

STEPS to MOD & MPI

Integrated Mobility Innovation Demonstration Program

Quarterly Report (CY2022 Q1)

TriMet Steps to MOD and MPI

Top Accomplishments of the Quarter

Provide a list of the top three accomplishments from your project in the quarter.

1. Final draft of “Business Case for Integrated Payment” submitted to FTA on 3/4/22
2. Detailed system architecture and design finalized for machine learning based prediction engine.
3. Development of HopFastpass-enabled Origin, Destination, Transfer (ODX) analysis workflow within the Smart Mobility Platform

Overview of Statement of Work Progress

Task	Task Name	Sub-Tasks	Status/Notes
1	Innovative Payment	1.1 Business Case for Integrated Payment 1.2 Expanding Open Payment	Subtask 1.1: Business Case for Integrated Payments. Final draft was completed and submitted to the FTA on 3/4/22 -> based on an email thread with Steve Mortensen Subtask 1.2: Expanding Open Payments: The exploration write-up (McHugh-Maletz_IMI_1.2a&b_Open-loop Payment Solutions for Concession Fares and Monthly Fare Capping) was submitted to the Transit Open Payments Forum working committee (AMEX, VISA, MasterCard & Discover are all committee members). There’s been no feedback as of yet for the paper. Additional work on this effort is on hold as TriMet has had significant staffing turnover. We have received an extension from the FTA and will be able to complete the demonstration portion of the project through Dec 2022.

		<p>1.3 Expanding/Extending HOP Functionality</p> <p>1.4 Improving access for the unbanked and underbanked</p>	<p>Subtask 1.3a & 1.3b Expanding/Extending HOP Functionality: Additional work on this effort is on hold as TriMet has had significant staffing turnover. We have received an extension from the FTA and will be able to complete the demonstration portion of the project through Dec 2022.</p> <p>Subtask 1.4: Improving Access for the Unbanked and Underbanked: Per the documentation submitted in the exploration phase, this scope did not carry into the exploration phase.</p>
2	Customer Experience	<p>2.1 Customer communication around fare capping as a traveler incentives and rewards program</p> <p>2.2 Incorporating Real-Time Incident and Congestion Information</p> <p>2.3 Partnering to Scale the City of Portland Transportation Incentive Program</p> <p>2.4 System Integration</p>	<p>Subtask 2.1: Customer communication around fare capping as a traveler incentives and rewards program. This work has continued and will hopefully go live in production sometime this Summer 2022</p> <p>Subtask 2.2: Detailed design and implementation plan for the prediction engine “scaffolding” around the machine learning model was drafted and finalized. Initial planning for cloud infrastructure architecture was conducted.</p> <p>Subtask 2.3: PBOT/RideShark work: TriMet and RideShark have successfully worked through the IT and Cyber Security application requirements. This step has enabled both teams to begin the software development process.</p> <p>PBOT is in process of completing the “In-kind” invoicing of their time.</p> <p>Subtask 2.4: On-track. Setup and configuration of the open source native mobile apps for testing on-hold</p>

			pending software release by the ATL IMI project team
3	Mobility Data	<p>3.1 Define framework for assessing improvements in Transit Quality</p> <p>3.2 Mobility Analysis Benchmarks</p> <p>3.4 Demonstrate framework for assessing improvements in Transit Quality</p>	<p>Fehr & Peers coordinated with TriMet and UrbanLogiq to complete the Hop fastpass Origin/Destination/Transfer inference process and validate the data with synthetic trips and quality control checks of the ODX outputs.</p> <p>Drafted a memorandum to document the Hop ODX methodology and validation process.</p> <p>Completed data management plan updates and edits for approval by the FTA.</p> <p>Coordinated with Urban Logiq on a work plan to integrate the remaining Mobility Performance Metrics into the Smart Mobility Platform.</p>
4	Project Management	<p>Working group meetings</p> <p>Quarterly Progress Reports</p>	<p>On track. We held weekly working group (WG) meetings including:</p> <ul style="list-style-type: none"> - Smart Mobility Platform WG with Urbanlogiq, Fehr & Peers and other project partners. - Prediction Engine WG with TriMet and IBI Group <p>On track</p>

Major Activities Expected in the Coming Quarter

Key Activities Expected in the Coming Quarter:

- Restart of work on task 1 subtasks that had been paused this quarter due to staff turnover at TriMet.
- Development of machine learning based prediction engine
- Integration of remaining Mobility Performance Metrics into the Smart Mobility Platform