What is Microtransit and How Can It Help Rural Mobility?

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Overview

- Welcome
- Microtransit overview
- Wilson’s story
- Community examples
- Questions
What is microtransit?
Fully-integrated solutions for every aspect of public mobility.

**On-demand public transit**
- First-and-last-mile
- Transit deserts
- Replace underperforming bus routes

**Fixed-route public transit**
- Scheduling
- Capacity management

**Paratransit / NEMT**
- Accessible transport
- Health care

**School buses**
- K-12
- Routing
- Bus & student tracking
- General and special Ed

**Corporate & campus shuttles**
- Campus
- Employee
- Airport

**Integrated mobility**
- Multi-modal & multi-leg trip planning
- Payments/ticketing

**Transit planning services**
- Consulting services
- Network optimization
- Advanced simulations

**Advanced technologies**
- EV/AV fleet management

**Demand management**
- Dynamic tolling
- Road use charges
Microtransit

Tech-enabled shared transportation that lives in the space between traditional fixed route transit and ride hailing technology.

Its routes are nimble; its “schedules” aren’t really schedules at all, as they shift constantly based on rider demand.

Its vehicles range in size from vans, shuttles, to buses.
How the technology works: smart rides with virtual stops.

Pairs riders traveling along the same path.

Matches riders with the best vehicle for that shared journey.

Directs riders and drivers dynamically to the best virtual stop.
How the technology works: rider experience.

1. Request ride
2. Software assigns optimal seat
3. Walk to Virtual Bus Stop
4. Share the ride
5. Route dynamically
Why microtransit?

**Challenges**
- Limited coverage
- Less frequent
- Higher costs
- Rigid

**Strengths**
- Complements fixed transit
- Tech-enabled and convenient
- Cost effective
- Flexible to current needs
Microtransit models

- Incorporating technology into your fixed routes
- Complementing your fixed routes with a dynamically routed service
- Making your service fully dynamic
How did the city of Wilson deploy microtransit?
Where we started in Wilson, NC

- 6 routes (+3 Saturday only routes)
- 60 minute headways
- ~40% of city limits accessible by bus
- No tracking or visibility

**Our problem.** How could we efficiently increase coverage and quality of service for our riders?
What we wanted:

**Drive economic growth** by connecting Wilsonians with more jobs

**Improve access to critical resources** - healthcare, food, government, fixed route transit, etc.

Grow ridership with **convenient and tech-enabled experience**

Deliver a **higher quality of service for comparable cost** to today’s fixed route

Ability to experiment with **minimal long term capital investment or risk**
Where we ended:

**RIDE**

**6 DAYS A WEEK**
mon - sat
7am - 6pm

**SEPT 1**
launch

**FLAT FARES**
$1.50 base price
+1s - $1
children under 8 free
select seniors free
disabled id card holders ½ fare

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No more waiting for the bus.
Book rides on your phone on the app or by calling in. Get a ride within minutes.

First 10 rides in September are free!

What looks different:

- Service throughout the entire city
- 15 minute wait times
- Customized rider accounts
- Booking through an app
- On-demand – no more bus stops
- Smaller, branded vans
- Credit card & voucher payment

"Reliable, safe, affordable transportation is a key to giving people options for staying involved in their community as they phase out driving."

— Ruthanne Fuller, Mayor of Newton
What questions did we tackle along the way?
How do we ensure the RIDE service is accessible?

**Specialized software features**
- **App accessibility features** for hearing/visually impaired riders
- App refined with feedback from 8 years of trips for paratransit and general population trips

**Customizable Technology**
- **Rider specific** vehicle assignments (e.g., WAV on demand)
- **Door to door** service for those who need it

**Tailored operations**
- **Vehicle add-ons** (e.g., extra handles, stepping stools) to support mobility-limited riders
- **Specialized training** for drivers and customer service agents (e.g., PASS training)
How do we prepare riders for the transition to a new service model?

“No rider left behind.”
What about riders who don’t have smartphones or bank accounts?

We offer phone booking and web booking for riders without smartphones.

Riders without bank accounts can use prepaid vouchers or prepaid debit cards.
How does data access and reporting work?

Push-button dashboards for NTD reporting

NTD Annual Report (2019) (S-10)

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<tr>
<th>Category</th>
<th>Total</th>
<th>Average Weekday</th>
<th>Average Saturday</th>
<th>Average Sunday</th>
<th>Total Weekday</th>
<th>Total Saturday</th>
<th>Total Sunday</th>
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<tbody>
<tr>
<td>Service Operated (Days)</td>
<td>351</td>
<td>204</td>
<td>14,016</td>
<td>487</td>
<td>204</td>
<td>14,016</td>
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<td>ADA Unlinked Passenger Trips (LPT)</td>
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<td>14,496</td>
<td>487</td>
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<tr>
<td>Passenger Miles Traveled (LPT)</td>
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<td>667</td>
<td>95,172</td>
<td>3,108</td>
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<td>Services Supplied</td>
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<tr>
<td>Vehicles Operated in Maximum Service (VOMS)</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Total Actual Vehicle Miles</td>
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<td>365</td>
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<td>8,453.1</td>
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NTD Monthly Report (September 2019) (MR-20)

<table>
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<th>Metric</th>
<th>Total</th>
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<tr>
<td>Total Actual Vehicle Revenue Hours (VIRH)</td>
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<tr>
<td>Total Actual Vehicle Revenue Miles (VIRM)</td>
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<td>Unit-Head Passenger Trips (LPT)</td>
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<td>Vehicles operated in maximum service (VOMS)</td>
<td>797.1</td>
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What will happen when ridership return to pre-covid levels? Is this model sustainable?

*It already has!*  

This service was scoped pre-COVID to be comparable in budget to our previous fixed route.

As ridership continues to grow, we can add additional rides more quickly than we need to add additional vehicles, which will further increase efficiency.
What’s next for RIDE?

Continued growth & marketing

- Ridership growth expected as COVID recovery continues
- Targeted rider engagement campaigns to grow ridership throughout the day/week
- Data analysis and subsequent service optimization

Continued innovation through FTA AIM grant award

- Additional funding will allow for experimentation surrounding:
  - Sunday service
  - Late evening service
  - More frequent daytime service

Federal Transit Administration  
AIM - Accelerating Innovative Mobility
How have other rural communities incorporated transit technology into their networks?
Ben Franklin Transit: CONNECT

Expanding access to first route transit.

**Problem:**
Lack of access to affordable, efficient and convenient public transit

**Solution:**
- Launched a fully on-demand service in 6 zones throughout BFT’s service area
- Originally intended to provide first and last mile connections to fixed route transit stations
- However, service was adapted at launch to also provide rides to essential destinations during COVID-19 pandemic (e.g., pharmacies, grocery stores).

**Geography:** Rural

**Use case:** First last mile Emergency services
Baldwin County, AL

Problem:
Baldwin’s dispatching and scheduling team was manually scheduling and booking each ride for all riders limiting the types of trips that could be served.

Solution:
- Expanded the operating service zone to encompass the entire county.
- Allowed riders to book their own rides using a mobile application rather than calling into BRATS dispatch.
- Designed the system with three trip types to maximize aggregation:
  - Intra-Zone: On-Demand
  - Inter-Zone: 3 hours advance
  - Outer-Zone: 12 hours advance

Geography: Rural

Use case: Transit Desert

Fleet: 30 Cutaways

"[Pickup] provides reliable and accessible service in zones... that otherwise have limited access." — Chad Ballantine, CapMetro VP of Demand Response and Innovative Mobility
Hampton Roads Transit: Norfolk, VA.

Problem:
Poor quality of service (missed trips, a 72-hour call-ahead requirement, and long and circuitous routing), and high operational costs of existing First Transit-operated dial-a-ride service

Solution:
• Launched a technology-powered paratransit solution in February 2020, powered, staffed, and operated by Via
• Combined operations of three legacy services to optimize vehicle usage
• Enabled both pre-scheduled and same-day trips for HRT’s paratransit-eligible community
• Maintaining 65 HRT-owned paratransit vehicles
• Providing service in a 230-square-mile area including dense and lightly-populated areas

Use case: Paratransit
Fleet: 65 paratransit vehicles

“I am SO satisfied with our service and love the drivers who are so on time and professional. I’m like a little kid with a new toy!”

— HRT Paratransit rider
Q&A

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