

# Phase 1 Participant Training and Stakeholder Education Plan

## CALACT ITS4US Deployment Project

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# Table of Contents

<b>Revision History .....</b>	<b>iii</b>
<b>Table of Contents .....</b>	<b>iv</b>
<b>1 Introduction.....</b>	<b>7</b>
1.1 Document Purpose.....	7
1.2 Project Overview.....	7
1.3 Proposed System .....	9
1.4 Organization of the Report .....	1
<b>2 Deployment Site 1: Region-Wide .....</b>	<b>3</b>
2.1 Identification of Participants and Necessary Training .....	3
2.1.1 Transit Operators.....	3
2.1.2 DOT Staff .....	4
2.1.3 Rider application vendors (B2C) .....	4
2.1.4 Scheduling/CAD/AVL software vendors (B2G).....	4
2.2 Participant Eligibility, Recruitment, Selection, and Retention.....	5
2.2.1 Eligibility .....	5
2.2.2 Recruitment and Selection .....	5
2.2.3 Retention.....	6
2.3 Training Methodology.....	7
2.3.1 Transit Operators.....	7
2.3.2 DOT Staff .....	9
2.3.3 Rider application vendors (B2C).....	10
2.3.4 Scheduling/CAD/AVL software vendors (B2G).....	11
<b>3 Deployment Site 2: Coordinated, community transportation region .....</b>	<b>13</b>
3.1 Identification of Participants and Necessary Training .....	13
3.1.1 Transit Operators.....	13
3.1.2 Riders and Caregivers.....	13
3.2 Participant Eligibility, Recruitment, Selection, and Retention.....	14
3.2.1 Eligibility .....	14
3.2.2 Recruitment and Selection .....	15
3.2.3 Retention.....	15

3.3 Training Methodology .....	16
3.3.1 Transit Operators .....	16
3.3.2 Riders and Caregivers .....	17
<b>4 Deployment Site 3: Rural area with connecting services and small urban communities .....</b>	<b>19</b>
4.1 Identification of Participants and Necessary Training .....	19
4.1.1 Transit Operators .....	19
4.1.2 Riders and Caregivers .....	19
4.1.3 Scheduling/CAD/AVL software vendor (B2G) .....	20
4.2 Participant Eligibility, Recruitment, Selection, and Retention .....	20
4.2.1 Eligibility .....	20
4.2.2 Recruitment and Selection .....	21
4.2.3 Retention .....	21
4.3 Training Methodology .....	22
4.3.1 Transit Operators .....	22
4.3.2 Riders and Caregivers .....	23
4.3.3 Scheduling/CAD/AVL software vendors (B2G) .....	24
<b>5 Deployment Site 4: Large urban and suburban region with diverse service offerings including rail .....</b>	<b>27</b>
5.1 Identification of Participants and Necessary Training .....	27
5.1.1 Transit Operators .....	27
5.1.2 Riders and Caregivers .....	28
5.2 Participant Eligibility, Recruitment, Selection, and Retention .....	28
5.2.1 Eligibility .....	28
5.2.2 Recruitment and Selection .....	29
5.2.3 Retention .....	29
5.3 Training Methodology .....	29
5.3.1 Operators .....	30
5.3.2 Riders and Caregivers .....	31
<b>6 Training Assessment .....</b>	<b>33</b>
6.1 Knowledge Assessments After Training .....	33
6.2 Participant Feedback .....	34
<b>7 Planning and Coordination of Training Activities .....</b>	<b>35</b>
<b>Appendix A. Acronyms and Glossary .....</b>	<b>37</b>
<b>Appendix B. References .....</b>	<b>41</b>

## List of Tables

Table 1. Assessment Methods for Each Participant Group .....	33
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Table 2. Table of Coordination Needs by Training Activity.....35

**List of Figures**

Figure 1: Proposed System Diagram ..... 11



# 1 Introduction

## 1.1 Document Purpose

The Participant Training Stakeholder Education Plan (PTSEP) details the project's plan for the recruitment and training of various deployment site participant groups. These training and education efforts must be carried out for the four deployment sites to be fully operational. The PTSEP will be consistent with the aims associated with the Human Use Approval Plan (Task 8), the Outreach Plan (Task 11) and Safety Management Plan (Task 4). Execution of this plan begins in Phase 2 of the project, continuing through the post-deployment operational period.

The PTSEP covers end users of the system (riders) and those involved both in design, development, and ongoing operations and maintenance of the system and the support and training for new personnel throughout the project's lifecycle (operator staff, government staff, and vendors).

## 1.2 Project Overview

The CALACT project addresses the clear need for riders who use demand-responsive services, including riders with disabilities, to have equal access to the real-time trip planning technology that is already available for urban fixed-route transit. Nearly 300 of the over 500 transit operators in California, Oregon, and Washington deliver a form of demand-responsive service.<sup>1</sup> Rider characteristics of these services likely differ substantially from those on fixed-route services as rural residents and people with disabilities are more likely to be low-income, unable to use fixed-route services due to disability, and/or are living in a physically isolated environment. The CALACT project is supported and staffed by a broad coalition of public, non-profit, and for-profit organizations, and will leverage the resources and expertise of those organization to develop a regional data governance system. The aim of that system will be to improve and standardize the data published by the hundreds of agencies in the region, with the objective of making that data more accessible to governments and businesses who will use it for planning, rider application development, or any other use supportive of transit access to users of demand responsive services and underserved users of fixed-route transit.

The demand-response systems themselves offer a different rider experience, where would-be passengers often must find a transit provider that will serve their needs,<sup>2</sup> call a dispatch system to plan and reserve their trip, requiring a long lead time (often a day in advance), and allowing little

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<sup>1</sup> Numbers calculated based on internal lists of agencies and metadata provided by ODOT, WSDOT, and Caltrans.

<sup>2</sup> Persons with disabilities who are certified as eligible for ADA complementary paratransit with their home transit agency have consistent contact information to schedule trips within a limited service area.

room for flexibility. The trip planning experience of demand-response systems is further and uniquely burdened by a complex web of determining operator coverage area, for what qualifications that operator or specific service within that operator's service menu they qualify, if the operator has availability, if they need to pay and how. Unlike fixed route services, which have a well-established data standard and a stable industry of third-party trip planning services, and private Transportation Network Companies (TNCs), which produce their own seamless and instantaneous booking and payments flows, demand-responsive transit lacks the technical solutions which could ease these burdens for their riders. There's no comparable desktop or smartphone experience and no other innovations which exist to untangle these webs of availability, reservations, or payments.

Most fixed route users in the three-state region have access to real-time information about transit services through any mobile device. However, very few users have that information about public demand-responsive transit, and none have that information except through custom proprietary systems implemented at a few local agencies. Further, users of fixed-route services who would like more access to details regarding the transit system accessibility features and other amenities often cannot easily find that information.

The particular underserved communities the project focuses on are people with mobility disabilities, people with vision disabilities, people with cognitive and developmental disabilities, people with hearing disabilities, older adults, low-income populations, rural residents, veterans, and people with limited English proficiency.

This project is one of five deployments of the Complete Trip - ITS4US Deployment Program, led by the ITS JPO and supported by Office of the Assistant Secretary for Research and Technology (OST), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA). These deployments were selected to showcase innovative business partnerships, technologies, and practices that promote independent mobility for all travelers regardless of location, income, or disability. The Complete Trip - ITS4US Deployment Program is carried out in three phases over five years: Concept Development (current phase), Design and Testing, and lastly Operations and Evaluation. The intended outcomes for the CALACT deployment are to improve the user experience and cost efficiency of demand responsive and fixed route transit for underserved riders (and all riders) at agencies throughout the Washington, Oregon, and California.

Project partner (subcontractor) organizations include:

- Oregon Department of Transportation (ODOT): Agency outreach in Oregon, member of PMT, transit directory product manager
- Washington Department of Transportation (WSDOT): Agency outreach in Washington, member of PMT, transit analysis product manager
- California Department of Transportation (Caltrans): Agency outreach in California, member of PMT, payments product manager
- Washington State Transit Association (WSTA): Support agency outreach in WA and assist with event coordination
- Trillium, an Oregon small business: Concept design, report writing and product management support
- Compiler LA, a California small business: Software systems requirements and data management lead

- Tamika L. Butler Consulting, a California small business: Internal evaluation and stakeholder engagement
- Mark Wall Associates, a California small business: Agency outreach and support for reporting and project administration
- Estolano Advisors, a California small business: Agency and stakeholder outreach support
- California Partners for Advanced Transportation Technology at UC Berkeley: Project evaluation and stakeholder safety and human use leads
- MobilityData IO, a Canadian nonprofit: Data specification development and technology readiness assessment lead
- Transit, a Canadian private corporation registered for business in the US: Technical advise on customer interface needs and development
- Navilens, a Spanish private corporation registered for business in the US: Digital accessible signage and text to speech product leads
- Google, an American public corporation (unfunded): Participation in an advisory and user testing coordination role

## 1.3 Proposed System

There already exists a system of data exchange that drives rider applications for fixed route transit and has increasingly been leveraged for regional planning and other activities where transit service data are needed. In this system, transit operators use scheduling or Computer-Aided Dispatch/Automatic Vehicle Location (CAD/AVL) software (usually provided by a vendor) to produce GTFS data, which is provided to many rider application developers. However, public agencies and other organizations in the region do not have any common governance or knowledge sharing system that helps them ensure operators publish the data that is most useful for agencies or for underserved riders.

The changes proposed for the new system finalize proposed extensions to the GTFS data specification, defines a new data standard related to booking integration, develops new open-source software applications to provide easy access to transit data to riders and other users, and creates intergovernmental-coordination processes to ensure that ongoing investments effectively maintain and improve the developed data, data specifications, and software. The proposed approach defines new responsibilities for state DOTs, MPOs, and other transportation organizations that improve data outcomes from transit agencies and their software vendors, creates a standardized interface for reviewing key transit service information, provides a feedback loop that improves the quality and accessibility of rider interfaces on an ongoing basis, and integrates demand-responsive transportation services into the GTFS data ecosystem. We expect these responsibilities will be adopted because they align with the long-term interests of the state DOTs and because each DOT on the West Coast—as well as stakeholders representing other public agencies—is coordinating directly with the project team in the development and deployment of the system.

These enhancements will be carried out within the organizational context of the following proposed system, as illustrated in the diagram on the next page. The proposed system is primarily a governance system which coordinates functions that might look very different depending on the transit operators involved. Section 1.4 below will describe the different geographic regions within which the system will be deployed.

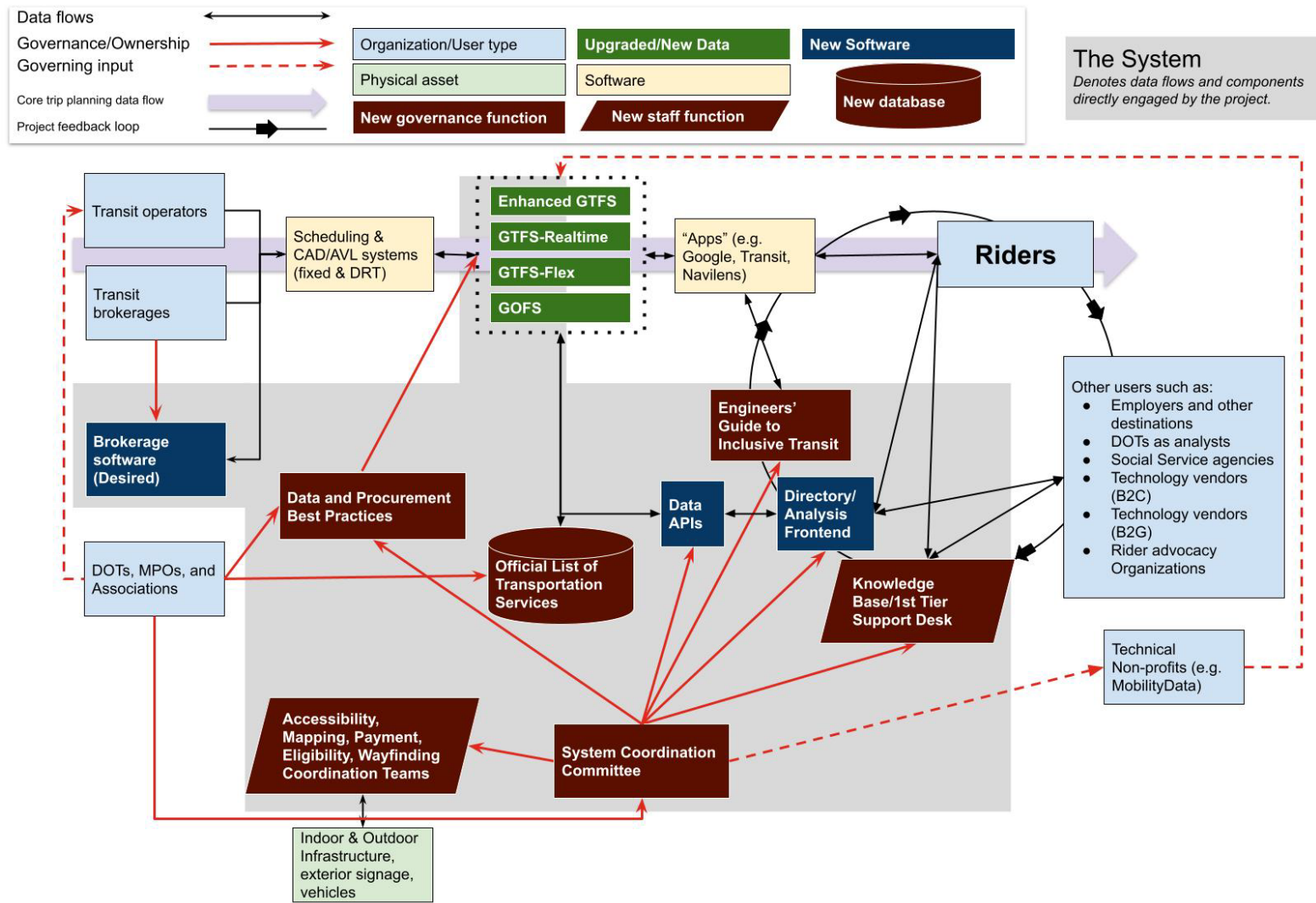


Figure 1: Proposed System Diagram



## 1.4 Organization of the Report

Content of this report is organized by the four deployment sites. Each section will contain complete training and education information for the four deployment sites. A brief description of each Deployment Site is included below. Across all deployment sites, all applications developed, sponsored, promoted, or used to recruit participants for the research project, will be fully accessible based on WCAG 2.0 standards.

### **Deployment Site 1: Region-wide**

This deployment site encompasses the three states of Washington, Oregon, and California and can include any operator with service in that region. The focus of Deployment Site 1 is to provide GTFS and various GTFS extension data from as many operators as possible to establish as much data coverage as possible. The Deployment Site is also characterized by the coordinated effort between the three state DOTs to establish agreed-upon data guidelines for regional transit, and the publication of standardized data through the Data APIs. Because Deployment Site 1 encompasses the entire region, the three additional Deployment Sites below are subsidiary deployment sites to Deployment Site 1. In those areas, Deployment Site 1 system components will be implemented along with additional components.

### **Deployment Site 2: Coordinated, community transportation region**

This deployment site encompasses the Puget Sound area of Washington State. Hopelink will serve as the lead agency in this deployment site and provide a connected One-Call One-Click system. This third-party One-Call One-Click system will be built on top of the Data APIs among other software dependencies. This One-Call One-Click system will integrate transit services in the area, including non-emergency medical transportation and community transit. This deployment site serves a number of diverse communities. In particular, the community transit services within this region connect with many people with disabilities and with Limited English Proficiency (LEP).

### **Deployment Site 3: Rural area with connecting services and small urban communities**

This deployment site encompasses Jackson, Josephine, and Klamath counties in Southern Oregon including multiple small urban communities and rural areas. Deployment Site 3 has various overlapping demand-response and fixed route services and thus will serve as a good location to pilot the 1st Tier Support Desk, which will be more useful in regions where multiple services may be required to travel or the relevant agency for a rider may not always be apparent. Further, the integration of a microtransit service into a frontend interface through the use of an open data specification will demonstrate how small agencies could provide demand responsive booking in third-party apps. RVTD, JCT, and ODOTs intercity POINT service will be the primary local deployment agencies, and may be joined by other connecting agencies.

### **Deployment Site 4: Large urban and suburban region with diverse service offerings including rail**

This deployment site encompasses the San Bernardino County area in California with a focus on the city of San Bernardino around the regional transit center. This area has frequent intercity bus and rail connections which present complex wayfinding accessibility challenges. The project intends to provide better pathway information, digital wayfinding, and fares data showing inter-agency discounts to improve the rider experience in the deployment area. Omnitrans and VVTA will collaborate with other regional transit agencies and project staff to design and finalize the deployment site details.





## 2 Deployment Site 1: Region-Wide

The first participant group consists of subgroups involved in the region-wide deployment site (Deployment Site 1). Training and education for this deployment site will need particular focus on operationalizing data standardized under GTFS and its various extensions.

### **Deployment Description:**

This deployment site encompasses the three states of Washington, Oregon, and California and can include any operator with service in that region. The focus of Deployment Site 1 is to provide GTFS and various GTFS extension data from as many operators as possible to establish as much data coverage as possible. The Deployment Site is also characterized by the coordinated effort between the three state DOTs to establish agreed-upon data guidelines for regional transit, and the publication of standardized data through the Data APIs. Because Deployment Site 1 encompasses the entire region, the three additional Deployment Sites below are subsidiary deployment sites to Deployment Site 1. In those areas, Deployment Site 1 system components will be implemented along with additional components.

### **2.1 Identification of Participants and Necessary Training**

In this Section, we list and briefly describe groups of project participants that have unique roles, interactions, and responsibilities within Deployment Site 1. These groups will be referenced throughout the remainder of the report when describing training/education activities and needs in the following sections.

#### **2.1.1 Transit Operators**

Transit Operators will require training regarding how to publish data in compliance with the system in collaboration with their software vendors. The operators referenced in Deployment Site 1 are all transit agencies (from large, urban fixed-route with ADA complementary paratransit to small, rural general public demand-responsive service) operating within the three-state region of Washington, Oregon, and California. Transit is defined in two classifications in the Appendix A to this report. The project will focus on public agencies and non-profits that receive state or federal funding, but some private companies providing transit services may also be included. Operators manage and carry out the on-the-ground services that the various data sets governed by the project attempt to define. Operators thus will need to be aware of regional project activity so they can coordinate with those efforts. Specifically, the project will need to maintain communication with operators through DOTs and vendors to establish information inputs to the various data to be collected by the system (GTFS, Flex, Fares, Pathways, etc.). Operators in the region should (there will not be any regulatory requirement) also reference the Data Best Practices when drafting transit technology RFPs and coordinate with their state DOT to receive any assistance in doing so. For a transit agency to be successful, it will need education and training on any procurement guidelines established for agencies by the project. Lastly, operators may use the Data APIs and Directory/Analysis Frontend to identify and coordinate with other transit agencies operating in their area.

### **2.1.2 DOT Staff**

New state roles will require training to be provided by project staff (specifically the Project Manager and Data and Software Manager identified in the Systems Engineering Management Plan) and contractors. This training will be part of the design and development processes in working with appropriate stakeholders and system users to ensure that they understand and can implement components such as the Data and Procurement Best Practices locally. Training will also be an internal process of capacity-building performed within these institutions. There is no specific training required outside the design and development process of the system, although additional training resources which would be useful for system success are likely to be implemented during the course of the project.

DOT Staff are employees of state transportation departments directly involved in the CALACT ITS4US project in both regulatory and executive capacities. Project participation of state DOTs will be realized in part by the establishment of new supportive roles and responsibilities to meet program needs. DOT staff will promote Data Best Practices within their respective states and provide ongoing agency guidance and support in meeting those guidelines. It is also expected that DOT staff will be users of the Directory/Analysis Frontend component as a tool for carrying out regulatory functions regarding public transit.

### **2.1.3 Rider application vendors (B2C)**

There is no necessary training for this group. The Engineers' Guide constitutes a 'training' focused document, will be designed in conversation with these participants, and may be supplemented by additional training resources if those users request.

Business-to-consumer rider applications involved in the project will consume the various data produced by the project. It is expected that these vendors will utilize the Data APIs as a source from which to identify agencies and potentially to download relevant data sets. These vendors will consider and take into account the Engineers' Guide to Inclusive Transit. They will also comply with Data Best Practices included in any contractual regional trip planner implementation with agencies, though these contract relationships are less likely than those with Scheduling Software (B2G) (see Section 2.1.4 below).

### **2.1.4 Scheduling/CAD/AVL software vendors (B2G)**

There is no necessary training for this group. The Data Best Practices constitute a 'training' focused document, will be designed in conversation with these participants, and may be supplemented by additional training resources if those users request.

Business-to-government scheduling/CAD/AVL or other software procured by regional fixed-route and demand-responsive operators will need to follow the Data Best Practices requirement of producing GTFS and other related transit data as part of their suite of technology provided to regional operators they do business with. These vendors will also make data available for download on the Directory/Analysis Frontend.

## 2.2 Participant Eligibility, Recruitment, Selection, and Retention

In this section, eligibility, recruitment, selection, and retention of Deployment Site 1 groups is described. General information on eligibility, recruitment and selection, and retention that applies to all (or most) groups is included under Sections 2.2.1, 2.2.2 and 2.2.3 respectively, while information specific to particular groups (e.g., Transit Operators) is found in subsections (e.g., 2.2.1.X).

### 2.2.1 Eligibility

Deployment Site 1 encompasses the entire three state region of Washington, Oregon, and California. Generally speaking, transit operators with services in the region, relevant state DOT staff, and vendors providing transit technology for the region are all eligible to participate in Deployment Site 1 (though not all will require targeted training programs).

#### 2.2.1.1 *Transit Operators*

Any agency operating transit in the region should follow Data Best Practices established by the project and is eligible to receive assistance in meeting those guidelines. Agencies that are identified in the future as needing additional support in producing or procuring vendor support to produce data will be eligible to receive that support from project or DOT staff.

#### 2.2.1.2 *DOT Staff*

Any DOT staff responsible for supporting transit services may be an essential stakeholder in implementing new guidelines on transit data, and thus are eligible.

#### 2.2.1.3 *Rider application vendors (B2C)*

Vendors with rider applications that include any information pertaining to transit services within the region will be participants in the project.

#### 2.2.1.4 *Scheduling/CAD/AVL software vendors (B2G)*

Vendors who do business within the region fulfilling the data guidelines required of them by transit operators will be participants in the project.

### 2.2.2 Recruitment and Selection

For cases in which recruitment essentially consists of making parties aware that they are eligible to be participants in some capacity, recruitment activity will consist of posting information through channels outlined in the Outreach Plan, most notably the CALACT ITS4US Deployment Website. Transit operators, software vendors, rider advocacy organizations, riders, and other local partners will be able to access project updates and materials posted on the website. The website will include information on the overall project, as well as more information about agencies participating in the project, technologies being developed by the project, and outreach event details. The Outreach Team will work with deployment sites and other project partners to develop

content for the site. To increase efficiency and traffic, the site will likely exist on the CALACT website, which already has an established following and set of branding guidelines.

### **2.2.2.1 Transit Operators**

Participant recruitment and selection will be fulfilled through the identification of operators on state-level official lists of transit services by state DOTs, as described in the ConOps.

Participant estimate: 800.

### **2.2.2.2 DOT Staff**

DOT representatives who are already project partners will be responsible for recruitment and selection of any additional staff participating in future phases of the project. Each state's approach to this process will be determined internally by respective DOTs. Additional staff are likely already aware of their respective DOTs involvement in the CALACT ITS4US project.

Participant estimate: 20.

### **2.2.2.3 Rider application vendors (B2C)**

As indirect participants, recruitment efforts will typically entail informing rider application vendors about project developments in Deployment Site 1 that they will benefit from as industry stakeholders. These vendors will be informed either by already being involved in those developments as a project partner or through regular announcements via already-established open communication channels (e.g., announcements made on the MobilityData public Slack channel). Components that these vendors will need to be aware of most are the Directory and the Engineer's Guide to Transit, as they are target users for each. An additional list of technology vendors may be created to track vendor recruitment, but that may be a superfluous and difficult to update resource, and the above strategies may prove sufficient.

Participant estimate: 20.

### **2.2.2.4 Scheduling/CAD/AVL software vendors (B2G)**

Beyond keeping these vendors informed as industry stakeholders, similar to that of rider application vendors (see 2.2.2.3 above), there will be some targeted recruitment through identification of client agencies with non-compliant data and advocating for the adoption of the Data Best Practices. This recruitment is part of the project's general outreach efforts, detailed in the Outreach Plan document. An additional list of technology vendors may be created to track vendor recruitment, but that may be a superfluous and difficult to update resource, and the above strategies may prove sufficient.

Participant estimate: 20.

## **2.2.3 Retention**

Potential challenges to retaining voluntary participant groups and solutions/strategies to mitigate those challenges are laid out here.

### **2.2.3.1 Transit Operators**

To keep transit operators engaged in participation the project team must implement a high-quality working relationship with agencies where their concerns are heard and their needs are addressed. Operators must be made aware of and see directly the benefits (identified in the ConOps) to them that the project aims to produce. The project team will help this effort by continual sharing of project outcomes through newsletters on the Deployment website. Additional resources developed through the outreach plan will further support operator understanding of and attention to improving their data publication practices.

### **2.2.3.2 DOT staff**

No specific retention strategy beyond internal DOT staff retention and training policies.

### **2.2.3.3 Rider application vendors (B2C)**

As for-profit entities, there is a risk that rider application vendors will not feel incentivized enough to cooperate with the goals of the project to the degree necessary for its success. Rider application vendors other than contractual project partners may require some targeted retention efforts to support the project's goals of data standards adoption. These efforts will come in the form of regular communication and collaboration on development of those standards. The project recognizes the value of hearing and addressing the interests and concerns of these organizations being a strategy to keep those parties involved.

### **2.2.3.4 Scheduling/CAD/AVL software vendors (B2G)**

The project team will retain participation of these vendors through continued engagement and outreach efforts. Additionally, where any agency negotiates the inclusion of the Data and Procurement Best Practices in a contract with their software vendors, the retention of that vendor with respect to the data published for that agency would be reinforced through that contract.

## **2.3 Training Methodology**

This section discusses training and education approaches undertaken for specific participant groups including training objectives, content, and format.

### **2.3.1 Transit Operators**

Methodology to educate and train operators participating in Deployment Site 1 will consist of two main components. The first will be a live webinar, or series of live webinars (recordings will be made available for later access). This webinar will go over the transit operator's roles and expectations as participants as well as create the opportunity for operators to ask questions and connect with specific project partners who will be well-positioned to coordinate with them.

The second approach entails the establishment of project staff who will serve in part as a liaison, pointing operators to resources, answering questions, and keeping project leadership informed of operator concerns. These project staff will reach out to agencies who are not producing data according to the Best Practices, and offer to provide information regarding how the Best Practices can support them or their software vendor in publishing high quality data.

Operators in Deployment Site 1 will be educated on:

- Data Best Practices and procurement/RFPs
- Data flows
- Using the Data APIs and Directory
- How to access project updates overall to stay informed about developments affecting operators

### **2.3.1.1 Training Objectives**

Training of Transit Operators in Deployment Site 1 will focus on the following objectives:

- Objective 1: Operators will understand how the Data Best Practices can be used in contracting with software vendors and assessing data sets.
- Objective 2: Operators will know how to access online resources pertaining to the project, including the lists of regional technology projects.
- Objective 3: Operators will have a list of project representative points of contact for requests for technical help, relaying needed updates to their data (e.g., GTFS), and other project questions and concerns.
- Objective 4: Operators will know how to access up-to-date information on the most recent project developments on the Deployment Website.
- Objective 5: Operators will understand in general terms how the flow of data works within the transit data ecosystem and what role their agencies play in that process.
- Objective 6: Operators will understand the outcomes of more agencies publishing data according to the Data Best Practices.

### **2.3.1.2 Key Content Areas/Training Topics**

This section provides a brief outline of what topics will be covered during the site-wide webinar.

- Project goals
- Project impacts on agency operations
- Data Best Practices overview and planned outcomes
- How operators can leverage their data (and get their data updated)
- Directory for operators
- Examples of agencies following Data Best Practices
- List of project resources and staff useful to operators

### **2.3.1.3 Training Format and Materials to be Used**

The training format for Deployment Site 1 will come in three forms. The first will be a live webinar through an online video conferencing service. This webinar will be recorded and posted on the Deployment Website. The webinar could also include breakout sessions for specific participant groups or topics. Lastly, the webinar will allow opportunities for participants to ask questions of the project team.

The second format will be written educational materials made available on the Deployment Website. These resources will be posted to the Deployment Website and designed to help operators understand their role in the transit data network and how to get assistance in that participation, especially regarding procuring technology around transit data. The project may adopt and reference external resources to provide these written materials.

Project staff will provide training services for individual operators or groups of operators as an educational as needed resource as the project progresses. For groups of operators, which may be formed in a variety of ways (for example regionally or because of similarity of data concerns or vendor used for scheduling), structured conversations and training sessions will be used to collectively involve different agencies and support the establishment of informal communities of practice. Project staff will continue to engage groups over time to strengthen agency-to-agency collaboration regarding technology questions, as well as connect agencies and groups with appropriate DOT staff members who can provide ongoing training and support.

The Technology Coordination Teams will maintain lists of regional technology projects related to wayfinding, payments, trip planning, and other key themes, which will be available to support the connection of agencies into already established projects or programs that may grant access to interoperable technologies. These lists will serve as a key resource to help agencies identify potential partnerships with other agencies.

## **2.3.2 DOT Staff**

Training of state DOT staff participating in Deployment Site 1 will be carried out mainly internally by other DOT staff involved more directly in the project. However, the project team intends to regularly collaborate with staff to increase each DOT's capacity to provide guidance, support, and leadership to regional operators adopting and implementing this new data.

### **2.3.2.1 Training Objectives**

Training of DOT staff in Deployment Site 1 will focus on the following objectives:

- Objective 1: DOT staff will understand the procurement guidelines agencies in their state should follow.
- Objective 2: DOT staff will know how to point agencies to technical resources provided by the project team.
- Objective 3: DOT staff will be able to provide advice and recommendations pertaining to the transit data procurement process.
- Objective 4: DOT staff will be proficient in using the Data APIs and Directory/Analysis Frontend tool for regulatory and analysis purposes.
- Objective 5: DOT staff will be proficient in using the Directory/Analysis Frontend to update information listed about agencies.
- Objective 6: DOT staff will understand in general terms how the flow of data works within the transit data ecosystem and what role state DOTs play in that process.
- Objective 7: DOT staff will know where and how to access up-to-date project information and news on the Deployment Website.

### **2.3.2.2 Key Content Areas/Training Topics**

This section provides a brief outline of what topics will be covered through targeted and ongoing communication with DOT staff.

- Implementation of Data Best Practices
- Technical agency guidance and support
- Regulatory uses of the Data APIs and Directory/Analysis Frontend
- Using the Directory website to update information listed about agencies
- Data flows
- How to access project updates overall to stay informed about developments affecting DOTs

### **2.3.2.3 Training Format and Materials to be Used**

The DOT staff training that the project team will conduct will primarily be on an as-needed basis, rather than a scheduled event like the webinar for operators. Many custom materials will be developed tailored to the specific needs of operators within each state and the DOT staff who will be communicating with those operators. Project staff will communicate with DOT staff mainly through email, online video calls, and the development of reports or custom training materials. The most widely applicable tools and resources will be refined into publicly accessible and non-state specific formats and may be developed into a more standardized training approach over time.

Lastly, the project team will produce documentation to be posted on the Deployment Website that covers project subsystems at a high-level and how they connect with one another and with the transit data ecosystem as a whole.

## **2.3.3 Rider application vendors (B2C)**

To participate in Deployment Site 1, non-contract partner app vendors only need to be aware of the Directory as a source from which to pull regional transit data for publication on their applications. In a way, the Engineer's Guide to Inclusive Transit, described in the ConOps, will act in and of itself as training material for developers interested in implementing the industry changes the project intends to trigger.

### **2.3.3.1 Training Objectives**

Training B2C rider application vendors in Deployment Site 1 will focus on the following objectives:

- Objective 1: Rider application vendors (B2C) will be aware of the new Data Best Practices and understand their requirements in general terms.
- Objective 2: Rider application vendors (B2C) will be proficient in using the Directory as a fetch location for any data they consume that is published as a result of the project.
- Objective 3: Rider application vendors (B2C) will be proficient in using the Directory to confirm validity of specific data points.
- Objective 4: Rider application vendors (B2C) will know how and where to access project news and updates.



- Objective 5: Rider application vendors (B2C) will understand the outcomes of more agencies publishing data according to the Data Best Practices.
- Objective 6: Rider application vendors (B2C) will understand the advantages of more rider application developers following the Engineers' Guide to Inclusive Transit.

### **2.3.3.2 Key Content Areas/Training Topics**

This section provides a brief outline of what topics will be covered through a public newsletter targeted at rider application vendors:

- How to use Data Best Practices in procurements/RFPs
- Using the Directory to fetch and validate transit data
- How to access project updates overall to stay informed about developments affecting vendors

### **2.3.3.3 Training Format and Materials to be Used**

The project team may give an additional, albeit brief, webinar targeted at rider application vendors going over the new locations for fetching data and for kicking off the Engineer's Guide to Transit. Otherwise, this information may be included in a newsletter as well as through standard industry communication channels such as the MobilityData Slack channel.

## **2.3.4 Scheduling/CAD/AVL software vendors (B2G)**

To participate in Deployment Site 1, business-to-government scheduling/CAD/AVL software vendors must comply with the new requirements established by the Data Procurement Guidelines system component. Much of this information will be presented in detail through actual contracts with regional operators. However, it is still essential that these vendors understand these guidelines ahead of time so they can plan and adjust their development roadmaps to be prepared for requirements with which they will eventually need to comply so they can succeed in delivering this data both to their clients and the public at large. As such, the project will provide scheduling/CAD/AVL software vendors with educational materials in service to this goal.

### **2.3.4.1 Training Objectives**

Training Scheduling/CAD/AVL software vendors (B2G) in Deployment Site 1 will focus on the following objectives:

- Objective 1: Scheduling/CAD/AVL software vendors (B2G) will understand data guidelines they must follow under new contracts with operators within Deployment Site 1.
- Objective 2: Scheduling/CAD/AVL software vendors (B2G) will be proficient in using the Directory to identify potential business prospects with transit agency customers within Deployment Site 1.
- Objective 3: Scheduling/CAD/AVL software vendors (B2G) will know how and where to access project news and updates.
- Objective 4: Scheduling/CAD/AVL software vendors (B2G) will understand the outcomes of more agencies publishing data according to the Data Best Practices.

### **2.3.4.2 Key Content Areas/Training Topics**

This section provides a brief outline of what topics will be covered in educational materials for Scheduling/CAD/AVL software vendors (B2G):

- Data Best Practices and procurement/RFPs
- Using the Data APIs and Directory as a source for identifying potential clients
- Examples of data sets meeting the Data Best Practices
- How to access project updates overall to stay informed about developments affecting vendors

### **2.3.4.3 Training Format and Materials to be Used**

The project team will develop a publicly available educational document targeted at Scheduling/CAD/AVL software vendors (B2G) that outlines the contents of the Data Best Practices and points vendors to resources to help them be successful project participants through their partnerships with transit operators. This document will also likely be referenced in a newsletter targeted at these vendors, and project partners will be encouraged to refer to them in their own resources..

## **3 Deployment Site 2: Coordinated, community transportation region**

The second participant group consists of subgroups involved in the community transportation deployment site (Deployment Site 2). Training and education for this deployment site will need particular focus on the interagency/and agency-project coordination, as well as some engagement with rider feedback as part of the project's performance measurements.

### **Deployment Description:**

This deployment site encompasses the Puget Sound area of Washington State. A local operator will serve as the lead agency in this deployment site and provide a connected One-Call One-Click system. This third-party One-Call One-Click system will be built on top of the Data APIs among other software dependencies. This One-Call One-Click system will integrate transit services in the area, including non-emergency medical transportation and community transit.

### **3.1 Identification of Participants and Necessary Training**

This section lists and briefly describe groups of project participants that have unique roles, interactions, and responsibilities within Deployment Site 2. These groups will be referenced throughout the remainder of the report when describing training/education activities and needs in the following sections.

#### **3.1.1 Transit Operators**

Transit operators within this deployment site will require training regarding the operations of the One-Call One-Click application which will use data from the system. The operators referenced in Deployment Site 2 are fixed-route, DRT, NEMT, and other human services transportation agencies operating within the Puget Sound area. These operators will coordinate services with one another, making use of the data and tools promoted by the project, to instill a more efficient and limber regional transportation ecosystem. Operators will also engage in localized public outreach efforts on behalf of the project. HopeLink will be a lead agency and is the primary local operator participant. HopeLink, a sophisticated partner with technical understanding of the proposed system, will support the project by providing training assistance to the smaller DRT/NEMT/human services operators.

#### **3.1.2 Riders and Caregivers**

No training is necessary for the use of applications including data published by the project. Most transit riders will not interact with system components directly, riders and caregivers will interact indirectly, namely by using the new features included in trip planning apps and/or tools. For Deployment Site 2, riders will use the One-Call One-Click system developed by partner operator HopeLink which will allow for trip planning for community transportation services, including human services and NEMT. This system is being developed locally, but will use the data promoted and

created by the CALACT ITS4US project. It is expected that these features will improve the trip planning experience for specific communities of underserved riders, namely individuals

- with disabilities
- of limited English-proficiency
- who are seniors
- with low incomes

While not required, Hopelink travel training staff will provide training to riders and caregivers to enable easier use of the One-Call One-Click tool.

Some transit riders using trip planning apps (whether the HopeLink application, or a Transit app user) within Deployment Site 2 will be selected to complete an in-app survey collecting feedback on satisfaction regarding the features and information included within those apps. This will serve as one of the data inputs for the project's performance measurements.

## 3.2 Participant Eligibility, Recruitment, Selection, and Retention

In this section, eligibility, recruitment, selection, and retention of Deployment Site 2 groups is described. General information on eligibility, recruitment and selection, and retention that applies to all (or most) groups is included under Sections 3.2.1, 3.2.2 and 3.2.3 respectively, while information specific to particular groups (e.g., Operators) are found in subsections (e.g., 3.2.1.X).

### 3.2.1 Eligibility

Deployment Site 2 encompasses the Puget Sound region of Washington. Generally speaking, transit agencies and other transportation providers with services in this region, with HopeLink as the lead agency, are uniquely eligible to participate in Deployment Site 2.

#### 3.2.1.1 *Transit Operators*

Operators who are eligible include HopeLink as the lead agency and DRT and human services/NEMT transportation operators in the Puget Sound area who are interested in exchanging trips automatically through a brokerage. Additionally, fixed route operators whose services will also be incorporated into the One-Call One-Click system are also eligible, although they will not likely receive outreach/training specific to Deployment Site 2.

#### 3.2.1.2 *Riders*

A rider is eligible to participate in the project if they opt in to fill out a survey linked from an application, website, or other rider tool they use. Any rider using the One-Call One-Click program to access DRT and human services/NEMT transportation services within Deployment Site 2 will benefit from the project, though would not necessarily be classified as a “project participant.”

## 3.2.2 Recruitment and Selection

### 3.2.2.1 *Transit Operators*

Operators have already been recruited during Phase 1 and include:

- HopeLink and their operator partners
- King County Metro
- Sound Transit
- Snohomish Transit
- Community Transit
- Everett Transit
- Kitsap Transit
- Pierce Transit
- Intercity Transit

Participant estimate: 20.

### 3.2.2.2 *Riders*

To ensure there is a large enough pool of riders using the application, the project team will carry out outreach efforts to promote the application through public channels such as press releases, advertisement, social media, and events. Some of this outreach may be carried out by the project team while others may be led by participating operators (see the Outreach Plan for more information). Once riders are using the sponsored app, they will be selected (recruited) to respond to the in-app survey. All users of the sponsored app within the deployment site will be offered the link to the survey, and any user which clicks on the link will be considered a participant.

Participant estimate: 1,000.

## 3.2.3 Retention

### 3.2.3.1 *Transit Operators*

No specific retention strategy. HopeLink has established agreements with operators, all of which will be included as participants by virtue of working with HopeLink.

### 3.2.3.2 *Riders*

No specific retention strategy. The statistical approach identified in the Performance Measurement and Evaluation Support Plan does not require retention of specific rider participants.

## 3.3 Training Methodology

This section discusses training and education approaches undertaken for specific participant groups including training objectives, content, and format.

### 3.3.1 Transit Operators

Specific methodology to educate and train operators participating in Deployment Site 2 will consist of two main components. The first will be a webinar for operators also participating in Deployment Site 2 led by HopeLink. In this webinar, presenters will discuss with operators their roles in the One-Call One-Click program. The second approach will consist of ongoing training project team members will conduct on an informal basis.

#### 3.3.1.1 Training Objectives

Training of Transit Operators in Deployment Site 2 will focus on the following objectives:

- Objective 1: Operators will understand the goals of the One-Call One-Click system and in general terms how it works.
- Objective 2: Operators will understand what role they will play in the deployment of the One-Call One-Click system.
- Objective 3: Operators will know who the established points of contact are for each other agency, including the lead agency, as well as the project team point of contact.
- Objective 4: Operators will know how to contact each point of contact.
- Objective 5: After communicating with the project team, operators will understand any steps that should be taken to resolve issues specific to them as they come up during the project.

#### 3.3.1.2 Key Content Areas/Training Topics

This section provides a brief outline of what topics will be covered both during the webinar and ongoing informal training:

- One-Call One-Click overview
- How operators will participate
- Introductions of points of contact
- Awareness of rider survey distributions
- Agency-specific issues as they come up throughout the project lifecycle

#### 3.3.1.3 Training Format and Materials to be Used

The webinar for operators participating in the Deployment Site 2 will be held in an online video conference call. The call will also be recorded for operators to be able to later reference. The project team may also produce and distribute additional guiding documents for reference targeted at Deployment Site 2 operators.

Ongoing training will be carried out as needed through email, phone/video call, or screenshare. Resources such as user guides to pass on to riders may be considered or provided.

Operators within the Deployment Site 2 region will be met with for training in groups where feasible, and encouraged to communicate directly regarding operations of the system. If appropriate, group emails or other communications will publicize questions that came up for one agency to other agencies in the region. These activities will be meant to support the development of an informal community of practice which supports the retention and success of agencies participating. These activities will be primarily led by Hopelink, with the assistance of ITS4US project staff and resources.

### **3.3.2 Riders and Caregivers**

Because riders and caregivers will only be formal participants through their participation in the anonymous in-app survey, the project team anticipates little in the way of training and education efforts beyond the public promotion of the One-Call One-Click program and the instructional content of the survey itself. HopeLink may provide additional training on the One-Call One-Click program to riders, but that is outside the scope of the ITS4US project.

#### **3.3.2.1 Training Objectives**

Training/education of riders in Deployment Site 2 will focus on the following objectives:

- Objective 1: Riders will understand the purpose of the in-app survey.
- Objective 2: Riders will be proficient in filling out the in-app survey.
- Objective 3: Riders will be aware of the project efforts specific to Deployment Site 2 and its overarching goals for transportation in the region.

#### **3.3.2.2 Key Content Areas/Training Topics**

Topics for training riders include:

- Project efforts and goals in Deployment Site 2
- Purpose of the survey and how to fill out the in-app survey

#### **3.3.2.3 Training Format and Materials to be Used**

Users will be presented with an instructional message that appears within the application. The message will detail how to participate in the rider survey as well as general background information on the purpose of the survey.

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# 4 Deployment Site 3: Rural area with connecting services and small urban communities

The third participant group consists of subgroups involved in a transportation network of rural and small urban services (Deployment Site 3). Training and education for this deployment site will need particular focus on automated booking and the Tier One Support Desk system component.

## **Deployment Description:**

This deployment site encompasses three counties in Southern Oregon including multiple small urban communities and rural areas. Deployment Site 3 has various overlapping demand-response and fixed route services and thus will serve as a good location to pilot the 1st Tier Support Desk and the integration of a microtransit service into a frontend interface through the use of an open data specification.

## **4.1 Identification of Participants and Necessary Training**

In this Section, we list and briefly describe groups of project participants that have unique roles, interactions, and responsibilities within Deployment Site 3. These groups will be referenced throughout the remainder of the report when describing training/education activities and needs in the following sections.

### **4.1.1 Transit Operators**

Transit Operators within Deployment Site 3 will require training regarding how the microtransit scheduling system integrates with rider apps, and potentially additional training regarding the operations of the 1<sup>st</sup> Tier Support Desk. The operators in Deployment Site 3 are agencies with both fixed-route and demand-responsive services, including ADA complementary paratransit, operating within the Southwest Oregon/Northwest California area. Unique to this Deployment Site will be the participation of at least one microtransit operator capable of automated booking through collaboration with a scheduling software vendor (see 4.1.2 below). Operators will also use the 1<sup>st</sup> Tier Support Desk to assist their riders in answering questions about regional services available to them. Use of this feature may also entail navigating the Directory for relevant information. Operators will also engage in localized public outreach efforts on behalf of the project.

### **4.1.2 Riders and Caregivers**

Deployment Site 3 riders and caregivers will interact with the system directly through using the 1st Tier Support Desk to get information about regional services available to them and to receive basic assistance in navigating the transportation network within the region (including online trip

planning). It is expected that these features will improve the trip planning experience for specific communities of underserved riders, namely individuals

- with disabilities
- of limited English-proficiency
- who are seniors
- with low incomes

This system component will act as a training system itself, but will not require training to use.

### **4.1.3 Scheduling/CAD/AVL software vendor (B2G)**

A business-to-government scheduling software vendor will use APIs and data produced by the project to establish an automated booking system in coordination with a regional microtransit agency(s). This vendor will also provide the necessary data specific to the performance measurement plan to assist in project performance evaluation.

## **4.2 Participant Eligibility, Recruitment, Selection, and Retention**

In this section, eligibility, recruitment, selection, and retention of Deployment Site 3 groups is described. General information on eligibility, recruitment and selection, and retention that applies to all (or most) groups is included under Sections 4.2.1, 4.2.2 and 4.2.3 respectively, while information specific to particular groups (e.g., Operators) are found in subsections (e.g. 4.2.1.X).

### **4.2.1 Eligibility**

Deployment Site 3 encompasses Southwest Oregon and Northwest California. Operators with connecting services in this region are eligible participants. A microtransit/public on-demand service capable of automated booking would also be eligible.

#### **4.2.1.1 Transit Operators**

Operators with connecting services in this region are eligible participants, and the agency manager will be the primary participant who will select any other participants from the agency. A microtransit/public on-demand service capable of automated booking would also be eligible.

#### **4.2.1.2 Riders**

Any rider accessing services of participating operators in Deployment Site 3 will benefit from the project, though would not necessarily be classified as a formal “project participant” because data related to usage will only be collected in aggregate formats that do not distinguish individual participants.

#### **4.2.1.3 Scheduling/CAD/AVL software vendor (B2G)**

Vendors who will provide data specific to Deployment Site 3 operators will be eligible participants in the project.

### **4.2.2 Recruitment and Selection**

#### **4.2.2.1 Transit Operators**

Operators have already been recruited during Phase 1, and include:

- Rogue Valley Transportation District
- Josephine County Transit
- Basin Transit
- Klamath Tribes
- Southwest POINT

Additional operators bordering these could be added during the course of the project

Participant estimate: 5.

#### **4.2.2.2 Riders**

To ensure there is a large enough pool of riders using tools to plan their transit trips in the region, the project team will carry out outreach efforts to promote the program through public channels such as press releases, advertisement, and social media. Some of this outreach may be carried out by the project team while others may be led by participating operators (see the Outreach Plan for more information).

Participant estimate: 1,000.

#### **4.2.2.3 Scheduling/CAD/AVL software vendor (B2G)**

Beyond the general recruitment efforts laid out for Deployment Site 1, project team members will likely conduct targeted outreach efforts to encourage the involvement of one scheduling/CAD/AVL software vendor with operator clients in Deployment Site 3 who has already expressed interest in participating with this site.

Participant estimate: 1.

### **4.2.3 Retention**

Potential challenges to retaining voluntary participant groups and solutions/strategies to mitigate those challenges are laid out here.

#### **4.2.3.1 Operators**

No specific retention strategy unique to Deployment Site 3. Partnership agreements will be detailed in the Institutional Partnership Financial Plan.

#### **4.2.3.2 Riders**

No specific retention strategy unique to Deployment Site 3. The statistical approach identified in the Performance Measurement and Evaluation Support Plan does not require retention of specific rider participants.

#### **4.2.3.3 Scheduling/CAD/AVL software vendor (B2G)**

No specific retention strategy unique to Deployment Site 3. Partnership agreements will be detailed in the Institutional Partnership Financial Plan.

### **4.3 Training Methodology**

This section discusses training and education approaches undertaken for specific participant groups including training objectives, content, and format.

#### **4.3.1 Transit Operators**

Specific methodology to educate and train operators participating in Deployment Site 3 will consist of two main components. The first will be a webinar for operators also participating in Deployment Site 3. In this webinar, presenters will discuss with operators their roles in the connected travel program. The second approach will consist of ongoing training project team members will conduct on an informal basis.

##### **4.3.1.1 Training Objectives**

Training Operators in Deployment Site 3 will focus on the following objectives:

- Objective 1: Operators will understand Deployment Site 3 goals and in general terms how it will operate.
- Objective 2: Operators will understand what role they will play in Deployment Site 3.
- Objective 3: Operators will know who established points of contact are for each other agency, including the lead agency, as well as the project team point of contact.
- Objective 4: Operators will know how to contact each point of contact.
- Objective 5: After communicating with the project team, operators will understand any steps that should be taken to resolve issues specific to them as they come up during the project.
- Objective 6: The primary operator providing the microtransit integration will understand the data standards used and constraints of the integration.
- Objective 7: Travel trainers will understand how the 1<sup>st</sup> Tier Support Desk and microtransit integration work for riders in order to assist in rider support.

#### **4.3.1.2 Key Content Areas/Training Topics**

This section provides a brief outline of what topics will be covered both during the webinar and ongoing informal training:

- ITS4US project and Deployment Site 3 overview
- How operators will participate
- Introductions of points of contact
- Agency-specific issues as they come up throughout the project lifecycle

#### **4.3.1.3 Training Format and Materials to be Used**

The webinar for operators participating in the Deployment Site 3 will be held in an online video conference call. The call will also be recorded for operators to be able to later reference. The project team may also produce and distribute additional guiding documents for reference targeted at Deployment Site 3 operators.

Ongoing training will be carried out as needed through email, phone/video call, or screenshare.

Additional formal training for operators in this group may be established during the course of the project, focused on building long-term staff capacities, but the exact format of those sessions or materials is unknown at this time.

Operators within the Deployment Site 3 region will be met with for training in groups where feasible, and encouraged to communicate directly regarding operations of the system. If appropriate, group emails or other communications will publicize questions that came up for one agency to other agencies in the region. These activities will be meant to support the development of an informal community of practice which supports the retention and success of agencies participating.

### **4.3.2 Riders and Caregivers**

Because riders caregivers are indirect participants only, the project team anticipates little in the way of training and education efforts beyond the public promotion and user resources of the app, provided by the operator and B2C vendor.

#### **4.3.2.1 Training Objectives**

Training/education of riders in Deployment Site 3 will focus on the following objectives:

- Objective 1: Riders will be aware of the project efforts specific to Deployment Site 3 and its overarching goals for transportation in the region.

#### **4.3.2.2 Key Content Areas/Training Topics**

Topics for training riders include:

- Project efforts in Deployment Site 3

#### **4.3.2.3 Training Format and Materials to be Used**

To educate riders on project developments impacting them as stakeholders, they will be a target audience of press releases, advertisement, and social media. Some of this outreach may be carried out by the project team while others may be led by participating operators (see the Outreach Plan for more information).

### **4.3.3 Scheduling/CAD/AVL software vendors (B2G)**

In Deployment Site 3, a business-to-government scheduling software vendor will play a pivotal role in establishing an automated booking system in coordination with a regional microtransit agency(s). It will be important for other B2G vendors to understand the data specific to Deployment Site 3 that they must deliver to their regional clients for the Site's goals to be fulfilled. As such, the project will provide scheduling/CAD/AVL software vendors with educational materials and ongoing coordination specific to Deployment Site 3.

#### **4.3.3.1 Training Objectives**

Training for Scheduling/CAD/AVL software vendors (B2G) in Deployment Site 3 will focus on the following objectives:

- Objective 1: Scheduling/CAD/AVL software vendors (B2G) will understand data guidelines they must follow specific to contracts with operators in Deployment Site 3.
- Objective 2: Scheduling/CAD/AVL software vendors (B2G) will know how and where to access project news and updates.
- Objective 3: Scheduling/CAD/AVL software vendors (B2G) will know who to contact on the project team for any questions or guidance in relation to Deployment Site 3 activities and how to best contact them.

#### **4.3.3.2 Key Content Areas/Training Topics**

This section provides a brief outline of what topics will be covered in educational materials for Scheduling/CAD/AVL software vendors (B2G):

- Guidelines on data specific to Deployment Site 3
- How to access project updates overall to stay informed about developments affecting them
- Project team contacts for Deployment Site 3

#### **4.3.3.3 Training Format and Materials to be Used**

The project team will develop publicly available educational documents targeted at Scheduling/CAD/AVL software vendors (B2G) working with Deployment Site 3. These documents will outline the roles these vendors will play and point to resources to help them be successful project participants through their partnerships with transit operators. The project team will also communicate regularly with software vendors as project needs arise through email, online chat, phone/video call and conferencing.

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# 5 Deployment Site 4: Large urban and suburban region with diverse service offerings including rail

The fourth and final participant group consists of subgroups within the urban/suburban deployment region (Deployment Site 4). Training and education unique to this deployment site will have particular focus on Pathways and wayfinding data implementation.

## **Deployment Description:**

This deployment site encompasses the San Bernardino County area in California with a focus on the city of San Bernardino around the regional transit center. This area has frequent intercity bus and rail connections which present complex wayfinding accessibility challenges. The project intends to provide better pathway information, digital infrastructure and wayfinding signage, and fares data showing inter-agency discounts to improve the rider experience in the deployment area. The digital wayfinding signage, and a licensed app provided by Navilens through which that signage can be accessed, will ingest open data regarding pathways and other geographical features and make that data accessible to other apps as well through open APIs.

## **5.1 Identification of Participants and Necessary Training**

In this Section, we list and briefly describe groups of project participants that have unique roles, interactions, and responsibilities within Deployment Site 4. These groups will be referenced throughout the remainder of the report when describing training/education activities and needs in the following sections.

### **5.1.1 Transit Operators**

Transit operators within Deployment Site 4 will require training regarding the use of the Navilens app, so that the app can be reviewed for quality and assistance can be provided to riders and caregivers. The operators referenced in Deployment Site 4 are agencies with both fixed-route and demand-responsive services, including ADA complementary paratransit, operating within the San Bernardino County area. Unique to this Deployment Site will be the need for operators to work with project partners to collect information on vehicle attributes to create GTFS-Vehicles data. Operators in Deployment Site 4 also include high frequency intercity rail agencies, which will need to work with project partners to develop GTFS-Pathways data for intercity rail stations within this deployment region. These operators will coordinate services with one another, making use of the data and tools promoted by the project, to instill a more efficient regional transportation ecosystem. Operators will also engage in localized public outreach efforts on behalf of the project.

## 5.1.2 Riders and Caregivers

While not required for use, riders and caregivers within Deployment Site 4 may be provided training on the use of the Navilens app or other apps including new pathway information through Omnitrans travel trainers or other staff. Most transit riders will not interact with system components directly, but many will interact indirectly, namely with the new features included in trip planning apps and/or tools. For Deployment Site 4, riders using commercial trip planning apps will benefit from the information on accessible station pathways and vehicle accommodations made available through the project. It is expected that these features will improve the trip planning experience for specific communities of underserved riders, namely individuals:

- with disabilities
- of limited English-proficiency
- who are seniors
- with low incomes

Some transit riders using commercial trip planning apps within Deployment Site 4 will be selected to complete an in-app survey collecting feedback on satisfaction regarding the features and information included within those apps. This will serve as one of the data inputs for the project's performance measurements.

## 5.2 Participant Eligibility, Recruitment, Selection, and Retention

In this section, eligibility, recruitment, selection, and retention of Deployment Site 4 groups is described. General information on eligibility, recruitment and selection, and retention that applies to all (or most) groups is included under Sections 5.2.1, 5.2.2 and 5.2.3 respectively, while information specific to particular groups (e.g., Operators) are found in subsections (e.g. 5.2.1.X).

### 5.2.1 Eligibility

Deployment Site 4 encompasses the San Bernardino County area. Operators with connecting services in this region are eligible participants, as well as at least one microtransit/public on-demand service.

#### 5.2.1.1 *Transit Operators*

Operators with connecting services in this region are eligible participants. A microtransit/public on-demand service capable of automated booking would also be eligible.

#### 5.2.1.2 *Riders*

A rider may participate in the project if they opt in to fill out a survey linked from an application, website, or other rider tool they use. Any rider accessing services of participating operators in Deployment Site 4 will benefit from the project, though would not necessarily be classified as a "project participant."

## 5.2.2 Recruitment and Selection

### 5.2.2.1 Operators

Operators have already been recruited during Phase 1, and include:

- Omnitrans
- San Bernardino County Transportation Authority
- Victor Valley Transportation Authority
- Other regional operators may be included during Phase 2 and 3 in minor roles

The manager of each agency will identify a point of contact who will be responsible for identifying any other participants at the agency.

Participant estimate: 5.

### 5.2.2.2 Riders

To ensure there is a large enough pool of riders using tools to plan their transit trips in the region, the project team will carry out outreach efforts to promote the program through public channels such as press releases, advertisement, and social media. Some of this outreach may be carried out by the project team while others may be led by participating operators (see the Outreach Plan for more information). Riders using these tools will be selected (or recruited) to respond to survey questions through an algorithm that randomizes which end-users are presented with the option of filling out the survey.

Participant estimate: 3,000.

## 5.2.3 Retention

### 5.2.3.1 Operators

No specific retention strategy unique to Deployment Site 4. Partnership agreements will be detailed in the Institutional Partnership Financial Plan.

### 5.2.3.2 Riders

No specific retention strategy unique to Deployment Site 4. The statistical approach identified in the Performance Measurement and Evaluation Support Plan does not require retention of specific rider participants.

## 5.3 Training Methodology

This section discusses training and education approaches undertaken for specific participant groups including training objectives, content, and format.

### **5.3.1 Operators**

Specific methodology to educate and train operators participating in Deployment Site 4 will consist of two main components. The first will be a webinar for operators also participating in Deployment Site 4. In this webinar, presenters will discuss with operators their roles in the connected travel program.

The second approach will consist of ongoing training project team members will conduct on an informal basis.

#### **5.3.1.1 Training Objectives**

Training Operators in Deployment Site 4 will focus on the following objectives:

- Objective 1: Operators will understand Deployment Site 4 goals and in general terms how it will operate.
- Objective 2: Operators will understand what role they will play in Deployment Site 4.
- Objective 3: Operators will know who established points of contact are for each other agency, including the lead agency, as well as the project team point of contact.
- Objective 4: Operators will know how to contact each point of contact.
- Objective 5: After communicating with the project team, operators will understand any steps that should be taken to resolve issues specific to them as they come up during the project.
- Objective 6: Travel trainers or other customer service staff must know how to use the Navilens app, and possibly other apps including enhanced pathways data.

#### **5.3.1.2 Key Content Areas/Training Topics**

This section provides a brief outline of what topics will be covered both during the webinar and ongoing informal training:

- ITS4US project and Deployment Site 4 overview
- How operators will participate
- Introductions of points of contact
- GTFS data extensions information especially related to data maintenance processes
- Agency-specific issues as they come up throughout the project lifecycle

#### **5.3.1.3 Training Format and Materials to be Used**

The webinar for operators participating in the Deployment Site 3 will be held in an online video conference call. The call will also be recorded for operators to be able to later reference. The project team may also produce and distribute additional guiding documents for reference targeted at Deployment Site 4 operators.

Ongoing training will be carried out as needed through email, phone/video call, or screenshare.

Operators within the Deployment Site 4 region will be met with for training in groups where feasible, and encouraged to communicate directly regarding operations of the system. If appropriate, group emails or other communications will publicize questions that came up for one agency to other agencies in the region. These activities will be meant to support the development of an informal community of practice which supports the retention and success of agencies participating.

### **5.3.2 Riders and Caregivers**

Because riders will only be formal participants through their participation in the random survey, the project team anticipates little in the way of training and education efforts beyond the public promotion of the program and the instructional content of the survey itself.

#### **5.3.2.1 Training Objectives**

Training/education of riders in Deployment Site 4 will focus on the following objectives:

- Objective 1: Riders will understand the purpose of the survey.
- Objective 2: Riders will be proficient in filling out the survey.
- Objective 3: Riders will be aware of the project efforts specific to Deployment Site 4 and its overarching goals for transportation in the region.

#### **5.3.2.2 Key Content Areas/Training Topics**

Topics for training riders include:

- Project efforts in Deployment Site 4
- Purpose of the survey and how to fill out the survey

#### **5.3.2.3 Training Format and Materials to be Used**

Users will be presented with an instructional message that appears within the rider tool they are using. The message will detail how to participate in the rider survey as well as general background information on the purpose of the survey.



# 6 Training Assessment

This section describes how the project team will determine whether participant groups met the objectives of the training and education efforts applied, as well as outline how the project intends to collect feedback from the participants on how training and education could be improved.

## 6.1 Knowledge Assessments After Training

Planned assessment methods to determine if participants have acquired the necessary information to proceed with participating in the deployments are included in the table below.

**Table 1. Assessment Methods for Each Participant Group**

Group/Sub-Group	Assessment Methods
Operators	Initial assessment of the participating operators' understanding of the project will take place at the end of the various webinars. Operators will be asked to self-assess their understanding so that project leadership can conduct targeted additional training as needed. Assessment for operators will be ongoing to ensure they continue to understand how the project impacts operation and how they can continue benefiting from and coordinating with project outcomes and adjust course as needed. Regular check-ins between operator and state DOT representatives are expected to take place throughout Phases 2 and 3.
State DOTs	As training administered by project staff will be secondary to internal DOT training, there will not be any formal assessment. Rather, project staff will assess DOT staff within the context of regular informal interactions as part of carrying out the project goals. This informal assessment will consist of open-ended conversations that arise during those interactions.
Rider Application Vendors (B2C)	These vendors will demonstrate they have met the objectives of their training and education by successfully utilizing the Directory to access transit data, as well as other avenues provided by the project to publish data within their applications.

Group/Sub-Group	Assessment Methods
Scheduling/CAD/AVL Software Vendors (B2G)	The project team will assess these vendors by the quality of data they produce on behalf of their clients participating in the Deployment Sites. The project team may use tools such as the GTFS Grading Scheme or other validation tools.
Riders	No targeted assessment strategy is needed for riders, as successful completion of the rider surveys will indicate their ability to complete the survey. Additionally, the survey may include questions asking riders to self-assess their understanding of the project goals.

## 6.2 Participant Feedback

Project partners will be expected to be open to all forms of feedback targeted at the performance of the project as a whole. This includes the methods used to train and educate the various participant groups detailed in this report. All participants will be made aware of specific project team members to whom they can direct that feedback. In addition, formal training sessions will include a section devoted to informing participants on how to give feedback on the training, as well as a fillable form to give feedback anonymously. All forms of feedback relating to participant training and education will be applied to future training and education efforts the project carries out, including adjusting webinar presentations and editing educational documents.

It is important to note that the rider survey, a core aspect of the project, is itself a medium of feedback the project team will use to solicit riders for their thoughts on project impact. The feedback these surveys ask for will include rider opinion on the clarity of the survey itself as well as the project goals briefly outlined at the beginning of the survey. This feedback will be used to improve survey questions and language overall.



# 7 Planning and Coordination of Training Activities

This section identifies needed coordination with other entities and any known lead times for working with them.

**Table 2. Table of Coordination Needs by Training Activity**

Training Activity	Coordinating Entity	Coordination Needs (services, facilities, and equipment)	Anticipated Lead Time Required
Webinars	CALACT (lead), WSDOT, ODOT, Caltrans	Online Video conferencing software with the ability to record, calendar scheduling through email, time availability survey	2 months from initial outreach and planning to day of webinar
Ongoing training	CALACT (lead), WSDOT, ODOT, Caltrans	Contact information distribution, regular check-in meetings with project leadership to raise training/education concerns	N/A
In-app rider survey instructions	CALACT (lead), Rider Application Software Vendors	Planning for deployment of survey, agreement on content	4 months of planning, testing before official deployment
Educational documentation	CALACT (lead) and Partners, MobilityData, other industry partners to be identified	Announcements within industry forums, making linkage to documentation publicly available through multiple channels	1 month

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# Appendix A. Acronyms and Glossary

**Accessibility** – Accessibility is used in this document to indicate the ability all riders—especially people with disabilities, Limited English Proficiency, or who faces other barriers to access transit—to use transit and transit technologies in a way that best supports those users’ individual experiences with transit. A service or technology may be “accessible” as defined by the ADA, but may also present “accessibility barriers” which this project seeks to help riders manage, in order to make the service or technology “more accessible”.

ADA – Americans with Disabilities Act

API – Application Programming Interface

B2C – Business to consumer

B2G – Business to government

BAA – Broad Agency Announcement

CA – State of California

CA PATH – California Partners for Advanced Transit and Highways

CAD/AVL – Computer-Aided Dispatch/Automatic Vehicle Location

CALACT – California Association for Coordinated Transportation

Caltrans – California Department of Transportation

CCPA – California Consumer Protection Act

CDL – Concept Development Lead

ConOps – Concept of Operations

**Deep link** – A link within a mobile application which directs the user to another mobile application, rather than to a website.

**Demand-responsive transit** – Transit services which provide trips at a location and/or time that is requested by a rider. Generally, any transit service that is not Fixed-route is considered a type of Demand-responsive transit for the purposes of this document, including general public DAR, ADA paratransit, and other transit models.

DOT – Department of Transportation

**Fixed-route transit** – Transit services that provide service to the general public through vehicles which stop at designated locations (stops and stations) at designated times.

Freemium – Business model in which a company provides a basic level of service for free but additional, optional features are available at a premium.

Geocoding – Geocoding is the process in which a geocoder consumes addresses and transforms them into latitude and longitude coordinate points. Geocoders are often maintained and customized by local parties as generic geocoders often fail to account for nuances in a local area and rarely perform well in more sparse areas such as rural farms.

GPS – Global Positioning System

GTFS – General Transit Feed Specification

IEEE – Institute of Electrical and Electronics Engineers

Internationalization – Often shortened to i18n, refers to the technical preparation of a software application to handle translations. i18n involves wrapping all text that is used in interfaces and needs to be translated with markup tags and unique ids so that a translation can be mapped to individual tags and users can quickly toggle between supported languages. Internationalizing an application helps rapidly support additions on new translations.

IRB – Institutional Review Board

Low income riders (LI) – Public transit users who may qualify for reduced or free fares. Low income riders may also use public transit because it is the most affordable transportation option available to them.

NEMT – Non-Emergency Medical Transportation

NIST 800-53 – National Institute of Standards and Technology

PII – Personally Identifiable Information

PLC – Project Leadership Committee

PML – Project Management Lead

PMO – Project Management Organization

PMP – Project Management Plan

PMT – Project Management Team

ODOT – Oregon Department of Transportation

Older adult riders (OA) – Public transit users who carry eligibility status based on their age as defined by a given transportation service. Older adult riders may also use public transit because they are unable to access other forms of transportation due to their age.

OR – State of Oregon

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OS – Operating System

Riders with hearing disabilities (DH) – Individuals who either take public transit because it is the safest transportation option for a person with a hearing disability or for whom riding transit is difficult because of that disability.

Riders with intellectual and developmental disabilities – Persons who, because of their intellectual or developmental disability, use public transit. They may also qualify for specialized forms of public transit such as paratransit or Dial-A-Ride service.

Riders with limited English proficiency (LEP) – Public transit users who, because of their limited English proficiency, do not have access to all the information related to their journey. They may also have difficulty communicating with drivers, scheduling technicians (for demand-responsive services), and other passengers.

Riders with mobility disabilities (DM) – Persons who, because of their mobility disability, use public transit. They may also qualify for specialized forms of public transit such as paratransit or Dial-A-Ride service.

Riders with other safety concerns, e.g. women, riders of color, riders with children, recently incarcerated riders (SI) – Public transit users who must consider and be aware of additional safety aspects of their journey relating to one or more of their identities being the target of harassment, violence, intimidation, or other unsafe situations.

Riders with vision disabilities (DV) – Persons who, because of their vision disability, use public transit. They may also qualify for specialized forms of public transit such as paratransit or Dial-A-Ride service.

Rural riders (RT) – Public transit users who live in low-population density areas typically with limited transit options.

SCC – System Coordination Committee

Screen-reader – Software applications that can read for visible text on a screen and non-visible markup or metadata (such as paragraph sections) and speak the content aloud to a user.

SDL – System Development Lead

SEMP – Systems Engineering Management Plan

SyRS – System Requirements Specification Document

TBD – To Be Determined

TTS – Text-to-Speech

TNC – Transportation Network Company

UI – User Interface

Veteran riders (VT) – Public transit users who carry veteran eligibility status as defined by a given transportation service.

Voice user interface – Voice user interfaces reference to user functionality that provide spoken aloud content or interactive spoken content for example Google Maps pedestrian walking navigation or Amazon's Alexa. These interfaces are becoming increasingly common and in some cases replace the need for a screen readers as the entire interface is voice based.

WA – State of Washington

WBS – Work Breakdown Structure

WSDOT – Washington State Department of Transportation

WSTA – Washington State Transportation Association

1st Tier Support – Service provided to users of the technical components of the system. 1st Tier Support may provide help with specific problems or questions related to the system or use the system to answer basic, quickly searchable questions on behalf of the user.

# Appendix B. References

CALACT Phase 1 Concept of Operations (ConOps), USDOT (2021),  
<https://rosap.ntl.bts.gov/view/dot/58186>

CALACT Phase 1 Humas Use Approval Summary, USDOT (2021)

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