

# On-Demand Transit

## From Concept to Implementation

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July 27, 2023



# Shared and Integrated Mobility

- **Shared mobility:** transportation services and resources that are shared among users, either concurrently or one after another. This includes public transit; micromobility (bikesharing, scooter sharing); automobile-based modes (carsharing, rides on demand, and microtransit); and commute-based modes or ridesharing (carpooling and vanpooling) – Shared Use Mobility Center
- **Integrated mobility:** different mobility service providers collaborate and market options to travel in one single service (Mobility as a Service) – Medium.com
- **Microtransit:** tech-enabled shared transportation that lives in the space between traditional fixed route transit and ride hailing technology - Via





# DRPT Path to Mobility

- Statewide Integrated Mobility Plan
  - Completed in May 2019
  - Current and planned ITS inventory for Virginia transit agencies (State of Play)
  - Key recommendations included grant program restructuring, TNC partnership(s), and new service model pilot projects
- Virginia Transit Equity and Modernization Study
  - Completed in August 2022
  - Emerging Technologies and Electrification Technical Focus Areas





# Virginia Rural Microtransit Deployment Initiative

- Funded in part through the Federal Transit Administration (FTA) Integrated Mobility Innovation (IMI) Grant and the Commonwealth's Innovation Technology Transportation Fund (ITTF)
- Understanding how microtransit solutions can be scaled and deployed effectively to meet mobility needs of rural and underserved communities in Virginia
- Focus on Software-as-a-Service (SaaS) technologies within existing framework of transit services
- Features two service deployments:
  - Wise, Virginia (Operated by MEOC)
  - Gloucester, Virginia (Operated by Bay Transit)





# Virginia Rural Microtransit Deployment Goals



Test the viability of microtransit in rural areas



Explore software-as-a-service (SaaS) model for delivering innovative transit technology



Measure effectiveness and develop a case study for scalability

# Key Takeaways

- Microtransit can deliver more efficient service at costs that are less than traditional demand response transit
- Service can be effective if designed around towns/key destinations
- Overall customers like the service for its on-demand nature and ability to follow their trips online



# Final Report and Toolkit



- Available on the DRPT website: <https://drpt.virginia.gov/studies-and-reports/rural-microtransit-case-study-and-report/>
- Evaluation of the Virginia Rural Microtransit Deployment
- Operational Sustainability Strategy
- Rural Microtransit Suitability Checklist and Implementation Toolkit



# Budget Items for Consideration

- Administrative
  - Management and Support Staff
  - Overhead Costs
  - Marketing and Communications
  - Other administrative costs
- Operations
  - Driver wages/benefits (union/non-union)
  - Road Supervisors
  - Vehicle Insurance
  - Fuel, Maintenance
  - Call center operation
  - General and Professional Liability
  - Training (operators, other staff)
  - Other operational costs
- Capital
  - Technology (SaaS software and licensing)
  - Vehicles (purchased/leased)
  - In-vehicle hardware (cameras, tablets/mounts, accessibility/conversion, annunciators)
  - Facilities: fleet, maintenance (own/lease)
  - Zero/low emission items
  - Shelters, street signage
- Existing Agency Resources
- Other Funding Resources





# State Funding Programs

1. Workforce Development Grant Program  
*(Rebrand of Public Transportation Intern Program)*
2. Technical Assistance
3. Demonstration Project Assistance
4. Transit Ridership Incentive Program (TRIP)



# Overview of Federal Transit Program

## Surface Transportation Authorization

- Establishes multi-year transportation funding or budgeting levels into law
- Provides funding stability and general budget expectations for state and local agencies
- May also address policy revisions?

## Current Authorization – 2021 Infrastructure Investment and Jobs Act (IIJA)

- Signed into law 11/15/2021 through 2026
- Authorizes total of \$108B over 5 years

# Federal Transit Administration Funding

- Formula Grant Programs

- Section 5307 (Urban Area Formula Grant Program)
- Section 5310 (Enhanced Mobility of Seniors & Individuals with Disabilities Program)
- Section 5311 (Formula Grants for Rural Areas Program)
- Section 5339(a) (Grants for Buses and Bus Facilities Formula Program)
- Section 5311(c)(1)(B)

- Discretionary Grant Programs

- Competitive, funded at FTA discretion and based on national application solicitation
- Research and Section 5339 – Buses and Bus Facilities
- Tribal Transit Program (discretionary)
- Section 5310 Pilot (prior name – ICAM)
- Mobility Innovation Research (under FTA Research and Innovation Office)
  - Mobility on Demand; Mobility Services for All Americans; Integrated Mobility Initiative; Accelerating Innovative Mobility Challenge



# USDOT Discretionary Grant Programs

- USDOT MEGA Rural Surface Transportation Grants (formerly INFRA)
  - Rural surface transportation infrastructure projects
  - Total funding available ~\$300M; Match: 80% federal, 20% other; Planning, Capital, Operating eligible
- FHWA Advanced Transportation Technologies and Innovative Mobility Deployment (ATTIMD) – aka Advanced Transportation Technology and Innovation (ATTAIN) Program
  - Innovative mobility deployments utilizing technology
  - Total funding available ~\$60M; Match: 80% federal, 20% other; Capital eligible
- USDOT Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Program
  - Innovative smart city demonstration projects
  - Total funding available ~\$100M (2-phase); Match: 100% federal
- FHWA Congestion Relief Program
  - Congestion reduction in urban areas > 200K population
  - Total funding available ~\$10M; Match: 80% federal, 20% other

# Other US Federal Agencies Funding Transportation

- US Department of Health and Human Services
  - Medicaid: Non-emergency Medical Transportation
  - Programs for seniors, Native Americans, low income, children, developmental disabilities, etc.
  - Programs for seniors, low-income, youth, veterans, Vocational Rehabilitation
- Department of Agriculture
- Department of Housing and Urban Development (HUD)
- Department of Veterans Affairs
- Department of Commerce
- Department of Energy
- Department of the Interior – Bureau of Indian Affairs
- Environmental Protection Agency
- Department of Justice
- Department of Education

# Questions?

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