

DUE TO CURRENT WEATHER CONDITIONS IN SOME PARTS OF THE U.S., MN/DOT IS EXTENDING THE DEADLINE FOR PROPOSAL SUBMISSION TO:

WEDNESDAY, 02/09/2011 2:00 PM Central Standard Time

1. Based on the complexity and short time frame can we request a two week extension?

~~Extending the due date would reduce the amount of time left to conduct the project work. Mn/DOT will not grant an extension due to the tight timeframe for completion of the work.~~

After further discussion, Mn/DOT is willing to extend the deadline until 2/4/11. See changes to timeline below:

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12 Process Schedule is modified as follows:

12.1	Deadline for Questions	01/20/2011 2:00 PM Central Standard Time
12.2	Posted Response to Questions	01/24/2011 2:00 PM Central Standard Time
12.3	Proposals due	01/28/2011 <u>02/04/2011</u> 2:00 PM Central Standard Time
12.4	Anticipated proposal evaluation begins	01/31/2011 <u>02/07/2011</u>
12.5	Anticipated proposal evaluation & decision	02/15/2011

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All responses must be received not later than 2:00 p.m. Central Standard Time on ~~01/28/2011~~ **02/04/2011**, as indicated by the time stamp made by the Contract Administrator. **Please note that Mn/DOT Offices have implemented security measures.** These procedures do not allow non-Mn/DOT employees to have access to the elevators or the stairs. You should plan enough time and follow these instructions for drop-off:

- Enter through the Rice Street side of the Central Office building (1st Floor).
- Once you enter through the doors, you should proceed to the first floor Information Desk.
- **Proposals are accepted at the first floor Information Desk only.** The receptionist will call the Contract Administrator to come down and to time stamp the proposal. Please keep in mind Mn/DOT is very strict on the proposal deadline. Proposals will not be accepted after 2:00pm.

2. Due to the time of year and delays in RFP release schedule, would Mn/DOT consider a two week extension to proposal due date.

Answer: See Question #1.

3. What is Mn/DOT's anticipated budget for this project?

Answer: Mn/DOT is not disclosing this information to Responders.

4. The Enterprise GIS Server Architecture Diagram indicates you at the ArcGIS 9.3x Product release level. Do you have plans to update to the ArcGIS 10x Product release and do you know the timeframe?

Answer: Mn/DOT will be migrating to ArcGIS 10 by mid-year 2011.

5. Given that the 2 application template functional areas have not yet been determined, is it OK to provide T&M for those portions of the project with a not-to-exceed amount based on our experience and work with other similar projects while providing lump sum payment terms for the remainder of the project? Please recognize that this means it is possible for MN DOT to desire an application template that cannot be completed with the allotted hours.

Answer: Additional information on the requirements for these 2 reference applications has been provided in question #46 below. Use a fixed price approach based on deliverables.

6. Given that some of the desired mobile platforms may provide benefits from development environments other than Java or Javascript, is there going to be a negative impact on the evaluation of a proposal that recommends a different development environment?

Answer: No

7. Can the solution be developed using ArcGIS 10?

Answer: ArcGIS 10 can be used.

8. How many Mobile users are there currently at Mn/DOT? Of this combined total, which departments do they support and what are their user counts?

Answer: Currently, approximately 100. Expected to grow to several thousand.

9. Does MnDOT use external contractors to support their data collection workflows? If so, will consultant be required to review their data collection support workflows?

Answer: Not a requirement

10. Section 1.1: Does Mn/DOT currently have any mobile hardware standards in place?

Answer: No

11. Section 1.2 refers to 12 mobile based projects completed or in the queue. Can you list the business case for each mobile based project? Will these 12 mobile applications be reviewed during the requirements gathering and design phase and revised to meet the new standards and included as a template in the new framework?

Answer: These applications will be reviewed as part of the requirements gathering for the project, but all will not be revised as part of this project. One or two may be part of the implementation (section 1.1.3).

12. Section 1.1 and 1.3: indicates that the framework and associated processes must be designed to optimize the equipment in the mobile environment. Can you provide a specific list of Smartphones that will be included?

Answer: We expect the frameworks and processes to drive the hardware selection. As stated in section 1.1, this framework will be for smartphones, PDAs, GPS receivers, notebooks, laptops, tablets, etc.).

13. Section 1.1.3: This section refers to 2 applications based on business cases as well as “template applications”. Is there a difference between the template application and the 2 applications to be developed or are these one in the same?

Answer: They are the same.

14. Section 1.1.3: Would you please clarify the difference between the terms “mapping data” and “standard data collection” as used in the context of the 2 business cases?

Answer: Mapping Data refers to the field grade asset data that has a spatial location associated.

Standard data collection refers to data collected or consumed to a mobile device that does not have a spatial location associated.

15. Section 2.1.1: Is it Mn/DOT intent to conduct all stakeholder interviews at the Mn/DOT facility in Saint Paul or will selected contractor be required to travel to Mn/DOT field offices for stakeholder interviews?

Answer: Up to approximately two (2) stakeholder interview meetings may be in St. Cloud and the remaining will be in the Twin Cities Metropolitan Area.

16. Would you please indicate the location of the interviews and number of staff at each location that will be interviewed?

Answer: We estimate approximately 50-100 stakeholders. We anticipate approximately 8 interview groups. However, the number of stakeholders per interview, number of interviews, and interview schedule can be a recommendation in the responding vendors proposal. Stakeholder availability must be considered.

17. Section 2.1.2: Would you please provide a copy of the Mn/DOT template required for requirements documentation?

Answer: A sample of some templates that may be used are provided (Use Case Strd.doc & RequirementsDocStrd.doc). These may be modified as needed and agreed upon by the Mn/DOT Project Manager and the selected responder. The templates included in the set used for the project may be recommended by the responding vendor.

18. Section 2.2.2: Can you provide a list of the GIS layers and business systems data that is currently updated through mobile data collection?

Answer: A sample of the GIS layers and business systems data currently updated through mobile data collection are as follows:

- ADA (American Disabilities Act) Data;
- Sign Data;
- Hydraulic Features Data.

19. Does the business system data reside in the Spatial Data Warehouse? Is this an Oracle based data warehouse?

Answer: The Business system data today resides in a variety of formats with some in the Spatial Data Warehouse, but new data structures will be designed to exist in the Spatial data Warehouse for spatial data. The spatial data warehouse is an Oracle Database. Non-spatial data will be stored primarily in business system databases that are can be in a variety of databases.

20. Do you use mobile data collection to update your centerline data?

Answer: No

21. For each asset type being considered for collection through a mobile application delivered through this procurement, can you provide a count of the number of records already in a database and the total number of assets when fully collected?

Answer: No. The intent of this procurement is to develop a Reference Application(s) that will provide a template for Mn/DOT's extension of future mobile applications.

22. For each asset type being considered for collection through a mobile application delivered through this procurement, can you provide the size (in MB) of the database containing existing records and the total estimated size (in MB) when the asset type is fully collected?

Answer: Unknown

23. Section 2.3.1: Does Mn/DOT currently have 2 specific business case candidates identified for implementation? If so, what are they?

Answer: No. The vendor shall provide a solution/standard for mobile device encryption.

24. Section 2.4.2: Does Mn/DOT have a standard security protocol in place for on-device encryption?

Answer: No. This should be recommended by the responder.

25. Section 3.2.3: This section references iterations. Are these prototype iterations as referenced in 2.3.2?

Answer: Section 3.2.3 states that an iterative approach must be used for the project (i.e. rather than a waterfall approach). The work included in each iteration should be part of the recommended work plan of responding vendor.

- 26. Section 3.2.6: Would you please clarify what Mn/DOT's expectations for the "process-improvement sessions" entail?**
Answer: This would be a meeting with the selected responder and the Mn/DOT project team to go over what part of the project process worked well and what needs improvement. Based on the results of this meeting, the process for the next iteration will be adjusted for improvement.
- 27. Section 3.3.2: This section makes reference to a "Requirements Management Plan". Does Mn/DOT have a template required for this plan? If so, would you please provide a copy?**
Answer: This should be recommended by the responder.
- 28. Section 3.5.1: What software does Mn/DOT use for Concurrent Version Management (CVS)?**
Answer: This should be recommended by the responder.
- 29. Section 3.5.6: What version of Oracle is Mn/DOT requiring for implementation?**
Answer: Current version is Oracle 10g upgrading to 11g. 11g will be implemented.
- 30. Section 3.6.5: Does Mn/DOT have template standards for Test Plans? If so, would you please provide a copy?**
Answer: Mn/DOT has some templates. Those used for the project will be agreed upon by the selected vendor and the Mn/DOT Project Manager.
- 31. Section 3.10: Does Mn/DOT have template standards for the Risk Management Plan? If so, would you please provide a copy?**
Answer: This should be recommended by the responder.
- 32. Section 3.12.4: Would you please outline the required change and configuration management process requirements?**
Answer: Under a project we conduct deployment meetings with technical staff and stakeholders to review and implement changes.
- 33. Section 3.13: Does Mn/DOT have template standards for QA and Test Management? If so, would you please provide a copy?**
Answer: Mn/DOT has some templates. Those used for the project will be agreed upon by the selected vendor and the Mn/DOT Project Manager.
- 34. Section 5: Is it correct to assume that the terms "Mapping Grade Data" and "Mobile Data" are interchangeable with "mapping data" and "standard data collection"?**
Answer: Yes. "Mapping Grade Data" is the same as "mapping data", and "Mobile Data" is the same as "standard data collection".
- 35. Section 5 (Task 2) RFP references asset categories. How many categories are there?**
Answer: This will be identified in the stakeholder meetings.
- 36. Section 6.7: Would you please clarify Mn/DOT's testing and acceptance criteria?**
Answer: As stated in the statement of work, acceptance criteria for the project as a whole and for each iteration will be developed with the full participation of the business and technical team and end-users. Such criteria will be established at the start of the iteration and/or project and formally assessed at the end of the iteration and/or project. The iteration and/or project will not be considered payable until acceptance criteria have been satisfied and approved by Mn/DOT.

37. Section 11.2.1: Would you please clarify the project schedule including project start date and milestone dates? Appears to be a typo in bullet 2 of 11.2.1.

Answer: There is a typo in bullet 2 of 11.2.1. This due date should be 6/30/11, not 6/3/11. All other milestones listed in the statement of work are correct.

38. Section 3.25 - Can MN DOT define what “acceptance criteria” is applicable to consulting engagements as referenced in this section?

Answer: There is no section 3.25 in the statement of work. Acceptance criteria are explained in section 4.

39. Is there a specific format that MNDOT would like the exceptions and comments to be provided in?

Answer: This should be recommended by the responder.

40. Section 8.4 MN/DOT IT staff must be able to understand and apply all deliverables within the current Mn/DOT environment with a reasonable expenditure of effort- what is the expectation of “reasonable”?

Answer: Mn/DOT will provide 1 mobile development staff for at approximately 25% during the duration of the project. Database, network, and other technical staff will be scheduled as required by the project - 10%.

41. To streamline the contracting process the Contractor is recommending reuse of previously agreed upon contractual terms and language that is incorporated into an existing master agreement with the State- how should the Contractor reference such in its’ response back to MnDOT?

Answer: Pages 31 – 39 of the SOW show the sample work order contract that will be issued from this SOW. This work order contract is issued in accordance with the master contract each firm signed.

42. Will data captured in the field always have a spatial component?

Answer: No

43. Smartphones have data storage limitations. Can you list examples of data you plan to have offline for these mobile devices or will smartphones always use live connections to the server?

Answer: This solution requires connected and disconnected users.

44. Can you expand on how you see the Checkout/Checkin process working? Will the checked out data belong to that user or will it just be downloaded to the mobile device?

Answer: Downloaded to the device and reported back to the database. It should be expected devices will access networks whenever possible.

45. For the two delivered applications, are we to deliver the applications for all of the target mobile devices?

Answer: Yes

46. For the Implementation phase, we are to construct two applications, but have no specs on what those applications are. Can we get detailed specs in order to quote costs?

Answer:

These will be Reference Applications that will include the following major requirements in addition to those listed in applicable sections of the statement of work including section 2.3 and section 5:

- *Based on Stakeholder requirements, create a Departmental mobile technology decision matrix, with specifications for hardware, OS (operating system), technology, data, and network. Use this decision matrix for the reference applications.*
- *For the mobile device application implement network connected and disconnected data collection and sharing. Disconnected data collection must store the data locally to the device until such time a service connection can be made between the mobile device and the network. A SOAP or REST service is needed to support the data transmission between the mobile device and Oracle database. Connected data transmission over a browser or application must do the same.*

- *Implement your recommended user Active Directory authentication and authorization solution(s) for the devices that may include Window's based tablets, GPS Trimble devices, Android, iOS devices and Blackberry.*
- *Implement the methods and best practices for encryption you recommend on the device for data and application transmission.*
- *Use the documentation you develop to deploy a mobile cross platform application using standard communication across platforms that includes receiving data and maps, updates from the field, and sync updates through web services.*
- *Implement your recommended standard Interface (API) specification to support communication of data and data structures from source business systems to/from a mobile database.*
- *All external communication must go through a reverse proxy.*

47. The only development standards listed are for Java. Is it assumed that all applications will be built with Java? Some of the target platforms listed do not directly support the Java development environment including iPhone and Windows Mobile (when using ArcGIS Mobile).

Answer: This should be recommended by the responder.

48. Will this system need to track field assignments/jobs? If so, is there the need for centralized administration to manage the assignment and review of jobs?

Answer: This is dependent on the requirements identified during the project.

49. Does the department expect a mapping component as part of this project? If so, please provide specifics on the expectations.

Answer: Yes. This will be determined during the stakeholder interviews to identify requirements.

50. Can you clarify "not tightly coupled with a COTS application"? For example would it be acceptable to base the mapping solution on ESRI software products?

Answer: Yes

51. Our understanding is that the Department is seeking a solution that would entail building a separate framework for each of the required devices (iPhone, etc.) due to the fact that the development environment is different for each device; then, a central server-based application would be used to define an application template which can then be deployed to any of the devices, and interpreted by the device without any changes to the framework on the device. Can you confirm this is the Department's intention?

Answer: Yes

52. What is the expected budget for this project?

See Question #3.

53. Regarding Item 17 on page 21, seven copies of the response are requested, with the cost proposal provided in a separate sealed envelope. Is one copy of the cost proposal sufficient, or does the Department request seven copies of the cost proposal as well?

One copy of the cost proposal.

54. Considering that the responses will be posted only around Jan 24th, can you please extend the deadline for submission of proposals to Feb 4th, 2011. We sincerely request you to grant this extension so that vendors can provide a beneficial solution to the State.

Answer: Yes

55. General: Please clarify whether this contract will be based on Time & materials based on hours expended by the vendor team members or fixed price based on deliverables

Answer: Fixed price based on deliverables

- 56. Other than for those activities for which State requires onsite presence at MNDOT facilities, can vendor propose to develop the project deliverables from out of our development facilities in Canada? Will State allow this?**
Answer: Responder's may propose work out of the US. Location of Service is part of the rating criteria. In order to properly assign points for this criteria make sure that you are including all of the information requested in the Location of Service form.
- 57. Does MNDOT/State have any preference with respect the target Operating System – Android Vs iOS VS Windows?**
Answer: We need an open - common platform to support data and application streaming to many devices.
- 58. Section 1.2: Can you please provide a list of current mobile apps and their platforms? Please also provide on how long are they have been in use and what are some of the critical lessons learned from current deployment that must be applied in the new project.**
Answer: Our goal is to have a vendor recommend a solution for a standard mobile data collection framework and processes, etc., based on industry best practices and independent of any current implementations at Mn/DOT.
- 59. Were the current 12 mobile applications developed in house using State employees or did the State contact with any development vendors for developing these applications? If the State utilized any third party contactors, can you please provide the contracting firm names>**
Answer: Our goal is to have a vendor recommend a solution for a standard mobile data collection framework and processes, etc., based on industry best practices and independent of any current implementations at Mn/DOT.
- 60. Do any of the current mobile apps already use GPS capabilities? If so, please list those apps and details of GPS/GIS platform (software tools and plugins if any)**
Answer: Our goal is to have a vendor recommend a solution for a standard mobile data collection framework and processes, etc., based on industry best practices and independent of any current implementations at Mn/DOT.
- 61. What is the target user base for MNDOT mobile apps?**
Answer: Mn/DOT employees, business partners, and citizens related to the Transportation Industry.
- 62. Test Equipment for development team?**
Answer: This will be dependent on the overall proposal.
- 63. Section 1.1.1: Is the Business Requirements to be gathered with respect to one specific system or potentially multiple systems?**
Answer: Multiple systems.
- 64. Schedule: SOW specifies project start date as 1/11; considering the SOW has just been issued please confirm that the target milestone delivery dates will be adjusted based on project start date. Based on proposal submittal date of 1/28/11, what should we assume as the project start date?**
Answer: The project will start immediately, upon execution of the contract.
- 65. Section 1.1.3: For the 2 Business Cases for which we should develop and implement mobile apps, can you provide an estimate of how many mobile screens we should budget for?**
Answer: This will be dependent on the overall proposal.
- 66. Is MNDOT targeting at Tablet platforms (iPad, Android tablets like Samsung Galaxy) OR is MNDOT targeting at Smartphone based platforms (iPhone, Android Phones like Samsung, Motorola etc.)**

Answer: Both

- 67. Is MNDOT looking to support multiple support platforms and develop frameworks for each such target platform (similar to Banking applications being available for iPhones, Android , Blackberry etc) or will it be a single technology platform?**

Answer: This should be recommended by the responder.

- 68. Can you provide a brief overview of Mapping Grade Standards – the description of process and how it applies to mobile data collection?**

Answer: Mapping grade standards refer to the positional accuracy for an asset in the field. The recommendations and positional accuracy for field assets will be discovered by stakeholder input. It is expected the vendor provides positional accuracy standards, along with recommended hardware, software, and correction methods to meet positional accuracy standards.

- 69. Section 2.1.1: Will vendor team members be required to travel to any other field locations other than MN DOT facilities in St. Paul? If so, please list the locations?**

Answer: The stakeholder interviews will be limited to facilities in the Twin Cities Metropolitan Area. Specific locations within this area have not yet been determined.

- 70. Section 2.1.1: Will MNDOT pay vendor any travel to such additional facilities for project purposes?**

Answer: Yes. These costs should be included in the proposal.

- 71. Section 2.2.4: Has MNDOT performed any initial research of hardware products that conform to the requirements pertaining**

Answer: No

- 72. Section 2.7.2: Some of the accessibility standards may not be achievable in a typical mobile deployment since it is mostly touch and icon driven. What are State's expectations w.r.to Accessibility standards? Can you share your experiences in complying with these requirements based on the already existing 12 mobile applications?**

Answer: There should be no problem finding all of the various types of mobile data collection devices that are fully accessible, which can for example be verbally driven, rather than just touch and icon driven.

There may be, however, instances where the type of work that will need to be done on mobile data collection devices, may require certain minimal physical and/or sensory abilities, which may not be suited for all individuals.

- 73. Section 3.2: Please clarify whether the requirements in section 3.2 would apply? This seems to apply to general application development. However in this SOW, MNDOT has already prescribed the milestones and development sequences. Hence the question.**

Answer: Section 3.2 does apply to this SOW, whether business analysis, design, or implementation work. All iterations will not involve implementation work.

- 74. Section 3.4.1: Please confirm that the database design and data dictionary would only apply to the 2 Business Cases for which we would be developing a mobile application.**

Answer: Regarding the framework, it will be broader than the 2 business cases used for the reference applications.

- 75. Section 5 (Page 10): Are Mobile Data and Mapping Grade Data two system within which 2 specific Business Cases will be picked for development within this Project?**

Answer: One will include mobile data and one will not.

- 76. Section 5: Can you provide a list of processes and functions within the scope of Mobile Data?**

Answer: This should be recommended by the responder.

77. Section 5: Can you provide a list of processes and functions within the scope of Mapping Grade Data?

Answer: This should be recommended by the responder.

78. Section 2.1.1 Is the State's anticipation of 8 stake holder meetings for both Mobile Data and MPG put together or would it be 8 stakeholders meetings for each of the systems?

Answer: This should be recommended by the responder.

79. Resources: Are there any constraints with respect to number of onsite personnel we can assign to the project activities onsite? How many people can you accommodate?

Answer: No. There are not constraints on the number of people we could accommodate.

80. Section 6 SOW specifies that some of the project activities will be executed from offsite. We assume this would be vendor facilities. To support this, will State provide VPN access to State network and development environment during the project?

Answer: We provide Citrix to the desktop, not VPN.

81. Will State provide test equipment and associated development and testing software (like mobile phones, tablets etc. along with corresponding developer kits) based on platforms chosen for implementation ?

Answer: Yes

82. Will State provide all hardware and software needed to execute project activities during the time our team members are located onsite at MNDOT facilities?

Answer: The State will provide PCs, Microsoft Office software, and access to printers for on-site project activities.

83. Does State want the vendor to use specific templates for project deliverables like Detailed Requirements Document, Architecture Design document, Deployment Plan, Testing Plan etc or is it expected that Vendor templates will be used for the project?

Answer: Use State templates where in existence, otherwise use vendor templates approved by the Mn/DOT Project Manager. State templates with vendor modifications may also be used if approved by the Mn/DOT Project Manager.

84. In relation to the above question if vendor will be using State provided templates, please provide a copy of the templates so that we have a clear understanding of the level of detail State is expecting from the vendor.

Answer: A sample of some templates that may be used are provided (Use Case Strd.doc & RequirementsDocStrd.doc). These may be modified as needed and agreed upon by the Mn/DOT Project Manager and the selected responder. The templates included in the set used for the project may be recommended by the responding vendor.

85. Section 11.2.1: Please clarify – is the Conceptual Design and Recommendations due date June 3, 2011 or June 30 2011. It appears like a typo since the remaining milestone items are due on 6/30/2011. Please clarify.

Answer: The Conceptual Design and Recommendation is due June 30, 2011.

86. Please confirm that the Implementation milestone and deliverable will only include ONE business case application to Mobile Data and ONE business case applicable to Mapping Grade Data

Answer: Yes, this is correct.

87. Based on information provided in the SOW< we can not assess the size and complexity of the business case to be chosen for implementation under Mobile Data and Mapping Grade Data. Can you provide any

sort of estimation basis such as number of functions, data elements, list of processes or list of current screens used in the business case etc. that would help us assess the size and complexity of the development effort?

Answer: No

88. Please provide a list of all processes and functions to be included in Mobile Data system

Answer: This should be recommended by the responder.

89. Please provide a list of all processes and functions to be included in Mapping Grade Data system

Answer: This should be recommended by the responder.

90. State has provided the Java Development standards in the SOW. Based on this we assume that the basic development platform will be Java based and potentially any mobile specific application development platform based on the chosen platform. Please confirm our understanding.

Answer: This is not a correct assumption. This should be recommended by the responder.

91. Knowledge Transfer: SOW states "Complete presenting training that provided Mn/DOT staff with the skills and knowledge to successfully implement all project deliverables. This training followed the project approach for training in sections 3.9 and 3.16." Can you please clarify as to what you are referring to under 3.9 and 3.16. This clause is not quite clear.

Answer: This should be corrected to eliminate the last sentence as follows for both the mobile data and mapping grade data deliverables:

"Complete presenting training that provided Mn/DOT staff with the skills and knowledge to successfully implement all project deliverables. ~~This training followed the project approach for training in sections 3.9 and 3.16.~~"

92. Knowledge Transfer: Please clarify whether Knowledge Transfer only includes transfer of knowledge pertaining to the project deliverables or does it also include training on the use of the mobile application?

Answer: Knowledge transfer only pertains to the project deliverables.

93. Please provide the number of State personnel to whom knowledge transfer must be provided on a Train the Trainer basis

Answer: Knowledge transfer should be conducted for the following roles: Software Developers, 1 Database Administrator, System Administrator, and Network Administrator. The selected responder should work side-by-side with Mn/DOT staff through out the implementation, providing knowledge transfer in the process. A 1-one day classroom session should also be provided at the end of the 2 implementations for all of these roles at a Mn/DOT facility.