



# What is MaaS

- Mobility as a Service vision: a single platform that provides access to all shared mobility options, allows trip planning, fare payment, and real time updates on trip information
- Integration of transit planning and ticketing with private shuttles and buses, taxis, ride-hail, bike and scooter share, van pool, carshare, shared autonomous vehicles, and new emerging shared mobility technologies

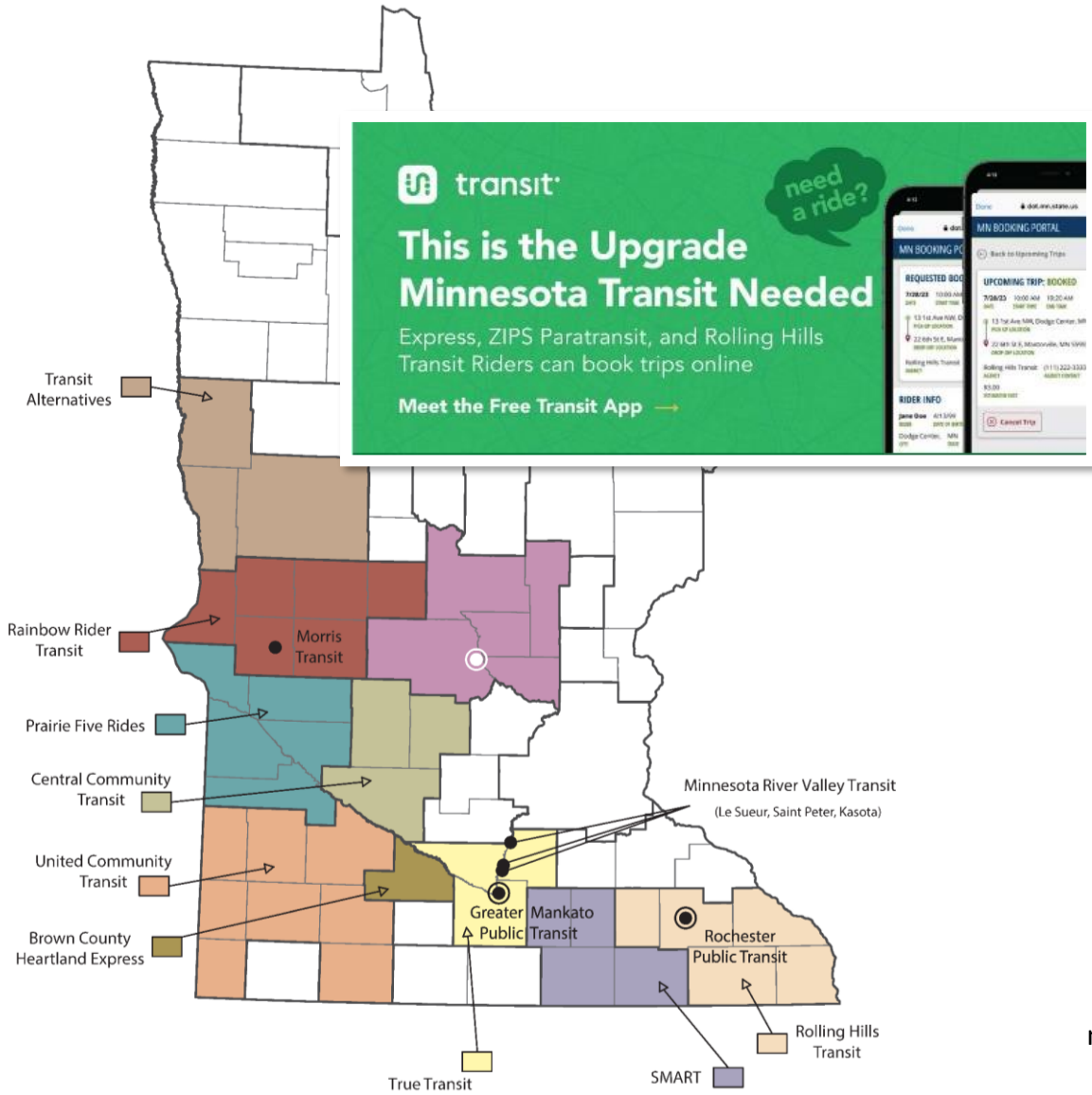


# Market Need

- Public transit key part of meeting GHG reduction goals but has been slower to recover ridership than other transportation options post-COVID
- 2021 Univ of Mn study showed digital trip planning & payment one of options to improve usage by Greater Mn transit riders and those who are transit-interested
- Transit industry slow to develop solutions for rural transit systems to date



# Minnesota MaaS Project Area

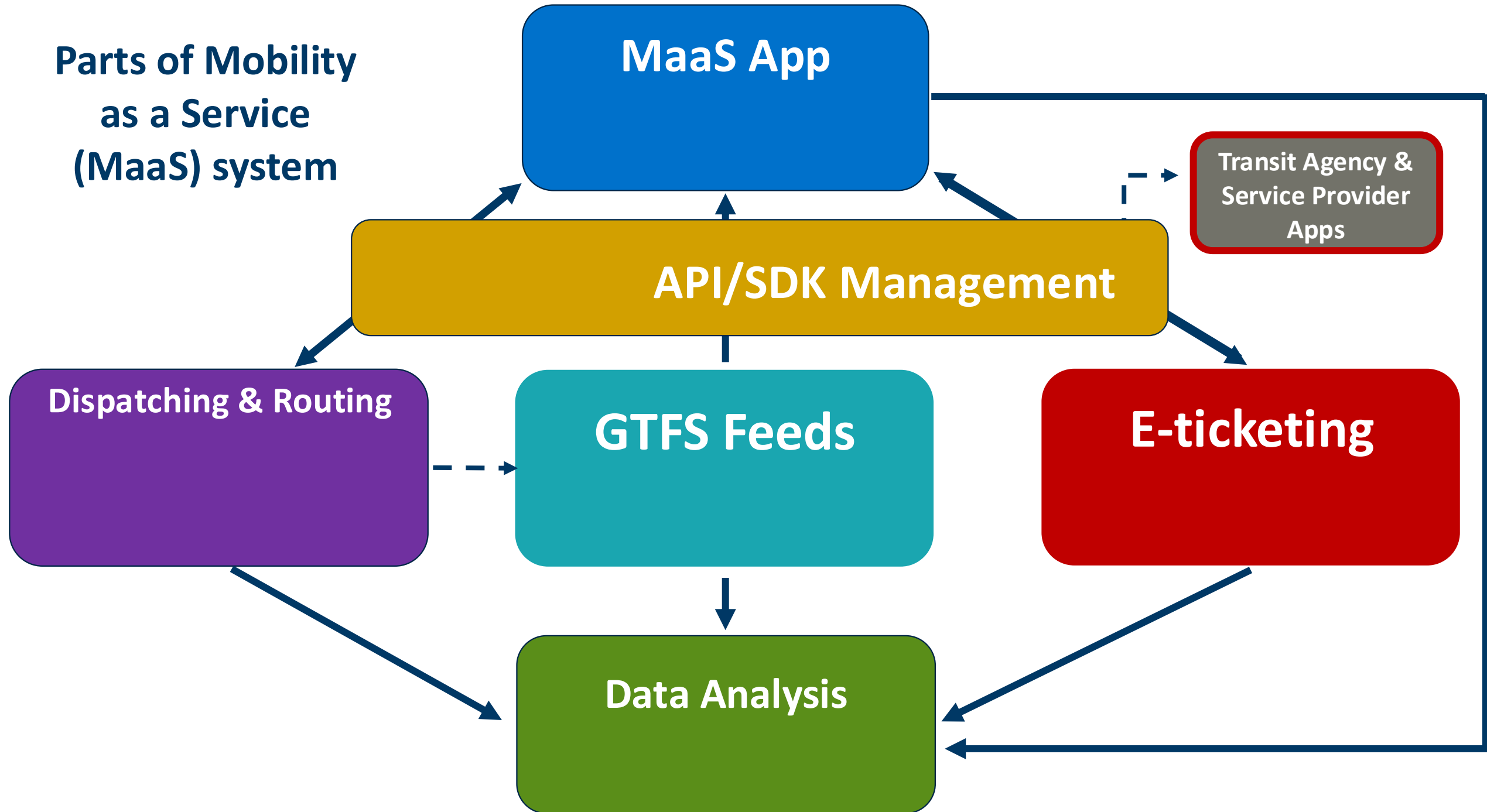


In 2020 and 2021, MnDOT received 2 FTA innovation grants covering public transit agencies, intercity bus and shared mobility providers in Southern & Western MN

## Service Provider Partners

- 13 rural and small urban transit
- Jefferson Lines/Land-to-Air
- Lime scooters and bikes in Rochester

**Parts of Mobility  
as a Service  
(MaaS) system**




# Parts of Mobility as a Service (MaaS) system

**MaaS App**  
 **transit**


 **API/SDK Management**

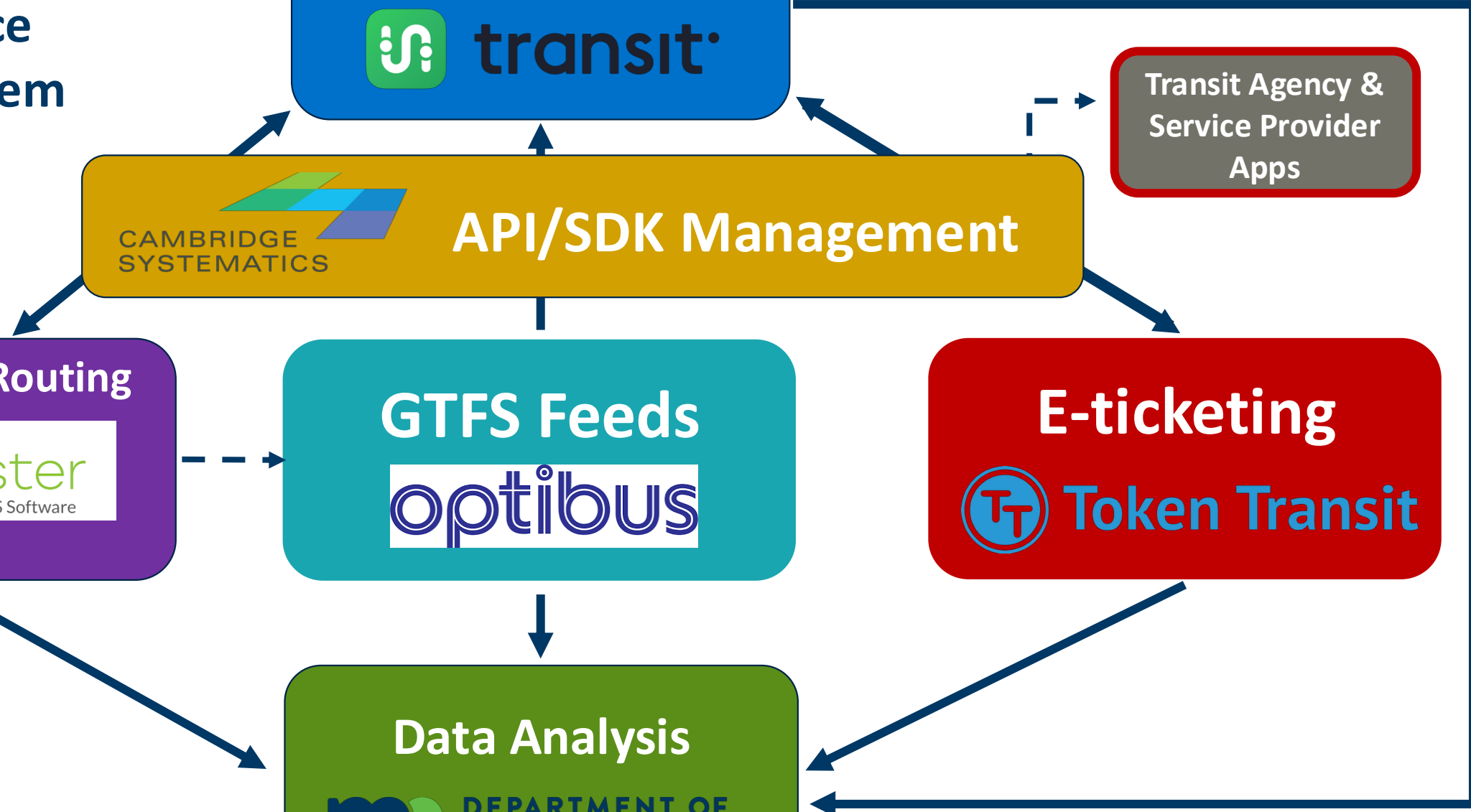
Transit Agency &  
Service Provider  
Apps

**Dispatching & Routing**  
 **TripMaster**  
by CTS Software

**GTFS Feeds**  
 **optibus**

**E-ticketing**  
 **Token Transit**

**Data Analysis**  


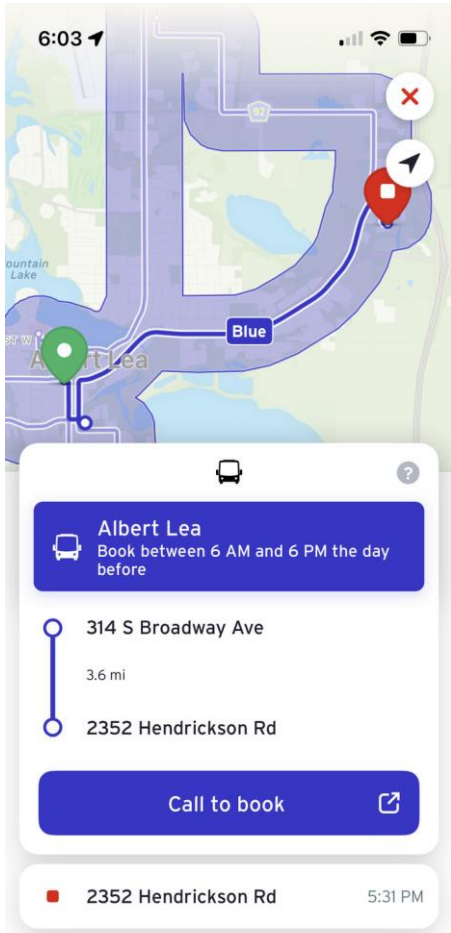


## Planned data spec implementation

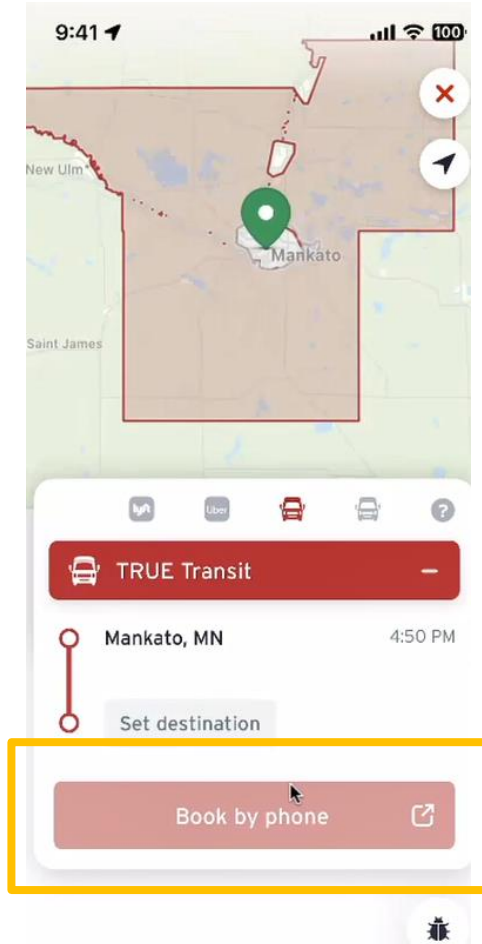
- General Transit Feed Specification (GTFS)
  - GTFS data feeds for all participating transit
  - First major trip planning app to include GTFS-Flex in trip planning engine for demand response/paratransit
  - Open Trip Planner supports GTFS-Flex for other apps
- Development and testing of Demand Response Transactional Data Spec (TDS) as part of demand response booking integration



# Examples of non-fixed route searches



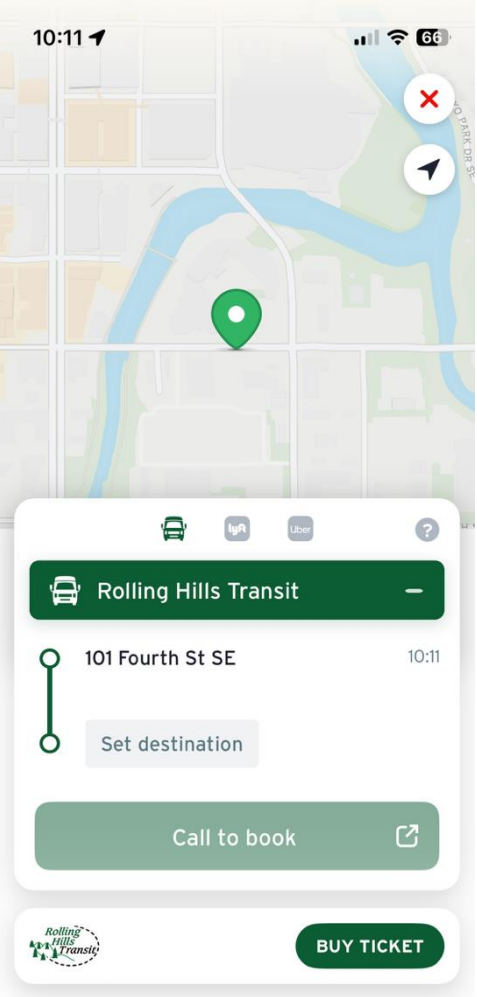
Deviated Route



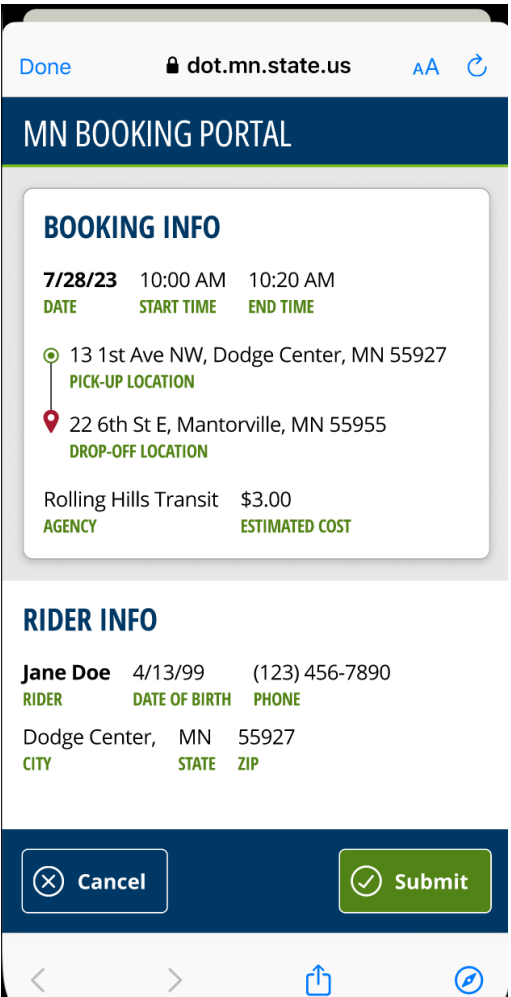
Demand response



# Demand Response Booking Integration



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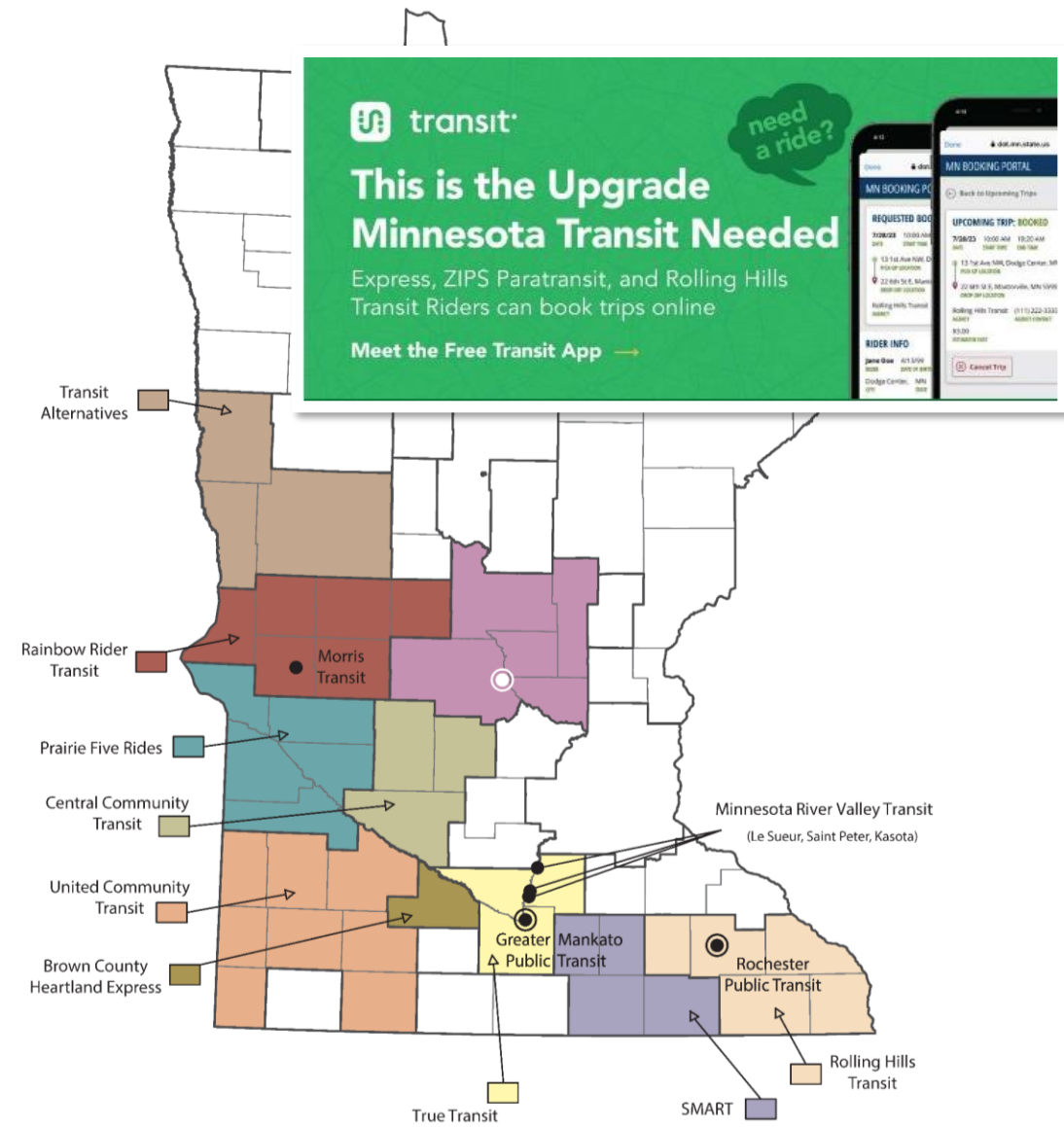
# FTA pilot results and lessons

## From UMN research:

- MaaS made reservation times more evenly distributed across hours of the day
- MaaS facilitated more in-advance and last-minute reservations
- MaaS deployment led to an average 4.2% ridership increase in rural transit, no effect on urban transit

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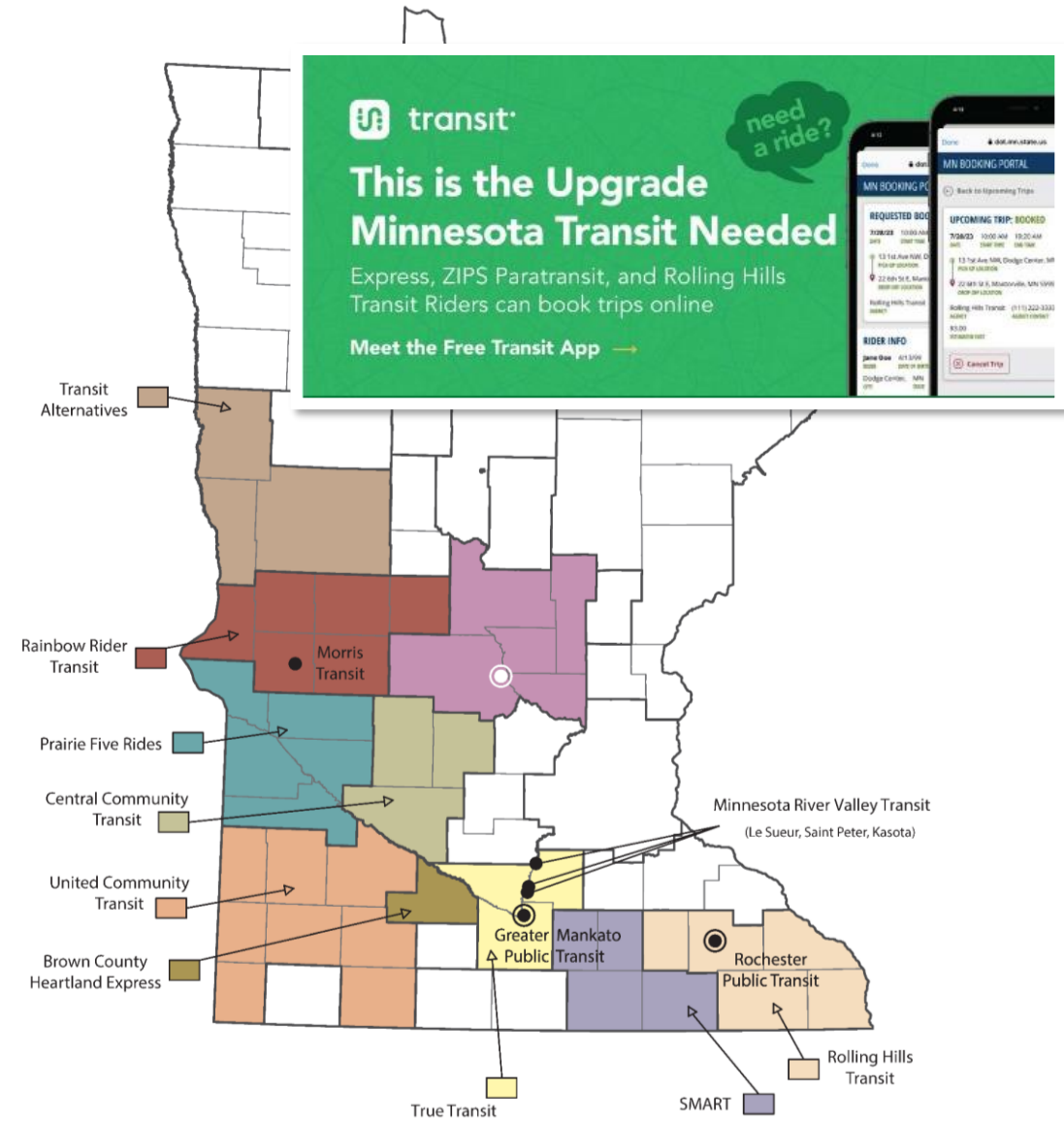
# FTA pilot results and lessons

## From operations:

- Over 11,000 monthly users by end of pilot, 76% of goal, now over 100%
- Project drove data standard adoption for rural transit (GTFS-Flex)
- Contactless payment adoption varied a lot- ~1% to over 10% of fare sales
- Initial and ongoing marketing really important

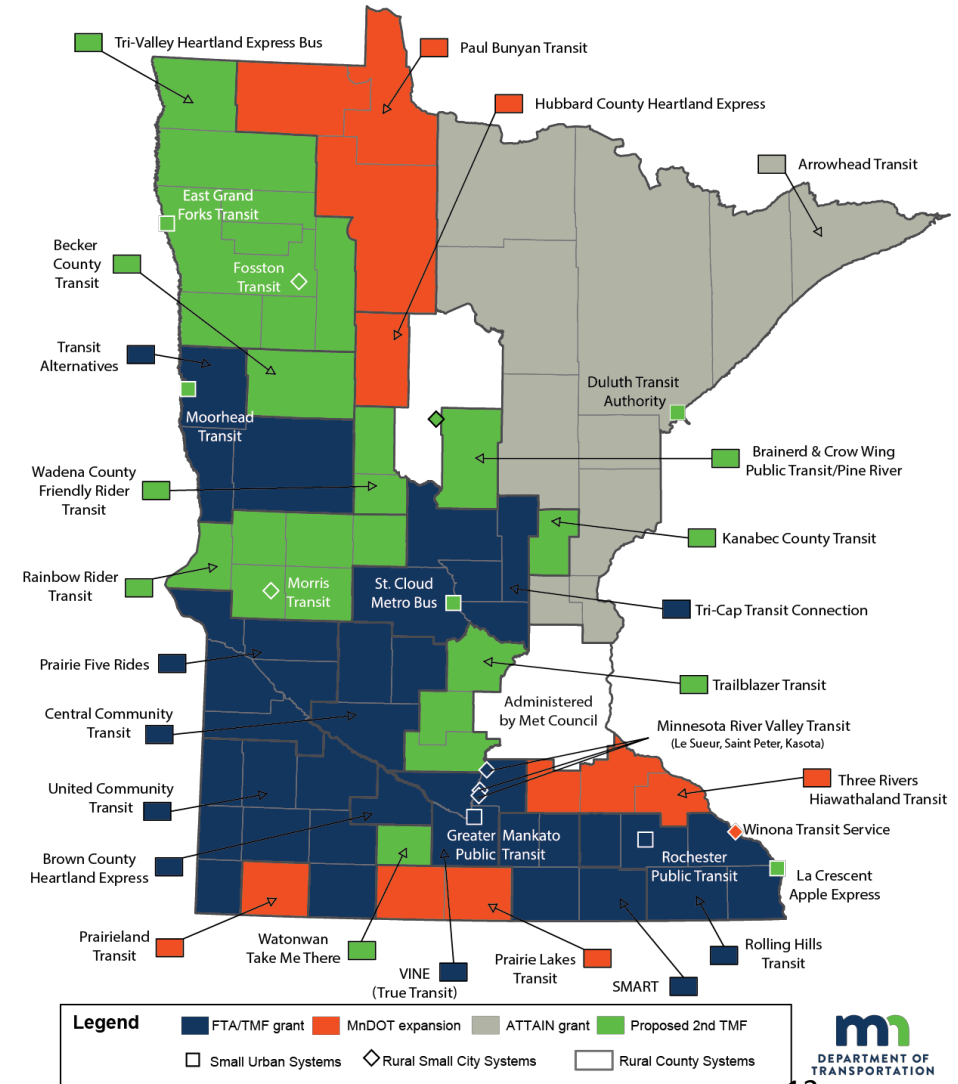
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# Statewide Expansion Timeline

- Fall 2025: MnDOT expansion of 6 rural transit agencies (Orange)
- Spring 2026: Arrowhead Transit expansion (Gray)
- Summer 2026: Final 15 Greater Minnesota Agencies (Green)



# Thank you



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