Mobility Management
Mobility on Demand
Mobility for All!

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Presentation Outline

MSAA Evolution
- MSAA Current Work

Useful Resources
- Mobility Management/MSAA Connection

The MOD Evolution
- Mobility for All
MSAA Background

80+ Federal programs fund transportation services for the transportation disadvantaged

- Pre-2004: FTA and DHHS Coordinating Council
- 2004: Transportation Coordinating Council on Access and Mobility (CCAM) established
- 2005: MSAA Launched by FTA/ITS-JPO
- 2006 – 2014: Foundational Research
- 2015: Current Round of Deployment Planning Grantees
MSAA’s Goal: Use Service Coordination and Technology Integration to

- Increase mobility and transportation usability
- Increase effectiveness of mobility services
- More efficiently use Federal transportation funding resources
Intended Outcomes

• Enhance customer experience
• Improve effectiveness and efficiency of services
• Produce sustainable institutional model(s) enhanced by information technology
• Data sharing by addressing institutional barriers
• Utilization of Intelligent Transportation Systems
Advance the State-of-the-Art in

- Comprehensive traveler support
- Interoperable and coordinated transportation service operations and management
- Streamlined program management requirements

Data Sharing and Exchange Within HST

System interoperability by leveraging existing proprietary solutions
Travel Management Coordination Centers Bring it Together

Service Coordination

Technology Integration

TMCC
Stage 0: Current Conditions.

- Things could be a lot better. Fragmented, hard-to-find, inefficient services.

Stage 1: System Interoperability.

- Single access point for travel needs. TMCC connects a traveler with various transportation needs. The ride is scheduled by the TMCC, the rider is notified before the ride will arrive.

Stage 2: Multi-Modal Accessibility and Traveler Connectivity.

- Universally accessible TMCC app or desktop software connects users to standing order trips or demand response trips. Personal and travel information is updated in real-time.

Stage 3: On-Demand Spontaneous Transportation.

- TMCC integrates on-demand travel. Two-way GPS locations are used to ensure connections. Upon requesting through the app, the nearest appropriate vehicle arrives.

Stage 4: Mobility for All.

- With MSAA and MOD improvements to person-centered travel options, barriers to mobility are eliminated. Enablers such as integrated payment, vehicle automation and accessibility-enhancing personal technology have come together to make the Complete Trip accessible for all people.
# Who Benefits?

<table>
<thead>
<tr>
<th>Customer</th>
<th>Provider</th>
<th>Human Service Program</th>
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<tbody>
<tr>
<td>• Simplified Access</td>
<td>• Operational Efficiency</td>
<td>• Streamlined program management, billing, and accounting</td>
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<tr>
<td>• Trip Planning</td>
<td>• More Service (rides) with Same costs &amp; Resources</td>
<td></td>
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<tr>
<td>• Information</td>
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Deployment Planning Projects

Overcome technical and institutional barriers to promote system interoperability

- Involve at least two human service transportation programs and providers
- Establish operational data sharing and coordination between multiple technology platforms
- Demonstrate functional common fleet information platform
Resources Developed to:

• Explain MSAA’s Potential
• Build Stakeholder Support
• Plan, Design, and Deploy MSAA-style Systems
Knowledge Transfer Resources

Fact Sheets:
- MSAA: What it is? How's it done? How does it help?
- Tackling the Technology
- Getting Started, Getting Help: Supporting Resources

Articles
- Deploying Technology to Facilitate Service Coordination: Making it Work (state of the practice survey)
- Integrating Human Service Transportation in the Mobility on Demand (MOD) Future

Presentations
- Planning to Overcome Challenges: Systems Engineering in Brief
- Case Studies in Advancing Universal Mobility
MSAA

• Using Technology
• Advancing Coordination
• Leveraging Human Service Assets
• Designing for People
Mobility Management

• Knowing Mobility Gaps
• Understanding, Maximizing Available Resources
• Creating New Options, Tools
• Focused on Under-Served Populations
Conjunction Junction

- **MSAA**
  - Technology
  - HST Populations
  - HST Assets
  - Coordination

- **Mobility Management**
  - Creative
  - Person-Centered
  - Gap-Filling
  - Focus on Under-Served Populations

- **MOD**
  - Mobility for All
  - Mode Agnostic
  - Partnership-Driven
Mobility on Demand

MOD is a *vision* for an integrated *multi-modal* network of *safe, carefree, affordable, and reliable* transportation options that are *available to ALL*

- Traveler-centric
- Technology-enabled
- Partnership-driven
- Mode-agnostic
Future of Mobility
MSAA Supports Mobility on Demand

• Facilitating Inclusion of Human Service Transportation Resources
• Providing Options to Different Market Segments
• Connecting with HST Destinations
• Promoting Equity
• Encouraging Inclusiveness
FTA Approach to Future Mobility

• **Explore** emerging technology solutions and new business approaches

• **Enable** public transportation industry to adopt innovative mobility partnerships and solutions

• **Facilitate** widespread deployment of proven mobility solutions and partnerships
FTA MOD Program Activities

MOD Sandbox
Demonstrations and Evaluations

- Performance Metrics
- Innovation & Knowledge Accelerator
- On-ramp Planning support
- Polices and Practices
- Stakeholder Engagement and Outreach

Stakeholder Engagement and Outreach
2016 MOD Sandbox Program

- **11 projects** demonstrating different approaches, technologies
- Each project leads to **12-month demonstration**
- All projects include **independent evaluation**
- **$8 Million in Section 5312 Research funds** (projects range from 200K to $1.35M)
- Minimum 20-percent **local cost-share**
- **Providers of public transportation** with one or more **partners**
- **Competitive** process to select projects
<table>
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<th>Use Case</th>
<th>Description</th>
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<tr>
<td><strong>Trip Planning/Payment Integration</strong></td>
<td>Consolidates options for travelers to plan, book and pay for trips, often through mobile app</td>
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<td><strong>First/Last Mile</strong></td>
<td>Bridges gaps in the traditional transportation network by providing trips to and from transit connections</td>
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<td><strong>Supplemental/Extended Service</strong></td>
<td>Augments the traditional transportation network when transit service is insufficient or not available</td>
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<tr>
<td><strong>Flexible Pricing /Incentives</strong></td>
<td>Strategies to influence traveler choice on when or how to travel using incentives or games</td>
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<tr>
<td><strong>Innovative Paratransit Services</strong></td>
<td>Technologies and tools to enable more flexibility to plan, request, and pay for paratransit trips, greatly reducing booking and response times, and costs</td>
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<tr>
<td><strong>Parking Utilization</strong></td>
<td>Strategies to help manage parking supply to optimize utilization and access to transit for more individuals</td>
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2016 Sandbox Projects At a Glance
Make the Connection Real

• See and design MSAA as part of the Mobility Management toolkit
• Leverage Human Service assets in coordinating efforts
• Take a broad view of Mobility on Demand