“Trip Planning for All”

Plan, book, and pay, for all riders in WA, OR, and CA

Sites in WA, OR & CA

Team Members:
CALACT (Transit Association)
California PATH (Academic)
Caltrans (DOT)
Washington State DOT
Oregon DOT
Google (Private technology firm)
Transit (Private technology firm)
MobilityData (Non profit standards body)
NaviLens (Private technology firm)
Trillium (Private technology firm)
Compiler LA (Private technology firm)
Washington State Transit Association
Tamika Butler Consulting
Mark Wall Associates
Athena Group
Project Team Leads

**Jacklyn Montgomery**
CALACT
Executive Director
Project Management Lead (PML)

**Thomas Craig**
CALACT
Contract technology specialist
System Development Lead (SDL)

**Gillian Gillett**
Caltrans
Program Manager
Concept Development Lead (CDL)
“Trip Planning for All”

A coordinated effort to improve the user experience and cost efficiency of online trip planning for disadvantaged riders, with a focus on demand responsive transit for riders to plan, book and pay for trips throughout Washington, Oregon and California.
CALACT & Partners

- **CALACT**
  - Jacklyn Montgomery, Executive Director
  - Project Lead Agency
  - Thomas Craig, Contract Technology Specialist
  - Project Management, SDL, GTFS Flex Project Manager

- **Caltrans**
  - Gillian Gillett, Program Manager
  - Project Management (CDL) & Y Payment Product Manager

- **Oregon Department of Transportation**
  - Matthew Barnes, Intercity Network Manager & Sarah Hackett, Public Transportation Network Coordinator
  - Outreach for Oregon Agencies, Transit Directory Product Manager

- **Washington State Department of Transportation**
  - Ian Wesley, Data Analyst
  - Outreach to Washington Transit Agencies, Evaluate Software and Programs

- **Trillium**
  - Aaron Antrim, CEO
  - Data standards and technology design advice

- **MobilityData**
  - Leo Frachet, Executive Director
  - Support the development of standardized data specifications and global agency/vendor outreach

- **Compiler LA**
  - Vyki Englert, Principal, and staff
  - Software team leading the design, development, and deployment of applications

- **Washington State Transit Association**
  - Justin Leighton, Executive Director
  - Outreach to Washington Transit Agencies
Additional Partners

- **Tamika L. Butler Consulting**
  Tamika Butler, Principal
  *Stakeholder engagement, rider equity and internal evaluations*

- **Mark Wall & Associates**
  Mark Wall, Principal
  *Outreach to California Transit agencies, Administrative Support & Reporting*

- **California PATH**
  Alex Kurzhanskiy, Program Manager
  *Internal evaluation, support user testing and the development of Human Use Approval Summary*

- **Athena Group**
  Faith Trimble, CEO
  *Stakeholder engagement & Outreach*

- **Google**
  Maryam Ghofraniha, Global Product Partnerships
  *Project adviser and stakeholder outreach support*

- **Transit**
  Andrew Salzburg, Head of Policy & Katie Monroe, Partnerships
  *Stakeholder outreach support and data standards advice*

- **Navilens**
  Javier Pita, CEO
  *Stakeholder outreach support and data standards advice*
Disadvantaged users get **incomplete and inaccessible information** through online and mobile trip planners. This project identifies the technical gaps which limit trip planner accessibility for these users, and coordinates community investment in **standardized** solutions.
Challenges & Underserved Populations

- **People with mobility disabilities**
  - Absence of paratransit and other demand-response services from trip planners
  - Little or no wayfinding information, or information about space available for mobility devices
- **People with vision impairments**
  - Some service information only provided visually (e.g. signs) & abbreviations hamper text-to-speech
- **People with cognitive and developmental impairments**
  - Transit information often lacking cosmetic detail and not presented clearly or with too much text
- **People with hearing impairments**
  - Visual wayfinding information not included in apps, and service alerts sometimes only available through audio
- **Older adults**
  - Touch interfaces not designed for users with limited dexterity or for users with limited experiences with similar tools
- **Low-income populations**
  - Wealthier agencies have significantly better technology
  - Fare information is often unavailable, preventing cost calculation & some services may require credit cards
- **Rural residents**
  - Lack of data for rural routes often due to lack of agency resources
  - Rural routes are more often demand response or deviated-fixed
- **Veterans**
  - Services specifically geared towards veterans are absent from trip planners
  - No data for demand-response services and medical transportation
- **Limited-English Proficiency**
  - Signage & service information is designed for users with complex understanding of English
  - Interfaces are not designed to be translated easily by devices
Proposed Solutions

The CALACT project aims to foster *data standardization* and *open source software and software best practices* solutions to known problems regarding incomplete and inaccessible information, which are faced by disadvantaged users while using software applications to plan, book, pay for, or navigate through trips.

One system can’t solve all problems. The CALACT project aims to foster the components that let different local, state, and private organizations *set up their own systems*. 
Proposed Solutions

- People with disabilities
- Older adults and veterans
- Rural residents
- Low-income populations
- Limited English proficiency
- Incomplete information
  - Demand-response trip planning
  - Complete visual and audio information
  - Common customer service
  - Pathway and vehicle information
  - Eligibility, booking, and payment standards
  - Digital representation of physical infrastructure
Proposed Solutions

- Demand-response trip planning
- Complete visual and audio information
- Common customer service
- Pathway and vehicle information
- Eligibility, booking, and payment standards
- Digital representation of physical infrastructure

Directories of service

Common analysis tools

Rider applications

Improved service, discoverable and accessible to more people
Target Performance Measures

Evaluation framework:
- Process will involve user stakeholder committees which will provide ongoing feedback and user testing.

Planned performance measures:
- Number of agencies, and riders at agencies, using project-related technologies
- Number of software application developers using project-related technologies
- Increased number of trips for decreased per trip cost provided by demand-responsive agencies
- Decreased number of “no shows” and decreased cost of collecting fares at demand-responsive agencies
- Identifications of inequitable distributions of services and service gaps
Integrated Deployment

- Demand-response trip planning
- Complete visual and audio information
- Common customer service
- Pathway and vehicle information
- Eligibility, booking, and payment standards
- Digital representation of physical infrastructure

Directories of service

Common analysis tools

Rider applications

Book trips including community demand-responsive services in real-time.

Discover services in all communities, regardless of ability.

Clearer interactions between operators, regulators, vendors, and riders.

Digital representation of infrastructure and vehicles with service information.
Integrated Deployment

**PHASE 1**
Concept Development

1. 2
3 4 5 6 7 8 9 10 11 12
13 14

**PHASE 2**
Design, Build, and Test

- All Data Specified
- All Software First Deployed
- All Technology Specified
- All Technology First Deployed

- Design
- Build
- Test

Month 6  Month 12  Month 18  Month 24

**PHASE 3**
Operate and Maintain

- Start: 20%
- Month 3: 50%
- Month 5: 80%
- Month 6: 100%

Ongoing evaluation and operation through Month 24

COMPLETED TRIP
ITS4US

U.S. Department of Transportation
ITS Joint Program Office

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Challenges & Risks

**Challenges**
- Coordination of many, and very different, partners
- Understanding specific user needs for access and information
- Integrating systems across different modes and agencies
- Swaying private companies with proprietary apps

**Risks**
- Try to develop too many products
- Pick the wrong products because we didn’t get the right feedback
- Leave out some users or agencies
- Lack of private sector adoption of data specifications