Florida Department of Transportation
719 S. Woodland Boulevard
DeLand, Florida 32720-6834

RICK SCOTT
GOVERNOR

MIKE DEW
SECRETARY

Questions and Answers

ADVERTISEMENT NUMBER: RFP-DOT-17-18-5011-ICMM
DESCRIPTION: Integrated Corridor Management Modeling Software
DATE: March 21, 2018

---

1. Would it be possible to obtain the required forms (pp 86 to 99 of the RFP PDF document) in editable format, i.e. Word or Excel?

   Answer: Not all of the forms are available in editable documents. Editable versions of pages 92 through 99 can be found on our FTP site at the following link: https://ftp.fdot.gov/public/folder/sYG1UKI5D0_ZwXpYsT8qbg/RFP-DOT-17-18-5011-ICMM

2. Which specific adaptive traffic signal control system(s) would need to be emulated (requirement 2.2) ?

   Answer: Trafficware systems and Rhythm Engineering

3. Which specific emissions model would be used to provide environmental assessments (requirement 2.8) ?

   Answer: No specific model is specified, but the expectation is that environmental assessments are possible from the software. Describe the emissions outputs that are already provided from your product in meeting requirement 2.8.

4. Requirement 2.9 is very general, can the specific ITS devices be listed?

   Answer: In general see the ICMS Concept of operations. But the list of the type of devices includes but is not be limited to – Traffic Sensors, Traffic Signals, VMS/DMS signs, Ramp Metering, AVL, Electronic tolling, Express Lanes with variable toll rate?

5. For requirement 5.1, should we assume to use the total base regional macro model network's statistics (nodes and links) divided by 4 as the threshold for the quarter size, as opposed to a quarter of the area?

   Answer: No.

6. RFP Page No A-1, (section 1.0 paragraph 2). The COTS modeling software will consist of, but not be limited to; **mesoscopic modeling, microscopic modeling, real-time modeling and offline modeling** to meet the operational requirements of the PRE and the DSS, as part of the ICMS. The COTS modeling software will also provide the platform for the development of the planning model to be associated with the system.

   Mesoscopic modeling has not a clear definition in literature. We understand it as a dynamic largescale transportation modeling and simulation which allows detailed modeling of each intersection where traffic signal plans can dynamically change and have an impact on the simulated flows and speeds. Please confirm.

   Answer: If you meet the other requirements and functionality that would meet the mesoscopic requirement

7. RFP Page No A-4, (section 2.1, bullet point 3b). For signal LOS, queue length, or travel time deviation alarms, or for periodic offline optimization, the ERE identifies the adjacent signals to be analyzed as a group and sends this selected group to the PRE for optimization using the deterministic model and evaluation within the predictive traffic simulation model.

   Is the RFP requesting that the selected vendor implements the deterministic model to optimize traffic lights inside its modeling software in order to use it in the offline simulation? Or is it to be used also online? Please confirm. In case the deterministic optimization algorithm is already implemented, can the winning vendor get the code? Which coding language has been used in case?

   Answer: No, the expectation is that the offline simulation will evaluate the recommended changes to the traffic signals that will be provided to the model by the deterministic model. It is not expected to be used online. The Vendor's software is not responsible for coding the deterministic optimization algorithm into their software.

8. RFP Page No A-6 (section 2.2 paragraph 4). It is anticipated that some elements of the planning model would require the development of APIs. Any API development would be the responsibility of the VENDOR as part of the maintenance and support of the software.

   We understand some API must be developed. Can we expect that your system integrators (SwRI) will send and receive the data and control commands according the current existing vendor API and future APIs, yet to be developed, for the missing part? In other words will the system integrator of the ICMS project take care of reformatting the data to be compliant with our API? Who will own the new APIs?

   Answer: The system integrator will be responsible with reformatting the data to be compliant with Vendor API formats. Any developments funding through this project including APIs will be the property of FDOT.

9. RFP Page No A-6 (section 2.2 paragraph 5). As part of the Contract, the VENDOR will be required to provide details as requested by the DEPARTMENT in the **development of a model development plan** that is expected to outline the details for the development of the offline model. The plan should detail how the model is being developed following the United States Department of Transportation's (USDOT) guidelines and should cover the following sections: o Network Development
   o Travel Demand Development o Value of Time o Network Calibration Criteria o Model Validation Criteria o Model Enhancements and APIs o Gap Analysis

We assume the subsequent model development tender will incorporate the Model Development Plan that we propose (i.e. the model specification and requirements) to ensure the underlying model(s) to be developed are Fit for Purpose. Can you confirm?

Answer: Yes

10. RFP Page No A-8 (section 2.3.1 paragraph 3). These predictions should be run in under 5 minutes using a mesoscopic simulation with enough fidelity allowing the system to calculate the benefits of changes to signals, ramps, and incorporation of strategies like **transit signal priority**.

    Can you please specify which type of transit signal priority strategy you have in mind? Is it about a selection of a set of traffic signal plans to give more capacity to the transit corridor or it is requested to simulate the presence of transit vehicles and implement an algorithm inside the PRE to simulate the approach to the intersection, the dynamic priority at a specific moment in the future, and the evolution of the estimated time of arrival at stops taking into account the predicted condition?

    Answer: See addendum #1.

11. RFP Page No A-9 (section 2.3.3 paragraph 1). The third role of the PRE component will be to simulate and provide the MOEs for the optimized signal timing plans and coordination that will be developed by the Signal Optimization Tool (SOT) that will be part of the ICMS.

    What are SOT specifications?

    Answer: See the ICMS requirements as part of the ICMS ITN. SOT has not been developed yet.

12. RFP Page No A-15 (section 5.2.19 paragraph 1). The VENDOR will provide COTS modeling software that will be able to run up to 50 concurrent real-time models.

    What is the nature of these concurrent runs, e.g. different concurrent scenarios, variations, seeds etc.?

    Answer: The nature of this statement is to not limit the number of response plans or evaluations that would be requested of the system due to a limitation on the licensing of the software.