

DELAWARE DEPARTMENT OF TRANSPORTATION

REQUEST FOR PROPOSALS



**Delaware Department
of Transportation**

CONTRACT No: 1783

MOBILE APPLICATION ENHANCEMENT SERVICES

Delaware Department of Transportation

PROPOSAL DUE DATE/TIME:

3:00 PM Wednesday July 27, 2016

Proposals are to be delivered to Contract Administration, Delaware Department of Transportation, 800 Bay Road, Dover, Delaware 19901 by **3:00 p.m.** (Local time) on proposal due date shown above.

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REQUEST FOR PROPOSALS

MOBILE APPLICATION ENHANCEMENT SERVICES

1. OVERVIEW AND AUTHORITY

1.1. Purpose

DelDOT is looking for a highly-qualified mobile application developer with public-facing transportation industry experience to create a new app or revamp their existing app (currently available through Google Play and iTunes). DelDOT is looking for a forward-thinking development team that has the expertise to create an app that will remain at the forefront of the transportation industry.

1.2. Intent

The intent of this RFP is to select a Mobile Application Developer to replace or improve the current mobile application currently being used in Delaware as described herein. In addition, the selected Vendor shall be responsible for testing and maintenance of the application including provisioning of all hardware, software, and ancillary equipment required. The Department seeks responses from Vendor interested Bidders that have demonstrated prior experience in implementing solutions of similar size and scope in other transportation industries.

The selected Vendor will be required to coordinate with the State's Department of Technology and Information (DTI) in accordance with Department requirements.

The Department anticipates that this intent will be served by selection of one Vendor to perform the requested services, but the Department reserves the right to issue multiple awards if it is deemed to be in the best interests of the Department. The term of this agreement will be for one (1) year from acceptance of the solution.

1.3. Scope

The scope of the engagement will include, but not be limited to, architect/developer services to assess the current mobile application environments, recommend, migrate and implement the future mobile application including its infrastructure and design that will meet DelDOT's needs and resources. In this context, "resources" should be assumed as both human and financial, and may include primary considerations such as on premise vs. externally hosted. DelDOT prefers an agile development approach with a useable, functional, released product at the end of every sprint with an initial phase completion date in December 2016. The Department may consider additional phases as are referenced in Appendix B and C of this document.

This document contains general information relating to the procedural requirements in the preparation of proposals to the Department, performance requirements, and Vendor characteristics which must be met in order for a proposal to receive consideration. This document should not be considered an all-inclusive list of Vendor responsibilities, existing functionalities, stakeholders and requirements. The Vendors shall be responsible for any

liability or cost incurred in connection with responding to this request for proposal. All Vendors shall fully bear the costs associated with pre-contract activities, including but not limited to, proposal preparation, negotiations, and/or proposed contracts.

1.4. Authority

This Request for Proposals is issued pursuant to 29 Del. C. §6982(b).

1.5. Questions

Should proposers have any questions as to the intent or meaning of any part of this proposal, they must contact the Department as indicated below no later than the date specified in Section 1.11 to guarantee a reply. All questions and Department responses will be posted on the State's website periodically at <http://bids.delaware.gov>, and become part of the agreement. The Department will not identify the firms submitting questions. Questions should be submitted in the following format:

- Section number
- Paragraph number
- Page number
- Text of passage being questioned
- Question

It is the responsibility of the proposer to check the State's procurement website <http://bids.delaware.gov> often for addenda, questions and answers, and other information concerning this solicitation. All questions concerning this RFP should reference RFP 1783- Mobile APP in the "Subject line" and must be submitted to the following email address:

DOT.profservices@state.de.us

No other Department Division, or employee may be contacted, and responses from such other person shall have no effect on this solicitation. To ensure that written requests are received and answered in a timely manner, electronic mail (e-mail) correspondence is the preferred method of communication.

1.6. Intent to Bid

Interested Bidders shall submit, via email no later than July 1, 2016, a response to the email address referenced in Section 1.5 with RFP 1783- Interested Bidder in the subject line. The Bidders contact information shall be included in the body of the email, along with a statement of intent to bid.

Should interested Bidders determine after submission of their email of intent to bid that this project is not feasible for them, a courtesy email indicating such shall be sufficient.

1.7. Right to Amend

The Department reserves the right to amend or supplement this RFP, giving equal information and cooperation by way of an issued addendum to all Vendors as a result of any such amendment.

1.8. Liability for Errors

While the Department has used considerable efforts to ensure an accurate representation of information in this RFP, the information is supplied solely as a guideline for interested Bidders. The information is not guaranteed or warranted to be accurate by the Department nor is it necessarily comprehensive or exhaustive.

Bidders acknowledge and understand that it is their responsibility to obtain clarifications concerning this RFP, and that failure to understand the terms of the RFP will not be considered a valid reason for any resulting non-compliant rating.

1.9. Use of the RFP

The RFP document or any portion thereof may not be reproduced or used for any purpose other than the preparation of proposal submissions by the requesting Bidder without the expressed, written consent of the Department.

1.10. Vendor's Expenses

Bidders are solely responsible for any expenses they incur in preparing, delivering or presenting a response to this RFP, and for subsequent negotiations with the Department, if any.

1.11. Timeline

Provided below is a list of critical dates and actions. These dates are subject to change. Notice of changes will be posted on the State of Delaware Bid Solicitation Directory at www.bids.delaware.gov under this RFP. It is the responsibility of all interested Bidders to monitor this site for any changing information prior to submitting your proposal.

Action	Date	Local Time
Email notification of intent to bid submitted to Prof Services email by interested Bidders	07/01/2016	4:30 PM
Final Date to Submit Questions in time to receive answers	07/13/2016	4:30 PM
Proposal Submission Date	07/27/2016	3:00PM
Bidder (Presentations/Demonstrations) week of *	08/15/2016	TBD
Anticipated Award	09/30/2016	4:30 PM

*NOTE: If necessary, Department requested demonstrations are anticipated to be held during the week listed above. Bidders selected to participate in demonstrations will be notified via email.

1.12. Formal Contract

The selected Vendor shall promptly execute a contract prepared by the Department that shall incorporate the terms of this RFP within twenty (20) days after award, unless an extension of time is mutually agreed upon by both parties. The Vendor is not to begin

any work prior to receipt of a Notice to Proceed (NTP) from the Department. The proposal submitted by the Vendor shall become a part of the contract.

1.13. Contract Terms

The following contract terms shall be included in the Vendor’s contract with the Department:

1.13.1 Hold Harmless

The Vendor agrees that in the event it is awarded a contract, it shall indemnify and otherwise hold harmless the State of Delaware, its agents and any employees from any and all liability, suits, actions, or claims, together with all costs, expenses for attorney’s fees, arising out of the Vendor’s, its agents’ and employees’ performance of work or services in connection with the contract.

1.13.2 Insurance

The Vendor recognizes that it is operating as an independent vendor and that it is liable for any and all losses, penalties, damages, expenses, attorney’s fees, judgments, and/or settlements incurred by reason of injury to or death of any and all persons, or injury to any and all property, of any nature, arising out of the Vendor’s negligent performance under this contract, and particularly without limiting the foregoing, caused by, resulting from, or arising out of any act of omission on the part of the Vendor in their negligent performance under this contract.

The Vendor shall maintain such insurance as will protect against claims under worker’s compensation act and from any other claims for damages for personal injury, including death, which may arise from operations under this contract. The Vendor and its officers, employees, and agents are independent vendors and are not employees of the State of Delaware.

The Vendor shall secure and furnish to the Department a certificate of insurance evidencing regular liability, property damage, worker's compensation, and automobile insurance coverage from an insurance company authorized to do business in the State of Delaware. The State of Delaware Department of Transportation shall be named a certificate holder on the certificates of insurance. The insurance agency shall provide the Department with 30 days’ notice in the event the policy is canceled or not renewed.

During the term of this contract, the Vendor shall, at its own expense, carry insurance minimum limits as follows:

a.	Comprehensive General Liability	\$1,000,000/\$3,000,000
b.	Medical or Professional Liability	\$1,000,000/\$3,000,000
c.	Misc. Error & Omissions	\$1,000,000/\$3,000,000
d.	Product Liability	\$1,000,000/\$3,000,000
e.	Automotive Liability Insurance covering all automotive units in the work with limits of not less than \$100,000 each person	

	and \$300,000 each accident as to bodily injury and \$25,000 as to property damage to other
f.	The Vendor shall maintain such insurance as will protect against claims under Worker's Compensation Act and form any other claims for damages for personal injury. The Vendor is an independent contractor and is not an employee of the State of Delaware.

NOTE: The State of Delaware shall not be named as an additional insured.

1.13.3 Indemnification

Notwithstanding the information contained above, the Vendor shall indemnify and hold harmless the State of Delaware, the Department, and its employees from contingent liability to others for damages because of bodily injury, including death, that may result from the Vendor's negligent performance under this contract, and any other liability for damages for which the Vendor is required to indemnify the State, the Department and its employees under any provision of this contract.

The Vendor shall indemnify, defend, and hold harmless the State of Delaware and the Department, their agents, officers and employees from and against all claims, damages, losses and expenses, including court costs and reasonable fees and expenses of attorneys arising out of or resulting from any adjudication by a third party against Department holding that any services performed under this contract infringe a copyright or other intellectual property right or violate a trade secret.

1.13.4 Discrimination

In performing the services subject to this RFP the Vendor agrees that it shall not discriminate against any employee or applicant for employment because of such individual's race, marital status, genetic information, color, age, religion, sex, sexual orientation, or national origin. The Vendor shall comply with all federal and state laws and policies pertaining to the prevention of discriminatory employment practices. Failure to perform under this provision constitutes a material breach of contract.

1.13.5 Certification

The Vendor certifies that it has not employed or retained any company or person other than a bona fide employee working for the selected firm, to solicit or secure the contract and that he has not paid or agreed to pay any company or person other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift or any other consideration, contingent upon or resulting from the award or making this contract. For breach or violation of certification, the Department shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

1.13.6 Contract Termination and Suspension

The Department may terminate the contract at any time upon written notice to the Vendor. In that event, all finished or unfinished documents, data, studies, drawings, maps, models, photographs, reports, or other material prepared by the Vendor in the performance of the contract shall, at the option of the Department, become Department property, and the Vendor shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents and other materials which are usable to the Department.

The Department reserves the right to suspend the process or the contract due to funding or other constraints that may temporarily impact the Department's ability to complete the project implementation.

1.13.7 Contract Documents

This RFP (including any written questions and Department responses), the executed Contract between the Department and the Vendor, and the Vendor's proposal to the Department, shall constitute the Contract between the Department and the Vendor. In the event there is any discrepancy between any of these contract documents, the following order of documents govern so that the former prevails over the later: Contract, then RFP (including any addenda to the RFP and any written questions and answers), then oral presentations to the Department, then Vendor's proposal, then the purchase order(s) issued by the Department. No other documents shall be considered. These documents contain the entire contract between the Department and the Vendor.

1.13.8 Laws of Delaware

The Laws of the State of Delaware shall apply, except where Federal Law has precedence. The Vendor consents to jurisdiction and venue in the State of Delaware.

1.13.9 Business License

The Vendor must have a valid Delaware business license in order to receive payment for services.

1.13.10 Contract Scope

If the scope of any provision of this Contract is too broad in any respect whatsoever to permit enforcement to its full extent, then such provision shall be enforced to the maximum extent permitted by law, and the parties hereto consent and agree that such scope may be judicially modified accordingly and that the whole of such provisions of the Contract shall not hereby fail, but the scope of such provisions shall be curtailed only to the extent necessary to conform to law.

1.13.11 Employee Solicitation

The Vendor shall not solicit any Department employee or vendor for employment during the period of this contract. The Vendor shall not engage on this project on a full-time, part-time or other basis during the period of this

contract any retired or former employees of the Department without the written consent of the Department. The Vendor shall cause the foregoing provisions to be inserted in any subcontract for any work covered by this contract so that such provisions shall be binding upon each vendor acting as a subcontractor to the awarded Vendor, provided that this shall not apply to subcontracts for standard commercial supplies or materials.

1.13.12 Contract Work

Should the Vendor fail to furnish any item or items, or fail to complete the required work included in the contract in an acceptable timeframe, the Department reserves the right to withdraw such items or required work from the operation of the contract without incurring further liabilities on the part of the Department.

1.13.12.1 If the Department finds that the Vendor has made errors in completed project deliverables such that the deliverable is not accepted by the Department in accordance with the criteria specified, the Vendor shall make such revisions as necessary. The Department's project manager shall make this determination. The Vendor shall correct the errors so that the deliverables are acceptable to the Department's project manager. The errors shall be corrected without cost to the Department.

1.13.12.2 If the Department and the Vendor agree that any work not identified or reasonably envisioned in the original scope of work, but integral to this project needs to be performed, a proposal shall be prepared by the Vendor. The cost of the additional work must be agreed to by both parties. The contract shall be amended to include the proposal and the Department's acceptance.

1.13.13 Disclosure, Confidentiality

The contract shall include disclosure provisions prohibiting the Vendor from divulging any information obtained during the work activities for the Department. Every member of the Vendor's team that shall require access to the State of Delaware or Department networks must sign and comply with the State's Acceptable Use Policy, security, and confidentiality policies. The Department shall have final determination if individuals are acceptable.

1.13.14 Payment Milestones

Payments will be authorized upon completion of pre-approved project milestones. The Department must concur and certify satisfaction of each milestone prior to payment authorization. Invoices shall be paid within 30 days of an approved invoice. Procurement of any goods, services or documents not specifically listed in the contract shall require prior written approval from the Department. All costs are subject to audit review by the Department.

The Department has established the following payment milestones, with corresponding recommended payment thresholds for each:

- Submission of DTI/Architecture Review Board (ARB) Requirements and Design Coordination documentation (up to 5% of phase price)
- Delivery per sprint (up to 65% of phase price, all sprints)
- Final Documentation, including the agreed-upon Service Level Agreement (up to 90% of phase price)
- Completion of Warranty Period (up to 100% of phase price)

Sprint delivery is defined to be the availability of functional, tested, released and deployed code meeting all defined story points per sprint. Vendor may propose an alternative milestone payment schedule which shall be subject to final negotiations and approval by the Department. Payment for maintenance services will be made in monthly installments, beginning upon completion of the warranty period.

The Vendor shall provide a spreadsheet to accompany each billing. The information reported shall be on a cumulative basis with each invoice submitted for the duration of the contract and shall include, but not be limited to, the task or milestone, a brief description of the current project status, explanation of expenses, amount billed to-date for each milestone, and the amount of funding remaining under the existing contract limit. The Vendor must provide sufficient billing documentation to allow the Department to properly code expenditures, and provide sufficient documentation and audit trail.

1.13.15 Access to Records

The Vendor shall maintain all books, documents, payrolls, papers, accounting records and other evidence pertaining to this contract and make such materials available at its offices at all reasonable times during the period of this contract and for a minimum period of three years after final payment by the Department and shall make the material available upon request for inspection and audit by the Department. The Vendor is required to comply with all reasonable requests and supply information and documentation pertaining to this project to Department authorized auditors.

1.13.16 Standard Practices

The Vendor(s) shall be responsible for ensuring that all products and deliverables furnished to the State are coordinated with DTI and are consistent with practices and standards promulgated by DTI. If any service, product or deliverable furnished by the Vendor(s) does not conform to DTI standards and/or general Practices, the Vendor(s) shall, at its expense and option either (1) replace it with a conforming equivalent or (2) modify it to conform to DTI standards and/or general practices. See Section 4 and Appendix F for additional information regarding DTI requirements.

1.14. Cloud And External Hosting

All vendors that include an external hosting service shall be responsible for complying with the Terms and Conditions for Cloud Providers and External Hosting Terms and Conditions listed in:

- a. <http://dti.delaware.gov/pdfs/pp/CloudandOffsiteHostingPolicy.pdf>
- b. [PDF version of the State's Terms and Conditions - Public data](#)
- c. [PDF version of the State's Terms and Conditions - Non public data](#)
- d. [21 Steps to the Cloud](#)

1.15. Cyber Security Liability

It shall be the duty of the Vendor to assure that all of the products of its effort do not cause, directly or indirectly, any unauthorized acquisition of data that compromises the security, confidentiality, or integrity of information maintained by the State of Delaware. Vendor's agreement shall not limit or modify liability for information security breaches. In addition to all rights and remedies available to it in law or in equity, the State shall subtract from any payment made to Vendor all damages, costs and expenses caused by such information security breaches.

1.16. Compliance with State Law

- 1.16.1 It is the responsibility of the Vendor to give all notices and to obtain all permits and licenses, and to remit all taxes as required to perform work in the State of Delaware.
- 1.16.2 The Vendor must comply with all federal, state, and municipal legislation which may have application to any future work or performance of a contract.
- 1.16.3 The Vendor must comply with all state and federal legislation affecting conditions of work and wage rates including any Delaware Employment Standards Act and/or Workers Compensation Act or any other laws that impose obligations in the nature of employers' obligations.

2. BACKGROUND INFORMATION

2.1. Project Overview

The Department is issuing this RFP to select a Vendor to assess the current mobile application environments, make a recommendation, migrate and implement the future mobile application, assuring that will meet DelDOT's needs and resources. In this context, "resources" should be assumed as both human and financial, and may include primary considerations such as on premise vs. externally hosted.

DelDOT prefers an agile development approach with a useable, functional, released product at the end of every sprint with an initial Phase 1 completion date in December 2016. This application will expand the geographic scope and effectiveness of Delaware's current application.

2.2. Project Goals and Objectives

The goals and objectives of Delaware's Mobile Application Enhancements are summarized below and shall begin with Project Kickoff Meeting, to be scheduled by the Department and held within 15 calendar days of contract execution at a location convenient to the State. The remainder of the project is anticipated to move forward as follows:

- a. Assessment of the current DeIDOT mobile application installation (Phase 1 only) to provide a successful migration path for a new product for the DeIDOT enterprise
- b. Development of a Mobile Application project plan
- c. Iterative development and releases of a Mobile Application
- d. System Test Plan and Procedures

2.3. Conditions

The following conditions exist for this RFP:

- 2.3.1 The new/enhanced application must interface with State and Federal systems through web services.
- 2.3.2 The State of Delaware will own the enhancements, have a license for all system software, and may eventually be responsible for maintaining the solution.
- 2.3.3 A client/server or web based platform utilizing proven technologies such as .Net or Java is preferred.
- 2.3.4 An industry standard relational database such as SQL Server or Oracle is preferred.
- 2.3.5 Successfully implement an on premise and/or leverage a cloud-based or hybrid Mobile Application solution to meet the requirements of DeIDOT.
- 2.3.6 The existing Department network and leased wireless service will be utilized to support the system. Department network assets include, for example, the State's fiber optic network. Vendor will be responsible for providing all software and server-based hardware required to support the new/enhanced application. Vendor agrees to work with the State to coordinate the additional work outside of the scope of this RFP to fully implement the Mobile App enhancements.
- 2.3.7 The system will meet all applicable federal and State requirements.

3. SCOPE OF WORK

3.1. Project Approach

The selected Vendor shall be responsible for coordinating with the Department's Project Manager as described herein. All equipment provided shall be new; refurbished or reconditioned equipment shall not be acceptable.

3.2. Project Management Requirements

The Vendor shall be responsible for meeting all of the Project Management requirements specified in this RFP. This shall include, without limitation:

- 3.2.1 Development of project management deliverables (e.g., Project Management Plan, Project Schedule, Quality Assurance Plan). See Section 5.11 Section V. for additional information about project documentation requirements.
- 3.2.2 Progress reporting. Biweekly Project Status Reports, to be delivered to the State's Project Manager. The report shall identify issues, risks, and changes, and describe progress within the framework of critical success factors such as major and minor defects and resolutions, and organizational change acceptance;
- 3.2.3 Project meetings. Vendor Project Manager shall convene monthly project coordination meetings as necessary for the duration of the project. Vendor shall also be required to participate in DTI and ARB meetings on an as-needed basis.
- 3.2.4 Project invoicing shall be in accordance with the payment milestones outlined in RFP Section 1.13.14.

3.3. Project Requirements

- 3.3.1. Assessment of the current DelDOT mobile application installation (Phase 1 only) to provide a successful migration path for a new product for the DelDOT enterprise. This includes, but is not limited to, assessing current map graphics and determining the measurement for ease of use to be used as a baseline for comparison to an enhanced product. As part of this assessment, the state will provide vendor with the code base of the current version of the app.
- 3.3.2. Development of a Mobile Application project plan which includes the following:
 - a. Communications Plan;
 - b. Training Plan;
 - c. Implementation Plan, to consider a Beta version to enable public feedback;
 - d. Stakeholder Management Plan;
 - e. Plan for requirements management across phases, including ability to produce subsequent proposals based on new requirements;
 - f. Pricing and overall strategy and plan for both long-term support and enhancements.
- 3.3.3. Iterative development and releases of a Mobile Application as defined herein using best practice design and development principles. Best practice design and development include but are not limited to **Android Developer Material Design specification**, **Android Developer Accessibility Guidelines**, **Apple Developer Human Interface Guidelines**, and **Windows Store Policies**.
- 3.3.4. System Test Plan and Procedures: Vendor shall provide a verification matrix that maps each requirement herein (both product and project scope verification) into the following phases, using the methods specified in Appendix B and C:

Definitions of Test Phases:

- a. “U” signifies a requirement verified at the Unit level. Unit level testing occurs at the functional unit (or object) level, and verifies that certain input states of the unit of code produce the desired output states. Unit level testing may also include hardware item incoming inspections to verify what was ordered was indeed received.
 - b. “I” signifies a requirement verified at the Integration level. Integration testing occurs with the combination of multiple units of code interactions, as well as unit of code interaction with external systems. Hardware interfacing is also to be considered for this level of test.
 - c. “S” signifies a requirement verified at the System level. System testing is the highest level of Integration testing, and includes attempts to “break” the system through potential customer interaction, as well as security and OS/Middleware-based specified interactions on a System basis;
 - d. “A” signifies a requirement verified as a part of the Customer’s independent Acceptance Testing. This is based upon agreement with the Customer, and it is advisable to have tested requirements as part of previous levels.
 - e. “P” signifies a requirement verified after the application or system has been implemented or cut over. This is likely system-based testing, and may be a re-run of certain System level tests to verify configuration between pre-production and production environments.
- 3.3.5. Final Test Plans, which shall include the Verification Matrix, is to be provided during Planning phases and is a deliverable subject to State review and approval; In addition to the Verification Matrix, the Test Plans shall include definitions of critical, major and minor defects.
- 3.3.6. Project schedule (MPP), aligned with the Phase 1 completion date of December 2016. The planning phase MPP is to be delivered at the project kickoff meeting for approval by the State, and the execution phase MPP is a deliverable of the initial Planning phase, also subject to approval by the State.
- a. The schedule will be also updated monthly, delivered as part of the Vendor’s monthly status report in PDF format.
 - b. The MPP shall include % complete by activity and clear identification of critical path. The MPP shall also reflect expected effort by State resources by task and identification of the resource by specific name (preferred) or by knowledge area, and take into account the role of end user feedback (for example, at the end of each sprint).
- 3.3.7. Provide and implement a support model for IOS, Android and Windows phones and tablets that includes monitoring app ratings and comments, routing the content of the public commentary (e.g., from Google Play) to appropriate State mailboxes for responding. DelDOT intends for the vendor to fully manage the production app using a support model described in an agreed-upon Service Level Agreement between the vendor and DelDOT.

3.4. Testing

- 3.4.1 This Scope of Work (SOW) requires the completion of all work to the satisfaction of the Department. The Vendor shall carry out all tests required to demonstrate compliance with this SOW, the functional and technical requirements, and that the mobile application enhancements are fully operational in all respects. As required, the Vendor shall provide an overall Acceptance Test Plan at the time of the Final Design Submission, and Acceptance Test Procedures (ATP) for the components of the application at least thirty (30) days prior to the test date(s). After Department approval, these ATP tests shall be conducted in conjunction with Department representatives and the results documented. After the completion of all tests, and the delivery of all contract deliverables, Final Acceptance shall occur.
- 3.4.2 The Vendor shall be responsible for providing an IT Systems Test Plan in a State-approved functional test environment. IT system testing shall be conducted for the Test System and Production environments. Vendor may be required to be on-site during development and installation of the test and production environment.
- 3.4.3 Equipment and subsystem component power on and associated testing shall be accomplished by the Vendor. As equipment is brought on line, the Department shall be kept updated about progress and next steps in the acceptance testing process.
- 3.4.4 The Vendor is responsible for a fully operational application at the contract price.
- 3.4.5 On-line Demonstration and Production Testing – This testing is to be performed along with Department prior to the commencement of the thirty (30) day testing and acceptance period. The purpose of this testing is to provide definitive proof that the Mobile Application is providing the necessary functionality and that the solution is capable of meeting the long-term reliability and performance requirements of this RFP. Testing of all equipment and the system furnished and installed under this RFP shall be conducted by, and be the responsibility of the Vendor. The Department reserves the right to perform any inspections and witness tests deemed necessary to ensure that the application performs to the specifications listed in this RFP (see in particular Appendix B).
- 3.4.6 Thirty Day acceptance testing period: Following the on-line demonstration testing, a thirty (30) day production testing and acceptance period shall be observed. During this production testing period, the application shall operate within the specified level of functionality and reliability and shall operate to the satisfaction of the Department without unresolved, intermittent or sporadic (unplanned) failures. If the system experiences three separate or two of the same failures within the 30 consecutive day period a system mitigation plan will be required to identify the issue(s), provide resolutions, and anticipated schedule for completion of the repairs for Department approval. After

completing the required revisions, the complete acceptance period shall be repeated until the system is capable of performing uninterrupted.

- 3.4.7 A Final Acceptance Test Report shall be provided to the Department by the Vendor for signature approvals upon successful completion of the acceptance testing period. This report shall list all the tests performed, all the deliverables provided and approved, all hardware delivered (equipment list), all software delivered (all COTS software licenses), user manuals, training manuals, and warranty delivery to the Department for the Mobile Application Enhancements.

3.5. Training

- 3.5.1. The Vendor shall provide IT/Systems Training. The Vendor shall also create training videos for end-users suitable for posting on YouTube.
- 3.5.2. The IT/Systems Training is intended for technical personnel (Department and DTI) that may support the mobile application. The Vendor shall provide two (2) sessions of IT/Systems Training on the, support and maintenance of the mobile application. The timing of the first training session for each module shall occur at the Department's direction. Subsequent training session shall be scheduled on an as-needed basis at a mutually agreeable time during the warranty/maintenance period. These training sessions shall provide an overview and 'hands-on' training on mobile application support, result interpretation, data retrieval, reporting capabilities, and customized report generation. The class size at each session will be approximately 8-10 personnel and the duration will be a minimum of four (4) hours. A training manual shall be provided, hard copy as well as electronic (PDF) for future use. The IT/Systems Training may be conducted using the Department's training lab or on computers provided by the State of Delaware. The Vendor shall be responsible for its own computer(s) and any other equipment necessary to conduct the training.
- 3.5.3. In addition to the training requirements specified above, the selected Vendor is also requested to provide the option for future IT/Systems Training on an as-needed basis during the maintenance period. This training may be web-based training to minimize cost and travel requirements. Pricing for optional training shall be provided in the submitted cost proposal.

3.6. Warranty

- 3.6.1 The rights and remedies of the Department under this provision are not intended to be exclusive and shall not preclude the exercise of any other rights or remedies provided for in this SOW, and subsequent contract, by law, or otherwise.
- 3.6.2 The Vendor shall warrant that all goods supplied, equipment, designs, and work covered by this SOW and subsequent contract shall be satisfactory for its intended purpose, shall conform to and perform as called for in the Contract requirements specifications and shall be free from all defects and faulty materials and workmanship for a period of one (1) year after the date Final

Acceptance. Any goods supplied, equipment, designs, or work found to be defective within the time specified below shall be repaired, remedied, or replaced, hereinafter called “corrective work”, by the Vendor, free of all charges including transportation.

- 3.6.3 The warranty period for all Vendor-provided goods supplied and equipment shall extend to twelve (12) months after Final Acceptance. Vendor shall provide preventive and emergency maintenance and repair services during the warranty period comparable to the maintenance services provided during annual maintenance which commences at the conclusion of the warranty period.
- 3.6.4 The Vendor shall provide a copy of the warranty(s) with the response to this RFP, and provide the formal signed warranty(s) at least thirty (30) days prior to Final Acceptance.
- 3.6.5 Notification and Corrective Work – Except as specified below, the Department will give the Vendor a written notice of observed defects or failures with reasonable promptness. Unless otherwise directed in said notice, the Vendor shall commence corrective work at the time specified by the Department. Department shall have the right, when practical and feasible, in its opinion, to the continued use of any such goods supplied, systems, equipment, and work deemed defective or unsatisfactory, until such can be taken out of service for performance of corrective work by the Vendor.
- 3.6.6 In the event that a defect or failure, in the opinion of the Department, constitutes an emergency, which will jeopardize or impair service operation, then the Department will provide the Vendor both verbal and written notice thereof and the Vendor shall commence “corrective work” within three (3) business days after receipt of such verbal or written notice. Nothing herein shall be construed as preventing Department personnel from immediately commencing corrective work, with labor cost at the expense of the Department, provided all such corrective work is performed in accordance with the Operation and Maintenance manuals furnished by the Vendor. Such corrective work by the Department shall not be construed to invalidate the warranty provided by the Vendor and other provision herein contained in this Section.

3.7. Maintenance Services

- 3.7.1. The Vendor shall provide preventive and emergency response maintenance services through an annual maintenance contract renewable for up to five (5) years under this agreement.
- 3.7.2. Periodic (at least two times per year) preventative maintenance shall be included in the annual maintenance price. These activities include software patches and system upgrades to ensure the technology being utilized does not become obsolete.
- 3.7.3. Maintenance services shall include emergency response and all costs for labor, materials and equipment required in accordance with the performance requirements specified herein.

- 3.7.4. The Vendor shall be reimbursed for costs associated with the repair and replacement of equipment due to damage caused by the Department and other third parties. Costs will be based on the detailed unit pricing and hourly labor rates provided by the Vendor and agreed upon by the Department during negotiations.
- 3.7.5. The Vendor shall be available to respond to incidents seven (7) days per week, 24 hours per day. Vendors shall respond in the timeframes specified below based on the nature of the incident.
- 3.7.6. For a minor incident, the Vendor shall respond within one (1) business day for all response maintenance notifications and system repairs shall be completed within five (5) business days.
- 3.7.7. For a major incident, which resulted in a full failure of the application, the Vendor shall respond within four (4) hours and system repairs shall be completed within two (2) business days.
- 3.7.8. Failure to respond and/or repair the system in a timely manner shall result in reduced maintenance agreement pricing subtracted from any maintenance fee owed to the Vendor. Failure of Vendor to respond or repair as needed enables the Department to arrange for repair by others that shall not void any warranties or agreements.
- 3.7.9. The Vendor shall be required to submit a comprehensive Maintenance Plan and Procedures Manual for Department approval at least one month prior to the first schedule preventive maintenance work. This Maintenance Plan and Procedures Manual shall include, without limitation, descriptions of the Selected Vendor's maintenance management system, internal controls, safety practices, and detailed procedures for all anticipated preventive and corrective work. This shall include all aspects of the application and may require the Vendor to interact with other systems or service providers. Once approved, The Maintenance Plan and Procedures Manual shall be used by both the Department and the selected Vendor to guide the management of all maintenance work, and shall be updated as necessary to meet additional needs as they arise.

3.8. Documentation

This section summarizes the documentation requirements for the various stages of the mobile application enhancements project, from proposal submission to contract execution, project implementation, system acceptance testing and project closeout.

- 3.8.1 Proposal Documentation – The following documentation is required at the proposal stage:
 - Technical Proposal (see RFP Section 5.11)
 - Cover Letter
 - Executive Summary
 - System Description,

- List of Hardware and Software, including warranty information
 - Compliance with Functional and Technical Requirements
 - System Architecture Diagrams per Architectural Review Board Standards
 - Network Requirements
 - Risk Management & Disaster Recovery Plan (draft)
 - Maintenance Plan & Procedures Manual (draft)
 - Project Management Plan & Schedule (draft)
 - Demonstrated Experience, Resumes, Organizational Chart, Staffing Plan, and References
- Cost Proposal (see RFP Section 6.4)
 - Cost Proposal Matrices (see Appendix D)
 - Milestone Payment Schedule (proposed)
 - Fully Executed Proposal Forms (see Appendix E)
- 3.8.2 Contract Documentation – The following documentation is required at Contract Execution:
- Executed Contract Agreement
 - Valid Delaware Business License
 - Certificate(s) of Insurance
- 3.8.3 DTI and ARB Documentation – The following documentation is required to be submitted by the selected Vendor to the Department **within fifteen (15) business days** upon the request of DTI and ARB:
- Project Management Plan (final)
 - Risk Management & Disaster Recovery Plan (final)
 - Milestone Payment Schedule (final)
 - Data Dictionary (see ARB requirements, Section 4.1)
 - Programmer’s Guide
 - System Configuration & Implementation Guide
 - Batch Job Submission/Scheduling Document
 - Conceptual and Logical Data Models (see IT requirements, Section 4)
 - Entity Relationship Diagram (see IT requirements, Section 4)
 - Vendors are subject to criminal background checks as required by the State of Delaware. Background checks must be paid for by the selected Vendor.

- State Acceptable Use Policy, signed by each member of the Selected Vendor’s Team.
 - Non-Disclosure Form, signed by each member of the Selected Vendor’s Team that will be working on DeIDOT projects.
- 3.8.4 Project Execution Documentation – The following documentation is required to be submitted prior to commencement of any activities relevant to the documentation being provided:
- Project Management Plan & Schedule (final)
 - Final Design Documents – to be developed in conjunction with Department Design Firm
 - QA/QC Plan for Hardware and Software Installation & Integration
 - Hardware and Software Testing Plans & Procedures
 - Factory Test Plan
 - Component Calibration Test Plan
 - Acceptance Test Plan
 - On-Line Demonstration and Production Test Plan
 - Final Acceptance Test Plan
 - Test Results and Reports
 - Maintenance Plan & Procedures Manual (final)
- 3.8.5 Product Documentation
- Equipment Manuals
 - Product Cut Sheets/Data Sheets
 - Software Manuals – for all system software, utilities, databases, licenses, and other packages used to develop, debug and load software
 - Hardware and Software Warranty Information
 - Training Materials and User Manuals
 - Hardware and Software Maintenance and Repair Manuals – this documentation shall provide sufficient information, including schematics, site specific layouts and modifications, test processes and procedures, cabling diagrams and parts lists to permit quick and efficient maintenance and repair by qualified personnel.
 - Vendor must provide executable CD/DVD and/or server image to DTI after any significant updates and fixes are implemented for the system.
 - Source Code (to be held in Escrow – Reference Section 7.8. herein, Source Code)

3.8.6 Project Close-out Documentation – The following documentation is required to be submitted as part of project close-out for each project phase:

- Lessons Learned Document (DTI)
- Risk Management & Disaster Recovery Plan – Test results and updates as necessary
- Completed Final Close-out Punch List
- Final As-Built Documentation in native format
- Final Acceptance Test Report

4. INFORMATION TECHNOLOGY REQUIREMENTS

4.1. General Information

The proposed solution must comply with all applicable Delaware Information Technology standards, which are defined and/or maintained by the Department of Technology and Information (DTI). The State’s IT standards are available on the Web at:

<http://dti.delaware.gov/information/standards-policies.shtml>

See in particular those standards and requirements identified in Appendix B. As part of the approval process, prior to signing an agreement the selected Vendor shall supply sufficient documentation to satisfy DTI requirements and standards. The selected Vendor will be required to support the DTI Business Case documentation, presentations, and review by the Architecture Review Board (ARB). The selected Vendor shall be required to specify in detail, through narratives and diagrams in Visio format the proposed application’s technical architecture model. This shall include, from end-to-end, each piece of hardware, each network connection, each tier (user workstation, firewall, wide area network, Web server, application server, data server, other middleware tiers), and each piece of software required for the architecture model. Templates for required ARB documentation can be found on the Web at:

<http://dti.delaware.gov/information/ARBtemplates.shtml>

The State prefers to have the flexibility to substitute standard hardware platforms, operating systems, application servers, web servers, database servers, etc., where feasible.

The proposed application shall have comprehensive and user friendly help instructions that include online help at the page level.

Interfaces and other data extracts or data transfer files shall use Extensible Markup Language (XML) format, web services and secure file transfer protocol. Application shall meet federal standards for Americans with Disabilities Act Section 508. For more information about accessibility requirements follow the link below:

<http://www.w3.org/TR/WCAG10-HTML-TECHS/>

Internal and external users that shall have access are: DeIDOT Application Support/TIS personnel (i.e. Department personnel), DTI, and maintenance personnel. Control of this

application's use to view activity, produce reports, access data, etc. must be via secure environment with the option to produce hard copies of historical data and reports. Vendor's proposal must specify in detail the security and methodology to access the web-based system for both internal and external users. Proposal must include any similarities and differences between internal/State users and external/non-employee users. Proposal must describe how the system shall protect and secure the data and the business of the Department from non-authorized users.

4.2. Data Security and Ownership

Every member of the Vendor's team that requires access to the State of Delaware network must sign and comply with the State computer Acceptable Use Policy. Every team member who accesses data must comply with information confidentiality, privacy, and security policy.

The system shall provide security authentication and authorization mechanisms of its own. The authentication framework should secure both web-based access and web services. Web service authentication utilizing the same authentication scheme, but extended for web services. Provide web service authentication, authorization, and session management services. The Department shall maintain all access rights.

The application must be developed using true, advanced web technologies. In the case of a hybrid (cloud and on premise based) system, the Selected Vendor may access test and production application(s) using SSLVPN remote login to maintain the software, troubleshoot, and resolve issues. If the Selected Vendor requires remote access to the test and/or production application, system, or database (for maintenance, updates, troubleshooting, fixes, etc.), the State may decide to hold secure meeting or a similar tool where a connective session would be initiated by internal Department staff.

Any servers for the mobile application software shall reside in one or more DMZs on the State's network if the network design is hybrid in nature.

Some data or information is considered "Private or Confidential"; these data types must be protected during transport across the network and also in database files. The system should provide encryption for confidential transactions between the web browser and server and from server to server for hybrid solutions.

The system must utilize, per State Policy, Identity and Access Management (IAM) Service or secure Active Direct Federation Services (ADFS) for support purposes. The system should provide the ability to track changes made to data on the system, the dates, and ID of user who worked on a document/transaction/information and what was modified.

The Department shall retain ownership of all test, production, and historical data produced or converted by the proposed system or any other means.

4.3. System Administration and Disaster Recovery

Any proposed solution must be recoverable. The State of Delaware's information processing systems are capable of being recovered at "hot sites" or disaster recovery sites. Any proposed solution must document the critical resources that must be recovered in the event of disaster that would prevent system processing either in the

batch or online environment. The system should support failover redundancies and swapping of critical system components and critical data of all system components.

The Vendor must document the plans, procedures, and strategy for that recovery process, including: performing a risk analysis, performing a business impact analysis to determine which data and functionality are most critical and should therefore be recovered immediately, and identifying the minimum resources required for immediate recovery including facility parameters, equipment, system software, associated interfaces, data, personnel and time.

The selected Vendor must provide an executable CD/DVD and/or server image to DTI after any significant updates and/or fixes are applied to the system.

The selected Vendor shall be required to participate in the “Disaster Recovery Testing” process.

4.4. System Documentation

The documentation shall be created using standard tools such as Microsoft Word, Excel, Visio diagrams or Data Designer such as Toad or ERwin. The selected Vendor shall provide current system documentation immediately following selection that shall include, but not be limited to the following:

- 4.4.1 Data Dictionary – Shall include but not be limited to the following: Table names, Description, layouts with field name, field description, synonyms, primary and foreign keys, field type, field format, compression, and cross references.
- 4.4.2 Programmer’s Guide – Shall include program names, description, and functions they perform, types, external calls (called by and called from).
- 4.4.3 System Configuration & Implementation Guide – shall include ‘configuration and implementation’ setup procedures and hardware requirements. Provide very detailed information and steps to be taken to implement and maintain all components of the application Provide technical bulletins and upgrades to the Vendor-created system manuals. Provide installation, system administration procedures, ongoing maintenance, fine tuning instructions, and error code instructions.
- 4.4.4 Batch Job Submission/Scheduling Document – shall include program run time schedule and sequencing information and completion/error report and actions required in case of unsuccessful completion of the process in midstream (applies if application has a batch job or batch jobs). Interface specifications, file layouts, and parameters.
- 4.4.5 The selected Vendor shall provide a Reports Manual for all “canned reports” and modify it to include custom reports if any. It shall include name of the report, description of the report, parameter(s) needed to submit them, report layout and program name/ID that was used to create it. Report manual shall be comparable to industry standards. The canned reports shall be flexible enough to modify to meet state’s identifications such as titles, headers and logos, run date and time, etc.

- 4.4.6 Conceptual and logical data models and a data dictionary with field descriptions for the proposed system. The State standard data modeling formats are .cdm (Sybase PowerDesigner) and MSWord for conceptual data models, and .pdm (Sybase PowerDesigner), .erx or .xml (CA Erwin), or .mdl (IBM Rational Data Architect) for physical data models.
- 4.4.7 A detailed Entity Relationship diagram, high-level application data flow charts, high-level application design and information processing functional flow charts shall be provided by the Vendor. For interface and batch jobs – order/sequence of program execution diagram for successful and unsuccessful job completion. Provide detailed security architecture document and diagram.
- 4.4.8 The selected Vendor shall provide a VM Ware image of the active system on digital media (e.g., DVD, Flash Drive) to the Department as part of system documentation. Vendor shall provide a new, non-restricted version to the Department on digital media within five (5) business days of any updates to the system.

4.5. Application Availability and Performance

- 4.5.1 The application shall provide the ability for Department personnel and public users to have access to the system 24 hours per day, 7 days per week, except for scheduled downtime for maintenance. Authorized preventive maintenance outages do not count against downtime measure. The application shall meet or exceed a minimum availability requirement of 99%, measured annually from the date of the first deployment (first Sprint delivery), with a Not-to-Exceed annual threshold of 87.6 hours of downtime.
- 4.5.2 The application must have acceptable performance and response time as detailed in Appendix B – Requirements. The application cannot negatively affect performance of current operational systems or the batch processing of the data-processing systems that are supported on the Department’s and the State of Delaware’s network.

4.6. IT Support and Maintenance Requirements

- 4.6.1 The selected Vendor must provide personnel and software necessary to ensure the application is operating within performance levels. It cannot negatively affect performance of the network.
- 4.6.2 The selected Vendor shall maintain the software necessary to operate efficiently.
- 4.6.3 Non-critical items identified during “System Acceptance” shall be corrected within 180 days of the final acceptance.
- 4.6.4 Vendor shall comply with IT standard upgrades and shall perform necessary modifications and adjustments; Vendor shall ensure software is updated with security and stability improvement patches, and not allow any software related to the system to become obsolete. Vendor shall notify the Department of periodic software, database upgrades or changes that could require modifications to the Vendor supplied software. Any required maintenance

window times shall be subject to approval by the Department. This shall be included in the System Support and Maintenance agreement.

- 4.6.5 The selected Vendor shall provide technical bulletins, updated system and user guides as necessary.
- 4.6.6 The selected Vendor shall correct or replace defective software, and or remedy any programming error, which is attributable to the Vendor at no additional cost to Department.
- 4.6.7 As a part of this project, the Department may require scope, time, and cost estimation from the selected Vendor on future software enhancements and support initiatives.
- 4.6.8 The Department shall approve the estimates for the scope of work, agreed upon turn-around times, and estimated cost. Proposed system enhancements must be completed within a time frame agreed upon by the Department and the selected Vendor. The selected Vendor shall not keep the Department waiting for enhancements due to low priority on their Priority list.
- 4.6.9 The selected Vendor must provide technical support for the duration of the project and during the maintenance period.
- 4.6.10 The selected Vendor's key personnel may be required to be on site for implementation of the initial application enhancements or the major enhancement/upgrade of the system in the Test and Production Environments.
- 4.6.11 After the implementation, the selected Vendor shall provide support for the "implemented application, enhancement of the application, and interfaces with other systems."
- 4.6.12 The selected Vendor shall respond to maintenance and support calls from Department personnel. Support shall include troubleshooting of technical problems and solutions to application functionality. Dedicated and qualified support personnel including IT programmers and system analysts shall be available via phone and provide accurate technical and functional assistance in resolving problems or issues 24 hours per day, 7 days per week.
- 4.6.13 The selected Vendor shall supply a method to track service requests for support and maintenance (web, documents) including type of issue, problem resolution, module or/ and program modification for each service request.

4.7. State's Responsibilities

The State's responsibilities shall include the following:

- 4.7.1. DelDOT will provide Project Management for the coordination of State resources. It is also expected that a Department of Transportation Applications Delivery (AD) and Business team resources will work closely with the Vendor team during the development process to assist in providing testing feedback and requirements adjustments as necessary.
- 4.7.2. The Department shall provide training facilities and project oversight.

- 4.7.3. The Department shall provide a Technical Team consisting of an IT Project Manager and consultant resources to assist with all phases of the project. The Department shall also provide functional subject matter experts to assist with DTI requirements and integration.
- 4.7.4. If any work that has not been identified in the original Scope of Services needs to be performed, then Department shall create a contract addendum for the selected Vendor to provide cost and time estimates. The estimation requires the Department's approval. Contract addenda must be approved before work outside of the approved Scope can be performed.

5. PROPOSAL REQUIREMENTS

5.1. Proposal Documents

By responding to this RFP, the interested Bidder hereby grants the Department a license to distribute, copy, print, or translate the proposal submission for the purposes of the evaluation.

5.2. Submission of Proposals

The Department will receive sealed proposals in response to this RFP until the date and time indicated in Section 5.4. Proposals must be delivered and addressed as indicated. It is the responsibility of each Bidder to have proposals received at the location identified below by the date and time specified. Facsimile or emailed responses to this RFP are not acceptable.

Proposals must be delivered in sealed envelopes and be clearly marked on the outside: **'DELAWARE DEPARTMENT OF TRANSPORTATION-MOBILE APPLICATION ENHANCEMENTS, RFP No. 1783'** and delivered to:

Department of Transportation
Contract Services Administration
800 Bay Road
Dover, DE 19901

An original and one (1) copy of the Price Proposal must be sealed inside the envelope containing the Technical Proposals. It is the Bidder's obligation to make sure proposals arrive on time. Late proposals will be returned to the Bidder unopened and will not be considered by the Selection Committee.

5.3. Changes to Initial Proposal

Bidders may change a previously submitted initial proposal by withdrawal, amendment or submission of a replacement if done prior to the RFP due date and time. The information or request should be submitted in writing on company letterhead or equivalent and contain the signature(s) of the person(s) who submitted the original proposal. Bidders must indicate on the outside of the envelope that the proposal contained within replaces and takes the place of a previously submitted proposal or part thereof. Bidders shall clearly indicate that it is their intent is to withdraw a previously submitted proposal prior to the RFP closing. Requests to withdraw a proposal may require a confirmation email, facsimile, or telephone response.

5.4. Proposal Due Date and Time

Responses to this Request for Proposals are to be delivered to the address indicated in Section 5.2 by 3:00p.m. (Local time) on **Wednesday, July 27, 2016**. The Department's time shall be the official time.

5.5. Extensions

The Department may extend the time and place for the receipt and opening of proposals on not less than two (2) calendar days' notice by electronic means. Any extension of time will be posted as an addendum to the RFP on the State's procurement web site at <http://bids.delaware.gov>.

5.6. Submitted Copies

An original and five (5) copies of the Technical Proposal must be submitted. An original and one (1) copy of the Price Proposal must be submitted in a separate, sealed envelope per Section 5.2 of this document. An authorized representative of the company submitting a proposal must sign the original proposals. Notification of the proposal award and all communications will be made by e-mail.

5.6.1 Along with the originals, please submit one copy of your proposal in electronic format (CD/DVD or flash drive) in standard Office or PDF format. Please submit a separate file for each of the following and label as such:

- The Technical Proposal
- The Price Proposal
- The Technical Proposal with any confidential information redacted

5.7. Confidentiality and Integrity of Data

The Department is responsible for safeguarding the confidentiality and integrity of data in State computer files regardless of the source of those data or medium on which they are stored (e.g., electronic data, computer output microfilm (COM), tape, or disk). Computer programs developed to process State Agency data will not be modified without the knowledge and written authorization of the Department. All data generated from the original source data shall be the property of the State of Delaware. The control of the disclosure of those data shall be retained by the State of Delaware and the Department.

5.7.1 Submission of a response to the RFP indicates the Bidder understands its employees, individually, may be required to sign a confidentiality and integrity of data statement prior to beginning any work.

5.7.2 Any and all Department information, knowledge, or data accessed by the Vendor, or provided to the Vendor by the Department is confidential and the property of the State of Delaware. The Vendor will not directly or indirectly disclose or use it for purposes unrelated to the agreement at any time without first obtaining the written consent of the Department, unless the information, knowledge, or data is generally available to the public.

5.8. Security

Computer, network, and information security is of paramount concern for the State of Delaware and the Department of Technology and Information (DTI). The State wants to ensure that computer/network hardware and software does not compromise the security of its IT infrastructure. The SANS Institute and the Federal Bureau of Investigation (FBI) have released a document describing the Top 20 Internet Security Threats. The document is available at www.sans.org/critical-security-controls/ for your review. The Vendor must guarantee that any systems and/or software provided by the Vendor are free of the vulnerabilities listed in that document.

5.9. Delaware's Freedom of Information Act

The Department is covered under the Department of Transportation's Freedom of Information Act (FOIA). In order to comply with the State of Delaware's Freedom of Information Act, Bidders responding to this RFP shall **prepare and submit one (1) electronic copy (e.g., CD/DVD, flash drive) of their Proposal with any proprietary or confidential information redacted.** This copy should be clearly marked as "Redacted Copy" and submitted along with the other copies. This electronic copy is required even if the submission contains no proprietary or confidential information. Firms should review Delaware's Freedom of Information Regulations, Section 6, Requests for Confidentiality, on the Department Website www.deldot.gov and Section 10002(1) "Public record" of the Delaware Code, (<http://delcode.delaware.gov/title29/c100/index.shtml>) to determine what information may be considered proprietary or confidential and may be redacted from their Proposal.

5.10. Proposal Rejection

Failure to follow instructions contained in this RFP may be cause for rejection of submitted proposals.

5.11. Proposal Format

Evaluation of proposals is made easier and more efficient when Bidders' respond in a similar format. The following is the format and sequence the Department requires to be followed in order to provide consistency in Bidders' responses and to ensure proposals receive full and equal consideration. All pages of a submission should be consecutively numbered. All proposals must be bound on 8.5"x11" paper, minimum 12 point font, with the name and address of the Bidder and the RFP number clearly written on the face of the proposal.

The RFP proposal submission must be clear and concise, allowing the evaluators to readily find information and expeditiously review proposals based upon the information requested. Bidders' may reference information from the RFP in their response by section number but should not repeat information from the RFP verbatim in their response.

All Proposal responses are to be structured as follows, with tabs for each major section of the Proposal:

I. Cover Letter

The proposal must contain a Cover Letter on the letterhead of the Bidder submitting the proposal, showing the RFP number, Bidder's name and address, the contact person, title, contact person's telephone number, fax, and email. The Cover Letter will serve as a letter of introduction to the Bidder's team and shall be signed by a person authorized to sign on behalf of and bind the Bidder to statements made in the proposal.

II. Table of Contents

Table of Contents including, at a minimum, the sections listed below, section numbers, and page numbers.

III. Executive Summary

The Bidder must provide an executive summary of the highlights of the proposal.

IV. Proposed Solution

Bidders must provide a detailed narrative of their proposed solution which addresses the Scope of Work in Section 3, in accordance with the functional, technical and other project requirements identified in Appendix B. At a minimum, the Bidder must provide the following information:

- 1) System Description including a narrative describing the proposed application enhancements and a preliminary design sketch illustrating the system layout. Include descriptions of major system components, and subsystems.
- 2) Describe how the Bidder's proposed solution meets the Project Goals identified in Section 2.2, following the order of that section.
- 3) System Architecture Diagrams including systems, interfaces, hardware, and software shall be provided. As part of their proposal, bidders shall provide documentation showing the design of the proposed environment that will be needed on premise, or in the case of a hybrid system the design that will house the State's data. This documentation is required to be in the format of the State's Architectural Review Board System Design Template, indicating proposed interfaces to State IT systems and showing how the bidder will meet the State's standards for housing Secret data. A graphical representation of the major system components and their interaction shall also be provided. Specifically, Bidder shall provide the system architecture documents required by the Delaware Architecture Review Board (ARB). Templates for these documents can be found at the following web address:

<http://dti.delaware.gov/information/ARBtemplates.shtml>

The design provided should indicate n-tier architecture, protocols, ports, and product versions of software being housed on servers, including OS, database, middleware etc. as applicable. Please note, the successful bidder shall be required during the course of the project phases to supply any revised diagrams based upon changes to the hybrid/on premise

environments housing the State's data as well as a data dictionary or data model.

System Design should also reflect a proposed method for consumption of Public data in the form of a web service either in XML or JSON formats (or both) suitable for use in interactive web applications by third parties. System Design should also contemplate a future transition from disparate internal State systems as data sources to a single “data hub.” The State recommends that the bidders record any assumptions made regarding the System Design, as this will assist the successful bidder and the State as the vendor is to produce the final system design deliverables. Bids shall also include feature statements describing the planned technical design for delivering requirements (example: backing map foundation layer will be ____, voice recognition technology will be ____, app technology will be ____ (HTML5/Native/Hybrid), specify the routing algorithm, etc.).

- 4) Application Architecture: Identify the type of application architecture (e.g., client/server, browser based). Provide a brief description of application architecture. An application architecture diagram can be included.
- 5) Technologies Used: Identify the technical platform (.NET, Java, etc.) and list the technologies that will be used by servers, workstations, middleware, database, software etc.
- 6) Hardware proposed to support a proposed hybrid solution.
- 7) Software proposed, including COTS tools to support the proposed application.
- 8) Network requirements to support the proposed solution.
- 9) Risk Management and Disaster Recovery Plan.
- 10) Warranty and Maintenance Period – Vendors must describe their approach to meet the warranty and maintenance requirements specified in RFP.
- 11) **Source Code Escrow**

The Department would like to assess the risk of source code loss that is critical to the Vendor’s product to be delivered as part of this contract but was not developed under any US Government entity agreement. As part of their proposal, Bidders shall provide an estimate of percentage of code that is planned to be developed to satisfy the requirements, and provide a cost estimate for Source Code Escrow for the percentage of code being provided that is custom-developed software not available to the general public. Bidder will supply a draft agreement from the third party escrow agent upon which the Source Code Escrow estimate is based where the

bidder is proposing all software (100%) be developed under this agreement. Should bidders not already have a third party agent, please specify and the Department may accommodate with our escrow agent.

12) **Economic Analysis**

As part of their proposal, bidders are to provide the State with a cost benefit analysis that results in the minimum number of app downloads needed to “break even” considering the bidder’s cost proposal. Please note there is no intention of end users having to pay a fee to use the app, therefore bidders should assume that each individual download would be associated with one or more of the below three concepts, *as if each individual user had to bear the cost burden*:

- Willingness to Pay – the amount of money that individuals consider a reasonable cash outlay to achieve the outcome of reduced traffic congestion via intelligent traffic routing and alternate transport mode recommendations;
- Willingness to Spend – the amount of money that individuals consider a reasonable cash outlay to enjoy or appreciate integrated transportation status information (schedules, estimated time of arrival, etc.);
- Willingness to Accept – the amount of money individuals would expect in compensation to endure transportation congestion and delay.
Bidders shall enumerate any assumptions and methodology (e.g., survey of other applications) driving this calculation as part of their proposal.

V. Project Management Plan and Schedule

- 1) The Bidder must present its proposed project management plan and schedule.
- 2) The Bidder must submit a detailed phased project schedule that addresses the tasks and estimated timelines required to accomplish the requirements outlined in this RFP. The Department’s objective is to have the initial phase completion date in December 2016. The proposal must include details related to all Vendor and Department tasks associated with Phase 1 of the project, including, without limitation:
 - Project Initiation
 - System Documentation
 - Requirements and Customization
- 3) The Bidder must identify milestones in the proposed project work plan to measure overall progress and as an indicator of conformance with the established project schedule. Milestones shall be identified by completion date.

- 4) The Bidder's proposed work plan must include a three (3) week timeframe for the Department to review and approve task completion deliverables, without interrupting the continuing progress towards completion of the project.
- 5) The proposed project work plan must include the time frame required resources for required task in the project. Bidders shall also provide their estimates for State personnel participation. These estimates are data that the State will use for planning purposes. The estimate for State personnel time should identify the number of hours needed by subject matter expert and reflect the bidder's planned SDLC for this engagement. Bidders are to provide the assumptions made as the basis of these State resource estimates.

VI. Testing and Acceptance

Interested Bidders must submit a detailed testing and acceptance plan describing the proposed testing that supports the requirements and implementation as described in the RFP. This test plan should cover all aspects of testing throughout the development lifecycle. At a minimum, the plan should include integrated system testing, and thirty (30) day operational testing that demonstrates the system meets the requirements and capabilities specified herein.

VII. Training

The Bidder must submit its plans for a comprehensive training program that will include provision of training manuals, and user's manuals for technical personnel (Department IT and DTI). For the DTI and Department staff, include two (2) training sessions. The selected Vendor may also be required to provide additional training on an as-needed basis during the maintenance period, based on the unit pricing provided in the Cost Proposal. The training plan must include:

- 1) Method of training
- 2) Length of training (estimate number of hours)
- 3) Facility requirements for training
- 4) Detailed outline and description of the training
- 5) List of training materials and samples
- 6) Description of any self-guided training modules that may be available

VIII. Warranty

The Bidder must submit a narrative describing the Warranty period. At a minimum this should include the length, terms and conditions of the warranty period. Warranty must be for a minimum of twelve (12) months from final acceptance by the Department. The Warranty must also include a narrative describing the level of support that will be available during the Warranty period. This level of support shall be equal to or greater than the support required during the maintenance period as described below.

IX. Maintenance Support Services

The Bidder must submit a comprehensive proposal for post-implementation support services for a period of five (5) years.

X. Demonstrated Experience

- 1) The Bidder must submit information demonstrating the Bidder's relevant experience in providing mobile applications for public agencies similar to those sought by the Department through this RFP. Include Bidder's business history and number of years in operation. Experience of key subcontractors (defined as a separate corporate entity comprising 20% or greater of the total labor cost of the proposed contract) should also be included here.
- 2) The Bidder must submit a project staffing proposal that supports the proposed project work plan. Identify the project manager and key personnel who will be performing the work on the project. Provide resumes highlighting relevant experience and describe the percentage availability of the PM and key personnel for the anticipated duration of this project. Vendors are advised that no changes or substitutions of the PM or key personnel will be allowed without the prior written approval of the Department. Describe the PM and key personnel's experience in application development.
- 3) Submit a list of any proposed subcontractors and other persons and organizations that are anticipated to furnish the principal items of material and equipment for this project. This list shall be accompanied by and experience statement with pertinent information regarding similar projects and other evidence of qualification for each subcontractors, person or organization.
- 4) Provide a Matrix summarizing the proposed staffing for this project. The matrix must include a list of personnel with the following columns: Name, Role, Key/Non-Key, On/Off Site, Full-Time/Part Time, Numbers of Years of Experience, list of states where they have been involved in implementing similar systems.
- 5) Include a project team organizational chart.

XI. References

Bidders are to provide at least three (3) references of comparable projects with functionality similar to that being requested in this RFP. The Bidder shall provide references for projects of similar size, nature, and complexity as defined by the RFP requirements. Projects shall have been performed within the last five (5) years and demonstrate the Bidder's capability to perform the services required in this RFP. The Bidder should include the following:

- 1) Name of the jurisdiction and client organization(s) for which the project was implemented;

- 2) Name and up-to-date contact information (address, phone number, email address) of a client reference knowledgeable about the project and the Vendor's role;
- 3) Project description;
- 4) Names of the Prime Vendor and sub-vendors involved in the project;
- 5) Vendor's role in the project.

XII. Proposal Forms (Submit completed forms)

All firms responding to the RFP must complete and return the submission forms located in Appendix E of this document.

- 1) Certification of Eligibility
- 2) Certificate Of Non-Collusion
- 3) Certification Of Restrictions On Lobbying

6. COST PROPOSAL DOCUMENTS

6.1. Submission

Bidders must submit pricing in accordance with instructions in this RFP. The Bidder should submit costs with its proposal as described in this section. The descriptions included in this section are provided to illustrate format and are not intended to be all-inclusive.

Pricing should NOT be included in the Technical Proposal and should be submitted in a separate sealed envelope clearly marked 'PRICE PROPOSAL' per the instructions in Section 5.2. Inclusion of any pricing information in the technical proposal may result in the Department rejecting the Bidder's proposal for noncompliance.

The Bidder must submit a cost proposal in the format described in Section 6.4 below. Costs shall include all elements required to complete the scope of work defined in this RFP for Phase 1. The Bidder must include costs based on its proposed solution, including a breakdown of each item, description, and cost following the organization of the Cost Matrices presented in Appendix D. Bidder shall also list all major assumptions that were utilized in the development of its Cost Proposal.

6.2. Changes

Should the Department make a request for scope changes that affects the price, then the Department shall be provided with a written detailed estimate by the Vendor for the work effort involved in the change.

6.3. Currency

All price quotes are to be: in US dollars; inclusive of duty, where applicable; destination, delivery charges are included in the rates, if applicable; and exclusive of federal/state taxes.

6.4. Cost Proposal Format

The Bidder shall submit proposal costs in the formats shown below and in Appendix D. All major costs are to be included and described. Pricing for optional products and services shall be provided and more fully described below. Standard Labor Rate Card shall also be provided for any services that may be offered to the Department. This information shall serve as the basis for any change orders and maintenance support outside the scope of the maintenance agreement.

6.4.1 Cost Proposal – (Cost Matrix 1, Appendix D)

Bidder shall prepare fixed price for the proposed enhancements. A proposed milestone payment schedule shall be provided for the (Phase 1 Milestones). The Cost Proposal shall also include annual maintenance costs for a period up to five (5) years.

6.4.2 Cost Proposal – Optional Items (Cost Matrix 2, Appendix D)

Vendors may provide pricing for any proposed optional features. The Bidder must submit their costs for any additional optional and/or desirable features proposed and must detail individual costs following the organization of Cost Matrix 2, Appendix D.

7. SELECTION AND AWARD

7.1. Committee

The Selection Committee shall be comprised of representatives of the State of Delaware. The Committee shall review all proposals submitted in response to this RFP. The Committee Membership is confidential.

7.2. Proposal Review

The proposals contain essential information requested in this RFP and shall be used in the award decision. The information that is required to be submitted in response to this RFP has been determined by the Department to be essential for use by the Committee in the evaluation and award process. Therefore, all instructions contained in this RFP should be met in order to qualify as a responsive and responsible proposer and participate in the Selection Committee's consideration for award.

Proposals that do not meet or comply with instructions of this RFP may be considered non-conforming and deemed non-responsive and subject to disqualification at the sole discretion of the Selection Committee.

7.3. Evaluation Process

The Selection Committee shall determine the Proposals that meet the minimum response requirements pursuant to the criteria specified in this RFP. The Committee may, at its discretion, contact submitting firms for clarification of their proposals. The Committee shall evaluate and score all proposals that meet the minimum response requirements.

7.3.1 Product Presentation/Demonstrations

The Selection Committee may request on-site presentations/demonstrations in Dover, DE on the dates provided in Section 1.11, and may request best and final

offers from one or more firms as described below. After determination that bidder(s) are qualified to perform the required services, selected Bidders may be invited to make presentations/demonstrations to the Selection Committee. The selected Bidders will have their presentations scored or ranked based on their ability to successfully meet the needs of the contract requirements, successfully demonstrate their product and/or services, and respond to questions about the solution capabilities.

The Bidder's representative(s) attending the presentation shall be technically qualified to respond to questions related to the proposed system and its components. All of the Bidder's costs associated with participation in discussions and system demonstrations conducted with the Department are the Bidder's responsibility. As part of the Presentations, the Department requires that the selected bidders provide a product demonstration that has been tailored to meet the following product requirements provided from Appendix B. *Note*, the Description content below may be modified from Appendix B for the purposes of the demonstration only:

Requirement Ref.	Description
inc.gpsfunc.tmc	User navigation shall be GPS-based, optionally allowing user to use high-accuracy location methods in concert with GPS (including mobile networks, for example)
sho.search.tmc	Application shall allow for search for Addresses, Locations, and Roads.
sho.xgrafs.tmc	Updated, development-compliant graphics (per Item 5 of the Project Scope section herein, to increase ease of use leading to an improved user experience
sho.layers1.tmc	The following layers shall be provided: Traffic Flow, Travel Times, Traffic Cameras, Advisories, Speed Limits, Railroad Crossings, Red Light Enforcement, Airports, DE Passenger Rail Stations/SEPTA and AMTRAK Train Locations, Bus Routes/Locations
sho.adicon.tmc	Ads/PSAs shall provide minimized visual clutter and only appear when not in motion, or, alternatively/additionally provide an icon on the map for the business
sho.notincid.tmc	Application shall indicate advisories for accidents and other unplanned incidents on the roadways
sho.trafcam.tmc	Application shall show Traffic Camera streaming video
sho.losserr.oit	Application shall notify users with friendly error messaging capabilities specific to real-time data loss root cause (lack of data connection, signal, etc.)
sho.permsns.oit	Upon selection of application for device installation, Ap permissions shall communicate user is ok with having their location services and calendar active for better personalization

Requirement Ref.	Description
	and internal usage of the app
psh.sdmaps.oit	Application shall provide option to install basemaps on native device SD memory towards minimizing internet connection data transmit and receive
psh.ituneplay.oit	Application shall be available on Google Play and iTunes, meeting any requirements for the app to be downloaded from these services
sho.lookfeel.oit	Application multi-platform deployment shall comprise a consistent look and feel across each (i.e. same look and feel, menu options etc across iOS to Android).
inc.kitlolloi.oit	Application shall be fully functional across Android versions 4.4x (“Kit Kat”), 5.x.x (“Lollipop”)
inc.paraphone.dtc	Application shall provide a PTT function for passenger Paratransit reservation.
sho.ftrtrt.dtc	App shall have the ability to consume and present real-time travel info for Fixed Route Transit (including bus, train/rail arrival, and departure).

7.3.2 Best and Final Offers (BAFOs)

The Committee may request BAFOs from one or more proposing Bidders and proposals may be amended before award for this purpose. Bidders may be asked to amend their proposals to incorporate any requested changes identified in their proposal or during the presentation. The Selection Committee will advise a date by which any revised proposals must be received. Failure to submit a revised proposal within that time period will cause the Committee to evaluate the original proposal.

7.4. Evaluation Criteria

Proposals shall be evaluated and scored according to the Evaluation Criteria listed below, with assigned weight for each criterion in parentheses.

Item ↓	Points
TECHNICAL	35
Compliance to industry design standards	5
User Interface & Functionality	10
System Design Compliance with State standards	5
Deployment Model (Cloud Preferred)	5
Innovative Approach to Platform Design (accommodating non-public version etc.)	10
Item ↓	Points
BID RESPONSIVENESS	40

Best Case Total Cost of Ownership	10
Quality of Proposal, demonstrating understanding of scope	10
Exceptions to the requirements and Phase 1 commitment	10
Followed Bid Instructions	10
EXPERIENCE - QUALIFICATIONS	45
Team Experience with Transportation Mobile Applications	20
Demonstration of app meeting bid requirements (orals)	15
Qualifications of Personnel committed to project	10
PROJECT METHODOLOGY	30
Support model	10
Project and Technical Management (preference is Agile)	5
Project Schedule per best practices provided	5
Understands and can manage interface with end users during development	10
Total	150

7.5. Award

Upon notification of selection, the selected Vendor shall have twenty (20) days (unless extended by mutual agreement) to execute the contract for this project. If the Department is not able to come to agreement with the selected Vendor, the Department may end discussions and begin discussions with the next highest selected Vendor who will then have the same opportunity to enter into a contract with the Department.

Award of the contract will be announced upon successful execution of the contract. All Vendors submitting proposals will be advised of the award.

7.6. Department Rights

The Department reserves the right to:

- Select for contract or for negotiations a proposal other than that with the lowest costs;
- Reject any and all proposals received in response to this RFP;
- Make no award;
- Issue a new RFP, amend RFP, terminate or suspend RFP process;
- Waive any informalities, irregularities, or inconsistency in proposals received;
- Request modification to proposals from any or all Vendors during the review and negotiation;
- Negotiate any aspect of the proposal with any firm and negotiate with more than one firm at the same time;
- Make partial awards;

- Increase or decrease quantities;
- Reject any request that shows any omission, alterations of forms, additions not called for, conditions, or alternate proposals;
- Deny any and all exceptions to the RFP requirements;
- Reject any non-responsive or non-conforming proposals;
- Make any such award as is deemed to be in the best interest of the State of Delaware.

7.7. Disputes

In the event of any disputes during the selection process, the SECRETARY of the Delaware Department of Transportation (or his/her designee) shall hear all arguments and render a final decision on the controversy that shall be binding on all parties concerned. All lease and royalty fees necessary to support this right are included in the initial fee as contained in the Price Proposal.

7.8. Source Code

Source code meeting the requirements for escrow per Section 5.11 herein shall be placed in escrow following completion of all Phase 1 services. The Department reserves the right to request deposits prior to the completion of Phase 1 in the event the Vendor ceases to maintain experienced staff and the resources needed to fulfill the requirements of this contract. The Department shall be entitled to have, use, and duplicate for its own use, a copy of Data Source documentation and routing algorithms for DelDOT approval. DelDOT will have a strong preference for all Data Sources to be internal to DelDOT; in cases where verifiable external Data Sources are proposed as part of the design, DelDOT reserves the right to select the source; along with Delivery of a matrix (Quality Functional Deployment) to trace requirements to final system and software components; the source code, system executables and associated documentation for the software products covered by the contract. Until such time as a complete copy of such material is provided, the Department shall have exclusive right to possess all physical embodiments of such Vendor-owned materials. The rights of the Department in this respect shall survive for a period of twenty (20) years.

APPENDIX A – ACRONYM LIST

ARB – Architecture Review Board

ATP – Acceptance Test Procedures

BAFO – Best and Final Offer

COTS – Commercial Off-The-Shelf

CVEU – Commercial Vehicle Enforcement Unit

DTI – Delaware Department of Technology and Information

FHWA – Federal Highway Administration

FOIA – Freedom of Information Act

ITMS – Integrated Transportation Management System

IT – Information Technology

ITS – Intelligent Transportation System

MPP-Schedule

NTP – Notice to Proceed

PM – Project Manager

PTT- Push to Talk

PWA- Project Work Authorization

RFP – Request for Proposals

SOW – Scope of Work

T&C's- State Standards and Terms and Conditions

APPENDIX B – BUSINESS AND FUNCTIONAL REQUIREMENTS FOR PUBLIC APP

B.1 Description

The Requirements presented herein represent a foundation for which further specifications may be derived or refined based upon stakeholder input. The primary users of the application meeting these requirements will comprise the Public.

B.2 Requirement Table Definitions:

Type:

- F (functional, “doing” – leads to processes/procedures);
- I (informational, “knowing” – leads to information, help facility, data descriptions and persistence);
- B (behavioral, “acting” – leads to urgency, frequency, accuracy, volume, usability, flexibility);
- E (environmental, “being” – leads to distribution, location, security, cultural, legal).

Requirement Ref. – shorthand reference to the full requirement described in the corresponding row. Generally the prefix indicates a verb, such as “SHO” represents “show,” “PSH” = “push” etc.

Suffix – division or section that is the source of the requirement or data for the function.

Priority – 01 is critical, ranging to 05 being a low (“nice to have”) priority rating of a requirement.

Phase – 1 through 4. Phase 1, to be completed in December 2016, would roughly comprise the 01 and some of the 02 priority requirement satisfaction as a guideline. This is flexible, as the State is interested in also including high impact requirements satisfaction as the scope of Phase 1 at the potential expense of higher priority items in the scope.

B.3 Validation Method:

- Measurement (M) – The method of verification shall be by instrumented means, with calibrated instrumentation traceable to the National Institute of Science and Technology
- Analysis (A) – The method of verification shall be logic, based upon reason and fact, and presented by documentation
- Demonstration/Testing (D) – The method of verification shall be by cause-and-effect action (observed stimulus/response). This includes, but is not limited to, full functional verification.
- Inspection (I) – The method of verification shall be by direct observation; use of the non-calibrated (simple) tools is permitted

General Requirements: Public Facing

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
					USER INTERFACE AND PERSONALIZATION		
B	SHO.INTUITLT6.OIT	OIT	01	1	The application shall present an intuitive interface, such that any task completion time is less than 6 seconds.	M	
B	SHO.INTUIT95.OIT	OIT	01	1	The application shall present an intuitive interface such that the user will experience a 95% task success rate.	M	
B	SHO.INTUITSAT.OIT	OIT	01	1	The application shall present an intuitive interface such that the user will experience high task level satisfaction	A	
B	SHO.FAVROAD.TMC	TMC	02	1	User shall be able to add and save favorite routes for any combination of any of the modes (multi-modal) of transportation comprising walk, bike, car, bus transit, rail, air, ferry	D	
B	SET.CONFIGLAB.TMC	TMC	02	1	User shall be able to designate favorite routes with user configurable labels (ex. "work commute")	D	
B	SET.FAVROUT.TMC	TMC	02	1	Favorite transportation routes shall appear upon app access	D	
B	SHO.LOCHOME.TMC	TMC	03	2	The application shall target the location of the app user or vehicle as the home view	D	
B	SAV.POIFAV.TMC	TMC	04	3	The app shall allow saving Points of Interest (POI) as favorites. **	D	
B	SAV.POIDATA.TMC	TMC	05	3	Application shall provide a Point of Interest form to include label, phone number, notes, street address corresponding to the POI.	D	
B	INC.ADRESPIC.OIT	OIT	05	3	POIs and Favorites shall have the capability of having an associated image displayable through the app	D	
B	PSH.DMVLOC.DMV	DMV	02	1	Default Favorites shall include DMV locations upon initial app download**	I	
B	SHO.FAVNOTE.TMC	TMC	02	1	Favorite Notifications per Navigation requirements herein shall appear upon app access (example, sho.locnote.tmc, sho.rtalerts.tmc)	D	
I	SET.SPENLANG.DTC	DTC	02	1	Spanish or English shall be settable as a user preference. **	D	
B	SET.VISAUD.OIT	OIT	03	2	User preferences setting shall be available for visual and auditory output or both**	D	
B	SET.HFTACT.OIT	OIT	04	2	User preferences setting shall be available for hands-free and/or tactile input**	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
B	SET.DURARR.OIT	OIT	04	2	User preferences setting shall be available for travel time in duration and/or by arrival**	D	
B	SET.DRIWARN.TMC	TMC	04	2	The user shall have the capability to select how far ahead to alert the user of road problems (5, 10 or 15 miles) as a preference with voice alerts when in drive mode.**	D	
B	SET.WARNPER.OIT	OIT	03	3	User shall have the ability to set time periods of none, 5 minutes, or 15 minutes to re-hear geofenced advisories or re-receive notifications **	D	
B	SET.DRIVEINF.OIT	OIT	04	1	User preferences setting for driving mode to display speed, compass direction, or neither**	D	
B	SET.ROUTPREF.OIT	OIT	02	1	Driving route preference choices shall include “fastest route,” “shortest route,” and “lowest carbon footprint.”**	D	
B	SET.RERTPREF.OIT	OIT	04	1	Re-routing shall be preference-set to manual or automatic**	D	
B	SHO.ROTATE.OIT	OIT	01	1	Display shall rotate dependent upon user device orientation in devices with gyroscopes**	D	
B	SHO.ROTATEDEF.OIT	OIT	01	1	Display shall default to portrait in the absence of a device gyroscope**	D	
B	SHO.DAYNITE.OIT	OIT	03	2	Application shall accommodate automatic or manual nighttime map setting (e.g., inverted backgrounds)	D	
E	SET.CROWD.TMC	TMC	04	2	User shall be provided a setting to opt into crowdsourcing initiatives, for both push and pull of data (marketing, promotion of new ideas and beta testing/user feedback)**	D	
E	SET.GEOFEN.TMC	TMC	04	2	User shall be provided a setting to opt out of Geofencing-driven notifications (associated messaging of various types: public relations/community outreach, emergency, etc.)**	D	
E	SET.LOCONOFF.OIT	OIT	01	1	User shall be able to set location service usage for the app to on or off with a description of the capabilities disabled when location service usage is off. **	D	
B	SET.LAYERS.TMC	TMC	02	1	User shall have the ability to turn on/off layers for display **	D	
B	SHO.LAYERPERS.TMC	TMC	02	1	User-selected layers shall persist between sessions (last setting is saved for next session)**	D	
E	SET.PUBPRIV.TMC	TMC	03	2	Application will provide layer data based upon Public vs. Internal (DelDOT-only) access. Some layers may present different information if the accessing device is State-owned.	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
B	SET.PEDONOFF.TMC	TMC	05	3	Application shall provide a pedometer function per average human physical characteristics**	D	
I	SET.PARALERT.TMC	TMC	03	2	Application shall allow Paratransit passenger pick-up alerting that is user selectable, via app notification, SMS and/or voice announcement**	D	
B	SHO.WIDGET.OIT	OIT	04	3	Application shall provide a widget function to allow a user's "quick glance" at traffic local to device location, showing driving times to frequent destinations	D	
B	PSH.PLATPREF.OIT	OIT	03	3	Username and user configurations shall be portable across devices based upon a user ID (e.g., email address), regardless of device platform (Android, Windows, Apple)	D	
					NAVIGATION		
F	INC.GPSFUNC.TMC	TMC	01	1	User navigation shall be GPS-based, optionally allowing user to use high-accuracy location methods in concert with GPS (including mobile networks, for example)	D	
B	SHO.MULTI.TMC	TMC	02	1	Multi-modal navigation (turn-by-turn as applicable) shall be incorporated to integrate route information across modes: walk, bike, car, bus transit, rail, air (PHL, BWI, SBY, ILG - see https://catalog.data.gov/dataset/airport-status-web-service), ferry. Bike and walking routes should include public trails and multi-use pathways (~506 miles statewide)	D	
I	INC.GPSBOUNDS.TMC	TMC	02	1	GPS navigation for the app shall work within the extents of the sites identified herein at a minimum. For example, a boundary would be comprised between PHL, BWI, SBY and a 10-mile radius of the Cape May ferry terminal into New Jersey in addition to providing GPS navigation within 100% of the State's borders.		
I	SHO.LOCNOTE.TMC	TMC	04	2	App shall provide for location-specific notifications ("drill down")	D	
I	SHO.RTALERTS.TMC	TMC	03	2	Alerts shall be presented along chosen route	D	
I	SHO.TRAVTIME.TMC	TMC	02	1	App shall display travel time for chosen route, encompassing all planned modes of travel	D	
E	SET.TRAVTIME.TMC	TMC	01	1	User collected data (typical routes, time of day, etc.) shall be employed as part of route awareness to produce and present real-time information on travel time for chosen routes and favorites	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
B	SET.REROUTE.TMC	TMC	04	1	App shall employ active re-routing as multimodal conditions change, such as traffic accident (effecting drivers and transit), vehicle maintenance (effecting train, bus, air), etc. when a shorter duration path occurs as a result of the conditions	A	
B	SET.WAYPTS.TMC	TMC	03	3	Application shall allow waypoints for routing	D	
B	SHO.SEARCH.TMC	TMC	01	1	Application shall allow for search for Addresses, Locations, and Roads.	D	
B	SHO.PARKING.TMC	TMC	04	3	Application shall assist the user in finding Parking (particularly at the beaches)	D	
I	SHO.TRKPARK.OIT	TMC	04	3	Application shall track the number of truck parking spaces at State rest areas showing space availability and routing upon selection.	D	
B	SHO.ALTFUEL.TMC	TMC	05	4	Application shall assist in locating alternative fuel stations (biodiesel, electric vehicle recharge, etc.) for example using USDOE's mobile alternative fueling station locator data (http://www.afdc.energy.gov/afdc/locator/m/stations/)	D	
					MAPS		
B	SHO.XGRAFS.TMC	TMC	01	1	Application shall provide updated, development-compliant graphics (per Item 5 of the Project Scope section herein), to increase ease of use leading to an improved user experience	A	
B	SHO.LAYERS1.TMC	TMC	02	1	The following data layers shall be accessible within the application: Traffic Flow, Travel Times, Traffic Cameras, Advisories, Roadway Weather, Water Over Roadway, Snow Accumulations, Snow Plow Locations, Restrictions, Message Signs, Variable Speed Limits, Railroad Crossings, Woodland Ferry Signs, Red Light Enforcement, Airports, Trails, Bus Routes/Locations, Inspection Lanes, DE Passenger Rail Stations/SEPTA and AMTRAK Train Locations, Trails, Wheelchair Accessible Walkways. Where data is provided by Delaware via a Javascript Object Notation feed (see https://tmc.deldot.gov/tmcx/app/partner/home/intro/welcome/welcome.html and http://deldot.gov/json/rle.json), that data should be the source of the layer content.	D	
B	SHO.LAYERS2.TMC	TMC	03	2	The following data layers shall be accessible within the application: (Non-advisory) Road Hazards, Para Transit, Weather Radar, Fixed Speed Limits	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
B	SHO.LAYERS3.TMC	TMC	04	3	The following data layers shall be accessible within the application: Rideshare (Park and Ride), Fare Cards, Planning layers (shows upcoming road construction project information on the map by time period, for example one layer per fiscal year)	D	
F	SHO.ADICON.TMC	TMC	01	1	Ads/PSAs shall provide minimized visual clutter and only appear when not in motion, or, alternatively/additionally provide an icon on the map for the business	D	
					COMMUNICATION		
F	SET.HAZARD.TMC	TMC	05	2	App shall provide user issue input mechanisms – road hazards such as potholes, objects in the road, accidents, congestion, vehicles/excessive garbage on shoulder.	D	
E	SHO.NON911.TMC	TMC	04	2	App shall display warning that issue input per set.hazard.tmc is not a substitute for 911 communications.		
F	SHO.HAZINP.TMC	TMC	04	2	App shall provide various options for public input on incidents and issues (social media, PTT, in-app menu)	D	
F	PSH.ISSUE.TMC	TMC	04	2	User issue input data shall be provided to DelDOT	D	
F	INC.INCPHOTO.TMC	TMC	05	2	User device camera function shall be incorporated to provide picture or video capture to attach to incident reporting means (i.e. SMS, email, voice, etc.)	D	
I	SHO.CLOSECAL.TMC	TMC	02	1	App shall allow planned closures along route favorites to appear on calendar. **	D	
I	PSH.SOCMEDIN.TMC	TMC	02	1	Application shall provide Social Media network feeds (including but not limited to Facebook, Flickr, Twitter, YouTube, and the DelDOT Blog)*	D	
I	PSH.SOCMEDOUT.TMC	TMC	05	3	App shall allow user to set up push automated notifications to social media (currently DelDOT pushes to Facebook and Twitter), or generate a push in an ad-hoc fashion e.g., users sign in with Twitter or Facebook and can post “Hints” about transportation on the map.	D	
I	PSH.EMCOMMS.TMC	TMC	01	2	App shall deliver emergency communications and banner messaging within the app	D	
I	SHO.NOTINCID.TMC	TMC	01	1	Application shall indicate advisories for accidents and other unplanned incidents on the roadways	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
I	SHO.TRAFDELAY.TMC	TMC	02	1	Application shall advise of any traffic conditions (weather, accident, construction, etc.) that may cause delay	D	
I	SHO.RADAR.TMC	TMC	03	2	The app shall display an overlay weather radar graphics layer when user selected with roughly a rectangular geographical minimum area covering BWI (westernmost edge), PHL (northernmost edge), SBY (southernmost edge) and ~ 10 miles east of the Delaware beaches (as the easternmost edge)	D	
I	SHO.WEATHARR.DTC	DTC	03	2	App shall have the ability to provide weather alerts associated with destination transit stop(s)	D	
I	SET.DRIVERLOC.TMC	TMC	02	1	App shall track the location of the driver on the map, and notify the user of problems ahead through voice alerts.	D	
I	SHO.RESTRICTS.TMC	TMC	02	1	Application shall provide lane restriction and road closure notifications*	D	
I	SHO.TRAFNEWS.TMC	TMC	02	1	Application shall provide Traffic News*	D	
I	SHO.WTMCAUD.TMC	TMC	02	1	App shall stream Radio Station WTMC current audio broadcast*	D	
I	INC.NAVROUTE.TMC	TMC	03	2	App shall provide navigation and route engagement via voice, with real-time info and advisories provided to the end user. Advisories/alerts shall also include transit.	D	
I	SHO.TRANSITLC.DTC	DTC	01	2	App shall provide capability to ask about location of “my” bus or train	D	
B	SHO.STOPOFF.DTC	DTC	03	2	The app shall alert riders when their stop is close and it’s time to exit the bus or train.	D	
E	SHO.AUDLANG.TMC	TMC	03	2	Audible content shall be available in English or Spanish	D	
B	SHO.NOTIAUD.TMC	TMC	03	2	App shall provide a voice alert capability (bilingual) based on GPS location of device (with opt-in personalization option). Alerts can also vary and allow for opt-out based on type (PR, emergency, etc.)	D	
E	SHO.CONTLANG.TMC	TMC	02	1	All app visual content shall be available in English or in Spanish**	D	
I	SET.ENGVIN.TMC	TMC	01	2	App shall utilize best-in-class Voice Recognition - English	A	
E	SET.SPANVIN.TMC	TMC	04	3	The app shall include best-in-class Voice Recognition - Spanish	A	
B	SET.HFOPS.TMC	TMC	04	2	App shall employ device hands-free operation utilizing full voice command	D	
I	SHO.VOICETRN.TMC	TMC	04	2	The app shall provide a turn-by-turn voice-guided navigation for auto trips during driving segments	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
B	SHO.DRIWARN.OIT	OIT	04	2	Alerts and notifications shall be announced once, until one of the following conditions occurs: <ul style="list-style-type: none"> An update has been broadcast; User has come into range of another advisory; User selected time period has elapsed and all advisories/notifications are re-announced 	D	
I	SHO.PARARRI.DTC	DTC	03	2	Application shall provide Paratransit alerting via app notification, SMS and voice announcement per requirement set.paralert.tmc, at 30 minutes, 15 minutes, and 5 minutes from pickup location	D	
B	INC.DIALING.TMC	TMC	02	1	App shall utilize context-sensitive PTT dialing (use device button or app-provided screen button) to contact TMC or DTC in preferred mode (voice, text/chat, email). **	D	
B	SET.DIALING.TMC	TMC	02	1	PTT shall be context-sensitive to transportation mode (e.g., driver mode contacts TMC; transit passenger mode contacts DTC; defaults to TMC)**	D	
B	INC.VIDEOCHAT.TMC	TMC	05	4	PTT shall support video calls (e.g., Skype, Facetime) as a preference mode for user devices with front camera functionality**	D	
I	PSH.TRNSTSKED.DTC	DTC	01	1	Application shall provide Transit Schedules**	D	
I	SHO.TRANSPAY.DTC	DTC	04	2	App shall provide information on payment options for transit (bus/train) with directions to payment terminals. **	D	
I	PSH.FERRYSKD.DRBA	DRBA	05	4	The app shall provide Cape May-Lewes Ferry and Forts Ferry schedules**	D	
F	SHO.LINKRETN.TMC	TMC	03	2	Application shall feature a closed-loop ability to connect to other mobile apps and mobile web enabled urls and come back seamlessly	D	
B	SHO.ALARM.TMC	TMC	04	2	Ability to request information from the app shall be provided that can be delivered via several options, at a scheduled time each day or ad hoc. Ex: the app could be used as an alarm clock that wakes you up with a traffic report about your commute.	D	
I	SHO.DRIVEINF.OIT	OIT	02	1	App shall show compass direction and speed per user preference (set.driveinf.oit)	D	
I	SHO.TRAFSPEED.TMC	TMC	02	1	Application shall display average traffic speeds*	D	
I	SHO.VARMSG.TMC	TMC	02	1	Application shall provide variable message sign display by location*	D	
I	SHO.VARSPEED.TMC	TMC	02	1	Application shall provide variable speed limit sign display*	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
I	SHO.REDLTENF.TMC	TMC	02	1	Application shall provide Red Light Enforcement camera locations*	D	
I	SHO.WOODFRY.TMC	TMC	02	1	Application shall provide the Woodland Ferry schedule and status*	D	
I	SHO.WRKSHPS.TMC	TMC	02	1	Application shall provide DeIDOT Workshop information*	D	
I	SHO.SNOPLO.TMC	TMC	01	1	Application shall accommodate Snow Plow Tracking*	D	
B	SET.MEETCAL.TMC	TMC	05	3	For users interested in attending workshops and DeIDOT public meetings, the app shall provide a calendar appearance and the option for a text reminder or notification corresponding to travel time to the meeting location	D	
I	SET.PLNSHOP.PLN	PLN	05	3	The app shall provide a connection between a Planning layer location and an associated Workshop	D	
					STREAMING VIDEO		
F	SHO.VIDEOMENU.TMC	TMC	01	1	Application shall provide Menu Selections for video	D	
I	SHO.TRAFCAM.TMC	TMC	01	1	Application shall show Traffic Camera streaming video	D	
I	SHO.INSPLANE.DMV	DMV	02	1	Application shall show Department of Motor Vehicle sites Inspection Lanes	D	
I	SHO.FERRYVID.DRBA	DRBA	04	2	Application shall show Cape May-Lewes Ferry, Delaware Memorial Bridge, ILG streaming video	D	
					BRANDING AND SCRIPTING		
E	SHO.DISCLAIM.TMC	TMC	02	1	The app shall display a disclaimer to ensure any activity that may conflict with driving is communicated as such.	D	
E	SET.DISABLE.TMC	TMC	01	2	The app shall have a driver mode to disable other functions after driver notifies app they are behind the wheel (i.e. voice only switch-over)	D	
E	SET.ENABLE.TMC	TMC	03	2	The app shall provide a passenger mode designation to enable functionality a driver should not use (consider passenger naming because users might use the app similarly otherwise while not a passenger per sé)	D	
I	SHO.RECOVER.OIT	OIT	03	2	After signal loss and subsequent return, the app shall provide messaging that app has located user at 'x location' and full function is restored.	D	
E	INC.GPSTRACK.OIT	OIT	02	2	The app shall have the ability to provide anonymous location data of the mobile device at all times during movement when powered on, regardless of whether or not app is in use.	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
E	PSH.ITUNEPLAY.OIT	OIT	01	1	Application shall be available on Google Play and iTunes, meeting any requirements for the app to be downloaded from these services	D	
F	INC.GPSCAL.TMC	TMC	02	1	The app shall only require access to location and calendar data from user devices for Phase 1	D	
E	SHO.PERMSNS.OIT	OIT	01	1	Upon selection of application for device installation, Ap permissions shall communicate user is ok with having their location services and calendar active for better personalization and internal usage of the app	D	
E	INC.PHONE.OIT	OIT	03	2	The app will require access to the user device phone number.	D	
E	PSH.MINIMAL.OIT	OIT	01	1	App loading/initialization and use shall require minimal download time and data consumption	A	
E	PSH.SDMAPS.OIT	OIT	01	1	Application shall provide option to install basemaps and other data as noted as required for offline mode on native device SD memory towards minimizing internet connection data transmit and receive	D	
E	PSH.WINDSTOR.OIT	OIT	05	3	Application shall be available in Windows (App) Store, meeting any requirements for the app to be downloaded from this service	D	
B	PSH.POI.OIT	OIT	05	4	The application shall allow for pushing points of interest via app updates	D	
E	SHO.ICON.OIT	OIT	01	1	The application shall clearly display ownership via the DeIDOT icon used in the currently deployed app.**	D	
F	PSH.ICON.OIT	OIT	02	1	The system shall allow for convenient changing and additions of app branding icons.	D	
					DATA REPOSITORY/DATABASE REQS		
F	PSH.USERDATA.TMC	TMC	02	1	System shall provide data repository/database means to gather user info from the mobile app (location based and other wise)	A	
F	SET.STATDYN.OIT	OIT	02	1	System shall have the ability to tag data as static versus dynamic (i.e. live/real-time) in mapping layers and beyond. Static being roads, bus stops, etc., dynamic being buses, cars, people, etc.	A	
E	PSH.MIGRATA.OIT	OIT	02	1	System shall have the capability to receive migrated data from existing application, where necessary.	D	
F	SET.USERCHAR.TMC	TMC	03	2	System shall have the ability to tag or characterize users based on volume of usage and type of usage and discern whether users are regular or periodic (perhaps living out of state but occasionally traveling to DE)	A	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
E	SHO.CARIF.TMC	TMC	05	4	App shall display on Android Auto, MHL (Mobile High-Definition Link), MirrorLink, Apple CarPlay, Windows in the Car -compliant platforms – user vehicles can select and display the fully functional app on in-car video interfaces	D	
F	INC.BORDERAP.TMC	TMC	05	3	App shall have the capability to transition the mobile app user to other mobile apps relevant to their course of travel as they move in and out of Delaware, suggesting the next app triggered by exiting the State and provide seamless transition into it. <i>For example</i> , “just click into the setting on the app, then tap "Edit Location Preferences" (on iOS devices) or "Location Advisory Preferences" (on Android devices), and "check" the adjoining state advisories you'd like to hear. When you drive near or into those states, traveler advisories within your range will continue to be broadcast to you.”	D	
F	INC.UPTIME.TMC	TMC	01	1	System Design and component selection shall reflect a minimum 99.99% uptime.	A	
					TRANSIT		
I	SHO.FRTRTT.DTC	DTC	01	1	App shall have the ability to consume and present real-time travel info for Fixed Route Transit (including bus, train/rail arrival, and departure).	D	
I	SHO.AUGSTATS.DTC	DTC	05	4	App shall provide augmentation: user holds their device into the air and immediately sees augmented real-time information on trains and buses. The user can select whether he wants to see station boards in full screen or on a map.	D	
F	INC.TRIPLAN.DTC	DTC	02	1	App shall provide a link or path to reach existing DART Trip planner functionality, with a path to return	D	
F	SET.ENDTIME.DTC	DTC	03	2	Trip planner algorithms shall be included to show which buses to take at what time in order to get to planned destination by a certain time-point, and how to reach each destination (multi-modal) in between stops and final destination where necessary.**	D	
I	SHO.DISRUPTS.DTC	DTC	03	2	App shall relay Transit Service disruption notifications – schedule changes, special services/event, fare changes, ride policy	D	
I	SHO.DISRUPTS.DRBA	DRBA	05	4	App shall provide Cape May-Lewes Ferry and Forts Ferry Service disruption notifications – schedule changes, special services/event, fare changes, ride policy	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
B	PSH.LOCALSKED.DTC	DTC	02	1	App shall contain schedule redundancy (transit schedule always available regardless of app connectivity).	D	
E	SHO.ARRIVE.DTC	DTC	01	2	System shall have the ability to confirm and associate passenger to the bus or train, confirm it is correct, and its schedule is being adhered to while traveling. For example, if a user opts into sharing their location by saying they are on a transit vehicle, the real-time arrival information will be calculated for that transit trip and each stop on the route. Note: this functionality could be used to validate complaints and provide evidence that rider was on the particular bus in question.	D	
I	SHO.BUSFEATS.DTC	DTC	04	2	App shall provide Bus features – model, Wi-Fi, capacity, etc.	D	
E	SHO.SURVEY.DTC	DTC	05	2	App shall contain a customer survey push, stop/route/time specific with problem reporting	D	
E	PSH.CONFIRM.DTC	DTC	04	2	App shall provide confirmation of “real” reporting – how we know if a citizen is actually a DTC customer	D	
I	SHO.STOPCHAR.DTC	DTC	02	1	App shall show transit stop physical characteristics – ramps vs. curbs, shelter, etc.	D	
I	SHO.PASSPICK.DTC	DTC	04	2	Application shall provide an App/SMS/Voice notification to individuals picking up a passenger as the passenger approaches destination via transit (bus, rail, air) – request/configure through app	D	
I	SHO.PARARTT.DTC	DTC	04	2	App shall have the ability to consume and present real-time travel info for Para Transit (including integration to bus, train/rail arrival, and departure). Note: Privacy (HIPAA) considerations apply.	D	
B	SET.PARAREQ.DTC	DTC	04	2	Application shall provide a Paratransit request and routing function	D	
B	INC.PARAPHONE.DTC	DTC	01	1	Application shall provide a PTT function for passenger Paratransit reservation.	D	
E	INC.RIDESHARE.DTC	DTC	02	1	App shall integrate DART rideshare information (could be a redirect to their site, with a path back to mobile app when done, or an assessment of backend technology to be improved inside the mobile app)	D	
I	SHO.RIDELOT.DTC	DTC	05	3	App shall provide Rideshare location, lot status (full/available), capacity	D	
B	SET.REPORTISS.DTC	DTC	03	2	The app shall provide the means for transit passengers to report when their bus is delayed, overcrowded, needs cleaning or otherwise experiencing problems.	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
					FLUIDITY		
F	PSH.ARCHITECT.OIT	OIT	02	1	App shall be built in a modular, open architecture for code base	A	
F	SHO.LOOKFEEL.OIT	OIT	01	1	Application multi-platform deployment shall comprise a consistent look and feel across each (i.e. same look and feel, menu options etc. across iOS to Android and Windows).	A	
B	INC.KITLOLLI.OIT	OIT	01	1	Application shall be fully functional across Android versions 4.4x (“Kit Kat”), 5.x.x (“Lollipop”)	D	
B	INC.MARSH.OIT	OIT	05	3	Application shall be fully functional on Android versions 6.x (“Marshmallow”)	D	
B	INC.IOS789.OIT	OIT	02	1	Application shall be fully functional across Apple mobile iOS versions 7, 8 and 9	D	
B	INC.WATCHOS.OIT	OIT	03	2	Application shall be fully functional on Apple mobile WatchOS	D	
B	INC.WIN10.OIT	OIT	05	3	Application shall be fully functional on Windows 10 (certified)	D	
B	SET.SCREENTO.OIT	OIT	01	1	Screen time-out configuration options shall be available via the app**	D	
B	INC.SCREENON.OIT	OIT	02	1	App setting shall be provided for user device screen to remain on while charging as a default option**	D	
F	INC.SHUTDOWN.OIT	OIT	03	2	App shall automatically shut down if not used for over 6 hours to prevent excessive battery drain from GPS use**	D	
F	PSH.FEEDCOMMS.OIT	OIT	02	1	System shall accommodate App feedback/rating – comments get sent to a program service desk for consideration to add requirements for dev consideration	D	
					REVENUE		
B	SET.MYDMV.DMV	DMV	04	3	App shall replicate MyDMV login	D	
B	SET.AUTOREG.DMV	DMV	05	3	App shall replicate online purchasing for auto registration	D	
B	SET.EZPASS.TOLL	TOLL	05	4	App shall provide EZPass refill and transponder replacement functions	D	
I	SHO.TOLLS.TOLL	TOLL	05	4	App shall display toll information – location and cost**	D	
B	SET.REDLIGHT.DMV	DMV	05	4	App shall provide Red Light fine payment medium	D	
I	SHO.FAREAMT.DTC	DTC	04	2	App shall provide Fare amount of planned transit conveyances	D	
I	SHO.FARECARD.DTC	DTC	05	3	App shall display fare payment method and fare card purchase locations	D	

Type	Requirement Ref.	Suffix	Priority	Phase	Description	Validation Method	Compliance (Y, M, N)
B	SET.FAREBUY.DTC	DTC	04	3	App shall allow purchase of farecards (shopping cart functionality)	D	
B	SET.FAREBUY.DRBA	DRBA	05	4	App shall provide for Cape May-Lewes Ferry and Forts Ferry reservations and ticket purchases	D	
I	SHO.PSADV.DTC	DTC	02	1	System shall provide for highway safety/public service announcements and advertisements to appear on the app (can sell bus wrap and mobile app ads as a package for more revenue to DelDOT, for example) – or sell based upon clickthroughs. Phase 1 will <i>not</i> include advertisements, however the mechanism for ad insertion, placement and display modes shall be provided.	D	
B	PSH.GASADDR.DMV	DMV	05	4	App shall promote gas purchases in Delaware – investigate agreement with GasBuddy or other popular gas price app to take a selected station address as a feed for routing	D	
I	SHO.WELCOME.TMC	TMC	05	4	App shall promote the Delaware Welcome Center (I-95 Rest Stop) – look ahead menus (investigate “call” ahead ordering with the service area merchants), gas pricing, ads to Delaware attractions, notifications for vehicles on I-95. <i>Note</i> – will need some roadside/overhead signage advertisement of the app at the State borders on I-95 to grab the out-of-staters.	D	

*Features of current application

**Feature and data available in offline mode

APPENDIX C – BUSINESS REQUIREMENTS FOR INTERNAL APP

C.1 Description

The Requirements presented herein represent a “wireframe” foundation for which further specifications may be derived or refined based upon stakeholder input. The sole users of this app will be DelDOT employees and designated contractors and consultants; for example to administer road construction projects in the field, real-time. This app may be the same as the public-facing app with access-level layer privileges.

C.2 Requirement Table Definitions:

Type:

- F (functional, “doing” – leads to processes/procedures);
- I (informational, “knowing” – leads to information, help facility, data descriptions and persistence);
- B (behavioral, “acting” – leads to urgency, frequency, accuracy, volume, usability, flexibility);
- E (environmental, “being” – leads to distribution, location, security, cultural, legal).

Requirement Ref. – shorthand reference to the full requirement described in the corresponding row. Generally the prefix indicates a verb, such as “SHO” represents “show,” “PSH” = “push” etc.

Suffix – division or section that is the source of the requirement or data for the function.

Priority – 01 is critical, ranging to 05 being a low (“nice to have”) priority rating of a requirement.

Phase – 2 through 4.

C.3 Validation Method:

- Measurement (M) – The method of verification shall be by instrumented means, with calibrated instrumentation traceable to the National Institute of Science and Technology
- Analysis (A) – The method of verification shall be logic, based upon reason and fact, and presented by documentation
- Demonstration/Testing (D) – The method of verification shall be by cause-and-effect action (observed stimulus/response). This includes, but is not limited to, full functional verification.
- Inspection (I) – The method of verification shall be by direct observation; use of the non-calibrated (simple) tools is permitted

General Requirements: Internal Facing

Type	Requirement #	Suffix	Priority	Phase	Description	Validation Method
					GENERAL	
F	INC.LAYERPHON.TMC	TMC	01	2	App Permissions/roles shall be based upon phone information (phone number)	D
B	SHO.LAYERPHON.TMC	TMC	03	3	System will utilize same app as Public-facing app with different data depending upon permissions, or will be a separate app providing a view of what the Public sees per Appendix B.	D
E	SHO.PUBLICSEQ.TMC	TMC	03	2	App shall contain all requirements functionality provided for public facing version for the prior and current phase, in addition to requirements contained within this section	A
					USER INTERFACE	
I	SHO.CALLERS.TMC	TMC	01	2	App shall have the ability to display exact location of callers contacting DelDOT via mobile app	D
I	SHO.ANALPDF.OIT	OIT	05	4	System shall provide analytics reporting delivered via pdf	D
B	PSH.ANALDATA.OIT	OIT	02	2	System shall provide a customizable analytics engine user interface capable of pulling from all collected data	D
E	INC.ENHLOC.TMC	TMC	04	3	System shall provide an enhanced vehicle location and tracking (beyond public facing)	A
F	SET.DEFSIGN.TMC	TMC	02	2	System shall have the ability to enter and select display characteristics of significant events, so they stand out on the map	D
B	SHO.NONMOB.OIT	OIT	05	4	Application shall be Web enabled or url-based for PC-based end users	D
B	SHO.FIBER.OIT	OIT	05	4	App shall display Fiber Map and field inventory	D
B	INC.INCPHOTO.TPS	TPS	05	2	App shall utilize a camera function to provide picture or video capture to attach to inspection reports	D

Type	Requirement #	Suffix	Priority	Phase	Description	Validation Method
E	INC.PHOTOGPS.TPS	TPS	05	2	App shall allow Geotagging of project, inspection reports and associated pictures/videos	D
					NAVIGATION	
B	SET.SUPEREND.MOP	MOP	04	3	App shall allow for Supervisor push of endpoints to field devices, showing work location or work area	D
I	SHO.DISPROUTE.OIT	OIT	03	2	(Internal app requirement) The app shall provide an interface allowing for routing to a location and condition reporting as part of a dispatch function for non-public app processes.	D
					MAPS	
B	SET.GEOFENC.OIT	OIT	02	3	System shall provide Geofencing management capabilities	D
					COMMUNICATION	
B	PSH.EMPLCOM.OIT	OIT	03	3	Employee shall have the capability to communicate via app (i.e. replicate push and pull notifications for example, for alternate internal uses).	D
B	PSH.DDSOCMED.TMC	TMC	01	2	App shall include the ability to allow internal user to set up push automated notifications to social media (currently DelDOT pushes to Facebook and Twitter), or generate a push in an ad-hoc fashion, define examples of what pushes could be for (road condition alerts, etc.)	D
F	SET.911BANNER.TMC	TMC	01	2	App shall have the ability to manage delivery of emergency communications and banner content messaging inside the app	D
F	PSH.VOICEALRT.TMC	TMC	03	3	System shall provide console management for voice alert pushes based on GPS location of device (with opt-in personalization option).	D
F	PSH.HAZARD.TMC	TMC	01	2	System shall provide data from user road hazard report to TMC	D

Type	Requirement #	Suffix	Priority	Phase	Description	Validation Method
B	SET.FLDREPT.TPS	TPS	05	4	App shall provide ability to input reporting from the field – projects, inspections	D
I	SHO.EQUIPSTAT.MOP	MOP	05	4	App shall show DelDOT equipment status (e.g., mowers, dump trucks, backhoes, etc.), idle and in-use	D
B	PSH.EVNTDISP.TMC	TMC	04	2	System shall have the ability to push changes to the display characteristics of significant events (stand out on the map)	D
					STREAMING VIDEO	
B	SHO.NPVIDEO.TMC	TMC	01	2	App shall allow viewing of non-public traffic cameras based upon privileges	D
B	SET.VIDEOSTAT.TMC	TMC	05	4	App shall allow changing traffic camera status from public to non-public, and vice-versa	D
					BRANDING AND SCRIPTING	
E	SHO.BRAND.TMC	TMC	05	4	App shall show Division-specific branding, such as insignia, mission statement, vision statement	D
F	SET.POI.OIT	OIT	02	2	System shall allow for additional POIs to be defined and included for (subsequent) app releases	D
					DATA REPOSITORY/DATABASE	
B	SET.PERFMEAS.OIT	OIT	04	2	System shall employ performance measuring and heartbeat capabilities: using collected data from all inputs to determine baseline normalcy, and display outliers via color-coding or other means for use in proactive adjustments and internal planning inputs	D
B	SHO.ANALYTICS.OIT	OIT	04	2	System shall provide analytics database capability	D
F	SHO.USAGE.OIT	OIT	05	4	System shall provide app usage reporting	D
B	SET.CROWD.OIT	OIT	03	3	System shall provide a means to collect, present, and manage crowdsourcing information internally	D

Type	Requirement #	Suffix	Priority	Phase	Description	Validation Method
F	SHO.DEVICEDAT.OIT	OIT	05	4	System shall provide a means to track user downloads by OS and device type, track and project growth trends, and link single users together across devices.	A
B	SHO.WORKFORS.MOP	MOP	05	4	App shall employ DelDOT field workforce input and tracking	D
I	SHO.MATSTATS.TPS	TPS	05	4	App shall allow for field materials status communication and management	D
F	PSH.AASHTO.TPS	TPS	05	4	System shall interface with AASHTOWare Project SYNC service	D
					TRANSIT	
B	PSH.PARAROUT.DTC	DTC	04	3	System shall allow Supervisor push of route to field devices, showing pickup location	D
F	SET.PASSROUTE.DTC	DTC	02	2	System shall associate passenger to a Paratransit vehicle by user phone number	D
F	SHO.COMPLAINT.DTC	DTC	02	2	System shall provide data from user report/complaint from the app to State email distribution list	D
					FLUIDITY	
F	SHO.STATALERT.OIT	OIT	01	2	System shall provide app server and services status alerts to State email distribution list	D

APPENDIX D – COST PROPOSAL PAGES

COST MATRIX 1					
Item	Task Description	Qty	Unit	Unit Cost	Total Cost
1.1	Project Management	1	Lump Sum		
1.2	DTI/ARB Requirements	1	Lump Sum		
1.3	Testing and Documentation	1	Lump Sum		
1.4	Software Licensing	?	Each		
1.5	Training - End User	2	Each		
1.6	Training -- DeIDOT/DTI Support	2	Each		
1.7	Maintenance Cost Year 1*	1	Each		
1.8	Maintenance Cost Year 2*	1	Each		
1.9	Maintenance Cost Year 3*	1	Each		
1.10	Maintenance Cost Year 4*	1	Each		
1.11	Maintenance Cost Year 5*	1	Each		
1.12	Total Cost				

Appendix D – Cost Proposal Pages

COST MATRIX 2 - OPTIONAL ITEMS					
Item	Task Description	Qty	Unit	Unit Cost	Total Cost
2.1	Web-Based Training -- End User	TBD	Each		
2.2	Web-Based Training -- DeIDOT/DTI Support	TBD	Each		
2.3					
2.4					
2.5					

APPENDIX E – REQUIRED FORMS

The following forms are required to be completed by the Vendor and returned with each Proposal:

- **Certification of Eligibility**
- **Certificate Of Non-Collusion**
- **Certification Of Restrictions On Lobbying**

CERTIFICATION OF ELIGIBILITY

Delaware Department of Transportation

Request for Proposal 1783 – Mobile Enhancements Services

Attention: Wendy B. Henry, Contract Administration
Delaware Department of Transportation
800 Bay Road
Dover, DE 19901

We have read Request for Proposal number 1783 and fully understand the intent of the RFP as stated, certify that we have adequate personnel and knowledge to fulfill the requirements thereof, and agree to furnish such services in accordance with the contract documents as indicated should we be awarded the contract.

_____ hereby certifies that it is not included on the United States Comptroller General’s Consolidated List of Persons or Firms Currently Debarred for Violations of Various Public Contracts Incorporating Labor Standard Provisions.

Signed: _____

Title: _____

Date: _____

Sworn and subscribed before me this _____ day of _____, 2016.
My commission expires _____.

Notary Public

CERTIFICATE OF NON-COLLUSION

By submission of this bid, each Vendor and each person signing on behalf of any Vendor certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

- 1) The prices in this Proposal have been arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting to such prices, with any other bidder or with any competitor;
- 2) Unless otherwise required by law, the prices which have been quoted in this Proposal have not been knowingly disclosed by the Vendor and will not knowingly be disclosed by the Vendor prior to opening, directly or indirectly, to any other Vendor or to any competitor; and
- 3) No attempt has been made or will be made by the Vendor to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

Company Name

Authorized Signature

Date

Sworn and subscribed before me this _____ day of _____, 2016.
My commission expires _____.

Notary Public

CERTIFICATION OF RESTRICTIONS ON LOBBYING

The Bidder or Offeror certifies, to the best of its knowledge and belief, that:

- 1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of a federal department or agency, a member of the U.S. Congress, an officer or employee of the U.S. Congress, or an employee of a Member of the U.S. Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification thereof.

- 2) If any funds other than federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions (as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)).

- 3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

THE BIDDER OR OFFEROR, _____, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF EACH STATEMENT OF ITS CERTIFICATION AND DISCLOSURE, IF ANY. IN ADDITION, THE BIDDER OR OFFEROR UNDERSTANDS AND AGREES THAT THE PROVISIONS OF 31 U.S.C. §§ 3801 ET SEQ. APPLY TO THIS CERTIFICATION AND DISCLOSURE, IF ANY.

_____ Signature of the Bidder or Offeror's Authorized Official

_____ Name and Title of the Bidder or Offeror's Authorized Official

_____ Date

APPENDIX F– LINKS FOR DTI REQUIREMENTS

Category/File Name	Web Address
<i>Access</i>	
Acceptable Use Policy	http://dti.delaware.gov/pdfs/pp/AcceptableUsePolicy.pdf
Acceptable Use Policy Self Test	http://dti.delaware.gov/information/aup_self_test.shtml
Domain Naming Standards	http://dti.delaware.gov/pdfs/pp/DomainNamingStandards.pdf
Domain Name Request Process	http://state.extranet.dti.state.de.us/documents/Domain_Name_Request_Process.pdf
<i>Architecture</i>	
System Architecture Standard	http://state.extranet.dti.state.de.us/documents/SystemArchitectureStandard.pdf
Systems Environment Standard	http://dti.delaware.gov/pdfs/pp/SystemsEnvironment.pdf
Database Management System Standard	http://dti.delaware.gov/pdfs/pp/DatabaseManagementSystems.pdf
Data Modeling Standard	http://dti.delaware.gov/pdfs/pp/DataModelingStandard.pdf
Document Imaging Standard	http://dti.delaware.gov/pdfs/pp/DocumentImagingStandard.pdf
Geographic Information System Standard	http://dti.delaware.gov/pdfs/pp/GeographicInformationSystems.pdf
Website Common Look & Feel	http://dti.delaware.gov/pdfs/pp/WebsiteCLF.pdf
<i>Network</i>	
Cabling and Wiring	http://dti.delaware.gov/pdfs/pp/CablingAndWiringStandard.pdf
<i>Privacy</i>	
Disclosure of Individual User e-Resource Records Policy	http://dti.delaware.gov/pdfs/pp/eRecordsRequestPolicy.pdf
<i>Security</i>	
State of Delaware Information Security Policy	http://dti.delaware.gov/pdfs/pp/DelawareInformationSecurityPolicy.pdf

Electronic Signature Standard	http://dti.delaware.gov/pdfs/pp/ElectronicSignature.pdf
Encryption Key Management Policy	http://dti.delaware.gov/pdfs/pp/EncryptionKeyManagementPolicy.pdf
Mobile Device Encryption Standard	http://dti.delaware.gov/pdfs/pp/MobileDeviceEncryptionStandard.pdf
Remote Access Standard	http://dti.delaware.gov/pdfs/pp/RemoteAccessStandard.pdf
Secure File Transport	http://dti.delaware.gov/pdfs/pp/SecureFileTransport.pdf
Strong Password Standard	http://dti.delaware.gov/pdfs/pp/StrongPasswordStandard.pdf
Web Application Security	http://dti.delaware.gov/pdfs/pp/WebApplicationSecurity.pdf
Virus Protection Standard	http://dti.delaware.gov/pdfs/pp/VirusProtectionStandard.pdf
VPN Policy	http://dti.delaware.gov/pdfs/pp/VPNPolicy.pdf