"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

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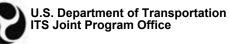**ITS4US**

Project Team Leads

Jacklyn Montgomery
CALACT
Executive Director
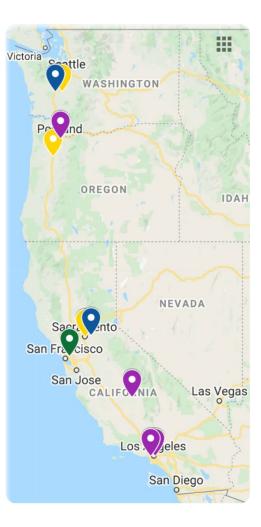Project Management
Lead (PML)

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.

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U.S. Department of Transportation
ITS Joint Program Office

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

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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

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Challenges & Underserved Populations

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

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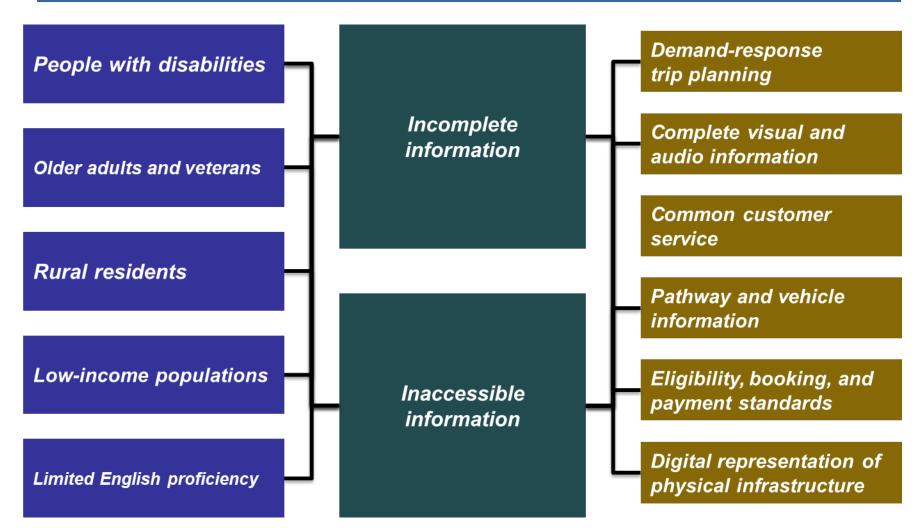ITS4US

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**.
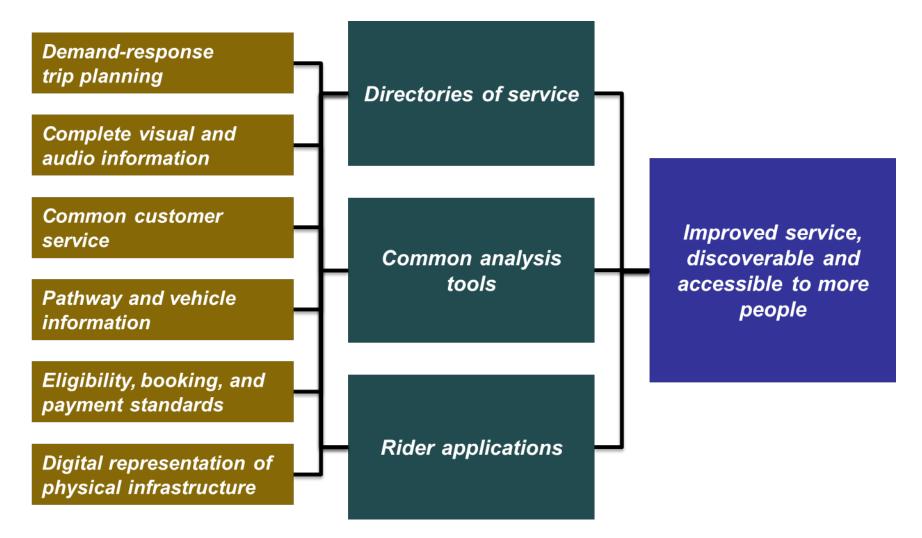
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Proposed Solutions

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

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Target Performance Measures

Evaluation framework:

- CA PATH, Mark Wall Associates, and Tamika L. Butler Consulting collaborating on Evaluation and Performance Measurement plan.
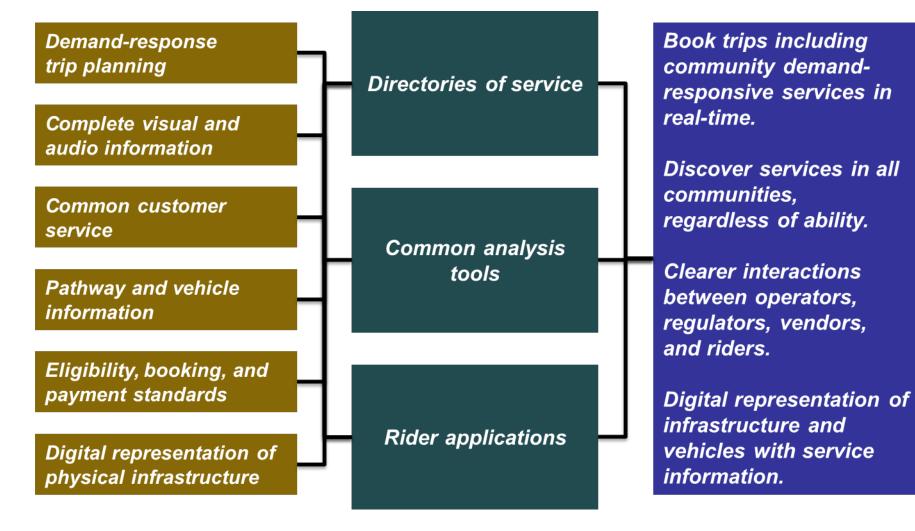- Process will involve user stakeholder committees which will provide ongoing feedback and user testing.

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
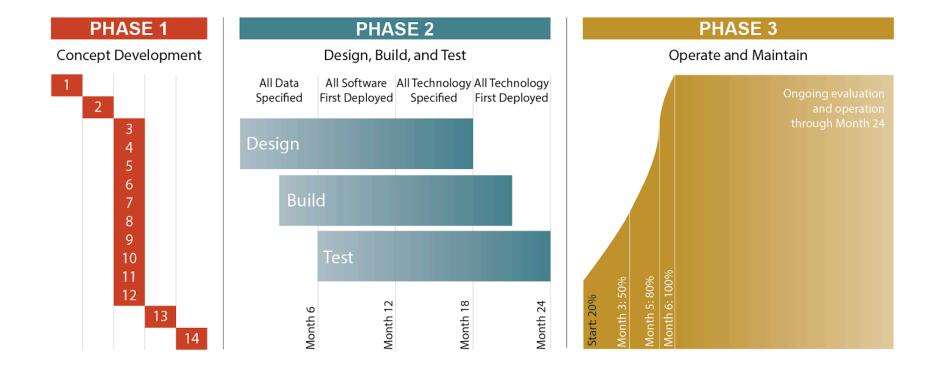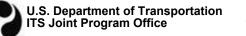
Integrated Deployment

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

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