Meet the Mobility-on-Demand Sandbox Grantees
Integrated Fare Systems -- From Transit Fare to Bike Share

2016 MOD Sandbox Grant Awardee
Ventra Divvy Integration

Grabbing a Divvy bike from Wicker Park’s Damen Stop after riding the Blue Line
Project Description

• The CTA is partnering with the Chicago Department of Transportation (CDOT) and Divvy Bike Share to connect CTA’s transit customers with more than 570 bike share locations throughout the region.

• CTA riders will be able to use a cell phone to plan their trip, add transit value to their Ventra card, confirm the availability of a Divvy bike at their destination and pay for their bike share ride for the ‘first or last mile’ of their transit journey.
Partnerships

- The **CTA** is the lead agency on this project, and their Revenue Department is leading the coordination efforts and project implementation.

- **Cubic Transportation Systems** is developing and implementing the Mobile App upgrades.

- **CTA** is partnering with **CDOT** and their vendor, **Motivate** (Divvy Bike Share), to coordinate payment integration.
By The Numbers…

- Ventra App Users: 2.75 million
- CTA
  - Rail Lines: 8
  - Rail Stations: 145
  - Bus Routes: 130
  - Bus Stops: 10,813
- Metra
  - Rail Lines: 11
  - Rail Stations: 241
- PACE
  - Bus Routes: 209
Divvybikes.com

- Stations 570+
- Bikes 6,000
- 80% use Divvy to connect to transit
- D4E Program

- Single Ride
  - $3/ride
  - Up to 30 minutes

- Explorer Pass
  - $15/day
  - Unlimited 3-hour rides/24 hour-period

- Annual Membership
  - $99/year
  - Unlimited 45-minute rides for 365 days
Ventra App Timeline

• November 2015 Ventra APP launched
• Mid-2017
  • CTA changes app developers, and begins process to revise and relaunch the app
• Ongoing
  • Commercial negotiations among MOD partners
  • Finalizing scope and design for Divvy rental functionality
• Summer, 2018
  • Anticipated release of new and improved Ventra app
  • New app will include trip planner, and Divvy availability upon launch
• To Be Determined
  • Anticipated release of Divvy rental functionality
Anticipated Outcomes

• CTA anticipates that the Trip Planner and Divvy Bike Share enhancement will increase customer usage of the Mobile App, as transit riders will be able to seamlessly combine CTA bus and train services with a bike ride to their destination.

• Increases in transit and ride sharing usage will be monitored to inform future mode share opportunities.

• ‘Divvy for Everyone’ (D4E) Bike Share increases participation by reducing the cost for low income residents.
  • Reduced annual membership fee
  • No credit card required.
Overall Motivation

Reduce the overwhelming dependency on the single occupant automobile within the North Texas region.

- Provide single interface solution to aggregate public and third party mobility providers
- Deliver a “one-touch”, single payment transaction for customers to interface with DART’s GoPass app and identify “door-to-door” transit solutions
- Develop a clearinghouse portal facilitating revenue settlement for multiple third-party transportation providers
- Integrate equitable MOD options to DART’s portfolio of public transit options including comparable access for the unbanked, disabled, low income, and smartphone challenged customers
- Lower the cost and expand the reach of public transportation to provide high quality, first and/or last mile services
Project Description

• Update GoPass’ Software Development Kit (SDK) to leverage APIs of key mobility on demand providers including taxi, TNCs, bike and car share services

• Upgrade GoPass’ trip planning feature to allow customers to choose transportation modes based on time, cost and overall travel preference

• Integrate DoubleMap on demand app technology for pairing customers with DART and/or other public demand responsive providers as an additional option for first and/or last mile travel

• Integrate Dynamic Carpooling – Spare Labs

• Leverage DART’s account-based back office provided by Vix Technology to function as a clearinghouse portal facilitating revenue settlement for multiple third-party transportation providers

• Pilot Test Technology in DART Service Area including micro transit supplemented by shared ride TNC services in both high income and low income areas
Status/Challenges

• Integration of the API’s for all of the different systems has proven much more complicated than originally anticipated extending the time and cost for the project

• Individual elements of the program like micro transit, bike share, and the dynamic carpooling will be phased in beginning initially with stand alone APPs, and integrated into a single APP later

• Negotiating acceptable agreements with the TNC’s for shared ride service and access to data to evaluation the program has proven more difficult that anticipated

• Community interest in our project remains very high however

• Because of the phase in of the different elements of the program, the full pilot test will likely need 18 months rather than 12 months to fully obtain an adequate evaluation
Next

- February 26, 2018 --- Micro transit pilot test with stand alone App
- March 2018 --- GoPool dynamic carpooling start up
- April 2018 --- Implement an App switch bringing the stand alone apps into the GoPass application
- May 2018 --- GoPass 2.0++ implementation bringing in multi provider services to the new trip planning features
- June 2018 --- Bike Share Integration
- August 2018 --- Shared ride TNC integration
TriMet
Tri-County Metropolitan Transportation District of Oregon
SUMC March 5, 2018  Project Update
Bibiana McHugh, IT-GIS Manager, TriMet
Project Description
More comprehensive open trip planner offering transit integrated shared-use mobility options.

1. **OpenTripPlanner (OTP)**
   - Extend code to incorporate SUM modes, real-time info, enhanced accessibility narrative.

2. **Open Pelias Geocoder**
   - Extend functionality for govt agencies, and improve match rate.

3. **Open Data**
   - Improve OpenAddresses and OpenStreetMap (OSM) in support of comprehensive trip planning and geocoding.

4. **Integrated Payment Plan**
Motivation

Leverage open source software, open data, and open standards to facilitate widespread adoption.
1. TNC Data Agreements
2. Contract revisions
3. Interface design
4. Trip planner preferences
Next Steps

Integrated Payment Plan

Project Workshop
April 18-19, 2018
moovel, PDX

Testing and Beta Release
Key Project Partners

Cleared for Takeoff
Julian Simioni, Co-founder, Cleared for Takeoff, Inc
Pelias geocoder core team member

Conveyal
David Emory, Principal

IBI
Ritesh Warade, Director, Transit Data Team
Jon Campbell, Transit Data Specialist

moovel North America, LLC
Narayan Siva, Product Manager
Courtney Longfellow, Account Manager

Trillium Solutions, Inc.
Aaron Antrim, President,
Thomas Craig, General Manager
TriMet’s OpenTripPlanner Shared-Use Mobility (OTP SUM) project will create a complete open platform for the integration of transit and shared-use mobility options. With an improved address locator, Mapzen’s Pelias geocoder, the open data, software and user interfaces, responsive on both web and mobile, will help customers make informed decisions about their mobility choices, including the critical first and last miles of transit trips where a bus or train alone doesn’t provide full access.

This dashboard provides a snapshot of the MOD Sandbox project’s progress. These key indicators help us track progress toward project deliverables and the budget. In addition, we will be sharing project updates and lessons learned through this dashboard.
Flexible transit trip planning

Adapting OpenTripPlanner to read GTFS-flex
SUMC National Shared Mobility Summit
March 13, 2018
GTFS-flex extends the GTFS data standard

Incorporating

• Dial-a-ride (on-call service in an area)

• Hail-and-ride (flagging along a corridor)

• Route deviations (within a buffer from a route)

...Find out more at gtfsflex.com
Traditional application-centric design makes technology complicated

Replacing your journey planner means replacing 5 applications.
Standards allow interoperability

Interoperable technologies are modular, and can be replaced easily.
Where to Find the Go Vermont Trip Planner

Go! Vermont

Programs
- Guaranteed Ride Home Benefit
- Volunteer Drivers
- Veterans Services
- Capital Commuters

Resources

Questions?
Call 800-685-RIDE
or e-mail us.

GO! VERMONT TRIP PLANNER
COMBINING MORE TRAVEL OPTIONS WITH JUST ONE SEARCH

ALL YOU NEED TO KNOW TO GO

Connecting you to more travel options throughout Vermont.

zimride CARPOOL MATCHING
The results…

- Trip opportunities span majority of the state, instead of only along fixed-route corridors
- Travel times and walking distances are reduced
- Presents specialized trip options like deviations and monthly trips

Current Google Maps Results
New OTP-flex Results

### Option 1: departs approximately Feb 20th 2:57pm

**Rural Community Transportation**

<table>
<thead>
<tr>
<th>Depart</th>
<th>From</th>
<th>Deviated Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>approx</td>
<td>Spaulding Road</td>
<td>Call 802-748-8170 two days before your trip to request pickup. Priority given to elderly, disabled or Medicaid riders.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arrival</th>
<th>To</th>
<th>Deviated Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 20th 3:14pm to 3:28pm</td>
<td>St. Johnsbury Welcome Center/Transit Hub</td>
<td>Call 802-748-8170 two days before your trip to request your drop off. Priority given to elderly, disabled or Medicaid riders.</td>
</tr>
</tbody>
</table>

- to St. Johnsbury Welcome Center/Transit Hub

### Rural Community Transportation to Montpelier

<table>
<thead>
<tr>
<th>Depart</th>
<th>From</th>
<th>To</th>
<th>Arrive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 20th 3:50pm</td>
<td>St. Johnsbury Welcome Center/Transit Hub</td>
<td>National Life</td>
<td>Feb 20th 5:05pm</td>
</tr>
</tbody>
</table>

- to Destination
The next steps are adding modes and booking trips.

Please contact us with any questions!
PSTA MOD Sandbox Project

Shared Use Mobility Center Summit
Chicago, IL
Bonnie Epstein, Project Planner
March 13, 2018
Pinellas Suncoast Transit Authority (PSTA)
St. Petersburg, Florida
FTA Sandbox Project

- Capitalize on success with other TNC programs by partnering with Lyft, United Taxi, and Care Ride.
- Piloting with a portion of PSTA’s 12,500 eligible paratransit customers
- Real-time trips to work, school, medical, and shopping areas
Create a ride for Jane Doe

Shortest Arrival

- 6 mins, CareRide: $15.50
- 7 mins, Lyft WAV: $15.27
- 8 mins, United Taxi: $14.32
Sandbox Project

GOALS
• Improve Transit Efficiency
• Increase Transportation Effectiveness
• Enhance Customer Service

BENEFITS of Real-Time Paratransit
• Cost efficient
• Customers can now make on demand trips instead of scheduling in advance
Sandbox Successes and Challenges to Date

- Selected 9 participants to test the program
- API/software integrations taking much longer than expected
- Contract/communication challenges
- Data requirements for FTA/ internal planning
Limited Access Connections

Pierce Transit

Penny Grellier, Business Partnership Administrator
Limited Access Connections: an update

- **Motivation**: to overcome Pierce Transit’s geographic and span/frequency limitations in our service area
- **Goal**: to provide first and last mile connections to transit hubs and bus stops in areas/times of limited service
- **Partners**: TNC, Pierce College Puyallup and Sound Transit
- **Challenges**: data sharing with TNC, wheelchair-accessible vehicle provision
- **Current status**: agreement established with TNC partner, projected launch in Qtr 2
Zone descriptions

A: commuter connections to/from Sounder station (Puyallup), bus stops (Fife)

B: late-night rides home for Pierce College Puyallup students

C: midday and weekend rides to Tacoma Dome Station (NE Tacoma)

D: connections to trunk routes for Parkland, Spanaway and UP residents
Partner with Via to provide discounted rides to and from 3 transit stations in Los Angeles County and 3 transit stations in the Puget Sound.
MOTIVATION

> Test the potential of utilizing a TNC to provide an affordable, equitable, and accessible first and last mile(s) service
> Test fare payment integration
> Produce lessons learned for future public agency/TNC partnerships
CURRENT STATUS

> Signed term sheet
> In contract negotiation
> Project set to launch
  July 2018
NEXT STEPS

> Finalize contract
> Public outreach & communications
> Prepare for July 2018 launch
MOD Sandbox – Central Puget Sound

MOD Grantees Breakfast
March 13, 2018
Project Motivation

• Test public agency/TNC FMLM partnership to improve station accessibility and grow ridership by
  – Age
  – Ability
  – Income
  – English proficiency
  – Communities of color

• Determine potential to divert parking use

• Assess efficiency/cost vs. other forms of access
• Choose 3-4 transit facilities with access improvement potential, especially for disadvantaged populations

• Offer subsidized, fixed-price FMLM trips to/from facilities within geo-fenced areas

• Provide WAV service at similar responsiveness level

• Provide call center for non-smart phone, non-English and accessible dispatch services

• Provide higher subsidy for low-income riders
Next steps

• Finalize interagency working agreement (ST, KCM, LA Metro)

• Negotiate agreement with new TNC partner (Via), including
  – Site selection
  – Cost structure
  – Data collection
  – WAV service
  – Call center service
  – App design

• Launch, measure, evaluate!
Service Area and Regional Challenges
“Driving Up Occupancy”
Project Milestones

Customer Discovery
Value Proposition and Build
Iteration 0 Soft Launch
Iteration 1 Official Launch

Q1 2017 – Q2 2018
Q3 2018 – Q4 2018
For More Information

• Regional Transportation Authority of Pima County
  James McGinnis (jmcginnis@PAGregion.com)
  Katharine Mitchell (kmitche@PAGregion.com)

• Metropia
  Yi-Chang Chiu (yc.chiu@metropia.com)
  Ali Arian (ali.arian@metropia.com)
  Chris Coleman (chris.colemon@metropia.com)
  Jeff Lin (jeff.lin@metropia.com)

• Ruby Ride
  Jeffrey Ericson (jeff@rubyride.co)
Integrated Carpool to Transit Program
Mobility on Demand Sandbox Grant
Presentation Overview

1. Motivation
2. Project Description
3. Status/Challenges
4. Next Steps
Motivation for this program

- Improve efficiency of parking resources
  - Parking currently at capacity, mostly SOV, expensive to build
- Improve carpool program
  - Ability to enforce carpools, provide carpool matching service, increase carpooling to stations
- Increase ridership and spread peak loading on trains
Scoop to BART Program

- Guaranteed parking until 10am, when you carpool with Scoop
- Request a carpool trip by 9pm for AM commute, 3:30pm for PM commute
- Scoop provides license plates for matched drivers to BART for parking enforcement. Placard provided to drivers to help with enforcement.
- Unmatched PM passengers eligible for Guaranteed Ride Home program.
- Extensive marketing
- App enhancements: parking payment integration and WAV availability/need
Extensive marketing program

- Posted advertising (banners, A-frames, paid station advertising)
- Emails, social media, websites
- In person outreach, postcard handouts
- Press releases (BART and MTC)
- Marketing video
- Outreach to employers
Program availability
8 of 34 stations with parking, 3 to be launched in March

January 2017:
Dublin/Pleasanton

September 2017:
Millbrae, San Bruno

October 2017:
Pleasant Hill, Concord

November 2017:
Rockridge, Orinda

February 2018:
Union City

March 2019:
Daly City, Colma, South San Francisco
Challenges

• Negotiations on post-grant period
• Alignment of priorities amongst project partners
• Staff time (for all partners)
• Gaps in program – what carpoolers does this not serve
Next Steps

• Continue launching stations
• App enhancements
• Negotiations for post-grant program
• Identification of options to close gaps in carpool program
Scoop to BART
Integrated Carpool to Transit Program
Mobility on Demand Sandbox Grant

March 12, 2018