Background--DART and Mobility-on-Demand M-O-D

• Respond To Long-Term Planning and Comprehensive Operational Analysis (COA)
• Respond to Ridership and Market Share
• Attract market segments previously unreached due to the inflexibility, multiple transfers and poor frequency of parts of the traditional bus system network
• Replace ineffective, costly fixed route transit in low density areas with M-O-D services
• Expand service within certain low density areas not currently served by fixed transit due to fiscal constraints
• Transition call center dependent demand responsive scheduling to real time smart phone scheduling
• Reduce dependency on automobiles and related congestion and environmental concerns
Background--Submission, Award, and Charge

- DART Grant Proposal Selected October 2016
- Only 11 Agencies Selected for Demonstration
  - RTA, Pima County, AZ
  - Valley Metro, Phoenix, AZ
  - City of Palo Alto, CA
  - LACMTA, Los Angeles, CA
  - BART, San Francisco, CA
  - Suncoast Transit, Pinellas, FL
  - CTA Chicago, IL
  - Tri-Met, Portland, OR
  - Vermont Agency of Transportation, VT
  - Pierce County Public Transportation, WA
  - Dallas Area Rapid Transit
- Pilot Test Technology January 2018 to January 2019
- Submit All Trip, Cost, and User Data in Regular and Final Reports
- Facilitate Independent Third Party Evaluation
- DART Must Ensure Regional Mobility Equity (disabled, unbanked, cell phone challenged)
DART Mobility-On-Demand (M-O-D) Project Overview

- Use GoPass app for planning and scheduling travel and the purchase of travel services through a single transactional experience
- Modified GoPass will offer travel options ranked by price, travel time and wait time
- Optimization of customer journey using travel component variables
DART M-O-D Project Details

- Leverage key service providers’ application protocol interfaces (API’s): Yellow Taxi (Irving Holdings), Lyft, Uber, GetMe,

- Procure a new “public Uber” on-demand app technology for pairing customers with DART and other public demand responsive providers for first and last mile travel.
  - Insures access to required and essential NTD data
  - Requires safety requirements of providers that engage with this service

- Implement an account-based payment module to function as a clearinghouse portal facilitating revenue settlement for multiple third-party service providers.
  - Customers will have multiple payment options: bank cards, internet payment services (Apple Pay, Android Pay and Samsung Pay)
  - Cash loading through PayNearMe integration for unbanked customers
Payment Example for Unbanked -- PayNearMe
Examples of Other M-O-D Apps

**SMILE**
The Austrian showpiece for integrated mobility - awarded with UITP AWARD 2015

**BeamBeta**
First public mobility platform.

**Wien Mobil Lab**
Integrated mobility APP for Vienna.

**avv connect**
The info app for public transport in North Rhine-Westphalia.

**qando**
Austria’s info app for urban public transport.
M-O-D App and Multiple Service Providers

DART MOD Sandbox Project

One “tap” access

FluidHub

“TNC” like scheduling applications

First mile

A

B

Last mile
Micro Transit Service Provider (e.g. Bridj)

AUTONOMOUS INFRASTRUCTURE FOR CITIES.

Using a fleet of flexible vehicles, Bridj creates pop-up urban infrastructure to autonomously move people and goods around cities. Our first product focuses on providing more efficient urban mass transit in Boston and Kansas City that is twice as quick, at about the same cost, as public transit. We've also introduced a beta BridjBOX program focusing on physical goods. Scroll down to learn more.
Smart Car Pool Provider (e.g. Scoop)

HOW SCOOP WORKS

Commuting with Scoop is easy. Schedule ahead of time, get matched in a carpool, and take your trip.

Thousands of Bay Area commuters have already tried it - now, it’s your turn.

Flexible Scheduling
Schedule morning and afternoon commutes separately. Choose to drive or ride at the time you want.

Automated Matching
For every trip you take, Scoop tailors a custom carpool based on route, employer, traffic and more.

Commuting, Simplified
All the details are handled by Scoop. And you’ll never worry since your ride home is guaranteed.
DART M-O-D Travel Options
East Dallas to Downtown
What is Unique About DART M-O-D Project Approach?

• Expands existing GoPass transit travel planning to plan, schedule and pay for other service providers
• Negotiates with service providers to accept settlement payments from DART’s new account-based system
• Negotiates with service providers to address NTD data and DART safety requirements
• Provides telephone-based call center or those without a SMART Phone and PayNearMe for unbanked customers without credit cards
• Pilot tests the upgraded regional Go Pass app and integrated payment system with service providers for one year
• Demo will occur in two areas:
  • Southeast Dallas
  • Plano
# M-O-D Area Market Strategies

- Consumer segments and their use cases will piloted to measure effectiveness and efficiencies

<table>
<thead>
<tr>
<th>Consumer Segment</th>
<th>Transit Habit</th>
<th>Action Modifying</th>
<th>Measurement</th>
<th>Where to Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legacy/Far North Plano M-O-D Zone</td>
<td>• Drive to work&lt;br&gt;• Don’t ride DART but consider</td>
<td>• Leave car at home to take service provider to/from train/transfer station</td>
<td>• Customer - cost savings (gas) and satisfaction&lt;br&gt;• DART - Increase ridership of DART</td>
<td>• High Employment Centers&lt;br&gt;• Greater Legacy</td>
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<tr>
<td>Southeast Dallas M-O-D Zone</td>
<td>• Those that have to walk over a mile to or from a bus stop or train station</td>
<td>• Take service provider for first/last mile to and from station or stop</td>
<td>• Customer - increase access for individuals &amp; Increase consumer satisfaction</td>
<td>• Warehouse employment locations&lt;br&gt;• Inland Port&lt;br&gt;• Rylie/Kleberg</td>
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<tr>
<td>East Plano DART-On-Call</td>
<td>• Currently using Yellow Taxi (Irving Holdings)</td>
<td>• On-Demand model to enable quicker response time</td>
<td>• Ease of use by current community</td>
<td>• Existing Market Service Improvement</td>
</tr>
</tbody>
</table>
Southeast Dallas MOD Pilot Test Boundaries

- Inland Port
- Rylie
- Kleberg
DART M-O-D Partnerships

- Dallas Area Rapid Transit (DART) is the lead agency on this project, and will look to bring on a consultant to galvanize the efforts and objectives across the participants
- DART will join its on-demand and billing backend together, partnering with
  - Unwire will modify the GoPass app
  - PayNearMe will provide the cash card system for the unbanked
  - VIX will develop the account based back end system
  - DoubleMap will likely develop the “public uber” on-demand applications
- Potential service partners: Irving Holdings, Lyft, Uber, GetMe
- Other potential partners to be considered are STAR Transit, SPANN, and BCycle
- Proposed partners shown on M-O-D Flowchart
M-O-D Upcoming Project Tasks

• Project Management (PM)
  • Draft and Final Project Management Plan (PMP)
  • Meetings and Quarterly Progress Reports

• Equity and Accessibility Plan—Mobility Equivalency
  • Smartphone Non-User
  • Unbanked
  • Elderly and Disabled
  • Final Submission

• Data Collection and Coordination with Independent Evaluator

• Knowledge Transfer
M-O-D Project Tasks

• Technology Solution
  • Planning/Design/Procurement of M-O-D Software
  • Integration with DART GoPass
  • Backend and Payment System Programming
  • User Acceptance, Quality Assurance, and Implementation

• Field Demonstration

• DART Report and Independent Evaluator Report
M-O-D Project Budget $1,505,000

<table>
<thead>
<tr>
<th>Tasks and Other Activities</th>
<th>Cost ($)</th>
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<tr>
<td>Task 1 Project Management</td>
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<tr>
<td>Task 2 Equity and Accessibility</td>
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<tr>
<td>Task 3 Evaluation/Data Collection/Coordination with Independent Auditor</td>
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<td>Task 4 Knowledge Transfer</td>
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<td>Task 5 Technology Solution</td>
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<td>Task 6 Field Demonstration</td>
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<td>Task 7 Project Reports</td>
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