New York State Department of Transportation
Request for Information
Number 2018-01
for
GIS-Based Road Status/Damage Assessment (RSDA) Software Application

QUESTIONS AND ANSWERS
May 17, 2018

General RFI Questions:

1. We saw the posting of NYSDOT’s RFI for the GIS-based Road Status/Damage Assessment Software and wondered if you know where we should submit questions and/or our final response to?

   ANSWER: Yes, please e-mail all RSDA RFI #2018-01 questions and responses to alfred.hasenkopf@dot.ny.gov. The designated contract person for RFI #2018-01 is:
   
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   New York State Department of Transportation
   Contract Management Bureau
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2. What is the potential procurement timeline for this project? Is NYSDOT trying to issue a full solicitation for this project before the end of the year?

   ANSWER: The state is presently considering its options to upgrade NYSDOT’s RSDA system. Should NYSDOT decide to procure via an RFP, all parties who responded to RFI #2019-01 shall be notified via e-mail.

3. Will there be a “Recent Designation” penalty and “Workload” related penalty for future assignment selection if we were selected for this project?

   ANSWER: No. This is not a NYSDOT A/E project; should NYSDOT procure for RSDA services, an Non-A/E Best Value Request for Proposals would be processed, not an engineering selection process.

4. Will NYSDOT invite RFI respondents in following submittals for discovery meetings and demonstrations?

   ANSWER: It is at NYSDOT’s discretion regarding whether to hold follow-up RFI demonstrations as well as to which vendors NYSDOT seeks additional information via demos. Requesting responses to written clarification questions is another option.
5. Would the NYSDOT consider the use of drones for capturing detailed damage information?
   ANSWER: This product is intended for use by field staff for gathering data.

6. Who is the provider for 511NY and what platform is the solution currently based on?
   Answer: The current provider for 511NY is the IBI Group. The vendor hosts all software and hardware, incorporating Data Collection Management and a Data Fusion Engine to collect and process data from multiple NYS Agency data sources.

7. Does NYSDOT currently use DisasterLan?
   ANSWER: NYSDOT populates GIS layers to New York Responds (a rebranded version of DisasterLan) provided across the State through the NYS Office of Emergency Management.

8. Does 511NY utilize web services or is it consuming databases, flat files and other data types? Please describe the API and/or web services, database ETL or other methods that are supported by 511NY for data exchange.
   ANSWER: The 511NY application receives data and images from multiple sources and in multiple ways, including manual input, xml data, webservice calls, image data, and raw traffic/incident/road condition data pulls from multiple sources. 511NY has a developer portal. You can find all information regarding the API at: https://511ny.org/developers/resources and https://511ny.org/developers/help.

9. Is there a not-to-exceed budget established for this project? If so, can NYSDOT share budget details?
   ANSWER: It is not NYSDOT’s policy or practice to release budget information regarding its competitive non-engineering contracting opportunities. NYSDOT prefers to allow the marketplace to freely estimate costs for such projects based on the RFP’s requirements and a vendor’s business model.

10. Can you provide a sample report(s) that you’d like the software to generate? How many different reports will the software need to generate?
    ANSWER: The NYSDOT is interested in exploring reporting capabilities for a possible solution. Specific examples of required reports are not available at this time, but a potential solution is expected to include ad hoc query capabilities (e.g., how many roads are currently closed, current road status grouped by County, etc.).

11. Do you want cost estimating capability built into the reports? i.e. The cost of repairing damaged infrastructure?
    ANSWER: Specific reporting needs for the RFI 3.2.6 functionality have not been defined at this time. NYSDOT is interested in exploring capabilities that are available.
12. Is there a preference for an on-premise vs. cloud hosted solution?
   ANSWER: Both on-premise and cloud hosted solutions are being considered; an externally hosted cloud solution would be preferred at this time.

13. Will all users of the field/office solution be NYSDOT staff, or will some be contractors?
   ANSWER: Initially, data-entry users will all be NYSDOT users. The information will be shared with our state and local partners in a “view only” mode. We may choose to give municipalities access to the system for their local infrastructure in the future.

14. What is the average and maximum number of anticipated concurrent field users?
   ANSWER: The maximum number of anticipated concurrent field users might be 50 and it is possible to not exceed 100.

15. What is the average and maximum number of anticipated concurrent office users?
   ANSWER: The maximum number of anticipated concurrent office users might be 50 and it is possible to not exceed 100.

16. Does NYSDOT use Active Directory Federation Services (AD FS)?
   ANSWER: Yes. Agency (internal) user authentication must leverage Active Directory Federation Services (ADFS). External users and citizens (business entities and public) that are not integrated through ADFS must use ny.gov ID accounts. NY.gov ID is an online service that allows you to use your user ID and password to sign in securely to NY.gov ID participating government online services.

17. Has NYSDOT reviewed any COTS products for this project? Has any vendor given demo of their product to NYSDOT for this project? If so, which vendors?
   ANSWER: NYSDOT has received demos from the IBI Group, Buffalo Computer Graphics, ESRI, Crisis Track, and MSAR. Additional demos are possible after consideration of RFI #2018-01 responses.

18. Can you confirm NYSDOT has an ELA for Esri that includes ArcGIS Desktop, ArcGIS Server, ArcGIS Online and Portal for ArcGIS?
   ANSWER: NYS has an ELA for Esri that includes ArcGIS Desktop and ArcGIS Enterprise. NYS Office of Information Technology Services is implementing an on-prem ArcGIS Enterprise 10.6.x environment, including ArcGIS Portal, ArcGIS Server and the ArcGIS Data Store.

19. What version(s) of ArcGIS software are you running?
   ANSWER: The NYSDOT GIS environment is currently being upgraded from 10.3.1 and 10.4.1 to 10.5.1 and 10.6.x

20. If you have an enterprise database, is it MS SQL Server or Oracle? If so, what version?
ANSWER: NYS Office of Information Technology Services supports Oracle 12c and MS SQL Server. The NYSDOT enterprise geodatabases are currently being migrated from Oracle 11g to MS SQL Server 2016.

21. Will one type of hardware/OS be used across the whole state or will a mix of devices and operating systems likely be used?
   ANSWER: A mix of devices and operating systems are used across NYS. The NYS Office of Information Technology Services supports Android, iOS, and Windows mobile devices.

22. If using tablets, will they have LTE cellular connections? Or will they rely on mobile hotspots?
   ANSWER: Tablets will have LTE cellular connections.

23. Can NYSDOT share the database schema for the current RSDA for review?
   ANSWER: The current RSDA database schema is not expected to be perpetuated. The NYSDOT is looking for alternative solutions. All data elements to be included in a potential solution are listed in the Field Sheet attached to this RFI and should also include, at a minimum, the elements found in Form FHWA-1547.

24. With regard to RFI Question 8: “What type of licensing or sharing arrangement would you envision if the department elects to share the system with local governments for their own use?” When you mention “local governments” are you limiting access to counties or wanting to open up potential access to all municipal governments in the state?
   ANSWER: Initially, NYSDOT would need the ability to share a view only (Status board) to partner state agencies such as the NYS Office of Emergency Management, State Police, etc. NYSDOT may choose to allow municipalities access to this product in the future.

25. In the RFI document it mentions the current RSDA system. Is it possible to get a little information about the current RSDA system, such as the current vendor, expiration date and contract documents?
   ANSWER: The NYSDOT purchased their current RSDA system from a vendor who is no longer in business. Contract documents will not be distributed.

26. What are the approximate number of users expected during an event?
   ANSWER: The approximate number of concurrent users during an event could be 100.

RFI Section 3.1 Mobile Application Questions:
27. Can you please describe the users that would be interacting with the mobile application?
   ANSWER: The mobile users would primarily be damage assessment teams in the field. These teams may be composed of members from Design, Operations, and Maintenance.

28. Does NYSDOT utilize Mobile Device Management (MDM) Software today to manage
mobile devices issued to DOT employees today?
ANSWER: The NYS Office of Information Technology Services uses the MobileIron MDM software to manage mobile devices issued to NYS users.

29. How often will NYSDOT update offline basemaps for mobile data collection? Monthly, Quarterly?
ANSWER: Current practices during an emergency are to publish a zipped Esri Geodatabase twice a day for mobile users; desktop users may retrieve the current geodata at any time.

30. Will devices be explicitly issued for disaster response or will the devices be the full-time devices issued to state employees?
ANSWER: Devices will be the full-time devices issued to state employees.

31. What procedures will be utilized for updating digital forms and mobile devices? Will a sampling of devices be exercised or will all devices be exercised to ensure they are in working order and ready for a disaster response?
ANSWER: The process of updating digital forms is to be determined. It is the Department’s desire to have the ability to update forms when determined necessary. If the Department does not have this ability, the vendor will be responsible for making necessary updates. Most devices used will be already assigned to individuals. These devices will be regularly updated by the owner of the device. Devices not assigned to an individual will be updated by Regional Staff.

32. Who will use the mobile devices and approximately how many users are anticipated to collect data during a disaster response?
ANSWER: Mobile devices will be used by Department staff in design, operations, and maintenance. The number of users will depend on the scale of the event. It is anticipated that approximately 50 field users may be collecting data for larger events. This number may rise if the Department decides to give access to affected municipalities in the future.

33. Are employees entrusted with mobile devices permitted to download applications from the mobile device specific app stores (Apple, Google, Microsoft) or do they have to get approval and or download apps from NYSDOT approved servers?
ANSWER: Employees can download applications through their Apple ID. They are to follow the Department’s Policy on Mobile Device Usage while using their device.

**RFI Section 3.2 Web Based Interface Questions:**
34. Can you please describe the users that would be interacting with the web application?
ANSWER: Resident Engineers, Traffic Management Center Operators, ICS Staff and Executive Management as well as other DOT staff would all be users of the web application.
35. The web-based interface and mobile interface have some overlapping technology (e.g., photo upload, roadway status, infrastructure damage). If both applications were fully functional, how do you see them working together within the context of the total solution? Would data flow from the mobile solution through the web solution or are they completely independent data inputs for different users?

ANSWER: The web-based interface and the mobile interface would work together. Information captured by the field staff would be able to be viewed by staff using the web-based interface. Users of the web application will need the ability to modify and update existing field data or enter in new information in areas where there is limited connectivity.

36. Section 3.2.1: ‘Users must be able to select begin and end points on a road map, generate, and save the road segment between the points. A routing engine is most likely required to provide this functionality but alternatives can be suggested.’ Can you expand on this requirement? Why do you need to generate road segments?

ANSWER: Detailed requirements are not complete regarding this requirement. The following examples may provide some context.

Example 1: A segment of roadway is 1.5 miles long. Part of the road is flooded during an event. Following the event, part of the pavement that was flooded has been damaged. It is important to identify the exact segment of damaged roadway to be repaired/replaced for cost estimation purposes.

Example 2: Damages to road assets have resulted from an incident and one or more roadways are closed. There may be a need to provide those responsible for fixing the damage with an alternate route to travel to the damage. There may be a need to provide the traveling public with alternative routes to reach their destinations.

37. Where do pictures and sketches come from in for the Web based interface? Are these the same photos and sketches collected in the field? Or would the user of the web interface be carrying a digital camera or clipboard with the ability to sketch a drawing that would have been scanned and uploaded?

ANSWER: The pictures and sketches in the web based interface come from the field. The web based users should also have the ability to upload pictures and make sketches as needed.

38. Who uses the web based interface? Is this someone in an operations center field phone calls from partners like State Police, National Guard, Local Police, DOT Employees etc.?

ANSWER: Initially Resident Engineers, Traffic Management Center Operators, ICS Staff and Executive Management as well as other DOT staff would all be users of the web application.

RFI Section 3.3 Situational Data Questions:

39. Is location information such as County, Town/Village, Route#, Road, Location Description, Begin and End Log required at the time a survey is collected or can this data be obtained using post processing?

ANSWER: Integration with existing NYSDOT geodata should enable access to County,
Town/Village, Route#, Road, and Reference Marker location information at the time a survey is collected. Location Description should be captured at the time that the survey data is entered.

40. In situations where surveys are offline is it expected that the field user will have all necessary assets loaded for the area they are working in?
   ANSWER: It is expected that the field user will have all the necessary assets loaded for areas they are working in. When the user loses network connectivity, it is expected that the product continues operating normally, storing information internally. This information will automatically be uploaded when the device reestablishes connectivity.

41. How large of an area will Disaster Response field workers be working in? Approximately, 1 county, district, or many counties etc.
   ANSWER: The approximate area a field worker would be assigned to would be no larger than a county. This does not mean that the user would stay within county lines. Users may cross into different counties while performing field work.

42. Are there examples of the reporting submitted to the federal government for reimbursement? If so can we see how the data is submitted and its data exchange format/protocol? Is the submittal done via digital upload of data or is it paper based?
   ANSWER: The information submitted for FHWA funds is available on Form FHWA-1547.

43. What types of analysis and reporting are done today if any?
   ANSWER: Current reporting capabilities are very limited. Please refer to questions 9 and 10 above.

**RFI Section 3.4 Technical Capabilities Questions:**

44. In response to RFI Section 3.4 number 2, the geospatial platform for 511NY, what are the data types or services that this application consumes (e.g. geojson, web mapping services, etc.)?
   ANSWER: The 511NY application receives data and images from multiple sources and in multiple ways, including manual input, xml data, webservice calls, image data, and raw traffic/incident/road condition data pulls from multiple sources. The interface for a future RSDA solution would be based on/configured for the output from that solution.

45. With regard to 3.4.4, will NYS DOT allow for licensing procured under a different agreement(s) to be leveraged in this solution?
   ANSWER: In the event that NYSDOT determines an RFP will be issued for the purchase of a solution, this information may be provided. At this time, the NYSDOT is only seeking to determine potential solutions to inform that decision.

46. What spatial accuracy is required for GPS location (centimeter, decimeter, subfoot, submeter, etc.)?
ANSWER: Detailed spatial accuracy requirements for GPS location have not yet been defined. The NYSDOT is interested only in gathering information about existing or potential solutions at this time. To the extent that respondents to this RFI can share their product’s level of spatial accuracy, this information should be included in the response.