Intelligent Transportation Systems
Joint Program Office

Mobility on Demand Program
Webinar 3:
Integrated Platforms and Services

January 4, 2018
Today’s Agenda

- Purpose of this Webinar
  - To present Mobility on Demand and examples of innovative approaches and technologies

- Webinar Content
  - Integration of ride-sharing services into transit operations

- Webinar Protocol
  - Please mute your phone during the entire webinar
  - You are welcome to ask questions via chatbox at the Q&A Section
  - Questions will be answered in the order in which they were received
Mobility on Demand Overview

Gwo-Wei Torng
Federal Transit Administration
Gwo-Wei Torng, PhD
Director, Mobility Innovation
Research, Demonstration & Innovation
Federal Transit Administration (FTA)
Trends/Setting the Stage
Societal Trends Driving MOD

• Redefining Longevity
  • By 2045, the number of Americans over age 65 will increase by 77%

• Population Growth & Urbanization
  • In 30 years, our population is expected to grow by about 70 million

Image Source: Thinkstock/USDOT
Technological Trends Driving MOD

• Big Data & Analytics
  • Transportation increasingly relying on data to drive decisions and to enable innovative travel options

• Real-Time Travelers
  • 72% of Americans own a smartphone, with access to up-to-the minute traveler information

Image Source: Thinkstock/USDOT
Mobility & Environmental Trends Driving MOD

• Increasing Congestion
  • On average, Americans spend over 40 hours stuck in traffic each year, costing $121 billion

• Mobility Choices
  • There is growing popularity of shared mobility and shared modes, such as bikesharing, carsharing, and ridesourcing

Image Source: Thinkstock/USDOT
Public or Private?
Public or Private?

Image Source: Thinkstock/USDOT
USDOT MOD Program
What is Mobility on Demand (MOD)?

An integrated and connected multi-modal network of safe, affordable, and reliable transportation options that are available to all.

- User-focused options to improve personal mobility and access to more destinations
- Promotes choice in personal mobility & optimizes the transportation system through Intelligent Transportation Systems
- Advances connected vehicles & automation applications
- Utilizes emerging technologies & data exchange to enable personal mobility
- Encourages multimodal connectivity & system interoperability
Guiding Principles of MOD

- **Traveler Centric/Consumer Driven**
  - MOD is defined by quality and carefree personal mobility choice for individuals

- **Data Connected/Platform Independent**
  - MOD (the end state) drives the technology.
  - Technology doesn’t change the MOD vision, it provides the capability to realize in an interoperable fashion

- **Mode Agnostic/Multimodal**
  - MOD embraces all modes and resources to support personal mobility choice in an integrated, connected and multimodal manner
User-centric Travel Options

- **Carsharing**: Provides members with access to a car for short-term use.
- **Bikesharing**: Provides members with access to a bike for short-term use.
- **Ridesharing**: Carpooling, vanpooling, and real-time ridesharing services.
- **TNCs and Taxis**: Transportation Network Companies (TNCs) and Taxi Services.
- **Car Rental**: Conventional Rental Car Services.
- **Public Transportation**: Public Bus, Light Rail, Heavy Rail and other Public Transport Services.
- **Integrated Payment**: Allows users to pay for services using a smartphone app.
- **Incentives**: Rewards and incentivizes users for good travel choices.
- **Smart Parking**: Allows users to reserve and pay for parking using a mobile app.
- **Trip Planning & Navigation Services**: Includes public agency and private sector traffic data.

**Mobility on Demand**

**Connected Traveler**
Who Benefits from MOD?

**Travelers**
- Access to more transportation options
- Builds a more efficient, effective, and customer-centered transportation network

**Public Transit Providers**
- Connects ALL regional transportation services and assets into a seamless public transit network
- Extends service quality and coverage

**Shared-Use Transportation Providers**
- Connects travelers to provider services
- Provides an easy to use, common technology platform for mobility options

**Mobility Managers**
- Streamlines information for transportation options
- Growing employment and transportation partnerships
Not just city center

- **CITY CENTER**: High-density downtown/CBD employment centers and surrounding neighborhoods
- **SUBURBAN**: Predominantly lower-density residential users with some segregated mixed uses
- **EDGE CITY**: Medium-density employment centers outside of the urban core
- **EXURBAN**: Very low-density residential uses on the urban fringe
- **RURAL**: Typically unincorporated
USDOT MOD Program Goals

- Explore emerging technology solutions and new business approaches that have the potential to transform mobility services.

- Prepare the transportation industry to deliver innovative mobility solutions that will enhance transportation efficiency and effectiveness, improve customer service, and foster personal mobility and access to goods and services.

- Enable the widespread deployment of integrated mobility solutions that are connected, equitable, and effective to enhance the personal mobility of everyone and provide access to all users.
MOD Research Areas

- Mobile Devices
- Energy and Environmental Impacts
- Economics Impacts
- Multimodal Mobility Management
- Travel Behavior Impacts
- Data Management, Sharing, and Standardization
- Policy and Regulations
- Transportation Planning
- Social Equity and Environmental Justice
- Future of Mobility
- Transportation Planning
Solutions for mobility management

Next generation rides as a public service
Hello!
I am Justin

You can find me at:
justin@goin.org
Agenda

- Team
- Vision
- History
- Use Cases
- Services
Let’s get Goin together.
“A new transportation system… in both technology & social organization, with government providing frameworks & platforms for bottom-up change”

- RE-PROGRAMMING MOBILITY, The Digital Transformation of Transportation in the U.S.
### Recurring Rides

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<th>Timezone</th>
<th>Sched.PU</th>
<th>Sched.DO</th>
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Completed - 60  
Cancelled - 0  
NoShow - 0  
Upcoming - 0 | SMS | ✈️ | 🚕 | Appointment | Paused | 🔄 Resume | Expiry  
Date: 02/01/2017 |   |
| Steven   | Tue, Thu, Sat | America/Los_Angeles | 12:10 | 12:40 | University Rd Spokane Valley | Total - 109  
Completed - 16  
Cancelled - 10  
NoShow - 1  
Upcoming - 0 | SMS | ✈️ | 🚕 | Appointment | Active | 🔄 Pause | Width: 33 In |   |
| William  | Tue, Thu, Sat | America/Los_Angeles | 05:45 | 06:15 | Ave Spokane | Westview Ct Spokane | Total - 20  
Completed - 17  
Cancelled - 1  
NoShow - 0  
Upcoming - 0 | Veterans Home | ✈️ | 🚕 | Appointment | Paused | 🔄 Resume |         |
GOAL 1: THRIVING COMMUNITIES

GOAL 2: ACCESS

GOAL 3: ADAPTIVE TRANSPORTATION CAPACITY

GOAL 4: CUSTOMER EXPERIENCE

GOAL 5: TRANSPORTATION SYSTEM GUARDIANSHIP
Let’s make getting there more reliable, accessible & equitable.

Choice
Provide the best options

Access for all
Remove barriers

Equitable
Sponsored eligible riders

Our Principles
Access

WE WILL RIDE!
Equity

Households in or near poverty in Washington are 6.8 times less likely to have a vehicle than households with higher incomes.
Smartphone users

Pew Research Center 2015-2016
Many Challenges

Rider
1. Lack of on demand
2. Long waits
3. Uncertainty
4. Service quality
5. Segregation
6. Unaware of options

City
1. Transit ridership -5% per year
2. Baby boomers
3. Rising costs
4. Data conflicts
5. Branding

Ride Providers
1. Regulations
2. Rider choice
3. Open data
4. Accessibility
5. Equity
6. Trust
One Solution

Rider
1. Access to on demand
2. Multiple ride networks
3. Choice
4. Managed mobility

City
1. One platform
2. Trusted 3rd party for data & policy management
3. Subsidy splits
4. Cost savings
5. Better reliability & continued innovation

Ride Providers
1. Access to subsidies
2. Secure data, HIPAA & PHI storage
3. Data not accessible to information requests
4. Gain trust and verify
5. API Consistency
Integration use cases

Micro Transit  | Paratransit  | Low income to work
First mile, last mile  | Medical Transportation  | Human Services Transportation
Rider experience

Confirmations  Live tracking  Less waiting
Mobility monitoring

Requests  Account  Payment
Key Features

▷ Goin Geo-zones
▷ Fare types
▷ Service hours, days and dates
Goin Geo-Zones

Select area

Los Angeles (City)  Anaheim (City)  Downey (Area)  1313 Disneyland Dr (Area)  Glendale (Area)

Enter a location

Area  City  County  State

Map  Satellite

Santa Barbara  Ventura  Simi Valley  Thousand Oaks  Malibu  Santa Monica

Los Angeles National Forest  Angeles National Forest  Santa Monica Fish Habitat...
Ride to Care
On Demand
Purpose

▷ Free up resources, appropriate ride
▷ Driver, mobility and vehicle match
▷ Policy management
▷ Cost savings
Low income citizens receive quality care, have decreased healthcare costs and our community will be stronger.

– Julie, CEO SNAP
They are probably the only reason I'm standing here today.

– Cale, Ride to Care rider
Paratransit – PSTA DART
On Demand Integration Platform
FTA Sandbox Project

▷ Capitalize on success with other TNC programs

▷ Real-time trips to work, school, medical, and shopping areas
Goin allows you to keep a hand on the steering wheel.

– Ross, Mobility Manager, PSTA
Sandbox Project

**GOALS**

▷ Improve Efficiency

▷ Increase Effectiveness

▷ Enhance Customer Service

**BENEFITS of Real-Time Paratransit**

▷ Cost efficient

▷ Customers can now make on demand trips instead of scheduling in advance
Create a ride for Jane Doe

On-demand ✕ WAV ✕
1 Tropicana Dr, St. Petersburg ✕ 1530 4th St N, St. Petersburg ✕

Shortest Arrival ✕

<table>
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<td>8 mins</td>
<td>United Taxi</td>
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Jane Doe

Wallet: $62
Mobility
WheelChair
Goin has been an ideal partner, they are invested. Our pilot group is thrilled to take on demand paratransit trips, and we are looking forward to adding more users later this month.

– Bonnie, Transit Planner, PSTA
Desktop app
Hi, Your driver Marcus is arriving in a Blue Toyota Camry. ID 2365.
Bring together your services & systems
Our process is easy

Set Goals  Launch  Monitor
Thanks!

Any questions?

You can find me at:
justin@goin.org
Mobility for all

Rob Bryans
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404-851-4462

January 4, 2018
Hello

Rob Bryans
Regional Vice President
What is Mobility?

**mobility** (mo-bil-i-ty)

[noun]

1. The movement of people in a population, as from place to place, from job to job, or from one social class or level to another.
2. The quality of being mobile.
Traditional Transit & Future Transit

**Fixed Route**
- Demand Response
- ADA
- GPS/AVL
- Human Services

**Future Transit**
- Mobility
- Loyalty
- Community
- Transformation
- Opportunity
- Inclusivity
- Experience
EVERY JOURNEY has a story.

Innovation

Meet Ben

Now, Ben is empowered to get to where he needs to go.

Ben did this everyday. Twice!
EVERY JOURNEY has a story.

1st Mobility Platform

Mary lives in a Low Demand Area.

Meet Mary
Aggregating, Connecting, & Personalizing Mobility
Measuring Success: Old vs. New
One App, One Experience