



MOD Pilot Projects

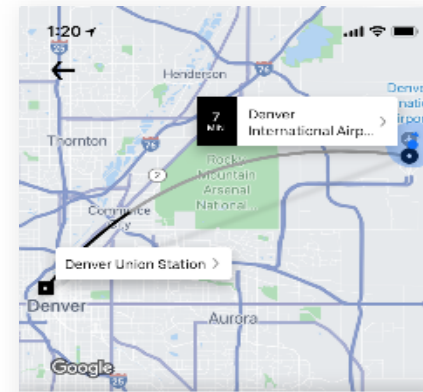
Brian T. Welch, AICP, Senior Manager, Planning Technical Services




NOCoe TSMO and MOD Integration Peer Exchange

February 19, 2021

MaaS and MOD Projects Completed/Underway

- FlexRide Microtransit (23 zones)
(established in March 2000)
- 61AV Autonomous Shuttle Pilot
- Uber travel planning and payment
- Lyft nearby transit
- Transit app collaboration



	Transit 2:05pm arrival	\$10.50
	Pool 2:05-2:27pm	\$19.22
	UberX 1:56pm	\$29.75

Pay at stations or on transit services

[See routes](#)

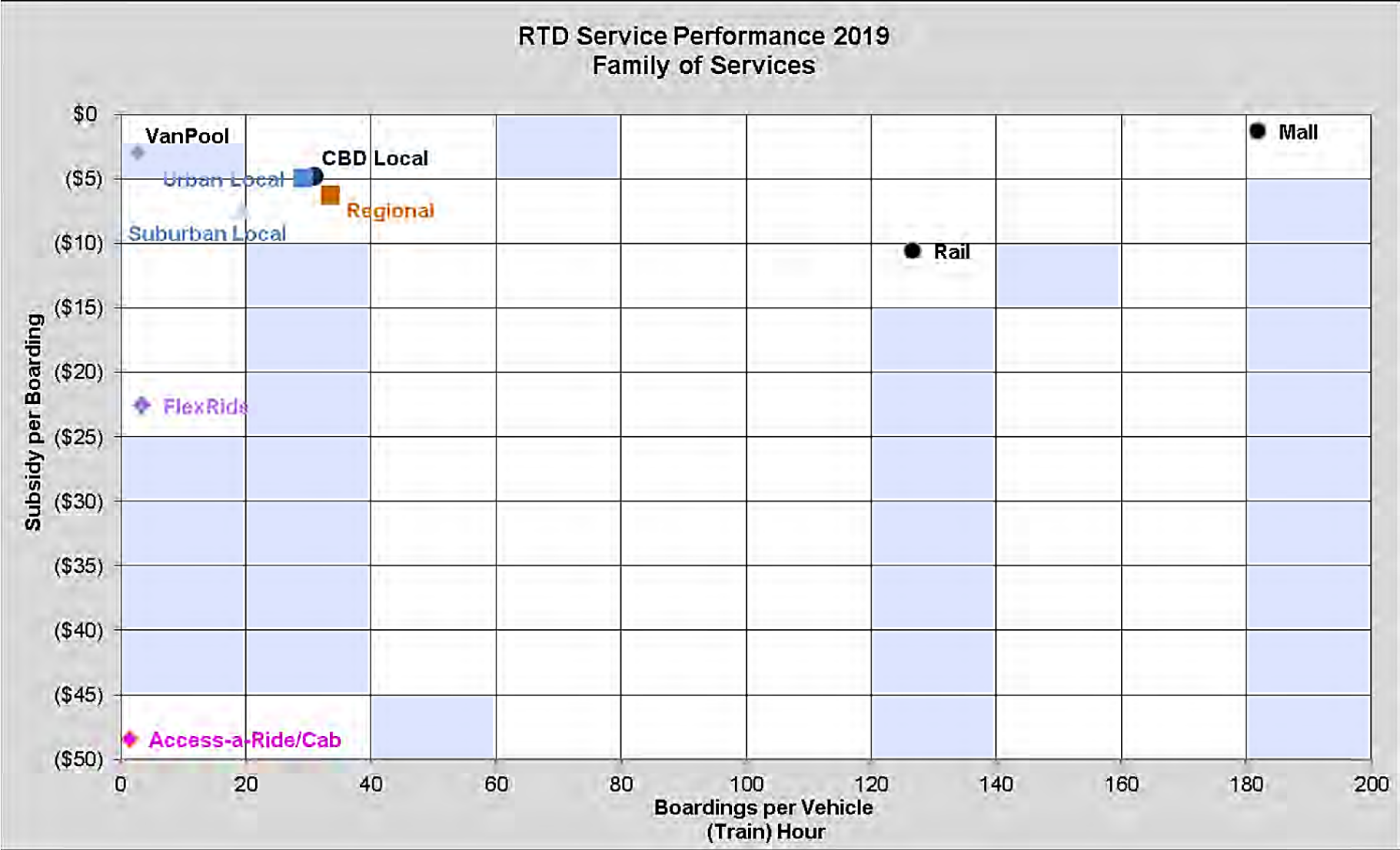


Demand Response Services Increasingly Important

“The future of public transit hinges on shifting from a supply model to a demand model and embracing emerging modes to better serve, satisfy and grow ridership.”

Rahul Kumar, TransLoc

Demand Response Services Relatively Less Productive



Demand Response Services Relatively Costly

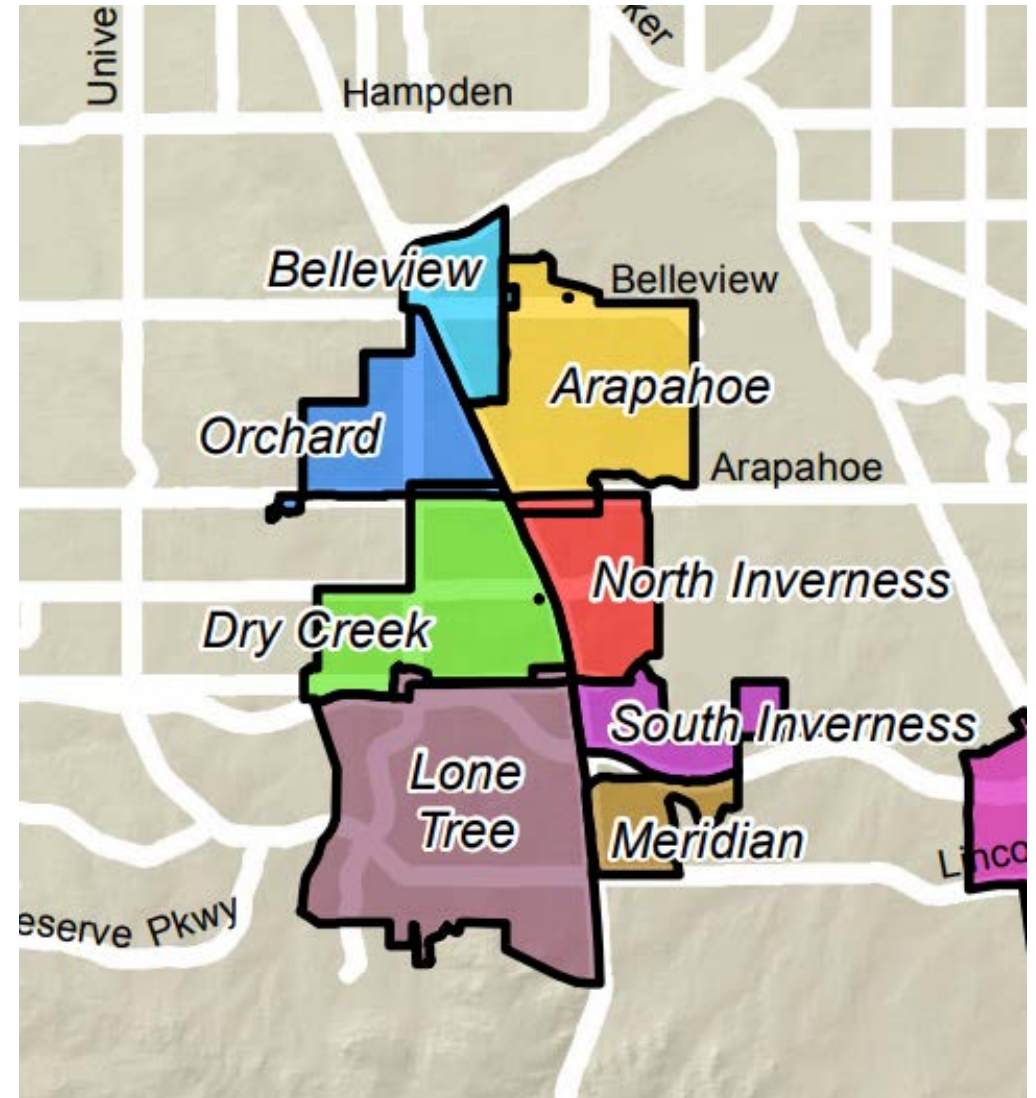
Year 2019 Service Standards						
Service Class	Subsidy Per Boarding			Boardings Per Hour		
	Average	10% Max	25% Max	Average	10% Min	25% Min
CBD Local	\$5.04	\$8.77	\$6.99	30.9	17.7	24.0
Urban Local	\$5.09	\$9.46	\$7.38	29.1	15.1	21.8
Suburban Local	\$7.67	\$12.80	\$10.36	19.5	10.1	14.6
Regional	\$6.68	\$15.16	\$10.90	32.2	10.4	20.8
FlexRide	\$22.60	\$34.09	\$28.61	3.5	1.9	2.7
Rail	\$10.52	\$17.82	\$14.34	126.5	62.0	92.7
Mall	\$1.25			181.8		
Access-a-Ride&Cab	\$48.44			1.4		
Vanpool	\$2.90			2.7		
System	\$7.19			32.6		
System 2018	\$6.07			31.1		

Peer Agency Demand Response Experience Similar to RTD

Reimagine RTD - Peer System Review	FY 2008	FY 2010	FY 2012	FY 2014	FY 2016	FY 2018	Change FY 08-18
Subsidy per Passenger Boarding - Demand-Responsive Service							
Dallas, TX (DART)	\$40.68	\$33.44	\$35.57	\$48.11	\$38.26	\$44.15	8.53%
Houston, TX (METRO)	\$22.92	\$23.79	\$24.48	\$29.65	\$26.72	\$28.44	24.06%
Portland, OR (TRIMET)	\$24.25	\$26.71	\$28.54	\$29.75	\$28.14	\$31.58	30.25%
Salt Lake City, UT (UTA)	\$36.24	\$33.86	\$38.25	\$48.65	\$41.64	\$46.34	27.88%
San Diego, CA (MTS)	\$12.85	\$22.37	\$24.68	\$24.54	\$26.18	\$29.34	128.33%
San Jose, CA (VTA)	\$28.55	\$27.87	\$25.72	\$23.43	\$31.04	\$41.33	44.77%
<i>Peer Average</i>	<i>\$28.01</i>	<i>\$27.53</i>	<i>\$28.61</i>	<i>\$33.68</i>	<i>\$31.14</i>	<i>\$35.72</i>	<i>27.51%</i>
Denver, CO (RTD)	\$30.33	\$32.79	\$34.43	\$36.61	\$30.02	\$39.65	30.71%

RTD Partnership with Metro Taxi – Pilot Program

- Will supplement 7 RTD FlexRides in the Denver Tech Center
- Intelligently integrate FlexRide dedicated fleet with Metro Taxi
- Goal is to provide better midday service more cost effectively
- More cost effective during low demand periods – discontinue idle vehicles and use Metro Taxi
- Rides are booked through RTD's FlexRide reservation system



RTD Partnership with Metro Taxi – Pilot Program

Table 1 Average Weekday DTC FlexRide Trips (2019)

FlexRide	Trips 10:00-14:00	Median Trip Length (mi)	Service Area Size (mi.²)
Bellevue	5.8	1.2	1.52
Orchard	3.4	1.1	2.92
Arapahoe	5.2	1.5	4.66
Dry Creek	5.8	1.6	5.21
North Inverness	6.4	1.0	2.22
South Inverness	2.2	1.0	1.46
Meridian	2.4	1.1	1.14
Total	31.2		19.13

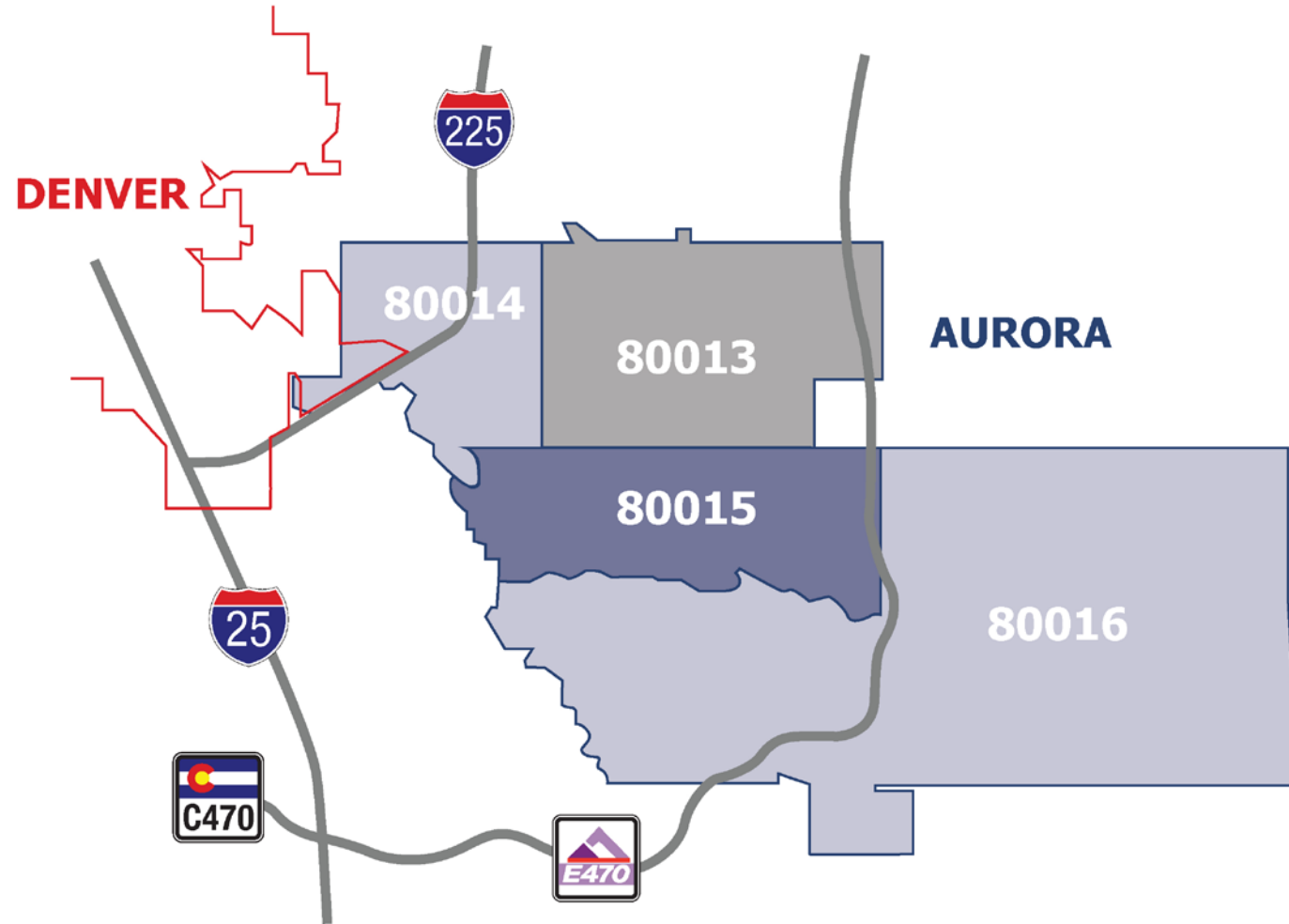
RTD Partnership with Metro Taxi – Pilot Program

- Customer is told which type of vehicle to expect (like an Uber/Lyft reservation)
- Fares are the same as FlexRide
- Metro Taxi accepts cash, passes, and tickets
- Wheelchair users will be assigned to RTD's own FlexRide fleet
- Integrated service delivery offers a simple, seamless approach to the customer



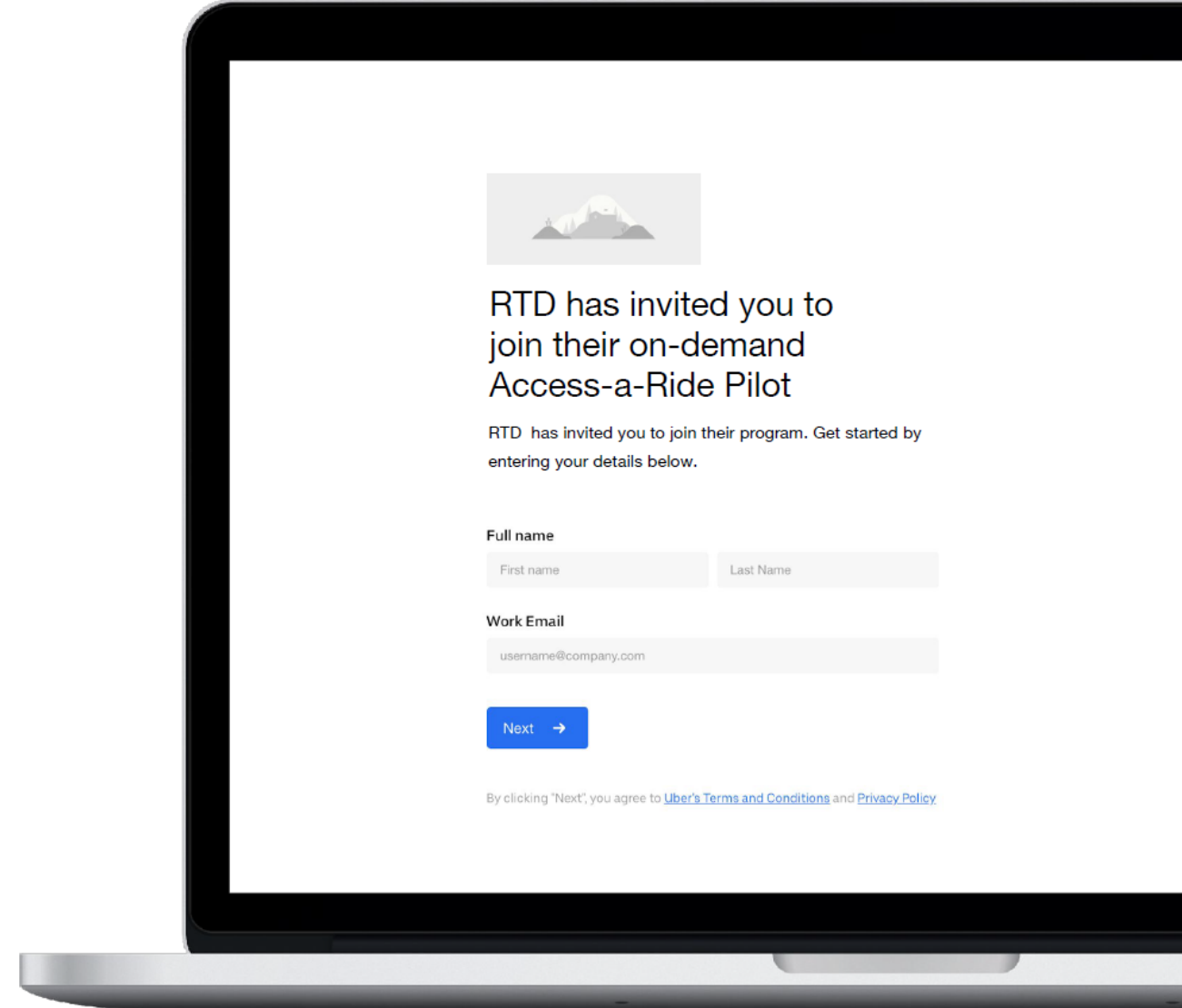
RTD Partnership with Uber – Pilot Program

- Supplements Access-a-Ride, Access-a-Cab in 4 zip codes
- Goal is to add capacity to meet high demand during peaks and achieve cost savings
- Provides faster response times and contactless payment platform
- Improves rider experience through faster response times



RTD Partnership with Uber – Pilot Program

- Peak period trips are eligible for RTD fare subsidy, but customers can choose to book an Uber or Access-a-Cab trip through the Uber app at any time
- Customer pays first \$2, RTD pays next \$25, customer pays any amount over \$27
- Currently Uber cannot serve those who require a lift or cannot transfer out of their wheelchair; will use RTD's paratransit fleet for these customers



The image shows a laptop screen displaying a registration form. At the top left of the form is a small logo of a mountain range. The main heading reads "RTD has invited you to join their on-demand Access-a-Ride Pilot". Below this, a sub-heading says "RTD has invited you to join their program. Get started by entering your details below." The form contains three input fields: "Full name" (split into "First name" and "Last Name"), "Work Email" (with the placeholder "username@company.com"), and a blue "Next" button with a right-pointing arrow. At the bottom, a small line of text states: "By clicking 'Next', you agree to [Uber's Terms and Conditions](#) and [Privacy Policy](#)".

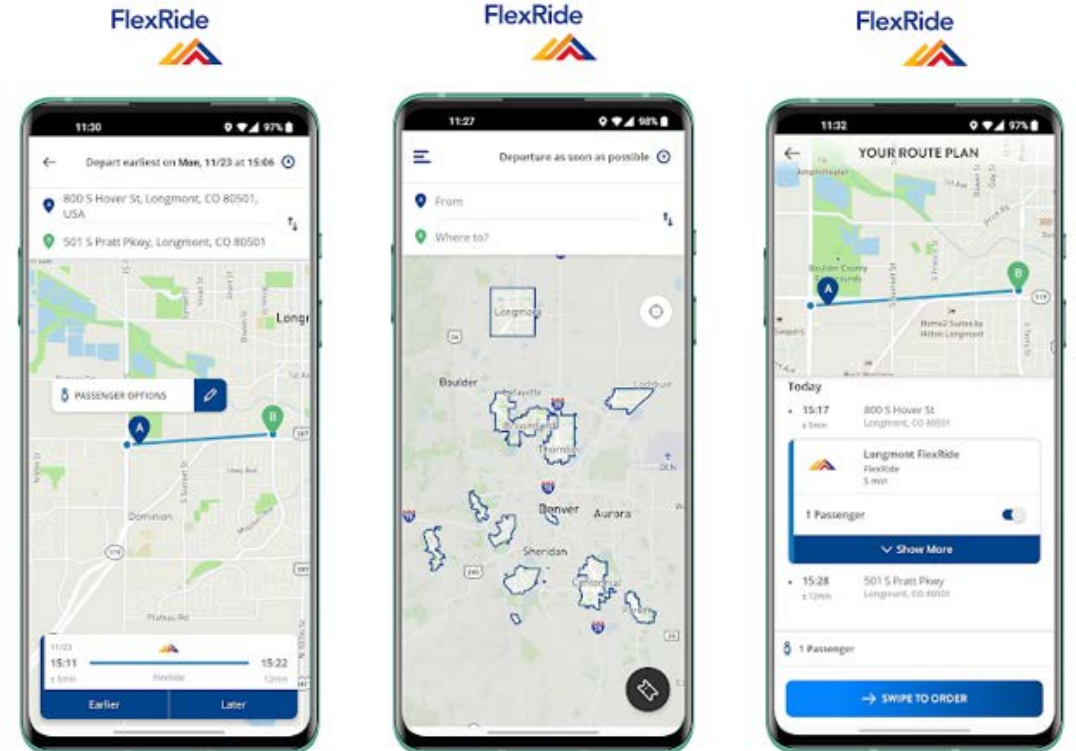
RTD Partnership with Uber – Pilot Program

- Pilot will run for 12 months
- Will test whether improved response times for same-day travel and low fares will draw more customers to a lower-cost alternative
- Cost savings to both customer and RTD



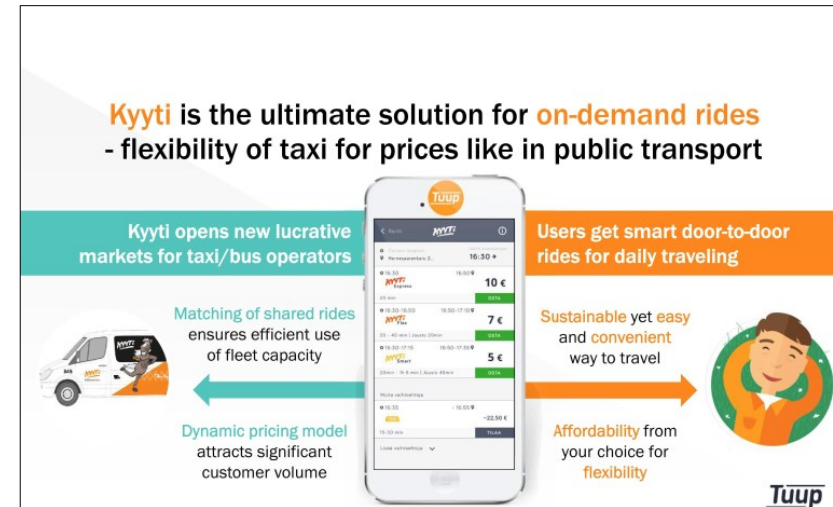
RTD Partnership with Kyyti Group

- Book FlexRide trips and see bus and rail connections in real time
- Facilitates first- and last-mile connections between bus and rail and other destinations
- Currently underway
- Fully integrated route planner includes step-by-step navigation and on-demand ride hailing for FlexRide trips



RTD Partnership with Kyyti Group

- Makes RTD services more attractive to current and future RTD customers
- FlexRide reservations can be made up to 30 days in advance or as little as 10 minutes prior to pick-up time. Previously, needed one-hour lead time.
- Can use pick-up address or place name, or current location, or map location
- Real-time data based on Open Trip Planner

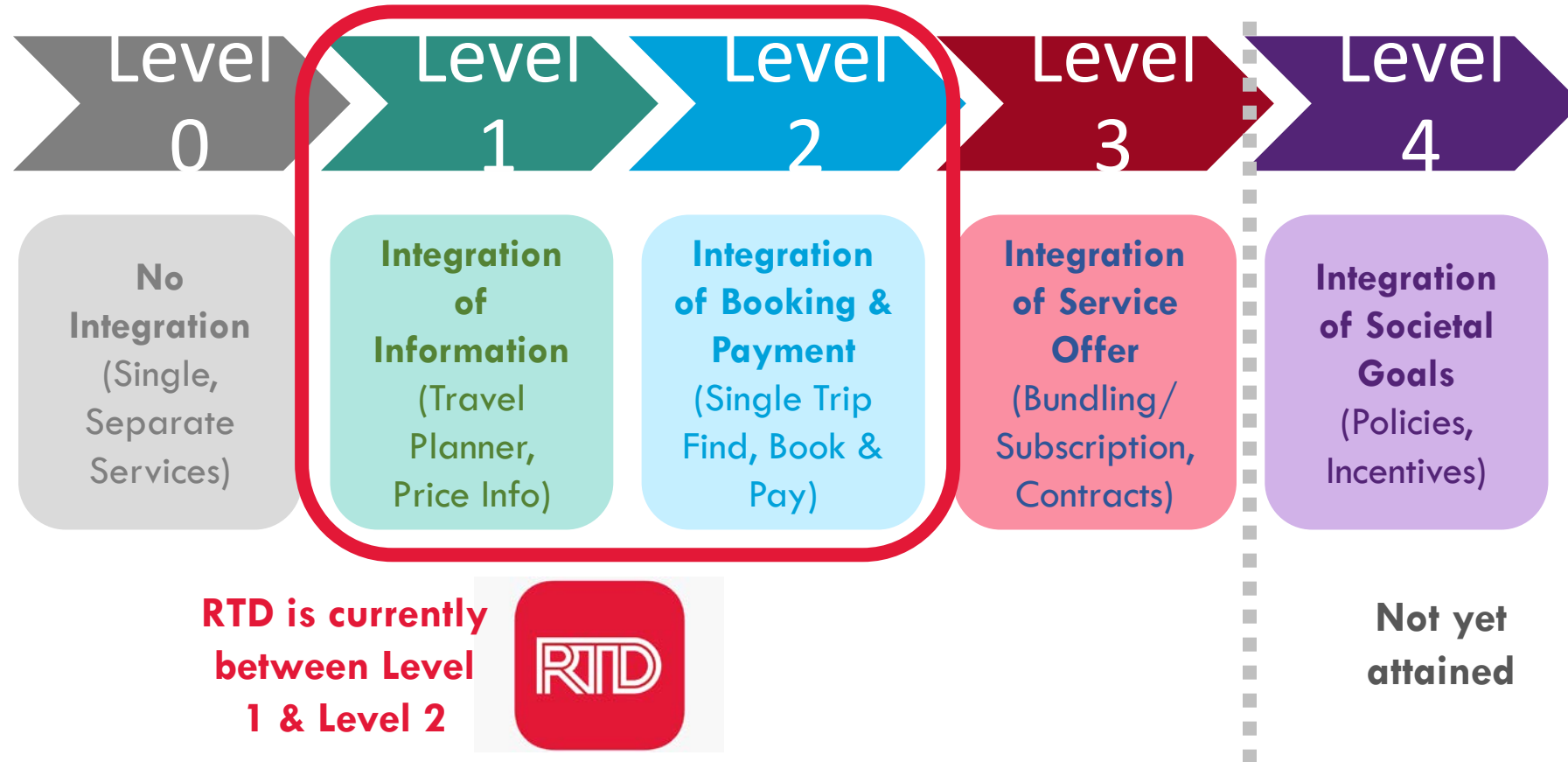


Questions?



Extra Material Follows
(Not Part of Presentation)

How does **MOBILITY** as a **SERVICE** work at RTD?



Level 2

Integration of Booking & Payment

At this level, MaaS facilitates the **finding, booking, and payment of individual trips**. The added value of Level 2 is that users can find, book, and pay for their trip at a **single service point** (e.g. through an app with a pre-registered credit card).

- Level 2: Partial – Trip with Single Mode
- Level 2: Full – Trip with Multiple Modes

Examples:

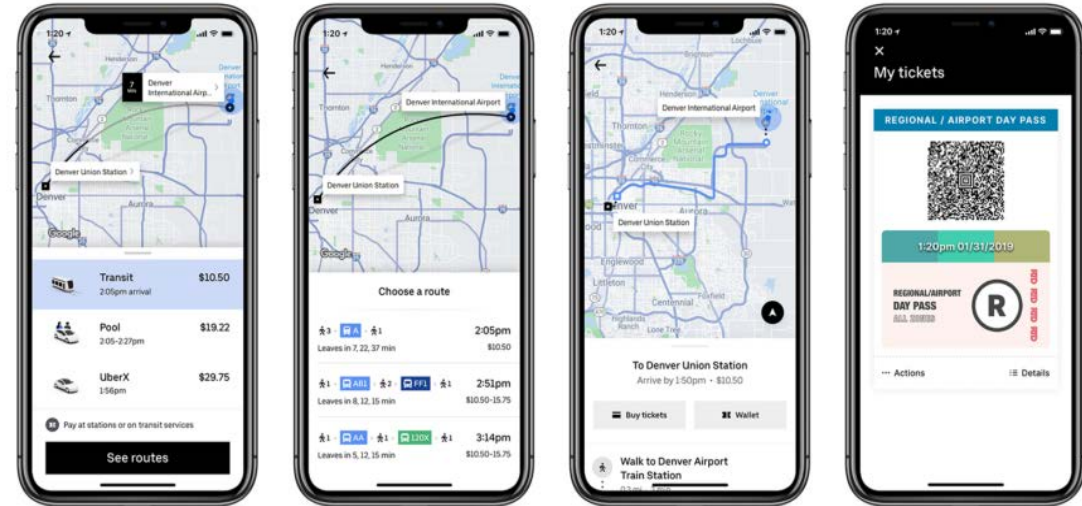


RTD Mobile Ticketing App (Partial)



Uber Transit Ticket Sales (Partial)

smi)e MaaS App in Vienna, Austria (Full)



Uber + masabi + RTD

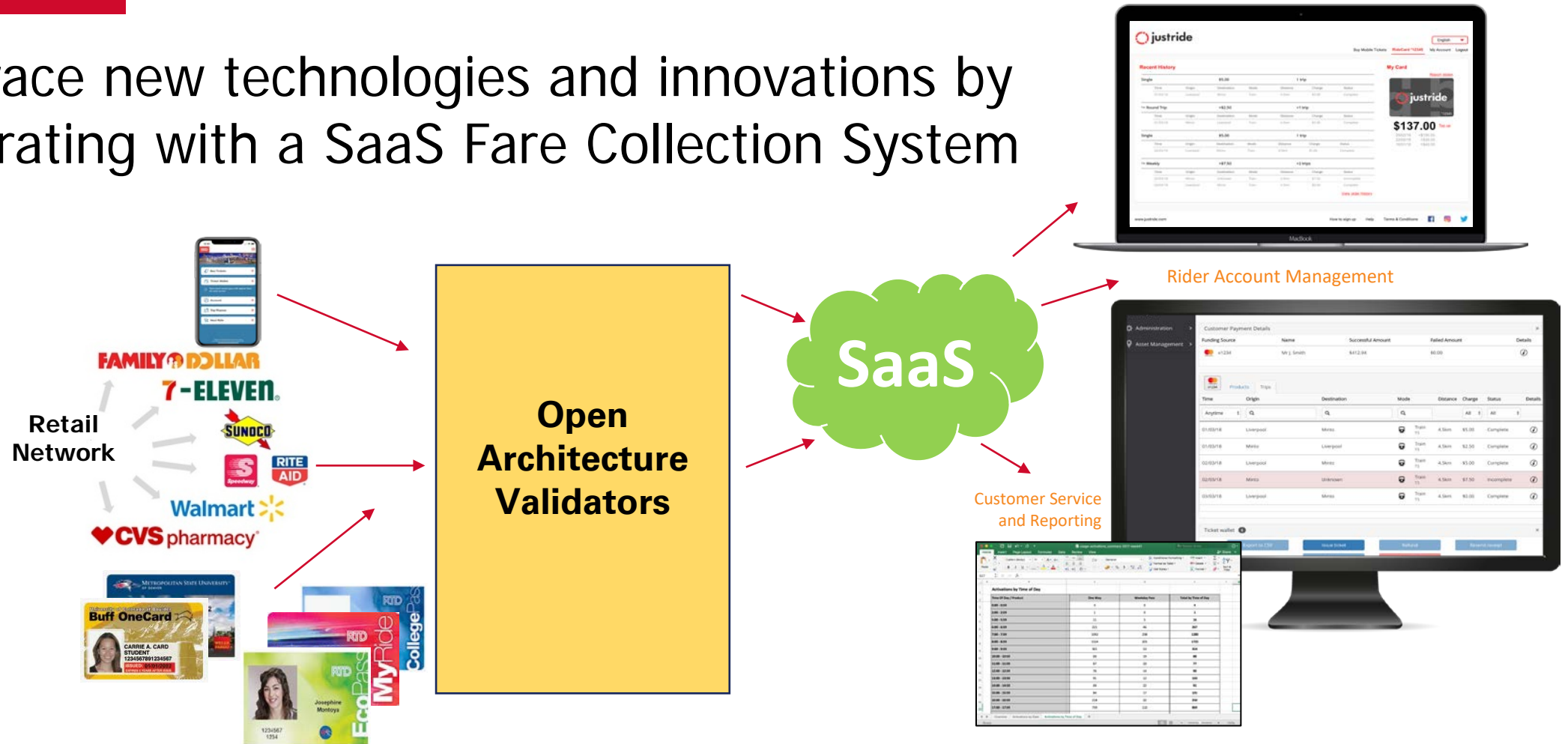
New Open Standard Validators

- Replacing existing validators with open standard validators is the first major step to an Account-Based Fare Collection System
 - Competitive procurement to purchase new bus and rail platform validators
 - Validators will be able to integrate with the current mobile ticketing platform as well as future SaaS fare collection platforms.
 - The new Account – Based Fare Collection System is an important step to enabling Mobility-as-a-Service.



Integrate validators with a SaaS Solution

- Embrace new technologies and innovations by integrating with a SaaS Fare Collection System



Recent COVID-19 Response Example

Case Study: *NEW* Denver RTD Access-a-Ride Food Delivery Program

Author: Todd Hansen, Texas A&M Transportation Institute; Al Benedict, Shared-Use Mobility Center

This case study is part of a larger review of [Public Transit Food Delivery Programs](#) that have popped-up across the country in response to COVID-19. The **Regional Transportation District (RTD)** example below offers a large transit agency perspective and a complimentary case study featuring [Charlevoix County Transit \(CCT\)](#) looks at transit deliveries from a rural context.

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The Regional Transportation District (RTD), created in 1969, is the transit authority for the Denver metro area in Colorado, with a service area of 2,342 square miles and 2,920,000 people (2018 National Transit Database). RTD's services include fixed-route bus, ADA-paratransit demand response (branded as Access-a-Ride), and light rail and commuter rail routes. Normal Access-a-Ride fares are \$5.00 for local trips (travel between 1-2 zones) or \$9.00 for regional trips (travel between 1-3 zones), as well as options for ticket books and ability to ride any RTD fixed-route service fare free. Access-a-Ride operated 434 vehicles in maximum service to provide 1,226,319 trips in 2018 (National Transit Database).



RTD Operator Delivering a Grocery Order

In This Case Study

[Overview](#)

[Goals and Outcomes](#)

[Operations and Marketing](#)