Phase 2 Operational Readiness Plan (ORP)

Heart of Iowa Regional Transit Agency ITS4US Deployment Project

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Final Report — June 28, 2024

FHWA-JPO-23-105

ITS4US

IT'S TRANSPORTATION FOR ALL OF US

U.S. Department of Transportation

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16. Abstract

Heart of Iowa Regional Transit Agency (HIRTA) is one of four awardees for Phase 2 of the ITS4US program for its proposed concept ***"HIRTA Health Connector: Bridging the Gap Between Healthcare and Transportation"*** (Health Connector) by the United States Department of Transportation (USDOT). Per the goals of the program, Health Connector project is focused on improving transportation access to healthcare for all in Dallas County, Iowa.

This document serves as the Operational Readiness Plan (ORP) for HIRTA and outlines the tests and supporting demonstrations required to verify the Health Connector System's readiness to transition into an operational state. The tests and supporting demonstrations identified in this document have been developed to confirm all (testable) system requirements and critical user scenarios are functional. The Health Connector Team will utilize this document as a guide to conduct all testing and demonstrations. The ORP has been divided into two sub-plans: The Operational Readiness Test Plan (ORTP) and the Operational Readiness Demonstration Plan (ORDP). The ORTP will be used by the Health Connector Team to test the functionality of all (testable) system requirements. Section 3 and the Operational Readiness Demonstration Plan (ORDP) - The ORDP will be used to confirm the system can accomplish key use case scenarios required of the system. The ORP is supported by the Requirements Traceability Matrix which includes detailed traceability of verification methods for each requirement and progress tracking for each stage of testing.

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Josh Albertson, Arcadis	June 28, 2024	0.4	508 Version Updated ORDP with revised demonstration procedures used at ORD.	Brooke Ramsey

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1 Introduction

The Operational Readiness Plan (ORP) outlines the tests and supporting demonstrations required to verify the Health Connector System's readiness to transition into an operational state. The tests and supporting demonstrations identified in this document have been developed to confirm all (testable) system requirements and critical user scenarios are functional. The Health Connector Team will utilize this document to as a guide to conduct all testing and demonstrations. The ORP has been divided into two sub-plans and can be found in the following sections:

Section 2 The Operational Readiness Test Plan (ORTP) - The ORTP will be used by the Health Connector Team to test the functionality of all testable system requirements.

Section 3 and the Operational Readiness Demonstration Plan (ORDP) - The ORDP will be used to confirm the system can accomplish key use case scenarios required of the system. This section will outline the demonstrations that address each use case, including a demonstration description, test procedures, required data, and results. The ORDP also includes demonstration presentations that address requirements not specifically addressed by individual demonstration procedures.

Results of the tests and demonstrations described in the ORP will be documented as part of Task 2-H, Installation and Operational Readiness Testing.

1.1 Intended Audience

The intended audience for this document is the HIRTA project team, the United States Department of Transportation (USDOT), vendor teams, and project stakeholders. This audience also includes future deployers and developers who might learn or build upon the development work described in this document for future deployments of a similar nature.

1.2 Project Background

HIRTA provides over 300,000 customer rides and operates 95,000 hours (2019 estimates; pre-pandemic) along with 1.3 million miles of service within the seven-county region encircling the Des Moines urban area. HIRTA provides demand response services to customers for all trips booked from 24 hours to up to 14 days in advance. If capacity is available, HIRTA also provides trips to meet same day requests. HIRTA also acts as a service provider for the State of Iowa Medicaid broker, Access2Care.

Health Connector is an innovative solution that will address various bottlenecks associated with transportation access to healthcare for HIRTA communities. Some of these challenges are key reasons behind missed appointments or the unacceptable level of preventive or as-needed healthcare in the HIRTA service area. For this deployment, the HIRTA team plans to implement a scalable and replicable solution that enables access to non-emergency medical transportation for all travelers by resolving transportation access barriers with the use of advanced technologies. This solution will allow Dallas County residents without access to transportation who may be seeking a medical appointment to explore their transportation alternatives and book both medical and

transportation appointments at the same time through a smart device (e.g., smartphone, smartwatch) application or equally effective alternate method. Further, this solution will include information and wayfinding services to guide them at every step of their trip.

This deployment will provide enhanced transportation access to healthcare options for all travelers in Dallas County with a specific focus on underserved communities, including rural, older adults, and veterans. In addition to addressing mobility needs, the proposed deployment will recognize the net impact that access to health services has on patient healthcare outcomes as well as both the financial and health outcomes from the perspective of the healthcare community/Dallas County Health Department (DCHD).

HIRTA was awarded a Phase 2 agreement of the ITS4US contract for its proposed concept *"HIRTA Health Connector: Bridging the Gap Between Healthcare and Transportation"* (Health Connector) by the United States Department of Transportation (USDOT) to showcase innovative business partnerships, technologies, and practices that promote independent mobility for all travelers.

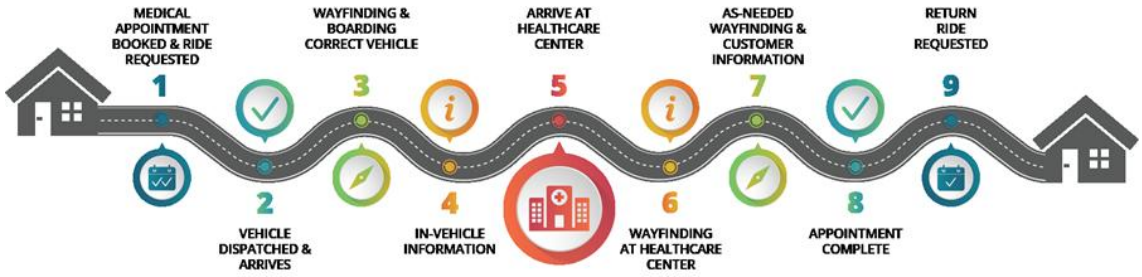

Figure 1. Overview of Health Connector (Source: HIRTA team)

For more information about the key capabilities of the proposed Health Connector technology, refer to the Phase 2 concept of operations (ConOps) and Phase 2 System Requirements Specifications (SyRS) documents [1] [2].

There are five main goals for the Health Connector Concept, which include:

1. Improved health outcomes through increased access to medical transportation for Dallas County residents
2. Self-reliance and spontaneity for all, including underserved groups
3. Efficient transportation management capabilities for medical transportation services
4. Financial sustainability of medical transportation programs
5. Safe medical transportation services

For more information regarding these goals and more detailed objectives and performance measures, please refer to the Phase 2 Performance Measurement and Evaluation Support Plan (PMESP) [3]. Throughout, 'Traveler' refers to those individuals who will use Health Connector services to access healthcare appointments.

1.3 Scope

The Operational Readiness Plan (ORP) outlines the tests and supporting demonstrations required to verify the Health Connector System's readiness to transition into an operational state. The tests and supporting demonstrations identified in this document have been developed to confirm all (testable) system requirements and critical user scenarios are functional. The Health Connector Team will utilize this document as a guide to conduct all testing and demonstrations.

The ORTP consists of a set of tests designed to verify the functionality and or configuration associated with each testable system requirement identified in the Requirements Matrix (RTM) [4]. Please note testing is only one of the verification methods that will be used to validate the performance of the system additional verification methods are described in Section 2.1. Most of these tests were originally outlined within the System Test Plan (STP) [5]. The ORTP offers further pertinent and or updated details for the tests initially outlined in the STP and introduces additional tests that were formulated after the submission of STP. As system testing is performed, the RTM will be updated to include comments on each requirement as they relate to their associated test procedure and document the result of testing against each requirement. The goal of the RTM is to show traceability between every system requirement, its test verification method and the specific test procedure that it will be verified in. All subsystems, components, subcomponents and interfaces identified in the ICD and SDD will be included in testing, with the exception of external systems identified in the SDD that are not tied to requirements or within the scope of this design [6][7].

The ORDP consists of a series of coordinated demonstrations, including participants, to ensure the operational readiness of the system. Each demonstration has been developed to test key use case scenarios required of the system. Many of the key use scenarios described in Section 3 were originally introduced in the Concept of Operations (ConOps) [1]. Additional key use case scenarios developed after the submission of the ConOps are also included in the ORDP.

Results of the tests and demonstrations described in the ORP will be documented as part of the System Test Results Summary in Task 2-H by early May 2024. This will allow for four weeks of review by the USDOT prior to the ORD, currently slotted for the second week of June 2024. This document will be updated as needed to reflect the most accurate and complete test procedures and demonstration procedures.

2 Operational Readiness Test Plan (ORTP)

The ORTP provides a comprehensive breakdown of tests designed to verify the functionality and or configuration associated with each testable system requirement identified in the Requirements Matrix (RTM) [4]. Please note testing is only one of the verification methods that will be used to validate the performance of the system additional verification methods are described in Section 2.1. . The ORTP outlines step by step processes for running tests, along with guidance for what to do following test results. Risks, personnel, schedules, and dependencies are also discussed.

The following types of testing will be used to support the test stages are included in the ORTP:

- Unit Testing – During Unit Testing, component units will be verified per requirements and design to ensure components are ready for integration.
- Functional Testing – During Functional Testing, integrated subsystems will be verified using simulated environments and test databases to ensure subsystems are ready for installation.
- Installation Testing – During Installation Testing, all components will be installed and tested in a field setting to verify integration between subsystems. Actual database and vehicles will be used for testing with HIRTA and partner test subjects to ensure the integrated system is ready for use.

The ORTP does not include test procedures for revenue testing. Revenue Testing refers to the test stage in which the system is run in live operation. This stage will utilize the same set of participants as User Acceptance Testing, however, for revenue trips. During this stage, observations related to system functionality and performance will be collected and issues will be addressed. Revenue Testing is anticipated to occur over 30 days.

A punch list will be managed to support operations during revenue testing and any issues will be resolved as soon as possible in real time. Any issues that arise as part of revenue testing will be addressed prior to the operational readiness demonstration. These punch lists are available as part of the RTM [4].

2.1 Objectives

The ORTP will serve as a comprehensive guide used to support testing methods and processes required to verify the functionality and or configuration associated with each testable system requirement identified in the Requirements Matrix (RTM) [4]. Please note testing is only one of the verification methods that will be used to validate the performance of the system additional verification methods are described in Section 2.1. The ORTP supports the following objectives:

- Compile all information necessary to support successful testing of each testable system requirement including but not limited to test descriptions, test cases, test procedures, test data,

test results, test failure remediation, test team, schedule, requirements covered, failure remediation, schedule, and dependencies.

- Define tasks required of all relevant parties.

- Serve as a resource that documents all actions planned to verify the functionality and or configuration associated with each testable system requirement identified in the Requirements Matrix (RTM) [4].

- Serve as a document that supports the process to verify the Health Connector System's readiness to transition into an operational state.

The ORTP supports the ultimate goal of confirming that the Health Connector System can satisfy all requirements and achieve all documented user needs. Please note test procedures identified in the ORTP only relate to 'Test Result'. Non-testable requirements will be validated through the other methods. Non-test procedure items and results will be documented in the System Test Results Summary (SRTS).

The following verification methods will be utilized to verify the requirements (outlined in the RTM), are met

- Revenue Testing - Revenue Testing refers to the test stage in which the system is run in live operation. This stage will utilize the same set of participants as User Acceptance Testing, however, for revenue trips. During this stage, observations related to system functionality and performance will be collected and issues will be addressed. Revenue Testing is anticipated to occur over 30 days.

- Test Result (TR) – Where the requirement is verified by running a test and demonstrating a specific capability or action as the result of such test. Demonstration is usually verified during the execution of the test itself, where you witness the capability accomplishing the requirement.

- PMESP Analysis (PMESP) – Where the requirement is verified by a test that is run and then later analysis is conducted on the data collected during the test. Often, the outcome of a test cannot be determined by visual inspection, and it requires data analysis to determine if a requirement has been met. As an example, Mean Time Between Failure (MTBF) requirements are usually verified by analysis since it may not be feasible to wait months for a potential failure of a component.

- Inspection (I) – Where the requirement is verified by visual inspection. This verification method is primarily related to the Installation test stage.

- Design Review (DR) – Where the requirement is verified by review of design specifications outlined in the System Design Document (SDD), which outline how a requirement is being met. This includes features that already exist in the system and have been verified through screenshots or demonstration.

- Contract Review (CR) – Where the requirement is verified by review of contractual specifications. This includes requirements related to Service Level Agreements and blanket requirements for the system that apply to all vendors.

- Vendor Specification Review (VSR) – Where the requirement is verified by specifications or approaches written by 3rd party software or hardware providers. This includes requirements related to data that are not directly testable, such as Mean Time Between Failure conditions.

- Report Verification (RV) – Where the requirement is verified by review of published reports. This verification method will primarily refer to review of Via's reports, applicable to performance requirements.

2.2 Approach

40 tests are documented in the ORTP. Testing is anticipated to occur between October 2023 and June 2024. A high-level schedule overview of the primary test stages is as outlined below. It is important to note that some of these stages may overlap. Please note all MOD platform TMS components with be tested at HIRT Headquarters (HQ). Wayfinding codes will be tested in the field at Dallas County Hospital, kiosks at the hospital, on HIRTA vehicles, and HIRTA headquarters. Middleware testing will occur virtually. The stages include

- Test Readiness Review – A Test Readiness Review was conducted at the end of January 2024 to confirm that test plans, documentation, facilities, and personnel were ready for testing. Testing for the MOD-EHR and MOD-Medicaid middleware products will occur throughout the course of development, beginning in October 2023. Readiness for integration of the middleware products with other subsystems was determined by confirming all necessary sandboxes and keys were established to support testing in a functional environment.

- Unit Testing – Unit Testing for the middleware products will occur concurrently with development and functional testing between January and March 2024. Unit testing for the MOD Platform TMS and Wayfinding Subsystem will occur in February 2024.

- Functional Testing – Functional Testing for the middleware products will occur concurrently with development and unit testing and takes place between January and March 2024. Functional testing for the MOD Platform TMS and Wayfinding Subsystem will occur in March 2024 once unit testing has been completed.

- Installation Testing – Installation Testing will take place in mid-March 2024, following the successful completion of Unit and Functional Testing.

- User Acceptance Testing – User Acceptance Testing will take place at the end of April 2024, following participant recruitment and training. This stage is also dependent on successful installation testing, and MVP for middleware solutions being achieved.

- Revenue Testing – Revenue Testing will take place over the course of one month between late-April and late-May 2024. This testing is dependent on successful user acceptance testing. Unlike former stages, this stage involves primarily observation of the operational system, documentation and follow-up on punch list items as needed.

- Operational Readiness Demonstration – The Operational Readiness Demonstration will take place during the first week of June 2024.

A full system test schedule can be found in the System Test Plan [5].

2.2.1 Test Identifier

This section provides unique identifiers to each test procedure allowing for traceability to the requirements traceability matrix [4] well as version control.

Table 1. Revision History

Component	Subcomponent	Test Identifier	Date	Modified By	Description
TMS	Reservations and Customer Service	TP1: Assisting Travelers with Registration and Customer Profile Changes_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP.*
TMS	Reservations and Customer Service	TP2: Accessing Trip Details and Traveler Information_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Reservations and Customer Service	TP3: Providing General Customer Service_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Scheduling	TP4: Planning and Booking Trips_v1	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Dispatch	TP5: Assigning Trips_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Dispatch	TP6: Coordinating with Drivers_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Manifest Building/ Runcutting	TP7: Building Manifests_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Operations Management	TP8: Logging In_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Operations Management	TP9: Checking Vehicle Status_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*

Component	Subcomponent	Test Identifier	Date	Modified By	Description
TMS	Operations Management	TP10: Managing Driver and Vehicle Information_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Operations Management	TP11: Managing Safety Events and Incidents_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Operations Management	TP12:Reviewing Trip Status and Performance_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Notifications	TP13: Configuring Notifications_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Performance Management and Reporting	TP14: Accessing Performance Data_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
TMS	Cost Allocation and Billing	TP15: Billing and Invoicing_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
EHR Middleware	MOD-EHR Service Interface	TP16: MOD-EHR Service Interface_v2	4/24/24	Josh Albertson	*Combined MOD-EHR into one test procedure to show all expected functions of the dashboard for users.*
MOD Medicaid Middleware	MOD-Medicaid Service Interface	TP17: MOD-Medicaid Service Interface_v2	4/24/24	Josh Albertson	*Combined MOD-Medicaid into one test procedure to show all expected functions for HIRTA and TAPI provider*
Traveler Application	General	TP18: Ensuring Accessibility_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Registration	TP19: Signing Up for Health Connector_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*

Component	Subcomponent	Test Identifier	Date	Modified By	Description
Traveler Application	Translation Services	TP20: Using Translation Services_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Travel Assistance	TP21: Getting Help_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Traveler Notifications	TP22: Setting Notifications_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Traveler Notifications	TP23: Receiving Notifications_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Payments	TP24: Making a Payment_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Trip Booking	TP25: Booking Trips in the Traveler App_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Trip Booking	TP26: Cancelling and Rebooking Trips_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Trip Booking	TP27: Connecting to Care Facility Services_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Trip Booking	TP28: Receiving Booking Confirmation_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Trip Information	TP29: Accessing Trip Information_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Traveler Application	Trip Information	TP30: Providing Trip Information_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*

Component	Subcomponent	Test Identifier	Date	Modified By	Description
Traveler Application	Trip Planning	TP31:Planning a Trip_v2	2/23/24	Brianna Jasset	*Updated Test Procedures for Revised ORTP*
Driver Application	Navigation	TP32: Navigating to a Pick-up or Drop-off Location_v2	2/23/24	Brady Vanlo	*Updated Test Procedures for Revised ORTP*
Driver Application	Scheduling	TP33: Receiving and Managing the Manifest_v2	2/23/24	Brady Vanlo	*Updated Test Procedures for Revised ORTP*
Driver Application	Trip Performance	TP34: Providing Passenger Assistance_v2	2/23/24	Brady Vanlo	*Updated Test Procedures for Revised ORTP*
Wayfinding Application	Wayfinding Application	TP 35: Using NaviLens for Transportation_v2	2/23/24	Brady Vanlo	*Updated Test Procedures for Revised ORTP*
Infotainment Devices	Infotainment Devices	TP36: Gathering Information from Infotainment Devices_v2	2/23/24	Brady Vanlo	*Updated Test Procedures for Revised ORTP*

2.2.2 Summary of Test Case Information

The following sections of the ORTP identify the following information:

For each component, the following information will be included:

- Description of the Component: Describes the key purpose of the component, how the component fits within the rest of the system, and any relevant considerations related to testing.
- Test Team: A list of the team members responsible for testing and providing feedback on test procedures as well as any witnesses.

For each subcomponent, the following information will be included:

- Description of the Subcomponent: Describes the key purpose of the subcomponent and outlines how the test cases have been organized. These also map to the subcomponents described in the System Design Document as well as the Requirements Matrix [4] [6].
- Test Case: Identifies the name of each test case included under that subcomponent.

For each test case, the following information will be included:

- Test Data: Identifies the data required to conduct the test. This may include the scripts used to execute software operations, or data entered by a party as part of the process of verification and validation. This does not include all data involved in producing the desired result, but rather any data that testers will need to have available in order to make inputs and complete verification.

- Requirements Covered: Identifies a list of system requirements that will be satisfied by the successful performance of this test procedure.

- Test Procedures: Details how the functioning of system components will be verified and validated. If test data are to be used as part of this step, the test procedures will detail how it will be determined that the system actually performed the correct transformations on the entered data. Acceptance criteria are also included under test procedures, so that anyone performing the tests can easily see what the expected result is. These tables also include a place to document results or make notes as needed.

- Failure Remediation: Describes the process that is to be followed for any test procedures that may not pass during initial testing.

- Schedule and Dependencies: Describes the relevant test stages during which the test procedure will take place.

2.3 MOD Platform TMS

The MOD Platform TMS describes the component used by HIRTA for scheduling, dispatching, and managing Health Connector trips. This central-end system also collects and reports on performance and can assist with customer service operations.

It is important to note that health navigators and other care facility employees will have access to a limited view of this platform of the MOD Platform TMS. Access will be granted prior to user acceptance testing which will allow healthcare staff to test scheduling return trips for Travelers among other functions. This is described as a separate component in the SDD and in the Requirements Matrix in order to distinguish between user groups **Error! Reference source not found.**. However, the functions of the limited view platform are a subset of the broader functions of the MOD platform. Therefore, the test procedures presented in this section apply to the entire platform, while testing for what will appear in the limited-view platform for health providers is covered by the following tests as presented below:

- Logging In

- Accessing Trip Details and Traveler Information

- Planning and Booking Trips

- Providing General Customer Service

- Reviewing Trip Status and Performance

The MOD Platform TMS will be tested by the following members of the HIRTA Team:

Table 2. MOD Platform TMS Testing Responsibilities

Name	Responsibility	Training Needs
Amber Falls, HIRTA	Tester	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Via Staff	Witness	None – familiar with the platform but will be on hand to document and address any failures.
Health Navigators and Healthcare End Staff	Tester	User Acceptance Testing only- will require briefing on how to access and use VOC.

2.3.1 Reservations and Customer Service

The Reservation and Customer Service subcomponent tests all TMS features that allow for providing support to customers. They are segmented into test cases including assisting travelers with registration and customer profile changes, accessing trip details and traveler information, and providing general customer service. This module is critical for ensuring customer satisfaction and retention, as well as generating revenue for the service provider. A thorough testing will therefore safeguard any limitations in system performance before launch.

2.3.1.1 Assisting Travelers with Registration and Customer Profile Changes

2.3.1.1.1 Data

The following data will be involved during this test:

- Rider Name, Email, ID, or Phone Number
- Funding Source Information (including eligibility period and condition)

2.3.1.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-CSR-1.1
- RC-CSR-2.1

- RC-CSR-3.1
- RC-CSR-4.1
- RC-CSR-4.2
- RC-CSR-4.3
- RC-CSR-5.1
- RC-CSR-5.1.1

2.3.1.1.3 Test Procedure

Table 3. Registration and Customer Profile Change Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC Application	Login Successful		
2. Navigate to Riders/Create Rider 3. Enter necessary information and click Save to create new customer profile. 4. First and Last Name 5. Email Address 6. Pickup Address 7. Search created rider by name or other information in the Search bar. 8. Go to the relevant rider profile from the system generated suggestions. 9. Click on the Three-dots icon on the top-right of the page. 10. Click on Edit Personal Info 11. Modify a detail in the customer profile and click Update.	1. New Customer Profile successfully created. 2. Customer Profile data gets updated after modification		
12. Navigate back to Rider Profile page 13. Verify relevant funding source information is present in a rider profile	Relevant funding source information is present in a rider profile		
14. Verify that there is an option to set eligibility and it is a dropdown list with the following three categories- a) temporary b) conditional c) unconditional	Option to set eligibility in the form of a drop-down list present with the following categories- a) Temporary b) conditional c) Unconditional		
15. Modify eligibility option from dropdown list and verify the VOC successfully updates the information	Update successful		

Test Script	Acceptance Criteria	Result	Notes
16. Select temporary option in eligibility menu. Verify that the following sub-options appear a) Notes (*text field- can be filled in manually*) b) Expiry Date (*date field- a date can be chosen from the calendar pop-up*)	Following sub-options appear on selecting temporary option from eligibility menu- a) Notes (*text field- can be filled in manually*) b) Expiry Date (*date field- a date can be chosen from the calendar pop-up*)		
17. Select conditional option in eligibility menu. Verify that the following sub-option appears upon selection. a) Conditions (*dropdown list with several pre-set options*)	Following sub-options appear on selecting conditional option from eligibility menu- a) Conditions (*dropdown list with several pre-set options*)		
18. Navigate to Ride Plan 19. Click on a concluded, ongoing or upcoming trip 20. Verify if Rider can be contacted.	Rider can be contacted		

2.3.1.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.3.1.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing

- Functional testing
- Installation testing

2.3.1.2 Accessing Trip Details and Traveler Information

2.3.1.2.1 Data

Data required:

- Rider Name, Email, ID, or Phone Number
- Funding Entity

2.3.1.2.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-CSR-5.1.4
- RC-CSR-9.1
- RC-CSR-9.2
- RC-CSR-9.3
- RC-CSR-13.1
- RC-CSR-14.1
- RC-CSR-14.2
- RC-CSR-14.3
- RC-CSR-14.4
- RC-CSR-14.5
- RC-CSR-14A.1
- RC-CSR-14A.2
- RC-CSR-14A.3
- RC-CSR-14A.4
- RC-CSR-15.2
- RC-HNV-4.1
- RC-HNV-5.1
- RC-HNV-5.2

2.3.1.2.3 Test Procedure

Table 4. Accessing Trip Details and Traveler Information Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC Application 2. Navigate to Rides/Bookings 3. Filter to 'Upcoming Today' 4. Click on Go To / Ride 5. Verify if the following information is available- i. Trip Status ii. Current location of vehicle iii. ETA iv. Assigned Vehicle v. Assigned driver vi. Van State (WAV or not)	Following information available in the Go To / Ride section a) Trip Status b) Current location of vehicle c) ETA d) Assigned Vehicle e) Assigned driver f) Van State (WAV or not)		
6. Navigate to Riders/Rider Search 7. Enter Rider Name, Email, ID, or Phone Number in search bar 8. Verify if relevant contact information for rider or their caregivers are present a. Verify that rider notes can identify a personal caregiver	Relevant contact information for riders or their caregivers are present		
9. Navigate back to Riders/Rider Search 10. Enter Rider Name, Email, ID, or Phone Number in search bar 11. Click Enter and go into Rider Profile 12. Verify if necessary accommodation needed to address Traveler communication preferences (e.g. Language, persons with disabilities) is present	Necessary accommodation needed to address Traveler communication preferences (e.g. Language, persons with disabilities) is present		
13. Navigate back to Riders/Rider Search 14. Enter Rider Name, Email, ID, or Phone Number in search bar 15. Click Enter and go into Rider Profile 16. Verify if Rider can be contacted	Rider can be called contacted from the VOC		
17. Navigate to Riders/Rider Search 18. Enter Rider Name, Email, ID, or Phone Number in search bar for a rider who has taken at least 1 trip 19. Click Enter and go into Rider Profile 20. Verify if recent trip history opens up	Recent trip history is displayed		

Test Script	Acceptance Criteria	Result	Notes
21. Navigate back to Riders/Rider Search 22. Enter Rider Name, Email, ID, or Phone Number in search bar for a rider who has taken at least 1 trip 23. Click Enter and go into Rider Profile 24. Verify if 'Status' section lists no-shows in recent travel history for rider	No show information is listed in the status section for recent travel history		
25. Navigate to Analytics/ Data Generator 26. Open Ride Payments Breakdown table 27. Verify if it can be filtered by Funding Source	Ride Payments Breakdown table is filterable by funding source		
28. Navigate to Riders/Rider Search 29. Enter Rider Name, Email, ID, or Phone Number in search bar for a rider who has taken at least 1 trip. 30. Click Enter and go into Rider Profile 31. Click on a past 'no show' trip in the Rider History section. 32. Verify it lists the reason for the no show.	No show reason listed		
33. Navigate back to Riders/Rider Search 34. Enter Rider Name, Email, ID, or Phone Number in search bar for a rider who has exceeded HIRTA's no show policy 35. Click Enter and go into Rider Profile 36. Verify there is way to bar the rider from booking a trip in the future for an amount of time as dictated by HIRTA's no show policy	Functionality to suspend a rider for a particular amount of time present		

Test Script	Acceptance Criteria	Result	Notes
37. Navigate back to Riders/Rider Search 38. Enter Rider Name, Email, ID, or Phone Number in search bar for a rider who has exceeded the no show policy by their funding policy. 39. Click Enter and go into Rider Profile 40. Verify that the no-show exceeded information is highlighted in the profile 41. Note down the Rider ID 42. Navigate to Analytics/ Data Generator / Rider Activities table 43. Search for the specific Rider ID noted down 44. Verify that No show by funding source exceeded information is displayed there	No-show threshold exceeded information displayed in both- a) Rider Profile b) Analytics/ Data Generator / Rider Activities table		
45. Navigate to Analytics/ Data Generator/ Rider Activities 46. Filter by date range 47. Verify that the table displays Number of Cancellations	Number of cancellations is displayed		
48. Navigate to Analytics/ Data Generator/ Ride Requests 49. Filter by date range 50. Verify that the cancelled trips can be filtered by cancellation time in relation to the trip time to determine which cancellations were in advance or same day	Cancelled trips can be filtered by cancellation time in relation to the trip time		
51. Navigate back to Analytics/ Data Generator/ Ride Requests 52. Filter by date range 53. Verify that Cancellation Reason is present for each trip that was cancelled	Cancellation Reason is present for every cancelled trip		
54. Navigate to Ride Plan 55. Verify that there is an option to filter by Transportation Provider	Option to filter by Transportation provider present		

2.3.1.2.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system

- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.1.2.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing

2.3.1.3 Providing General Customer Service

2.3.1.3.1 Data

Data required:

- Rider Name, Email, ID, or Phone Number
- Rider Feedback

2.3.1.3.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-CSR-5.1.5
- RC-CSR-11.1
- RC-CSR-11.2
- RC-CSR-16.3
- RC-CSR-17.1
- RC-CSR-17.2
- RC-CSR-17.3
- RC-OPS-12.1
- RC-HNV-2.1
- RC-HNV-2.2
- RC-HNV-6.1
- RC-HNV-6.2
- RC-HNV-6.3
- RC-HCR-4.1

2.3.1.3.3 Test Procedure

Table 5. Providing General Customer Service Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC Application 2. Navigate to Ride Plan 3. Click on a concluded, ongoing or upcoming trip. 4. Verify if Rider can be contacted.	Rider can be contacted		
5. Verify if there is access to a language translation assistance service for CSR	Language translation assistance service present		
6. Navigate back to Riders/Rider Search 7. Enter Rider Name, Email, ID, or Phone Number in search bar 8. Verify that 'Text Rider' button is present and functioning	'Text Rider' button is present and functioning		
9. Navigate back to Riders/Rider Search 10. Enter Rider Name, Email, ID, or Phone Number in search bar for a rider whose eligibility has expired. 11. Verify that reason behind current ineligibility is present	Current ineligibility reason is present		
12. Navigate back to Riders/Rider Search 13. Enter Rider Name, Email, ID, or Phone Number in search bar for a rider whose eligibility has expired. 14. Go to Rider History 15. Click on Past Rides 16. Verify that there is section to record Rider Feedback	Section to record Rider feedback present		
17. Navigate to Analytics/ Data Generator/ Ride Requests 18. Verify table can be filtered by Feedback Labels	Table can be filtered by Feedback Labels		
19. Navigate to Analytics/ Data Generator 20. Verify there is table that lists received complaints which shows the current resolution status of each	Table listing received complaints present and shows the current resolution status of each		

2.3.1.3.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system

- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.1.3.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing

2.3.2 Scheduling

The ‘Scheduling' section contains testing out all the TMS features that allows for scheduling trips for customers. All the related tests are grouped under test case “Planning and Booking Trips”.

2.3.2.1 Planning and Booking Trips

2.3.2.1.1 Data

Data required:

- Rider Name, Email, ID, or Phone Number
- Mobility aid Information
- New Trip- Trip Date, Pick-up location, Drop-off location, Pick-up time, Drop-off time, Additional Passengers (if any), Travel Reason
- Trip details for third party provided vehicle.
- Driver details for trip completed on third-party provided vehicle.

2.3.2.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-SCH-1.3
- RC-SCH-5.1
- RC-SCH-5.3
- RC-CSR-5.1.2
- RC-CSR-5.1.3
- RC-SCH-5.2
- RC-CSR-6.1
- RC-CSR-6.2
- RC-CSR-6.3
- RC-CSR-7.1
- RC-CSR-7.2
- RC-CSR-7.3
- RC-CSR-7.4

- RC-CSR-8.1
- RC-CSR-12.1
- RC-CSR-12.2
- RC-SCH-1.3
- RC-SCH-4B.2
- RC-SCH-6.1
- RC-SCH-6.2
- RC-CSR-16.2
- RC-HNV-1.1
- RC-HNV-1.1.1
- RC-HNV-1.1.2
- RC-HNV-3.2
- RC-HNV-3.3
- RC-HCR-1.1
- RC-HCR-1.3
- RC-HCR-1.4
- RC-HCR-1.5
- RC-HCR-1.6
- RC-HCR-2.1
- RC-HCR-2.2
- RC-HCR-3.1
- RC-HCR-5.1
- RC-HCR-5.2
- RC-HCR-7.1
- RC-HCR-7.2

2.3.2.1.3 Test Procedure

Table 6. Planning and Booking Trips Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC Application 2. Navigate to Riders/Book Ride 3. Enter Rider Name, Email, ID, or Phone Number in search bar 4. Select Book Ride 5. Enter relevant ride details 6. Verify there is option to add additional riders	Option to add additional riders present		
7. Verify there is option to add mobility aid information for additional riders	Option to add mobility aid information for additional riders present		

Test Script	Acceptance Criteria	Result	Notes
8. Click on 'Get Proposals'	VOC generates trip options		
9. In the Ride details select current date 10. Click on 'Get Proposals'	VOC generates trip options		
11. In the Ride details select a date in the future as permissible by HIRTA policies 12. Click on 'Get Proposals'	VOC generates trip options		
13. In the Ride details section verify there is option to book multi-legged trip with multiple pickup and drop-off locations 14. Verify if different vehicles can be assigned for each leg of trip	1. Option to book multi-legged trip exists 2. Option to assign different vehicles to each leg of trip is present		
15. Navigate to Rides/Bookings 16. Filter to 'Future' 17. Click on a booked trip 18. Click on Edit under 'Booking Status' 19. Modify Booking details on pop-up 20. Click Save	Booking details update successful		
21. Navigate back to Rides/Bookings 22. Filter to 'Upcoming Today' 23. Click on Go To/Ride for a ride in a third party provided vehicle 24. Verify if Rider can be messaged	Rider received text message		
25. Navigate back to Rides/Bookings 26. Filter to 'Upcoming Today' 27. Click on Go To / Ride for a ride in a third-party provided vehicle 28. Verify if the following information is available i. Third party provided vehicle ii. Driver Assigned	Following information available in the Go To / Ride section a) Third party provided vehicle b) Driver Assigned		
29. Navigate back to Rides/Bookings 30. Filter to 'Upcoming Today' 31. Click on Go To/Ride for a ride in a third-party provided vehicle 32. Verify if the Third-party service can be contacted	Third party service receives communication		
33. Navigate back to Rides/Bookings 34. Verify if status of all trips is being shown, even the ones not booked by non-HIRTA systems	All trip status (including ones booked by non-HIRTA systems) displayed		

Test Script	Acceptance Criteria	Result	Notes
35. Navigate to Riders/Rider Search 36. Enter Rider Name, Email, ID, or Phone Number in search bar for rider whose eligibility has expired. 37. Click on Book a Ride from drop down list. 38. In the Ride Details page, verify the following- a) 'Eligibility Expired' message comes up not allowing the trip to be booked. b) The setting can be manually overridden by extending the 'eligibility expiration' date.	Ride Details page contains the following information a) 'Eligibility Expired' message comes up not allowing the trip to be booked. b) The setting can be manually overridden by extending the 'eligibility expiration' date.		
39. Navigate to Configurations/ Activity Monitoring. 40. Verify if it separately notes manual override booking.	Separate note for manual override booking is present.		
41. Navigate to Riders/Book Ride 42. Enter Rider Name, Email, ID, or Phone Number in search bar. 43. Select Book Ride 44. Enter relevant ride details. 45. Click on 'Get Proposals' 46. Select one of the proposed rides 47. Select 'Book Ride'	Ride gets booked with vehicle assigned in real-time		
48. Book another ride by following the same process and add the pickup location close to the earlier booking. 49. Verify that new ride gets assigned to same vehicle	New ride gets assigned to same vehicle		
50. Book another ride by following the same process and add the pickup location close to the earlier two bookings. 51. Add drop-off locations such that travel time for rider booked rider will exceed maximum onboard time allowed if same vehicle is assigned	New ride gets assigned to different vehicle		
52. Manually assigned the rider booked second to the vehicle assigned for the rider booked third	Manual assignment gets through		

2.3.2.1.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.2.1.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing

2.3.3 Dispatch

The ‘’Dispatch’ section contains testing out all the TMS features that allows for HIRTA and non-HIRTA dispatch staff to effectively carry out their work. They are segmented into two major test case groups. Assigning trips relates to all the cases that assigning and reassigning trips to vehicles and drivers. Coordinating with drivers relate to all the cases which test the application’s features that help dispatch staff to coordinate with the drivers.

2.3.3.1 Assigning Trips

2.3.3.1.1 Data

Data required:

- No new data is required to perform the testing.

2.3.3.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-OPS-1A.3
- RC-OPS-1A.4
- RC-OPS-1A.5
- RC-OPS-6A.1
- RC-OPS-6A.3
- RC-OPS-6A.4.1
- RC-OPS-6A.5
- RC-OPS-6A.6
- RC-OPS-6A.8
- RC-OPS-6A.9

2.3.3.1.3 Test Procedure

Table 7. Assigning Trips Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC Application 2. Navigate to Rides/Bookings 3. Filter to 'Upcoming Today' 4. Click on a Ride and select Go To/Ride 5. Click on 'Reassign Ride' option 6. Verify if it provides option to reassign to HIRTA vehicle and driver pool.	System provides option to reassign ride to HIRTA vehicle and driver pool.		
7. Verify that manually reassigning trips only provides option for vehicles that are available during the time of the trip.	Manual reassignment provides option for only available vehicles during the scheduled trip time		
8. Navigate to Ride Plan 9. Verify option to Import trips from Access2Care system present	Option to import trips from Access2Care system present		
10. Click on an upcoming trip 11. Click on Reassign/Reassign to specific Shift 12. Verify that pop-up box opens provides information on Traveler's preferences	Information on Travelers preferences present during manual reassignment		
13. Click on a Medicaid-funded upcoming trip 14. Reassign trip to a new vehicle 15. Verify that Access2care is notified about the update with the option to approve or decline request 16. Verify that trip gets reassigned/stays the same upon respective action from Access2care personnel	1. Access2care gets update notification with option to approve or deny request 2. Trip reassignment gets carried through or doesn't get processed according to the respective option chosen by Access2care personnel		
17. Click on an upcoming trip 18. Select Reassign 19. Verify that system provides options for trip reassignment to specific shifts 20. Verify that operations staff can choose any of the options	1. System provides recommendations for trip reassignment 2. Operations staff can override system recommendation		

Test Script	Acceptance Criteria	Result	Notes
21. Verify that the first system-recommended reassignment option picks up the traveler within 10 mins if there is adequate supply	First system-recommended reassignment option picks up the traveler within 10 mins		
22. Click on an upcoming trip which includes multiple people as part of the same booking 23. Reassign the trip 24. Verify that the system reassigns all members of the same booking together to another vehicle	System reassigns all members of the same booking together to another vehicle		
25. Verify that the traveler gets the reassignment notification 26. Verify that the reassignment notification includes relevant details about the new vehicle and driver	1. Traveler gets reassignment notification 2. Reassignment notification includes relevant details about the new vehicle and driver		

2.3.3.1.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.3.1.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.3.2 Coordinating with Drivers

2.3.3.2.1 Data

Data required:

- No new data is required to perform the testing.

2.3.3.2.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-OPS-8.1
- RC-OPS-8.2
- RC-OPS-8.3

2.3.3.2.3 Test Procedure

Table 8. Coordinating with Drivers Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC Application 2. Navigate to Drivers/Drivers 3. Click on relevant driver name to navigate to their profile. 4. Verify there is option to send the driver a message. 5. Verify there is option to send the message to all vehicles	1. Option to send driver a message present 2. Option to send the message to all vehicles present		
6. Verify that there is option to view all past messages that driver received	System shows all past text messages that a driver received		
7. Verify that there is option to send the message as a 'text message' to the driver's phone number	Option to send the message as a 'text message' to the driver's phone number exists		

2.3.3.2.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Failed test procedures will be re-tested during functional testing as necessary

2.3.3.2.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.4 Manifest Building/Runcutting

The ‘Manifest Building/Runcutting’ section contains testing out all the TMS features that allows for creating daily or weekly shifts for drivers to operate within. All of the test cases are grouped under building manifests.

2.3.4.1 Building Manifests

2.3.4.1.1 Data

Data required:

- New Shift- Start date, End date, Start time, End time, Start location, End location, Vendor name, Driver name or ID or email address, Vehicle License plate or ID
- New Trip- Trip Date, Pick-up location, Drop-off location, Pick-up time, Drop-off time, Additional Passengers (if any), Travel Reason

2.3.4.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-OPS-6B.1
- RC-OPS-6B.2
- RC-OPS-6B.3
- RC-OPS-6B.4
- RC-OPS-6B.5
- RC-OPS-6B.6
- RC-OPS-6B.7
- RC-SCH-4A.1
- RC-SCH-4A.2
- RC-SCH-4A.3
- RC-SCH-4A.4

2.3.4.1.3 Test Procedure

Table 9. Building Manifests Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC 2. Navigate to Ride Plan 3. Click on the ‘Three dot’ icon at the top right. 4. Click on ‘Create New Shift’ 5. Create 2 new shifts. 6. Verify that Ride Plan page displays all manifests together.	Ride Plan page displays all manifests together		

Test Script	Acceptance Criteria	Result	Notes
7. Create some trip bookings in the manifest. 8. Click on a random booking. 9. Verify the projected arrival time is included	Projected arrival time is included		
10. Click on 3 random booking again. 11. Click on the dropdown on the 'Reassign' button. 12. Verify that there are options to reassign trip to different shifts. 13. Select any one of them. 14. Verify that the selected trip gets reassigned as per the Reassign option chosen	Selected trip gets reassigned as per the Reassign option chosen		
15. Click on the shift that the ride got reassigned to. 16. On the side bar, click on the drop-down arrow on Driver tasks. 17. Verify that the reassigned trip information is added to the list of driver tasks.	Reassigned trip information is added to the list of driver tasks		
18. Reassign another trip and click on the shift that the ride got reassigned to. 19. On the side bar, verify there is option to configure specific portions for upcoming manifest entries to be sent to the vehicle.	Option to configure specific portions for upcoming manifest entries to be sent to the vehicle present		
20. Return to the same screen after trips related to the configured trip manifest data sent to the driver have been completed. 21. Click on the same shift. 22. Verify under 'Driver Tasks' that additional portions of the manifest are automatically sent to the vehicle.	Additional portions of the manifest are automatically sent to the vehicle		
23. Cancel a booked trip. 24. Verify that the trip data gets updated in the Manifest as well as in the Trip Data sent to vehicles.	Trip data gets updated in the Manifest as well as in the Trip Data sent to vehicle.		

2.3.4.1.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.4.1.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.5 Operation Management

The 'Operations Management' section contains testing for all of the TMS features that allow for efficiently managing the Health Connector daily operations. They are segmented into five different test case groups; logging in, checking vehicle status, managing driver and vehicle information, managing safety events and incidents, and reviewing trip status and performance.

2.3.5.1 Logging In

2.3.5.1.1 Data

Data required:

- Unique username, password, authentication setup

2.3.5.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-SYS-4.1
- RC-SYS-4.2

2.3.5.1.3 Test Procedure

Table 10. Logging In Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Go to the VOC Login Page 2. Verify that the system requires both a unique username and password to access the system	System requires both a unique username and password to access the system		
3. Verify that the system access further requires an authentication system in addition to the unique password	System access further requires an authentication system in addition to the unique password		

2.3.5.1.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.5.1.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.5.2 Checking Vehicle Status

2.3.5.2.1 Data

Data required:

- No new data is required to perform the testing.

2.3.5.2.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-OPS-2.2
- RC-OPS-3.2.2
- RC-OPS-3.2.4
- RC-OPS-4.1

2.3.5.2.3 Test Procedure

Table 11. Checking Vehicle Status Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC 2. Navigate to the Hub 3. Verify if real-time vehicle locations include easily-identifiable information on Wheelchair Accessible Vehicles (WAV).	Real-time status of WAV are easily accessible		
4. Click on one of the vehicles displayed on the map 5. On the side bar that opens up, click on the Details tab 6. Verify that side bar opens up includes status information of the vehicle (e.g. Vehicle id)	Status information of the vehicle is included		

Test Script	Acceptance Criteria	Result	Notes
7. Verify status information includes current location of the vehicle (e.g. location on map, heading, and speed)	Status information includes current location of the vehicle (e.g. location on map, heading, and speed)		
8. Click on the Tasks tab in the side bar 9. Click on any of the upcoming tasks 10. Verify that the map automatically pans to the location of the task selected	Map automatically pans to the location of the task selected		

2.3.5.2.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.5.2.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.5.3 Managing Driver and Vehicle Information

2.3.5.3.1 Data

Data required:

- Driver Name, Phone Number, Email Address

2.3.5.3.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-OPS-3.2.3
- RC-SYS-9.1
- RC-SYS-9.2
- RC-SYS-9.3
- RC-SYS-9.4
- RC-SYS-9.5
- RC-SYS-9.6
- RC-SYS-9.7

2.3.5.3.3 Test Procedure

Table 12. Managing Driver and Vehicle Information Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC 2. Navigate to the Hub 3. Click on any of the vehicles displayed on the map 4. Verify that the side bar that opens includes Driver Name and ID	Name and ID of driver delivering the trip included		
5. Navigate to Fleet Management/Vehicles 6. Click on three-dot icon on top-right of the page 7. Verify option to manage vehicle types is present a. Activate/Deactivate b. Manage Accessibility Features	Option to manage vehicle types is present		
8. Click on the three-dot icon again on the top-right of the 'Vehicles' page 9. Verify there is option to bulk-upload vehicle data	Option to bulk-upload vehicle data present		
10. Verify the following information on vehicles are present in the 'Vehicles' page- a) Vehicle ID b) Owner c) Pool type d) License Plate e) Number of seats f) Availability of wheelchair/lift g) Number of wheelchair and seats	The following information on vehicles are present in the 'Vehicles' page- a) Vehicle ID b) Owner c) Pool type d) License Plate e) Number of seats f) Availability of wheelchair/lift g) Number of wheelchair and seats		
11. Hover over a vehicle entry and click on the three-dot icon appearing on the right of the row. 12. Verify if it provides option to deactivate vehicle. 13. Navigate to Drivers/Drivers page. 14. Hover over a driver entry and click on the three-dot icon appearing on the right of the row 15. Verify if it provides option to deactivate driver	Options to deactivate vehicle and driver present		
16. Click on the 'Create' button on the top-right of the Drivers page 17. Add relevant driver details on the pop-up that opens up 18. Verify there is option to attach relevant vendor to driver 19. Click Create	Driver profile gets created attached to relevant vendor selected		

Test Script	Acceptance Criteria	Result	Notes
20. Click on the three-dot icon on the top-right of the Drivers Page 21. Verify that it provides option to bulk-upload driver list	System provides option to bulk-upload driver list		
22. Verify following information is present in the Drivers page for each driver a) Driver ID b) First Name c) Last Name d) Phone Number	Following information is present in the Drivers page for each driver a) Driver ID b) First Name c) Last Name d) Phone Number		

2.3.5.3.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.5.3.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.5.4 Managing Safety Events and Incidents

2.3.5.4.1 Data

Data required:

- No new data is required to perform the testing.

2.3.5.4.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-SYS-5.1
- RC-SYS-13.3

2.3.5.4.3 Test Procedure

Table 13. Managing Safety Events and Incidents

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC 2. Navigate to Ride Plan 3. Verify if list of safety event categories is present including the following categories- a) Catastrophic b) Critical c) Marginal d) Negligible	List of safety event categories is present including the following categories- a) Catastrophic b) Critical c) Marginal d) Negligible		
4. Verify that each individual event status can be tracked using a web-based tool.	Each individual event status can be tracked using a web-based tool.		

2.3.5.4.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Failed test procedures will be re-tested during functional testing as necessary

2.3.5.4.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.5.5 Reviewing Trip Status and Performance

2.3.5.5.1 Data

Data required:

- No new data is required to perform the testing.

2.3.5.5.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-OPS-3.1
- RC-OPS-3.2
- RC-OPS-3.2.1

- RC-OPS-3.2.5
- RC-OPS-4.2
- RC-OPS-5.1
- RC-OPS-5.2
- RC-OPS-5.3
- RC-OPS-11.2
- RV-DRV-4.10.1
- RC-ADM-1.1
- RC-ADM-1.2
- RC-SYS-10.5
- RC-SYS-10.5.1
- RC-SYS-10.5.2
- RC-SYS-10.5.3
- RC-SYS-10.5.4
- RC-SYS-10.5.5
- RC-SYS-10.5.6
- RC-SYS-10.5.7
- RC-SYS-10.5.8
- RC-SYS-10.5.9
- RC-SYS-10.5.10
- RC-HCR-6.1
- RC-HCR-6.2
- RC-HCR-8.1
- RC-HCR-8.2
- RC-HCR-8.3
- RC-HCR-8.4
- RC-HCR-8.5
- RC-HCR-8.6
- RC-HCR-9.1
- RC-HCR-9.1.1
- RC-HCR-9.1.2
- RC-HCR-9.1.3
- RC-HCR-9.1.4
- RC-HCR-9.2
- RC-HCR-9.3
- RC-HCR-9.4
- RC-HCR-9.5
- RC-HCR-9.6

2.3.5.5.3 Test Procedure

Table 14. Reviewing Trip Status and Performance Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to VOC 2. Navigate to the Ride Plan	Ride Plan is accessible		
3. Verify that performance status for all non-HIRTA vehicles is displayed, including real-time location, heading and speed, driver ID, and vehicle status.	Performance status for all non-HIRTA vehicles displayed		
4. Click on any trip. 5. Verify that the status information includes the following trip details- a) Trip ID b) Customer name c) Pick-up locations d) Drop-off location e) Pick-up time f) Drop-off time	The status information includes the following trip details- a) Trip ID b) Customer name c) Pick-up locations d) Drop-off location e) Pick-up time f) Drop-off time		
6. Click on any trip. 7. Verify that the system provides the following trip status information- a) Scheduled/not picked-up b) In-progress c) On-time d) Delayed e) Cancelled f) No-show	the system provides the following trip status information- a) Scheduled/not picked-up b) In-progress c) On-time d) Delayed e) Cancelled f) No-show		
8. Click on any trip 9. From the side bar that opened up, click on the Rider ID to redirect to rider's profile 10. Verify that Rider ph. Number is present 11. Click on 'Text Rider' chat box at bottom-right of the page 12. Verify that rider can be sent a message	a) Rider phone number is present b) Rider receives text message sent through chat box		
13. Click on any medical appointment trip 14. Verify that trip details include a) Rider appointment time b) Unique Identifier for the appointment	Trip details include a) Rider appointment time b) Unique Identifier for the appointment		

Test Script	Acceptance Criteria	Result	Notes
15. Click on the 'OTP' warnings icon on the top-right of the 'Ride Plan' page 16. Click on the 'Late drop-offs' list to open a list of all trips with late drop-offs 17. Click on any of the trips in the list 18. Verify that corresponding return transportation is listed if booked 19. Verify that return trip can be rescheduled	1. Associated return trip is listed in the ride details 2. Return trip can be rescheduled		
20. Verify that return trip can be cancelled 21. Verify that upon cancellation, system provides option to rebook new return trip associated with the same trip 22. After rebooking, click on the three-dots icon on the sidebar 23. Select 'Update Communicated Time' 24. Verify that rider receives new time notification	1. Return trip can be cancelled 2. Upon cancellation, system provides option to rebook new return trip associated with the same trip 3. Rider receives new pick-up window communication		
25. Click on any trip on the Ride Plan page. 26. Verify that the Pick-up and Drop-off locations are present on the Trip details side bar. 27. Click on the corresponding driver shift. 28. Verify that it includes driver's phone number	1. Pick-up and Drop-off locations are present on the Trip details side bar 2. Shift details side bar includes respective driver's phone number		
29. Click on a completed trip 30. Click on the three-dot icon on top-right of the trip details side bar 31. Verify that pertinent trip details can be updated	Pertinent trip details can be updated		
32. Navigate to the Hub section of the VOC. 33. Verify that real-time trip performance metrics displayed on top-right of the page	Real-time trip performance metrics displayed		
34. Coordinate with test trip and perform a late pickup. 35. Verify that real-time trip performance metrics gets updated	Real-time trip performance metrics gets updated		
36. Navigate to Ride Plan 37. Click on any trip 38. Click on the rider name from the trip details side bar to go to Rider Management page. 39. Verify that a log of trip history is present for the rider	A log of trip history is present for the rider		

Test Script	Acceptance Criteria	Result	Notes
40. Navigate to Analytics/ Data Generator/ Ride Requests table 41. Verify if the following are present- a) Requested Pickup Address b) Requested Dropoff Address c) Pickup Address d) Dropoff Address e) Requested Pickup Time f) Requested Dropoff Time g) Actual Pickup Time h) Actual Dropoff Time i) No Show Time j) Cancellation Time k) Cancellation Reason l) Fare Quoted m) Fare Paid n) Revenue Mileage o) Deadhead Mileage	The following information are present in Analytics/ Data Generator/ Ride Requests table- a) Requested Pickup Address b) Requested Dropoff Address c) Pickup Address d) Dropoff Address e) Requested Pickup Time f) Requested Dropoff Time g) Actual Pickup Time h) Actual Dropoff Time i) No Show Time j) Cancellation Time k) Cancellation Reason l) Fare Quoted m) Fare Paid n) Revenue Mileage o) Deadhead Mileage		

2.3.5.5.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.5.5.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.6 Notifications

The 'Notifications' section contains testing out several TMS features that allows for managing the notification-based communication that can be sent and received via the TMS application. The test cases are grouped under configuring notifications.

2.3.6.1 Configuring Notifications

2.3.6.1.1 Data

Data required:

- Test Trip details

2.3.6.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-OPS-6A.7
- RC-OPS-10.1
- RC-OPS-10.2.2

2.3.6.1.3 Test Procedure

Table 15. Configuring Notifications Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to the VOC 2. Navigate to Ride Plan 3. Schedule a future test trip 4. Coordinate with the driver to delay arrival to the pick-up location. 5. Verify if the rider gets a notification about updated ETA	Rider gets notified about updated ETA		
6. Coordinate with driver to send a non-medical emergency message 7. Navigate to the Hub Page 8. Verify that the message comes up as an alert	The message comes up as an alert		
9. Verify there is option to configure audio notification method as on or off	Option to configure audio notification method as on or off present		

2.3.6.1.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system

- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.6.1.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.7 Performance Management and Reporting

The 'Performance Management and Reporting section contains testing out all the TMS features that allows for creating required reports to access performance data. All the test cases are grouped under accessing performance data.

2.3.7.1 Accessing Performance Data

2.3.7.1.1 Data

Data required:

- No new data is required to perform the testing.

2.3.7.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-SYS-1.1
- RC-SYS-10.1
- RC-SYS-10.2
- RC-SYS-10.3
- RC-SYS-10.7
- RC-SYS-10.8
- RC-SYS-11.1

2.3.7.1.3 Test Procedure

Table 16. Accessing Performance Data Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to the VOC 2. Navigate to the Analytics section. 3. Verify if the Analytics section is accessible	Analytics section is accessible		

Test Script	Acceptance Criteria	Result	Notes
4. Navigate to the Analytics/Data Generator Page 5. Click on the drop-down beside the table name to reveal all tables. 6. Verify there is a table that includes demographic profile of travelers. 7. Verify that specific traveler information is not included in the table	1. Data related to demographic profile of travelers included 2. Data does not reveal specific traveler information		
8. Verify if Ride Requests table is present	Ride Requests table is present		
9. Verify that there is a table that includes a log of the vehicle locations as sent by the vehicle	Table containing log of the vehicle locations as sent by the vehicles present		
10. Verify that there is a table containing all logs of messages exchanged between vehicles and drivers	Table containing all logs of messages exchanged between vehicles and drivers exist		
11. Verify if Ride Requests table contains fields related to all aspect of a trip including number of trips that were completed, returned a seat unavailable error, or were rejected.	Ride Requests table contains fields related to all aspects We have flagged this for future discussion with Access2Care. of a trip		

2.3.7.1.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.7.1.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.8 Cost Allocation and Billing

The 'Cost Allocation and Billing' section contains testing out all the TMS features that allows for testing the required administrative functions of HIRTA. All the test cases are grouped under billing and invoicing and are non-Medicaid funded trips.

2.3.8.1 Billing and Invoicing

2.3.8.1.1 Data

Data required:

- Rider Name, email address, or phone number

2.3.8.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RC-CSR-16.1
- RC-ADM-3.1
- RC-ADM-4.1
- RC-ADM-5.1

2.3.8.1.3 Test Procedure

Table 17. Billing and Invoicing Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Login to the VOC 2. Navigate to Riders/Rider Search 3. Enter Rider Name. Email ID, or Phone Number in search bar 4. Go to the relevant rider page. 5. Verify if eligibility information is available and can be edited.	Eligibility information is present as approved by funding source		
6. Navigate to Analytics/Data Generator page. 7. Click on any table present in the section. 8. Verify if the table can be downloaded	Data can be downloaded		
9. Verify if there is option to send an electronic invoice to a funding source	Option to send an electronic invoice to a funding source present		
10. Verify if there is an option to link to electronic payment system and display the total collections there	Option to link to electronic payment system and display the total collections there present		

2.3.8.1.4 Failure and Remediation

The following process will be followed:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system
- Via will follow-up once issues have been addressed
- Failed test procedures will be re-tested as necessary until successful

2.3.8.1.5 Schedule and Dependencies

This will be conducted at the following test stages:

- Unit testing
- Functional testing

2.3.9 Risks

This section provides a list of all known risks for testing related to the MOD Platform TMS.

Table 18. MOD Platform TMS Risks

ID	Risk	Contingency
1	*MOD Platform needs to be configured in a simulation environment prior to testing taking place. Delays in environment setup could pose delays in overall testing schedule.*	*Need for a test environment has been communicated and is near completion. If unavailable, testing could be completed in active HIRTA environment with dummy users, so long as all HIRTA staff are made aware of the testing that is occurring.*

2.4 MOD – EHR Middleware

The MOD-EHR Middleware is an open-source middleware product that allows data exchanged from the MOD Platform TMS and the EHR Software system into a centralized location. The middleware will use the bi-directional APIs provided by Via as part of the MOD Platform TMS and the EHR software provider, such as Epic, to implement the transmission of data.

As described in the System Test Plan [5], the MOD-EHR Middleware testing will reflect some differences from other components being tested. Because of the nature of software development, both unit testing and functional testing will happen as development progresses, with installation testing being completed at the end of March 2024.

Table 19. MOD-EHR Middleware Testing Responsibilities

Name	Responsibility	Training Needs
Arcadis IBI Staff	Developer and Tester	Developers of the middleware solution will be responsible for ensuring unit and functional testing is satisfied along the way.
HIRTA Customer Care Staff	Tester	A URL will be provided to the front-end webpage used for tracking and comparing appointment and trip data. HIRTA staff will be trained as needed on access and will provide feedback during installation testing related to ingestion and presentation of trip data.
Health Navigator/Care Facility Staff	Tester	A URL will be provided to the front-end webpage used for tracking and comparing appointment and trip data. Health Navigator and care facility staff will be trained as needed on access and how to follow up on rides if needed and will provide feedback during installation testing related to ingestion and presentation of appointment data.

2.4.1 MOD-EHR Service Interface

The MOD-EHR Service Interface is what performs the successful request of data from the MOD platform TMS, and transfer of data from the EHR system. This includes the successful pulling of data such as trip status and trip booking confirmation, appointment status and appointment location.

2.4.1.1.1 Data

The following data will be included to test data request functionality:

- First Name/Last Name
- Pick-up/Drop-off location

- Pick-up Time
- Pick-up and Drop-Off notes
- Assigned Driver
- Assigned Vehicle
- Appointment Identifier
- Date of Appointment
- Start time of Appointment
- End time of Appointment (if known)
- Location of Appointment

2.4.1.1.2 Requirements Covered

The requirements that are mapped to this section can be found in the Middleware Design Document appended to the System Design Document; these have not yet been incorporated into the general requirements and do not have unique identifiers at this time [6].

2.4.1.1.3 Test Procedure

Table 20. MOD-EHR Service Interface Test Procedure

Test Script	Acceptance Criteria	Result	Notes
Open the MOD-EHR Middleware Application using secure username and password.	Application launch successful. Application should load in less than 5 seconds.		
Verify that signing in with different usernames presents different number of column headers.	Depending on the user, not all information may be relevant. Confirm differences in user views is visible.		
The screen shall show the following details: 1. Customer Name 2. Medical Appointment Time and Location 3. Trip Status 4. Trip Notes 5. Vehicle and Driver Information	Details are displayed in corresponding column headers. Headers may change based on user as described above.		
Verify that the screen is responsive and can be viewed appropriately on various resolutions/screen sizes	Confirm the data can be viewed appropriately.		
Verify that any updates in Via are reflected within two minutes.	Confirm that the data is updated as expected		

Test Script	Acceptance Criteria	Result	Notes
Verify that any updates from the EHR are reflected within 4 hours or less.	Confirm that the data is updated as expected depending on EHR integration approach. If using web form for entering appointment details, updates should be reflected within a minute.		
Try deleting or altering the data as a regular user and confirm this is not possible.	Confirm the data is read only		
When no transportation is booked for a medical appointment, confirm the application identifies “Not Scheduled”	“Not scheduled” status displayed		
When vehicle is not assigned, confirm that vehicle status is listed as “TBD”	“TBD” status displayed when vehicle not assigned		
When HIRTA assigns a vehicle the vehicle column should be updated to assigned driver/vehicle ID	Verify appropriate driver/vehicle is displayed		
Verify that an appropriate patient identifier is updated in a predefined field in the MOD Platform TMS	Confirm the field is updated		
Verify that the Middleware is able to fetch the record for all Health Connector customers from EHR using patient identifier	Verify that the following information can be pulled: • First and Last Name • Appointment Identifier • Date of Appointment • Start time of Appointment • End time of Appointment (if known) Location of Appointment		
Verify that no records are returned when patient identifier field is not present	Confirm that no records were returned		
Confirm that when deleting a trip or altering a trip, those details are reflected on the dashboard	Cancellations or modifications should be reflected on dashboard.		
Confirming that when deleting or altering an appointment, those changes are reflected on the dashboard as well.			

2.4.1.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Arcadis IBI Group will create a line item on a punch list for the bug or error.
- Arcadis IBI Group will follow up and resolve the issue
- Failed test procedures will be re-tested as necessary until successful

2.4.1.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing and functional testing (concurrently and throughout development)
- Installation testing

2.4.1.1.6 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Arcadis IBI Group will create a line item on a punch list for the bug or error.
- Arcadis IBI Group will follow up and resolve the issue
- Failed test procedures will be re-tested as necessary until successful

2.4.1.1.7 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing and functional testing (concurrently and throughout development)
- Installation testing

2.4.2 Risks

This section provides a list of all known risks for testing related to the MOD-EHR Middleware.

Table 21. MOD-EHR Middleware Risks

ID	Risk	Contingency
1	*Development/Testing of middleware products may be delayed.*	*Arcadis IBI Group will add more staff as needed to assist with the development, and there is redundancy for the MOD-EHR middleware by exploring both Epic and AllScripts integrations. Testing will also occur throughout development to prevent waiting for 100% completion.*

2.5 MOD – Medicaid Middleware

The MOD-Medicaid Middleware is an open-source middleware product that allows data exchange between the MOD Platform TMS and the State of Iowa Medicaid broker system. The Medicaid broker system uses Access2Care, which provides Non-Emergency Medical Transportation (NEMT) services to Medicaid and Medicare members, allowing Medicaid-funded trips through Health Connector for eligible Travelers. The middleware will use the bi-directional APIs provided by Via in the MOD Platform TMS and the Medicaid broker through Access2Care, to implement the transmission of data. The MOD-Medicaid Middleware consists of three subcomponents: the MOD service interface, the Medicaid service interface, and the database.

2.5.1 MOD-Medicaid Service Interface

The Medicaid Service Interface is what performs the successful request of data from the Medicaid system. This includes the successful pull of service requests from the Medicaid broker. In the case of Access2Care, data must be retrieved from the Lyft TAPI which sits in between the Access2Care system and AIBI middleware. One main test case is included under this category – “Requesting Data from the Medicaid vendor API”.

2.5.1.1 Requesting Data from the Medicaid vendor API

2.5.1.1.1 Data

The following data will be included to test data request functionality:

- Service request (including date, time, and location)

2.5.1.1.2 Requirements Covered

The requirements that are mapped to this section can be found in the middleware design document appended to the system design document [6]; these have not yet been incorporated into the general requirements and do not have unique identifiers at this time.

2.5.1.1.3 Test Procedure

Testing steps for the middleware are still under development and will be incorporated for the revised ORTP.

Table 22. MOD-Medicaid Service Interface Test Procedure

Test Script	Acceptance Criteria	Result	Notes
Initiate a trip in the Medicare App	Confirm that the trip is inserted in the Access2Care system.		
From the Access2care application, select HIRTA as the broker	Confirm that the brokerage is successful		
Verify that the Lyft API is able to send data to middleware	Verify logs to check data is received by middleware. This should include for a trip at least the following details: • Pickup Location • Drop off Location • Scheduled Pickup Time • Scheduled Drop Off Time		
Verify that the Via MOD platform received the data	Verify that the trip detail can be viewed within Via		
Schedule a ride in Via platform	Verify that the trip is booked		
Middleware shall receive and transmit the confirmation status	Verify the logs that the process is complete as expected		

Test Script	Acceptance Criteria	Result	Notes
Verify that the Lyft API is able to receive the trip confirmation data when sent by Middleware upon confirmation in Via	Verify the Access2Care product that trip is shown as confirmed.		
Assign Driver and Vehicle to the Medicaid trip	Verify that the driver/vehicle is successfully assigned and the driver received the trip on their device.		
Verify that the performance data can be viewed within Via when the trip is complete	Confirm the details.		
Middleware shall automatically request and transmit the performance data	Verify the logs to check the process is complete		
Verify that the Lyft API is able to receive the trip performance data when sent by Middleware after trip is complete in Via	Verify the Access2Care product that trip performance is received. This will include for a trip: • Actual Pickup Time • Actual Drop off Time • Driver • Vehicle • Fare Paid		

2.5.1.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Arcadis IBI Group will create a line item on a punch list for the bug or error.
- Arcadis IBI Group will follow up and resolve the issue
- Failed test procedures will be re-tested as necessary until successful

2.5.1.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing and functional testing (concurrently and throughout development)
- Installation testing

2.5.2 Risks

This section provides a list of all known risks for testing related to the MOD-Medicaid Middleware.

Table 23. MOD-Medicaid Middleware Risks

ID	Risk	Contingency
1	*Development/Testing of middleware products may be delayed.*	*Arcadis IBI Group will add more staff as needed to assist with the development. Testing will be conducted in concert with development and does not need to wait until solution is fully developed.*

2.6 Traveler Application

The Traveler Application describes the component used by Travelers for using many Health Connector features. The Traveler app allows Travelers to register for Health Connector, configure notifications, and plan, book, and pay for trips. The following subcomponents exist for the Traveler app:

- General
- Registration
- Translation Services
- Travel Assistance
- Payments
- Traveler Notification
- Trip Booking
- Trip Planning
- Trip Information

These subcomponents each have one or more test cases associated with them as presented below.

The Traveler Application will be tested by the following members of the HIRTA Team:

Table 24. Traveler Application Testing Responsibilities

Name	Responsibility	Training Needs
Amber Falls, HIRTA	Tester	None – already familiar with Via Traveler application. Scripts will be shared prior to testing in case there are questions or comments.
Health Connector Travelers	Tester	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Via Staff	Witness	None – Via is familiar with the application and will be on hand to document and fix any issues that arise.

2.6.1 General

The 'General' subcomponent tests all Traveler App features that relate to accessibility and settings. There is one test case for this subcomponent – 'ensuring accessibility'. Some of these test components may relate to Traveler personal device settings as well, with the ultimate goal of testing that Travelers of all abilities can use the App.

2.6.1.1 Ensuring Accessibility

2.6.1.1.1 Data

No specific data is required to perform this test procedure. Each of the requirements should be verified using the information and options available within the application.

2.6.1.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-1.2
- RM-TRV-1.2.2

- RM-TRV-1.2.2.1
- RM-TRV-1.2.2.2
- RM-TRV-1.2.2.3
- RM-TRV-1.2.3
- RM-TRV-1.2.4.3
- RM-TRV-6.1
- RM-TRV-6.1.1

2.6.1.1.3 Test Procedure

Table 25. Ensuring Accessibility Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Download the Traveler application. 2. Login to the Traveler Application 3. Verify if application can be configured for Voiceover.	Application can be configured for Voiceover		
4. Verify if application all pages in application are legible.	All pages in application are legible.		
5. Test whether the application user interface is intuitive.	User interface is intuitive		
6. Update the font size and contrast settings on device. 7. Verify that font size and contrast settings configured are applied to the Traveler Application.	Font size and contrast settings configured are applied to the Traveler Application		
8. Navigate to application settings. 9. Verify that application provides option to use low data mode	Application provides option to use low data mode		
10. Access the application portal from a web browser. 11. Verify that it provides all features available in the mobile application version.	Features available in the webapp replicate that in mobile application version.		
12. Verify that web-app version also provides similar accessibility features as the mobile application.	Web-app version also provides similar accessibility features as the mobile application.		

2.6.1.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved

- Test step will be reperformed until successful

2.6.1.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.2 Registration

'Registration' functionality covers the process by which Travelers sign up to use Health Connector. This includes creating a profile, making changes to that profile, and using that profile to identify mobility needs. There is one test case for this subcomponent – 'signing up for Health Connector'. which tests required functionality for onboarding new accounts.

2.6.2.1 Signing Up for Health Connector

2.6.2.1.1 Data

The following data will be involved during this test:

- First Name
- Last Name
- Address
- Contact Information (Phone Number and/or Email Address)
- Eligible Funding Sources
- Traveler Preferences
- Favorite Locations

2.6.2.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-2.1
- RM-TRV-2.2
- RM-TRV-2.4
- RM-TRV-15.2

2.6.2.1.3 Test Procedure

Table 26. Signing Up for Health Connector Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler application. 2. Click on Register 3. Enter the following details: i. Name ii. Phone Number iii. Email address 4. Click on create profile	Profile gets created		
5. Verify the following information is present in customer profile: i. First and last name ii. Favorite Locations Contact information iii. Eligible funding sources iv. Travel preferences v. Favorite locations	The following information is present in customer profile: i. First and last name ii. Address iii. Contact information iv. Eligible funding sources v. Travel preferences vi. Favorite locations		
6. Verify there is option for providing any accommodation needs for the traveler	Option for providing traveler accommodation needs present		

2.6.2.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.2.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.3 Translation Services

'Translation Services' refers to components of the Traveler Application intended to provide access and seamless use in the language of a travelers' preference . This includes allowing users to plan, book, and pay for trips in a language of Travelers' choices. It also allows for notifications to be received in a language of Travelers' choices. There is one test case for this subcomponent – 'using translation services.'

2.6.3.1 Using Translation Services

2.6.3.1.1 Data

The following datum will be involved during this test:

- Language of choice

2.6.3.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-7.1
- RM-TRV-7.2
- RM-TRV-7.3

2.6.3.1.3 Test Procedure

Table 27. Using Translation Services Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler application. 2. Verify there is option to change display language to Spanish, English, or Mandarin	Option to change display language to Spanish, English, or Mandarin present		
3. Verify application provides option to configure notifications in Spanish, English, and Mandarin	Application provides option to configure notifications in Spanish, English, and Mandarin		

2.6.3.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.3.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.4 Travel Assistance

'Travel Assistance' includes components of the Traveler App intended to provide access to HIRTA customer service agents, health providers, or other resources for scheduling and booking trips effectively. In some cases, this also involves accessing guides or explanations of how to use the application. There is one test case for this subcomponent – 'Getting help'.

2.6.4.1 Getting Help

2.6.4.1.1 Data

No specific data is required to perform this test procedure. Each of the requirements should be verified using the information and options available within the application.

2.6.4.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-9.1
- RM-TRV-9.2

2.6.4.1.3 Test Procedure

Table 28. Getting Help Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler Application 2. Login to the Application 3. Upon first use, verify that the application provides the following: i. link to Frequently Asked Questions ii. in-app help functions iii. first time use guide to each button's function iv. travel training videos (as needed)	The application provides the following: i. link to Frequently Asked Questions ii. in-app help functions iii. first time use guide to each button's function. iv. travel training videos (if needed)		

2.6.4.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.4.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.5 Traveler Notifications

The subcomponent 'Traveler Notifications' covers both the configuration of notifications from the Traveler-end, as well as the notification content that gets pushed to Travelers. As such, there are two test cases that verify the functionality of this subcomponent. These are 'setting notifications' and 'receiving notifications'. The former intends to test whether Travelers can properly configure any notifications they wish to receive. The latter tests whether they receive the notifications they have been signed up for in an appropriate time and format.

2.6.5.1 Setting Notifications

2.6.5.1.1 Data

The following data will be involved during this test:

- Contact information (primary)
- Contact information (secondary)

2.6.5.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-17.1
- RM-TRV-17.3
- RM-TRV-17.4
- RM-TRV-17.5
- RM-TRV-22.2.1

2.6.5.1.3 Test Procedure

Table 29. Setting Notifications Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler Application 2. Navigate to Notification settings. 3. Verify if there is option to configure notifications of upcoming trips	Option to configure notifications of upcoming trips present		

Test Script	Acceptance Criteria	Result	Notes
4. Verify there is option to individually select/deselect different alerts	Option to individually select/deselect different alerts present		
5. Verify there is option to input up to 5 contact information to receive alerts. 6. Verify that application provides option to send alerts by the following methods: i. email ii. text messages iii. IVR	1. Option to input up to 5 contact information to receive alerts. 2. Application provides option to send alerts by email, text messages, and IVR		
7. Input relevant details to book a trip. 8. Verify application provides option to provide contact information for receiving alerts	1. Application provides option to provide contact information for receiving alerts. 2. Contact inputted receives the trip notification		

2.6.5.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.5.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.5.2 Receiving Notifications

2.6.5.2.1 Data

The following data will be involved during this test:

- Contact information (primary)
- Contact information (secondary)

2.6.5.2.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-17.2
- RM-TRV-17.6
- RM-TRV-17.7
- RM-TRV-17.8
- RM-TRV-17.9
- RM-TRV-17A.1
- RM-TRV-17A.2
- RM-TRV-17A.3
- RM-TRV-17A.4
- RM-TRV-17A.5
- RM-TRV-17A.6
- RM-TRV-22.2.2
- RM-TRV-26.1
- RM-TRV-30.1

2.6.5.2.3 Test Procedure

Table 30. Receiving Notifications Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler Application and schedule a trip for the next day with an additional accommodation request. 2. Verify the application provides notifications (pick-up time, drop-off time) at the following hours- ii. 24 hours in advance for the start of the trip. iii. Verify app provides updates on the day of the trip before vehicle is dispatched. iv. Verify app provides updates on the trip once a vehicle is dispatched.	The application provides reminders at the following hours- i. 24 hours in advance for the start of the trip. ii. Verify app provides updates on the day of the trip before vehicle is dispatched. iii. Verify app provides updates on the trip once a vehicle is dispatched.		
3. Verify if the application send a notification with the following information 5 mins (or as configured by HIRTA) before the vehicle arrival: i. Assigned driver ii. Assigned vehicle iii. ETA	The application send a notification with the following information 5 mins (or as configured by HIRTA) before the vehicle arrival: i. Assigned driver ii. Assigned vehicle iii. ETA		
4. Coordinate with the driver and delay a scheduled pickup. 5. Verify that the application send a notification with updated pick-up information	Application send a notification with updated pick-up information.		

Test Script	Acceptance Criteria	Result	Notes
6. Verify that application provides option to confirm or cancel the trip directly from the notification 7. Wait till the driver has marked arrived for pick up 8. Click on the notification and try canceling the trip.	1. Application provides option to confirm or cancel the trip directly from the notification 2. Application blocks of cancelling option once driver has marked arrived for pick up.		
9. Click on a notification and go to the relevant application page. 10. Verify application provides option to contact the following agents: i. Customer service ii. Driver iii. Health Navigators iv. Caregivers	Application provides option to contact the following agents: i. Customer service ii. Driver iii. Health Navigators iv. Caregivers		
11. Verify application provides option to contact Customer Service and/or Driver through the following methods: i. Voice call ii. Text message	Application provides option to contact Customer Service and/or Driver through the following methods: i. Voice call ii. Text message		
12. Click on cancel trip from notification option. 13. Verify application provides option to reschedule trip	Application provides option to reschedule trip upon cancelling through notification		
14. Verify that none of the notification received confirms additional accommodation request put in during booking the trip	One of the notifications received confirms additional accommodation request put in during booking the trip		
15. Start the trip. 16. Verify that Traveler Application provides notification of the fare due.	Traveler Application provides notification of the fare due.		

2.6.5.2.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.5.2.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.6 Payments

The subcomponent ‘Payments’ covers functionality related to travelers paying for trips not covered by funding sources. As such, there is one test cases that verify the functionality of this subcomponent, which entails “Making a Payment.” This test case entails testing to see if the functionality of payment systems is appropriate given the requirements.

2.6.6.1 Making a Payment

2.6.6.1.1 Data

The following data will be involved during this test:

- Discount coupon/credit

2.6.6.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-1.4.3
- RM-TRV-1.5
- RM-TRV-30.1
- RM-TRV-30.2
- RM-TRV-30.3
- RM-TRV-30.4
- RM-TRV-30.5
- RM-TRV-31.1
- RM-TRV-31.2
- RM-TRV-32.1
- RM-TRV-32.2
- RM-TRV-33.1
- RM-TRV-34.2
- RM-TRV-34.3
- RM-TRV-34.4

2.6.6.1.3 Test Procedure

Table 31. Making a Payment Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler Application and schedule a trip using an approved funding source. 2. Book a return trip to an alternative destination (not covered by funding source). 3. Verify the following- i. application allows booking. ii. Verify that application shows relevant trip fare for return trip	i. Application allows booking. ii. Application charges traveler for relevant trip fare for return trip		
4. Complete the return trip. 5. Verify application provides option to select preferred method of payment to pay for the trip	Application provides option to pay for the trip using Traveler's preferred method of payment		
6. Book a new trip 7. Verify if application provides option to choose funding source.	Application provides option to choose funding source.		
8. Choose a funding source user account is not eligible for. 9. Verify that application rejects funding source choice.	Application rejects funding source choice.		
10. Verify there is option for applying 'Promo Code' in the profile before booking a trip	Option to apply promo code present		
11. Input an invalid code 12. Verify that the application rejects the code 13. Input a correct promo code in the second attempt 14. Verify that application accepts correct promo code and applies appropriate discount to fare.	1. Application rejects invalid code 2. Application accepts correct promo code and applies appropriate discount to fare		
15. Verify there is option to select payment method as a prepaid/cash account. 16. Select the payment method as prepaid/cash account.	1. Option to select payment method as a prepaid/cash account present. 2. Driver receives a prompt to collect fare in driver application.		

Test Script	Acceptance Criteria	Result	Notes
18. Verify that balance in the prepaid/cash account can be checked from the Traveler application.	Application allows checking balance in the prepaid/cash account.		

2.6.6.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.6.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.7 Trip Booking

The subcomponent 'Trip Booking' provides the capability to aid Travelers requesting a recurring or ad-hoc trip in advance (24 hours or earlier, per current policy) or same-day for their medical appointment needs. There are four test cases for the Trip Booking subcomponent, including "Booking Trips in the Traveler App," "Cancelling and Rebooking Trips," "Connecting to Care Facility Services," and "Receiving Booking Confirmation."

2.6.7.1 Booking Trips in the Traveler App

2.6.7.1.1 Data

The following data will be involved during this test:

- Traveler profile information
- Traveler eligibility

2.6.7.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-1.4
- RM-TRV-1.4.1

- RM-TRV-1.4.2
- RM-TRV-1.4.4
- RM-TRV-1.4.5
- RM-TRV-2.3
- RM-TRV-8.1
- RM-TRV-8.2
- RM-TRV-8.3
- RM-TRV-10.1
- RM-TRV-11.1.3
- RM-TRV-11.1.4
- RM-TRV-11.1.5
- RM-TRV-11.1.6
- RM-TRV-11.1.7
- RM-TRV-14.1
- RM-TRV-14.4
- RM-TRV-15.1
- RM-TRV-15.3
- RM-TRV-23.1
- RM-TRV-23.2
- RM-TRV-24.1
- RM-TRV-25.1
- RM-TRV-25.2

2.6.7.1.3 Test Procedure

Table 32. Booking Trips in the Traveler App Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler application 2. Start booking a trip 3. Enter pick and drop off details and click Next. 4. Edit Passenger details and click Next. 5. Verify that pick-up time can be scheduled to current time as well as anytime in the next 30 days.	Trip can be scheduled for 30 days in advance.		
6. Verify that application provides option for choosing single or pooled ride (shared ride with other travelers).	Application provides option for choosing single or pooled ride/		
7. Verify that application provides option to book both legs of a round-trip as part of the same transaction.	Application provides option to book different legs of a round-trip as part of the same transaction.		
8. Check the time it took to plan and book a trip in the application. 9. Verify it is less than 2 mins.	Time taken to plan and book a trip is less than 2 mins.		

Test Script	Acceptance Criteria	Result	Notes
10. Coordinate and make the test user's profile's funding status not current or unknown. 11. Book a trip by dropping a pin in the map when choosing the pick-up or drop-off location. 12. Verify that the booking goes through.	Trip gets booked.		
13. Book a trip from a rural location within limited HIRTA services. (outside the Des Moines metropolitan region but within Dallas county) 14. Verify if application provides at least 2 transportation options within 10 mins of requested pick-up time.	Application provides at least 2 transportation options within 10 mins of requested pick-up time.		
15. Book a trip from a location with no HIRTA service. 16. Verify that application provides options from third-party services.	Application provides options from third-party services.		
17. Try booking a trip when no service is available. 18. Verify that the application provides option to contact HIRTA customer service.	Application provides option to contact HIRTA customer service.		
19. Preschedule a round trip in at least a day advance. 20. On the day of the trip, cancel return trip. 21. Plan new return trip. 22. Verify application provides real-time availability of transportation options.	Application provides real-time availability of transportation options.		
23. Verify Traveler application provides the following options during booking: i. Choosing mobility needs. ii. Choosing number of additional riders	Application provides option to choose mobility needs and additional rider numbers during booking.		

Test Script	Acceptance Criteria	Result	Notes
24. Select a transportation option and book the trip with some additional riders. 25. Verify with the VOC that the booking went through on the chosen transportation option. 26. Verify that a confirmation was received on the application.	3. Booking shows up in the Ride Plan page in VOC assigned to the transportation option chosen. 4. Booking confirmation shows up in traveler application.		
27. Verify that all the riders in the trip are assigned to the same vehicle.	All the riders in the trip are assigned to the same vehicle.		
28. Verify that after trip is booked, application provides prompt to book return trip.	Application provides prompt to book return trip after initial trip is booked.		
29. Proceed with booking the return trip. 30. Verify that application provides option to select pick-up/drop-off times and vehicles separately from the initial trip.	Application provides option to select pick-up/drop-off times and vehicles separately from the initial trip.		
31. Book the return trip. 32. Verify there is option to modify booked return trip destination. 33. Verify Traveler is notified if existing return trip from this origin has already been booked.	Option to modify booked return trip destination present.		

2.6.7.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.7.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.7.2 Cancelling and Rebooking Trips

2.6.7.2.1 Data

The following data will be involved during this test:

- Traveler profile
- Traveler eligibility

2.6.7.2.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-1.4.7
- RM-TRV-10.2
- RM-TRV-12.2

2.6.7.2.3 Test Procedure

Table 33. Cancelling and Rebooking Trips Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler application. 2. Book a trip. 3. Cancel the trip before the scheduled pick-up time. 4. Verify that the trip gets cancelled successfully.	The trip gets cancelled successfully.		
5. Book another transportation available on the same day.	New trip successfully gets booked.		
6. Cancel the trip after the driver has arrived. 7. Verify that the application does not allow cancelling the trip.	Application does not allow cancelling the trip.		

2.6.7.2.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.7.2.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing

- Installation testing
- User acceptance testing

2.6.7.3 Connecting to Care Facility Services

2.6.7.3.1 Data

The following data will be involved during this test:

- Trip request
- Traveler profile
- Traveler eligibility
- Medical appointment details

2.6.7.3.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-12.1
- RM-TRV-13.1

2.6.7.3.3 Test Procedure

Table 34. Connecting to Care Facility Services Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler application. 2. Schedule a trip related to a medical appointment in advance providing necessary information related to healthcare provider application. 3. Navigate to 'Scheduled Rides' 4. Verify if ride details contain link that redirects to healthcare provider application or opens healthcare provider website via in-app browser.	Ride details contain link that redirects to healthcare provider application or opens healthcare provider website via in-app browser.		
5. Verify that application contains link to healthcare provider application to book telehealth appointments.	Application contains link to healthcare provider application to book telehealth appointments.		

2.6.7.3.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved

- Test step will be reperformed until successful

2.6.7.3.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.7.4 Receiving Booking Confirmation

2.6.7.4.1 Data

The following data will be involved during this test:

- Trip request
- Trip status

2.6.7.4.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-16.1
- RM-TRV-22.2.3
- RM-TRV-27.2

2.6.7.4.3 Test Procedure

Table 35. Receiving Booking Confirmation Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler application. 2. Book a trip requesting an personal companion. 3. Verify that following is included in the trip confirmation message- i. pick-up location ii. Personal Companion name	Pick-up location and companion name is included in the trip confirmation message.		
4. Book a return trip from the healthcare facility. 5. Verify that application provides option to choose from several pre-fixed pick-up locations within the facility.	Application provides option to choose from several pre-fixed pick-up locations within the facility.		

2.6.7.4.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.7.4.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.8 Trip Information

The 'Trip Information' subcomponent of the Traveler Application refers to the functionality of travelers to view information about their booking and trip request. In this subcomponent, travelers will be able to view the status of their trip and vehicle. There are two test cases for the Trip Information subcomponent: "Accessing Trip Information" and "Providing Trip Information."

2.6.8.1 Accessing Trip Information

2.6.8.1.1 Data

The following data will be involved during this test:

- Trip request
- Driver information
- Vehicle location

2.6.8.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-18.1
- RM-TRV-19.4.1
- RM-TRV-19.4.2
- RM-TRV-20.1
- RM-TRV-26.2

2.6.8.1.3 Test Procedure

Table 36. Accessing Trip Information Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler Application. 2. Book a same-day trip. 3. Verify if current location of assigned vehicle is available in real-time in application.	Application provides current location of assigned vehicle in real-time.		
4. Verify if application provides trip ID or booking code to confirm with driver after boarding.	Application provides Trip ID booking code to confirm with driver after boarding.		
5. Verify that the following information is received for vehicle approaching before pick-up- i. Driver photo ii. Vehicle Image iii. Vehicle license plate iv. Van number	The following information is received for vehicle approaching before pick-up- i. Driver photo ii. Vehicle Image iii. Vehicle license plate iv. Van number		
6. Stay on the app screen and coordinate with driver to delay pick-up time 7. Verify that pick-up time and ETA gets updated in the application	Pick-up time and ETA get updated in the application.		

2.6.8.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.8.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.6.8.2 Providing Trip Information

2.6.8.2.1 Data

The following data will be involved during this test:

- Trip request

- Trip status
- Driver information
- Vehicle location

2.6.8.2.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-22.1
- RM-TRV-22.2

2.6.8.2.3 Test Procedure

Table 37. Providing Trip Information Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler application. 2. Book a trip to a medical appointment with additional accommodation related rider notes. 3. Verify the following: i. Application provides option to directly notify trip status information to relevant healthcare staff. ii. Application provides option to text or call relevant healthcare facility.	i. Application provides option to directly notify trip status information to relevant healthcare staff. ii. Application provides option to text or call relevant healthcare facility.		
4. Coordinate with relevant healthcare staff. 5. Verify they get update on the additional accommodation related rider notes added during booking.	Healthcare staff gets update on the additional accommodation related rider notes added during booking		

2.6.8.2.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.8.2.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing

- Installation testing
- User acceptance testing

2.6.9 Trip Planning

The 'Trip Planning' subcomponent of the Traveler Application refers to the functionality of travelers to search and plan for trips. In this subcomponent, travelers shall be able to search for a trip given a set of criteria including location, time, and type of mobility need. There is one test case for Trip Planning: "Planning a Trip."

2.6.9.1 Planning a Trip

2.6.9.1.1 Data

The following data will be involved during this test:

- Trip request
- Vehicle location

2.6.9.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

- RM-TRV-1.1
- RM-TRV-1.1.1
- RM-TRV-1.1.2
- RM-TRV-1.1.3
- RM-TRV-1.1.4
- RM-TRV-1.1.5
- RM-TRV-1.2.1
- RM-TRV-1.3
- RM-TRV-4.1
- RM-TRV-5.1
- RM-TRV-11.1
- RM-TRV-11.1.1
- RM-TRV-11.1.2

2.6.9.1.3 Test Procedure

Table 38. Planning a Trip Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Open the Traveler application. 2. Verify it includes capability to plan trips.	Application includes capability to plan trips.		

Test Script	Acceptance Criteria	Result	Notes
3. Verify the following information is required as part of the requesting a scheduled or on-demand trip : i. Origin: Pick-up location ii. Destination: Drop-off location iii. Pick-up or Drop-off time iv.	The following information is required as part of the requesting a trip: i. Origin: Pick-up location ii. Destination: Drop-off location iii. Pick-up or Drop-off time iv. Mobility need		
4. Verify that application generates transportation options available as per chosen parameters (origin/destination, pick-up and drop-off times, mobility needs).	Application generates transportation options available as per chosen parameters.		
5. Verify that ride proposals page also includes contact information for HIRTA Customer Service and Healthcare staff.	Ride proposals page also includes contact information for HIRTA Customer		
6. Verify that application includes contact information or a webpage URL for accessing Information and Referral (I&R) services.	Application includes contact information or a webpage URL for accessing Information and Referral (I&R) services.		
7. Verify that application includes contact information or a webpage URL for connecting with a Health Navigator at the Dallas County Health Department (DCHD).	Application includes contact information or a webpage URL for connecting with a Health Navigator at the Dallas County Health Department (DCHD).		
8. Input the required trip information and search for proposals. 9.	The Traveler Application will offer at least 2 options within 20 minutes of requested pick-up time using HIRTA's own vehicles or through third-party providers.		

2.6.9.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.6.9.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing

- Functional testing
- Installation testing
- User acceptance testing

2.6.10 Risks

This section provides a list of all known risks for testing related to the Traveler Application.

Table 39. Traveler Application Risks

ID	Risk	Contingency
1	*MOD Platform needs to be configured in a simulation environment prior to testing taking place. Delays in environment setup could pose delays in overall testing schedule.*	*Need for a test environment has been communicated and is near completion. If unavailable, testing could be completed in active HIRTA environment with dummy users, so long as all HIRTA staff are made aware of the testing that is occurring.*
2	*A malfunctioning API/interface may limit the ability to book transportation with third party providers. In particular, the booking application may not meet the needs of all Travelers for real-time response.*	*3rd party vehicles will be incorporated as options within the Health Connector VOC driver pool and would not require travelers to use a separate app to book those trips. Therefore, not dependent on external APIs or interfaces.*
3	*Traveler application will have to be tested to accommodate the needs of all user groups.*	*HIRTA Project team will need to perform some user acceptance testing with all user groups, and tests related to accessibility must be fully verified.*
4	*Inaccurate and unintended real-time notifications can adversely impact Traveler experience.*	*Receiving notifications test case will cover accuracy of real-time notifications.*

2.7 Driver Application

The Drivers Application describes the component used by drivers utilizing the MOD vehicle subsystem. The driver app provides scheduling, navigation, and trip performance functionality to drivers. The following subcomponents exist for the Traveler app:

- Scheduling
- Navigation

- Trip performance

These subcomponents each have one or more test cases associated with them as presented below.

The Driver Application will be tested by the following members of the HIRTA Team:

Table 40. Driver Application Testing Responsibilities

Name	Responsibility	Training Needs
Blake Hansen, HIRTA	Tester	None – already familiar with Via Driver Application. Scripts will be shared prior to testing in case there are questions or comments.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Via Staff	Witness	None – Via is familiar with the application and will be on hand to document and fix any issues that arise.

2.7.1 Navigation

The 'Navigation' subcomponent of the driver application refers to the locational functionality that allows driver to locate pick-up and drop-off locations. There is one test case for Navigation: "Navigating to a Pick-up or Drop-off Location."

2.7.1.1 Navigating to a Pick-up or Drop-off Location

2.7.1.1.1 Data

The following data will be involved during this test:

- Trip request
- Trip location data
- Pick-up or drop-off location
- GPS data

2.7.1.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

RV-DRV-3.1
RV-DRV-4.1

RV-DRV-4.2
RV-DRV-4.6.1
RV-DRV-4.6.3
RV-DRV-4.6.4
RV-DRV-4.6A.1

2.7.1.1.3 Test Procedure

Table 41. Navigation Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Log into the Via Driver Application 2. Click 'Start Driving Shift' 3. Follow turn by turn directions that appear at the top of the screen and are voiced over by the app (if settings are configured to allow for vocal guidance) 4. Confirm that scheduled pick-up and drop-off locations are displayed in the terminal.	Driver can see the scheduled pickup location at the outset of the trip and at any point during the trip. Driver should receive turn by turn navigation instructions.		
5. Use the chat feature to send a message to HIRTA Staff. Use the chat feature to mark as high priority if needed. 6. Use the chat feature to view a message sent by HIRTA Staff	Messages should be able to be sent and received as another option for communication between Drivers and Operations staff.		
7. Open the menu by pressing the button in the bottom left and choose "Settings". 5. Turn audio settings to 'Off'.	Driver should no longer receive audio guidance		
8. Make a wrong turn	Directions should recalculate as needed to get Driver back on course		
9. Click on the "i" icon to pull up any notes the Traveler entered for their pickup or drop-off. 10. Click "I'm Here"	Driver should be able to use these notes (if applicable) to locate rider rather than rely exclusively on navigation instructions. Rider notes should also automatically pop-up when the driver presses "I'm here".		

2.7.1.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.7.1.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.7.2 Scheduling

The 'Scheduling' subcomponent of the driver application refers the functionality for drivers to access trip manifests, time of trips, and other information relevant to each trip, including mobility need and fare. There is one test case for Scheduling: "Receiving and Managing the Manifest."

2.7.2.1 Receiving and Managing the Manifest

2.7.2.1.1 Data

The following data will be involved during this test:

- Trip request
- Traveler information
- Pick-up and drop-off location
- Fare data

2.7.2.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

RV-DRV-0.5
RV-DRV-0.6
RV-DRV-2.1
RV-DRV-4.8.3
RV-DRV-4.9.1
RV-DRV-4.9.1.1
RV-DRV-4.9.1.2
RV-DRV-4.9.1.3
RV-DRV-4.9.1.4
RV-DRV-4.9.1.5
RV-DRV-4.9.1.6
RV-DRV-4.9.1.7
RV-DRV-4.9.3
RV-DRV-4.9.5

2.7.2.1.3 Test Procedure

Table 42. Receiving and Managing the Manifest Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Log into the Via Driver Application 2. Click 'Start Driving Shift'	Driver should see manifest with all trip details necessary for completing a trip, including Traveler first and last name, pickup and drop-off locations and times, mobility aid needed, fare details, notes. If Driver has multiple shifts that day, all shifts should appear.		
3. Zoom out on the map or pull up the manifest by clicking the manifest button in the bottom right corner.	Zooming out on the map should enable drivers to see the location of upcoming rides if there are scheduled rides on their shift. Pulling up the manifest should enable drivers to see a list view of their upcoming rides and additional rider information if they have such rides.		
4. Cancel a trip that had been scheduled on a Driver's manifest due to 5. Recheck the manifest.	The trip that had been assigned to the driver should be automatically removed.		
6. With a trip in progress, pull up the manifest by again clicking the manifest button in the bottom right.	Driver should be able to access manifest mid-trip		

2.7.2.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.7.2.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.7.3 Trip Performance

The 'Trip Performance' subcomponent of the Driver Application refers to the technologies that allow drivers to report metrics related to the trip, including actual time and location for trips. There is one test case for this subcomponent: "Providing Passenger Assistance."

2.7.3.1 Providing Passenger Assistance

2.7.3.1.1 Data

The following data will be involved during this test:

- Trip request
- Traveler information
- Pick-up and drop-off location
- Trip times

2.7.3.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

RV-DRV-1.1
RV-DRV-1.3
RV-DRV-2.2
RV-DRV-2.3
RV-DRV-2.4
RV-DRV-3.2
RV-DRV-4.5.1
RV-DRV-4.5.2
RV-DRV-4.7.1
RV-DRV-4.10.4

2.7.3.1.3 Test Procedure

Table 43. Providing Passenger Assistance Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Log into the Via Driver Application 2. Click 'Start Driving Shift' 3. Follow turn by turn directions that appear at the top of the screen and are voiced over by the app (if settings are configured to allow for vocal guidance)	The driver should be directed to it with turn-by-turn instructions if it is time for them to head to that task. They should see how many riders they are picking up or dropping off at the bottom of the screen and can open it up to see more detail on those riders.		
4. Verify the Traveler's identity (i.e., first name) matches the manifest. 5. Click on the arrow next to the riders name to notify the system you have picked them up.	The driver should see the rider's name next to an up arrow or down arrow depending on whether the task is to pick-up or drop-off. Clicking on the arrow should perform the action, and an undo button should appear for a short time should the driver have pressed it by mistake. The driver should then be directed to their next task.		
6. Validate the fare by reading the popup that informs Driver how much fare to expect from the Traveler and the payment method being used.	A popup should appear informing the driver of how much fare to expect and what payment method will be used by the rider.		
7. Click on the popup and change the payment method of the Traveler	If the method is not correct, the driver should be able to correct it by clicking "Change Payment Method". The pop-up may also prompt the driver to verify a payment method instead of collecting it if the method is a ticket.		
8. Call in operations staff to access translation services to serve the Traveler	Driver should be able to call in operations team to access translation service when serving persons with limited English proficiency		

Test Script	Acceptance Criteria	Result	Notes
9. Complete the trip 10. Start a new trip, and navigate to another Traveler	The driver should be directed to it with turn-by-turn instructions if it is time for them to head to that task. They should see how many riders they are picking up or dropping off at the bottom of the screen and can open it up to see more detail on those riders.		
11. Wait at least five minutes for a Traveler without marking them as arrived. 12. Click the red 'no-show' icon	A no-show icon should appear upon arrival. If the icon is grey, it means the driver needs to wait longer before they are allowed to perform a no show on that rider. If it is red, the driver can click on it and the rider will be no-showed. The driver should then be directed to their next task.		
13. From a driver app where a shift is in progress, open the menu by clicking the button in the bottom left, and click on "End shift".	If there's no pending task, the shift should be ended. The driver is still logged into the app and can see other upcoming shifts if there are any and access settings.		
14. From a driver app where no shift is in progress, open the menu by clicking the button in the bottom left, and click on "Log out".	Doing so should bring drivers back to the login screen.		

2.7.3.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Via will be notified of any bugs in the event that this testing is not successful
- Via will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.7.3.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.7.4 Risks

This section provides a list of all known risks for testing related to the Driver Application.

Table 44. Driver Application Risks

ID	Risk	Contingency
1	*MOD Platform needs to be configured in a simulation environment prior to testing taking place. Delays in environment setup could pose delays in overall testing schedule.*	*Need for a test environment has been communicated and is near completion. If unavailable, testing could be completed in active HIRTA environment with dummy users, so long as all HIRTA staff are made aware of the testing that is occurring.*
2	*Real-time booking using Traveler app is a new function for HIRTA and its reliability using HIRTA driver/vehicle resources will have to be tested.*	
3	*Payment service used by the application could be unavailable. This may result in Drivers resorting to cash or other non-electronic payment methods.*	

2.8 Wayfinding Application

The Wayfinding Application describes the component which refers to the technologies and infrastructure to be used for providing outdoor wayfinding, indoor positioning, orientation, and navigation on request to travelers. It may also assist with translation functionality. NaviLens was selected as the wayfinding subsystem application provider. While there are no subcomponents for the wayfinding application, there is one test case, which is “Using NaviLens for Transportation.”

The Wayfinding Application will be tested by the following members of the HIRTA Team:

Table 45. Wayfinding Application Testing Responsibilities

Name	Responsibility	Training Needs
HIRTA Staff	Tester	Information on the wayfinding application will be shared with any HIRTA testers beforehand to familiarize themselves with the technology and expected results. Scripts will be shared prior to testing in case there are questions or comments.
Health Connector Travelers	Tester	Any additional participants will be trained on the available services and how to use the wayfinding application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Tester/Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
NaviLens Staff	Witness	None – NaviLens is familiar with the application and will be available to document and fix any issues that arise.

2.8.1 Wayfinding Application

Given the limited requirements and straightforward functions of the wayfinding application, there are no subcomponents and all test cases are grouped into one category. The are two test cases for the wayfinding application. They are: ‘Using NaviLens for Transportation’ and ‘Using NaviLens at a Care Facility’.

2.8.1.1 Using NaviLens for Transportation

2.8.1.1.1 Data

No data will be required to be input by the tester use the wayfinding application.

2.8.1.1.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

RM-TRV-19.1
RM-TRV-19.2
RM-TRV-20.3
RM-TRV-21.3.7
RM-SYS-12A.3

2.8.1.1.3 Test Procedure

Table 46. Using NaviLens for Transportation Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Download and open the NaviLens and/or NaviLens GO application.	Application should download and open properly		
2. Open the app to the home screen 3. Scan a code by waving device in front of the code from five feet away. 4. Read code if using NaviLens GO 5. Listen to the information presented behind the code if using NaviLens.	When scanned, information such as pick-up location should appear on the screen and be read aloud depending on settings. Codes should be able to be scanned by waving a smart device with the application open in front of the code, rather than fixating a camera directly on the code as with a typical QR code.		
6. Scan a NaviLens code affixed to a vehicle from ten feet away. 7. Read code if using NaviLens GO 8. Listen to the information presented behind the code if using NaviLens.	Information about the vehicle and/or the driver should be presented. Visual or audio cues should match content intended for the code.		
9. Open settings in the top lefthand corner 10. Change the language under 'settings' to Spanish. 11. Rescan a code 12. Read code if using NaviLens GO 13. Listen to the information presented behind the code if using NaviLens.	Codes should be translated into the language of choice. Visual or audio cues should match content intended for the code.		
14. Change dynamic code content using NaviLens content management software	Changes in content should be reflected when codes are rescanned.		

2.8.1.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- NaviLens will be notified of any bugs in the event that this testing is not successful

- NaviLens will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.8.1.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.8.1.2 Using NaviLens at a Care Facility

2.8.1.2.1 Data

No data will be required to be input by the tester use the wayfinding application.

2.8.1.2.2 Requirements Covered

The following requirements will be satisfied by the successful performance of this test procedure:

RM-TRV-19.3
RM-TRV-21.1
RM-TRV-21.3
RM-TRV-21.3.1
RM-TRV-21.3.3
RM-TRV-21C.1
RM-TRV-21C.2
RM-TRV-21C.3
RM-TRV-29.2

2.8.1.2.3 Test Procedure

Table 47. Using NaviLens at a Care Facility Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Download and open the NaviLens app 2. Download and open the NaviLens GO application.	Applications should download and open properly		

Test Script	Acceptance Criteria	Result	Notes
3. Scan a NaviLens code which identifies a bathroom or entrance door by waving the home screen of the application in front of the code. 4. Read code if using NaviLens GO 5. Listen to the information presented behind the code if using NaviLens.	When scanned, information such as pick-up location should appear on the screen and be read aloud depending on settings. Codes should be able to be scanned by waving a smart device with the application open in front of the code, rather than fixating a camera directly on the code as with a typical QR code.		
6. Click on app settings in the lefthand corner 7. Adjust accessibility preferences including font size, speech speed, easy reading, sign language and pictograms. 8. Scan a code that identifies a check-in desk from five feet away.	Code content should reflect information in any accessible format that is selected from user settings.		

Test Script	Acceptance Criteria	Result	Notes
9. Toggle on 'show accessible route' and rescan code	If using guidance, code should provide suitable directions that don't use stairs.		
10. Scan the wayfinding code presented on the wayfinding kiosk	Information should appear which identifies the kiosk and its location.		

2.8.1.2.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- NaviLens will be notified of any bugs in the event that this testing is not successful
- NaviLens will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.8.1.2.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.8.2 Risks

This section provides a list of all known risks for testing related to the Wayfinding Application.

Table 48. Wayfinding Application Risks

ID	Risk	Contingency
1	*Wayfinding system does not have up to date information on the technology infrastructure.*	*A standard operating procedure in partnership with the healthcare facility deploying indoor navigation function will be developed to maintain the data.*
2	*Wayfinding technology may have limitations for some user groups*	*Functions will be demonstrated at stakeholder sessions to educate and assess limitations.*

2.9 Infotainment Devices

Infotainment Devices refer to screens/ devices on HIRTA vehicles which provide information relevant to a trip in progress, as well as provide a general overview of the destination facility and facility information. HIRTA selected Safe Fleet to supply infotainment devices. Safe Fleet will supply the infotainment device screens and any necessary hardware as part of Health Connector Traveler subsystem. While there are no subcomponents for infotainment devices, there is one test case, which is “Gathering Information from Infotainment Devices.”

The infotainment device component will be tested by the following members of the HIRTA Team:

Table 49. Infotainment Devices Testing Responsibilities

Name	Responsibility	Training Needs
Blake Hansen, HIRTA	Tester	Will be trained on the specifications and expected functions of the infotainment screen and media player in order to validate the requirement.
Health Connector Travelers	Tester	Any additional participants will be trained on what to expect from the infotainment screen in order to validate in user acceptance testing.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

Name	Responsibility	Training Needs
Safe Fleet Staff	Witness	None – Safe Fleet is familiar with the device and will be on hand to document and fix any issues that arise.

2.9.1 Infotainment Devices

There is one test case for infotainment devices: “Gathering Information from Infotainment Devices.”

2.9.1.1 Gathering Information from Infotainment Devices

2.9.1.1.1 Data

No data will be required to be input by the tester to validate the infotainment device.

2.9.1.1.2 Requirements Covered

The following requirement will be satisfied by the successful performance of this test procedure:

RM TRV-20.2
RM-TRV-20.4

2.9.1.1.3 Test Procedure

Table 50. Gathering Information from Infotainment Devices Test Procedure

Test Script	Acceptance Criteria	Result	Notes
1. Board HIRTA vehicle and confirm presence of on-board infotainment screen.	HIRTA vehicle is equipped in on-board infotainment screen.		
2. Log into content management software for infotainment device. 3. Confirm that content for the infotainment screen can be edited	HIRTA should be able to log into CMS to change appearance of screen layout, alter content, and make updates.		
4. View screen details.	Screen should display real-time updates to the relevant trip. This could include information on expected weather, wait times at destination facility, detours, modified entry and check-in procedures, etc.		

2.9.1.1.4 Failure and Remediation

The following process will be followed in the event that any steps in the test procedure do not meet the acceptance criteria:

- Safe Fleet will be notified of any bugs in the event that this testing is not successful
- Safe Fleet will create a ticket in their system and follow up until the issue is resolved
- Test step will be reperformed until successful

2.9.1.1.5 Schedule and Dependencies

This test case will be conducted at the following test stages:

- Unit testing
- Functional testing
- Installation testing
- User acceptance testing

2.9.1 Risks

This section provides a list of all known risks for testing related to Infotainment Devices.

Table 51. Infotainment Device Risks

ID	Risk	Contingency
1	*Lead times for infotainment devices may cause delays in testing and implementation*	*If lead times present an issue, the HIRTA team will work with Safe Fleet to perform unit and functional testing remotely before the devices are received.*

2.10 ORTP Schedule

The following schedule presents when each stage of testing is set to take place by component. Note this schedule does not include middleware, which as discussed previously is tested iteratively over the course of several months.

Table 52. OTRP Schedule

Component	Stage(s) of Testing	Week of Testing	Location
MOD Platform TMS	Unit Testing	Feb 5, 2024	Remote

Component	Stage(s) of Testing	Week of Testing	Location
Driver Application	Unit Testing	Feb 19, 2024	Remote
Wayfinding Application	Unit Testing and Functional Testing	Feb 19, 2024	Remote
Traveler Application	Unit Testing	Feb 26, 2024	Remote
MOD Platform TMS	Functional Testing	March 4, 2024	Remote
Driver Application	Functional Testing	March 11, 2024	Remote
Traveler Application	Functional Testing	March 18, 2024	Remote
MOD Platform TMS	Installation Testing	March 25, 2024	HIRTA Operations Facility
Driver Application	Installation Testing	March 25, 2024	HIRTA Operations Facility
Wayfinding Application	Installation Testing	March 25, 2024	Dallas County Hospital HIRTA Operations Facility
Traveler Application	Installation Testing	March 25, 2024	HIRTA Operations Facility
MOD Platform TMS	User Acceptance Testing	April 29, 2024	HIRTA Operations Facility DCHD Care Facilities
Driver Application	User Acceptance Testing	April 29, 2024	HIRTA Operations Facility
Wayfinding Application	User Acceptance Testing	April 29, 2024	Dallas County Hospital HIRTA Operations Facility

Component	Stage(s) of Testing	Week of Testing	Location
Traveler Application	User Acceptance Testing	April 29, 2024	HIRTA Operations Facility
Infotainment Devices	Unit, Functional, Installation and User Acceptance Testing	April 22, 2024 April 29, 2024	HIRTA Operations Facility

3 Operational Demonstration Readiness Plan (ORDP)

The Operational Readiness Demonstration Plan (ORDP) is the second part of the Operational Readiness Plan (ORP) with Operational Readiness Test Plan (ORTP) being the first part of the ORP. The ORDP consists of a series of coordinated demonstrations, including participants, to ensure the operational readiness of the system. The objectives of these activities are designed and conducted by the HIRTA project team for the United States Department of Transportation (USDOT) to demonstrate that the system substantially performs according to the system requirements. The ORDP will be executed following the successful execution of the ORTP by the HIRTA team. The ORTP results will be shared with USDOT prior to the execution of the ORDP.

3.1 Objectives

There are several objectives for this ORDP, including to:

1. Define the demonstration approach.
2. Identify the project items to be demonstration.
3. Identify the hardware, software, tools, resources, and environment to be used to support the demonstrations.
4. Define the types of demonstrations to be performed.
5. Define resources and constraints.
6. Define roles and responsibilities.
7. State process for change control and communication coordination for key activities.

The high-level objective of the ORDP is to demonstrate the system's ability to perform the scenarios developed in Phase 1.

3.1.1 Approach

The testing approach that will be used is scenario-based testing. The operational scenarios outlined in the Concept of Operations (ConOps) are used to develop the use cases to demonstrate how the system will be used in real life situations [1].

For each demonstration, the following information is included:

- **Demonstration Event:** Use case scenario.
- **Demonstration Description**: This identifies the objective of the demonstration, the general location at which it will be carried out, participants, equipment, and any necessary actions to illustrate successful deployment of key use cases.
- **Demonstration Goal**: Outlines the goal of each scenario.
- **Setup**: Lists a series of items to be addressed or in place prior to completing the demonstration.

- **Demonstration Data**: What data will be required to be input or used for executing a demonstration.
- **Constraints and Information Requirements**: This describes any required data or information that is needed in order to perform the demonstration procedure
- **Safety Scenario Elements**: This section identifies which safety scenarios outlined in the Phase 1 Safety Management Plan (SMP) are satisfied by the demonstration event being described.
- **Team**: Identifies what stakeholders and actors are anticipated to be present at the demonstration and carry out the actions listed.
- **Demonstration Procedures**: These describe the sequence of events to be demonstrated, as well as the observable validation criteria associated with the demonstration's overall purpose.
- **Demonstration Results**: This describes the results of each demonstration step in a procedure to be marked as passed or failed during the demonstration. Failed steps will be repeated until successful unless otherwise noted.

3.1.2 Project Items to be Tested

The following items for the operational scenarios will be tested and are described further in Section 3.2. These scenarios are listed below. Participants will make a best effort to demonstrate these scenarios.

1. Degraded or System Failure Scenarios
    a. Scenario 1: A trip occurs while the system is operating in degraded mode.
    b. Scenario 2: A trip occurs during a complete system failure.
2. Travelers (Non-Medicaid) Scenarios
    a. Scenario 3: A Traveler is looking for transportation for a recurring medical appointment on a fixed schedule.
    b. Scenario 4: A Traveler is looking for transportation for a recurring medical appointment that is not on a fixed schedule.
    c. Scenario 5: A Traveler is looking for transportation for a one-off medical appointment.
    d. Scenario 6: A Traveler is looking for transportation for a one-off medical appointment and requires company/assistance on the return trip.
3. Travelers (Medicaid/MCO)
    a. Scenario 7: A Medicaid-eligible Traveler is taking a multi-legged. Medicaid will only pay for one leg of the trip.
4. DCHD/Health Navigators

   a. Scenario 8: A Traveler is new to Dallas county and requires assistance finding a medical appointment and transportation.

5. Hospital/Clinic

   a. Scenario 9: A blind Traveler requires assistance for Hospital customer care staff booking return transportation.

   b. Scenario 10: A Traveler has transportation set up by discharge staff.

6. HIRTA

   a. Scenario 11: A Traveler relies on HIRTA service for coordination of a return trip after a medical appointment.

   b. Scenario 12: A Traveler is a no-show for their scheduled outbound trip but has a return trip scheduled.

7. Third Party Service Providers

   a. Scenario 13: A third-party service provider would like to be integrated to provide HIRTA trips.

In addition, the following presentation-based demonstrations will take place:

1. Privacy-focused presentation
2. Performance measurement and evaluation support presentation
3. Institutional coordination and agreement presentation
4. Maintenance-oriented presentation

Note that safety elements are not presented in a stand-alone presentation but instead have been incorporated into the operational scenarios described above. **Table 53** reviews the safety elements (scenarios) from the Phase 1 SMP and shows how their control strategies map to the procedures and steps laid out in the ORDP *[8]*.

Table 53. Safety Risk Assessment

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TRV-1	Traveler device failure	Traveler device may not be functional due to low charge or another reason. This may leave them without any information on their trip or without the ability to use wayfinding system.	Traveler may contact HIRTA customer service using another phone or via email if at home/origin location or may contact Driver if en route. HIRTA vehicles could also carry portable chargers as a customer amenity which could be made available by Drivers. If such situation occurs after drop-off, Travelers may coordinate with the healthcare coordinator to assist with any transportation or wayfinding needs.	ORDP-SC2-v1, Step 11
SC-TRV-2	Caregiver or Health Navigator not authorized to assist Traveler with their needs	Traveler is authorized to use the Health Connector application, but their caregiver or Health Navigator are not able to access on their behalf. This causes issues with Travelers that rely on such help (e.g., persons with LEP, persons with disabilities, older adults). Lack of such help may leave Travelers in vulnerable situations.	While it may be of concern to some Travelers, they will still be able to contact HIRTA customer service and potentially a multi-party call could be arranged so caregivers or Health Navigators can help coordinate any needs. Alternatively, caregivers can contact HIRTA customer service to request authorization, or Travelers may pre-authorize certain known caregivers at initial registration if limited/non-health information can be support by their system. A temporary issue may be fixed immediately through the system administrator. If caregiver/Health Navigator need to go through consent release process, that may take longer.	ORDP-SC6-v1, Step 4

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TRV-3	Traveler profile does not have accurate details on mobility needs	Traveler is registered in the system but information within the system on their mobility needs are inaccurate which may include wrong information on the Driver manifest. Also, scheduler and schedule optimizer may use inaccurate approach for scheduling, grouping and vehicle assignment.	Chances are low for such error, but such details will be verified by HIRTA during booking.	ORDP-SC5-v1, Step 1
SC-TRV-4	Traveler cannot recognize HIRTA vehicle	Traveler may not be able to recognize HIRTA or HIRTA contractor vehicle if appropriate methods for enabling this feature are not used, particularly when services are provided by contractors.	Identification methods will be designed and tested to be reliable. A HIRTA/Health Connector logo will be designed which third party contractors will be required to display on their windshield from where it could easily be read by the wayfinding application. Health Navigators will work with LEP Travelers so they are aware about tools for identifying the right vehicle.	ORDP-SC9-v1, Step 8
SC-TRV-5	Driver cannot find Traveler waiting to be picked up	If Travelers are not sure about the pick-up spot (front entrance, back entrance, street intersection), particularly when a designated spot with physical signage is not available, it may create delays in pick-up or may result in a missed trip leading to missed appointment and delayed medical care.	Identification methods will be designed and tested to be reliable. A HIRTA/Health Connector logo will be designed which third party contractors will be required to display on their windshield from where it could easily be read by the wayfinding application. Health Navigators will work with LEP Travelers so they are aware about tools for identifying the right vehicle. Also, Drivers will be trained to assist in such situations.	ORDP-SC9-v1, Step 8

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TRV-6	Malfunction in wheelchair lift	Persons with disability will have difficulty in boarding due to malfunctioning wheelchair lift. HIRTA may have to send another vehicle causing delays with the trip. This may be a major or minor delay depending on system capacity to provide another vehicle. Non-HIRTA vehicles may not all be accessible (e.g., TNCs may have limited WAV capacity). This situation may very well lead to a cancelled appointment.	Wheelchair lift cycle test is performed at every pull however, mechanical failures may occur during the driver shift. In the event this happens, HIRTA will have to swap vehicle as soon as the issue is discovered. Real-time monitoring of wheelchair's functional status will also be included in the requirements so Drivers and Dispatchers can be alerted prior to the pick-up.	ORDP-SC5-v1, Step 1
SC-TRV-7	Driver/Traveler Conflict	While not system-related, there may be situations when there is a conflict between Driver and Traveler during boarding or while the trip is in progress. On-board security cameras must be operational for after-the-fact verification of the event. Drivers will have the ability to safely notify Dispatcher about the incident using the Driver terminal.	As part of HIRTA's Safety Promotion component of SMS, Driver education and training is required. One of the focuses of this training will be to train Drivers on any expected conflicts and resolution protocols to avoid any safety risks for themselves or for Travelers. Any reported incidents or complaints from Travelers and Drivers will be logged in the ESRP so a focused training can be provided.	ORDP-SC3-v1, Step 18

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TRV-8	Severe weather Event	Highly severe weather impacts Traveler's normal pattern at pick-up. This event may also cause trip delays. The system must be able to communicate any impact to trip status to all parties.	Actions will be driven by HIRTA SOP. For highly severe weather, when services cannot be operated, trips may get cancelled in advance of a pick-up and Travelers will be notified accordingly. Travelers will be able to book an alternate appointment for both medical care and transportation using Health Connector. For other situations when trip is not cancelled, appropriate information will be communicated to Travelers per the stage of their trip. Focus will be on minimizing the consequence of delays and patients with recurring appointments in the system, typically meant for critical care, may be prioritized.	ORDP-SC2-v1, Step 16
SC-TRV-9	Traffic incident delay	Delay is caused due to a traffic incident while the vehicle is en route to a drop-off destination and predicted arrival information is unreliable. Delay may cause postponement or cancellation of appointment. Depending on the nature of medical care, this may be consequential for some Travelers.	System will automatically notify all concerned parties about the delay and appropriate action (e.g., change in appointment time) may be needed.	N/A, this safety scenario is no longer relevant after system design

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TRV-10	Inaccurate notifications	There may be situations when notifications provided to Travelers the day before and/or same day are not reliable (e.g., vehicles not there to pick-up as notified). This could be caused by malfunction in notification delivery system or in the TMS pushing out this information. Inaccurate notifications may cause anxiety and, in some cases, may lead Travelers to cancel their appointments.	Travelers will be advised to call HIRTA customer service if their vehicle does not arrive within 10 minutes of pick-up time, as notified to them.	ORDP-SC1-v1, Step 11 ORDP-SC12-v1, Step 8
SC-TRV-11	Inaccurate real-time information	There may be situations when system is not providing accurate prediction arrival information. This could be caused by lack of reliable vehicle tracking information and manifest progress updates.	Travelers will be advised to call HIRTA customer service if their vehicle does not arrive within 10 minutes of pick-up time, as notified to them.	ORDP-SC1-v1, Step 11 ORDP-SC12-v1, Step 8
SC-TRV-12	Drop-off	Travelers may get dropped off at a different spot than originally intended due to construction or other issues. It may be a safety issue if Travelers are not familiar with the facility and wayfinding direction from the drop-off is not available.	Drivers will be trained to assist Travelers in this situation, so they are able to reach the correct entrance. Travelers will also be able to request human assistance via Health Connector app.	ORDP-SC4-v1, Step 11

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TRV-13	Outdoor wayfinding malfunction	Wayfinding system installed at a medical facility for customers to locate the right building and entrance is not functional. This will cause a different level of safety hazard to Travelers based on their disabilities.	Traveler may request human assistance via Health Connector app when the wayfinding system is fully non-functional. If the system does not have pathway information available to offer step-by-step guidance it will notify as such to the Traveler. Also, the system will warn if the accuracy of pathway information was not verified within the past 7 days.	N/A, this safety scenario is no longer relevant after system design
SC-TRV-14	Indoor wayfinding malfunction-infrastructure	Wayfinding system installed indoors is not functional due to issues with infrastructure (e.g., sensors or visual markers to support indoor positioning) installed within the facility.	The system will be designed to detect anomalies with the indoor navigation infrastructure that cause issues with localization and orientation functions. If the system does not have pathway information available to offer step-by-step guidance it will notify as such to the Traveler. Also, the system will warn if the accuracy of pathway information was not verified within the past 7 days. Traveler may request human assistance via Health Connector app.	N/A, this safety scenario is no longer relevant after system design
SC-TRV-15	Indoor wayfinding malfunction-device	Wayfinding application on the Traveler device is not able to provide the desired step-by-step guidance.	Traveler may request human assistance via Health Connector app. HIRTA team is planning to design a kiosk-based digital assistant for Travelers that may not have smartphones. Kiosk could be used by Travelers to print direction and guide them.	ORDP-SC6-v1, Step 9

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TRV-16	Indoor wayfinding – configurations	Traveler profile for wayfinding application is not accurately configured causing the system to provide incorrect guidance (e.g., elevator vs escalator) and causing a safety risk.	Likelihood is really low since such cases will be carefully reviewed during deployment and tested.	N/A, this safety scenario is no longer relevant after system design
SC-TRV-17	Insufficient data-outdoor wayfinding	Travelers are not dropped off at the facility entrance and have to access sidewalk, but sidewalk data may not be accurate. The system should take into account the accuracy of sidewalk data prior to providing the step-by-step guidance.	Likelihood is really low since such cases will be carefully reviewed during deployment and tested.	N/A, this safety scenario is no longer relevant after system design
SC-TRV-18	Insufficient data-indoor wayfinding	The data needed for the indoor wayfinding may not be sufficient, causing the system to provide incorrect guidance.	Likelihood is really low since such cases will be carefully reviewed during deployment and tested.	N/A, this safety scenario is no longer relevant after system design
SC-TRV-19	Unable to notify healthcare facility regarding arrival	When Travelers need assistance in situations when they are not accompanied by caregivers, system should be able to notify the healthcare staff for such requests as the vehicle is approaching the facility. If this function is not available, Traveler should be notified so they can call to make such arrangements.	Traveler can call via phone.	N/A, this safety scenario is no longer relevant after system design

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TRV-20	Unable to book return trip with HIRTA	Travelers may not be able to book return trip with HIRTA if capacity is not available and Travelers may get stranded at the hospital and may be forced to walk if can't afford for premium mode alternatives. Alternate arrangements through taxis or TNCs should be facilitated via Health Connector in such situations and in partnership with funding entities.	HIRTA will take several actions to ensure the availability of same day service to all travelers. These actions include: • Service availability during after-hours. • Engaging third party service providers (e.g., taxi) so needed capacity is available. • Engaging TNC so additional capacity is available. • Engaging volunteer drivers so capacity is available where TNCs and taxis may not be available (e.g., rural areas). • Provision of microtransit service so capacity can be made available through a better coordinated shared ride service. • Provision to allow hospitals to pay for premium fare where appropriate funding sources cannot be identified.	ORDP-SC13-v1, Step 2
SC-TMS-1	Health Navigator/ Caregiver are not able to access TMS	Health Navigators/Caregivers will have access to TMS in limited capacity to help Travelers they are working with to provide them a status on appointment booking (medical or transportation) and trip progress. Not having this access will disrupt Travelers' trips in situations where they are fully reliable on Caregivers and Health Navigators, leaving them vulnerable to safety risks.	A multi-party phone call may be arranged either by Health Navigator or HIRTA with Traveler and their caregiver to assist.	ORDP-SC8-v1, Step 4 ORDP-SC10-v1, Step 1

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TMS-2	TMS Server Failure	Failure in TMS server will disrupt HIRTA's ability to book trips and manage trips in real-time. HIRTA will have to fall back on two-way radio and Drivers will have to turn to paper manifests. This will cause severe disruption to the standard operations. In the absence of operational tools Dispatchers' capability to ensure safe operations will be severely impacted	Paper manifest and two-way radio will be used which will cause severe disruption to real-time service management. Full failure of TMS may limit access to other information and can have major issues. Same-day service may get impacted.	ORDP-SC2-v1, Step 15
SC-TMS-3	Cellular communication disruption or loss of data connectivity between vehicle and TMS subsystems.	In the event of data communication failure, HIRTA vehicles will not be able to communicate with TMS and real-time operations will be impacted. HIRTA will have to fall back on two-way radio and Drivers will have to turn to paper manifests. In the absence of operational tools Dispatchers' capability to ensure safe operations will be severely impacted.	Paper manifest and two-way radio will be used which will cause severe disruption to real-time service management. Same-day service may get impacted.	ORDP-SC1-v1, Step 15
SC-TMS-4	HIRTA is not able to connect to Access2Care	HIRTA's inability to connect to Access2Care will limit its ability to deliver Medicaid trips unless those manifests are made available in another format (e.g., email, fax). While not a direct safety risk, inability to timely and correctly process details may cause delays and missed trips for Medicaid customers.	Manifests will have to be delivered to HIRTA using another method (email/fax).	ORDP-SC7-v1, Step 2

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TMS-5	Incorrect geocoding of addresses	Incorrect geocoding of addresses, caused by a variety of issues, may impact scheduling and service delivery. Drivers may get sent to wrong location or wrong side of the road causing delays in pick-up and drop-off of Travelers.	A thorough review will be conducted during deployment. Also, periodic review will be planned for new customers for accuracy. Drivers will be trained to report any time they encounter incorrect address location by sending a text message using their terminal.	N/A, this safety scenario is no longer relevant after system design
SC-TMS-6	Obsolete basemap data used for scheduling	Obsolete basemap data may not have current data on road network, barriers and other pertinent details resulting in inefficient and in some cases unsafe schedules and runs.	Maps will be updated at deployment and also the design will look into cloud-based mapping so basemaps are always current.	N/A, this safety scenario is no longer relevant after system design
SC-TMS-7	Customer profile details incomplete or have changed but not adjusted in the system	In some cases, Travelers may not update their details (e.g., mobility needs, eligibility, contact, and address) when booking trips leaving the system to schedule trips with incorrect details. It may result in both inefficient schedule and cause safety risks.	Standard practice of verifying details at trip booking will be implemented.	ORDP-SC6-v1, Step 2
SC-TMS-8	TMS does not have access to real-time information on third party service providers	Not having access to Driver/Vehicle resources and information on the status of trips may cause severe safety risks.	SLAs will be developed to have HIRTA access to such data at all times.	ORDP-SC13-v1, Step 2
SC-TMS-9	Inability to communicate with Drivers	HIRTA must be able to communicate with Drivers at all times via data or voice communications. If neither of these options are available that will be a severe safety risk.	HIRTA will ensure to have one communication method always available (Driver terminal, radio, back-up communication device)	ORDP-SC1-v1, Step 13 ORDP-SC2-v1, Step 15

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-TMS-10	Issues with timely update of manifest details	System may behave erratically when it is not able to timely send out new trips, changes to existing trips or cancellation requests in real-time. This may result in Driver's trip performance and may result in missed trips for customers.	Appropriate action may need to be taken by system support team.	ORDP-SC1-v1, Step 13
SC-TMS-11	Maintenance issues with assigned vehicle	There may be issues with vehicle assignment if TMS does not have accurate information from maintenance department. It may impact vehicle's ability to pull out or there may be some issues that occur while the vehicle is still in revenue service causing vehicle breakdown and trip reassignments.	A list of available vehicles will be provided to Dispatcher before service day starts.	ORDP-SC5-v1, Step 2 ORDP-SC11-v1, Step 7
SC-TMS-12	System not having capability to accommodate all members of the group in the same vehicle	There may be situations where in shared ride scenario when more than one person is traveling as part of a group, not all people can be accommodated on the same vehicle. Alternate assignments methods (e.g., assigning another vehicle, taxi service) may be needed for Traveler's safety.	Scheduling parameters will be defined such that this issue doesn't occur. Any occurrences as reported by Travelers or Drivers will be noted and data will be analyzed to assess the cause.	ORDP-SC6-v1, Step 6
SC-VEH-1	Data communication system failure	As discussed earlier in the case of TMS, data communication failure (on the carrier or network side) will disrupt any communication between vehicle and central systems and therefore severally impacting Health Connector operations.	Paper manifest and two-way radio will be used which will cause severe disruption to real-time service management. Same-day service may get impacted.	ORDP-SC1-v1, Step 13 ORDP-SC2-v2, Step 3 & 15

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-VEH-2	Voice communications system failure	HIRTA's voice and data communications systems use separate infrastructure. In some cases, voice communication system may go down while data communications are still operational. This may be a moderate risk but voice communication going down at the same time as cellular system (e.g., in the event of a storm/lightning or faulty modem/radios on vehicle) the vehicle may not be operational unless communications are stored.	Back-up communication method will have to be instituted for continuity of operations.	ORDP-SC1-v1, Step 11 ORDP-SC2-v1, Step 15
SC-VEH-3	Surveillance and driver behavior monitoring system not operational	While not part of Health Connector system, on-board surveillance and driver behavior monitoring systems will be supporting technologies for ensuring Driver and Traveler safety.	Maintenance department will maintain units.	ORDP-SC1-v1, Steps 5-6 & 16-19
SC-VEH-4	Driver not able to log on	Inability of Drivers to log on to their devices will disrupt the electronic manifest management. If situation cannot be resolved, Drivers will have to utilize paper manifests and two-way radios.	If situation cannot be resolved, Drivers will have to utilize paper manifests and two-way radios.	ORDP-SC2-v2, Step 3
SC-VEH-5	Delivery of changes to Driver manifests do not occur timely	For various reasons, sometimes data transmission may be slow causing delays in messages. This will, however, disrupt the operations causing delays in trip delivery and may also cause missed trips.	Appropriate action may need to be taken by system support team.	ORDP-SC1-v1, Step 13

ID	Safety Scenario	Description	Control Strategy	ORDP Procedure and Step
SC-VEH-6	Manifest details are inaccurate	Manifest details may be inaccurate due to data entry error during booking or incorrect field mapping between vehicle and central subsystems during system configuration. This may impact trip delivery.	Occurrence is rare but will be reviewed and addressed as part of SOP.	ORDP-SC1-v1, Step 13 & 20
SC-VEH-7	Turn-by-turn navigation not sending to correct destinations	Incorrect geocoding or issues in the turn-by-turn navigation software may provide incorrect guidance.	Geocoding will have to be corrected as mentioned earlier.	N/A, this safety scenario is no longer relevant after system design
SC-VEH-8	Wheelchair lift non-operational	Due to unexpected issues wheelchair lift may not be operational and the built-in function to automatically notify such failure may not be available. This is a severe issue and may require sending another vehicle causing trip delays.	Vehicle will be swapped out	ORDP-SC8-v1, Step 2

3.2 Demonstration Identifiers

This section provides a unique numbering to identify the demonstrations outlined in this ORDP to assist in coordinating ORDP versions with configuration management and to serve as a summary of events.

Each demonstration is designated by the corresponding scenario number and ORDP version (e.g., Scenario 1, Version 1: *SC1-v1*).

Table 54. Revision History

Demonstration Identifier	Date	Modified By	Description
ORDP-SC1-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC2-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC3-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC4-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC5-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC6-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.

Demonstration Identifier	Date	Modified By	Description
ORDP-SC7-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC8-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC9-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC10-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC11-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC12-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-SC13-v2	06/28/24	Josh Albertson	Revised and final demonstration procedures used at ORD.
ORDP-P1: Privacy-Focused Presentation	06/28/24	Josh Albertson	Revised and final presentations.
ORDP-P2: Performance Measurement and Evaluation Support Presentation	06/28/24	Josh Albertson	Revised and final presentations.

Demonstration Identifier	Date	Modified By	Description
ORDP-P3: Institutional Coordination and Agreement Presentation	06/28/24	Josh Albertson	Revised and final presentations.
ORDP-P4: Maintenance-Oriented Presentation	06/28/24	Josh Albertson	Revised and final presentations.

3.3 Demonstrations

3.3.1 Scenario 1: *ORDP-SC1* - Degraded Operation

3.3.1.1 Description

In this scenario, a Traveler has a requested a trip for a routine exam at a hospital. The system is operating in degraded mode, since the HIRTA TMS server is down due to an unexpected maintenance issue during the Traveler's return trip.

3.3.1.2 Demonstration Goal

The goal of this scenario is to demonstrate operational flows when the HIRTA TMS is down or a Traveler's cell phone is not working.

3.3.1.3 Set-Up

This demonstration requires that the following preconditions are met:

- On-board vehicle system is operational.
- Vehicles are equipped with wayfinding technology for identification.
- Hospital is equipped with wayfinding infrastructure to support the wayfinding application.
- MOD-EHR Middleware and the MOD Platform TMS interface is functional.
- Two-way radio is functional.
- Phone system is operational.

3.3.1.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email
        - Trip Booking Request information, including:
            - Pick-up time, drop-off time, pick-up location (Traveler's home), drop-off location (Healthcare Facility)
            - Confirmation of trip proposal
        - Trip Payment
            - Payment information entered in Traveler Profile
    - During demonstration procedure
        - Confirmation of fare payment upon drop-off at healthcare facility
- Dispatcher Data Input
    - Prior to start of test procedure
        - Driver assigned to Traveler's trip
        - Printed paper manifest
    - During demonstration procedure
        - Added return trip to paper manifest
- Driver Data Input
    - During demonstration procedure
        - Confirmation of Traveler pick-up in Driver Application for outbound trip
        - Confirmation of Traveler drop-off in Driver Application for outbound trip
        - Time of Traveler pick-up on paper manifest for return trip
        - Time of Traveler drop-off on paper manifest for return trip
        - Fare paid on paper manifest for return trip

3.3.1.5 Constraints and Information Requirements

This demonstration is limited by the following constraints and information requirements:

- Trip progress status and real-time information on vehicle delay/arrival must be available while HIRTA TMS is operational.

3.3.1.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-VEH-1
- SC-VEH-2
- SC-VEH-3
- SC-VEH-5
- SC-VEH-6
- SC-TRV-10
- SC-TRV-11
- SC-TMS-3
- SC-TMS-9
- SC-TMS-10

3.3.1.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 55. ORDP-SC1 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Healthcare Customer Care Staff/Health Navigator, DCHD	Tester (Healthcare Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.

Name	Responsibility	Staffing/Training Needs
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.1.8 Demonstration Procedure

Table 56. ORDP-SC1 Demonstration Procedures

No.	Actions	Expected Results/Acceptance Criteria	Notes	Results
1	Traveler books a ride to their healthcare appointment using Health Connector. Traveler does not book a return trip.	Trip appears in HIRTA TMS and Traveler app upon booking. (Note: this step is repeated throughout several scenarios and may be set up prior to demonstration. However, on-demand booking will be demonstrated at least once on site.)		

No.	Actions	Expected Results/Acceptance Criteria	Notes	Results
2	Traveler is notified by the app when their vehicle is 15 minutes away. The pick-up location is clearly displayed on the Traveler app.	Traveler can see pick-up location and vehicle ETA to pick-up location.		
3	Traveler waits at pick-up spot and boards the vehicle. Driver confirms Traveler identity by verbally confirming first name as it appears in Driver app with the Traveler.	Traveler boards vehicle. Driver app provides accurate Traveler information.		
4	Driver app prompts Driver to collect payment due for the Traveler. Driver collects cash from Traveler.	Driver terminal prompts payment. (Note: If no fare needs to be collected for this rider, no payment would be collected.)		
5	Traveler is familiar with care facility and does not use wayfinding application. Traveler completes intake process with care facility.	Traveler arrives at appointment and checks in.		

No.	Actions	Expected Results/Acceptance Criteria	Notes	Results
6	Traveler tries to book a return trip but finds that the Traveler app is not operational.	HIRTA Traveler app is not operational. Other HIRTA TMS features (VOC, Driver app) are also down.		
7	Traveler contacts HIRTA by phone to book a return trip.	Traveler successfully connected with HIRTA Call Center.		
8	HIRTA operations staff checks to see if a vehicle is available to provide same-day service. Because TMS is down, HIRTA operations staff uses a printed PDF of the daily manifest to check for capacity.	HIRTA operations staff successfully identifies openings on scheduled shifts to accommodate the Traveler.		
9	HIRTA operations staff confirms opening and schedules a trip for the Traveler. HIRTA operations staff alerts the Driver over the phone or a two-way radio that a ride has been added. Driver acknowledges the change.	HIRTA operations staff assigns a new ride and communicates change with the applicable Driver.		

No.	Actions	Expected Results/Acceptance Criteria	Notes	Results
10	HIRTA operations staff calls and confirms with Traveler that a return trip has been scheduled. Traveler navigates to the pick-up location.	Traveler receives verbal booking confirmation and arrives at pick-up location.		
11	HIRTA Driver arrives at the pick-up location and Traveler boards.	Traveler boards and makes fare payment per amount due on driver screen.		
12	HIRTA Driver drops Traveler off at destination. Driver confirms with HIRTA operations staff that ride has been completed, either by call or two-way radio.	Driver successfully navigates to drop-off location. HIRTA operations staff receives call and marks trip complete on PDF of daily manifest.		

3.3.2 Scenario 2: *ORDP-SC2* – System Failure Mode

3.3.2.1 Description

In this scenario, the Traveler has scheduled an appointment for a routine exam at a hospital, but on the day of the appointment there are intermittent issues with cellular communications due to severe weather events within the past few days. The Health Connector system is completely non-operational. The HIRTA TMS can still be accessed to view trip details of previously scheduled trips, but no real-time updates are available due to lack of vehicle-to-central connectivity.

3.3.2.2 Demonstration Goal

The goal of this scenario is to demonstrate solutions when the Health Connector system must fall back on two-way radio and the phone system during a complete system failure caused by a communication outage after a severe weather event.

3.3.2.3 Set-Up

This demonstration requires that the following preconditions are met:

- Two-way radio is functional.
- Phone system is operational.
- HIRTA is able to access central system to access details of scheduled trips, as the communication network at the HIRTA headquarters is operational. However, no real-time updates are available due to disruption in cellular communication.
- Traveler has outbound Health Connector trip booked for day of testing.

3.3.2.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email
        - Trip Booking Request information, including:
            - Pick-up time, drop-off time, pick-up location (Traveler's home), drop-off location (Healthcare Facility)
            - Confirmation of trip proposal
    - During demonstration procedure
        - Confirmation of fare payment upon drop-off at healthcare facility
- Dispatcher Data Input
    - Prior to start of test procedure
        - Driver assigned to Traveler's trip
        - Printed paper manifest

- During demonstration procedure
  - Added return trip to paper manifest

- Driver Data Input
  - During demonstration procedure
    - Time of Traveler pick-up on paper manifest for outbound/return trip
    - Time of Traveler drop-off on paper manifest for outbound/return trip
    - Fare paid on paper manifest for outbound/return trip

3.3.2.5 Constraints and Information Requirements

This demonstration is limited by the following constraints and information requirements:

- Paper manifest is available

3.3.2.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-VEH-1
- SC-VEH-2
- SC-VEH-4
- SC-TRV-1
- SC-TRV-8
- SC-TMS-2
- SC-TMS-3
- SC-TMS-9

3.3.2.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 57. ORDP-SC2 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.

Name	Responsibility	Staffing/Training Needs
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.2.8 Demonstration Procedure

Table 58. ORDP-SC2 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	Traveler books a ride to their healthcare appointment using Health Connector. Traveler does not book a return trip.	Trip appears in HIRTA TMS and Traveler app upon booking. (Note: this step is repeated throughout several scenarios and may be set up prior to demonstration. However, on-demand booking will be demonstrated at least once on site.)		
2	Traveler receives a confirmation of booking a day in advance.	If the ride is booked before 2pm on the day prior, the Traveler receives a confirmation for their trip the next day via text or notification. (This may be provided asynchronously for demonstration purposes)		
2	After booking but prior to the day of the ride, the HIRTA MOD TMS goes down completely.	HIRTA team will not rely on the VOC, Driver app, and Traveler app for the remainder of the scenario. Any data that is present on screen may still be accessed in airplane mode to simulate down time effects.		

No.	Actions	Expected Results	Notes	Results
3	HIRTA Driver receives paper manifest of scheduled trips for the day.	A paper manifest printed and distributed for the day of the trip.		
4	HIRTA Driver does not have any other pick-up/drop-off on their manifest and heads to Traveler's destination.	HIRTA Driver arrives at Traveler's pick-up location.	Beginning of on-site demonstration.	
5	Driver arrives at pick-up location but cannot immediately find the Traveler. Driver coordinates with HIRTA operations staff and has them call the Traveler for more precise location. Dispatch calls Traveler and receives further detail on location, then relays that information to the Driver. Driver locates Traveler and Traveler boards the vehicle, with assistance if needed.	Radio and/or phone calls used to communicate directly with driver and traveler in the event application cannot provide specific ride notes identifying pick up details.		
6	HIRTA Driver notes actual pick-up time and odometer reading on paper manifest. If fare is collected, this is also noted.	Paper manifest reflects odometer reading and pick-up time. Fare is not collected for all riders, but if it is, would be noted on the manifest as well.		

No.	Actions	Expected Results	Notes	Results
7	Traveler scans a wayfinding code to locate the family medicine entrance. Traveler completes intake and waits for their appointment.	Traveler arrives at appointment location, and successfully uses wayfinding code to identify appropriate entrance. NaviLens Go App successfully works in offline mode.		
8	Once appointment is completed, Traveler calls HIRTA operations staff to request a return trip. Ride is scheduled, and Driver is dispatched to pick-up Traveler.	Traveler is able to reach HIRTA over the phone. Ride is scheduled and Driver heads to pick-up location.		
9	Driver arrives at care facility pick-up location and Traveler boards vehicle for return trip, with assistance as needed.	Traveler successfully identifies and boards vehicle at pick-up location.		
10	Vehicle arrives at destination and Traveler exits the vehicle at a safe spot from where they can navigate to their front door.	Traveler reaches destination.		

No.	Actions	Expected Results	Notes	Results
11	HIRTA Driver writes drop-off time and odometer reading on paper manifest and submits paper manifest to HIRTA operations staff at the end of their shift.	Trip manifest shows details on pick-up time, drop-off time, odometer, and fare (if applicable).		
12	For the trip booked before the system went down, trip data is available once system connectivity has been restored.	Confirm that trip details are still available in VOC for completed rides.		
13	For the trip that were booked and completed completely outside the TMS while it was down, HIRTA operations staff manually enters the trip completion details upon receiving the paper manifest.	HIRTA operations staff are able to track Health Connector trip data for trips occurring outside the VOC if needed.		

3.3.3 Scenario 3: *ORDP-SC3* – Traveler looking for Transportation for a Recurring Medical Appointment

3.3.3.1 Description

In this scenario, the Traveler has already scheduled a recurring medical appointment with a healthcare provider for dialysis treatment that will require 3 visits per week. The Traveler would like to book transportation on the same schedule. The return trip will also have to be booked on-demand after each treatment is over and the Traveler is discharged.

3.3.3.2 Demonstration Goal

The goal of this scenario is to demonstrate situations that the Health Connector system will have to address when trips are booked on a recurring and fixed schedule for a defined period.

3.3.3.3 Set-Up

This demonstration requires that the following preconditions are met:

- On-board vehicle system is operational.
- Vehicles are equipped with wayfinding technology for identification.
- Hospital is equipped with wayfinding infrastructure.
- Hospital is equipped with operational Kiosk.
- EHR and HIRTA central software interface is functional.
- Traveler has recurring medical and outbound transportation appointment booked for day of testing.

3.3.3.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, email, and mobility aid required
            - Payment method entered in application
        - Recurring Trip Booking Request information, including:
            - Pick-up time, drop-off time, pick-up location (Traveler's home), drop-off location (Healthcare Facility), trip frequency
            - Confirmation of trip proposal
    - During demonstration procedure
        - Return Trip Booking Request information, including:
            - Pick-up time, drop-off time, pick-up location (Traveler's home), drop-off location (Healthcare Facility), trip frequency
            - Confirmation of trip proposal

- Dispatcher Data Input
    - Prior to start of test procedure
        - Driver assigned to Traveler's outbound trip
    - During demonstration procedure
        - Driver assigned to Traveler's return trip
- Driver Data Input
    - During demonstration procedure
        - Confirmation of Traveler pick-up in Driver Application for outbound/return trip
        - Confirmation of Traveler drop-off in Driver Application for outbound/return trip

3.3.3.5 Constraints and Information Requirements

This demonstration is limited by the following constraints and information requirements:

- Medical appointment progress status is available.
- Trip progress status and real-time information on vehicle delay/arrival is available.
- Traveler has sufficient payment funds in HIRTA account
- Traveler is identifiable in the Kiosk

3.3.3.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-TRV-7

3.3.3.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 59. ORDP-SC3 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.

Name	Responsibility	Staffing/Training Needs
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.3.8 Demonstration Procedure

Table 60. ORDP-SC3 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	Traveler has booked recurring medical appointments and recurring transportation to those appointments using Health Connector.	MOD-EHR dashboard shows multiple upcoming medical appointments, matched to transportation bookings for the Traveler.		

No.	Actions	Expected Results	Notes	Results
2	On the day of one of their rides, Traveler receives a notification when their ride is 5 minutes away.	Traveler has received either a text or banner notification that Driver is 5 minutes away.		
3	Traveler sees Driver name and vehicle details in Traveler app.	Traveler should be able to see driver/vehicle details from the point when the Driver is en-route until the time of boarding.		
4	HIRTA Driver arrives at pick-up location to pick-up Traveler.	HIRTA vehicle reaches pick-up location.		
5	Driver manifest identifies that the Traveler uses a mobility aid and will need assistance boarding. Driver assists with boarding and deploys wheelchair ramp if needed. Traveler is paying with payment method on file, and no further fare needs to be collected.	Traveler information in Driver app includes mobility aid requirement for Traveler. Payment method on file should be charged.		

No.	Actions	Expected Results	Notes	Results
6	Vehicle arrives at care facility.	Driver drops off Traveler in the Driver app and assists with deboarding.		
7	Traveler is familiar with care facility and does not use wayfinding application. Traveler completes intake process.	Traveler reaches check-in desk.		
8	After the appointment is complete, the Traveler requests on-demand service for a return trip using the booking kiosk.	Traveler submits ride request through the kiosk.		
9	HIRTA TMS successfully schedules a trip for the Health Connector Traveler.	Ride appears in TMS ride plan. HIRTA dispatcher can change the ride assignment as needed. Once trip is booked, Traveler should see estimated wait time on kiosk screen.		

No.	Actions	Expected Results	Notes	Results
10	Traveler tracks the assigned vehicle's ETA on the kiosk. Kiosk also presents driver and vehicle details.	Kiosk shows vehicle ETA and driver/vehicle details.		
11	HIRTA Driver arrives at pick-up location and boards Traveler. Driver proceeds to the route and completes trip.	Driver arrives at pick-up location and marks Traveler as picked up in Driver app. Driver follows navigation in Driver app and completes the trip.		
12	At the conclusion of the trip, Driver logs complaint with HIRTA operations staff regarding this Traveler. Dispatch enters complaint into tracking spreadsheet and directs Driver to also file incident report.	Complaint is successfully logged in tracking spreadsheet.		

3.3.4 Scenario 4: *ORDP-SC4* – Traveler looking for Transportation for a Recurring Medical Appointment on Irregular Schedule

3.3.4.1 Description

In this scenario, the Traveler has recurring appointments for prenatal care, but those appointments are not on a fixed schedule. The Traveler has difficulty communicating in English and will need assistance with the trip. In addition, a return trip will have to be booked once the appointment is over and follow-up lab work is complete.

3.3.4.2 Demonstration Goal

The goal of this scenario is to demonstrate situations in which the Health Connector system will have to address trips scheduled on a recurring, but irregular schedule and the Traveler speaks limited English.

3.3.4.3 Set-Up

This demonstration requires that the following preconditions are met:

- On-board vehicle system is operational.
- Vehicles are equipped with wayfinding technology for identification.
- Hospital is equipped with wayfinding infrastructure.
- Translation service is available.
- Health navigator has access to the system.
- A personal companion can be accommodated.
- Traveler has credit in their HIRTA account and payment method set to account debit.
- Traveler is already registered with HIRTA prior to start of demonstration.
- Traveler has Wayfinding Application downloaded to phone.

3.3.4.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email
            - Preferred payment method
        - Outbound Trip Booking Request information, including:
            - Pick-up time, drop-off time, pick-up location (Traveler's home), drop-off location (Healthcare Facility), additional travelers (1)
    - During demonstration procedure
        - Login information for Traveler Application.
        - Set device language setting to Spanish.

        - Return Trip Booking Request information (by personal companion):
            - Pick-up time, drop-off time, pick-up location (Healthcare Facility), drop-off location (Traveler's Home), additional travelers (1)

- HIRTA Data Input
    - Translation requests via Language Link
- Dispatcher Data Input
    - Prior to start of test procedure
        - Driver assigned to Traveler's outbound trip
    - During demonstration procedure
        - Driver assigned to Traveler's return trip
- Driver Data Input
    - During demonstration procedure
        - Confirmation of Traveler pick-up in Driver Application for outbound/return trip
        - Confirmation of Traveler drop-off in Driver Application for outbound/return trip

3.3.4.5 Constraints and Information Requirements

This demonstration is limited by the following constraints and information requirements:

- Return trip cannot be scheduled in advance.
- Traveler needs a companion due to LEP.
- Follow-up lab work needed after the visit.
- HIRTA has access to Language Link

This demonstration requires the following information requirements:

- Medical appointment and transportation availability for later appointment.
- Trip progress status and real-time information on vehicle delay/arrival.

3.3.4.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-TRV-12

3.3.4.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 61. ORDP-SC4 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Tester (Personal Companion)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.4.8 Demonstration Procedure

Table 62. ORDP-SC4 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	Traveler has completed registration and downloaded the Health Connector application. Traveler logs into application.	Traveler is able to log into application. (Note: This may be done prior to the demonstration for ease of testing but application and account can be shown on Traveler's phone.)		
2	Traveler downloads Wayfinding application (NaviLens GO) from the App Store.	Wayfinding application successfully downloads to phone. (Note: This may be done prior to the demonstration for ease of testing but application can be shown on Traveler's phone.)		
2	Traveler sets phone settings in language of choice other than English; Traveler app also appears in that language of choice.	Health Connector application reflects correct Traveler language.		
4	Traveler has access to the application but would still feel more comfortable booking a trip over the phone. Traveler calls HIRTA to schedule a ride.	Traveler is able to get in contact with HIRTA operations staff over the phone.		
5	HIRTA operations staff note that the Traveler has LEP and either uses bilingual staff or arranges a multi-party call with 'Language Link' for translation assistance to help with booking depending on the language of need.	HIRTA operations staff can assist with Spanish booking. 'Language Link' service is used for other language needs.		
6	Traveler communicates that they have a Personal Care Assistant (PCA) for their trip. HIRTA operations staff books the trip for the Traveler and a PCA and confirms the pick-up time and location for the trip.	HIRTA operations staff books and trip and details are visible in the VOC and Traveler app after booking. Traveler and PCA are on the same booking.		
7	Personal companion meets the Traveler prior to the trip at the pick-up location.	Personal companion arrives at pick-up location.		
8	Traveler is sent a notification that their Driver has arrived.	Traveler receives a notification when vehicle has arrived.		

No.	Actions	Expected Results	Notes	Results
9	Traveler uses the wayfinding application to confirm the correct vehicle and then boards with PCA.	Traveler successfully scans NaviLens code on side of HIRTA vehicle using the wayfinding application and identifies that this is the HIRTA vehicle they are looking for.		
10	Traveler can see an infotainment device in the HIRTA vehicle. Traveler receives information related to Health Connector and their healthcare destination on the screen.	Infotainment device is operational within the vehicle. Content configured according to HIRTA needs.		
11	HIRTA Driver drops off Traveler and PCA at care facility.	Traveler and PCA exit vehicle. Trip is marked as complete in the Driver app.		
12	Traveler completes intake and then completes their appointment. Traveler is directed to the waiting room to await a printout of lab results to take home. Traveler uses the wayfinding application to translate a wayfinding code and verify that they are in correct location for the waiting room.	Traveler completes initial appointment and finds waiting room using wayfinding code. Wayfinding code is translated into language of choice.		
14	After lab results are delivered, the PCA requests an on-demand ride for themselves and the Traveler using the Traveler's phone and application.	Personal companion books a return trip.		
15	The Traveler application provides pick-up location through the Traveler Application.	Traveler receives booking confirmation and pick-up location through their Traveler application.		
17	HIRTA Driver arrives at pick-up location and Traveler and PCA board the vehicle. Driver completes the trip.	Traveler and PCA board the vehicle. Driver completes the trip.		
18	After the trip, a billing report is run and shows the correct funding source was applied to the Traveler for the ride.	Billing report shows correct funding source billed for trip. Billing reports take at least one day to reflect data.		

3.3.5 Scenario 5: *ORDP-SC5* – Traveler looking for a Preventative Care Appointment

3.3.5.1 Description

In this scenario, the Traveler has an ad-hoc appointment for preventative care. The Traveler is a retired veteran, and their healthcare is provided through the VA. The Traveler has a mobility limitation and uses a wheelchair, so requires a wheelchair accessible vehicle (WAV). The Traveler lives in a rural area with limited access to a pharmacy and would like to stop by a pharmacy after the appointment.

3.3.5.2 Demonstration Goal

The goal of this scenario is to demonstrate situations where Travelers living in rural areas need healthcare access and prefer to avoid multiple trips.

3.3.5.3 Set-Up

This demonstration requires that the following preconditions are met:

- On-board vehicle system is operational.
- Vehicles are equipped with wayfinding technology for identification.
- Hospital is equipped with wayfinding infrastructure.
- Traveler's funding source is VA (setup in Health Connector application).
- Traveler has inbound and outbound trips scheduled prior to demonstration procedure.
- Traveler has Wayfinding Application downloaded to phone.

3.3.5.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, accessibility requirements (wheelchair) and email
            - Preferred payment method set to VA
        - Outbound Trip Booking Request information, including:
            - Pick-up time, drop-off time, pick-up location (Traveler's home), drop-off location (Healthcare Facility), additional travelers

        - Return Trip Booking Request information:
            - Pick-up time, drop-off time, pick-up location (Healthcare Facility), drop-off location (Traveler's Home), additional travelers
    - During demonstration procedure
        - Return Trip Booking Request information:
            - Pick-up time, drop-off time, pick-up location (Healthcare Facility), drop-off location (Pharmacy), additional travelers
            - Pick-up time, drop-off time, pick-up location (Pharmacy), drop-off location (Traveler's home), additional travelers
- Dispatcher Data Input
    - Prior to start of test procedure
        - Third-party driver assigned to Traveler's outbound trip
        - Third-party driver details entered in VOC
    - During demonstration procedure
        - Driver assigned to Traveler's return trip
- Driver Data Input
    - During demonstration procedure
        - Confirmation of Traveler pick-up in Driver Application for outbound/return trip
        - Confirmation of Traveler drop-off in Driver Application for outbound/return trip

3.3.5.5 Constraints and Information Requirements

This demonstration is limited by the following constraints:

- The trip is almost an hour long, so the return trip may be provided using a third-party vehicle provider if a HIRTA vehicle is not available.

This demonstration requires the following information requirements:

- Trip progress status and real-time information on vehicle delay/arrival.

3.3.5.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-TRV-3
- SC-TRV-6
- SC-VEH-8
- SC-TMS-11

3.3.5.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 63. ORDP-SC5 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Third-Party/Volunteer Driver, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Tester (Personal Companion)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

Name	Responsibility	Staffing/Training Needs
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff (DL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.5.8 Demonstration Procedure

Table 64. ORDP-SC5 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	Traveler books transportation to and from the appointment through Health Connector.	Traveler submits round trip booking request. When this Traveler books, their trip is assigned to a wheelchair accessible vehicle. This can be modified in Traveler's profile.		
2	Traveler is scheduled for an inbound trip provided by HIRTA and an outbound trip provided by a 3rd party service provider.	VOC should show that a HIRTA driver is assigned to the inbound trip while a 3rd party service provider's shift has received the outbound trip.		

No.	Actions	Expected Results	Notes	Results
3	Traveler waits at pick-up location and boards vehicle upon arrival, using wheelchair lift if needed. Driver takes Traveler to destination and marks trip as complete in the Driver app.	Traveler successfully boards vehicle and arrives at appointment.		
4	Traveler receives a prescription during their appointment, so they cancel their existing return trip and rebook with a destination as the nearby pharmacy.	Traveler successfully cancels original trip through the Traveler app and requests a new booking to pharmacy.		
5	3rd party Driver's manifest is updated with a cancellation and new booking with a different destination.	Third party driver is reassigned to new trip sequence.		
6	Third-party driver arrives at pick-up location. Traveler can identify in the Traveler app that their return trip is being provided by a 3rd party vehicle. Traveler boards the vehicle with wheelchair lift if needed.	Vehicle arrives at pick-up location. Traveler can see vehicle information in the Traveler app that distinguishes it from a HIRTA vehicle. Traveler can board 3rd party vehicle with wheelchair lift, if using a wheelchair. If Traveler is not using wheelchair, Driver provides any necessary mobility assistance		

No.	Actions	Expected Results	Notes	Results
7	Traveler informs Driver of the need to book a second leg home after the pharmacy. Driver reviews manifest, contacts dispatch to confirm they have had capacity, so they agree to wait for Traveler at pharmacy.	Driver and Traveler coordinate second leg home.		
8	Driver uses turn-by-turn navigation to the pharmacy and then marks first leg as complete. Traveler then books new trip from the pharmacy to their home. Driver receives new assigned trip and waits to begin second leg.	Traveler is dropped off at pharmacy. First leg of trip is marked as complete in the Driver app. Traveler can now book another leg. 3rd party driver remains outside pharmacy.		
9	Traveler picks up medication at the pharmacy and reboards vehicle for their trip home.	Traveler reboards vehicle.		
10	Vehicle departs pharmacy and takes Traveler home. Driver assists Traveler with exiting the vehicle.	Traveler is dropped off at home. Second leg of trip is marked as complete.		

No.	Actions	Expected Results	Notes	Results
11	Ride is automatically billed to the VA or other applicable funding source	Billing report shows trip fare billed to VA or other eligible funding source.		

3.3.6 Scenario 6: *ORDP-SC6* – Traveler looking for an Appointment for a one-off Procedure where a Companion is needed for Return Leg of the Trip

3.3.6.1 Description

In this scenario, the Traveler has an upcoming appointment for an ad-hoc medical procedure. The Traveler can be discharged the same day; however, they will not be allowed to return home alone. Thus, they will need a personal companion on the return trip home. The Traveler coordinates with a friend to accompany them as a personal companion. The personal companion will have to be picked up at a location close to the healthcare provider.

3.3.6.2 Demonstration Goal

The goal of this scenario is to demonstrate situations where Travelers' needs may be different for a return trip than the trip to the healthcare provider.

3.3.6.3 Set-Up

This demonstration requires that the following preconditions are met:

- On-board vehicle system is operational.
- Vehicles are equipped with wayfinding technology for identification.
- Personal companion is already registered with HIRTA.
- Driver performs pre-check and confirms wheelchair lift is operational

3.3.6.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input

- Prior to start of demonstration procedure
  - Health Connector required registration information including:
    - First name, last name, phone number, and email
    - Preferred payment method set to account debit/credit
  - Outbound Trip Booking Request information, including:
    - Pick-up time, drop-off time, pick-up location (Traveler's home), drop-off location (Healthcare Facility), additional travelers (1)
  - Return Trip Booking Request information:
    - Pick-up time, drop-off time, pick-up location (Healthcare Facility), drop-off location (Traveler's Home), additional travelers (1)
- During demonstration procedure
  - Return Trip Booking Request information:
    - Pick-up time, drop-off time, pick-up location (Healthcare Facility), drop-off location (Pharmacy), additional travelers
    - Pick-up time, drop-off time, pick-up location (Pharmacy), drop-off location (Traveler's home), additional travelers

- Personal Companion Data Input
  - Prior to start of demonstration procedure
    - Health Connector required registration information including:
      - First name, last name, phone number, and email
- Dispatcher Data Input
  - Prior to start of test procedure
    - Driver assigned to Traveler's outbound trip
  - During demonstration procedure
    - Driver assigned to Traveler's return trip
- Driver Data Input
  - During demonstration procedure

- Confirmation of Traveler pick-up in Driver Application for outbound/return trip
- Confirmation of Traveler drop-off in Driver Application for outbound/return trip

3.3.6.5 Constraints and Information Requirements

This demonstration is limited by the following constraints:

- Traveler needs assistance boarding the vehicle for return trip.
- Traveler needs a personal companion for return trip.
- Traveler may need follow up care.

This demonstration requires the following information requirements:

- Trip progress status and real-time information on vehicle delay/arrival.

3.3.6.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-TRV-2
- SC-TRV-15
- SC-TMS-7
- SC-TMS-12

3.3.6.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 65. ORDP-SC6 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.

Name	Responsibility	Staffing/Training Needs
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Health Connector Companion	Tester (Companion)	Companions will be identified and provided training on how to use the system.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff (DL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.6.8 Demonstration Procedure

Table 66. ORDP-SC6 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	Traveler locates resources in the Traveler app that help Traveler schedule a medical appointment.	Traveler app hosts linktree resources including relevant phone numbers and scheduling portals for care facilities.		
2	Traveler books round trip transportation using the Traveler app.	Roundtrip bookings can be accommodated.		

No.	Actions	Expected Results	Notes	Results
3	HIRTA Driver arrives at pick-up location and boards Traveler. Driver completes trip and Traveler arrives at the care facility.	Traveler pick-up and drop-off successful.		
4	During the Traveler's appointment, the Traveler is notified by healthcare staff that they will need a personal companion for the return trip. Traveler calls HIRTA and asks to update return trip to include a family member.	HIRTA operations staff adds a guest to the return booking scheduled by the Traveler.		
5	Family member confirms with the Traveler that they can ride back with them, but they first need a ride to get to the care facility. Family member completes Health Connector registration online and then calls HIRTA to book a trip to the care facility.	Family member successfully registers for Health Connector. Family member calls HIRTA and asks for help scheduling a trip to the care facility. HIRTA operations staff confirms rider eligibility and schedules inbound trip.		
6	New trip is added to Driver's manifest, and they are dispatched to pick up the family member and drop them off at the care facility.	Driver receives trip to pick up family member.		
7	Family member is dropped off at care facility and can locate Traveler. Traveler and family member navigate to same pick-up location and await their return trip together scheduled for the same vehicle.	Personal companion locates traveler. Traveler and family member await vehicle for return trip together.		
8	Traveler and family member board for their return trip and then complete trip together.	Boarding occurs together and trip is completed.		

3.3.7 Scenario 7: *ORDP-SC7* – Traveler looking for more than one Person as Accompaniment for a Medicaid-funded Trip

3.3.7.1 Description

In this scenario, a traveler is approved to take a Medicaid eligible trip, but they would like family members to accompany them to assist with the appointment. The trip home from the care facility is 45 minutes long, so they would like to be dropped off at a friend's house to rest and plan to arrange their own transportation later for the ride home or may request a return trip on a later date. Medicaid will only pay for an eligible portion of the trip which is the Traveler's trip to the doctor's office.

3.3.7.2 Demonstration Goal

The goal of this scenario is to demonstrate situations where Travelers may have needs that are not supported by their funding sources.

3.3.7.3 Set-Up

This demonstration requires that the following preconditions are met:

- Access2Care system is functionable and accessible to HIRTA (via MOD-Medicaid Middleware)
- On-board vehicle system is operational.
- Vehicles are equipped with wayfinding technology for identification.
- Hospital is equipped with wayfinding infrastructure to support the wayfinding application.
- Traveler has a prepaid debit account with HIRTA and is a registered Medicaid patient.

3.3.7.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email
            - Preferred payment method set to account debit
        - Medicaid (Access2Care) Trip Booking Request information, including:
            - Pick-up time, drop-off time, pick-up location (Traveler's home), drop-off location (Healthcare Facility), appointment time
    - During demonstration procedure
        - Medicaid (Access2Care) Return Trip Booking Request information:
            - Pick-up time, drop-off time, pick-up location (Healthcare Facility), drop-off location, additional travelers
- Dispatcher Data Input
    - Prior to start of test procedure
        - Driver assigned to Traveler's outbound trip
    - During demonstration procedure
        - Driver assigned to Traveler's return trip
- Driver Data Input

- During demonstration procedure
  - Confirmation of Traveler pick-up in Driver Application for outbound/return trip
  - Confirmation of Traveler drop-off in Driver Application for outbound/return trip

3.3.7.5 Constraints and Information Requirements

This demonstration is limited by the following constraints:

- Accommodation of a personal companion of people
- Funding source can be billed only for part of the trip. The rest will be paid out of pocket.

This demonstration requires the following information requirements:

- Trip progress status and real-time information on vehicle delay/arrival.

3.3.7.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-TMS-4

3.3.7.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 67. ORDP-SC7 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.

Name	Responsibility	Staffing/Training Needs
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff/Alternative Personnel	Tester (Personal Companion)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff (DL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.7.8 Demonstration Procedure

Table 68. ORDP-SC7 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	An Access2Care Traveler schedules transportation to and from a medical appointment.	Traveler submits ride request via Access2Care, or the request is simulated as coming from Access2Care (through Lyft API). Trips are successfully ingested from Access2Care into Via through the MOD-Medicaid Middleware.		
2	Traveler calls HIRTA to request accompanying guests on the same vehicle to and from the appointment. HIRTA operations staff modifies the trips to add guests to the Traveler's trip booking.	Traveler reaches HIRTA via phone. Trips are updated in VOC to include guests. HIRTA confirms time of pick-up and trip details for the Traveler.		
3	HIRTA Driver arrives at pick-up location and confirms the number of members in the group and Traveler name based on details available in the Driver's manifest.	Driver uses driver application to confirm Traveler details and number of guests.		
4	Traveler and guests board and proceed to destination.	Successful boarding and trip take place.		
5	Driver marks drop-off complete in Driver app.	VOC shows trip complete.		
6	Traveler completes appointment and navigates to pick-up location for return trip. Driver picks up Traveler and guests.	Driver able to locate Traveler and guests using the Driver application.		
7	At completion of trip, rest of fare is debited from Traveler's prepaid account for the guests. Medicaid is billed for the Traveler.	Trip fare is deducted from Traveler's prepaid account to cover guest rides. Medicaid is billed for the Traveler so they show $0 fare.		

3.3.8 Scenario 8: *ORDP-SC8* – A New Dallas County Resident Looking for Information and Referral for Medical Care

3.3.8.1 Description

In this scenario, an elderly Traveler just moved to Dallas County with their family and needs to get a medical appointment scheduled with an Endocrinologist but doesn't know providers in the area and does not have transportation. Further, the Traveler doesn't know who will pay.

3.3.8.2 Demonstration Goal

The goal of this scenario is to demonstrate situations where Travelers need help from a Health Navigator with their medical and transportation needs.

3.3.8.3 Set-Up

This demonstration requires that the following preconditions are met:

- Traveler has reached out to DCHD for help.
- Traveler has medical appointment booked at DCHD.
- EHR and Via Central Software (MOD-EHR Middleware) interface is operational and appointment has been scheduled.

3.3.8.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Medical appointment booking details
    - During demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email
            - Preferred payment method set to account debit
- Health Navigator Data Input
    - During demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email

- Preferred payment method set to account debit

- Health Connector Trip Booking Request information, including:

  - Pick-up time, drop-off time, pick-up location (Traveler's home), drop-off location (Healthcare Facility)

3.3.8.5 Constraints and Information Requirements

This demonstration is limited by the following constraints:

- Traveler doesn't have medical and transportation resources identified.
- Traveler doesn't have funding sources available for transportation service.

This demonstration requires the following information requirements:

- Available healthcare providers.
- Available transportation providers.
- Status of medical and transportation appointments.

3.3.8.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-TMS-1

3.3.8.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 69. ORDP-SC8 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Healthcare Customer Care Staff/Health Navigator, DCHD	Tester (Healthcare Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.

Name	Responsibility	Staffing/Training Needs
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff (DL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.8.8 Demonstration Procedure

Table 70. ORDP-SC8 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	Traveler connects with a Health Navigator for assistance with Health Connector registration and booking.	Traveler gets in touch with a Health Navigator in person or over the phone.		
2	Health Navigator identifies the Traveler's needs and communicates with Traveler in language of their choice. Health Navigator walks Traveler through registration.	Health Navigator successfully helps register Traveler. Traveler receives mail copy of informed consent if they cannot review directly/are registering by phone.		

No.	Actions	Expected Results	Notes	Results
3	Health Navigator calls HIRTA operations staff to expedite Health Connector approval because Traveler needs a trip today. Health Navigator communicates a funding source that the Traveler is eligible for and communicates that to HIRTA as well.	Health Navigator works with HIRTA over the phone to turn on Health Connector permissions. HIRTA operations staff adds funding source to Traveler profile.		
4	Once permissions have been turned on for Health Connector, Health Navigator uses the limited-view TMS to book a trip to Traveler's medical appointment for the Traveler.	Health Navigator submits trip request for Traveler. Trip is approved and shown in the VOC and in the Traveler app, if the Traveler has it downloaded.		
5	Health Navigator explains to the Traveler how to use Health Connector to book trips in the future and shares link tree resources.	Traveler able to download and log into Traveler app and understands where to find other resources.		
6	Health Navigator checks MOD-EHR read-only webpage to check the status of Traveler's medical appointment and associated transportation.	Traveler's healthcare appointment and transportation shown on MOD-EHR webpage.		

3.3.9 Scenario 9: *ORDP-SC9* – Healthcare Provider Assists with Transportation Needs after the Appointment

3.3.9.1 Description

In this scenario, a blind Traveler was dropped off by a friend for a routine medical appointment but doesn't have return transportation; the. Hospital customer care staff has requested a return trip directly using the HIRTA system.

3.3.9.2 Demonstration Goal

The goal of this scenario is to demonstrate situations where Travelers need help from the Healthcare provider's office only for return transportation.

3.3.9.3 Set-Up

This demonstration requires that the following preconditions are met:

- Traveler is registered with HIRTA.

- Traveler's starting location is Healthcare Facility
- Hospital is equipped with wayfinding infrastructure to support the wayfinding application.
- Traveler has a prepaid debit account with HIRTA.
- Hospital is equipped with wayfinding infrastructure to support the wayfinding application.
- Vehicle is equipped with infotainment device.

3.3.9.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email
            - Preferred payment method set to account debit
- Health Navigator Data Input
    - Health Navigator/Healthcare-end Subsystem (VOC) credentials
    - Health Connector Return Trip Booking Request information:
        - Pick-up time, drop-off time, pick-up location (Healthcare Facility), and drop-off location (Traveler's home)
- Dispatcher Data Input
    - During demonstration procedure
        - Driver assigned to Traveler's return trip
- Driver Data Input
    - During demonstration procedure
        - Confirmation of Traveler pick-up in Driver Application for return trip
        - Confirmation of Traveler drop-off in Driver Application for return trip

3.3.9.5 Constraints and Information Requirements

This demonstration is limited by the following constraints:

- Wayfinding demonstrations can only be conducted at DCHD
- Health navigator is available to provide assistance to Traveler

This demonstration requires the following information requirements:

- Status of vehicle arrival and trip progress available.

3.3.9.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-TRV-4
- SC-TRV-5

3.3.9.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 71. ORDP-SC9 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Health Navigator, DCHD	Tester (Healthcare Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.

Name	Responsibility	Staffing/Training Needs
Arcadis IBI Staff	Tester (Personal Companion)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff (DL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.9.8 Demonstration Procedure

Table 72. ORDP-SC9 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	Traveler arranges for a ride to the hospital with a friend but friend will not be able to provide return trip.	Traveler picked up by friend for inbound trip.	To be simulated in advance of demonstration.	
2	Traveler is dropped off at the hospital and upon arrival, notifies healthcare customer care representative (HCR) about their need for a return trip.	Traveler arrives at healthcare facility and locates customer care representative.		
3	HCR uses the limited-view TMS to book a return trip for the Traveler based on their estimated appointment completion time.	Healthcare customer care representative books return trip for Traveler.		

No.	Actions	Expected Results	Notes	Results
4	Traveler confirms the pick-up location and time are visible in the Traveler app.	Trip details appear for the Traveler in the Traveler app.		
5	HIRTA Driver receives updated manifest through the Driver app and proceeds to the route to pick-up the Traveler.	Trip details appear in Driver's manifest.		
6	HIRTA Driver picks-up the Traveler and completes their trip home.	Traveler is marked as picked-up in Driver app. Traveler later exits vehicle at home and is marked as dropped off in Driver app. Ride is shown as complete in the HIRTA TMS.		

3.3.10 Scenario 10: *ORDP-SC10* – Healthcare Provider Arranges Return Transportation for Patient prior to Discharge

3.3.10.1 Description

In this scenario, a Traveler has a planned discharge for the following day based on the progression of recovery. A discharge planner sets up transportation to residences and/or skilled care facilities.

3.3.10.2 Demonstration Goal

The goal of this scenario is to demonstrate situations where a healthcare provider arranges transportation based on when Traveler can be discharged.

3.3.10.3 Set-Up

This demonstration requires that the following preconditions are met:

- Traveler is registered with HIRTA.
- Traveler has healthcare staff and health navigator set to receive notifications.
- MOD-EHR Middleware Interface is operational.
- Discharge planner has access to Health Navigator/Healthcare-End Subsystem

3.3.10.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input

    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email
            - Preferred payment method set to account debit

- Discharge Planner Data Input
    - During demonstration procedure
        - Updated medical appointment time
        - Health Connector Return Trip Booking Request information:
            - Pick-up time, drop-off time, pick-up location (Healthcare Facility), and drop-off location (skilled care facility)

- Dispatcher Data Input
    - During demonstration procedure
        - Driver assigned to Traveler's return trip

- Driver Data Input
    - During demonstration procedure
        - Confirmation of Traveler pick-up in Driver Application for return trip
        - Confirmation of Traveler drop-off in Driver Application for return trip

3.3.10.5 Constraints and Information Requirements

This demonstration is limited by the following constraints:

- The timing for the return trip is unclear.
- It is unclear if the Traveler should be discharged to go home or sent to a skilled care facility.
- Middleware demonstration procedures will be conducted within a sandbox environment with dummy data.

This demonstration requires the following information requirements:

- HIRTA services available.
- Medical appointment status is available.

- Status of vehicle arrival and trip progress available.

3.3.10.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-TMS-1

3.3.10.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 73. ORDP-SC10 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Healthcare Customer Care Staff/Health Navigator, DCHD	Tester (Discharge Planner)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

Name	Responsibility	Staffing/Training Needs
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff (DL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.10.8 Demonstration Procedure

Table 74. ORDP-SC10 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	HCR determines when a Traveler will be discharged and that follow-up care is needed. A new appointment is booked at a nearby skilled-care facility. The HCR also books a one-way trip for the Traveler from the current care facility to the nearby skilled-care facility.	Ride is booked by the HCR in the limited-view TMS. Ride and appointment details can be matched up in the MOD-EHR dashboard.		
2	A new discharge time is estimated for the Traveler, so the HCR updates the trip booking to request a new time of pick-up.	HCR updates trip time in the limited-view TMS. Changes in the trip time are reflected on the MOD-EHR dashboard as well.		
3	HIRTA operation staff monitoring MOD-EHR dashboard webpage see updated time.	Different log-in views for the dashboard should reflect different columns, but same data should be present within columns.		
4	Traveler receives notification through the Traveler app about the details of their trip.	Traveler is able to see trip details in Traveler App including pick-up time and destination.		
5	Traveler informs Health Navigator of their trip details using share my trip feature in Traveler app.	Share my trip allows Traveler to share details by text or email.		

No.	Actions	Expected Results	Notes	Results
6	Driver receives the new trip on their manifest and navigates the route for pick-up.	Trip details shown on manifest in Driver app.		
7	Traveler locates and boards the vehicle upon arrival.	Traveler successfully identifies vehicle with details provided in Traveler app.		
8	While Traveler is en-route, Health Navigator contacts healthcare customer care staff at skilled-care facility and provides trip status update.	Skilled care facility notified of Traveler's arrival time.		
9	Healthcare customer care staff is able to view trip status update as complete in MOD-EHR middleware webpage to know Traveler arrived at skilled-care facility OK.	MOD-EHR middleware webpage shows trip status as complete.		

3.3.11 Scenario 11: *ORDP-SC11* – HIRTA to be Aware of Medical Appointment Status to Arrange Return Trip

3.3.11.1 Description

In this scenario, HIRTA cannot find out if a Traveler who was dropped off for a medical appointment has already been discharged. The Traveler had booked a return trip and the driver is waiting for pick-up at the medical facility. The Traveler does not use the Health Connector app and is relying on HIRTA for coordination.

3.3.11.2 Demonstration Goal

The goal of this scenario is to demonstrate situations where HIRTA must coordinate services since the Traveler does not use smart devices.

3.3.11.3 Set-Up

This demonstration requires that the following preconditions are met:

- Traveler is registered with HIRTA.
- EHR and Via central software interface is functional.
- Driver can communicate using on-board systems.
- Traveler has medical appointment scheduled.

3.3.11.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email
            - Preferred payment method set to account debit
        - Health Connector Return Trip Booking Request information:
            - Pick-up time, drop-off time, pick-up location (Healthcare Facility), and drop-off location (home)
        - Medical appointment details
- Dispatcher Data Input
    - During demonstration procedure
        - Driver assigned to Traveler's return trip
- Driver Data Input
    - During demonstration procedure
        - Confirmation of Traveler pick-up in Driver Application for return trip
        - Confirmation of Traveler drop-off in Driver Application for return trip

3.3.11.5 Constraints and Information Requirements

This demonstration is limited by the following constraints:

- Traveler does not use the Traveler App.
- Return trip is booked but discharge timing is uncertain.
- Middleware demonstration procedures will be conducted within a sandbox environment with dummy data.

This demonstration requires the following information requirements:

- HIRTA services available.
- Status of vehicle arrival and trip progress available.

3.3.11.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-TMS-11

3.3.11.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 75. ORDP-SC11 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Healthcare Customer Care Staff/Health Navigator, DCHD	Tester (Healthcare Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff (DL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.11.8 Demonstration Procedure

Table 76. ORDP-SC11 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	Traveler has booked a return trip scheduled from a healthcare facility.	HIRTA TMS shows trip from healthcare facility to home.		
2	HIRTA Driver arrives at healthcare facility for Traveler's return trip.	Driver arrives at facility based on pick-up time on manifest.		
3	HIRTA Driver waits for Traveler. After 5 minutes HIRTA Driver reports a no-show to HIRTA operations staff.	Driver communicates to operations that Traveler is a no-show.		
4	HIRTA operations staff contacts the HCR and inquires as to the expected completion time for the appointment. Healthcare staff informs HIRTA that the appointment is expected to end in 15 minutes.	Healthcare staff receive call from HIRTA. Healthcare staff check on progress and reports back to HIRTA.		
5	HIRTA operation staff verifies the impact of the additional wait on any upcoming trips by checking the Driver manifest. No upcoming trips are identified on the manifest, so HIRTA operations staff informs the driver they should wait for the Traveler.	HIRTA operations verifies that driver does not have additional upcoming trips that will be impacted by the delay. Communicates with the Driver via two-way radio or phone.		
6	Traveler meets driver at the designated pick-up location after the appointment is complete. Traveler boards the vehicle and trip is executed.	Traveler is able to locate vehicle at pick-up location. Traveler is taken home.		

3.3.12 Scenario 12: *ORDP-SC12* – HIRTA to Coordinate regarding Return Trip since Outbound Trip to Healthcare Facility a No-Show.

3.3.12.1 Description

In this scenario, a Traveler was a no-show for outbound trip to medical appointment (or cancelled without providing a reason) but the customer had also booked a return trip. HIRTA has to follow-up with both the Traveler and the hospital to find out if the Traveler needs the return trip before their trip back to home can be cancelled. HIRTA policy is to typically cancel the inbound leg from a destination if the outbound leg to

the destination was cancelled or was a no-show. HIRTA will contact the Traveler before cancelling the trip in the event of a no-show for the inbound trip to the healthcare facility.

3.3.12.2 Demonstration Goal

The goal of this scenario is to demonstrate situations where inbound leg to the destination was cancelled and coordination may be needed for return leg before cancellation.

3.3.12.3 Set-Up

This demonstration requires that the following preconditions are met:

- Traveler is registered with HIRTA.
- EHR and Via central software interface is functional.
- Driver can communicate using on-board systems.
- Traveler has medical appointment scheduled.

3.3.12.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email
            - Preferred payment method set to account debit
        - Health Connector Outbound Trip Booking Request information:
            - Pick-up time, drop-off time, pick-up location (home), and drop-off location (Healthcare Facility)
        - Health Connector Return Trip Booking Request information:
            - Pick-up time, drop-off time, pick-up location (Healthcare Facility), and drop-off location (home)
        - Medical appointment details
- Dispatcher Data Input
    - During demonstration procedure

        - Driver assigned to Traveler's outbound/return trip

- Driver Data Input
    - During demonstration procedure
        - 'No Show' entry in Driver Application for outbound trip
        - Confirmation of Traveler pick-up in Driver Application for return trip
        - Confirmation of Traveler drop-off in Driver Application for return trip

3.3.12.5 Constraints and Information Requirements

This demonstration is limited by the following constraints:

- Given no-show on the in-bound trip, there is no information on appointment status.
- Return trip booked but status unclear.
- Middleware demonstration procedures will be conducted within a sandbox environment with dummy data.

This demonstration requires the following information requirements:

- Status of vehicle arrival and trip progress available.

3.3.12.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-VEH-1
- SC-VEH-2
- SC-VEH-3
- SC-VEH-5
- SC-VEH-6
- SC-TRV-10
- SC-TRV-11
- SC-TMS-3
- SC-TMS-9
- SC-TMS-10

3.3.12.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 77. ORDP-SC12 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Blake Hansen, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Healthcare Customer Care Staff/Health Navigator, DCHD	Tester (Healthcare Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Flexlynqs Staff (SEL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
CTAA Staff (DL)	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.12.8 Demonstration Procedure

Table 78. ORDP-SC12 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	Traveler books roundtrip transportation to and from a care facility using Health Connector.	HIRTA TMS shows round trip booking for Traveler. Appointment is booked in the MOD-EHR dashboard.		

No.	Actions	Expected Results	Notes	Results
2	Traveler does not show up for outbound trip. HIRTA Driver reports a no-show through the Driver app. Driver also flags this for HIRTA operations staff because this is a medical trip.	No-show is successfully logged. HIRTA operations staff receives report of no-show for outbound trip through HIRTA TMS.		
3	No-show trip is removed from Driver manifest. HIRTA operations staff flags the return trip but does not cancel it.	No-show trip is removed from manifest and trip is flagged. HIRTA staff sets a reminder to check on the status of the appointment to ensure it is still active.		
4	Prior to the Driver being dispatched to pick-up the passenger for the return trip, HIRTA operations staff check the MOD-EHR dashboard to confirm if the appointment was still active. HIRTA and sees the appointment was still scheduled.	Appointment is shown as active on the MOD-EHR dashboard.		
5	HIRTA operations staff contacts healthcare staff to confirm and to coordinate on expected appointment completion time.	HIRTA reaches HCR by phone to confirm appointment completion time. If time has changes, trip request can be modified accordingly.		
6	HIRTA operations staff contacts the Traveler to confirm if return trip is still needed. Traveler confirms return trip is still needed. HIRTA Driver is dispatched for return trip pick-up.	Traveler receives phone call from HIRTA operations. Traveler confirms ride. Driver is dispatched and follows instructions per manifest.		
7	HIRTA Driver meets Traveler at designated pick-up location.	Traveler is able to identify HIRTA vehicle for pick-up at pick-up location using the Traveler app.		
8	Traveler is dropped off at home destination.	Traveler is dropped at their home location.		

3.3.13 Scenario 13: *ORDP-SC13* – HIRTA to Contract with a Non-dedicated Service Provider to Provide Trips During After Hours

3.3.13.1 Description

In this scenario, a third-party service provider (taxi/volunteer or another agency in the region such as DART) would like to be part of this solution, particularly when trips are outside of the HIRTA service area.

The third-party service provider would like to be integrated so their services are available to Travelers per terms and conditions agreeable to HIRTA.

3.3.13.2 Demonstration Goal

The goal of this scenario is to demonstrate situations where HIRTA does not have capacity or its services are not available.

3.3.13.3 Set-Up

This demonstration requires that the following preconditions are met:

- Traveler is registered with HIRTA.
- Volunteer driver is trained to use the same platform as HIRTA drivers.
- Scheduled ride is after HIRTA service hours.
- Traveler has NaviLens application downloaded to phone.

3.3.13.4 Demonstration Data

Data Entry Requirements:

- Traveler Data Input
    - Prior to start of demonstration procedure
        - Health Connector required registration information including:
            - First name, last name, phone number, and email
            - Preferred payment method set to account debit
        - Health Connector Outbound Trip Booking Request information:
            - Pick-up time, drop-off time, pick-up location (home), and drop-off location (Healthcare Facility)
        - Health Connector Return Trip Booking Request information:
            - Pick-up time, drop-off time, pick-up location (Healthcare Facility), and drop-off location (home)
- Dispatcher Data Input
    - Prior to demonstration procedure
        - Driver assigned to Traveler’s outbound/return trip

- Third-Party Driver Data Input
    - During demonstration procedure
        - Confirmation of Traveler pick-up in Driver Application for outbound/return trip
        - Confirmation of Traveler drop-off in Driver Application for outbound/return trip

3.3.13.5 Constraints and Information Requirements

This demonstration is limited by the following constraints:

- Return trip booked but status unclear.
- Availability of third-party vehicle.

This demonstration requires the following information requirements:

- Status of vehicle arrival and trip progress available.

3.3.13.6 Safety Scenarios

The following safety scenarios from the Phase 1 SMP are addressed and mitigated in this demonstration:

- SC-TRV-20
- SC-TMS-8

3.3.13.7 Team

The case will be tested by the following members of the HIRTA Team:

Table 79. ORDP-SC13 Responsibilities

Name	Responsibility	Staffing/Training Needs
Amber Falls, HIRTA	Tester (Dispatcher)	None – already familiar with Via MOD platform. Scripts will be shared prior to testing in case there are questions or comments.
Third-party/Volunteer, HIRTA	Tester (Driver)	Drivers will be trained on Health Connector updates to Via MOD platform.
Customer Service Staff, HIRTA	Tester (Customer Service)	Customer service staff will be trained on Health Connector updates to Via MOD platform.
Health Connector Traveler	Tester (Traveler)	Any additional participants will be trained on the available services and how to use the application. On-site guidance will be available for having users test.

Name	Responsibility	Staffing/Training Needs
Arcadis IBI Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
USDOT Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.
Noblis Staff	Witness	Relevant staff will review test scripts and acceptance criteria prior to testing.

3.3.13.8 Demonstration Procedure

Table 80. ORDP-SC13 Demonstration Procedures

No.	Actions	Expected Results	Notes	Results
1	Traveler books a medical appointment and roundtrip transportation to and from care facility using Health Connector.	Trip booking is shown in HIRTA TMS. Trip is assigned third-party vehicle due it being outside of HIRTA service hours.		
2	Prior to the trip, Traveler confirms driver and vehicle either using the Traveler app or through a text notification. Traveler can identify that this trip is being provided by a third-party driver's vehicle.	Traveler receives confirmation of trip booking and driver and vehicle information to the Traveler app or by notification. Information makes it clear this is a third-party trip.		
3	Traveler waits at pick-up location and identifies vehicle using Health Connector application.	Traveler is able to correctly identify vehicle based on information provided in Traveler app.		
4	Third-party Driver confirms Traveler's identity using the driver application prior to boarding.	Third-party Driver confirms Traveler based on information provided in the Driver app.		
5	Traveler is dropped off at care facility.	Traveler arrives at care facility, HIRTA TMS shows trip complete.		
6	Traveler's trip status updates on MOD-EHR dashboard once trip complete.	Healthcare staff can see on the MOD-EHR dashboard that traveler has been dropped off for an appointment.		

No.	Actions	Expected Results	Notes	Results
7	Traveler uses wayfinding application to identify restroom.	Traveler is able to scan NaviLens codes with wayfinding application and receive confirmation of restroom location.		
8	Traveler then completes appointment and waits for return trip. Traveler confirms pick-up time and location using Traveler app.	Traveler confirms trip pick-up time and location through the Traveler app.		
10	Third-party vehicle arrives at care facility. Traveler locates and boards vehicle for return trip. Third-party vehicle arrives at Traveler's home destination.	Traveler is able to locate vehicle at specified pick-up spot. Traveler boards and trip is completed.		

3.4 Demonstration Presentations

This section describes the remaining demonstration elements, including privacy, performance management and evaluation support, institutional coordination and agreements, and maintenance, which will each be demonstrated via presentation. Each presentation will cover a series of elements, described in the sections below, and will include a combination of hyperlinks to relevant documentation, live demonstrations, screenshots, among other forms of demonstration specified below.

Following the presentation of each demonstration element, USDOT verbal approval will be requested to confirm that all required demonstration elements have been sufficiently addressed. A notetaker from HIRTA and/or Arcadis IBI Group will be present to mark any items that need to be addressed further for approval using the tables included for each presentation.

3.4.1 ORDP-P1: Privacy-Focused Presentation

The intent of the Privacy-Focused presentation is to demonstrate the privacy controls to data collected, stored and used throughout the implementation and evaluation of the Health Connector project. This presentation will cover the following topics as they relate to privacy and are further described in the Phase 2 Data Privacy Plan *[9]*.

Table 81. ORDP-P1: Privacy Focused Demonstration Results

No.	Demonstration Element	Notes	Results
1	Information Security Provisions		

No.	Demonstration Element	Notes	Results
2	Informed Consent Documents		
3	Data Management and Sharing Procedures		
4	IRB Approval		
5	Vendor Policies		

3.4.1.1 Information Security Provisions

This part of the demonstration will focus on the security provisions taken to address security risks associated with each aspect of the system hardware. These hardware systems and security provision demonstration elements are described below:

3.4.1.1.1 Traveler Personal Device

The Traveler Application, which traveler's will deploy from their personal devices will utilize login information that will automatically time out after a designated period of time. A live demonstration of this time out will be performed during the presentation.

3.4.1.1.2 Transit Vehicle On-Board Equipment

Photos of the driver tablets secured to vehicles will be included in the presentation to address security risks related to theft. A link to the training plan which will be used to inform drivers on proper sign-on and sign-off procedures will also be included.

3.4.1.1.3 HIRTA IT Hardware

The presentation will include an overview of the cybersecurity protections used by HIRTA for protection of the HIRTA TMS and Call Center IT equipment, to the extent that is available. This will include measures such as firewalls, cryptography, physical security and privacy preservation.

3.4.1.1.4 Kiosk

Screenshots of the kiosk sign-on page will be included in the presentation to demonstrate privacy of information exchanged with the kiosk and HIRTA TMS. Demonstration of the kiosk booking webpage can also be provided at this stage.

3.4.1.2 Informed Consent Documents

This part of the demonstration will focus on the documentation that will be used to confirm the consent of all users involved in Health Connector. This will include links to the Health Connector registration page, where a Traveler will find the informed consent information related to participation in Health Connector.

3.4.1.3 Data Management and Sharing Procedures

This part of the demonstration will focus on how Health Connector data is stored and shared and the protections in place for those processes. Demonstration may include live demonstrations of data sharing protections between the MOD Platform TMS and ISU.

3.4.1.4 IRB Approval

Two IRBs are in place for Phase 2 which allow for the collection of performance measurement while protecting participant PII. This part of the demonstration will include links to documentation submitted to the IRB for approval, as well as the confirmation of approval from the IRB.

3.4.1.5 Vendor Privacy Policies

The demonstration of Vendor Privacy Policies will include links to HIRTA's privacy policy, as well as screenshots of the privacy policy Travelers will be directed to when installing the Health Connector Traveler application and the wayfinding application. The HIRTA team has confirmed that the vendor's user agreement language aligns with the project needs and establishes sufficient informed content, and therefor will be covered within the agreement presented to Travelers at the time of download.

3.4.2 ORDP-P2: Performance Measurement and Evaluation Support Presentation

The intent of the Performance Measurement and Evaluation Support presentation is to demonstrate the performance measures and processes for evaluation of the Health Connector project. As the performance measures relay on operational data from the system, actual data may or may not be available at the time of the demonstration presentation. The presentation may utilize test data to demonstrate the key data elements and processes that will be used to compute the specified performance measures. This presentation will cover the following topics as they relate to performance measurement and are further described in the Phase 2 PMESP (PMESP)*[3]*.

Table 82. ORDP-P2: Performance Measurement and Evaluation Support Demonstration Results

No.	Demonstration Element	Notes	Results
1	Data collection availability per PMESP		
2	Data Analysis		
3	Data validity and accuracy verification		
4	Test procedures and test cases for performance requirements		

3.4.2.1 Data collection availability per PMESP

This part of the presentation will outline the data sources which will supply the data required to calculate performance measures, as outlined in Table 25 of the PMESP. Screenshots of the user interfaces of data collection systems, including the MOD Platform TMS, surveys, Wayfinding Application, Kiosk, and vendor supplied external systems as available will be included to demonstrate collection processes. Screenshots, exports and/or live demonstration of accessing data contributing to the calculation of performance measurements will also be included. The process for developing the baseline data standards that will be used to evaluate performance data will also be discussed during this part of the presentation.

3.4.2.2 Data analysis

This part of the presentation will include the planned procedures for data analysis once sufficient data becomes available. This will include identification of data elements and algorithms used to compute performance measurements. ISU will lead this portion of analysis.

3.4.2.3 Data validity and accuracy verification

This part of the presentation will outline the approach for demonstrating data validity and accuracy verification once sufficient data becomes available. The following evaluation techniques will be used include to identify data validity, which will be further defined during the presentation:

- Missing Data
- Insufficient Data
- Invalid Data
- Outliers
- Collinearity
- Exposure to Personal Identifiable Information (PII)

3.4.3 ORDP-P3: Institutional Coordination and Agreement Presentation

Table 83. ORDP-P3: Institutional Coordination and Agreement Demonstration Results

No.	Demonstration Element	Notes	Results
1	Agreements, MOUs, and Letters of Support		
2	Reporting Requirements from funding entities		
3	ADA transition plans		

3.4.3.1 Agreements, MOUs, and Letters of Support

This presentation will include links, screenshots, and descriptions of all institutional agreements and formal memorandums of understanding and support letters for the project. An overview of each agreement will be shared.

3.4.3.2 Reporting requirements from funding entities

Reporting requirements from funding entities will be listed in this part of the presentation, as well as an overview of the planned procedures for collection of data and reporting communication with each entity. Links to available agreements with all funding entities will also be included.

3.4.3.3 ADA Transition Plans

The Federal Highway Administration requires states to develop and maintain ADA transition plans, pursuant to the Americans with Disabilities Act or 1990. Included in this part of the presentation will be a link to the recently updated ADA Transition Plan for the Iowa Department of Transportation. The demonstration will cover sections of the plan that are relevant to Health Connector and the steps required to maintain ADA compliance during the operation of Health Connector rides. Some of these sections may include:

- ADA Accommodation during Construction
- Grievance Procedures
- Investigation Process
- Reporting Requirements

3.4.4 ORDP-P4: Maintenance-Oriented Presentation

Further details on system maintenance and operations will be detailed in the Phase 2 Maintenance and Operations plan. For each component below, the presentation will include the identification of entity who will provide maintenance of the component and discussion around ongoing maintenance procedures.

Table 84. ORDP-P4: Maintenance-Oriented Demonstration Results

No.	Demonstration Element	Notes	Results
1	MOD Platform		
2	MOD-EHR Middleware		
3	MOD-Medicaid Middleware		
4	Wayfinding Application and Codes		
5	Kiosk		
6	Infotainment Devices		

3.4.4.1 MOD Platform

The MOD Platform TMS will be maintained by Via, who is the vendor providing the platform to HIRTA.

3.4.4.2 MOD-EHR Middleware

The MOD-EHR Middleware will be maintained by Arcadis IBI Group. This middleware product interfaces with APIs provided by Via, Epic, and Veradigm/AllScripts. These APIs will be each be maintained by owner of the API.

3.4.4.3 MOD-Medicaid Middleware

The MOD-Medicaid Middleware will be maintained by Arcadis IBI Group. This middleware product interfaces with APIs provided by Via and Lyft. These APIs will be each be maintained by owner of the API.

3.4.4.4 Wayfinding Application and Codes

The Wayfinding application will be maintained by NaviLens, the selected wayfinding vendor. Information provided to Travelers via this application will be maintained by HIRTA. NaviLens codes installed at Dallas County Hospital will be maintained by the Healthcare Facility with the support of HIRTA. On-vehicle codes will be maintained by HIRTA.

3.4.4.5 Kiosk

Physical maintenance of the Kiosk installed at Dallas County Hospital will be conducted by RedyRef, the hardware provider, and Dallas County Hospital. Maintenance of the software and backend system for the kiosk will also be the responsibility of RedyRef. Links to any maintenance agreements with RedyRef will be provided.

3.4.4.6 Infotainment Devices

Physical maintenance of the Infotainment Devices installed onboard HIRTA vehicles will be conducted HIRTA with the support of Safe Fleet, the hardware provider. Any links to maintenance agreements with Safe Fleet will be provided.

3.5 Failure and Remediation

Failures will be identified on a step-by-step basis per the demonstration flows identified above. Each failure will be evaluated for severity, categorized as outlined below:

1. **Minor Failure –** A minor failure represents the failure of a demonstration step that will be covered and verified in another scenario and, therefore, does not need to be repeated. This is a failure that would impact the quality of a Traveler's trip rather than overall system performance. The Traveler should still be able to successfully complete a trip in the case of a minor failure. For example, this might be a need to refresh the app in order to get a page to load.

2. **Moderate Failure –** A moderate failure represents the failure of a demonstration step that will need to be repeated for that demonstration. This would include the disruption of actual service with potential downstream or cascading effects. This could include delays which would impact the Traveler's availability to reach their destination at an anticipated time.

3. **Major Failure –** A major failure represents the failure of a demonstration step that would cause the use case covered by the demonstration to not be met. In this case, the entire demonstration must be repeated. A major failure could reflect the culmination of more minor events. This could include missed transportation appointments or significant delays causing a traveler to miss a medical appointment.

3.6 Schedule

The schedule below outlines a high-level overview of the Operational Readiness Demonstration (ORD), including start and end dates, as well as expected on-site locations. An hour-by-hour schedule for the demonstration is attached as appendix C. The commencement of the ORD is contingent on the completion and validation of all test procedures outlined in the ORTP. This will also be contingent on a minimal viable product (MVP) of the middleware products being available. At the time of the demonstration, these products will still rely on test data from sandbox environments. To address schedule slippage during the demonstration, an extra day has been allocated in the case that a demonstration procedure must be repeated.

The schedule will be further refined as HIRTA identifies drivers and vehicles that will be used for testing and test travelers selected.

Table 85. ORDP Schedule

ID	Start Date	End Date	Locations
ORDP-P1-P4	June 20, 2024	June 20, 2024	Virtual Meeting
ORDP-SC4	June 25, 2024	June 25, 2024	Dallas County Hospital Traveler “Home” Location HIRTA Operations Facility
ORDP-SC6	June 25, 2024	June 25, 2024	Dallas County Hospital Traveler “Home” Location Personal Companion “Home” Location HIRTA Operations Facility
ORDP-SC5	June 25, 2024	June 25, 2024	Dallas County Hospital Traveler “Home” Location Pharmacy HIRTA Operations Facility
ORDP-SC13	June 25, 2024	June 25, 2024	Dallas County Hospital Traveler “Home” Location HIRTA Operations Facility

ID	Start Date	End Date	Locations
ORDP-SC1	June 26, 2024	June 26, 2024	Dallas County Hospital Traveler “Home” Location HIRTA Operations Facility
ORDP-SC2	June 26, 2024	June 26, 2024	Dallas County Hospital Traveler “Home” Location HIRTA Operations Facility
ORDP-SC7	June 26, 2024	June 26, 2024	Dallas County Hospital Traveler “Home” Location HIRTA Operations Facility
ORDP-SC9	June 26, 2024	June 26, 2024	Mercy One Traveler “Home” Location HIRTA Operations Facility
ORDP-SC8	June 27, 2024	June 27, 2024	Dallas County Hospital
ORDP-SC3	June 27, 2024	June 27, 2024	Dallas County Hospital Traveler “Home” Location HIRTA Operations Facility
ORDP-SC10	June 27, 2024	June 27, 2024	Mercy One & Dallas County Hospitals Traveler “Home” Location HIRTA Operations Facility
ORDP-SC11	June 27, 2024	June 27, 2024	Mercy One Traveler “Home” Location HIRTA Operations Facility

ID	Start Date	End Date	Locations
ORDP-SC12	June 27, 2024	June 27, 2024	Mercy One Traveler “Home” Location HIRTA Operations Facility

3.7 Risks and Contingencies

Table 86 below provides a list of risks that may impact the successful demonstration of each scenario.

Table 86. ORDP Risks

Risk	Probability	Impact	Contingency
Limitations in the MOD vendor (Via) platform	*Low*	*Medium*	*The team does not expect this issue to occur as Via was thoroughly vetted during the procurement process. All requirements are part of the vendor contract. However, we could run into “edge” cases that vendor is not be able to meet. The team has been conducting design discussions to identify such cases early on. The fact that HIRTA is already a user, some of the expected issues are already known and the team will be looking to address those ahead of the launch.*
Development/ testing of middleware products may be delayed	*Low*	*High*	*HIRTA team has encountered delays in finding the right staff at partner organizations. While other details related to APIs and data exchange are still being explored, the team at this point is confident about setting up a sandbox environment soon to start the development process. However, the team will be monitoring the development and share with the USDOT team if the risk is elevated.*
Data quality/quantity may not be sufficient for conclusive findings	*Medium*	*Medium*	*While the team has discussed data availability with partners, it is hard to foresee any issues that might emerge related to data, particularly if participation is low. We are actively having these discussions in the context of PMESP and will notify the USDOT if any issues are encountered.*
Wayfinding aspect cannot be tested due to lack of partner cooperation	*Medium*	*Medium*	*While the team has been engaging with at least 1 provider and discussing with another, wayfinding solution is dependent on cooperation on healthcare facility executives. So far, we have the assurance but monitoring this risk.*

Risk	Probability	Impact	Contingency
Participant recruitment is not as expected	*Medium*	*High*	*While project team is planning to start with existing HIRTA customers, participation could be low. The team is already engaging in outreach activities to generate the interest to ensure a minimum target number is achieved prior to launch.*
Healthcare partners don't intend to continue	*Low*	*High*	*HIRTA team has struggled to keep healthcare partners engaged. However, we are seeing a lot more interest as we are heading into deployment phase and hope to continue that through continuous stakeholder engagement activities, which are often offline.*
Funding may not be sufficient to fully complete the project	*Low*	*Medium*	*Most of our cost-estimation was done prior to Phase 1 when the project was in only concept phase and requirements for documentation and the extent of required systems engineering was unknown. So, it is likely that HIRTA team may fall short on funds. However, we are monitoring expenses on a monthly basis for all partners and currently any risk is low. HIRTA team also has ~$100K in contingency funds which would be used in such situation. We may have to use this given we have extended by Phase 2 by 6 months.*
Outreach materials may need more funds	*Low*	*Low*	*Non-federal funds may be pursued.*

3.8 Approvals

Provided below is a list of individuals who can sign off to confirm that the demonstrations are complete. All signatures indicate acceptance of the demonstration plan.

Table 87. ORDP Approvals

Organization	Sign-off Date
HIRTA:	**Date**:
Arcadis:	**Date:**

Organization	Sign-off Date
Flexlynqs:	**Date:**
USDOT:	**Date:**

4 References

[1] Phase 1 Concept of Operations (FHWA-JPO-21-859) https://rosap.ntl.bts.gov/view/dot/57469 (to be updated)

[2] Phase 1 Systems Requirements Specifications (SyRS) Document (FHWA-JPO-21-882) https://rosap.ntl.bts.gov/view/dot/61724 (to be updated)

[3] Phase 1 Performance Measurement and Evaluation Support Plan (PMESP) (FHWA-JPO-21-877) https://rosap.ntl.bts.gov/view/dot/60580 (to be updated)

[4] Phase 2 System Requirements Matrix

[5] Phase 2 System Test Plan (to be published)

[6] Phase 2 System Design Document (SDD) (to be published)

[7] Phase 2 Interface Control Document (ICD) (to be published)

[8] Phase 1 Safety Management Plan (SMP) ((FHWA-JPO-21-872) https://rosap.ntl.bts.gov/view/dot/58323

[9] Phase 2 Data Privacy Plan (DPP) (to be published)

[10] Phase 2 Data Management Plan (DMP) (to be published)

Appendix A. Definitions, Acronyms, and Abbreviations

Term	Name	Description
Access2Care		A transportation broker for State of Iowa Medicaid program that performs booking and scheduling and works with service providers such as HIRTA for successful delivery of Medicaid-eligible trips.
API	Application Programming Interface	Software interface that allows two devices or applications to exchange data with each other
Billing		Refers to the process of invoicing third-party funding sources (e.g., Medicaid) after a successful delivery of a trip. Billing is typically done on a monthly basis.
ConOps	Concept of Operations	Documents the Health Connector concept
CR	Contract Review	Refers to requirement verification method that is verified by review of contractual specifications
DCHD	Dallas County Health Department	One of the project Partners who will lead integration with health care services.
Dispatching		Refers to an operations management function which involves assigning vehicle, tracking fleet location, managing schedule adherence, managing trip manifests and other operational functions.
DR	Design Review	Refers to requirement verification method that is verified by review of design specifications outlined in the System Design Document (SDD)
EHR	Electronic Healthcare Record	Refers to the healthcare information management system used by hospitals for patients' healthcare-related appointments, transactions, and records management
HIRTA	Heart of Iowa Regional Transit Agency	Rural, regional public transit agency in central Iowa. HIRTA will serve as Proposer/Applicant for the ITS4US project.
I	Inspection	Refers to requirement verification method that is verified by visual inspection

Term	Name	Description
ICD	Interface Control Document	The Interface Control Document describes the data flows and sub flows between systems in detail
KPI	Key Performance Indicators	Represents primary metrics used to assess the success of a project or operations
MOD	Mobility-On-Demand	Refers to the ability of individuals to utilize varying transportation modes to make their journeys more efficient or complete
ORP	Operational Readiness Plan	Refers to the outline of tests and supporting demonstrations required to verify the Health Connector System's readiness to transition into an operational state.
ORTP	Operational Readiness Test Plan	
ORDP	Operational Readiness Demonstration Plan	
PMESP	Performance Measurement and Evaluation Support Plan	Documents the KPIs, targets, goals, and objectives that will be evaluated as the project launches
RTM	Requirements Traceability Matrix	Refers to the document that is used to trace requirements related to Health Connector
RV	Report Verification	Refers to requirement verification method that is verified by review of published reports
SDD	System Design Document	Describes the overall system for Health Connector's mobility on demand solution
SyRS	System Requirements Specifications	Refers to the requirements developed to guide implementation of the system
STP	System Test Plan	Defines the system test strategy for the program
TMS	Transportation Management System	Refers to the technologies used to assist customer care and operations staff with Traveler registration, eligibility management, reservations, scheduling, dispatching, billing, and administration activities.
TR	Test Result	Refers to a result from a performed test

Term	Name	Description
USDOT	United States Department of Transportation	Executive department of the Federal government that will serve as a funding entity for the Health Connector project
Vehicle Subsystem		Refers to the technologies deployed on vehicles to support driver-end functions for driver-dispatch communications, manifest management, support just-in-time dispatching, wayfinding (e.g., to locate Travelers at the time of pickup), on-board information and fare payments.
VOC	Via Central Software	Central operations software used by HIRTA operations for scheduling, dispatching, ride monitoring and reporting
VSR	Vendor Specification Review	Refers to requirement verification method that is verified by specifications or approaches written by 3rd party software or hardware providers
Wayfinding Subsystem		Refers to the technologies and infrastructure to be used for providing outdoor wayfinding, indoor positioning, orientation, and guidance on request to travelers.

Appendix B. Requirements Matrix (RTM)

The RTM can be found as an attachment to this file.

Appendix C. Detailed ORDP Schedule

The ORDP Schedule can be found as an attachment to this file.

U.S. Department of Transportation
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