



**COMMONWEALTH OF VIRGINIA
VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT)
ADMINISTRATIVE SERVICES DIVISION
1201 E BROAD STREET
RICHMOND, VIRGINIA 23219**

Note: To the extent allowed by law, this public body does not discriminate against faith-based organizations in accordance with the Code of Virginia, § 2.2-4343.1 or against a bidder or offeror because of race, religion, color, sex, national origin, age, disability, sexual orientation, gender identity, political affiliation, or status as a service disabled veteran or any other basis prohibited by state law relating to discrimination in employment. VDOT is committed to increasing procurement opportunities for small and micro businesses, including small or micro businesses that are owned by minorities, women, or disabled veterans, and strengthening the Commonwealth's overall economic growth through the development of its IT Offerors.

REQUEST FOR PROPOSAL 156899-RFP

Project Name: **Multi-Modal Enhancement via Dynamic Incentivization (DI)**

Issue Date:	March 4, 2022
Due Date/Time:	April 29, 2022, 2:00 PM Eastern
Single Point of Contact (SPOC):	Tiffany Winfrey
Ph. No:	(804) 692-0455
E-mail Address:	tiffany.winfrey@vdot.virginia.gov

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1. INTRODUCTION

A. Request for Proposal Objective

The purpose of this Request for Proposal (“RFP”), issued by the Virginia Department of Transportation (“VDOT”), is to select a qualified Offeror to implement, deploy, and operate a **Dynamic Incentivization (“DI”) in Northern Virginia (“NoVA”)**. Release of this RFP is the second step in a two-tiered competitive procurement--process. In the first step, Offerors were invited to respond to a **Request for Qualification (“RFQ”)** by submitting an **Expression of Interest (“EOI”)**. A subset of Offerors, drawn from those submitting EOIs, were then pre-qualified/short-listed to compete to deploy this DI initiative. Now those Offerors who have been pre-qualified/short-listed will have the opportunity to respond to this RFP with full technical and pricing proposals.

Only those Offerors that received a signed letter from the VDOT Contracting Officer stating the Offeror has been pre-qualified/short-listed to respond to RFP No. 156899 and capable of meeting the “**Must-Have**” factors of this solicitation (see Section 3 Subsection B) may respond to this request-for-proposal. The VDOT Evaluation Team will review and score proposals in accordance with the evaluation criteria established for this RFP. Scores from the EOI assessment will not factor into the evaluation of the responses to this DI RFP. VDOT will award a contract to the Pre-Qualified Offeror who has made the best proposal and provides the best value to the Department and the Commonwealth.

In this document, “Pre-Qualified Offeror” refers to an entity pre-qualified/short-listed in the EOI phase (RFQ#156899, *Multi-Modal Enhancement via Dynamic Incentivization*, eVA IFQC 55-3) of the procurement process to respond to this RFP. “Pre-Qualified Offeror” also means “Supplier” (or “Bidder” or “Offeror” or “Contractor” or “Vendor”) that submits a proposal in response to this RFP.

Note that the pre-qualification letter pertains only to the composition of the Pre-Qualified Offeror team described in the EOI submission. “Pre-Qualified Offeror team composition” refers to the proposed organizational structure of the Offeror team that will perform the work (prime/subcontractor, joint venture, other alliances, etc.) and identification of the partner members (firms, universities, and other organizations) who will participate on the Offeror team. Changes in team composition between the EOI submission and subsequent RFP response that alter the qualifications and experience of the team may impact evaluation (see Section 3.C).

PROPOSALS SUBMITTED BY FIRMS NOT PRE-QUALIFIED TO RESPOND TO THIS RFP WILL NOT BE CONSIDERED.

B. Project Term and Options

The *initial term* of the contract is estimated at *30 months*, as follows:

- 18 months for development and deployment of Dynamic Incentivization, and
- 12 months for operational support of the DI initiative.

This initial term will be followed by *five (5) one-year (1) optional renewal periods* for extending DI operational support. VDOT will provide the Offeror with a minimum of 90 days’ advanced notice on whether it intends to exercise the next sequential optional renewal.

C. Project Overview

The purpose of this procurement is to solicit sealed proposals from Pre-Qualified Offerors and make award to an Offeror team to furnish a Software-as-a-Service (“SaaS”) Dynamic Incentivization (“DI”) solution for travelers in or through Northern Virginia. The DI solution will offer incentives to the public for changing mode, route, or departure time in ways that lessen the overall impact of congestion and incidents. For example, if there was a major crash on Interstate 95 (“I-95”) that could impact travel in Northern Virginia, commuters who regularly drive that route might be offered an incentive to delay their departure or take transit. The goal of DI is to incentivize and reward a relatively small number of commuters who have the willingness and flexibility to safely change their travel patterns in a manner that improves the efficiency of the transportation network as a whole. An additional goal of the solution is to change travel behaviors in the long-term, so the solution will also reward travelers for continued

use of travel modes that reduce or eliminate Single-Occupant Vehicle (SOV) trips. While the initial deployment of DI will be limited to NoVA, the solution should be capable of scaling to other parts of the Commonwealth as well.

Under this DI procurement, VDOT is seeking an innovative solution that will offer incentives that bring about behavior changes in the short- and long-term and which are financially sustainable over time. The incentives will be generated, verified, and managed by a common back-end system, and incentives will be offered to the public via one or more mobile applications (“apps”). The incentives will be organized into three complementary programs:

- *Dynamic Incentives* – Created in real time in response to incidents.
- *Challenges* – Short-term incentives in response to planned events (e.g., construction, Metro station maintenance closures) or to reinforce specific behaviors.
- *Loyalty Incentives* – Long-term incentives to reinforce the use of active and shared modes.

These incentives are intended to encourage behavior changes that reduce the impacts of incidents and planned events and decrease usage of SOVs.

D. Innovation to Government

The Commonwealth encourages all Pre-Qualified Offerors to bring innovative ideas and/or solutions to government—ideas that result in cost and operational efficiencies or improvements, while simultaneously enhancing the services that governments provides to citizens.

E. SWaM Participation in Project

It is the policy of the Commonwealth to contribute to the establishment, preservation, and strengthening of small businesses and micro businesses, including those small or micro businesses owned by women, minorities, or service-disabled veterans; and to encourage their participation in Commonwealth procurement activities. The Commonwealth encourages all Suppliers to provide for the participation of these small businesses through partnerships, joint ventures, subcontracts, and other contractual opportunities.

Offerors qualified to respond to this RFP must submit a Small Business Subcontracting Plan (see Appendix E). It is the goal of the Commonwealth that over 42% of its purchases be made from small businesses. The Subcontracting Plan must be included in the proposal submission.

A Supplier which is a small business, a small woman-owned business, a small minority-owned business, or a small service-disabled veteran-owned business, as defined in § 2.2-4310 or § 2.2-1604 of the Code of Virginia, or a certified micro business as defined in Executive Order Number 20 (2014), is a SWaM business. If Supplier is a SWaM business, the Supplier should include a copy of all Virginia SWaM certifications with its proposal. No Supplier shall be considered a small business, a woman-owned business, a minority-owned business, a service-disabled veteran business or a micro business unless certified by the Department of Small Business and Supplier Diversity (DSBSD). For information, go to <http://www.sbsd.virginia.gov/>.

Please provide a *Small Business (SWaM) Subcontracting Plan* as set forth in Appendix E. In the submitted Small Business (SWaM) Subcontracting Plan, please state the percentage of the contract, during the Initial Contract Period and any Subsequent Renewal Periods, that will be spent with SWaM subcontractors. Please also include a list of all subcontractors you plan to utilize who are not Virginia-certified SWaM businesses in Appendix C, *Supplier Experience and Reference Spreadsheet*. If the Supplier does not plan to use small business subcontractors in executing a contract resulting from this RFP, so state on the Small Business (SWaM) Subcontracting Plan – Appendix E.

Offerors shall specify in the *Small Business Subcontracting Plan* the percentage of work to be performed by SWaM team members. For the SWaM goal, Offerors will be evaluated on the proportion of work, up to 42%, that will be performed by Virginia-certified SWaM businesses.

F. Disadvantaged Business Enterprise Policy

It is the policy of the Virginia Department of Transportation that Disadvantaged Business Enterprises (DBE) as defined in 49 CFR Part 26 shall have every opportunity to participate in the performance of

federally funded contracts. A list of certified DBE firms is maintained on the **Department of Small Business and Supplier Diversity's (DSBSD)** web site (www.sbsd.virginia.gov) under the Small Business and Supplier SWaM and DBE Directory. Contractors are encouraged to take all necessary and reasonable steps to ensure that DBE firms have opportunities to compete for and perform services on this contract, including participation in any subsequent supplemental contracts. If the contractor intends to subcontract a portion of the services on the project, the contractor is encouraged to seek out and consider DBE firms as potential subcontractors. The contractor is encouraged to contact DBE firms to solicit their interest, capability and qualifications. Any agreement between a contractor and a DBE firm whereby the DBE firm promises not to provide services to other contractors is prohibited.

The DBE goal for this procurement is 15%. The DBE goal shall be met.

G. DBE and SWaM Compliance

VDOT is required to capture DBE and SWaM payment information on all contracts. The successful prime contractor will be required to complete Form C-63 ASD for federally funded projects on a quarterly basis.

Any DBE or Small, Women-owned, and Minority-owned (SWaM) firm must become certified with DSBSD prior to submitting a response to this solicitation. If a DBE or SWaM firm is the prime contractor, the firm will receive full credit for planned involvement of their own forces, as well as the work that they commit to be performed by DBE or SWaM subcontractors. DBE or SWaM prime contractors are encouraged to make the same outreach efforts as other contractors. DBE or SWaM credit will be awarded only for work actually being performed by them. When a DBE or SWaM prime contractor subcontracts work to another firm, the work counts toward the DBE or SWaM goals only if the other firm is itself a DBE or SWaM. A DBE or SWaM prime contractor must perform or exercise responsibility for at least 30% of the total cost of its contract with its own workforce.

DBE or SWaM certification entitles contractors to participate in VDOT's DBE and SWaM programs. However, this certification does not guarantee that the firm will obtain VDOT work, nor does it attest to the firm's abilities to perform any particular work.

H. VDOT Overview

VDOT serves the citizens of the Commonwealth and traveling public daily through its mission to plan, deliver, operate and maintain a transportation system that is safe, moves people and goods, enhances the economy, and improves quality of life. The Commonwealth Transportation Board guides the Department's work much like a board of directors and provides funding for roadways, airports, seaports, and rail and public transportation. The Virginia Secretary of Transportation functions as the Chair.

Virginia has the third largest state-maintained highway system in the country. VDOT maintains over 58,000 miles of roads, bridges, and tunnels, and employs over 7,700 people through a diverse workforce. VDOT has nine highway districts, divided into thirty-one residencies; the residencies are responsible for one to four counties each. VDOT also has five Transportation Operations Centers (TOCs) across the Commonwealth. These centers monitor traffic and travel conditions, dispatch personnel to respond to incidents and events, coordinate traffic signals, manage the collection and usage of traffic data, and provide information to travelers to make informed choices about when and how they travel. VDOT also has assigned staff at its District Offices and Residencies, including Northern Virginia and Fredericksburg, to assist with traffic signal and incident management.

I. Overview of RM3P

The *Regional Multi-Modal Mobility Program (RM3P)* – a partnership between the Office of the Secretary of Transportation, the Virginia Department of Transportation (VDOT), the Northern Virginia Transportation Authority (NVTA), and the Virginia Department of Rail and Public Transportation (DRPT) – is an innovative technology initiative funded under the Commonwealth of Virginia's Innovation and Technology Transportation Fund (ITTF). This initiative aims to improve safety, reliability, and mobility for travelers in Northern Virginia and Metropolitan Fredericksburg. The intent of this technology initiative is to leverage the collaborative use of real-time data by Virginia's public

and private sectors to optimize the functioning of the transportation network, as well as to provide to customers the tools to make more informed travel choices. Stakeholders across the region are expected to participate in this important advancement, known to many as the *RM3P Initiative*.

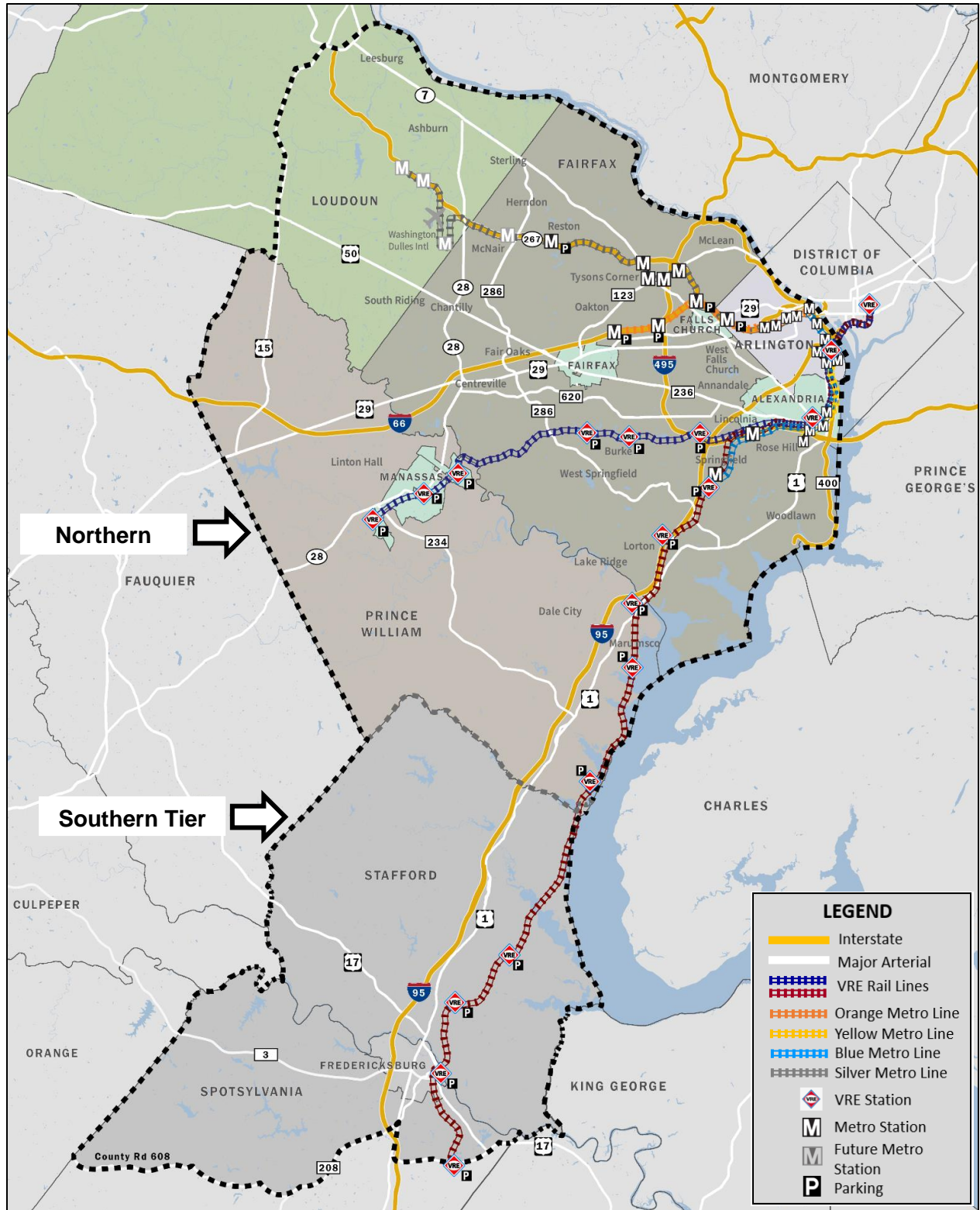


Figure 1: Boundaries of the RM3P Region

To achieve the goals of improving travel safety, reliability, and mobility, five sets of technological projects – referred to as program elements – will be implemented under other regional initiatives. These include the:

- Data-Exchange Platform (DEP),
- Artificial Intelligence-Based Decision Support System for Enhancing Transportation Incident Management (AI-DSS),
- Commuter Parking Information System (CPIS),
- Multi-Modal Analytical Planner (MMAP), and
- Regional Multi-Modal Mobility Enhancement via Dynamic Incentivization (DI).

As shown in Figure 1, the RM3P Region is comprised of two tiers: a *Northern Tier*, that encompasses Northern Virginia, and a *Southern Tier*, that includes Metropolitan Fredericksburg (i.e., Stafford County, Spotsylvania County, and the City of Fredericksburg). The Northern Tier is the “core area” of RM3P, where all five RM3P program elements will be implemented. Expansion to the Southern Tier was made possible by award of a federal Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) grant to VDOT. Specifically, the ATCMTD grant will enable the AI-DSS and CPIS components to be deployed in the Southern Tier of the region. Additionally, limited DEP capabilities necessary to support the AI-DSS and CPIS extensions will apply to the Southern Tier.

This RFP pertains to deployment of the DI initiative. The Loyalty and Challenge program described herein is to be implemented across the entire Northern Tier. The Dynamic Incentives program will initially be limited to specific corridors and “hot spots” within the Northern Tier, but will be expanded over time. The DI initiative must be scalable for easy geographic expansion as conditions and funding allow. All travelers will be eligible to participate in the program, but rewards will only be available for travel within or through the program area.

J. Responding to this RFP

Interested Pre-Qualified Offerors shall demonstrate they have the necessary technical prowess, products, and approach to meet VDOT’s requirements to implement and deploy the DI, as specified in Section 4, Statement of Work.

Pre-Qualified Offerors responding to this RFP must certify they meet all of the *Must-Have* factors of the DI initiative (see Section 3, Subsection B). Only those submissions that meet 100-percent of the Must-Have factors will be further evaluated.

VDOT expects to make a single contract award as the result of this solicitation. VDOT may, at its sole discretion, make one award, multiple awards, or none at all.

Alliances among Offerors are acceptable to meet the requirements of this procurement. However, VDOT requires a single point-of-contact for interfacing with the Offeror team for purposes of contract discussions and negotiations.

VDOT reserves the right to adjust the requirements or scope of this solicitation. In the event that any modifications become necessary, amendments to this solicitation will be posted on the Commonwealth’s procurement portal, eVA, at: <http://www.eva.virginia.gov>.

K. Non-Discrimination of Contractors

A bidder, offeror, or contractor shall not be discriminated against in the solicitation or award of this contract because of race, religion, color, sex, sexual orientation, gender identity, national origin, age, disability, faith-based organizational status, any other basis prohibited by state law relating to discrimination in employment or because the bidder or offeror employs ex-offenders unless the state agency, department or institution has made a written determination that employing ex-offenders on the specific contract is not in its best interest. If the award of this contract is made to a faith-based organization and an individual, who applies for or receives goods, services, or disbursements provided pursuant to this contract objects to the religious character of the faith-based organization from which the individual receives or would receive the goods, services, or disbursements, the public

body shall offer the individual, within a reasonable period of time after the date of his objection, access to equivalent goods, services, or disbursements from an alternative provider.

- a) **Title VI Non-Discrimination General Assurance:** The Virginia Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders/offerors that it will affirmatively insure that for any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids/proposals in response to this solicitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

L. Additional Non-Discrimination Assurances: USDOT 1050.2A/Appendix A

During the performance of this contract, the consultant, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") shall comply with shall **USDOT Order No. 1050.2A/Appendix A** as follows:

(1) **Compliance with Regulations:** The contractor shall comply with the Regulation relative to nondiscrimination in federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

(2) **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

(3) **Solicitations for Subcontractors, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

(4) **Information and Reports:** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Virginia Department of Transportation to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Virginia Department of Transportation as appropriate, and shall set forth what efforts it has made to obtain the information.

(5) **Sanctions for Noncompliance:** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Virginia Department of Transportation shall impose such contract sanctions as it may determine to be appropriate, including, but not limited to: (a.) withholding of payments to the contractor under the contract until the contractor complies, and/or (b.) cancellation, termination or suspension of the contract, in whole or in part.

(6) **Incorporation of Provisions:** The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

The contractor shall take such action with respect to any subcontract or procurement as the Virginia Department of Transportation may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Virginia Department of Transportation to enter into such litigation to protect the

interests of the Virginia Department of Transportation, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

M. Additional Non-Discrimination Assurances: USDOT 1050.2A/Appendix E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the nondiscrimination statutes and authorities specified in USDOT Order No. 1050.2A/Appendix E, including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English Proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*).

2. PROPOSAL ADMINISTRATION

A. Overview

This RFP was developed to provide Pre-Qualified Offerors with the information required to prepare and submit full technical and cost proposals. This section, together with the information in Section 3, "RFP Response Instructions," outlines the administrative procedures and guidelines you must use and comply with when preparing a submission.

This RFP consists of the following documents and attachments:

- The current document entitled, *Multi-Modal Enhancement via Dynamic Incentivization*. This includes:
 - Section 1, Introduction
 - Section 2, Proposal Administration
 - Section 3, RFP Response Instructions
 - Section 4, Statement of Work
- Appendix A – *Service Level Agreements* (Complete and submit with proposal)
- Appendix B – *DI System Needs* (For informational purposes only)
- Appendix B.1 – *DI System Requirements Spreadsheet* (Complete and submit with proposal)
- Appendix C – *Supplier Experience and References* (Complete and submit with proposal)
- Appendix D – *State Corporation Commission (SCC) Form* Complete and submit with proposal
- Appendix E – *Small Business Subcontracting Plan* (Complete and submit with proposal)
- Appendix F – *Enterprise Cloud Oversight Service (ECOS) Overview* (For informational purposes only)
- Appendix F.1 – *ECOS Assessment Questionnaire* (Complete and submit when requested by VDOT)
- Appendix G – *Pricing* (Complete and submit with proposal)
- Appendix H – *VDOT Agreement: Standard Solutions Contract* (Exceptions taken, if any, to the terms and conditions in Appendix H should be detailed in Appendix K. A redlined version of Appendix H, if applicable, will be required upon request from VDOT from those Suppliers who move into negotiations.)
- Appendix I – *Cloud Services Terms and Conditions* (Exceptions taken, if any, to the terms and conditions in Appendix I should be detailed in Appendix K. A redlined version of Appendix I, if applicable, will be required upon request from VDOT from those Suppliers who move into negotiations.)
- Appendix J – *Must-Have Factors, Product Specifications, and VDOT Standard Agreement Questionnaire* (Complete and submit with proposal)
- Appendix K – *Offeror Exceptions to VDOT Standard Agreement and Cloud Terms and Conditions* (Complete and submit with proposal)
- Appendix L – *Proprietary/Confidential Information Summary Form* (Complete and submit with proposal, if applicable)
- Appendix M – *FHWA 1273, Required Contract Provisions* (For informational purposes only)
- Appendix N – *107.15, Special Provision for Use of Enterprises* (For informational purposes only)
- Appendix O – *Form C-111, Minimum DBE Requirements* (Complete and submit with proposal)
- Appendix P – *Form C-112, Certification of Binding Agreements with DBEs* (Complete and submit with proposal)
- Appendix Q – *Form C-49, DBE Good Faith Efforts Documentation* (Complete and submit with proposal)
- Appendix R – *Form C-63, Vendor Payment Compliance Report* (For informational purposes only; successful Offeror shall prepare and submit form quarterly)
- Appendix S – *Firm Data Sheet* (Complete and submit with proposal)
- Appendix T – *Title VI Evaluation Form* (To be completed and submitted by awarded Supplier)

The annotations alongside each Appendix item, above, indicate whether the Appendix content (1) is provided for informational purposes only, or (2) needs to be completed and submitted with the Offeror's proposal. See Section 3 and the individual Appendices for additional details.

B. Virginia Public Procurement Act (VPPA)

This RFP is governed by the Virginia Public Procurement Act (“VPPA”), Code § 2.2-4300 *et seq.*, and other applicable laws.

C. Anti-Discrimination- § 2.2-4310 and § 2.2-4311, and § 2.2-4343.1(E)

By submitting its proposal, an Offeror certifies to the Commonwealth that it will conform to the provisions of the Federal Civil Rights Act of 1964, as amended as well as the Virginia Fair Employment Contracting Act of 1975, as amended; and, where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act and § 2.2-4311 of the VPPA.

D. Ethics in Public Contracting - § 2.2-4367 *et seq.*

By submitting its proposal, an Offeror certifies that its proposal is made without collusion or fraud; that the Offeror has not offered or received any kickbacks or inducements from any other bidder, Offeror, manufacturer, or subcontractor in connection with its proposal; and that the Offeror has not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged. In addition, an Offeror will disclose any actual or perceived conflicts of interest in its proposal and will notify VDOT if it becomes aware of a potential conflict of interest in the future.

E. Announcement of Award - § 2.2-4300 *et seq.*

If a contract is awarded or announced as a result of this solicitation, the purchasing agency will post notice of the award decision on the DGS/DPS eVA web site (<http://www.eva.virginia.gov>) for a minimum of 10 days. No award decision will be provided verbally. Any final contract, including pricing, awarded as a result of this solicitation will be made available for public inspection.

F. Authorized to Transact Business in the Commonwealth - § 2.2-4311.2

All Offerors organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership, or registered as a limited liability partnership must be authorized to transact business as a domestic or foreign business entity if so required by Title 13.1 or Title 50 of the Code, or as otherwise required by law. In its proposal, Offeror must include either (i) Offeror’s identification number issued to it by the State Corporation Commission; or (ii) a statement explaining why Offeror is not required to be registered. No award can be made to any Offeror without this information unless this requirement is waived. Appendix D of this solicitation includes a space for Offeror to provide the information required in (i) or (ii) of this subsection. If an Offeror anticipates the use of additional resources through a partnership or subcontracting relationship with other entities, the requirements of this Section 2.F will also apply to any entities that are engaged as partners or subcontractors of Offeror providing services directly to the Commonwealth upon award of a contract.

G. Prohibited Products and Services - § 2.2-5514

No Offeror may include as part of its proposal, whether directly or indirectly through subcontractors, any hardware, software, or services that have been prohibited for use on federal systems by the U.S. Department of Homeland Security.

H. Prohibited Contributions and Gifts - § 2.2-4376.1

No Offeror that submits a proposal in response to this solicitation, and no individual who is an officer or director of the Offeror shall knowingly provide a contribution, gift, or other item with a value greater than \$50 or make an express or implied promise to make such a contribution or gift to the Governor, his political action committee, or the Secretary of Administration during the period between the submission of the proposal and the award of any resulting contract award with an expected value of \$5 million or more dollars.

I. Liability

The issuance of this RFP and the receipt of information in response to this RFP will not cause VDOT to incur any liability or obligation, financial or otherwise, to any Offeror. VDOT assumes no obligation

to reimburse or in any way compensate an Offeror for expenses incurred in connection with its submission.

J. Nondisclosure

All proposal information submitted by an Offeror will be treated as confidential prior to contract award and will not be disclosed except as required by law or by court order.

K. Proprietary Information

VDOT reserves the right to use information submitted in response to this document in any manner it may deem appropriate in evaluating the fitness of the solution(s) proposed. Ownership of all data, materials, and documentation originated and prepared for VDOT pursuant to the RFP shall rest exclusively with VDOT and shall be subject to public inspection in accordance with the § 2.2-4342 of the VPPA and the Virginia Freedom of Information Act.

Trade secrets or proprietary information submitted by an Offeror in connection with a procurement transaction or prequalification application submitted pursuant to subsection B of § 2.2-4317 of the Code shall not be subject to the Virginia Freedom of Information Act (Code § 2.2- 3700 *et seq.*) if an Offeror:

- i). invokes the protections of this section in writing prior to or upon submission of the data or other materials,
- ii). identifies specifically the data or other materials to be protected, and
- iii). states the reasons why protection is necessary.

Please note that you may not designate as trade secrets or proprietary information (a) an entire bid, proposal, or prequalification application; (b) any portion of a bid, proposal, or prequalification application that does not contain trade secrets or proprietary information; or (c) line item prices or total bid, proposal, or prequalification application prices.

FAILURE TO COMPLY WILL RESULT IN THE DATA OR OTHER MATERIALS BEING RELEASED TO OFFERORS OR THE PUBLIC AS PROVIDED FOR IN THE VIRGINIA FREEDOM OF INFORMATION ACT.

When submitting a redacted proposal, the redacted version must have all proprietary information deleted that has been marked as “Proprietary.” Section numbers which are redacted should be identified as follows: Example: Section 3, Paragraph B: “Redacted”. The redacted version of the proposal must be carefully edited, altered, and refined by the Offeror in order to protect and maintain complete confidentiality of protected information. VDOT will not accept responsibility for any public disclosure of proprietary information that is a result of improper redaction by the Offeror. If a redacted version of the proposal is prepared, the Offeror must also submit the *Proprietary/Confidential Information Summary Form* (Appendix L). On the form, identify all items and pages in the proposal that contain proprietary information and the reason you deem the information proprietary. The classification of an entire proposal as proprietary or trade secret is not acceptable and will not be honored by VDOT or the Commonwealth. (See Section 3, Subsection F for additional instructions.)

L. Proposal Protocol

In order to be considered for selection, Offerors must submit complete responses to this RFP as described herein. Offerors must submit their proposals on The Commonwealth’s electronic procurement site eVA at www.eva.virginia.gov. In order to submit electronic proposals, Offerors must be registered in eVA.

The proposal must be signed by an authorized representative of the Offeror. Electronic signatures are acceptable.

Proposals should be prepared and organized as indicated in Section 3, *RFP Response Instructions*, providing a concise description of capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.

The following are instructions for submitting an electronic proposal:

- a. Go to <http://www.eva.virginia.gov/>
- b. Click on “I Sell to Virginia”
- c. Click on “eVA Vendor Training”
- d. Click on “Respond to IFBs-RFPs and more”

The entire proposal response including any/all attachment and any/all addenda must be submitted electronically in eVA no later than the closing date and time stated in this RFP.

It is the responsibility of the Offeror to ensure its proposal and all required attachments are properly completed, readable and uploaded to eVA by the date and time deadline stated on the electronic solicitation posting. Offerors should allow sufficient time to account for any technical difficulties they may encounter during online submission or uploading of documents. In the event of technical difficulties, Offerors should contact:

eVA Customer Care at (866) 289-7367 or email <mailto:eVACustomerCare@dgs.virginia.gov>.

Late proposals will not be accepted and will be automatically rejected from further consideration.

Note to Offerors: This solicitation includes the requirement for the Offeror to submit a Small Business Subcontracting Plan (SBSP) **with** the electronic proposal response in eVA. Offerors selecting “Vendor Will Complete All Work” box must be certified as a small/micro business by the Commonwealth of Virginia, Department of Small Business and Supplier Diversity (DSBSD) by the due date of this solicitation to participate in the SWaM Program.

If the Offeror is not a DSBSD-certified small business, the “Vendor Plans To Use Subcontractors” box must be selected and the Offeror shall identify the portions of the contract that will be subcontracted to DSBSD-certified small business for the initial contract period and any subsequent renewal periods.

M. Pre-Proposal Teleconference

An optional pre-proposal teleconference will be hosted by the Contract Officer on the date and time specified in Table 1. The pre-proposal conference is open to all Suppliers who register in advance. The virtual conference will begin promptly at the time indicated.

To participate in the pre-proposal conference, register with tiffany.winfrey@vdot.virginia.gov by sending an email stating your firm’s name and your participating representative(s), including title, company affiliation, and email address. (The registration deadline is three business days prior to the pre-proposal conference.) Registered Offerors will receive a teleconference access link and number for the call – this information shall not be forwarded to others. All questions generated prior to and during the meeting will be responded to in the form of a written addendum to the solicitation posted to eVA.

The purpose of this teleconference will be to allow participants the opportunity to ask questions and obtain clarification relative to this solicitation. While attendance at this teleconference is not a prerequisite to submitting a proposal, Offerors intending to submit proposals are encouraged to attend.

Please have a copy of the solicitation with you. Any changes resulting from this teleconference will be issued in a written addendum to the solicitation.

N. Single Point-of-Contact

It is the responsibility of the Offeror to inquire about and request clarification of any requirement in this RFP that is not understood. No verbal inquiries will be accepted outside of the pre-proposal teleconference. VDOT will not be bound by verbal responses to questions. Submit all inquiries concerning this RFP in writing by email, subject: “Questions on Solicitation 156859-RFP” to:

SPOC: Tiffany Winfrey
Email: tiffany.winfrey@vdot.virginia.gov

The deadline for submission of questions is specified in Table 1. No questions will be answered after that date. Questions submitted by three business days prior to the teleconference may be answered verbally during the pre-proposal teleconference in addition to the written response.

Offerors are to limit all contact, whether verbal or written, pertaining to this RFP to the designated SPOC for the duration of this proposal process. It is not permissible for any Offeror, or any entity working on behalf of an Offeror, to solicit information from any individual or government source other than from the official SPOC listed above. Any unauthorized solicitations for information from anyone other than the SPOC may be grounds for disqualification of Offeror's proposal.

O. Procurement Website

The Commonwealth's procurement portal, <http://www.eva.virginia.gov>, provides information about Commonwealth solicitations and awards. Offerors are encouraged to check this site on a regular basis and, in particular, prior to submission of responses to identify any amendments to the RFP that may have been issued.

P. Timetables

Table 1 summarizes key milestone dates associated with responding to this RFP.

Table 1: Milestone Dates for 156899-RFP

Milestone	Target Date
RFP posted to eVA	March 4, 2022
Pre-proposal conference	March 17, 2022, 11:00 AM ET
Deadline for submitting written questions	March 25, 2022, 4:00 PM ET
Proposals due	April 29, 2022, 2:00 PM ET

Q. eVA Registration Required

By the date of proposal submission, the selected Offeror(s) must be registered and able to accept orders through eVA. To register with eVA, select the "Sell to Virginia" button on the eVA website, <http://www.eva.virginia.gov>, for registration instructions and assistance.

R. Excluded Parties List

An Offeror will not be awarded a contract if it, or any of its affiliates or subcontractors, is an excluded entity on the federal government's System for Award Management ("**SAM**") at <https://www.vita.virginia.gov/supply-chain/scm-policies-forms/#sam>, or the Commonwealth's Debarment List as provided by Code § 2.2-4321 at the time of award.

3. RFP EVALUATION FACTORS AND RESPONSE INSTRUCTIONS

Interested Pre-Qualified Offerors shall demonstrate that they have the necessary qualifications, prior relevant experience, and capabilities to meet VDOT's requirements to implement and deploy the Dynamic Incentivization (DI) initiative, as specified in Section 4, Statement of Work, and Appendix B.1, DI System Requirements Spreadsheet.

Offerors responding to this RFP are to adhere to the specific format set forth in Table 3, below. VDOT will reject any proposal not in the specified format, or that does not address all the requirements of this RFP. Proposals should be thorough and concise. Avoid broad, unenforceable, or unmeasurable responses. Include all requested information in each section as indicated below.

A. Evaluation Factors

The evaluation factors applicable to this RFP are as follows:

- i. **Must-Have Factors:** Offerors responding to this RFP must certify they meet all of the Must-Have factors shown in Table 2:

Table 2: Must-Have Factors

No.	<i>Must-Have (M) Factors</i>
1.	(M) Proposal must be received by the due date and time. Incomplete or late submissions will not be reviewed.
2.	(M) The Offeror must include in its response the pre-qualification letter issued by VDOT.

Offerors must confirm that they meet the Must-Have factors by completing and submitting the spreadsheet in Appendix J. VDOT will review each proposal to confirm that these Must-Have factors are met. All Must-Have factors will be evaluated on a met-or-not-met basis. Any proposal that does not meet all of the Must-Have factors will be set aside and receive no further consideration.

Only those submissions that meet 100 percent of the Must-Have factors will be further evaluated.

- ii. The extent to which the Supplier's proposal satisfies the requirements identified in Section 4 of this RFP, the Appendix B.1 Requirements Spreadsheet, and Appendix H, VDOT Agreement: Standard Solutions Contract.
- iii. Supplier's viability and past performance (see Appendix C), including Supplier's diligence and thoroughness in following and completing the requirements of this solicitation.
- iv. Supplier's status as a DSBSD-certified small business or micro business, including small businesses or micro businesses that are owned by minorities or women, and Supplier's proposed Supplier Procurement and Subcontracting Plan (Appendix E).
- v. Supplier's employment of persons with disabilities to perform the specifications of the contract (See Section 1.F of this RFP).
- vi. Pricing (Appendix G), which may include submitted price, negotiated price, discounted price, total cost of ownership, etc.

B. Proposal Evaluation Process

VDOT will review each proposal received by the due date and time to determine whether it meets the "Must-Have" factors of this RFP. All Must-Have factors (Appendix J) will be evaluated on a met-or-not-met basis. Any proposal that does not meet all of the "Must-Have" factors will be set aside and will receive no further consideration.

The proposals that meet all the Must-Have criteria will be distributed to the evaluation team who will assess and score each Offeror's response to this RFP based on a review of the submitted materials.

This is a “best-value” procurement and proposals will be evaluated for their qualitative, technical, and sustainable features in addition to price. Proposals will be reviewed in terms of their ability to meet or exceed the agency’s requirements as stated in this RFP.

VDOT may elect to continue the evaluation of the most qualified proposal(s) and may request that an Offeror clarify or explain certain aspects of their proposals.

A numerical scoring system will be used to evaluate proposals. The point values assigned to each of the evaluation criteria are included in the file posted on eVA entitled “DI RFP 156899 Evaluation Category Weighting.”

At any time in the evaluation process, VDOT may conduct any or all of the following assessments:

- Review industry research
- Request Offeror to elaborate on or clarify specific portions of its proposal
- Invite Offeror to make a presentation
- Invite Offeror to demonstrate its products and/or participate in a pilot test
- Conduct discussions with key personnel
- Contact Offeror’s references
- Assess Offeror’s capability to comply with the Commonwealth’s security and data privacy policies, standards, guidelines, and related contract terms as specified in the RFP
- Review pricing
- Contracting an Offeror’s customers
- Requesting an Offeror elaborate on or clarify specific portions of their proposal, including, as applicable, any responses to the RFP’s security requirements.

VDOT may limit all of the above to the most qualified proposals. No Offeror is guaranteed an opportunity to explain, supplement, or amend its initial proposal. Each Offeror is encouraged to ensure that its initial proposal contains and represents its best offering. **You should submit your best proposal and not assume there will be an opportunity to negotiate, amend, or clarify any aspect of your initial submitted proposal.**

Each Offeror should be prepared to conduct product demonstrations, pilot tests, presentations, or site visits at the time, date and location of VDOT’s choice, should VDOT so request.

VDOT will select for negotiation those proposals deemed to be fully qualified and best suited based on the factors stated in the RFP. Negotiations will then be conducted with those Offerors. After negotiations, VDOT may select the proposal(s) that, in its opinion, is the best proposal(s) representing best value and may award a contract to those Offeror(s). For purposes of this RFP, VDOT will determine best value based on the value relative to the cost of the Service/Solution, giving consideration to the project’s budget objectives. As this is a cloud-based procurement (i.e., off-premise hosting), following VDOT’s selection of the best proposal(s) representing best value to the Commonwealth, Offeror’s failure to successfully answer, negotiate, and/or comply with security requirements necessary in order to approve Offeror’s cloud application, may result in removal from further consideration. Refer to Appendix F of the RFP.

If any Offeror fails to provide the necessary information for negotiations in a timely manner, or fails to negotiate in good faith, VDOT may terminate negotiations with that Offeror at any time.

VDOT reserves the right, at its sole discretion, to reject any proposal or cancel and re-issue the RFP. In addition, VDOT reserves the right to accept or reject in whole or in part any proposal submitted, and to waive minor technicalities when in the best interest of the Commonwealth.

VDOT SHALL NOT BE CONTRACTUALLY BOUND TO ANY OFFEROR PRIOR TO THE EXECUTION OF A DEFINITIVE WRITTEN CONTRACT.

C. Changes in Team Composition

The Offeror shall disclose all changes in composition of the Offeror team for the DI project that have occurred between submission of the EOI response and submission of this RFP proposal response.

This includes (1) the deletion from the Offeror team of any firms or other entities identified as members of the Offeror's team in the EOI response, (2) the addition to the Offeror team of any firms or other entities not identified as members of the Offeror team in the EOI response, (3) the unavailability of any key staff identified in the EOI response, and (4) any other changes (including role changes) or clarifications that impact, or could potentially impact, the composition of the Offeror team. If no changes in team composition have or will occur, the proposal shall affirmatively so state in the Team Composition Statement.

Changes to team composition that substantively alter the qualifications of the Offeror team will impact evaluation of the Offeror's proposal.

D. RFP Response Page Limits

Responses to this RFP are **limited to eighty (80) pages** in length for all content in Tabs 1-7 per Table 3, below. This limit is exclusive of the content in Tabs 8-12, including requirements, pricing, resumes, and forms. Resumes should be presented in Tab 10—resumes for all Key Personnel should be included, with individual resumes each limited to two (2) pages or less.

E. File Naming and Document Limits

In order to facilitate VDOT's review of the submitted proposals, you should label the files using the following naming convention: [RFP #].[Submission Date in format YYYYMMDD].[Name of Lead Offeror].Tab#[#].[Section Title]. Example: RFP#156859.20220131.OfferorName.Tab3.docx.

Each tab should be saved as a separate electronic file and contain the information specified for that tab in Table 3. If you are not redacting any parts of your submission, you do not need to submit Tab 12.

In the event that the size of any single file exceeds 60MB, an additional file should be created so that all files are within the size limits. If, for example, the "Response Content" (Tab X) of your submission is greater than 60MB, break the content into two files, labeling them TabXA and TabXB, respectively.

Submit your technical proposal response as an MS Word document. Font size should be 11-pt. or larger; top, bottom, and side margins should be one-inch or larger. Line spacing should be single or larger. Page size shall be limited to 8½ x 11-inches (page size exceptions are permitted for tables and figures). The page number limits, noted in Subsection E, are to be strictly adhered to. The requirements compliance matrix, price proposal, etc. should be submitted as MS Excel documents, using the furnished templates. Most of the required forms may be completed and submitted in portable document format (PDF).

The optional Proposal Redaction File (identifying proprietary information), if submitted, should be in portable document format (PDF).

The proposal shall be submitted electronically through the procurement portal. Go to www.eva.virginia.gov. Navigate to this RFP opportunity using the Virginia Business Opportunity search function. Then select "Respond Online."

F. Offeror's Submission Format

Responses shall be organized as specified in Table 3, below. The proposals are to include all of the information identified under "Content Summary" in the table. Also, the proposal submission should be organized by "Tab" number, as shown, with each tab constituting a separate electronic file.

Table 3: DI Proposal File Organization and Content

Tab No.	Section Title	Content Summary
Tab 1	Transmittal (Max. 1 page)	<ul style="list-style-type: none"> A signed letter, including identification of the name, title, affiliation, phone, and email of the Offeror's point-of-contact for this effort. Acknowledge and attach any Addendums to the RFP (will not count against page limit).

Tab No.	Section Title	Content Summary
		<ul style="list-style-type: none"> • Include a copy of the completed eVA registration confirmation (will not count against page limit).
Tab 2	Executive Summary (Max. 2 pages)	<ul style="list-style-type: none"> • Top-level summary of the most important aspects of the proposal. Should include a concise description of the proposed solution.
Tab 3	Solution and Methodology (Max. 36 pages)	<ul style="list-style-type: none"> • Summarize your understanding of the DI program effort. • Detail your team's overarching solution to supporting the DI program element. • Describe your approach to Software-as-a-Service in this particular project. Specify which products and tools will be used off-the-shelf, which will be customized, and which will have to be developed. Summarize your plans for new development. • Identify key components of the DI, how you propose to employ them, and your approach to each. These components may include dynamic incentives, loyalty programs, challenges, etc. • Describe how your proposed system and processes will promote adoption and usage by the public. Include marketing approach, gamification, personalization, etc. • Describe your plan for rolling out the DI, geographically and functionally. For example, do you propose to initially deploy the technology across the entire region, or begin with rollout to one or more sub-regions? Do you propose to rollout all capabilities and functions at once, or do so incrementally? During rollout, how do you propose to assess DI performance, and assure consistent quality in outcomes? • As indicated in Section 4, VDOT is interested in utilizing a Waterfall/Agile Hybrid methodology where system development is necessary. Given your proposed approach to this project, explain how you will incorporate the Waterfall/Hybrid methodology into your plans? For which activities will the methodology be applied? • Summarize specialized innovations your team will bring to the DI initiative? Explain how these innovations will contribute to the success and sustainability of the project. • Where applicable, summarize any deviations from the DI statement-of-work proposed. Provide a rationale for the proposed deviations. • Describe your strategy/approach to making the program financially sustainable, given that public funding will not be available indefinitely. Include your estimated schedule as to when private investment will exceed public funding and if/when government funds will no longer be needed – other than to voluntarily contribute incentive rewards. • Propose a preliminary set of measures to assess DI performance.

Tab No.	Section Title	Content Summary
Tab 4	Work Plan (Max. 28 pages)	<ul style="list-style-type: none"> • Walk through the nine tasks delineated in Section 4, Scope of Work: <ul style="list-style-type: none"> ○ Task 1. Project Management ○ Task 2. Marketing and Consumer Engagement Management ○ Task 3. Solution Elaboration ○ Task 4. Implement Shared Services Loyalty and Challenge Programs ○ Task 5. Implement Primary Mobile App for Loyalty and Challenges Programs ○ Task 6. Implement Shared Services Dynamic Incentives, including interfaces with AI-DSS and DEP ○ Task 7. Implement Primary Mobile App for Dynamic Incentives ○ Task 8. Support Integration for Third-Party Mobile Apps ○ Task 9. Warranty Service, Solution Revision, and Operations • For each task, identify the following: <ul style="list-style-type: none"> ○ Approach/methodology ○ Schedule ○ Task outcomes and deliverables ○ Identification of staff who will be involved in the task ○ Key risks and challenges, and proposed mitigation strategies ○ Innovations the team will bring to this task ○ Proposed deviations, if any, from the statement-of-work or requirements (with explanations) • Identify and detail out any proposed additions of tasks. Specify where the new tasks/subtasks would fit in the sequence of activities.
Tab 5	Schedule and Deliverables (Max. 4 pages)	<ul style="list-style-type: none"> • Include a detailed baseline project schedule, consistent with the scheduling framework specified in Section 4, Statement of Work, showing milestone timetables in calendar months following NTP (notice-to-proceed). • Specify deliverables per the Work Plan and show them in the baseline schedule.
Tab 6	Team Composition (Max. 4 pages)	<ul style="list-style-type: none"> • Team Composition Summary Statement: Disclose all changes to Team Composition pursuant to Section 3, Subsection C. If no changes have occurred or will occur, affirmatively so state. (If changes in Team Composition have occurred, you need to update the “pertinent experience” information that was included in your Expression of Interest (EOI) response to the RFQ. • Identify all of the organizations comprising your team. • Specify those firms on the team that are SWaMs and DBEs. The appropriate SWaM and DBE forms shall be completed and included under Tab 11. • Delineate the roles and responsibilities of each team member.

Tab No.	Section Title	Content Summary
		<ul style="list-style-type: none"> • Respond to the questions on experience and prior performance in Appendix C, Supplier Experiences and References (see Tab 11).
Tab 7	Staffing (Max. 5 pages, exclusive of resumes)	<ul style="list-style-type: none"> • Identify staff to be assigned to the project. • Specify those staff proposed as “Key Personnel.” • Identify staff roles and responsibilities, and past experiences qualifying staff for the assigned roles. • Include a table or matrix showing staff leads, assignments by task, and staff availability. • Include an Organization Chart. • Post resumes under Tab 9 for all Key Personnel.
Tab 8	System Requirements (No page limit)	<ul style="list-style-type: none"> • Go to Appendix B.1, <i>DI System Requirements Spreadsheet</i>. Fill in the requested information.
Tab 9	Resumes	<ul style="list-style-type: none"> • Include resumes for Key Personnel. • Limit length of individual resumes to 2 pages each.
Tab 10	Pricing (No page limit)	<ul style="list-style-type: none"> • Provide detailed pricing information pursuant to the instructions in Appendix G. • Do not include pricing data under any other tabs of the proposal.
Tab 11	Forms (No page limit)	<ul style="list-style-type: none"> • Furnish the following documents and forms in the sequence indicated: <ul style="list-style-type: none"> ○ <i>Qualifications Letter</i> from the VDOT Contract Officer indicating your firm was down-selected to compete for the RM3P DI project. ○ <i>Must Haves, Product Specs, VDOT Standard Agreement</i> (Appendix J) – Furnish the required information under all three tabs on the spreadsheet, incl. the Must-Have factors. For each Must-Have factor, certify whether the Offeror Team satisfies that factor. ○ <i>Supplier Experience and References</i> (Appendix C) – Fill in the required information in the workbook (all tabs) for the Prime Offeror. Provide detailed information on the “Experience Supplement” tab about projects comparable in scope to the DI. Include pertinent experience for all proposed members of the project team. Furnish the requested references, including at least three (3) points-of-contact who can attest to prior DI-related performance. ○ <i>Service Level Agreement (SLA)</i> (Appendix A) – Review the SLA. Identify and explain any exceptions taken and include the Appendix A document in your proposal. ○ <i>Firm Data Sheet</i> (Appendix S) – Complete and submit this form. ○ <i>SCC Form</i> (Appendix D) – Complete this form for Prime and all Sub-Contractors. ○ <i>Small Business Subcontracting Plan</i> (Appendix E). ○ <i>Form C-111, Minimum DBE Requirements</i> (Appendix O) and <i>Form C-112, Certification of Binding Agreements with DBEs</i> (Appendix P) –

Tab No.	Section Title	Content Summary
		<p>Both forms need to be completed and submitted with the proposal.</p> <ul style="list-style-type: none"> ○ <i>ECOS and Assessment Questionnaire</i> (Appendix F and F.1) – The questionnaire does not need to be submitted with the proposal (see “ECOS Compliance,” below). ○ <i>Title VI Evaluation Form</i> (Appendix T) – To be completed and submitted by the awarded Supplier. ○ <i>Offeror Exceptions to VDOT Standard Agreement</i> (Appendix K) – Identify and explain any exceptions taken to the VDOT Standard Agreement.
Tab 12	Proposal Redaction File (Optional)	<ul style="list-style-type: none"> • Include this file only if there is proprietary information you propose to delete from public disclosures of your proposal. The file should be in PDF format. • Create a new file, duplicating the entire content of the proposal (Tabs 1-11). Mark those sections deemed “proprietary.” • Complete and include the Appendix L form.

By responding to this RFP, the Offeror certifies that all information provided in the submission is true and accurate.

G. ECOS Compliance

Suppliers who will furnish software-as-a-service (SaaS) applications to VDOT need to be authorized to do so by the Virginia Information Technology Agency (VITA). To gain VITA approval, Offerors shall follow the VITA Enterprise Cloud Oversight Service (ECOS) process; ECOS approvals will need to be in place prior to contract award. For additional information, refer to the VITA website: <https://www.vita.virginia.gov/technology-services/catalog-services/cloud-services/cloud-third-party-use-policy/>.

Offerors should not submit the ECOS Questionnaire (Appendix F.1) with their proposals. However, they should be prepared to promptly submit the completed Questionnaire upon VDOT request. Offerors actively under VITA Oversight may not need to resubmit the Questionnaire.

4. STATEMENT OF WORK

The content contained within this Section 4, will become part of the VDOT Agreement: Standard Solutions Contract (Appendix H in this solicitation) as the Exhibit C Statement of Work.

A. Background

This statement of work is a general guide and is not intended to be a complete list of all the work necessary to complete the project. One of the early deliverables by the Offeror will be a detailed work plan that meets the requirements for managing the project defined in this section.

Northern Virginia and other parts of the state have several successful Transportation Demand Management (TDM) programs and commuter assistance programs (CAP) already in operation. These programs include manually managed programs (see Figure 2) as well as the following app-based solutions:

- incenTrip – managed by Metro Washington Council of Governments (MWCOC) and active in NoVA
- AgileMile – managed by DRPT and active in other parts of Virginia under the Commute!VA brand



Figure 2: NoVA Existing TDM and CAP Portfolio

The goal of the DI solution is to work with regional stakeholders to enhance and complement these programs and, where appropriate, share infrastructure and technology. For automated systems DI will support technical integration, and for manual systems DI will encourage local TDM program managers to provide input into the business rules guiding incentive offers. There are many active TDM programs in the region including those shown in Table 4.

Table 4: Existing TDM and CAP Programs in Northern Virginia

Commuter Assistance Program Name	Operating Agency/Agencies	Service Area
Arlington County Commuter Services (ACCS)	Arlington County Department of Environmental Services	Arlington County
Fairfax County Commuter Services	Fairfax County Department of Transportation	Fairfax County
GO Alex	Alexandria Department of Transportation and Environmental Services	City of Alexandria

Commuter Assistance Program Name	Operating Agency/Agencies	Service Area
DATA	Dulles Area Transportation Association	City of Manassas and Manassas Park, Parts of the counties of Fairfax, Loudoun and Prince William around the Dulles International Airport
Loudoun County Commuter Services	Loudoun County Department of Transportation and Capital Infrastructure	Loudoun County
OmniRide Rideshare	Potomac and Rappahannock Transportation Commission	Prince William County; Cities of Manassas and Manassas Park
Tysons TMA	Tysons Partnership, Inc.	Tysons area
FAST Potomac Yard	Legum and Norman, Inc.	Potomac Yard

This scope pertains to deployment of the DI back-end system and customer-facing app. The DI solution will offer incentives to the public for changing mode, route, or departure time in ways that lessen the overall impact of congestion and incidents. The core of this project is to offer dynamic incentives in response to transportation network conditions and two complementary components – loyalty program and challenges. The dynamic incentives will induce behavior changes, and the loyalty program will reinforce behavior changes. Challenges will provide opportunities to induce behavior changes by setting specific goals that a user would have to meet.

Financial sustainability is an important aspect of this element. Program sponsors cannot provide financial backing for incentives indefinitely, and must find ways to reduce or eliminate the long-term need for using public dollars to fund incentives and rewards. This could include agency partners contributing in-kind incentives such as discounted parking or transit passes, cultivating new relationships with private-sector vendors who can provide incentives in exchange for the exposure it offers them and their partners, or any other creative solution the Offeror can offer to reduce or eliminate the need for public funding of incentives. In addition, the program must establish and grow a significant adoption rate among travelers. This will require ongoing marketing efforts and focus groups to identify ways to tailor the program to provide real value to commuters.

Dynamic Incentivization

Dynamic incentives will be offered in real-time based on the current transportation conditions as a part of an incident and congestion management operation strategy. For example, if there were a major crash on I-95, commuters who regularly drive that route might be offered an incentive to delay their departure or take transit instead of a single occupancy vehicle (SOV). The goal of DI is to incentivize and reward a relatively small number of commuters who have the willingness and flexibility to safely change their travel patterns in a way that improves the efficiency of the transportation network as a whole and benefit all travelers.

DI will offer incentives to the public using one or more mobile apps, with a strong focus on those who drive alone. The system architecture will be structured to allow multiple app providers to access the incentive solution, and the goal is that over time multiple app providers will join in the system, giving consumers a choice in how they access DI rewards.

Incentive Loyalty

The loyalty program will function much like a loyalty program for hotels or airlines, but will encourage use of active or shared modes. Within the loyalty program, travelers will be able to gain status and progress toward long-term rewards for consistent use of non-SOV travel. The user interface will use gamification principles to keep users engaged. The dynamic incentives will induce behavior changes, and the loyalty program will reinforce behavior changes.

Challenges

The challenge program will offer incentives for highly targeted short-term behavior changes. An offer might be valid for a week or a month and be based on very specific behavior such as taking a particular Metro

line five times in a week. The goal may be to respond to an ongoing event (such as construction or promotion of Virginia's Try Transit Week) or to encourage behavior change for those users who need a stronger or more targeted nudge. Planning for challenges will be closely coordinated with program managers for existing TDM and CAP programs.

The three programs (dynamic, loyalty, and challenge) will all work together to consistently change traveler behavior to adopt more desirable travel choices. The incentives are part of a TDM strategy and should be designed to encourage and sustain non-SOV choices.

Ecosystem

VDOT is leading the development of an Artificial Intelligence-Based Decision Support System (AI-DSS), which will act as the trigger for offering dynamic incentives. The AI-DSS will generate a complete response to an incident and one part of that may send a trigger to the DI back-end to generate and issue a dynamic incentive. DI will also be connected with the regional Data-Exchange Platform (DEP); the DEP will store aggregated numbers for responses to dynamic incentive offers so that planners and the system can accurately estimate how many travelers will respond to dynamic offers.

Multiple agencies operating within the region, shown in Figure 2, currently provide incentives through their manually operated TDM programs. DI will provide those agencies opportunities to define business rules within the DI back-end, which promote their demand management goals, consistent with regional goals.

The Loyalty and Challenge program described herein is to be active across the entire Northern Tier (Figure 1). The Dynamic Incentives program will initially be limited to specific corridors and "hot spots" within the Northern Tier but will expand over time. The DI initiative must be scalable for easy geographic expansion as conditions and funding merit.

The DI solution is designed to work with multiple apps, so that a user may access the system from more than one app. However, a given user will have a single account in the back-end, and any app(s) participating in the DI ecosystem will connect to the same back-end account. No matter how many apps someone uses, progress towards incentive goals will accrue in a single place in the back-end, so that users do not receive double credit if a single trip is reported by multiple apps, or receive multiple incentives for the same trip.

The Offeror is required to provide an app as part of the primary solution. The Offeror is encouraged to make use of an existing app as the primary solution app. There are branding requirements described below in the project scope and in the system requirements, but it is ideal if those requirements can be satisfied by branding a white label app or otherwise customizing an existing app.

Some third-party app owners may choose to participate in the DI ecosystem. Access for additional apps will be allowed only with approval from the VDOT oversight committee. All apps (including the primary solution app which Offeror will provide) must use a common, well-defined application programming interface (API) to interact with the rest of the solution. The Offeror will work with third-party app developers (provide documentation, assist with access, answer questions, etc.), including the aforementioned app-based incentive systems already active in the region, to assist integration with the system as described in Task 8 of the scope. The Offeror is not responsible for necessary changes to the third-party app(s).

Methodology

Innovation is one of the primary principles of the DI solution, and VDOT will provide an environment where Offerors have the flexibility to pursue innovative approaches to problems. However, VDOT is committed to delivering certain functionality on a fixed budget within a tight timeframe. To meet both of these objectives, VDOT's expected approach is an Agile/Waterfall Hybrid methodology. The approach is intended to establish fixed boundaries within which the project will operate but allow maximum flexibility within those boundaries. Figure 3 shows the overall process.

Steps already completed by VDOT and other stakeholders

The concept for the DI solution has already been developed and is described within the Appendix B to this document. Similarly, the high-level requirements have been prepared and are included as Appendix B. However, the requirements are not as detailed as those necessary for a traditional waterfall approach since there is no expectation for a full waterfall.

The goal of these requirements is to give Offerors a clear statement of minimal functionality for the solution so they can consider resources and capabilities necessary to deliver within the budget and schedule constraints.

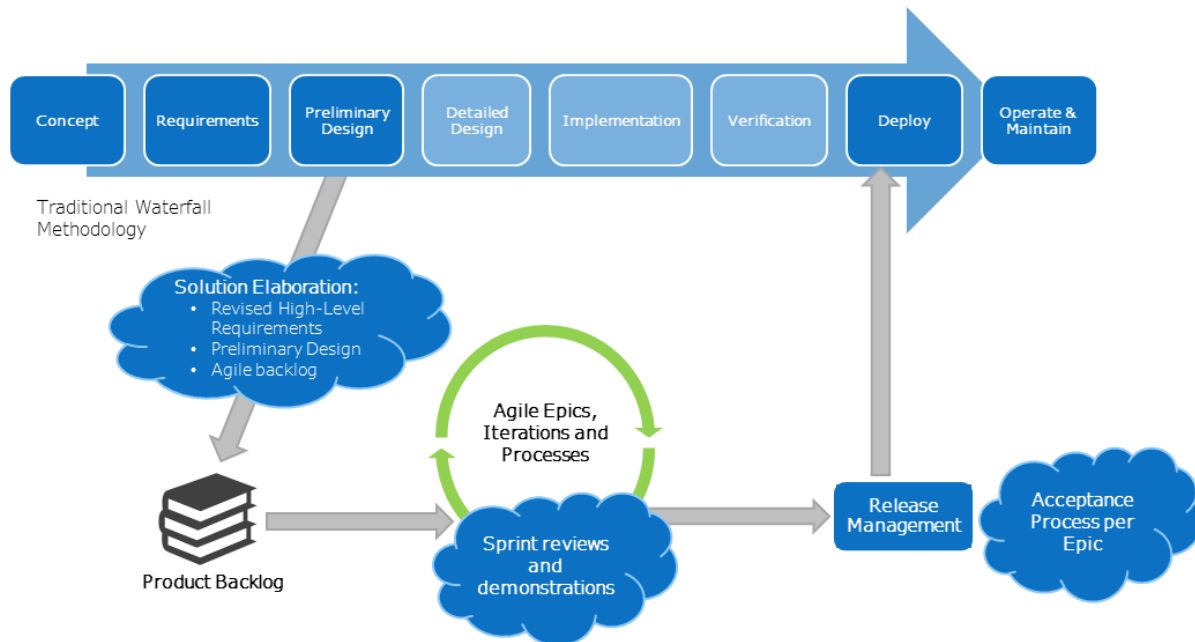


Figure 3: Agile/Waterfall Hybrid Process

Solution Elaboration

One of the first phases of the project under this procurement will be solution elaboration. This phase will be carried out jointly by the Offeror and VDOT and will serve as the transition from the Waterfall method to the Agile method. There are two key deliverables within this phase:

- Revised high-level requirements: The requirements will be updated to provide additional detail and to take advantage of features available from Offeror commercial-off-the-shelf (COTS) products or special capabilities. The goal of this document is to provide mutual assurance to both VDOT and the Offeror that the solution can be delivered on time and within budget. It will also serve as the foundation of the Requirements Traceability Matrix which will be used to verify deliverables.
- Preliminary design: This document will describe the following aspects of the system:
 - High-level logical architectures – Identify the major components of the system and how they interact (including components in other RM3P program elements).
 - Data flows for major use cases – Identify what types of data flow to which components through the workings of the system. This will not include detailed data formats but should identify the nature of all data exchanges.
 - Plans or mockups of user experience for major workflows – This will give VDOT a clear picture of the user experience, but it will not include details such as look and feel.

The goal of this document is to mitigate risks which might endanger delivery:

- The schedule does not have enough time to cope with re-architecting or major re-factoring. Architectural issues must be thoroughly examined and resolved early.
- Changes to data flows or locations of data residence (particularly regarding personally identifiable data) may force a reevaluation of the project data management processes per VDOT policy.
- Having a clear picture of the user experience will establish boundaries for all stakeholders and reduce scope creep caused by stakeholders wanting to add pet features.

The Offeror is responsible for these deliverables, but VDOT will work closely with the Offeror and stakeholders to provide input and review and approve them. A critical goal of the solution elaboration phase is to clearly communicate and document which requirements and features must be delivered within the given schedule and budget. Additional requirements and features may be described as well, but both the revised requirements and the preliminary design document should clearly distinguish between the 'must haves' and the recommended.

Development

The Offeror will use the deliverables from the solution elaboration phase to develop the initial product backlog. VDOT expects that the Offeror will use industry best practices for Agile development and the expected framework is Scrum. VDOT expects that the Offeror will provide the following:

- Visibility into the product backlog and its current state.
- Access to current sprint schedule, including epics and (if determined) user stories for each sprint.
- Regular VDOT participation in sprint reviews.
- Any modifications to the requirements arising from the agile process must be documented through a process agreed to by VDOT and the Offeror.

Release Management

VDOT expects that, per the Agile methodology, there will be multiple releases of the system as new functionality is added. Any release that will be deployed to production will have to go through a release management process. VDOT expects a production release for each epic. For these releases the Offeror will provide:

- Acceptance test plan.
- Acceptance test scripts.
- Requirements Traceability Matrix.
- Outcomes of tests performed by Offeror and VDOT.

The acceptance process must cover all new functionality for each production release. VDOT would like to minimize the amount of retesting of existing features but must also guard against regressions. VDOT will work with the Offeror to determine the best and most efficient process for verification and regression testing.

Agile Principles

VDOT fully embraces the principles motivating the agile approach and places particular priority on the following:

- Flexibility to Change: Innovation cannot be perfectly planned in advance. The DI solution will break new ground, and VDOT and the Offeror need to be prepared to learn and adapt along the way.
- Communication: Candid and effective communication between the Offeror and all stakeholders is a foundational element for a successful project.
- Performing Software: While the DI solution will be innovative, it is not a research project or a pilot. It is critical that the software is reliable and performant.
- Attention to Detail: This is a public facing solution and will be part of an ecosystem which includes many excellent mobile applications. It is essential that the solution meets the needs and desires of the traveling public and maintains user engagement.
- Being Lean: VDOT will work with the Offeror to identify which requirements and features are absolutely essential and ensure that the solution fulfills them.
- Continuous Improvement: The consumer environment and expectations are constantly changing. To remain relevant and effective the solution must continuously improve.

B. Scope of Work

The Offeror shall implement a Dynamic Incentivization solution that satisfies the functions and requirements detailed in Appendix B.1. The Offeror is encouraged to leverage existing apps and business relationships with vendors willing to provide incentives (in the form of reward offers) in exchange for recognition to meet the DI requirements. If the Offeror intends to use an existing app, then it is preferable that the submission includes screenshots and a detailed description of the functions of the app. If the Offeror has existing business relationships with reward offerors, these shall be listed and explained in the submission.

Obligations of the Parties

General Obligations of the Offeror

The Offeror shall, at a minimum, be responsible to:

- A. Manage and coordinate DI-related topics and activities.
- B. Develop DI product brand, logo, marketing materials and messaging in collaboration with communication managers from VDOT and its partner agencies
- C. Work with the project management team and DI oversight staff to ensure activities are aligned with program goals.
- D. Perform marketing and outreach functions to promote public adoption and use of the system.
- E. Develop relationships and agreements with retail vendors and transportation providers to establish sources of travel incentive rewards.
- F. Integrate with the AI-DSS system for dynamic triggers or provide alternate method of dynamic triggering based on the current transportation conditions, consistent with VDOT goals.
- G. Develop and deliver shared back-end incentive services capable of integrating with multiple mobile apps.
- H. Develop and deliver the primary mobile app for both Android and iOS which is integrated with the back-end services and provides all required public-facing features.
- I. Integrate back-end services with third-party incentive app(s).
- J. Work with other technical teams on integration tasks including, but not limited to: MWCOG technical resources, DSS vendor, DEP vendor, and third-party app providers.
- K. Develop and deliver live and on-demand training and training materials for VDOT-designated personnel on operating and managing the shared service back-end.
- L. Test functional capabilities of the system in accordance with the approved test plan.
- M. Maintain and support the system as required under the agreement.
- N. Provide standard warranty services for the duration of the agreement.
- O. Perform additional activities necessary to ensure successful DI implementation, operation, and adoption.
- P. Provide reports on end-user (i.e., travelers) progress towards loyalty program goals. Deliver reports to end users; deliver reports and data to the VDOT evaluation team.
- Q. The proposed approach shall comply with the Commonwealth Enterprise Architecture (EA) policies (EA 200) and standards (EA 225) as published by VITA at <https://www.vita.virginia.gov/policy--governance/itrm-policies-standards/>
- R. The Offeror shall review and comply with all relevant Commonwealth Adopted Data Standards. A complete list of all adopted data standards. https://www.vita.virginia.gov/media/vitavirginiagov/it-governance/psqs/pdf/COV_Adopted_Standards.xlsx
- S. Ensure that primary mobile app users have access to support and enjoy a satisfactory experience with the system
- T. The Offeror shall review and comply with the Commonwealth COV ITRM Security Policies and Standards, as applicable, found at: <https://www.vita.virginia.gov/it-governance/itrm-policies-standards/>.
- U. The Offeror shall review and comply with the Commonwealth IT Accessibility and Website Standards found at the following URL: <https://www.vita.virginia.gov/it-governance/itrm-policies-standards/>.
- V. Submit required documents to the Virginia Information Technology Agency (VITA) in a timely manner for obtaining the Enterprise Cloud Oversight Service (ECOS) approval as a condition for contract award. This process will need to occur if VITA deems ECOS approval necessary.
- W. Maintain an on-line collaboration site for the storage and maintenance of DI project documents.
- X. Provide all necessary data to VDOT's independent evaluator and auditor.

General Obligations of VDOT

VDOT shall, at a minimum, be responsible to:

- A. Facilitate partnering with transit providers and other regional and local agencies.
- B. Establish a DI oversight committee to coordinate and facilitate interactions with other entities. Other agencies, such as DRPT and NVTA, will provide input through the oversight period.
- C. Coordinate and facilitate interactions with the AI-DSS development team.
- D. Coordinate and facilitate interactions with the DEP development team.
- E. Coordinate with the DI oversight committee to approve third-party app(s) for inclusion in the solution. Coordinate and facilitate interactions with the third-party app development team.
- F. Provide oversight for DI program management.
- G. Provide input on priorities and participate in requirements reviews, including Agile sprint requirements sessions and Agile sprint completion demonstrations, integration, and acceptance testing and implementation, training, and status meetings.
- H. Review, comment on, and approve deliverables and documentation delivered by the Offeror in a timely fashion.
- I. Provide independent verification and validation (IV&V) support to system testing.
- J. Conduct independent evaluation.
- K. Facilitate communications and coordination with the VITA, when applicable.

Project Tasks and Deliverables

Overview of Tasks

- Task 1: Project Management – Coordinate the project as a whole to ensure that all goals and deadlines are met within project constraints.
- Task 2: Marketing and Consumer Engagement Management – Develop, implement, and manage public outreach and ensure that the technical approach is aligned with consumer demand.
- Task 3: Solution Elaboration – Collaborative task between VDOT and the Offeror to refine requirements and establish a framework for solution design.
- Task 4: Implement Shared Services Loyalty and Challenge Programs – Develop and deploy back-end services to support loyalty and challenge programs.
- Task 5: Implement Primary Mobile App for Loyalty and Challenge Programs – Develop and rollout primary mobile app supporting loyalty and challenge programs.
- Task 6: Implement Shared Services Dynamic Incentives – Develop and deploy back-end services to support dynamic incentives.
- Task 7: Implement Primary Mobile App for Dynamic Incentives – Develop and rollout primary mobile app supporting dynamic incentives.
- Task 8: Support Integration for Third-Party Mobile Apps – Provide support (documentation, answer questions, etc.) to third-party developers integrating additional apps.
- Task 9: Warranty Service, Solution Revision and Operations – Adjust configuration to align with consumer demand and feedback.

This project includes multiple tasks associated with different components of the solution, which will be developed in parallel. The Offeror will be responsible for managing all necessary communications between tasks to ensure that development is smooth and efficient. Figure 4 shows the relationships of tasks to system components.

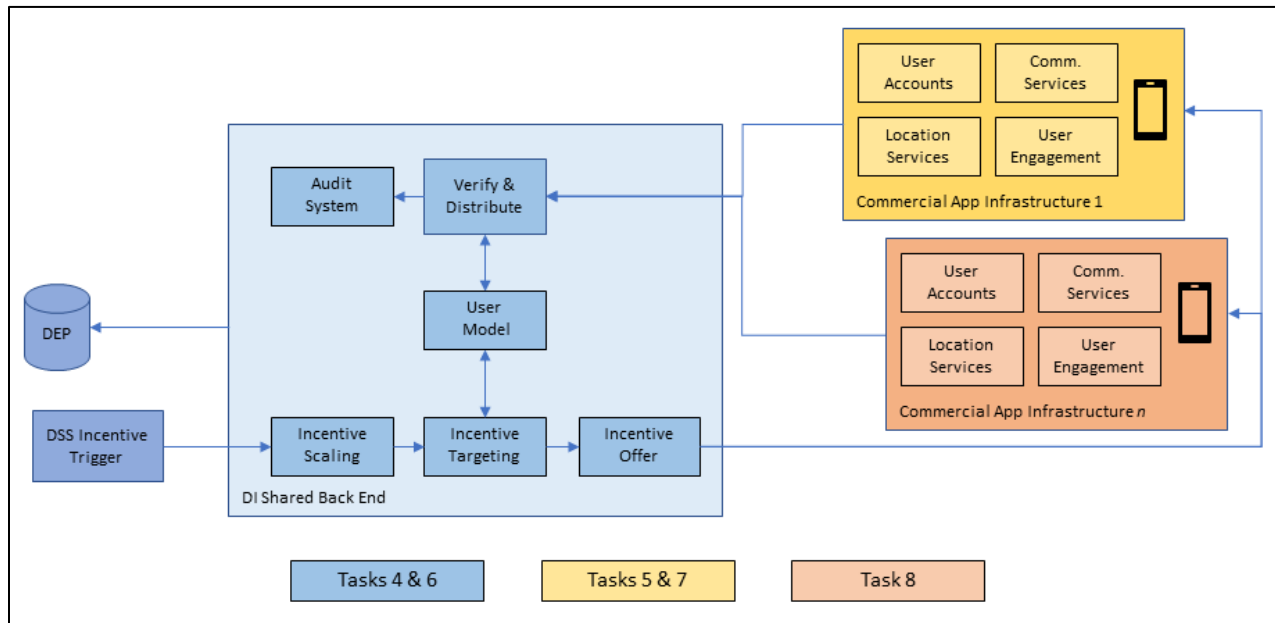


Figure 4: Relationship of Tasks to Components

Anticipated Schedule of Tasks

Table 5: Task Schedule

Task Name	Start	Finish
Task 1: Project Management	NTP	NTP + 30 months
Task 2: Consumer Engagement Management	NTP	NTP + 30 months
Task 3: Solution Elaboration	NTP + 1 month	NTP + 4 months
Task 4: Shared Services Loyalty	NTP + 2 months	NTP + 7 months
Task 5: Mobile App Loyalty	NTP + 2 months	NTP + 7 months
Task 6: Shared Service DI	NTP + 6 months	NTP + 16 months
Task 7: Mobile App DI	NTP + 7 months	NTP + 16 months
Task 8: Integration Support	As needed	
Task 9: Warranty Support, Revisions and Operations	NTP + 7 months	NTP + 30 months

Task 1: Project Management

At a minimum, Offeror’s project manager will be responsible for:

- Organizing a project team and managing key team members and their specialties.
- Providing periodic updates (no more than 3 months) to the work plan and schedules. Changes to the work plan and schedules that exceed 10 percent of the baseline require approval by the VDOT Change Management Board through a change management process.
- Submitting monthly project status reports detailing the following:
 - A brief overall project status
 - Action item updates from the previous meetings
 - Technical activities and accomplishments during the preceding month
 - Accomplishment vs. schedule
 - Technical problems or other issues
 - Schedule status
 - Critical path issues
 - Spending to date, spending vs. percent complete
 - Plans for the coming month
 - Risk management status

- Offeror report and supporting data on compliance with service level agreements (SLA). See Appendix A.

Project Administrative Reports

VDOT requires the deliverables indicated below from the Offeror in order to monitor progress and ensure compliance.

- Project Management Plan
- Software Development Plan
- Change Management Plan
- Data Management Plan

Project Management Plan

The Offeror shall develop a Project Management Plan, which at a minimum includes the following sections:

- a) *Risk Management Plan* – The Offeror shall develop a risk management plan and risk registry that identifies initial project risks and possible ways to mitigate those risks. The Offeror shall report on the status of each identified risk in the monthly progress report until that risk is fully mitigated. Risks shall be classified as: 1) cost, 2) schedule, and/or 3) scope. Even though the contract is limited to a maximum budget; task budget, scope, and schedule may be adjusted through an amendment process, it is critical that the Offeror keep VDOT informed of any potential impacts to cost allocations and what steps the Offeror is taking to mitigate the cost impact. It is in VDOT's best interest for the Offeror to meet their cost and schedule commitments, and VDOT will actively support the Offeror in achieving those commitments. When new risks are identified, revisions to the risk management plan section shall be issued. The Offeror shall, at a minimum, address the following potential risk areas:
 - Development of new software modules
 - User adoption
 - Platforms for integration and testing
 - Stability of cloud hosting Offerors
 - System security
- b) *Staffing Plan* – The Offeror will identify the key individuals to be involved in the project and indicate in the staffing plan the number of personnel assigned to each element of the Tasks. A key individual is defined as a person who is a task leader or individual contributor with specialized knowledge applicable to the project. Any changes to key personnel on the project will require notification and approval by VDOT. Offeror shall maintain a personnel transition plan for key roles and staff with plans for replacement of personnel over the life of the project. Offeror shall ensure staff availability to meet the scope, schedule and budget of their proposed solution.
- c) *Detailed Schedule* – The Offeror shall develop a detailed schedule in Microsoft Project based on the WBS and work plan and staffing plan. This will be described in and referenced by the Detailed Schedule Section. The Project Schedule will be delivered as a separate deliverable.
- d) *Requirements Traceability Verification Matrix* – The Offeror shall develop a Requirements Traceability Verification Matrix to map the functional requirements to their service offering.
- e) *Document Management Plan* – The Offeror shall develop a plan describing a standard process for document review and approval by VDOT and document archiving.

Project Risk Register

The Risk Management Plan section in the Project Management Plan describes how risks are managed; the project risk register contains identified risks and is updated throughout the project. The Project Risk Register will be maintained online with a tool, such as a SharePoint, so the project team and the management team can work with this register collaboratively.

Project Schedule

The Offeror shall develop and maintain a detailed schedule in Microsoft Project based on the WBS and work plan that, at a minimum, identifies:

1. Milestones – including those tied to payments

2. Earliest start dates for a tasks
3. Latest start dates for tasks
4. Earliest finish dates for task
5. Latest finish dates for tasks
6. Schedule float time in days
7. Duration of tasks in days, where the minimum increment is one day
8. Task names and task numbers
9. Resource loading consistent with the staffing plan
10. Critical path information

VDOT anticipates that there will be some changes to the schedule as the project progresses; however, the final completion date shall be firmly adhered to. Any change in the final completion date will require VITA approval in addition to VDOT approval. The initial schedule should cover the first six months of the project in detail and the remainder of the project in broader strokes. The schedule shall be updated quarterly to account for any changes to the baseline and to add detail as later milestones approach.

Software Development Plan

The Offeror shall develop a Software Development Plan (SDP) to describe the technical management of their proposed services, which includes the following:

- Organization of the development team, along with their physical location and facilities needs
- Technical environments for a project and how they will be managed. It should also discuss the interaction with the pre-production and production environments.
- Description of the evaluation and decision-making process to be used when resolving technical questions
- Agile Development Methodology:
 - i. User Story Development: Describe the process for developing user stories from use cases.
 - ii. Configuration Management: Include a description of how project configuration items (e.g. software versions, COTS components, configuration options, etc.) will be managed.
 - iii. Requirements Verification and Validation: Include a description of how the Use Cases will be clarified and expanded, requirements validated, and updated requirements reviewed and approved by the project office.
 - iv. The Architecture and Design Process (both logical and physical design), including how issues will be discussed and resolved.
 - v. The software development methodology to be used that reflects the requirements (for iterative builds and incremental releases).
 - vi. The build management and quality assurance process used to create and manage builds.
 - vii. The testing process to be used that encompasses the requirements.
- Description of how external interfaces will be developed and managed.
- Description of how data conversion development will be performed and managed.
- Implementation Planning to include a description of how you will manage the deployment of system functionality, the training required for both end-users and technical staff, the coordination/communication needed to prepare the target environments.
- Production Support strategy
 - i. Description of how the production environment will be maintained to ensure system reliability.
 - ii. Description of how production support will be done concurrently with development, given the incremental release requirements for the project.
 - iii. Description of how end users will be supported as system functionality is being built out and deployed.

Monthly Progress Reports

The Offeror shall prepare a progress report each month to be provided to VDOT by the fifth day of the next month. The progress report shall include the following items at a minimum:

- 1 Work completed
- 2 Performance summary (as appropriate)
- 3 Work planned
- 4 Budget expended vs. plan (Earned Value)
- 5 Risks and issues
- 6 Schedule deviations

The progress report may be incorporated into the monthly project update report (see above).

Project Administrative Meetings

The Offeror shall organize and host the following administrative meetings. In-person or virtual meetings will be held for:

- Kickoff Meeting
 - The kickoff meeting shall occur within 30 days of Notice-to-Proceed (NTP) for the project
- Monthly Status Meetings
 - The Offeror shall provide monthly status to VDOT via virtual or in-person meeting/teleconference
 - Expand the monthly status meetings every quarter as the quarterly progress update to the project Oversight Committee.
 - All in-person meetings should follow CDC's guideline to prevent the spread of COVID-19 among staff and attendees.
- Weekly Standup Meetings to address technical matters as input to the Scrum Masters and Product Owners. During the week that the monthly status meeting is scheduled, the two meetings can be combined.
- Project Closeout and Post-Mortem Meeting
 - Near the end of the project, Offeror shall provide a project closeout and post-mortem meeting to provide lessons learned from each phase of the project

Meeting agenda shall be provided 3 business days prior to all meetings.

Meeting supporting materials shall be provided 1 business day prior to all meetings.

Meeting minutes shall be provided within 3 business days after all meetings. Action items shall be tracked, monitored and completed within given deadlines.

Document deliverables

Document deliverables are an important tool to contain work plans, products, and important decisions made between VDOT and the Offeror and shall conform to the following process for consistent, timely development.

Document Deliverable Planning:

1. The Offeror and VDOT agree on deadlines for the document deliverable submittal activities (described below) that fit within the project schedule.
2. Offeror submits the completed document according to the submittal procedure below.
3. The Offeror shall provide a finalized document after all comments have been completed by the deliverable final due date. A final document shall have the DRAFT watermark removed and the version number of the document incremented to the next whole number.
4. VDOT shall mark the document as final in the document library and email the Offeror that the final document has been accepted.

Document Deliverable Submittal and Review Procedure:

1. Offeror submits draft deliverable to VDOT by the draft deliverable due date in an editable Microsoft format, preferably via a platform supporting collaborative editing.
2. VDOT reviews the deliverable and provides comments to the Offeror by the deliverable review due date. Comments will be provided as comment balloons and tracked changes if using Microsoft Word; else, Offeror will provide a comments table that will track each comment's text, reference location within the deliverable, and a place for the Offeror's response, and a status of the comment. The VDOT PM will designate reviewers and be responsible for resolving any conflicts among reviewer comments.
3. Offeror addresses comments by modifying the submittal and answering questions by the revision due date. Changes to the deliverable shall be tracked using the tracked changes feature of Microsoft Word if the deliverable is in that format, else, a list of changes made to the deliverable shall be provided with the comments' responses.
4. VDOT reviews the Offeror's comment responses and deliverable changes by the revision review due date. All comments shall be marked as completed using the "Mark as Completed" function of the comment balloon if using Microsoft Word, else by indicating in a comments table.
5. Steps 3 and 4 will repeat until VDOT marks all comments as completed.

Change Management Plan

The Offeror shall prepare and deliver a *Change Management Plan (CMP)* that defines the criteria, which trigger the change management process, and how changes will be requested, reviewed, approved, and scheduled. The draft CMP shall be submitted to VDOT within 30 calendar days of NTP. The final CMP will be due within 10 calendar days of receipt of VDOT's comments on the draft document.

Task 1 Deliverables

1. Draft, Baseline, and Updated PMPs
2. Baseline Project Schedule and Updates (when reaching milestones, otherwise quarterly)
3. Risk Register
4. Draft and Final CMP
5. Draft and Final SDP
6. Meeting Agendas, supporting materials, and Post-Meeting Action Summaries
7. Monthly Status Reports with Invoices (when milestones have been reached)

Task 2: Marketing and Consumer Engagement Management

The goal of this task is to ensure that the incentivization program achieves widespread user adoption and is financially sustainable in the long-term. This task will run for the duration of the contract and its activities will be coordinated closely with the other tasks (especially those related to mobile app rollout and update).

The Offeror will work under the oversight and guidance of the VDOT project manager in coordinating with the oversight committee and the RM3P communications working group. Together they are responsible for building the program and ensuring that the technical task work is aligned with RM3P and regional TDM and CAP program goals.

Marketing

A successful DI program relies on sufficient numbers of commuters embracing the solution and ultimately becoming regular users. Marketing plays a significant role in creating program awareness, driving app downloads, usage and changing commuter behavior. The Offeror will be responsible for marketing the solution to maximize public adoption and use of the system. The Offeror will develop and implement a marketing plan, which will include:

- Market assessment including goals for mobile app downloads and public usage statistics.
- Branding materials including the program brand name, logos, images, and slogans to promote the system while incorporating RM3P branding.
- Promotional campaign plans including, but not limited to, advertising, social media promotions, publicity and public relations.
- Budget and schedule for all marketing activities.

The marketing effort will develop key messages for the system and all campaigns will be coordinated with the oversight committee so that VDOT and partner agencies can also broadcast those messages.

The Offeror will provide all branding materials using common, high-resolution graphics formats so that VDOT and its partners can easily reuse the materials as deemed necessary. All branding materials shall be approved by VDOT. All branding materials become VDOT property regardless of the status of the Offeror contract.

The marketing plan and process will be closely associated with the solution rollout process (Tasks 5 & 7) to ensure marketing efforts have the maximum impact on solution rollout.

Consumer Focus

To be successful, the program should appeal to consumer needs and desires. The Offeror is responsible for conducting focus groups, surveys, social listening (analysis of social media) and additional market research to determine what approach and features will maximize user adoption and engagement. Offeror responsibilities include:

- Recruiting participants for focus groups.
- Hosting focus groups.
- Gathering feedback at focus groups.
- Analyzing focus group results.
- Designing and distributing surveys.
- Analyzing survey results.
- Research and analyze other incentive programs in the region
- Creating a social listening strategy.
- Analyzing social listening results
- Sharing results and analysis with VDOT.
- Synthesize consumer feedback from all channels and provide input to incentive strategy and business rules.

The structure for the loyalty program and approach to dynamic incentives and challenges should be driven by consumer desire and project goals, rather than technical capabilities. This task is responsible for developing the structure of three core public-facing features including:

- Loyalty program structure and reward schedule.
- Challenge program conditions, rewards, and schedule.
- Guidelines for dynamic incentive triggers and reward levels.

These elements should work together to change traveler behavior in the short-term and long-term, reduce the impacts of incidents and planned events in the short-term, and reduce SOV usage in the long-term.

Financial Sustainability and Progress

To be viable in the long-term the program shall develop partnerships capable of providing incentives for the solution. Sources of incentive reward providers could include:

- Retail vendors and other vendors offering goods and services in exchange for exposure and customer engagement.
- Transportation agencies offering services to promote usage furthering their mission.
- Other entities (e.g., flexible shared workspace owner, libraries) offering infrastructure to support non-driving travel choices.
- Private transportation service providers.

All partnering agreements are subject to VDOT approval, but the Offeror is primarily responsible for:

- Identifying potential providers.
- Dialogue and relationship building with providers.
- Developing and executing partnering agreements.

Offeror is encouraged to propose creative solutions to help VDOT achieve its goal of making the program financially sustainable in the long term. VDOT cannot sustain funding for the program indefinitely and the

ultimate goal is to make it 100% self-sustaining. VDOT expects to partner with Offeror to make that a reality and is open to suggestions on how to make the program self-sustaining from Offeror's perspective. Viable options may include advertising, revenue sharing, sale of value-added services, etc.

The VDOT Project Manager will be available to facilitate engagement with potential agency partners.

The Offeror will provide VDOT with current information and statistics on the state and progress of the program. This can be in the form of monthly summary reports or (preferably) a web-based dashboard with query capabilities. The progress information will include:

- App download numbers.
- App usage statistics.
- API usage statistics broken down by app (assuming multiple apps are active).
- Loyalty program rewards awarded.
- Challenge program rewards awarded.
- Dynamic incentives awarded.
- Breakdown of rewards awarded by source (retail vendors, transit providers, etc.) and value

Engagement with Local TDM/CAP Managers

Local TDM/CAP managers will have an opportunity to provide input and recommendations to the business rules and structures for incentives so that they advance both local and regional goals. The VDOT TDM coordinator will lead this process and make final decisions on incentive strategies and business rules. The Offeror will be involved to advise how TDM Managers' input can be effectively translated into the solution, and provide details on associated costs impacts.

VDOT will periodically examine individual user progress reports for the loyalty program to determine whether travelers are using multiple incentive programs in a way that is counter-productive to regional goals. The Offeror will provide VDOT with individual user progress reports and associated data (as described in the requirements) upon request.

Guidance of Technical Tasks

This task will provide guidance for all the technical tasks. It will determine the structure of incentive programs based on consumer preferences and communicate that structure to the technical task leads. The program management task will solicit data on system usage from the technical tasks and use that information to refine program structures. A sampling of the touchpoints between the program management and technical tasks is shown in Figure 5.

Should VDOT elect to integrate the DI solution with third-party mobile apps, the VDOT project manager and oversight committee will coordinate marketing efforts with the third-party integration and rollout.

Task 2 Deliverables

1. Marketing Plan
2. Branding Materials
3. Focus Group Meetings
4. Market Research outcomes (focus groups, surveys, social listening)
5. Incentive Program Plans (loyalty, challenges, dynamic)
6. Incentive Agreements with Transportation Providers
7. Incentive Agreements with Retail Providers
8. Program Progress Reports or Dashboard (app, API and program usage)
9. Individual User progress reports upon request

Task 3: Solution Elaboration

The goal of this task is to plan everything needed to put system developers in a position to work efficiently to build the system.

The Offeror will work with VDOT to enhance the system requirements, adding detail and revising to take advantage of Offeror capabilities. This will be a dialogue between VDOT and the Offeror and culminate in an updated system requirements document. The Offeror will conduct a requirements walkthrough with VDOT and its representatives to ensure that both have a common understanding of what will be built and

what capabilities the system will include. VDOT has sole discretion of the acceptance of any changes to the requirements.

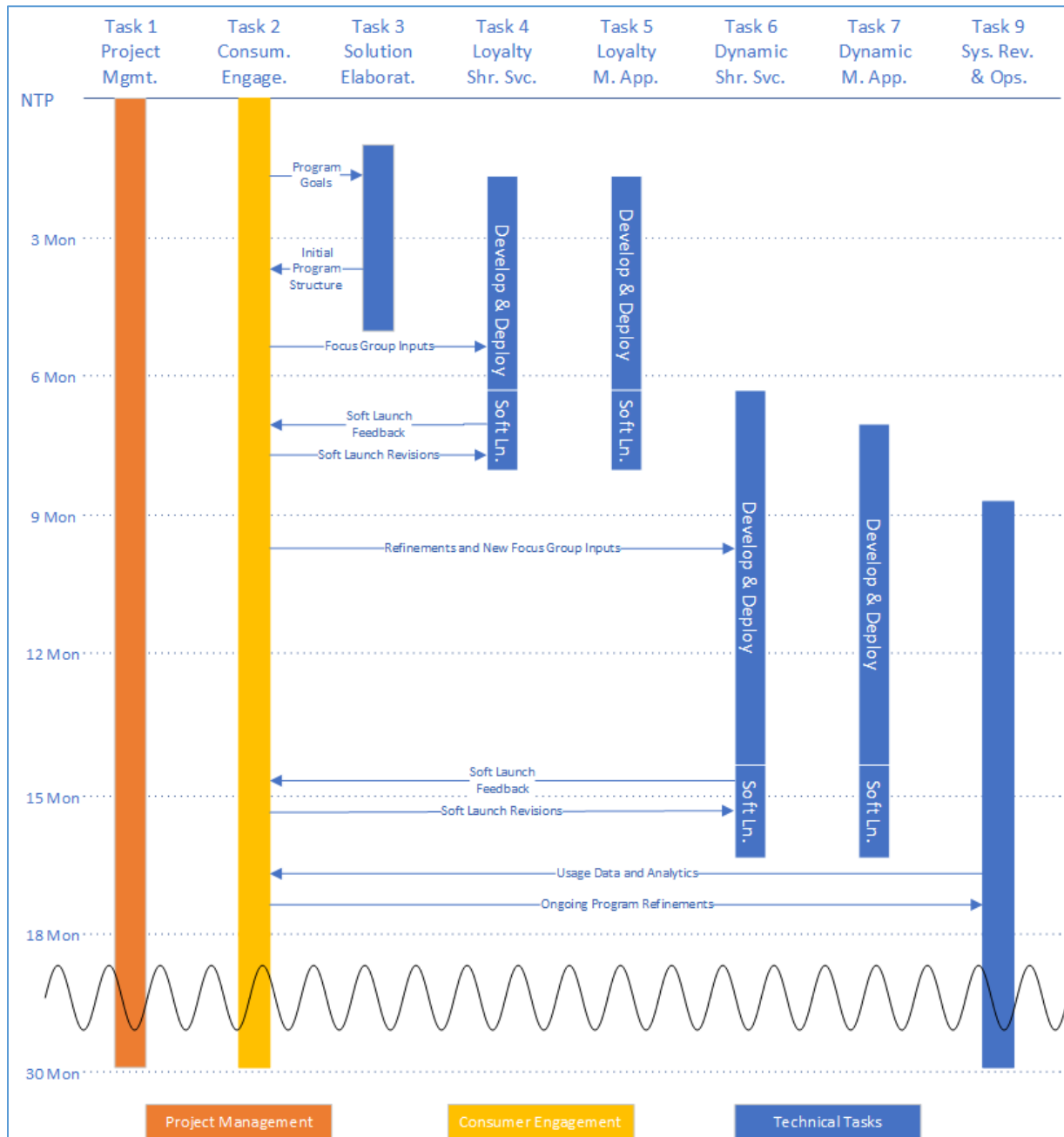


Figure 5: Task Schedules and Connection Points

The Offeror will create the initial iteration of the System Design Document (SDD). The goal is that throughout the project the Offeror will add detail to the SDD so that when the project is complete there is a full and coherent description of the system. The intent is NOT to develop a detailed design prior to development; the SDD will ultimately serve as an as-built document. However, VDOT does want the Offeror to write and update the document during the project rather than after all the work is complete. Throughout the life of the project, the SDD will serve as a record of what has been established and achieved to date by VDOT and the Offeror. At this stage, the SDD will describe the:

- Logical architecture of the system as a whole.
- General purpose of each component.

- Implementation technology.
- Deployment environment.
- Connectivity to other components.
- Major data flows and use cases utilizing the component.

Having a well-defined interface to the shared services is critical to the success of the solution. The Offeror will develop an Interface Control Document (ICD) which defines the interface between the shared services and:

- Mobile app infrastructure
- DEP
- AI-DSS

The ICD is a critical part of making the multi-app architecture a success, so the ICD will be sufficiently detailed and accurate so that other approved system participants can successfully code to it.

The process for document development for the ICD will be the same as that described above for the SDD. As the interface is fleshed out additional features and details will be added to the ICD. At this stage, the details of the data exchanges will not be known, but the ICD should identify the functions of all necessary data exchanges between the shared services and other system elements.

The Offeror will prepare a Data Management Plan, describing the solution approach to data storage, governance and retention. It will describe security measures and user protections for Personally Identifiable Information (PII) that is part of the system and will adhere to relevant Commonwealth laws and policies.

The Offeror will use the requirements, solution architecture, and high-level design document to develop the initial product backlog. An additional asset available during this process are the use cases already developed by VDOT and other stakeholders (see Appendix B). Many of these can lead directly to the development of user stories.

Task 3 Deliverables

1. Requirements Walkthrough
2. Revised Requirements
3. Initial Draft of SDD
4. ICDs for all Shared Services APIs
5. Data Management Plan
6. User Stories
7. Initial Product Backlog

Task 4: Implement Shared Services for Loyalty and Challenge Programs

This task will cover the shared back-office functions necessary to support the loyalty and challenge programs.

The shared back-office components provide the foundation of the incentive solution, but do not have any direct connection with the public. The primary functions of the shared services include:

- Management of user interface for creating and configuring loyalty and challenge programs.
- API for interacting with public-facing mobile apps.
- Business logic and data storage to implement back-end services exposed via API.

For the life of the contract VDOT expects that the shared services back-office will be delivered as software-as-a-service (SaaS). However, the back-office software should be open source, or the Offeror shall place their source code (along with build instructions and operational documentation) in escrow. VDOT will gain access to the escrowed materials in the event of Offeror failure or market exit.

All data necessary to perform and support the back-office services shall be resident within the back-office infrastructure. All data relevant to the shared services back office (including historical data) shall be the property of VDOT and Offeror will make that data available to VDOT in a usable electronic form on a monthly schedule and upon request.

The loyalty and challenge programs will be available over the Northern Tier RM3P region (Figure 1) and will be scalable to the extended RM3P region and beyond.

Solution Elaboration

VDOT should have a clear picture of the user experience early in the process. The Offeror will prepare information on all of the following items, which were not already described during Task 3:

- User interface screens for solution management functions (wireframes or other graphics).
- Workflows, use cases, and/or user stories for major system tasks.
- Descriptions or examples of system reports.
- Additional detail for shared services ICD (e.g., identify individual data elements for those functional data exchanges identified in Task 3).

The Offeror will update the SDD from Task 3 with all new information. VDOT and the Offeror will review the SDD updates together and confirm that the user experience is on the right track. It is understood that there may be modifications to the design throughout the agile development process. This review serves as a checkpoint about the user experience.

Agile Development

VDOT anticipates that the Offeror will use an agile development process and supports this approach provided the Offeror understands that the final delivery dates for this project are firm. VDOT expects to be informed of the epic/sprint schedules and to participate in sprint review and sprint planning meetings periodically. If VDOT is not satisfied with the sprint review/planning process, then VDOT will request, and the Offeror will organize brief weekly meetings with VDOT's selected personnel to cover epic/sprint activities. This schedule shall be reported in the form of an Agile Epic/Sprint Development Plan and will be updated as appropriate. Alternatively, the Offeror may provide VDOT visibility into the sprint management dashboard.

The Offeror is responsible for demonstrating to VDOT that development is progressing according to the schedule. VDOT and/or designated representatives from the oversight committee expect to take part in epic/sprint reviews regularly.

The Offeror should propose an epic schedule at the outset of development. VDOT's notional schedule for this task includes:

- Epic 1: Administrative UI and API for loyalty program
- Epic 2: Administrative UI and API for challenges

If the requirements are modified as a result of the agile process, then that information shall be documented either by revising the requirements document or another process agreed to by VDOT and the Offeror.

Deployment and Acceptance

The Offeror will provide at least two system environments (production and pre-production). The pre-production environment will be identical to the production environment and will be used for testing and training.

The Offeror will deploy the working solution to the pre-production environment and complete testing and acceptance there. Once this is complete and the system is accepted, the Offeror will migrate the solution to the production environment and verify it there.

The release management process will define a consistent and repeatable process for deploying new functionality. When new functionality is deployed to the pre-production environment, the Offeror will prepare an Acceptance Test Plan for approval by VDOT. The acceptance testing will cover:

- Functional conformance with all requirements
- User experience
- Stress testing

The test plan will describe the schedule, environment, staff, and dependencies for the testing effort. Stress testing can make use of automated test systems.

The Offeror will prepare Acceptance Test Scripts. The scripts will have detailed instructions for running all tests. The Offeror will prepare a Requirements Traceability Matrix, associating requirements (using revised requirements from Task 3) with test scripts.

VDOT and the Offeror will conduct the tests together in the pre-production environment. Any failures or issues identified during testing will be logged and corrected by the Offeror. VDOT will work with the Offeror to verify corrections for issues identified during testing.

The Offeror will work with VDOT to determine the most thorough and efficient way to verify that the release does not introduce any regressions.

The solution will be used by the general public, so it is critical that the solution is available and functioning correctly. Once the solution is launched, the Offeror is responsible for ensuring that the solution is functionally operational 99.9% of the time. Planned outages will count towards total downtime.

VDOT expects that working software will be deployed to the production environment at the conclusion of each epic per release management processes.

All production deployments will be scheduled at a time that is acceptable to VDOT, and deployments will never be scheduled on weekdays between 6AM and 7PM.

Task Closeout

The Offeror will provide documentation and training for both system administrators and system operators. System administrator documentation and on-demand training will cover:

- Installation instructions.
- Instructions for stopping and starting the system as a whole and individual components.
- Troubleshooting guidelines.
- Guidance for locating and interpreting system logs.

System operator documentation and on-demand training will cover:

- Definition of loyalty and challenge programs.
- Generation of system reports.
- How-To guides and/or cheat sheets.

Training for operators and administrators will be provided in the form of videos, presentations and documents which VDOT personnel can use as needed.

Task 4 Deliverables

1. Solution Elaboration
 - a. User interface wireframes or graphics
 - b. Workflows and user stories
 - c. Updates to SDD and user experience checkpoint
 - d. Updated ICD
2. Agile Development
 - a. Agile Epic/Sprint Development Plan
 - b. Documentation of Requirements Modifications
 - c. Epic/Sprint Review and Planning Meetings
 - d. Weekly Epic/Sprint activity meetings if requested
 - e. Back-Office Software
3. Acceptance
 - a. Working solution for pre-production environment
 - b. Verified solution in production environment
 - c. Acceptance Test Plan
 - d. Acceptance Test Scripts
 - e. Requirements Traceability Matrix
 - f. Acceptance Testing
 - i. User Experience Testing
 - ii. Stress Testing
 - iii. Requirements Conformance
4. Task Closeout
 - a. Training Materials

Task 5: Implement Primary Mobile App Loyalty and Challenge Program

This task covers the delivery of the public-facing mobile application to support the loyalty and challenge programs. The mobile app will deliver all public-facing functionality for the solution, including everything the traveler need to register for and use the system.

VDOT expects that the primary mobile app will be delivered as Software-as-a-Service (SaaS).

Solution Elaboration

VDOT requires a clear picture of the user experience for the traveler early in the process. The Offeror will update the SDD to include the following:

- Story boards for primary traveler tasks
- All branding in the public interface
- Descriptions or examples of app usage reports (downloads, number of accounts, number of active users, usage patterns, etc.)

VDOT and the Offeror will review the SDD updates together and confirm that the traveler experience is on the right track. It is understood that there may be modifications to the design throughout the agile development process. This review serves as a checkpoint about the traveler experience.

Agile Development

The Offeror will provide VDOT with a development schedule and include VDOT in all sprint demos. If the requirements are modified as a result of the agile process, then that information shall be documented either by revising the requirements document or another process agreed to by VDOT and the Offeror.

Rollout

The Offeror will prepare a rollout plan for VDOT's approval. VDOT will act as a resource for the rollout process, but the Offeror is responsible for its implementation. The rollout plan will address:

- Schedule for soft and production rollout.
- Coordination with program management (Task 2) for marketing.
- Coordination with VDOT and other partner agencies for public announcements, press releases, and social media campaigns.
- Identification and recruitment for soft-launch participants.
- Process for gathering feedback during soft launch.
- Process for refining solution based on soft-launch feedback.
- Process for making app available in Google Play Store and Apple App Store.
- Production launch.
- System monitoring after production launch.

The Offeror will implement the soft rollout. During the soft rollout the app will only be available to approved participants. The Offeror will collect feedback for at least one month. VDOT will work with the Offeror to interpret the feedback and make necessary corrections and adjustments. Once VDOT has approved the changes, the Offeror will update the solution and proceed to the production rollout. The Offeror is responsible for making the app available in the Google Play Store and Apple App Store.

The solution will be used by the general public, so it is critical that the solution is available and functioning correctly. Once the solution is launched, the Offeror is responsible for ensuring that the solution is functionally operational 99.9% of the time. Planned outages will count towards total downtime.

Deployment and Acceptance

The Offeror will prepare an Acceptance Test Plan for approval by VDOT. The acceptance testing will cover:

- Functional conformance with all requirements
- User experience
- Stress testing

The test plan will describe the schedule, environment, staff, and dependencies for the testing effort. Stress testing can make use of automated test systems.

The Offeror will prepare Acceptance Test Scripts. The scripts will have detailed instructions for running all tests. The Offeror will prepare a Requirements Traceability Matrix associating requirements with test scripts.

VDOT and the Offeror will conduct the tests prior to the production rollout. Any failures or issues identified during testing will be logged and corrected by the Offeror. VDOT will work with the Offeror to verify corrections for issues identified during testing.

All production deployments will be scheduled at a time that is acceptable to VDOT, and deployments will never be scheduled on weekdays between 6AM and 7PM.

Task 5 Deliverables

1. Solution Elaboration
 - a. Updates to SDD and User Experience Checkpoint
 - b. Updated ICD
2. Agile Development
 - a. Development Schedule
 - b. Sprint demonstrations
 - c. Documentation of Requirements Modifications
 - d. Primary mobile app
3. App Rollout
 - a. Rollout Plan
 - b. Marketing plan update, announcements, press release, social media campaigns
 - c. Soft Rollout
 - d. Production Rollout
4. Acceptance
 - a. Acceptance Test Plan
 - b. Acceptance Test Scripts
 - c. Requirements Traceability Matrix
 - d. Acceptance Testing
 - i. User Experience Testing
 - ii. Stress Testing
 - iii. Requirements Conformance

Task 6: Implement Shared Services Dynamic Program

This task is to add features supporting dynamic incentives to the back-end shared services. The rules driving the dynamic incentive processes will be determined by the program management team (Task 2).

At this point the solution will already be live for the loyalty and challenge programs, and these programs should not be interrupted by the deployment of dynamic incentives.

The structure of this task is very similar to that of Task 4 and, in many cases, the deliverables for Task 6 will be updates and extensions of the deliverables for Task 4.

Dynamic incentives may require interactions with other systems (DSS and DEP), and the Offeror will be required to work with vendors and teams associated with those systems. VDOT will assist in the coordination. The triggers shall be thoroughly validated during testing.

The Offeror has the option of integrating with the DSS for dynamic incentive triggers as part of event response or internally generating incentive triggers within the DI solution. If the Offeror elects to use internal triggers, then the Offeror is required to demonstrate to VDOT's satisfaction that the triggers are appropriately sensitive to real-time traffic conditions and aligned with all VDOT goals including:

- Achieves traffic management goals
- Cost efficient use of incentives
- Minimizes deployment and operations risks

Offeror's proposal should clearly state which approach they are using for dynamic incentive triggers. This choice will impact other elements of the program and VDOT will need to inform all stakeholder early in the process.

Data on traveler response to dynamic incentives will be critical to incident response planning and will be needed by other parts of the RM3P program. Data on diversions and response rates for incentive offers will be stored in the DEP so that it is available for operational systems.

Solution Elaboration

The Offeror will update the SDD to cover any changes necessary for dynamic incentives.

The API for the mobile app infrastructure will have to be extended to include dynamic incentives. The Offeror will update the ICD to include dynamic incentives.

VDOT and the Offeror will review the SDD updates together and confirm that the user experience is on the right track. It is understood that there may be modifications to the design throughout the agile development process. This review serves as a checkpoint about the user experience.

Agile Development

The development process and deliverables will be the same as in Task 4. The Offeror should propose an epic schedule at the outset of development. VDOT's notional schedule for this task includes:

- Epic 1: Integration with DSS or development of internal triggers
- Epic 2: User targeting for dynamic incentives
- Epic 3: Administrative UI and API for dynamic incentives
- Epic 4: Verification and rewards for dynamic incentives

Deployment and Acceptance

The deployment shall not disrupt ongoing operation of the loyalty and challenge programs. The deployment process will be the same as in Task 4 with validation happening in the pre-production environment.

The 99.9% uptime rule will remain in effect, but downtime directly related to the initial deployment of dynamic incentives will not count towards that limit. VDOT expects that working software will be deployed to the production environment at the conclusion of each epic. The validation and verification process will be the same as in Task 4. The test plan and scripts will be entirely new, but need only cover dynamic incentives and system elements which may be impacted by the update.

All production deployments will be scheduled at a time that is acceptable to VDOT, and deployments will never be scheduled on weekdays between 4AM and 7PM.

Task Closeout

The Offeror will extend the Training Documentation to cover features associated with dynamic incentives.

Task 6 Deliverables

1. Solution Elaboration
 - a. User interface wireframes or graphics
 - b. Workflows and user stories
 - c. Updates to SDD and User Experience Checkpoint
 - d. Updated ICD
2. Agile Development
 - a. Agile Sprint Development Plan
 - e. Epic/Sprint Reviews and Planning
 - f. Documentation of Requirements Modifications
 - b. Weekly Epic/Sprint activity meetings if requested
 - c. Updated Back Office Software with Dynamic Incentive Functionality
3. Acceptance
 - a. Working Solution for Pre-Production Environment
 - b. Verified Solution in Production Environment
 - c. Acceptance Test Plan
 - d. Acceptance Test Scripts
 - e. Requirements Traceability Matrix
 - f. Acceptance Testing
 - i. User Experience Testing
 - ii. Stress Testing
 - iii. Requirements Conformance
4. Task Closeout
 - a. Updated Training Materials

Task 7: Implement Primary Mobile App Dynamic Program

This task covers adding dynamic incentive features to the public-facing mobile app. The structure of this task is very similar to that of Task 5; in many cases the deliverables for Task 7 will be updates and extensions of the deliverables for Task 5.

Solution Elaboration

The Offeror will update the SDD to cover any changes necessary for dynamic incentives.

VDOT and the Offeror will review the SDD updates together and confirm that the traveler experience is on the right track. It is understood that there may be modifications to the design throughout the agile development process. This review serves as a checkpoint about the traveler experience.

Agile Development

The Offeror will provide VDOT a development schedule and demonstrate progress by periodic demonstrations.

Rollout

This task will include a soft rollout followed by a production rollout. To the greatest extent possible, these activities should not disrupt operations and use of the loyalty and challenge programs. The soft rollout of dynamic incentives should be limited to a controlled and carefully planned subset of users (but may include selected new users also); it should not just be rolled out to all existing users.

The Offeror will prepare a rollout plan for VDOT's approval. This rollout plan will be entirely new, but will have the same structure, coverage, and approach as the rollout plan for Task 5.

The Offeror will implement the soft rollout and collect feedback for at least one month. VDOT will work with the Offeror to interpret the feedback and make necessary corrections of adjustments. Once VDOT has approved the changes, the Offeror will update the solution and proceed to the production rollout.

The 99.9% uptime rule will remain in effect, but downtime directly related to the initial deployment of dynamic incentives will not count towards that limit.

All production deployments will be scheduled at a time that is acceptable to VDOT, and deployments will never be scheduled on weekdays between 4AM and 7PM.

Acceptance

The validation and verification process will be the same as in Task 5. The test plan and scripts will be entirely new, but need only cover dynamic incentives and system elements which may be impacted by the update.

Task 7 Deliverables

1. Solution Elaboration
 - a. Updates to SDD and Traveler Experience Checkpoint
 - b. Updated ICD
2. Agile Development
 - a. Development Schedule
 - b. Sprint Demonstrations
 - c. Documentation of Requirements Modifications
 - d. Updated primary app
3. App Rollout
 - a. Rollout Plan
 - b. Marketing plan update, announcements, press release, social media campaigns
 - c. Soft Rollout
 - d. Production Rollout
4. Acceptance
 - a. Acceptance Test Plan
 - b. Acceptance Test Scripts
 - c. Requirements Traceability Matrix
 - d. Acceptance Testing
 - i. User Experience Testing

- ii. Stress Testing
- iii. Requirements Conformance

Task 8: Integrate with Additional Mobile App(s)

This task covers integration of the back-end shared services with a third-party mobile app infrastructure, approved by VDOT, not provided by the Offeror. The Offeror is not responsible for changes necessary to the third-party app but will have to coordinate with the third-party vendor and may need to make minor changes to the shared services API. The Offeror is primarily in an enablement and support role for this task, but the Offeror will need to fix bugs in the API or its implementation encountered in the integration process.

The ICD developed in previous tasks will be a key resource for third-party app developers. The Offeror will ensure that the ICD includes full technical specifications for all calls and responses (including those initiated by the shared services and those initiated by the app infrastructure). The ICD should include usage guidance so that an external developer can effectively make use of the API. The expectation is that the ICD will be correct and complete prior to any integration activities, and the Offeror will make necessary corrections or additions if issues are encountered during integration.

The Offeror pricing information should include support for a single third-party integration and provide optional pricing for additional integrations. While bugs may be encountered during integration work, VDOT expects that bug fixes will be covered under general warranty and should not be reflected in integration costs.

The Offeror will provide assistance to the third-party app vendor during development in the following ways:

- Clear and complete documentation for the shared services API.
- Occasional calls or meetings to help interpret API usage.
- Assistance with access to the production and pre-production environments.
- Assistance with access to logs or other forms of feedback about the status and responses of the shared services.
- Other assistance as needed.

If changes to the shared services API are necessary, the Offeror will make those changes.

Rollout

The Offeror is responsible for working with the third-party vendor to ensure that their rollout does not impact the shared services or any other mobile apps.

The Offeror program management resources (see Task 2) will coordinate with the third-party vendor for marketing and publicity for the rollout.

Validation and Verification

The Offeror is responsible for verifying that the shared services function correctly when connected to the third-party app, and that performance and functionality of the primary app is not impacted.

Task 8 Deliverables

- Updates to the ICD as Needed
- Fixes to API (and shared services implementation for issues encountered in integration)
- API usage guidance

Task 9: Solution Revision and Operation

The incentivization solution will need constant refinements and tuning to ensure that it is:

- Aligned with consumer demand: The structure of the programs should be appealing to the public.
- Successfully promoting program goals: It is not enough simply that people are using the app; it is important that the triggers and behavior changes are consistent with program goals such as reducing SOVs.
- Providing a reasonable return on investment: The cost of the solution should be commensurate with the benefits of the congestion relief it provides.
- Sustainable in the long-term: Additional providers shall be engaged to support incentive costs.

This is the technical support task for operations and ongoing solution refinements. It will continue for the life of the contract and be closely aligned with the program management task (Task 2). In general, Task 2 covers VDOT and the Offeror working together to assess progress to date and revise the approach as needed. This task implements changes determined by Task 2 processes. The Offeror is responsible for:

- Adjusting configuration and options for loyalty, challenge, and dynamic programs to better meet program goals.
- Periodically creating new challenges consistent with program goals.
- Ensuring the solution is performant and running correctly and meeting the 99.9% uptime rule.
- Routine operational tasks to ensure solution reliability
- Making bug fixes and security updates as needed.
- Providing reports and raw data to evaluate program progress and effectiveness.
- Updating incentive offers to include new partners as they come on board.

The Offeror shall provide on-call support to VDOT for any system failures or issues. The Offeror shall provide a tollfree phone number and email address for issue reporting as well as access to an online issue ticketing system.

The Offeror shall provide technical support for the primary app to the end user. The app will provide some method (email, chat, chatbot, AI assistant, phone call, etc.) for the end user to request help or report a problem and missing incentive reward. The Offeror shall provide immediate acknowledgement and resolve all issues within one business day. All end user requests for information or help should be logged, and the full log (including timestamps) shall be made available in a readable format to VDOT whenever requested.

Task 9 Deliverables

1. Solution Performance and Uptime Reports
2. System Security Updates and Bug Fixes
3. Mobile App Security Updates and Bug Fixes
4. Updates to Shared Services ICD as Needed
5. Additional Updates to System Documentation as Needed
6. Customer service statistics reports

GLOSSARY

Acronym	Definition/Full Description
ACCS	Arlington County Commuter Services
AI-DSS	Artificial Intelligence-Based Decision Support System
AMS	Analysis, Modeling, and Simulation
API	Application Programming Interface
ASD	Administrative Services Division
ATCMTD	Advanced Transportation and Congestion Management Technologies Deployment
ATMS	Advanced Transportation Management System
CaBi	Capital Bikeshare
CAD	Computer Aided Dispatch
CAP	Commuter Assistance Programs
CDC	Centers for Disease Control and Prevention
CMP	Change Management Plan
COTS	Commercial Off-the-Shelf
CPIS	Commuter Parking Information System
C2C	Center-to-Center
DATA	Dulles Area Transportation Association
DBE	Disadvantaged Business Enterprise
DEP	Data-Exchange Platform
DGS	Department of General Services
DHS	Department of Homeland Security
DI	Dynamic Incentivization
DMP	Data Management Plan
DPS	Division of Purchases and Supply
DRPT	Department of Rail and Public Transportation
DSBSD	Department of Small Business and Supplier Diversity
DTR	Dulles Toll Road
DUA	Data Use Agreement
EA	Enterprise Architecture
ECOS	Enterprise Cloud Oversight Service
EOI	Expression of Interest
FAMPO	Fredericksburg Area Metropolitan Planning Organization
FAST	Fixing America's Surface Transportation
FHWA	Federal Highway Administration
GUI	Graphical User Interface
GTFS	General Transit Feed Specification
GTFS-RT	General Transit Feed Specification – Real Time
ICD	Interface Control Document
IFB	Invitation for Bid
IFQC	Invitation for Qualified Contractors
IT	Information Technology
ITTF	Innovation and Technology Transportation Funds
IV&V	Independent Verification and Validation
LEP	Limited English Proficiency
MATOC	Metropolitan Area Transportation Operations Coordination
MMAP	Multi-Modal Analytical Planner
MOE	Measures of Effectiveness
MWCOG	Metro Washington Council of Governments
NoVA	Northern Virginia
NTP	Notice-to-Proceed
NVTA	Northern Virginia Transportation Authority

Acronym	Definition/Full Description
N/A	Not Applicable
PDF	Portable Document Format
PII	Personally Identifiable Information
PM	Project Manager
PMP	Project Management Plan
PRTC	Potomac Rappahannock Transportation Commission
PSTOC	Public Safety and Transportation Operations Center
RFP	Request for Proposal
RFQ	Request for Qualification
RITIS	Regional Integrated Transportation Information System
RM3P	Regional Multi-Modal Mobility Program
RWIS	Road Weather Information System
SaaS	Software-as-a-Service
SAM	System for Award Management
SCC	State Corporation Commission
SDD	System Design Document
SDP	Software Development Plan
SLA	Service Level Agreements
SOP	Standard Operating Procedures
SOV	Single-Occupant Vehicle
SPOC	Single Point of Contact
SWaM	Small, Women-Owned, and Minority-Owned Business
TBD	To-Be-Determined
TDM	Transportation Demand Management
TMA	Transportation Management Association
TMS	Transportation Management System
TOC	Transportation Operations Center
TOSAM	Traffic Operations and Safety Analysis Manual
UI	User Interface
USDOT	United States Department of Transportation
VDOT	Virginia Department of Transportation
VITA	Virginia Information Technologies Agency
VPPA	Virginia Public Procurement Act
VSP	Virginia State Police
WBS	Work Breakdown Structure
WMATA	Washington Metropolitan Area Transit Authority