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Heart of Iowa Regional Transit Agency Phase 1 Integrated Complete Trip Deployment Plan Webinar

April 12, 2022

Agenda

- ## Purpose of this Webinar

  - To share the submitted Integrated Complete Trip Deployment Plan from Heart of Iowa Regional Transit Agency (*HIRTA)* with the stakeholders of the project and ITS4US community.

- ## Webinar Content

  - Complete Trip – ITS4US Deployment Program Overview (*Fred Bowers*)
  - Site Orientation & Deployment Concept Overview (*Brooke Ramsey, Steve Wilks*)
  - Integrated Complete Trip Deployment Plan (*Santosh Mishra*)
  - Stakeholder Q&A
  - How to Stay Connected (*Fred Bowers)*
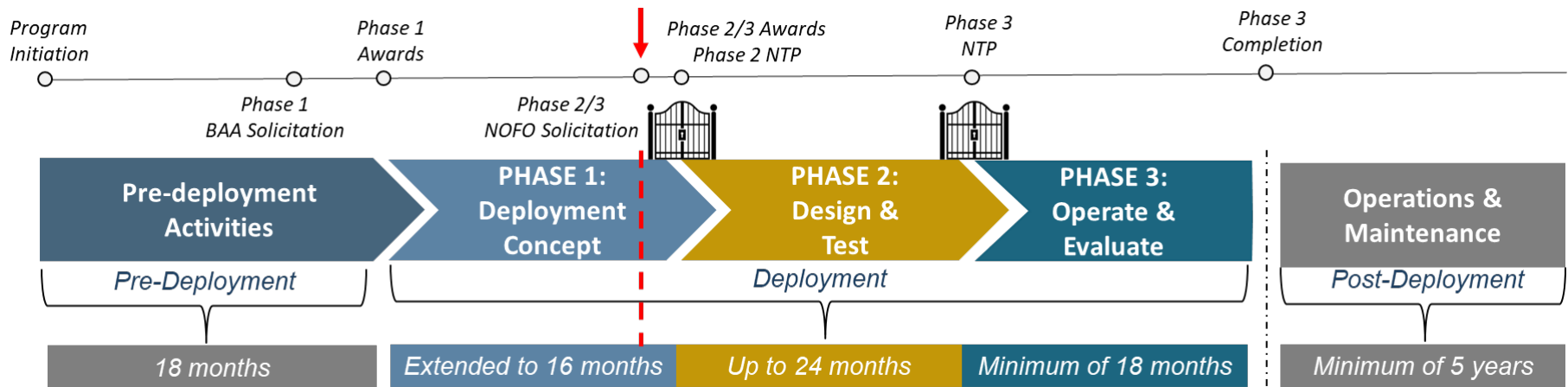
- ## Webinar Protocol

  - You are welcome to ask questions via chatbox.
  - The webinar recording and the presentation material will be posted on the ITS4US website.
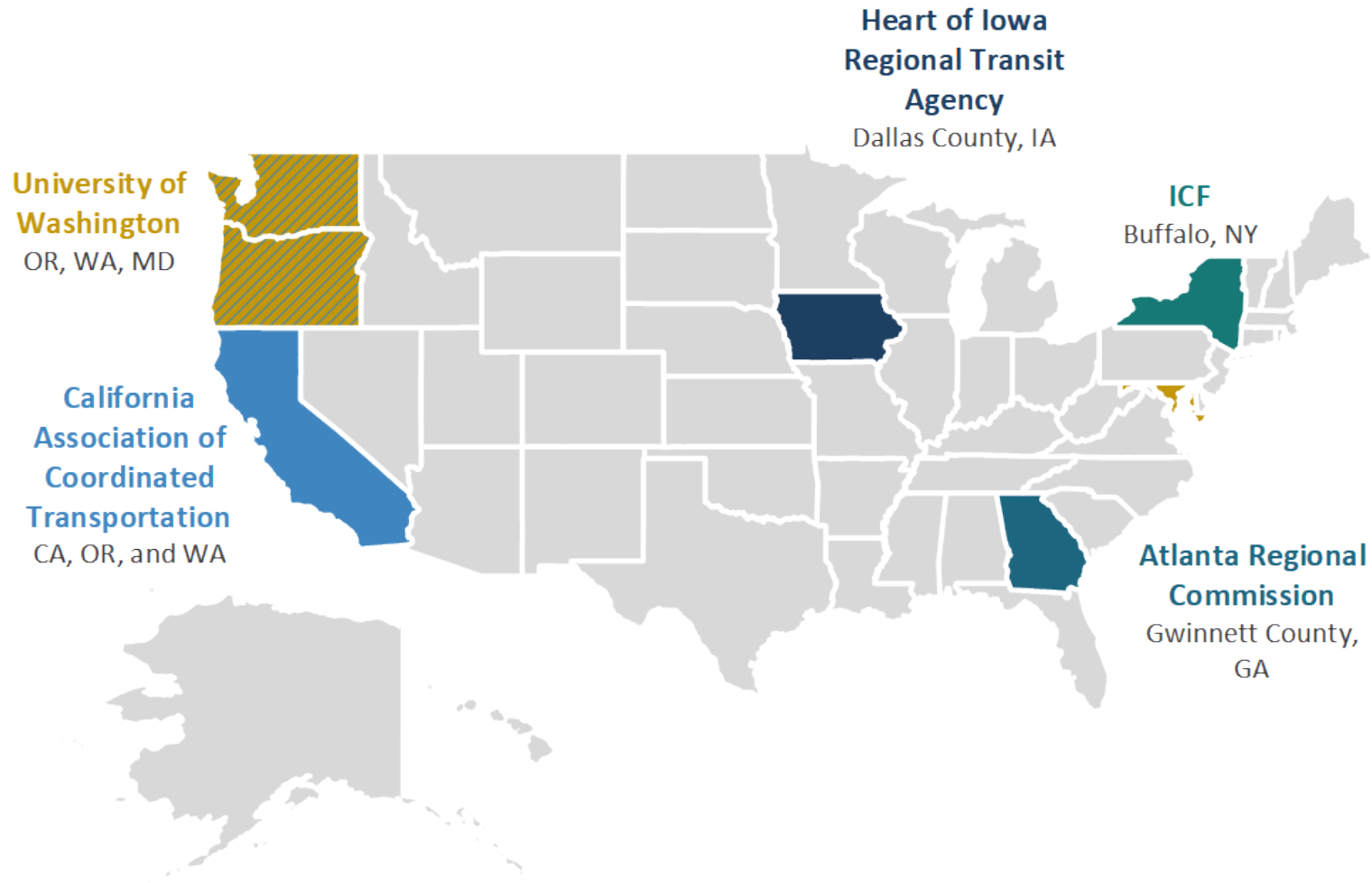
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Program Overview

Fred Bowers, Site COR

ITS4US Deployment 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

Complete Trip Phase 1 Awardees

Heart of Iowa Regional Transit Agency
Dallas County, IA

University of Washington
OR, WA, MD

ICF
Buffalo, NY

California Association of Coordinated Transportation
CA, OR, and WA

Atlanta Regional Commission
Gwinnett County, GA

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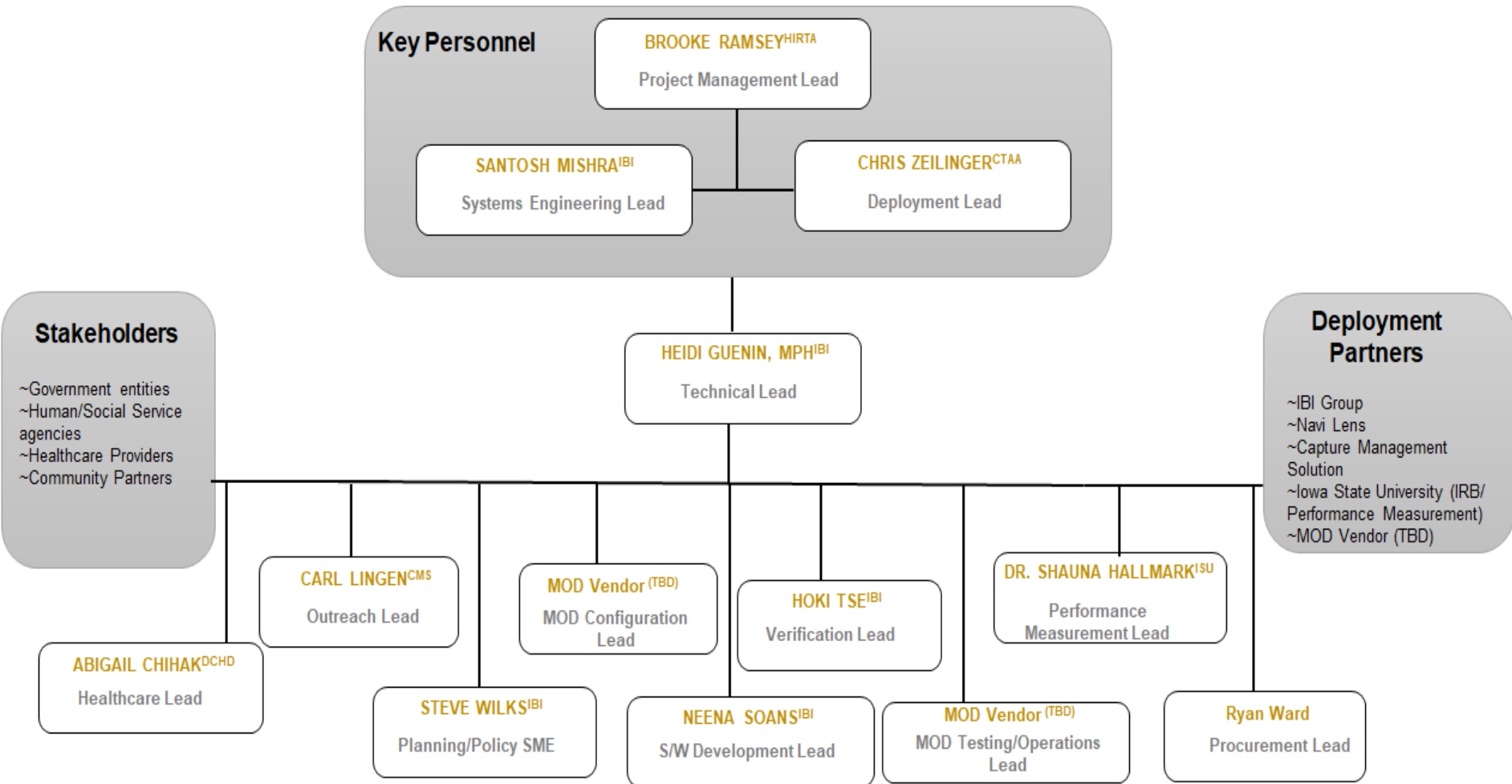**ITS Joint Program Office**

Summary of Phase 1 Deployment Concept

Brooke Ramsey, Project Management Lead
Steve Wilks, Concept Development Lead

Phase 2/3 Team: Key Staff

- Brooke Ramsey from HIRTA, Project Management Lead (PML)

- Santosh Mishra from IBI Group, Systems Engineering Lead (SEL)

- Chris Zeilinger from CTAA, Deployment Lead (DL)

Phase 2/3 Team: Org Chart

Key Personnel

BROOKE RAMSEY[HIRTA]
Project Management Lead

SANTOSH MISHRA[IBI]
Systems Engineering Lead

CHRIS ZEILINGER[CTAA]
Deployment Lead

HEIDI GUENIN, MPH[IBI]
Technical Lead

Stakeholders

~Government entities
~Human/Social Service agencies
~Healthcare Providers
~Community Partners

Deployment Partners

~IBI Group
~Navi Lens
~Capture Management Solution
~Iowa State University (IRB/Performance Measurement)
~MOD Vendor (TBD)

ABIGAIL CHIHAK[DCHD]
Healthcare Lead

CARL LINGEN[CMS]
Outreach Lead

STEVE WILKS[IBI]
Planning/Policy SME

MOD Vendor (TBD)
MOD Configuration Lead

NEENA SOANS[IBI]
S/W Development Lead

HOKI TSE[IBI]
Verification Lead

MOD Vendor (TBD)
MOD Testing/Operations Lead

DR. SHAUNA HALLMARK[ISU]
Performance Measurement Lead

Ryan Ward
Procurement Lead

Note:

HIRTA: Heart of Iowa Regional Transit Agency
DCHD: Dallas County Health Department
IBI: IBI Group
ISU: Iowa State University

CTAA: Community Transportation Association of America
CMS: Capture Management Solution
MOD: Mobility on Demand
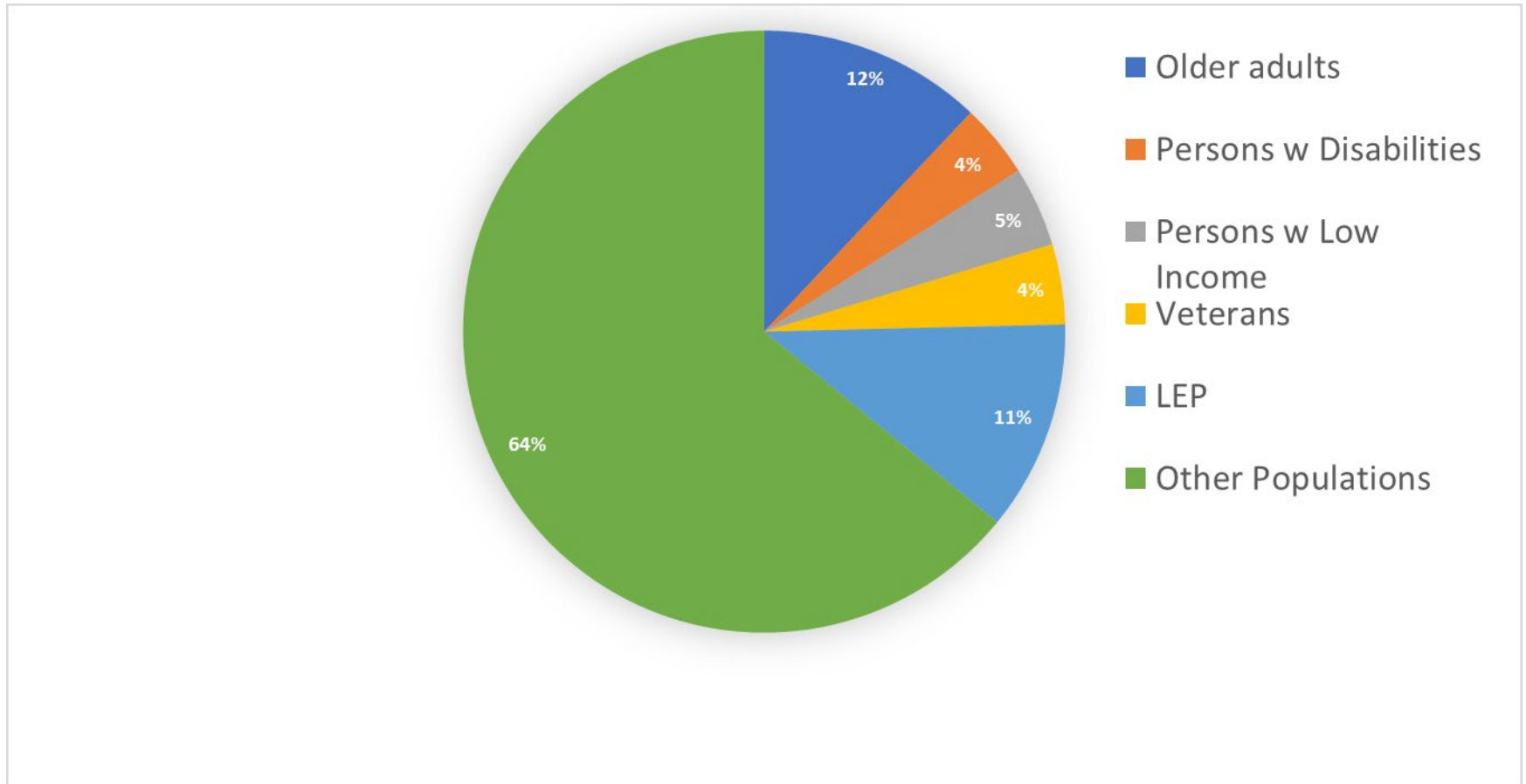TBD: To be determined/procured
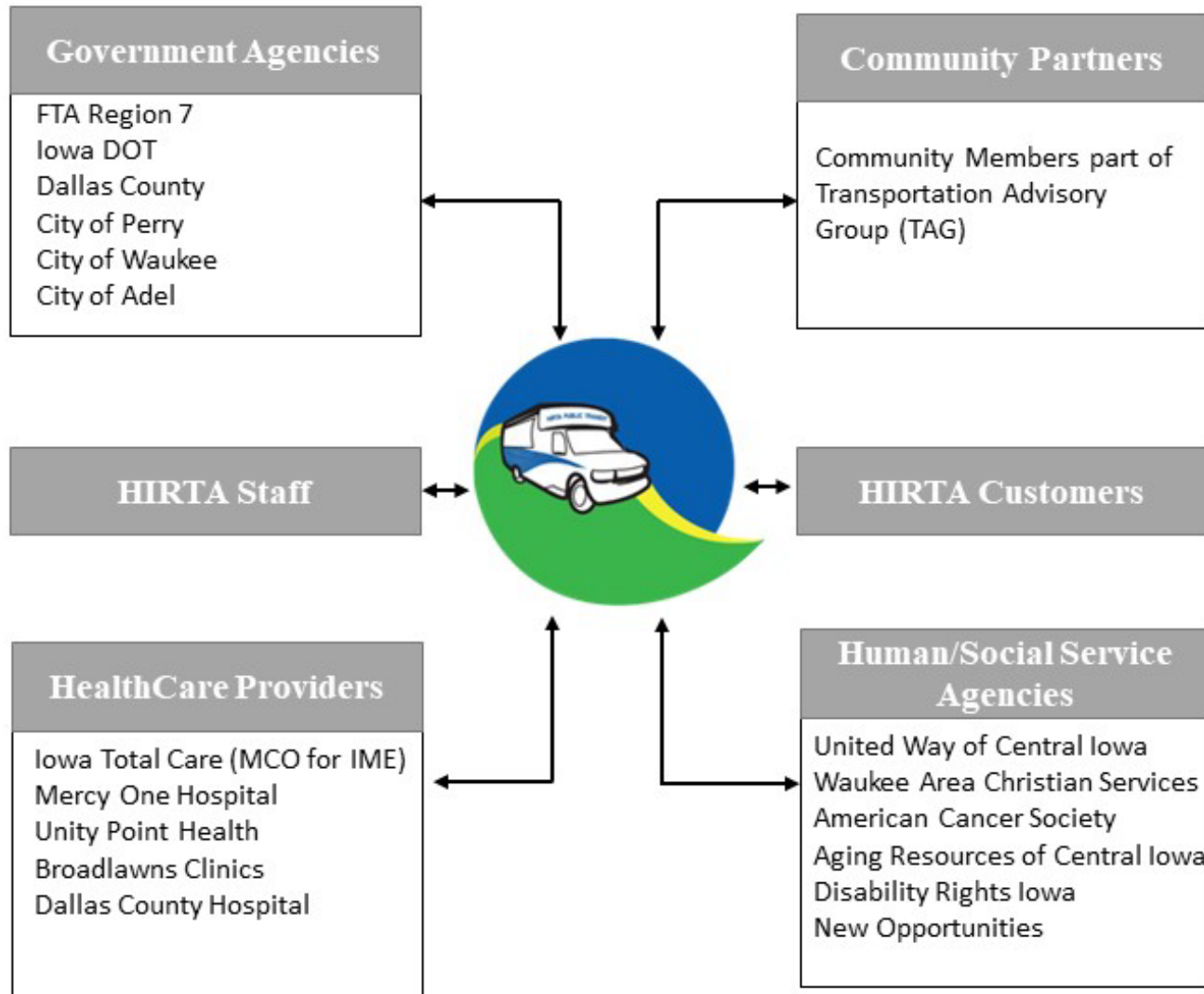
HIRTA and Dallas County Overview

- 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
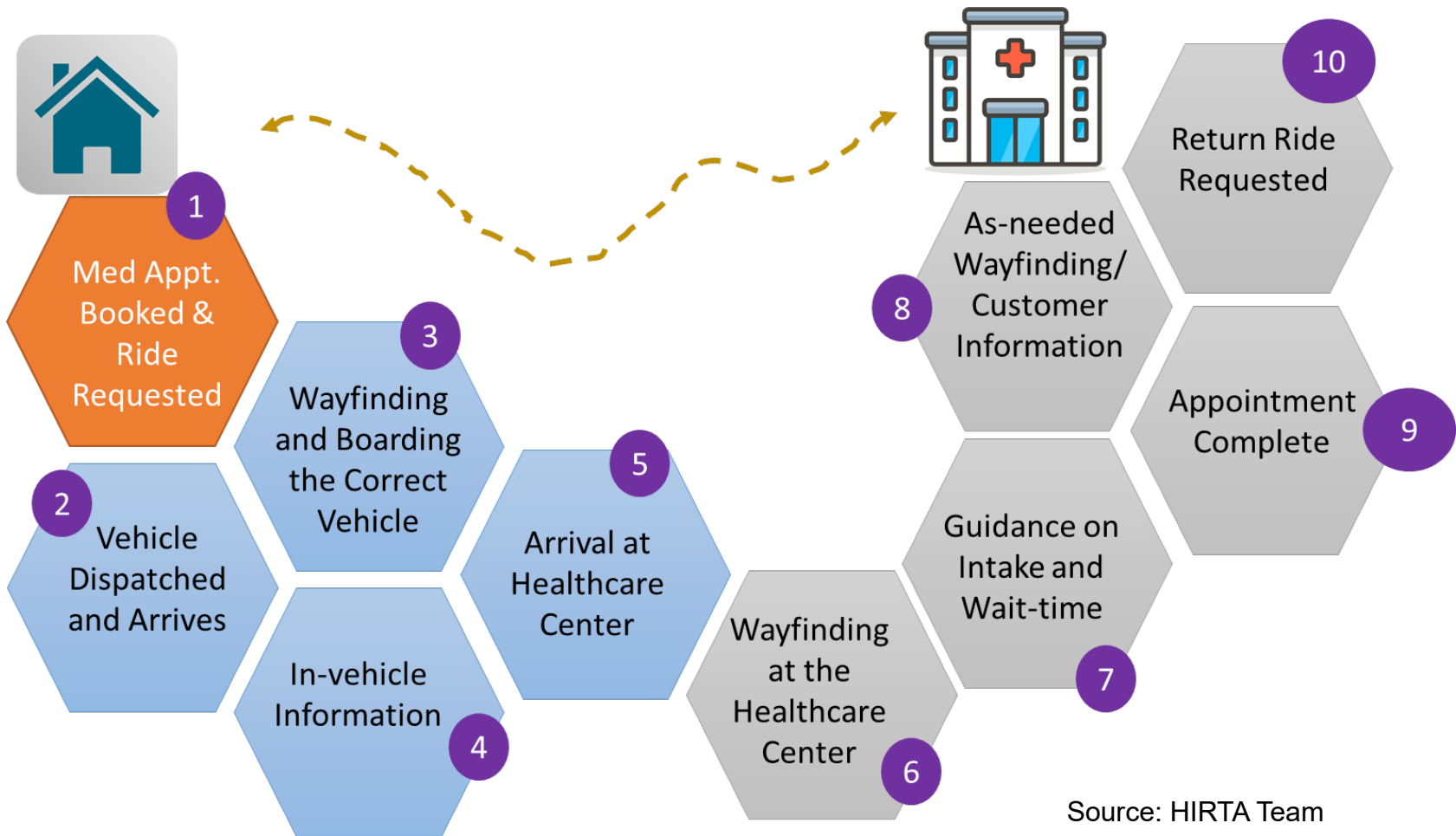
Dallas County Underserved Population

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

Stakeholders

Government Agencies

FTA Region 7
Iowa DOT
Dallas County
City of Perry
City of Waukee
City of Adel

Community Partners

Community Members part of
Transportation Advisory
Group (TAG)

HIRTA Staff

HIRTA Customers

HealthCare Providers

Iowa Total Care (MCO for IME)
Mercy One Hospital
Unity Point Health
Broadlawns Clinics
Dallas County Hospital

Human/Social Service Agencies

United Way of Central Iowa
Waukee Area Christian Services
American Cancer Society
Aging Resources of Central Iowa
Disability Rights Iowa
New Opportunities

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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

Project Overview

Source: HIRTA Team

Goals

- G1-Improved Health outcomes for Dallas County Residents

- G2-Self-reliance and Spontaneity for Underserved Groups

- G3-Efficient Transportation Management Capabilities for Medical Transportation Services

- G4-Financial Sustainability of Medical Transportation Programs

- G5-Safe Medical Transportation Services

Summary of Phase 2 and 3 Technical Approach

Santosh Mishra, System Development Lead

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System Overview
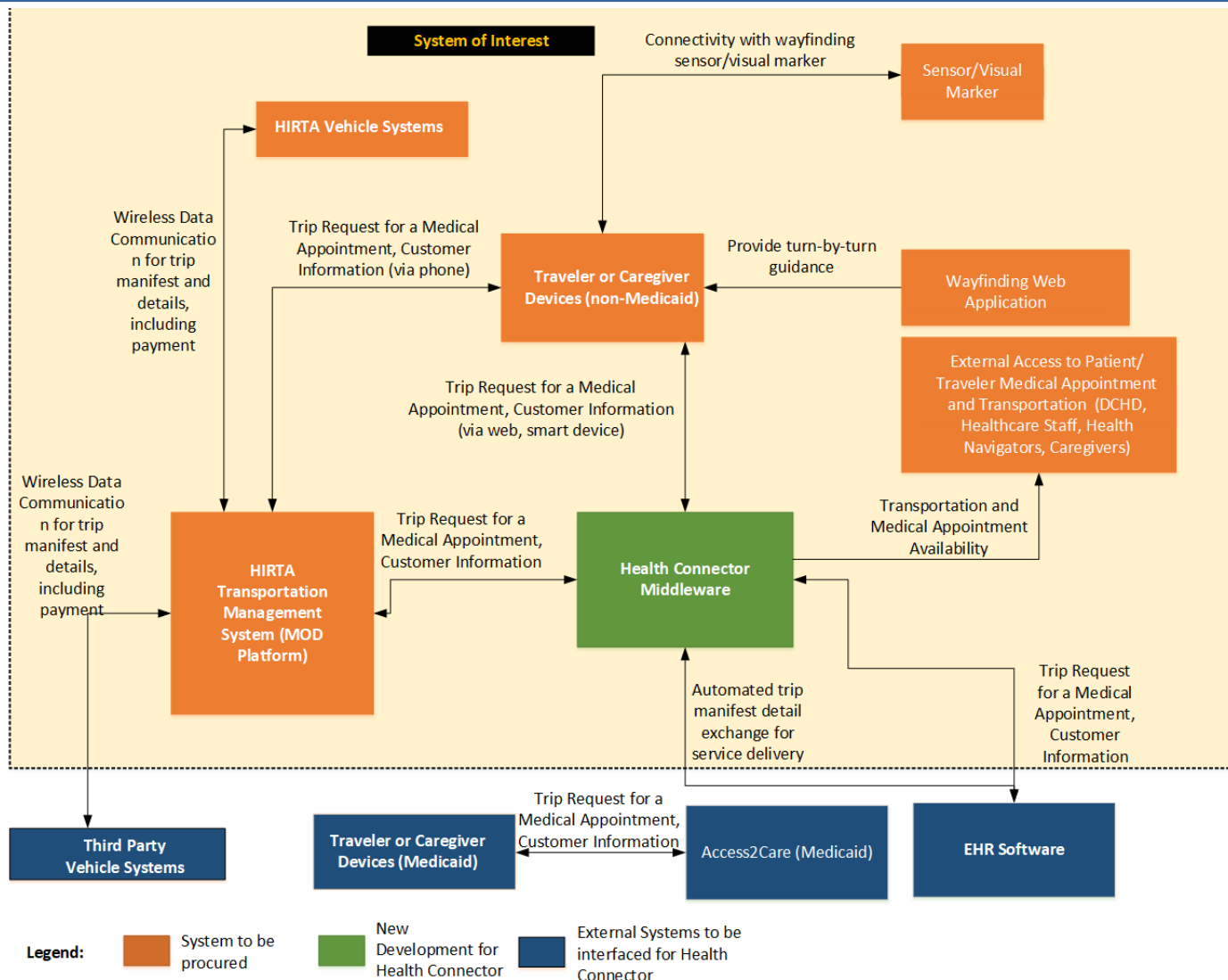
Architecture and Design

- ## Architecture Development
  - System Architecture Document
  - Interface Control Document

- ## System Design
  - Preliminary Design Review
  - Draft System Design Document (SDD) and Design Walkthrough
  - Final Design Review
  - Final SDD

Data Management Planning
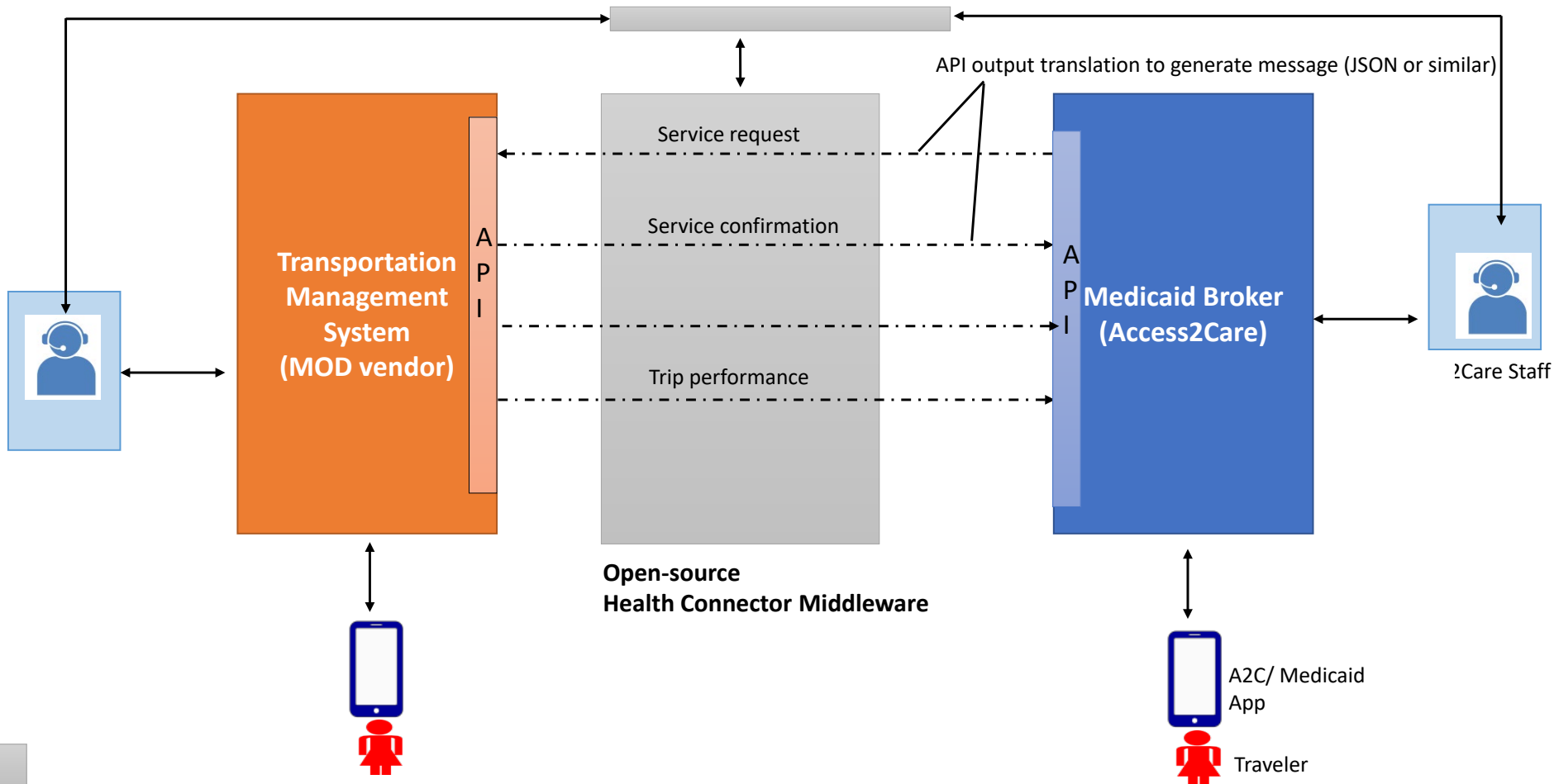
- **Data Privacy Plan**
  - PII, ePHI and sensitive data
  - IRB Review

- **Phase 2 Data Management Plan**
  - Finalization of Data Needs
  - Data Sharing Framework
  - Data Storage and Security
  - Privacy Policy
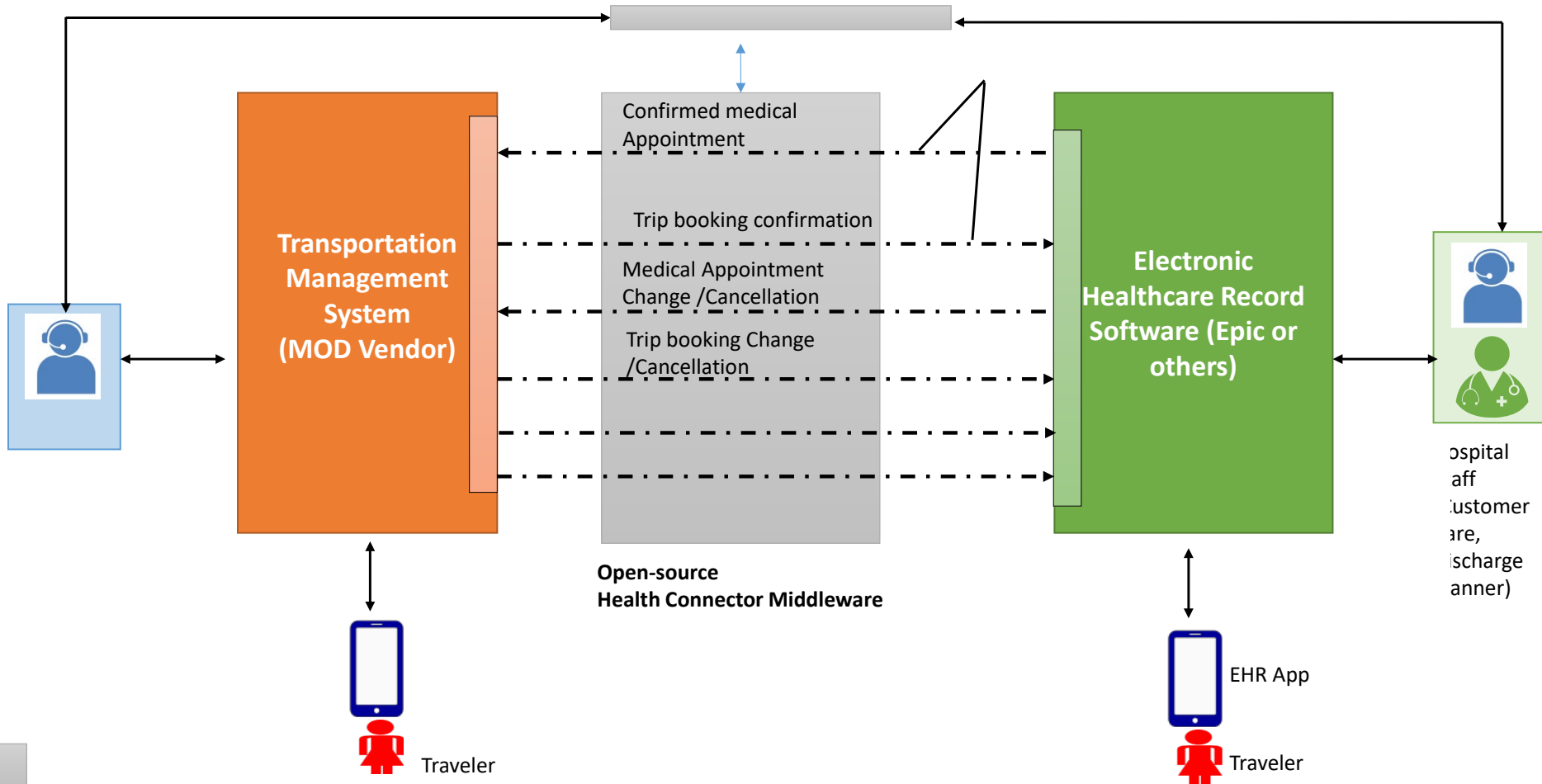
- **Privacy Management Plan**

Procurement

- MOD Vendor
  - Traveler app
  - Central application
  - Vehicle application
- Wayfinding Solution
  - Visual marker
  - Central solution
  - App
- Indoor Kiosks at Healthcare Facility

Middleware Development (MOD-Medicaid)

API output translation to generate message (JSON or similar)

Transportation Management System (MOD vendor)

API

Service request

Service confirmation

Trip performance

API

Medicaid Broker (Access2Care)

2Care Staff

Open-source
Health Connector Middleware

A2C/ Medicaid App

Traveler

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Middleware Development (MOD-EHR)

Transportation Management System (MOD Vendor)

Confirmed medical Appointment

Trip booking confirmation

Medical Appointment Change /Cancellation

Trip booking Change /Cancellation

Open-source Health Connector Middleware

Electronic Healthcare Record Software (Epic or others)

Hospital Staff (Customer care, Discharge Planner)

Traveler

EHR App

Traveler

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System Testing

	Stage	Activity	Plan	Objectives
Test	Unit Testing	• Verify component units per requirements and design	STP	Components are ready for integration
	Functional Testing	• Verify integrated subsystems • Use simulated environment • Use test database	STP	Subsystems are ready for installation
	Installation Testing	• Install equipment • Verify integrated subsystems • Use actual database and vehicles • Use HIRTA, and partners for testing	STP	Integrated system is ready for use
	UA Testing	• Verify installed and integrated system with actual participants • Provide training	STP	Integrated system is ready for live operation
	Revenue Testing	• System run in live operation with actual users	ORTP	System is ready for all real world use cases
Demo	Operational Readiness Demo	• Validate that the integrated system meets use case needs	ORDP	System is ready for at least 20% at-scale deployment

Maintenance and Operations Planning

- System Maintenance

- Standard Operating Procedures (SOP)

Participant and Staff Training

- Participant Group 1-Health Connector Traveler

- Participant Group 2-Family Members and Caregivers

- Participant Group 3-Third Party Health Connector Users

- Participant Group 4-Transportation Providers.

- Participant Group 5-Technology Developer/ Technology Staff

- Participant Group 6-Other Core Stakeholders

Outreach Plan

- Phase 2 Outreach Plan

- Outreach Implementation Schedule (OIS)

- Monthly OIS Updates

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Performance Measurement Approach

- **Identification of Categories and MPM measures as Initial List**
  - □ Core Measures
  - □ Tier 1 Measures
  - □ Tier 2 Measures
  - □ Tier 3 Measures
- **Mapping to Goals and Objectives**
- **Mapping to Use Cases**
- **Data Sufficiency Check**
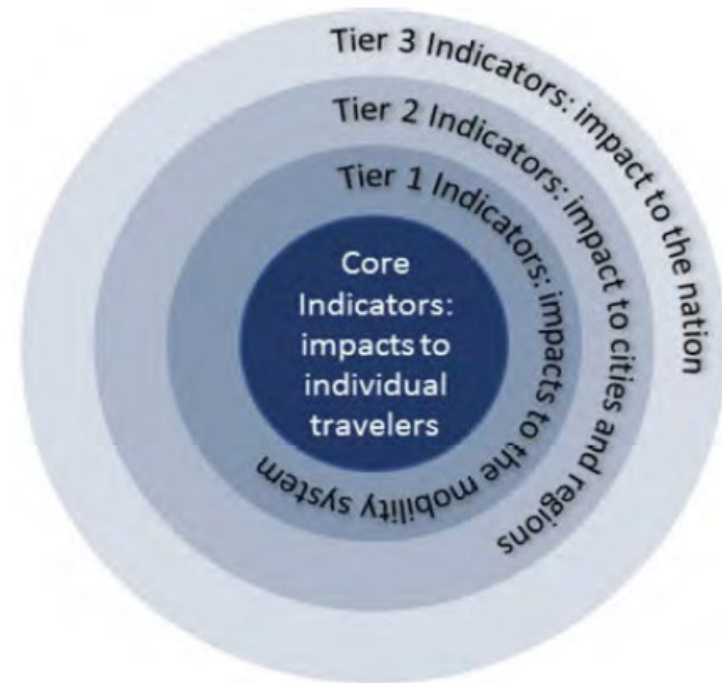
Source: Transit Center, "Mobility Performance Metrics (MPM)," February 2020, Federal Transit Administration, Report No.: 0150

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Performance Measurement and IE Support

- Performance Measurement and Evaluation Support Plan (PMESP) Update
- Data Collection
- Performance Measurement and Evaluation Support Schedule (PMESS)
- Monthly PMESS Updates
- Independent Evaluation (IE) Team Support

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At-Scale Deployment

Line Item	20% At-Scale Deployment	50% At-Scale Deployment	100% At-Scale Deployment
Service Area	Within 5 miles of City of Perry, Dallas County	Cities of Waukee, Adel and Perry, Dallas County	Entire Dallas County
Number of healthcare facilities	1	2	4
Max number of HIRTA vehicles	2	5	10
Number of contractor vehicles	1	2	5
Max number of trips (HIRTA vehicles)	20	50	100
Max number of trips (contractor vehicles)	5	10	20
Vehicle devices	2	5	10
Number of kiosks	2	2	2
Visual markers for wayfinding			
Vehicles (inside and outside)	4	10	20
Healthcare facility (indoor and outdoor)	20	50	150
Fixed pickup spots	5	15	30

Phase 3 Operation and Longer-Term O&M

- Phase 3 System Operation and Maintenance Schedule (SOMS)
- Comprehensive Transition Plan (CTP)

Phase 3 and Post-Deployment Governance
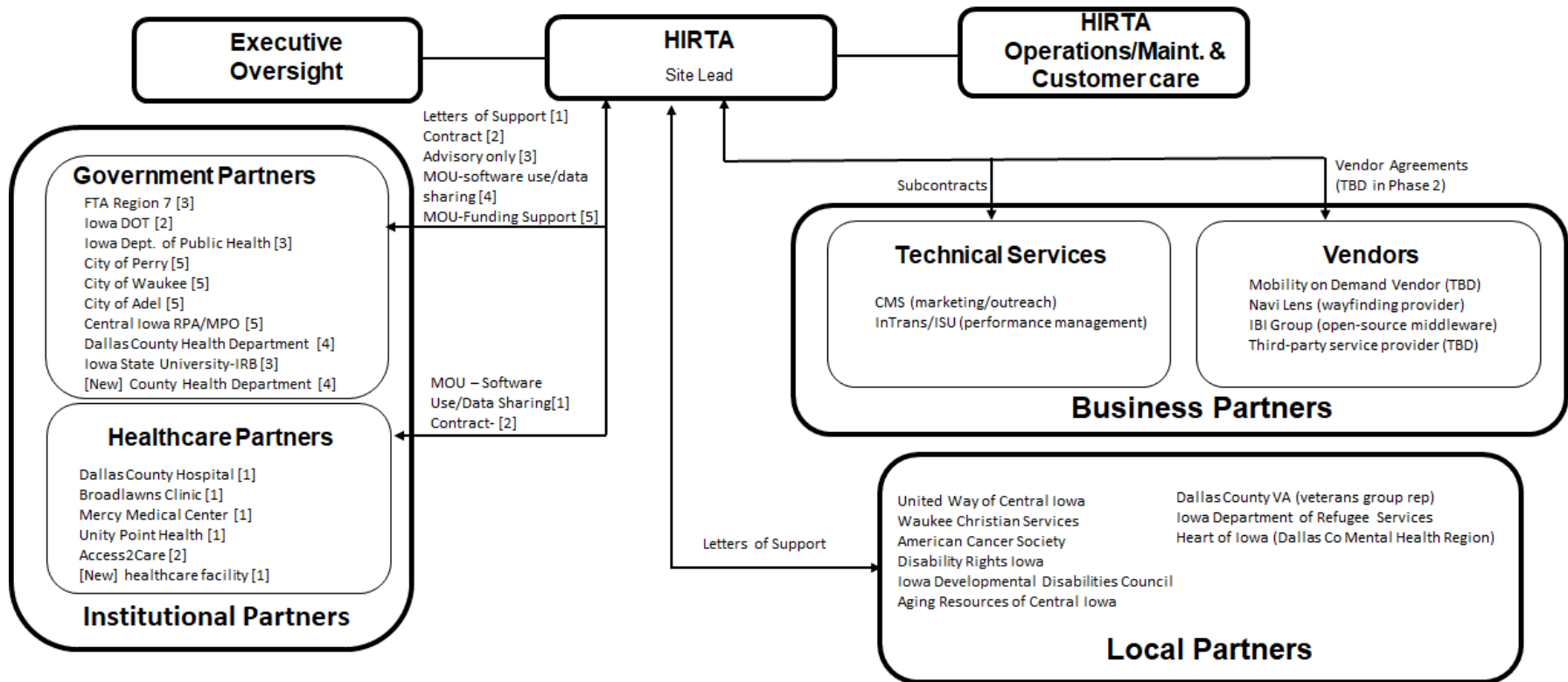
Phase 2 and 3 Outreach

Carl Lingen, Outreach Lead

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Phase 1 Outreach Plan

- Development of Communication and Marketing Plan

    - Mapping Session(s)

    - Engagement Spectrum

    - Communication Plan

    - Media Strategy

Spectrum	How overall message is customized
Audience Type A	
Audience Type B	
Audience Type C	

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Phase 1 Outreach Plan (continued)

- Public Relations and Marketing Plan

- Public Meetings

Source: HIRTA team

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Task 2-J: Phase 1 Outreach Plan

- Phase 2 Outreach Plan

- Outreach Implementation Schedule (OIS)

- Public Relations and Marketing Plan

  □ Social media
    - Facebook
    - WhatsApp
    - Twitter
  □ On-site events
  □ Local Community Outreach

- Monthly OIS Updates

Task 3-C Stakeholder Outreach

- Monthly OIS Update

- Outreach Materials

- Outreach Activities

  □ Two public meetings or press conference

  □ Three articles

  □ Three conferences

- Deployment Showcase

- Outreach Effectiveness

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Task 3-C Stakeholder Outreach (continued)

Quantitative	Qualitative
• **Number of attendees participating in outreach activities** • **Number of project video views** • **Number of new followers on social media** • **Number of click throughs from social media blasts**	• **Survey results from outreach events** • **Track and record types of questions, comments, and feedback on various outreach activities** • **Comments left within WhatsApp, Facebook, and Twitter posts and inquiries**

Phase 2 and Phase 3 Deployment Schedule

Santosh Mishra, System Development Lead

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Phase 2 Deployment Schedule (18 months)

| Jul-22 | | | | Dec-22 | | | | | Jun-23 | | | | | | Jan-24 |

Architecture and Design

System Architecture Document | System Design Document

Data Management Plan

Privacy Plan | Phase 2 DMP

Software Development Documentation | **Agile Software Dev, Release and Launch**

MOD Vendor Procurement | **Acquisition and Installation Planning**

System Test Planning

IRB Approval | **Participant Recruitment and Training**

Installation and Testing

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Phase 3 Deployment Schedule (18 months)

Jan-24		Jun-24		Dec-24	Jul-25

Operations and Maintenance

20% at-Scale	50% at-scale	100% at-scale

Performance Measurement and Evaluation Support

Perf. Reporting Dashboard Setup	Reporting and Data Sharing

Software Development Documentation	Agile Software Dev, Release and Launch

Performance Measurement and Evaluation Support

Showcase

Transition Planning

Phase 2 and Phase 3 Cost Estimate

Santosh Mishra, System Development Lead

U.S. Department of Transportation
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Cost Estimate

Category	Phase 2	Phase 3
Phase 2 and 3 SE Deliverables (Labor + ODC)	$ 1,371,261	$ 1,003,011
Labor	$ 1,331,261	$ 903,011
ODC (materials and tools)	$ 40,000	$ 100,000
Vendor Cost (Hardware, Software, Services)	$ 185,000	$ 140,000
Extended Phase 3 Operation Cost - 6 months (Optional, if needed)		$ 122,839
Software Development Labor Budget	$ 675,000	$ -
Travel Budget (not assigned to partner)		
Project Needs	$ 33,200	$ 8,400
Conferences	$ 17,325	$ 34,650
Total	$ 2,281,786	$ 1,308,899
Federal Share	$ 1,825,428	$ 1,047,120
Non-federal Cost-share	$ 456,357	$ 261,780

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Cost Risks

Risk	Probability	Impact	Mitigation Strategy
Vendors may request additional funds to meet requirements as intended after selection	Medium	Medium	Procurement process will be designed to avoid such issues. Vendor contracts will be fixed price and contract terms and conditions will be defined such that cost overruns are not allowed.
Planned budget not sufficient for making required updates to documents	Low	Low	Based on lessons learned from Phase 1, the team has identified required hours for meeting deliverable needs.
Outreach materials may need more funds	Low	Low	Non-federal funds may be pursued.

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Stakeholder Q&A

- Please keep your microphone muted

- Please use chat box to ask questions

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

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Stay Connected

For more information please contact:

Elina Zlotchenko, ITS JPO

ITS4US Program Manager

Elina.Zlotchenko@dot.gov

Fred Bowers, FHWA

Site COR

Frederick.Bowers@dot.gov

Brooke Ramsey, HIRTA

Project Management Lead

BRamsey@ridehirta.com

Visit the Complete Trip - ITS4US Deployment Program Website and FAQs:

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

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

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