Transit Technology and the Future of Mobility

Richmond Region Transportation Forum
November 29, 2018
Integrated and Shared Mobility

- Shared use of a vehicle or other mode
- Often enabled by technology
- Provides access on an “as needed” basis
- Examples:
  - Technology-enabled shuttle services (microtransit)
  - On-demand ride services (TNCs)
  - Bikesharing
  - Carsharing
  - Scooter-sharing
Trends in Mobility

Mobility on Demand (MoD)
“Integration of various forms of transportation services into a single mobility service accessible on demand”
Shared Mobility Alternatives

Micromobility
0-5 miles

Medium distance
5-15 miles

Long distance
15+ miles

BIKES & SCOOTERS
motivate, Lime, scoot, SPIN, skip, BIRD, JUMP, Razor

RIDE HAILING
UBER, Lyft, Via, Gett

CAR SHARING
MAVEN, CAR2GO, Getaround, Turo

60% of trips in the US
25% of trips in the US
15% of trips in the US

Source: NHTS
Majority of shared mobility partnerships fall into the following categories:

1. First-mile/last-mile service connections
2. Gap service
3. Special purpose/Paratransit services
Total Mobility-related revenues in the US are $2T.

“a fundamentally new business ecosystem is emerging”

Source: Wall Street Journal
75 Million Riders
4 Billion Annual Trips
65 Countries 600+ Cities
15 Million Daily Trips

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Unlinked Passenger Trips (millions)</th>
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<tbody>
<tr>
<td>2014</td>
<td>10,750</td>
</tr>
<tr>
<td>2015</td>
<td>10,599</td>
</tr>
<tr>
<td>2016</td>
<td>10,399</td>
</tr>
<tr>
<td>2017</td>
<td>10,098</td>
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</tbody>
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Sources: American Public Transportation Association; Federal Transit Administration
Statewide Integrated Mobility Initiative

- Virginia State of Play
- Stakeholder Input
- State of the Practice

Recommendations
There is clear perception of a problem with ridership trends and the effectiveness of traditional transit services in certain areas.
Shared mobility services are seen more as an opportunity rather than a threat to public transit service in Virginia.

Please indicate how you view shared mobility impacting public transit service in your community.

AVERAGE
There is a collective view that transit will change in the future.

I see shared mobility services as changing the way we provide transit service in the future.

I see shared mobility services as changing what technology is needed on transit vehicles in the future.
There is a mix of agency interest, readiness, and executive support for partnering with shared mobility providers.

My agency would be interested in partnering with the private sector on shared mobility solutions.
Several transit agencies are beginning to explore alternative transit services or partnerships.
Active Work in Virginia

- **GRTC CARE Program (Paratransit) – Partnerships with UZURV and Roundtrip**
  - On-demand/reservation companies which coordinate with private vehicle operators
  - Customer eligibility requirements
  - Customer provides $6 co-pay and GRTC subsidizes up to $15

- **PRTC**
  - Completed Mobility On-Demand Healthcare Access Feasibility Study
  - Funding for on-demand shuttles between neighborhoods and park and ride lots
  - Funding for flexible vanpool program

Image Credits: GRTC and NVTC
Active Work in Virginia

- **Arlington County/MWCOG**
  - Looking at a flex service concept for lower density neighborhoods
  - Defining parameters, zones, and standards of success

- **Fairfax County**
  - Alternative transit study will be looking at a range of flexible, alternative transportation services including autonomous vehicles

- **Virginia Railway Express**
  - Updating VRE Mobile to include links to Lyft, Car2Go, Zipcar, and Capital Bikeshare
What does the future hold?

- Multimodal and TNC services are going to stay
- Several transit agencies are beginning to explore alternative transit services or partnerships
- Uncertainty in the future
- Operations and business change will occur
- Agencies are ready for pilots and funding opportunities
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