Health Connector: Designing for a Complete Mobility Experience

Heart of Iowa Regional Transit Agency

September 19th, 2023

Agenda

- **Purpose of this Webinar**
  - This webinar will provide an overview of Health Connector system design, and discuss the various tools and technologies being connected and integrated to help travelers get to and from healthcare destinations.

- **Webinar Content**
  - ITS4US Deployment Program Overview (*Mike Barry, FHWA*)
  - Health Connector Project Overview (*Brooke Ramsey, HIRTA*)
  - Operational Scenarios (*Josh Albertson, Arcadis IBI Group*)
  - Via MOD Platform Overview (*Rachel Birnbaum/Jen Thompson, Via*)
  - Wayfinding Tools and Technologies (*Josh Albertson, Arcadis IBI Group*)
  - Middleware Development and Connection to External Systems (*Josh Albertson, Arcadis IBI Group*)
  - Stakeholder Q&A
  - How to Stay Connected (*Mike Barry*)

- **Webinar Protocol**
  - Please mute your phone during the entire webinar
  - You are welcome to ask questions via chatbox at the Q&A Section
  - The webinar recording and the presentation material will be posted on the ITS4US website

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Source: Mike Barry

Mike Barry

Transportation Specialist, Site AOR

FHWA Office of Planning

U.S. Department of Transportation
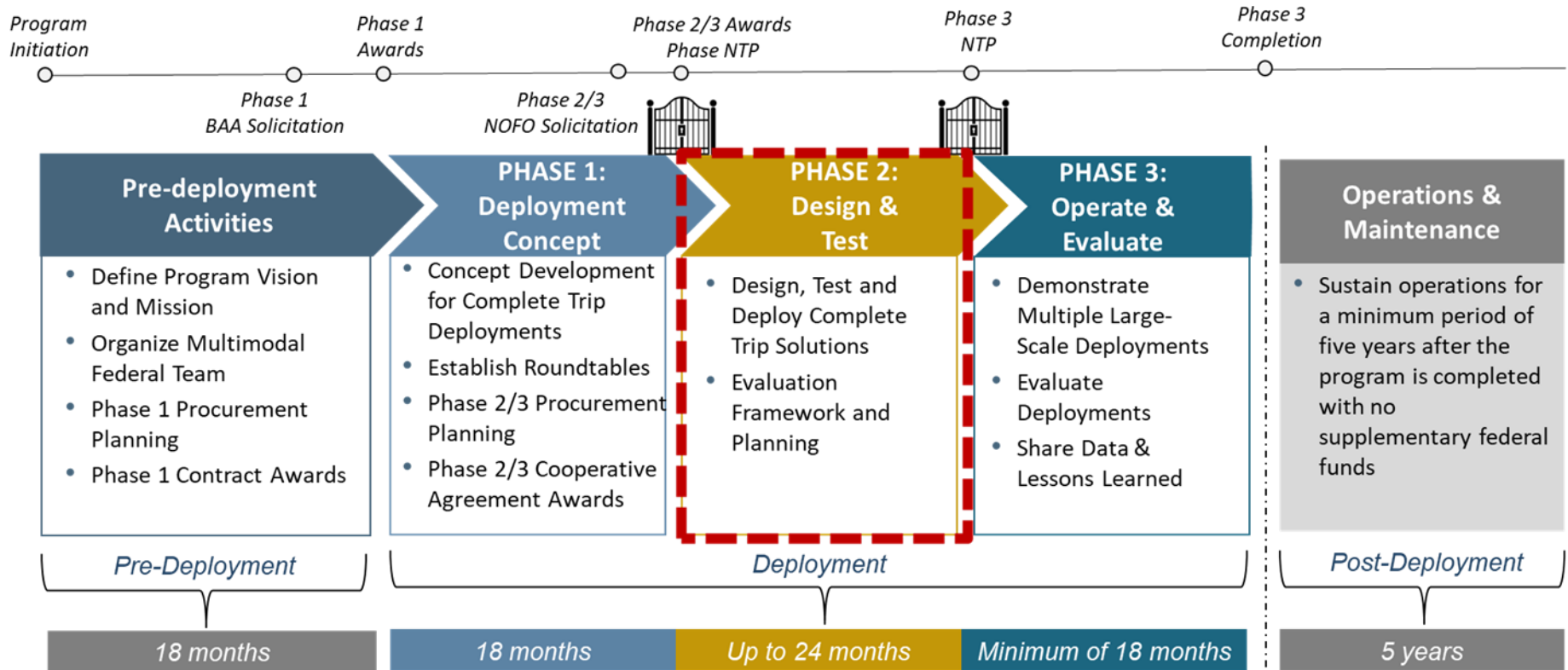**ITS Joint Program Office**

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ITS4US Program Overview

- A USDOT Multimodal Deployment effort, led by ITS JPO and supported by OST, FHWA and FTA
- Supports multiple large-scale replicable deployments to address the challenges of planning and executing all segments of a complete trip
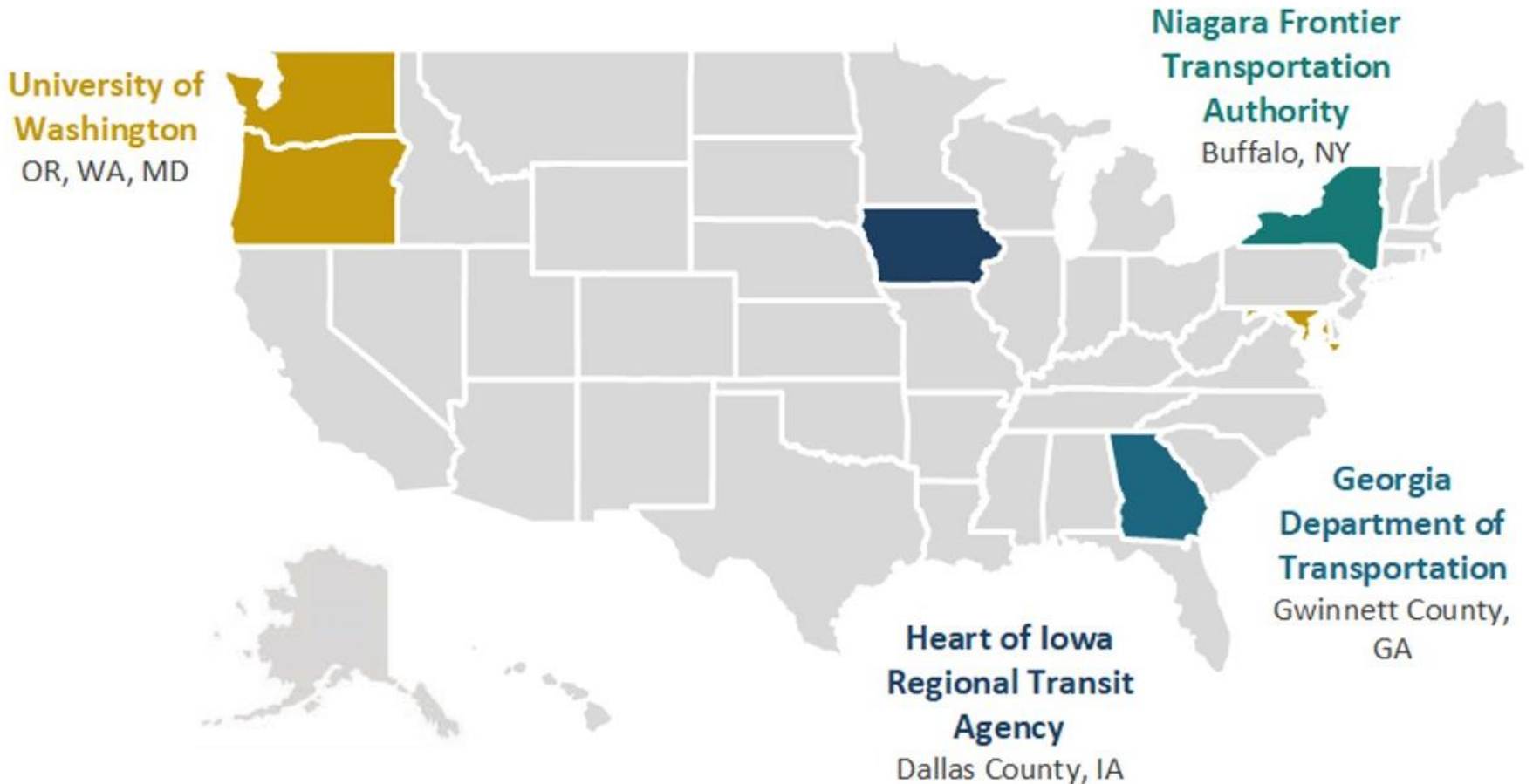

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IT'S TRANSPORTATION FOR ALL OF US

Vision: Innovative and integrated complete trip deployments to support seamless travel for all users across all modes, regardless of location, income, or disability

Deployment Phases

Source: USDOT

ITS4US Deployment Sites

University of Washington
OR, WA, MD

Niagara Frontier Transportation Authority
Buffalo, NY

Georgia Department of Transportation
Gwinnett County, GA

Heart of Iowa Regional Transit Agency
Dallas County, IA

Source: USDOT

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ITS4US Team Photo Collage

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U.S. Department of Transportation
ITS Joint Program Office

Source: Brooke Ramsey

Brooke Ramsey

Project Management Lead

Heart of Iowa Regional Transit Agency

U.S. Department of Transportation
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Josh Albertson

Technical Lead

Arcadis IBI Group

Source: Josh Albertson

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Source: Jen Thompson

Jen Thompson

Global Director, Partner Success

Via Transportation

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Health Connector for the Most Vulnerable

- Deployment area: Dallas County, Iowa

- Implement a scalable and replicable solution enabling transportation access to healthcare for all underserved populations and their caregivers

  - Use advanced technologies to resolve barriers

- Include information and wayfinding services to guide each step of user's trip

- Provide enhanced access to healthcare options for all travelers in Dallas County, a mostly rural county
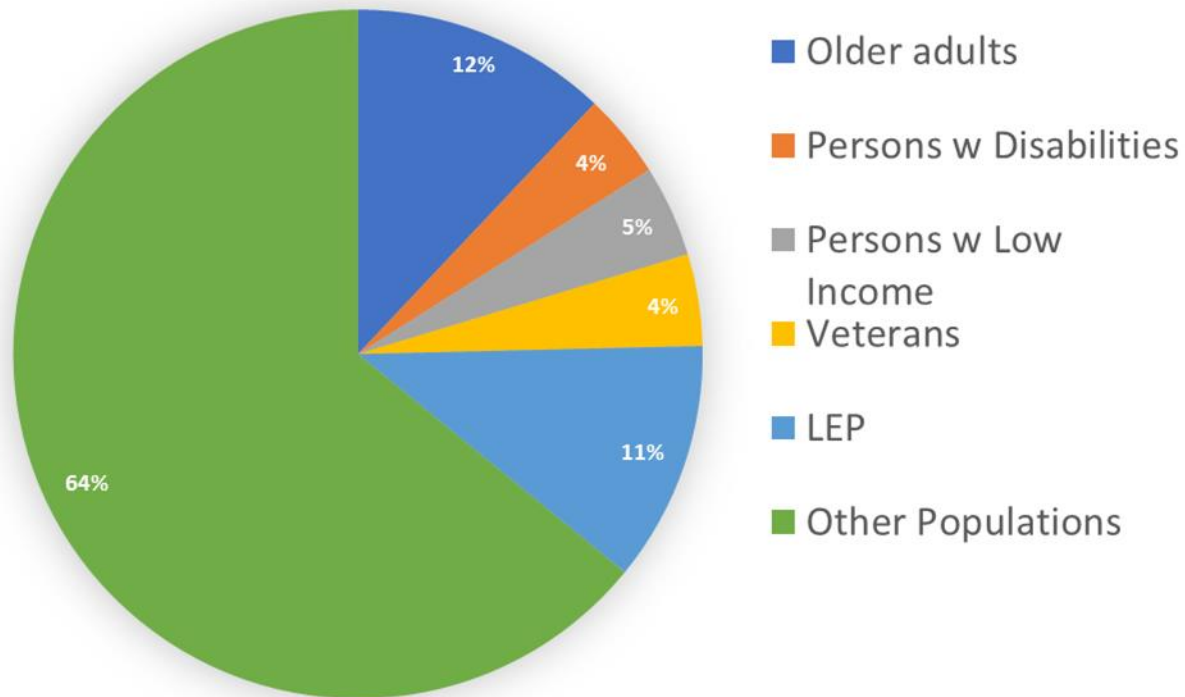
System Vision
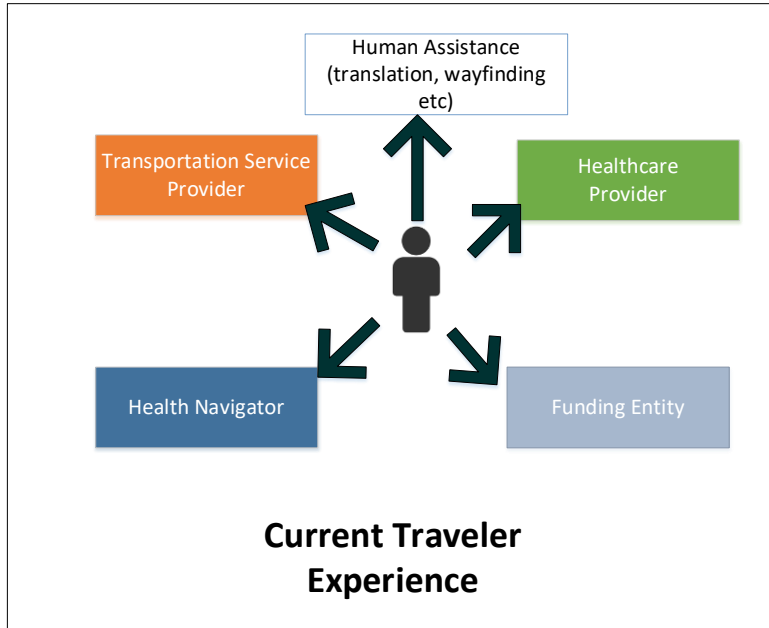
Source: HIRTA
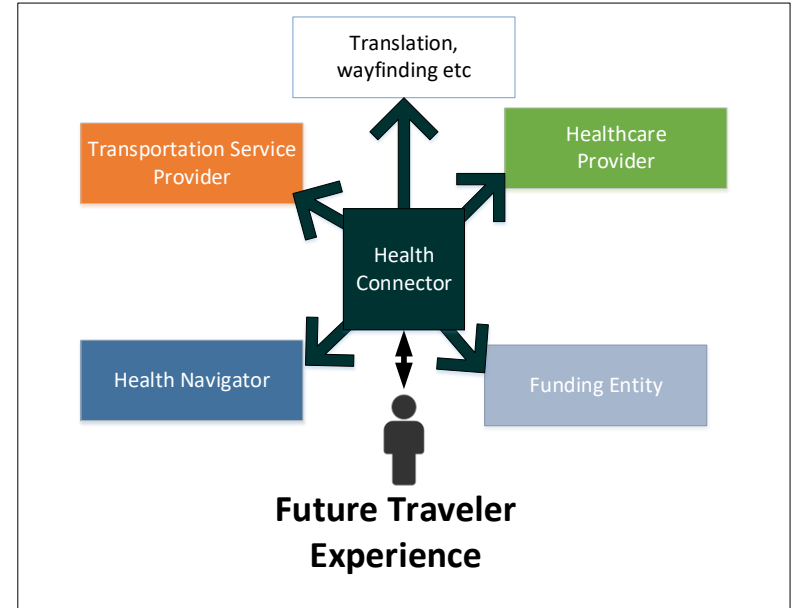
HIRTA and Dallas County Overview

- HIRTA provides demand response services to population in 7 county areas, including Dallas County

- Dallas County grew 36% in the last decade

- Coordination of medical transportation services for underserved a major challenge

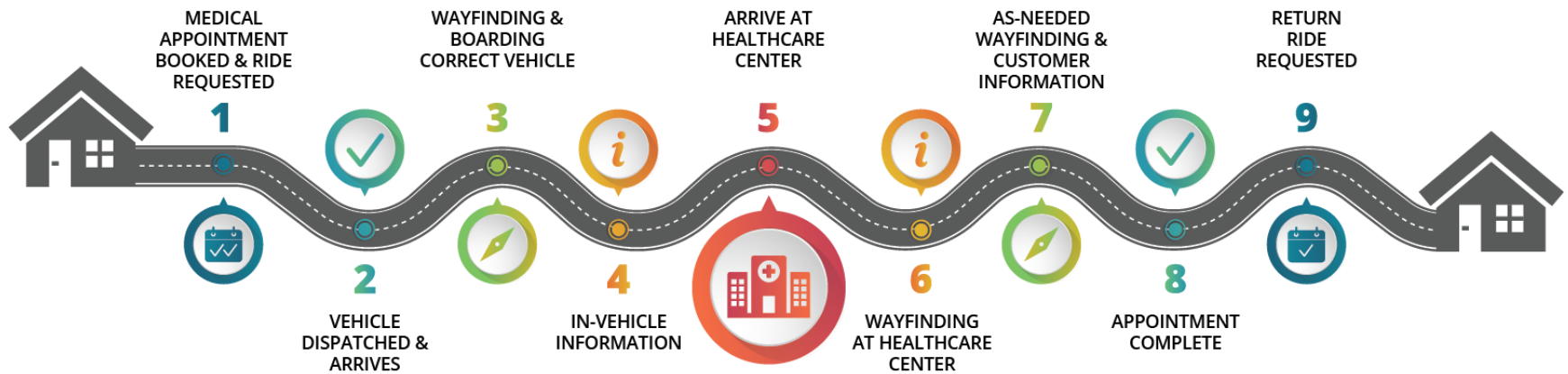# Dallas County Underserved Population

- Older adults — 12%
- Persons w Disabilities — 4%
- Persons w Low Income — 5%
- Veterans — 4%
- LEP — 11%
- Other Populations — 64%

Source: HIRTA

High-Level Findings from Stakeholders

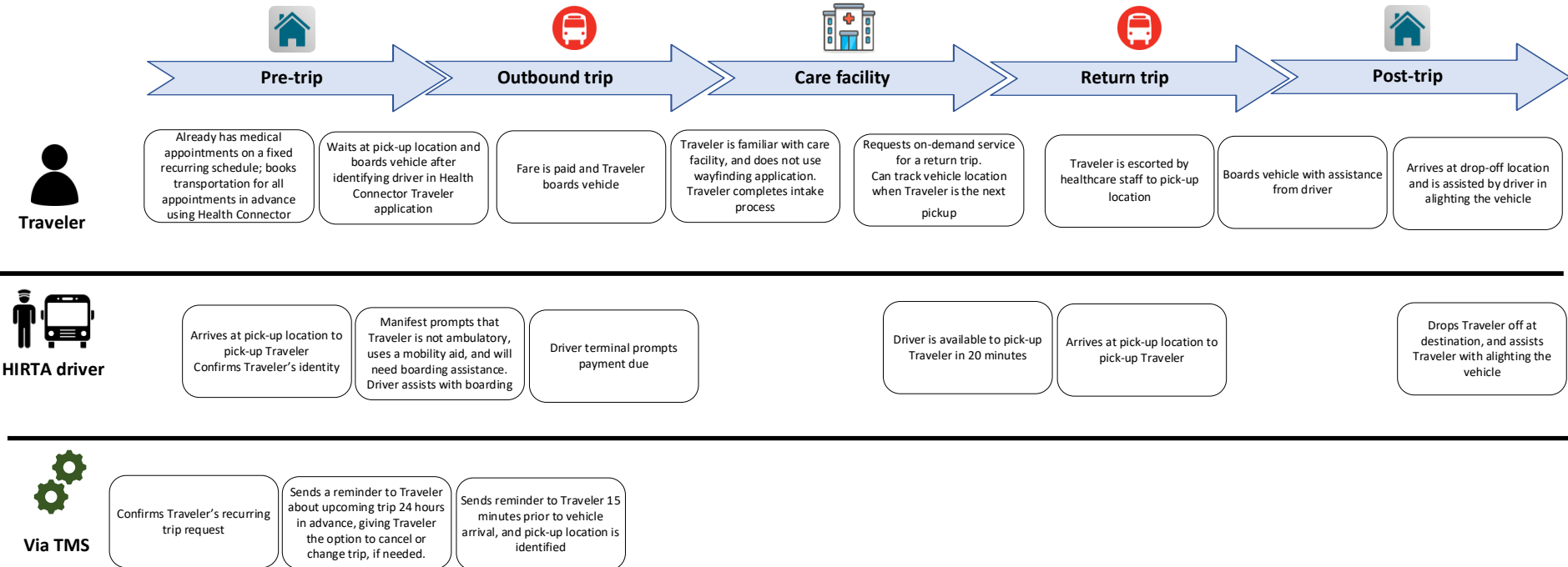- Lack of awareness on transportation options

- Lack of integrated booking and trip management experience

- Limited capabilities in current modes to meet the needs of underserved

- Limited wayfinding capabilities

- Service management challenges with return trips

- Same day and after hour service issues

- Limited data sharing and reporting to measure the performance of healthcare transportation

Concept Overview

1. MEDICAL APPOINTMENT BOOKED & RIDE REQUESTED
2. VEHICLE DISPATCHED & ARRIVES
3. WAYFINDING & BOARDING CORRECT VEHICLE
4. IN-VEHICLE INFORMATION
5. ARRIVE AT HEALTHCARE CENTER
6. WAYFINDING AT HEALTHCARE CENTER
7. AS-NEEDED WAYFINDING & CUSTOMER INFORMATION
8. APPOINTMENT COMPLETE
9. RETURN RIDE REQUESTED

Source: HIRTA

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Operational Scenarios

	Pre-trip	Outbound trip	Care facility	Return trip	Post-trip

Traveler

- Already has medical appointments on a fixed recurring schedule; books transportation for all appointments in advance using Health Connector
- Waits at pick-up location and boards vehicle after identifying driver in Health Connector Traveler application
- Fare is paid and Traveler boards vehicle
- Traveler is familiar with care facility, and does not use wayfinding application. Traveler completes intake process
- Requests on-demand service for a return trip. Can track vehicle location when Traveler is the next pickup
- Traveler is escorted by healthcare staff to pick-up location
- Boards vehicle with assistance from driver
- Arrives at drop-off location and is assisted by driver in alighting the vehicle

HIRTA driver

- Arrives at pick-up location to pick-up Traveler Confirms Traveler's identity
- Manifest prompts that Traveler is not ambulatory, uses a mobility aid, and will need boarding assistance. Driver assists with boarding
- Driver terminal prompts payment due
- Driver is available to pick-up Traveler in 20 minutes
- Arrives at pick-up location to pick-up Traveler
- Drops Traveler off at destination, and assists Traveler with alighting the vehicle

Via TMS

- Confirms Traveler's recurring trip request
- Sends a reminder to Traveler about upcoming trip 24 hours in advance, giving Traveler the option to cancel or change trip, if needed.
- Sends reminder to Traveler 15 minutes prior to vehicle arrival, and pick-up location is identified

What If?

1. **What if the Traveler does not know the location of the doctor's office?**
   Traveler can open the wayfinding application for turn-by-turn guidance
2. **What if the Traveler wants to book a return trip at the same time as booking their appointment?**
   Traveler may book a return trip at the same time as booking an appointment and has the option to cancel and rebook it if there is any delay in treatment
3. **What if the Traveler has complications booking a return trip themselves?**
   Traveler may ask a healthcare customer service representative to book a return trip for them
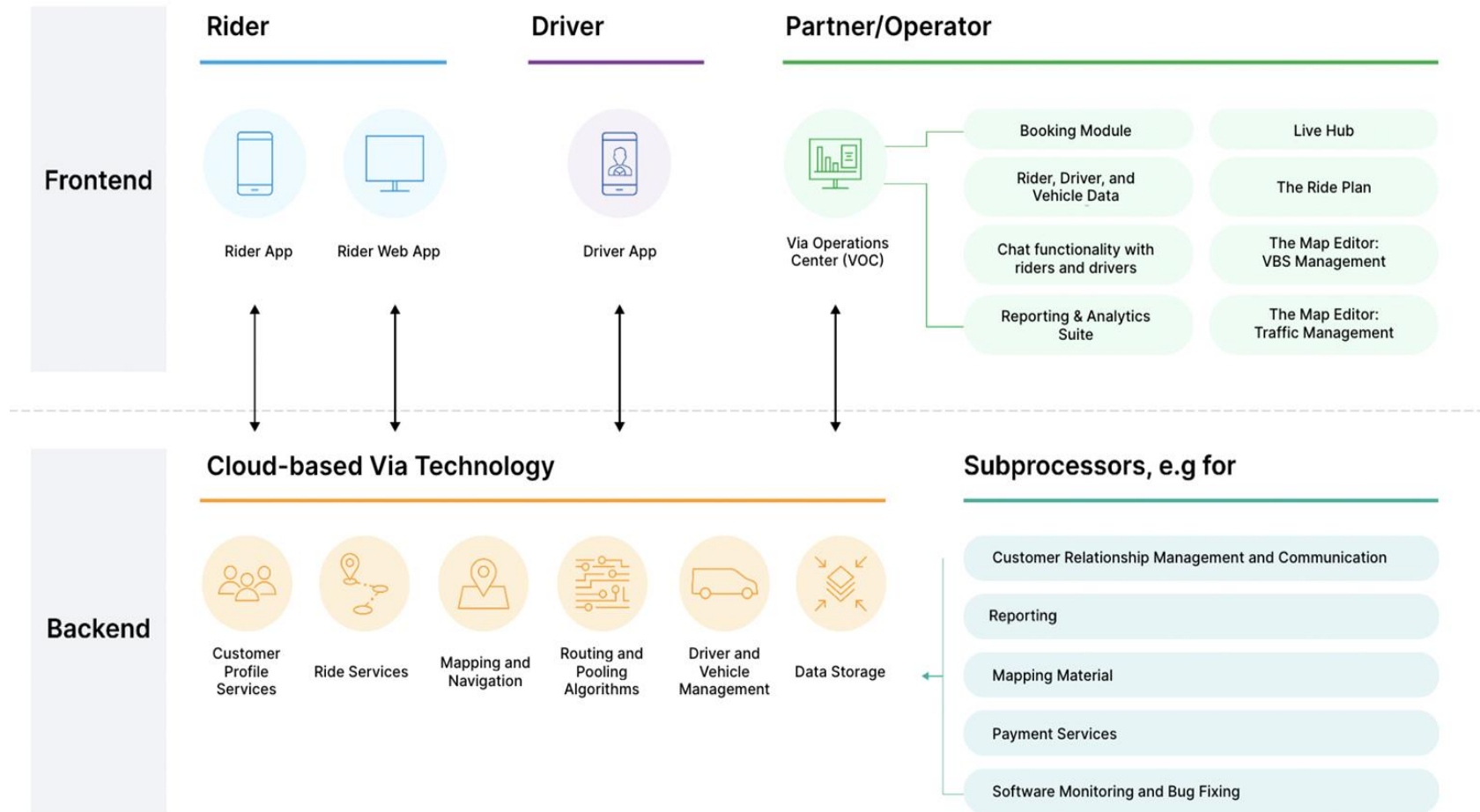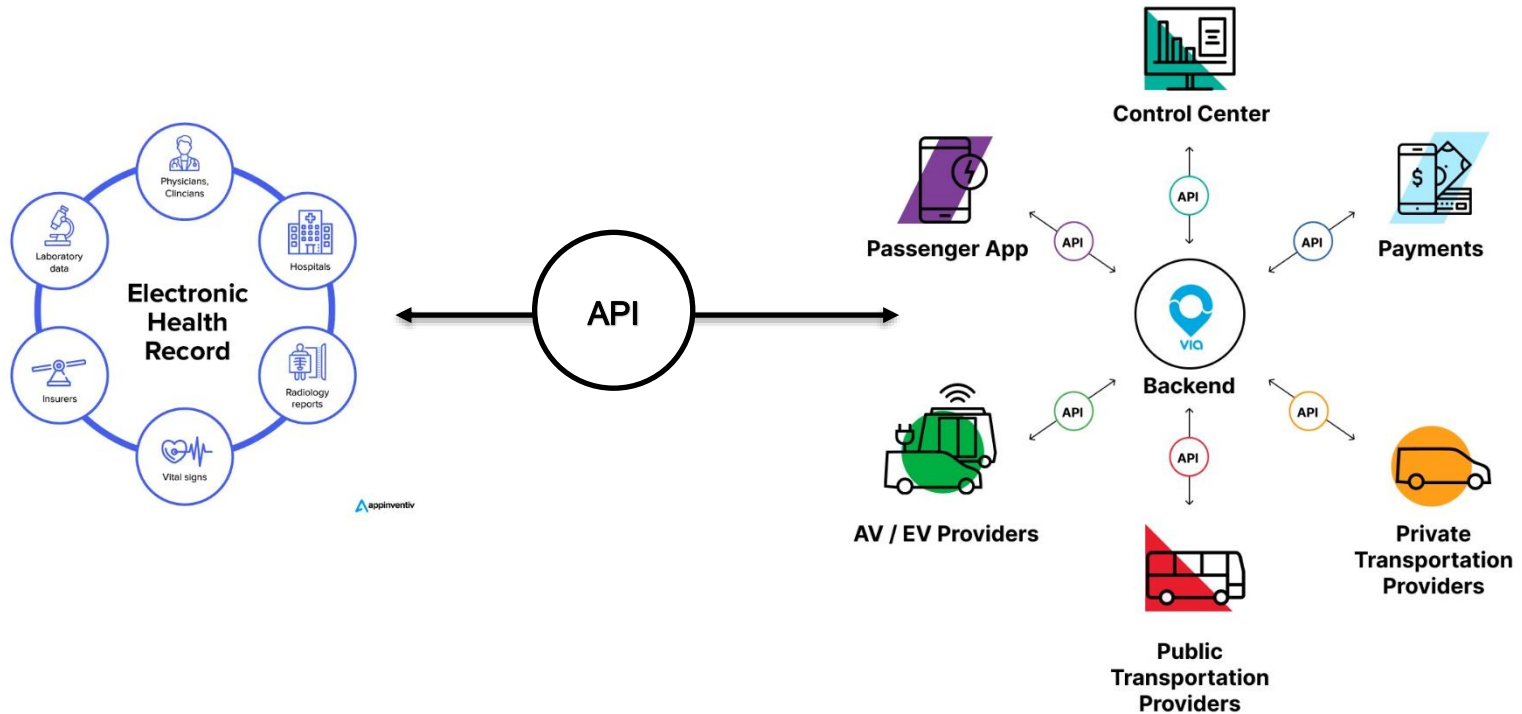
Source: HIRTA

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System of Interest
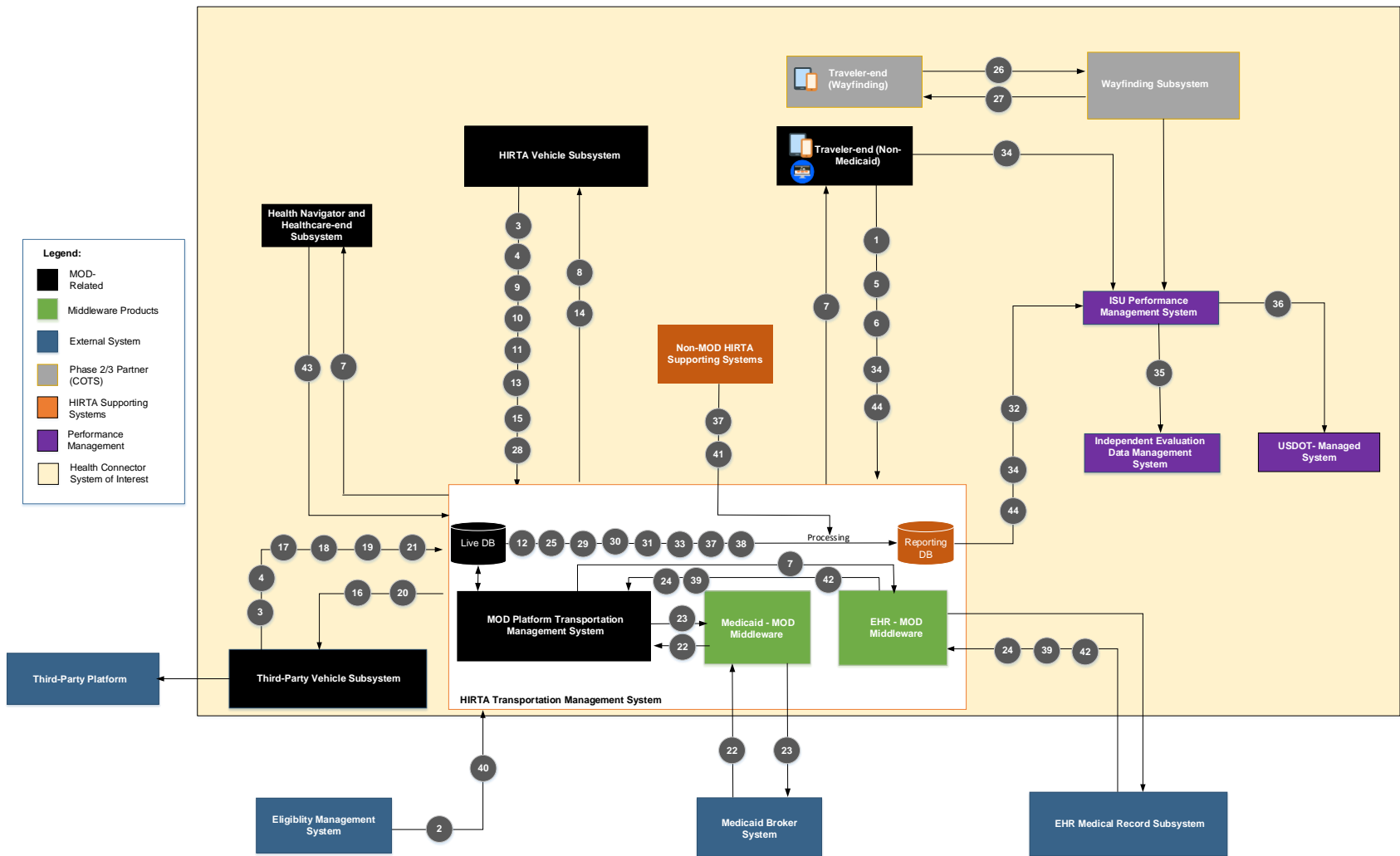
Source: HIRTA

# Via System Overview (1/2)

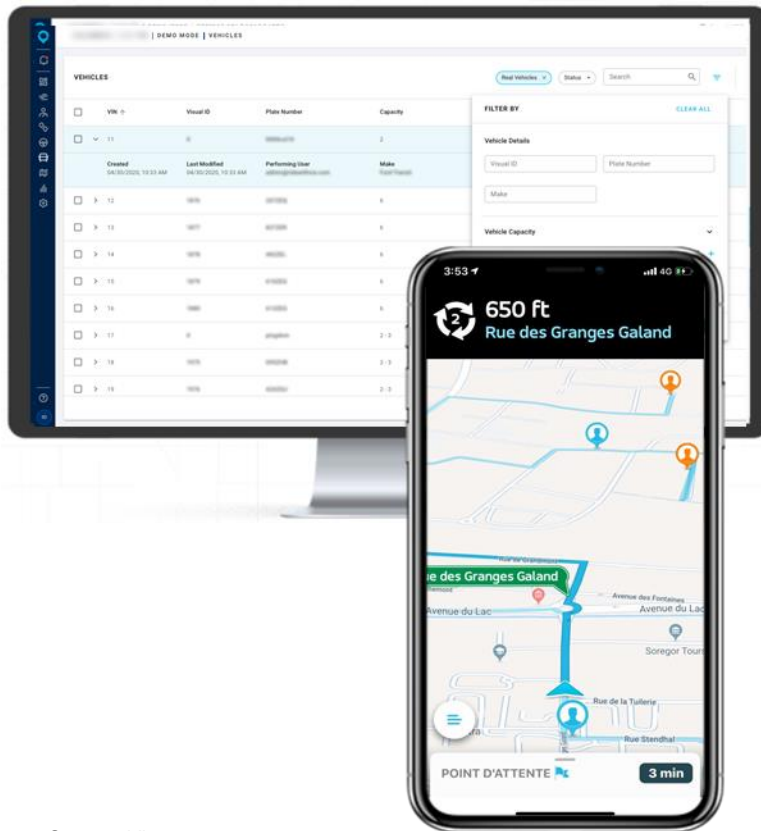*Source: Via*

Via System Overview (2/2)

Source: Via

Rider Application

- The rider app (and complimentary webapp) bring the "on-demand" experience to the rider's fingertips by allowing them to book and manage their rides and accounts on their schedule. It then feeds that information to the operations system in real time. Riders can receive automated communications via rider app (or related channels) to confirm transport pick up times and other request details.

- App design improves accessibility, reduces friction for riders, and leads to higher usage and a better rider experience by bringing service design to life.
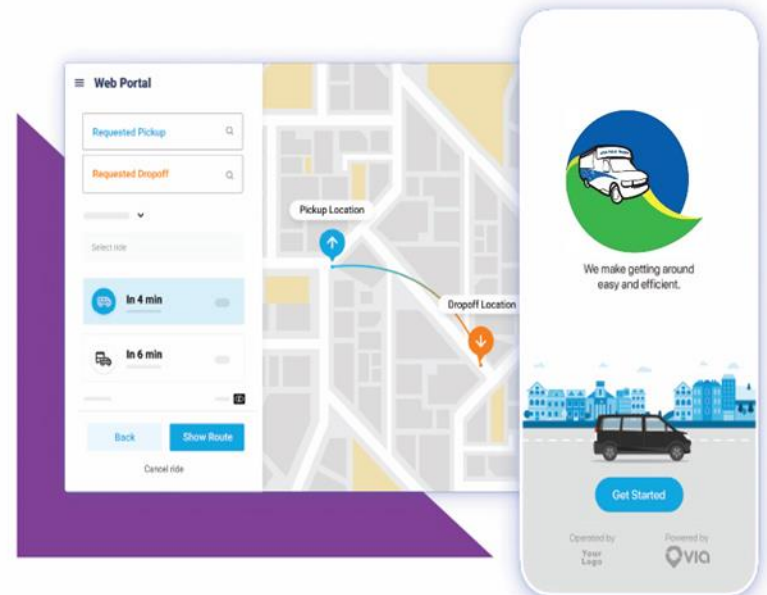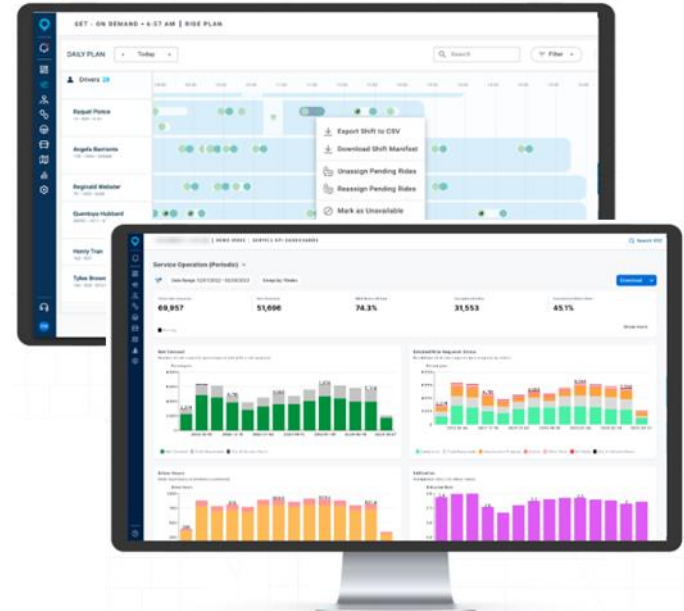

Source: Via

Driver Application

Source: Via

- The Via driver solution features turn-by-turn routing, and view into daily driver tasks and manifest to share important shift details while being hands free.

- The application is configurable to allow drivers to stay in contact with riders and dispatchers over the course of their day.

- Operations staff can make changes to the backend in real-time (dealing with live ops changes) that feed directly into the driver app without interference.

Via Operations Center

- The VOC is the central dispatching, operations, and reporting module, providing partners with a one-stop shop for service management across modes with streamlined booking, service monitoring, schedule management, and communication.

- The VOC also provides the central booking portal for dispatchers to manage rider accounts and book/edit ride requests.

- Staff can manage live operations through the VOC to take actions (i.e. ride reassignment, updating shifts) and follow the day's shift plan optimized by ViaAlgo.

Source: Via

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Wayfinding Technology – NaviLens (1/2)

- Technology and infrastructure used to provide outdoor wayfinding, indoor positioning, orientation and translation on request to Travelers

- Travelers will be able to use any camera-enabled smart device to scan "QR" codes using the Navilens or Navilens Go app

- Some static codes are free and can be downloaded online, others can be more dynamic
  - Central software that provides capability to change and update dynamic codes
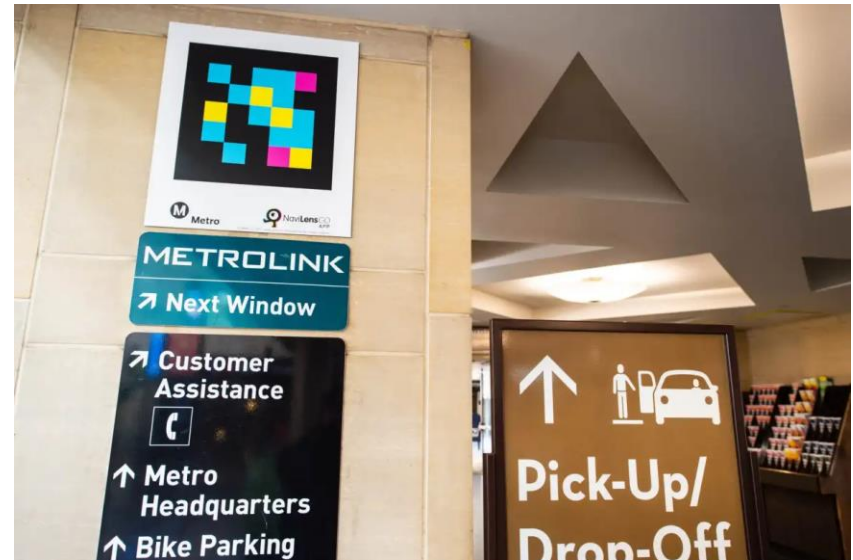

Source: NaviLens

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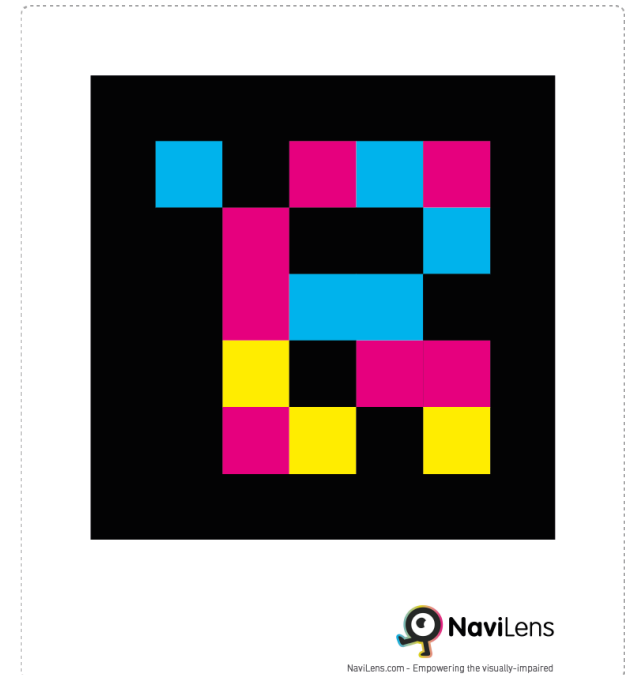
Wayfinding Technology – NaviLens (2/2)

Use Cases:

- Translation of signs

- Navigation to Check-In Desk

- Amending Directions

- Navigation to a Pickup Location

- Navigation to a Specific Vehicle

Source: NaviLens

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MOD-EHR Middleware

- The MOD-EHR Middleware is an open-source product that will allow data exchange between Via and an EHR system (likely Epic)
- A read-only webpage will use the data available through the middleware to provide relevant information in real-time to HIRTA staff and healthcare partner staff. Any confidential or private information will be masked/anonymized to comply with the Health Insurance Portability and Accountability Act of 1996(HIPAA) and protect Personally Identifiable Information (PII).
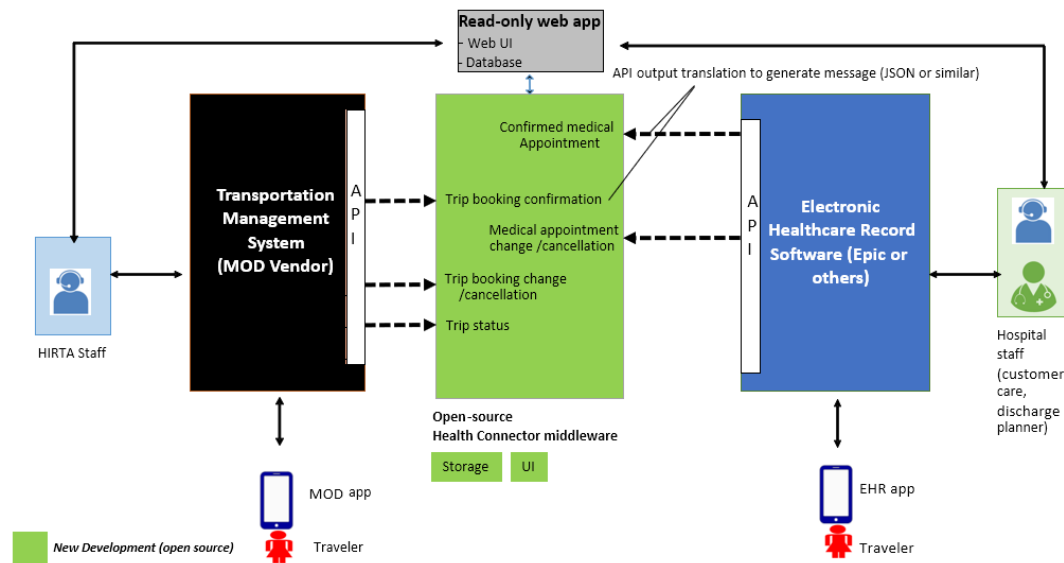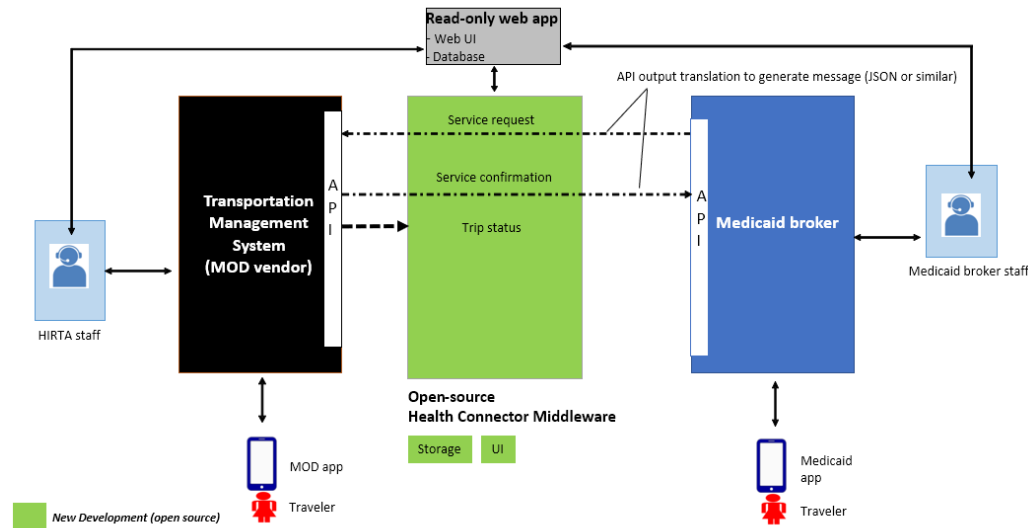

Source: HIRTA

MOD-EHR Web Application

Customer	Med Appointment		Transportation Status			
	Time	Location	Status	Drop Off Time	Drop Off Spot	Driver/Vehicle
John T.	10:00 Am	123 Main St	Scheduled	9:50 AM	DCH A2	TBD
Meg. A.	2:15 PM	123 MLK Blvd	Confirmed	9:55 AM	UPH A1	Driver 3/ 1751
Paul. T.	4:15 PM	123 MLK Blvd	Not Requested	TBD	TBD	TBD

Source: HIRTA

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MOD-Medicaid Middleware

- Access2Care uses its own proprietary application to schedule Medicaid-funded trips for its customers
  - Access2Care requires that all trips that are Medicaid-eligible are booked through their system
  - Once the trips are scheduled, Access2Care makes trips available to service providers such as HIRTA for service delivery 24 hours in advance
- HIRTA dispatch staff check on those trips daily and enter them into the Via system and manages them
  - Once the trips are completed, HIRTA enters the details in the online portal provided by Access2Care
  - Medicaid trips make up about 20% of HIRTA's total trip volume.

Source: HIRTA

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MOD-Medicaid Web Application

Customer	Location		Transportation Status			
	Pickup	Dropoff	Status	Drop Off Time	Drop Off Spot	Driver/Vehicle
John T.	Loc 1	Loc 2	Scheduled	9:50 AM	DCH A2	TBD
Meg. A.	Loc x	Loc y	Confirmed	9:55 AM	UPH A1	Driver 3/ 1751
Paul. T.			TBD	TBD	TBD	TBD

Source: HIRTA

Supporting Systems

- **Eligibility Management System**
  - Refers to funding sources that can be applied to Health Connector rides.

- **Medicaid Broker System**
  - Refers to Access2Care itself which has independent resources and application

- **Third-Party Systems**
  - Refers to support systems for vehicles/drivers used by Health Connector that are not operated by HIRTA (i.e., TNC central operations)

- **EHR Medical Record System**
  - Refers to the system(s) used by partner hospitals and clinics for booking medical appointments and maintaining their appointments, including discharge and any subsequent referral activities

Stakeholder Q&A

- Please keep your phone muted

- Please use chat box to ask questions

- Questions will be answered in the order in which they were received

Stay Connected

For more information please contact:

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Visit the ITS4US Deployment Program Website:

https://its.dot.gov/its4us/

ITS4US Deployment Program Video

https://youtu.be/pztI1lRyXAc

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