementation deliverables include:

- A. **Project Management Plan**, provided at initiation of work program. Project Management Plan to include identification of named individuals, their roles and contact information. Plan to include vendor's project communications, status reports and periodic meetings.
- B. **Implementation Plan and Project Schedule** as initial deliverables. Implementation Plan to include description of State, FNSB, vendor and third-party task responsibilities; data conversion/data migration plan; and Project Schedule to identify critical path elements and target milestone dates.
- C. **Detailed System Design** for installation, initialization and system operation. The contractor shall prepare detailed specifications of recommended system hardware, application software, interfaces, databases, operating procedures, training programs, testing plans, cut-over plans, and documentation libraries. When accepted by the State, this document is envisioned as a payment milestone. When the implementation is completed, this document would be updated by Vendor with any final edits and 'as built' documentation.
- D. **Acceptance Test Plan and Test Procedures**; documentation to be provided thirty (30) days in advance of scheduled testing activities with State and PSAP participation.
- E. **Training Plan, Syllabus, Training Materials and Training Schedule**; documentation to be provided thirty (30) days in advance of training sessions.
- F. **Periodic Project Status Reports**; written status reports, provided no less than bi-weekly through the duration of implementation project.

Overall System Implementation and Performance

Requirement	Code	Discussion
1. The contractor shall be generally responsible for system design, application software and overall system implementation activities. The contractor shall accept the responsibility for the performance of all of these tasks either by the contractor's personnel or their subcontractor(s).		
2. For tasks to be performed by an agency or agencies other than the contractor or its subcontractors, the contractor shall provide the necessary information and guidance in a concise, efficient and timely manner to ensure the proper performance of these tasks.		
3. The contractor shall demonstrate through the successful completion of the preliminary and final acceptance tests that the system will perform as specified in this RFP, the contractor's proposal, and all accepted design documents.		

Project Planning and Management

Requirement	Code	Discussion
1. Develop a final breakdown of the project into phases, tasks, and subtasks. Prepare a written description of each phase, task, and subtask and identify staff assignments and responsibilities (particularly State, FNSB or PSAP staff).		
2. With customer agreement, finalize the project schedule, identifying the scheduled completion date of each phase and task.		
3. Set up and initialize a project status tracking system. The tracking system shall be established and maintained so as to enable the State's project director and the contractor project manager to readily determine, at any time upon demand, the current level of progress to date on the entire project and any phase, task, or subtask, in terms of schedule days and dollars expended versus planned.		
4. Closely monitor the status and progress of the project on a continuous basis. Advise the State immediately of any problems, issues, changes or opportunities. At the end of each month, submit to the State a written progress report identifying tasks completed during the month; the status of ongoing activities; and plans for the next month. The report should also cover any current problems or opportunities.		

Detailed Design

Requirement	Code	Discussion
1. Finalize the hardware configuration in cooperation with State and FNSB participation. Provide any technical specifications and configuration information needed for the State to order or implement hardware or equipment.		
2. Finalize the functional application software specifications and configuration settings.		
3. Finalize the interface definitions. Specify the hardware and software requirements of each interface in sufficient detail to enable those responsible for the external system to prepare their systems for connection with the new system.		
4. Finalize the database functional capabilities. Prepare and submit documentation describing the structure and organization of the databases. Prepare detailed forms and instructions for data collection, data load, conversion, and validation.		
5. Finalize the training program. Prepare and submit a detailed training syllabus and detailed outlines of all training and evaluation materials.		
6. Finalize the testing program. Submit a detailed outline of the final acceptance test plan and testing materials (e.g., test cases).		
7. Finalize and submit a detailed outline and progression of the go-live/cut-over plan.		
8. Prepare and submit a detailed outline for each major deliverable document.		
9. Submit all of the detailed design materials to the State for review and approval. Obtain State approval to proceed with scheduling and installation.		

Procurement and Installation

Requirement	Code	Discussion
1. Contractor will provide test equipment and staffing to support installation, testing and certification of carrier circuits, including 9-1-1 trunks and admin line provisioning.		
2. State will install all computer operating systems, database management systems and other required support software. Contractor will develop, deliver and install application software. Contractor to perform preliminary testing and debugging to ensure proper operation of the software configuration. Proposer to declare most recent operating platforms (e.g., server operating system and SQL versions).		
3. State will interconnect the system to all of the external interfacing systems. Contractor to independently verify the proper operation of all interfaces.		
4. Jointly with State and PSAP personnel, conduct a thorough review of all installation work. Verify that all required subsystems and equipment have been procured, delivered, and installed. Review test results to verify that the systems are ready for training, acceptance testing, and cut-over. Obtain State and FNSB approval to proceed with training.		

Acceptance Testing

Requirement	Code	Discussion
1. Prepare all test equipment, test scenarios, test data sets, operator instructions, checklists, worksheets, evaluation forms, and other materials necessary to conduct the final acceptance test.		
2. In the presence of State and PSAP representatives, conduct a complete and thorough test of the entire system using the previously developed and approved acceptance test plan and test materials. The test shall include operation of all elements of the system under peak workloads. Vendor to document and certify test results.		
3. Jointly with State and PSAP representatives, evaluate the acceptance test results. Identify any areas where the system fails to meet specifications. Vendor to develop plans for corrective action.		
4. Implement any necessary changes to correct deficiencies uncovered in the acceptance tests. In the presence of the State and PSAP representatives, conduct retests of the affected portions of the system or, at the option of the State, the entire system. Upon successful conclusion of all elements of the test, submit a report to the State describing the current status of the system and its readiness for phase over.		

Training

Requirement	Code	Discussion
1. Vendor will complete functional testing and obtain customer acceptance of installed system prior to training and beneficial use.		
2. Prepare and provide all equipment, training scenarios, data files, manuals, visual aids, handouts, test sheets, and other materials required for training programs.		
3. Conduct classroom and hands-on system operational training for participant staff in both Fairbanks and Anchorage. The training shall cover routine operation and usage of all elements of the system.		
4. Conduct classroom and hands-on system support training for State and FNSB technical staff in Alaska. Training on system shall cover familiarization with the subsystems, configuration, and documentation as well as all of the operating procedures including preventive and remedial maintenance procedures which will become local responsibilities. Software support training shall include a thorough walk-through of the application documentation.		
5. Training Curricula to include: <ul style="list-style-type: none"> a. <i>PSAP Call Taker Training</i> – Routine operation of the system including system configuration, call routing, peripherals, call taker applications and user interfaces. b. <i>Supervisory Training</i> – Routine operation of management functions, such as periodic reporting, ad hoc reporting, and interpretation of report information. c. <i>Administration & Maintenance Training</i> – Performance of all routine system administration and periodic maintenance tasks, including periodic reports, error and alert messages, system logs, configuration management, password administration, system recovery, etc. d. <i>Carrier Training</i> – Data entry, maintenance and update procedures for ALI DBMS. 		

Requirement	Code	Discussion
6. Proposed training schedules to be coordinated and mutually agreed to with no less than thirty (30) days' notice.		
7. Vendor to make available online training through recorded or live/interactive sessions for the operational life of the system. If interactive, then no less than four times annually.		

Operational Cut-Over

Requirement	Code	Discussion
1. Jointly with State and PSAP staff, conduct a final review to determine if the systems, facilities, staff and plan are ready for cut-over. Identify and correct any deficiencies, and obtain State approval to proceed		
2. Execute the cut-over of the system into full operation. The contractor shall function as the transition manager, directing and coordinating the efforts of its staff, other contractors, carriers, and the State's PSAPs. Vendor shall have on-site technical presence during cutover.		

Performance Validation Period

Requirement	Code	Discussion
The first ninety (90) calendar days of system performance following the completion of all parts of the operational phase over shall be considered a performance validation period. During this period the system must demonstrate its specified performance, availability, and functionality in a live operational environment. Any deficiencies which become apparent during the monitoring period will result in an extension of the monitoring period as long as required for correction and retest.		

Documentation

Requirement	Code	Discussion
1. The contractor shall prepare, finalize, and deliver to the State all final documentation in accordance with the approved documentation plan. The system shall be completely documented as of Final Acceptance, including installation and configuration notes, to include “as built” drawings and a full set of configuration and application software documentation. All documentation to be provided in electronic formats.		
2. The documentation shall be at a level of detail which provides answers to technical or operational questions without recourse to the contractor or other vendors. Documentation shall include at least operations manuals, network engineering and maintenance documentation, installation instructions, application system software and database documentation.		
3. State and FNSB shall be granted a license to duplicate documentation for internal use including participating PSAPs.		

Final Review and System Acceptance

Requirement	Code	Discussion
1. The State will make final payment only upon successful completion of at least the following items: <ul style="list-style-type: none">a. Transfer of all product licenses with associated terms and conditions to the State.b. Acceptance by the State of all test reports, documentation, training, and final review reports.c. Completion as per the terms and conditions of the initial and amended contract.d. Completion as per the Statement of Work.e. Completion as per the RFP, proposal, and Accepted Design documents.f. Completion of the Performance Monitoring Period.g. Acceptance and written approval by the State.h. Completion of the final review shall complete the project and commence the Warranty phase.		

Warranty Control Period

Requirement	Code	Discussion
1. The contractor shall tabulate and administer all warranties applicable to the system, subsystems, software and services supplied.		
2. The warranty control period shall be deemed completed when all warranties have expired or have been deemed complete by mutual agreement.		

Bundles 3 and 4

Compliance with Standards

The proposed system shall comply with the most recent and current editions of the following national standards and recommendations for system architecture, configuration, database management and performance.

Requirement	Code	Discussion
1. NENA 71-502 Overview of NG9-1-1 Policy Rules		
2. NENA 010.2 Detailed Functional and Interface Standards for the NENA i3 Solution		
3. NENA 012.2 NG9-1-1 Additional Data		
4. NENA 005.1.1 Provisioning and Maintenance of GIS data to ECRF and LVFs		
5. NENA 027.1 Information Document for Location Validation Function Consistency		
6. NENA 009.1 Requirements for a National Forest Guide		