

State of Delaware
Department of Technology and Information

Request for Information
Next Generation 9-1-1 Evolution

June 14, 2013

- Deadline to Respond -
July 25, 2013
1:00 p.m. EDT

1.0 INTRODUCTION

The Delaware Department of Technology and Information (hereinafter referred to as "DTI") is issuing this Request for Information (RFI) inviting Vendors to submit their capabilities and interests relative to Next Generation 9-1-1 systems and operations. These submissions will be referred to in this document as *Vendor Information Packages*. DTI may reference this material as indicative of industry capabilities and interests, in the event the State of Delaware determines in the future to issue a Request for Proposals (RFP). DTI may use this material to facilitate the establishment of State standards and policies.

The material provided as the result of this RFI will not constitute any type of bidding process but may be used in the development of an RFP, the actual procurement document or the establishment of State standards and policies. If an RFP is issued by any State agency, it will be issued at a later date.

This RFI is not intended to conflict with or usurp any existing contractual relationships between DTI and any Vendor.

1.1 BACKGROUND

The Department of Technology and Information (DTI) seeks to obtain information from individuals and organizations having knowledge and expertise relating to Next Generation 9-1-1 systems.

Further through the release of this RFI, DTI seeks to obtain information pertaining to:

- The requirements for the State to complete Next Generation migration encompassing existing IP end points (Viper 9-1-1 platform to Next Generation 9-1-1);
- Comprehensive solutions supporting wire line, wireless, VoIP 9-1-1 calls, as well as emerging alternative requests for assistance (RFAs) such as text messaging, alerts, and cell phone media;
- The availability of vendors with experience in the evolution of a Viper 9-1-1 platform to Next Generation 9-1-1 capabilities; and
- Any other information that would lead to the successful development of a plan to transition and deploy NG 9-1-1 technology.

1.2 VENDORS

This RFI is addressed broadly to Vendors serving the Next Generation 9-1-1 industry. Vendors that provide comprehensive, full service solutions are invited to provide Vendor Information Packages.

The Department of Technology and Information (DTI) has not committed at this time to the structure or possibility of any future RFP.

1.3 RFI OBLIGATIONS

The RFI is a request for information only, and is not a solicitation to provide goods and services to DTI. There will be no contract awarded as a result of the RFI. Nothing in the Vendor Information Packages, or in DTI's remarks or responses to the Vendor Information Packages or any individual Vendor, will be considered binding for a future contract.

1.4 CONTACT PERSON FOR QUESTIONS AND SUBMISSION

DTI is the sole point of contact with regard to all matters relating to this RFI. DTI is the only office authorized, and hereby reserves the right to clarify, modify, amend, alter or withdraw the specifications of this RFI.

All communications concerning this RFI must be addressed to the Contact Person:

James Cole
Department of Technology and Information
William Penn Building
801 Silver Lake Boulevard
Dover, DE 19904
Email: James.Cole@state.de.us
Telephone: 302-739-9586

All Vendor Information packages must be delivered in sealed envelopes to the contact person listed above. Envelopes must bear on the outside the name and address of the vendor as well as the name of the RFI.

1.5 RESTRICTIONS ON COMMUNICATIONS

Interested Vendors are to make no unsolicited contact with any DTI personnel or agency designee regarding this RFI. A Contractor currently doing business with DTI may continue to do so; however any communication regarding this RFI is prohibited.

Any Vendor causing or attempting to cause a violation or circumvention of this ethical standard may, in the sole discretion of DTI, be disqualified from further solicitations.

1.6 SCHEDULE

The following dates are set forth for informational and planning purposes. DTI reserves the right to change any of the dates. Applicable schedule changes will be posted on the central solicitation directory located at <http://bids.delaware.gov/>.

<u>EVENT</u>	<u>DATE</u>
RFI Issued	June 14, 2013
Written Questions Accepted thru (by 4:30 P.M. EST)	June 28, 2013
Vendor Information Packages due to DTI (by 1:00 P.M. EST)	July 25, 2013

1.7 SUBMISSION AND FORMAT

Vendor Information Packages should be prepared simply and economically, providing a straight-forward, concise description of the Vendor's offer to meet the requirements of the RFI. One hard copy of the package should be submitted, along with two (2) soft copy versions in Adobe Acrobat "PDF" format, on separate IBM compatible CDs or thumb drives.

Vendor Information Packages need to:

- 1.7.1 Have a cover letter on the letterhead of the company or organization submitting the Vendor Information Package. The cover letter must briefly summarize the vendor's ability to provide the specified services.
- 1.7.2 Identify a contact person and include his/her phone number and email address.
- 1.7.3 Include a Table of Contents with page numbers for each of the components of the Vendor Information Package and identify all materials and enclosures being forwarded collectively in response in the RFI.
- 1.7.4 Reply to the requirements/questions listed in Appendix A with a detailed description of how the Vendor will provide each of the services outlined in Appendix A of this RFI. This part of the Vendor Information Package may also include descriptions of any applicable and compatible enhancements, additional services or qualifications not mentioned in this RFI.
- 1.7.5 Vendor Information Packages shall be delivered in sealed envelopes, and shall bear on the outside the name and address of the vendor as well as the designation of the RFI. Vendor Information Packages should be delivered to the address listed below.**

**State of Delaware
Department of Technology and Information
801 Silver Lake Blvd
Dover, DE 19904
ATTN: James Cole**

1.8 COSTS ASSOCIATED WITH SUBMISSION

Neither DTI nor the State of Delaware shall be liable for any of the costs incurred by a Vendor in preparing or submitting a Vendor Information Package, including, but not limited to preparation, copying, postage and delivery fees, and expenses associated with any demonstrations or presentations which may be offered or accepted as a result of the RFI.

Each Vendor Information Package should be prepared simply and economically, providing a straightforward, concise description of the Vendor's ability. Emphasis should be on completeness and clarity of content.

1.9 DISCLOSURE OF VENDOR INFORMATION PACKAGE CONTENTS

The State of Delaware is a public agency as defined by state law, and as such, it is subject to the Delaware Freedom of Information Act, 29 Del. C. Ch. 100. Under the law, all the State of Delaware's records are public records (unless otherwise declared by law to be confidential) and are subject to inspection and copying by any person.

All information submitted by a Vendor may be treated as public information by DTI unless the Vendor properly requests that information be treated as confidential or proprietary at the time of submitting the Vendor Information Package. Vendors are encouraged to familiarize themselves with the provisions of the relevant laws and administrative rules governing the release of information by DTI to the public.

Any Vendor Information Package that contains information that the Vendor wishes to remain confidential must submit the "confidential" information in a separate, sealed envelope labeled "Proprietary Information". The envelope must contain a letter from the Vendor's legal counsel describing the documents in the envelope, representing in good faith that the information in each document is not a "public record" as defined by 29 Del. C sec. 10002(d), and briefly stating the reasons that each document meets the said definitions.

1.10 VENDOR STANDING FOR ANY SUBSEQUENT RFP

An RFI response is not mandatory for a Vendor to later receive an RFP and to bid on such requests. Nonetheless, as a result of the RFI submission, Vendors may jeopardize their qualifications to receive an RFP and participate in the State's bidding process if the Vendor furnishes any statement, representation, warranty, or certification in connection with this RFI or a contract resulting from an RFP that is materially false.

1.11 OWNERSHIP OF MATERIALS

Ownership of all documentary material originated and prepared for DTI pursuant to this RFI shall belong exclusively to DTI. Thus any and all documents submitted may be returned only at the option of DTI. DTI reserves the right to use any and all information contained in a Vendor Information Package to the extent permitted by law.

The Vendor will retain ownership of all intellectual property and tangible goods associated with the Vendor's presentation of their product and service capabilities.

1.12 VENDOR ETHICS AND INTEGRITY

The Vendor is obligated to meet high standards of ethics and integrity in order to be considered a qualified Vendor by DTI. These standards can be violated according to the conditions identified below:

- 1.1.1 The Vendor and employees shall not offer or give any gift, gratuity, favor, entertainment, loan, or any other thing of material monetary value to any DTI employee.
- 1.1.2 The Vendor and employees of the Vendor shall not disclose any business sensitive or confidential information gained by virtue of this RFI to any party without the consent of the Secretary of the Department of Technology and Information.
- 1.1.3 The Vendor and employees shall take no action to create an unfair, unethical or illegal competitive advantage for itself or others.

APPENDIX A

1. Introduction

DTI requests concise and detailed responses and is not interested in brochures or “boilerplate.” The response should identify any services that would be required for Next Generation 9-1-1 solutions (NG 9-1-1).

2. Response Requirements

2.1. Vendor Qualifications

You should:

- a. Include a brief history of your company’s involvement in the public safety industry and how that qualifies you to participate in NG 9-1-1 project.
- b. Provide a summation of your capabilities as it relates to systems engineering, interconnection agreements, planning, and implementation of Next Generation 9-1-1 systems, any related sub-systems, and technologies.
- c. Provide a description of your organization:
 - i. How many employees are dedicated to 9-1-1?
 - ii. How much experience does the company have at providing 9-1-1 services?
 - iii. Describe the financial stability of your company.
 - iv. Describe the organization that would support the operation of the solution.
 - v. Describe your company’s development program for new 9-1-1 service and applications.
 - vi. Please list the number of patents and patents pending for the delivery of 9-1-1 voice and/or data.
- d. Provide the following information if you are partnering with any other vendors on this response or need to establish partnerships with other vendors to provide your solution:
 - i. Vendor names, number of employees, description of financial stability, years of service in the public safety industry
 - ii. The partner’s role in your response and/or solution
 - iii. Assurances of a single point of contact solution
- e. List the number of patents and patents pending for the delivery of 9-1-1 voice and/or data.
- f. Include any activities in the past 12 months that the company has taken to advance the capabilities of 9-1-1 pertaining to new and industry leading technology (such as text messaging, cell phone pictures, and supplemental address data) to traditional 9-1-1 systems.
- g. Provide a list of current customers, especially noting cloud-based call handling deployments around the U.S., for Next Generation 9-1-1 services and a description of what services are being provided to each customer. Please note whether these customers are live on your solution today.

2.2. Regulatory Review

Providing service and solutions in the state and local government space can be challenging due to statutory requirements. The 9-1-1 world has the added complexities of tariffs and regulations unique to the industry. You should:

- a. Include a detailed description of your understanding of regulatory and political activities associated with E9-1-1 and the impact of NG 9-1-1.
- b. Detail any certifications and applicable tariffs that are on file with the State.

2.3. Network Design

DTI is interested in hearing from vendors who can provide suitable network architecture of typical network elements, future network elements, and connectivity to the PSAPs. The design must conform to industry best practices and security policies. A fully redundant network solution is required with all connectivity being of at least dual network elements that require no human intervention for failover.

You should describe and explain:

- Network Implementation
- Network Design
- Network Redundancy and Failover
- Connectivity Costs
- TSP Connectivity including existing Interconnection Agreements with Verizon and other Telecommunication Service Providers

2.4. Program Management and Communication

Please describe your Program Management methodology, including samples or explanations of:

- A communication plan for outlining the scope of services to be implemented and guidelines for the PSAP, government organizations, and TSPs within the area
- An implementation schedule
- A maintenance plan
- A training plan
- Your approach to project management after the deployment of services
- Other professional services offered

2.5. Transition

DTI is interested in how vendors plan to design and implement the required Network as well as develop and maintain the relationships necessary to provide the transition to NG 9-1-1. Describe your 9-1-1 system Network and Data transition plan for the provisioning of NG 9-1-1 Services.

2.6. Additional Questions

In an effort to identify the necessary processes and procedures that will assist DTI in the transition to NG 9-1-1 services, please answer the following questions.

Next Generation 9-1-1

- a. Please describe your strategic plan for Next Generation 9-1-1 services.
- b. Please describe your plan for supporting the evolution to a NENA i3 end-state.

Call Flow

- a. Please describe the Next Generation 9-1-1 call flow for all Telecommunication Service Providers (TSPs).
 - i. a. Normal operation
 - ii. Geographic diversity
 - iii. Network failure, catastrophic
- b. Please describe the call flow for supplemental data, text messaging, and alarms.
 - i. Please describe how the text messaging and supplemental data is presented to the call taker and their workflow in handling voice calls, text messages for assistance and data calls concurrently, through a single user interface.
 - ii. Please describe the logging process for text messaging and supplemental data.
 - iii. Please describe the reporting and statistics capabilities to generate comparisons in call volumes and handling times between land line, cellular and text.
- c. Please describe how call transfers to legacy PSAPs are performed.
- d. Please describe how bridging to PSTN is performed.

GIS

- a. Please describe your experience managing GIS data for 9-1-1/public safety agencies.
- b. Please describe your capabilities to support a geospatial MSAG.
- c. What solutions or services do you have for coalescing, accuracy checking, maintaining and provisioning GIS data for local, regional or state NG 9-1-1 implementations?
- d. What is your recommended GIS data format and software platform?
- e. Please describe your call handling GIS application(s). What is the architecture, platform, design strategy, etc?

Call Routing

Please describe your capabilities for dynamic, geospatial call routing.

Reporting and Metrics

Please describe your reporting and metrics capabilities.

Support and Warranty

- a. Please describe your monitoring and support plan.
- b. Please describe your maintenance and warranty plan.

- c. Do you own the software included in the solution?
- d. Did you develop the software included in the solution?
- e. Please confirm that all patents, rights and permissions required for your NG 9-1-1 call routing solution are in place at the time of the RFI response submission.
- f. You must confirm that the NG 9-1-1 call routing solution contains no patent conflicts and in cases of such situations, formal agreements are in place with the patent owner prior to the submission of this RFI response. Please explain any current patent litigation pertaining to your NG 9-1-1 call routing solution that is in progress and the impact of that litigation to your solution.

NG9-1-1 System Survivability and Availability

It is a requirement that your NG 9-1-1 call routing solution not require down time for routine or anticipated maintenance; the system as a whole must remain operational and able to deliver calls as designed.

- a. Please describe your survivability and availability capabilities.
- b. Describe your solution's redundancy to ensure highest level of system availability.

Additional Services Roadmap

- a. Please describe your 9-1-1 text messaging solution. Has this solution been implemented anywhere to date? If so, how long has it been in production?
- b. Please describe your solution for delivering cell phone pictures and Additional Data to the PSAP call taking workstation.

IP Connectivity and Network SLA

- a. Please describe your ability to provide IP connectivity for voice and data to CPE providers.
- b. Does your solution support standards based SIP interfaces for connecting to the PSAP CPE?
- c. Please describe how your solution supports NENA i3.
- d. Please describe in detail your managed services capabilities to provide a managed MPLS network for public safety applications.
- e. Please describe in detail your service level agreement for a managed MPLS network. Include items such as response times and resolution times in the event of service outage.
- f. Please describe your solution in terms of network diversity.

Regulatory

- a. Are you a certified telecommunications provider in the state of Delaware?
- b. Please describe your state and federal regulatory experience specifically for public safety policies impacting PSAPs.
- c. Please describe in detail the interconnection agreements that you have for 9-1-1 call delivery in Delaware.

Industry Standards

- a. How does your solution comply with NENA data standards? How does your solution comply with Alliance for Telecommunications Industry Solutions (ATIS), Internet Engineering Task Force (IETF) and other NG 9-1-1 industry standards?
- b. What contributions has your company made to the advancement of industry standards? On what industry bodies and committees does your company have a presence?
- c. Your solution must be compliant with the version of the NENA i3 standard in effect at the time of system implementation. The only exception would be if an updated version of i3 has been officially published in the 18 months prior to implementation. Describe how your system would meet this requirement.
- d. Vendors must provide i3 compliance for current, and any future i3 ratified standard released by NENA, throughout the term of an agreement with no incremental fees throughout the life of an agreement. Please describe how your solution would meet this requirement.

2.7. Cloud Based Call Handling Services

The State is seeking information about cloud-based call handling solutions. All core elements of the call handling solution must be housed and maintained outside the state. Specifically, the core call handling elements must be hosted outside of a 300-mile radius for survivability. In addition, the redundant core elements must be separated by a distance such that no one single catastrophic event can disable both data centers.

- a. Please describe how your call handling solution meets these requirements. Specifically discuss how your cloud-based core elements are regionally separated enough such that events with a wide area impact such as Super Storm Sandy, the north east earthquakes, and Hurricane Irene cannot affect availability.
- b. Please describe the amount of equipment that would be required to reside in the backroom of each PSAP.
- c. Please describe what equipment would reside at the workstation or at each call taker position.
- d. Please describe how your solution may integrate and utilize existing call handling equipment in the state.
- e. How will administrative lines and ring down lines be terminated?
- f. How will 9-1-1 trunks be terminated to the call handling equipment?
- g. Please describe the solution's ability to scale up or scale down.
- h. Please indicate how many deployments you have operating in a live production environment based on the cloud-based, regionally separated, model above; include names and contact information of reference sites.
- i. The State requires that the call handling telephony system be provided as a service. Specifically, the State is NOT seeking to lease or purchase call handling equipment, including workstations, keyboards, headsets, etc. All equipment must be owned and maintained by the vendor.
 - i. Please describe software and hardware update process, including any anticipated fees.
 - ii. Please describe the hardware replacement process in case of hardware failures.

- j. The State requires that its resources have the ability to deploy virtual workstations enabling the call takers to do their job at any point on the network. Please describe how your solution meets this requirement.

Call Handling Support and Warranty (Cloud Based)

- a. Please describe your monitoring and support plan for cloud-based call handling solution.
- b. Please describe your maintenance and warranty plan for the call handling solution.
- c. Do you own the call handling software included in the response?

Call Handling Survivability and Availability (Cloud Based)

- a. Please describe your call handling system's survivability and availability capabilities.
 - i. The system must have no single points of failure. Furthermore loss of any one redundant component must not cause the loss call and data delivery to all operational call handling positions. To this end the State desires that dual network architecture be maintained to each and every answering position. For example, loss of a single PSAP LAN switch should not cause the loss of any call taking position capabilities. Please describe how your solution accomplishes these requirements.
 - ii. In the case of a soft-switch failure, please describe failover capabilities of your solution, including time to restore for an in-progress call.
- b. It is a requirement that your system does not require down time for routine or anticipated maintenance; the system as a whole must remain operational and able to deliver calls as designed.
- c. It is a requirement that the solution must be delivered to the State PSAPs via a private, public safety grade network. Please describe your solution redundancy to ensure highest level of system availability.
- d. Please describe overflow capabilities that the solution provides in the event of regional catastrophic event in Delaware.
- e. In the event of catastrophic loss of PSAP facilities in Delaware, describe how your abilities to triage and redirect calls from your cloud based centers to the PSTN and designated alternate locations within the State.

Transition Plan Details (Cloud Based)

For transition plans pertaining to cloud based solutions:

- a. Describe how legacy features will be supported during the transition period.
- b. Describe how your solution will support legacy interoperability with legacy networks.
- c. Provide details regarding where these transition services are in place and how long they have operated in a production environment.

Data Management (Cloud Based)

Per the NENA i3 transition recommendations, ALI services will be required for some time to come as it is unknown how long it will take for carriers to implement their own Location Information Servers (LIS).

- a. Please describe your data provisioning, management, and data integrity process.
- b. Do you use any outside vendors for data management?
- c. Describe your Automatic Location Identification (ALI) database transition plan.

- d. Explain how your solution will integrate with the State's existing ALI database service provider.

Security (Cloud Based)

- a. Please describe your security processes.
 - iii. Data security
 - iv. Network security
 - v. Physical plant security
- b. It is a requirement that your system must incorporate monitoring that will detect abnormal traffic indicative of a security problem, such as a breach or compromised system. Describe how your system will meet this requirement.

2.8. Fee Structure

The State is trying to determine potential financial advantages and disadvantages of premise based versus cloud based solutions.

Please describe your solution's fee structure. Please make sure that all fees over the term of an agreement are covered, examples may include up-front installation fees, one time project management fees, software license fees, GIS professional services fees, warranty fees, software evergreen fees, transport fees, equipment fees, maintenance fees, etc. For each type of fee, please detail if it is a one-time fee, annual fee, or monthly fee. Do NOT provide solution specific pricing for your described solution.

2.9. Other

Please include anything unique in your suite of services that may add value to the solution.