APTA Rail 2017 - Rail Agency Uses of Mobile Apps

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Transit Mobile App Uses

- Customer Facing App

  – Mobile Ticketing

  – Real-time Information

  – Trip Planning

  – First/Last Mile

  – Alerts/Advisories

  – See Something/Say Something

  – Customer Feedback

- Operational Uses

  – Right-of-way Worker Warning

  – Field Dispatching

  – Customer Service Ambasadors

  – Yard Management

  – Conductor Fare Collection

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Top Reasons to Have an <u>Agency</u> Mobile App

- **Mobile Ticketing**
  Secure interactions require a tighter control than a web based product can provide.

- **First/last Mile Integration**
  Secure interactions require a tighter control than a web based product can provide.

- **User Customization**
  The regular rider will want to have a much more user friendly interface than the web can provide. User will enter their credit card info, favorite start/end points and other preferences.

- **Location Based Information**
  Cut through the selections with the real-time location. Smart App tells the customer the information they want based on their location. Location based advertising as well.

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Mobile App Peer Agency Analysis

Agencies/ App Features:	Trip planning	Real-time locations	Gate/ Track Information	User preferences (Routes/ Stops/ Notifications /Ticketing Info)	Location based ETAs	Line/Route Alerts	Maps (Static/ Interactive)	Social Media	Static Fares	Static Schedules	Customer Service	Mobile Ticketing	Uber/Lyft Integration
MBTA	Web Only	App(Rail Only)		App(Rail Only)	App(Rail Only)	App(Rail Only)	Web Only		Web Only	App(Rail Only)	Web Only	yes	
CTA	App/Mobile Web	App/ Mobile Web				Web Only	Web Only		Web Only	Web Only	App/ Mobile Web	yes	No
MTA (App BusTime, TrainTime & eTix only)	App/Mobile Web	App & separate websites	Rail App only	App has some for ticketing only	App only	App/Mobile Web	App (Static) /Mobile Web (Interactive BusTIme only)	Mobile web only	Mobile Web Only	App/ Mobile Web	App/ Mobile Web	Yes (Rail only)	No
NJ Transit	App/Mobile web	Mobile web only	App/Mobile web	App only	App/ Mobile web	Mobile web only	Interactive and Static on mobile web only	Mobile web only	Mobile web only	Mobile web only	App and mobile web	Yes	No
LA Metro	App/Mobile Web	App/Mobile Web		App Only	App/ Mobile Web	App/Mobile Web	App/Mobile Web	Web Only	Web Only	App/ Mobile Web	Web Only	Planned	Planned
TriMet	Web Only	Web Only			Web Only	Web Only	Web Only	Web Only	Web Only	Web Only	Web Only	Yes	Shows options near rider.
King County Transit	App/ Mobile Web					Web Only						No.	
SFMTA	Web only					Web Only	Web Only	Web Only	Web Only	Web Only	Web Only	Yes	
Bart	Web Only	Web Only				Web Only	Web Only	Web Only	Web Only	Web Only	Web Only	No	

Mobile App Peer Agency - Summary

Agency	Modes	App	Agency app Functions
CTA	Commuter Rail, Bus, Subway	Yes	Mobile Ticketing, Real-time Info
LA Metro	Bus, Subway, Light Rail, Commuter Rail	Yes	Trip Planning, Schedules, Real-time Info, Favorites
MARTA	Bus, Light Rail	Yes	Schedules, Real-time Info
MBTA	Commuter Rail, Bus, Subway, Light Rail	Rail only	Mobile Ticketing, Real-time info
MTA	Commuter Rail, Bus, Subway	Rail Only	Mobile Ticketing
NJT	Commuter Rail, Bus, Subway, Light Rail	Yes	Mobile ticketing, Real-time info, trip planning
SFMTA	Bus, Trolley, Subway	Yes	Mobile Ticketing
TriMet	Bus, Light Rail, Trolley	Yes	Mobile Ticketing
TTC	Bus, Subway, Trolley	Yes	Mobile Ticketing

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# Passenger Information via 3rd Party Apps

- 3rd Parties provide better displays than agencies

  - More user friendly

  - Better features

  - Wider user reach

  - Integrates data from other agencies and modes

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3ʳᵈ Party Apps

	Transit	Moovit	CityMapper	Google Maps	Your Agency App
Intermodal RT trip planning	Yes	Yes	Yes	Yes	No
Real-time arrival info (Table and map views)	Yes	Yes	Yes	Yes	Maybe
User-selectable alerts	Yes	Yes	(Disruptions only)	No	No
User "Favorites" trips	Yes	Yes	Yes	Yes	No
Mobile Ticketing	No	Yes	No	No	Maybe
Uber/Lyft integration	Link only	Link only	Link only	Link only	No
App Downloads	>10 million	>1 million	>1 million	>1 billion	<100k

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Passenger Information via 3rd Party Apps

- 3rd Parties provide better displays than agencies
  - More user friendly
  - Better features
  - Wider user reach
  - Integrates data from other agencies and modes
- Select 3rd party to integrate to agency app
- Need to provide your real-time data in GTFS real-time (Has to match with GTFS schedule data. Suggest adding tracks for boarding not in standard format.)
- Next generation will be location based services – App shows content based on your current location
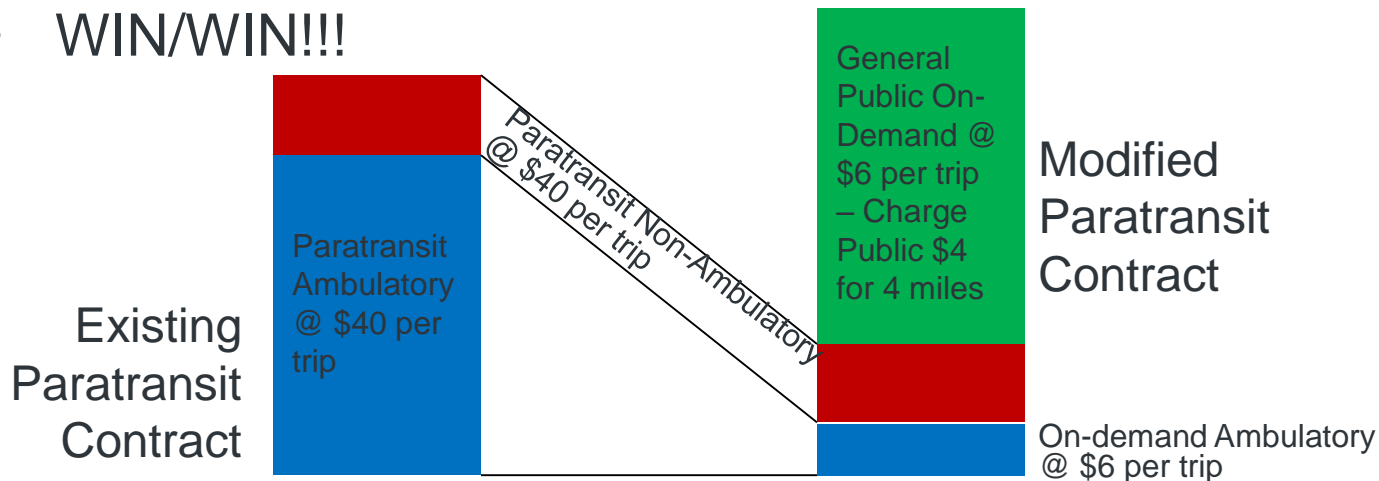
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First/Last Mile to Train Station

- FTA Assoc. Administrator, "*I see Transit Agencies as the regional multimodal mobility managers.*"

- Allow integration with first/last mile interface to TNCs like taxis/Uber/Lyft
  - Increase Core ridership
  - Reduce parking need at stations
  - Increase mobile ticket activations and mobile ticketing usage
  - Coordinate real-time pick-ups with arrivals
  - Save $$$ on Paratransit Operations

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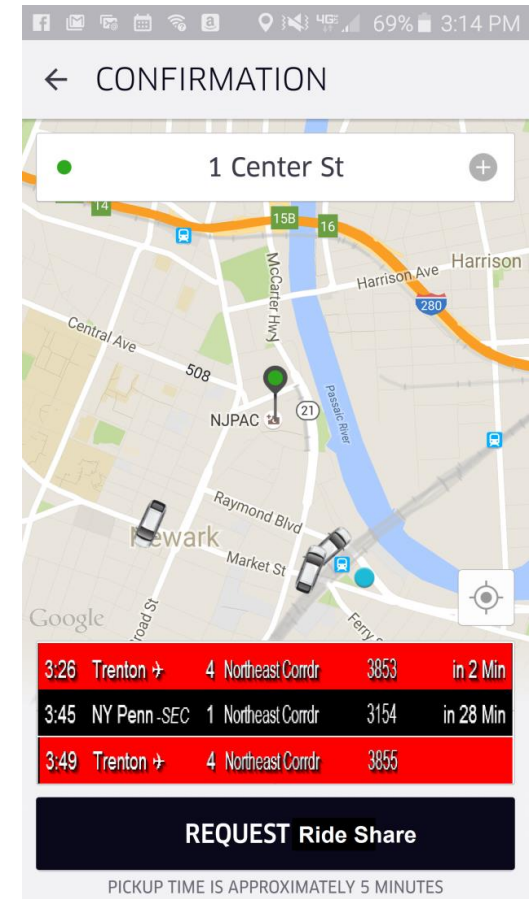
Paratransit Costs

- Contracted per trip costs around $30-$50

- 80+% of trip are ambulatory customers and can be met with a $6 TNC ride

- Contracted cost for remaining 20% would go up to compensate for lower demand unless replaced.

- Allow contractor to pick up general public first/last mile trips. Contractor given preference in mobile app.

- WIN/WIN!!!

Existing Paratransit Contract

Paratransit Ambulatory @ $40 per trip

Paratransit Non-Ambulatory @ $40 per trip

General Public On-Demand @ $6 per trip – Charge Public $4 for 4 miles

Modified Paratransit Contract

On-demand Ambulatory @ $6 per trip

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Mobility On-Demand (MOD)

- 11 Sandbox projects

  – Many are working with a single TNC to provide first/last mile services

  – Most asked for exceptions to FTA requirements for demo projects

    - Title 6 – Provide service to all social groups – Smart Phone only does not meet it. Concierge service only deployed in one county and not maintained

    - ADA – Provide accessible vehicles – Private TNCs do not address this issue. No active motivation to provide accessible vehicles

    - Driver Training and Drug Testing – TNCs refuse to provide this.

    - Trip data – NTD reporting requires trip data which TNCs resist

- Sandbox 2.0 funding coming later this year

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Mobility On-Demand Providers

- Private Carriers – Transportation Network Companies (TNCs)
  - Taxis, Uber, Lyft, Car2Go, Hoop, Scoop, Bridj, Gett & dozens of others
  - Provide drivers to meet passenger trip requests
  - Starting to provide ride sharing in some areas
  - National in scope
  - Don't address social equity issues well
- Public MOD Services
  - Austin, TX, New Mexico, Ridewise, NJ
  - Provide their own fleet of vehicles to meet passenger trip requests
  - Focus on ridesharing
  - Local focus
  - Can meet FTA NTD requirement

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Ride Aggregators Promote Competition

- TNC Aggregators forming to compete prices among providers

  – Migo

  – UpHail

  – Ride Fair

  – Mouv

- Agencies can do the same with their mobile ticketing App. Offer an open API to any service provider.

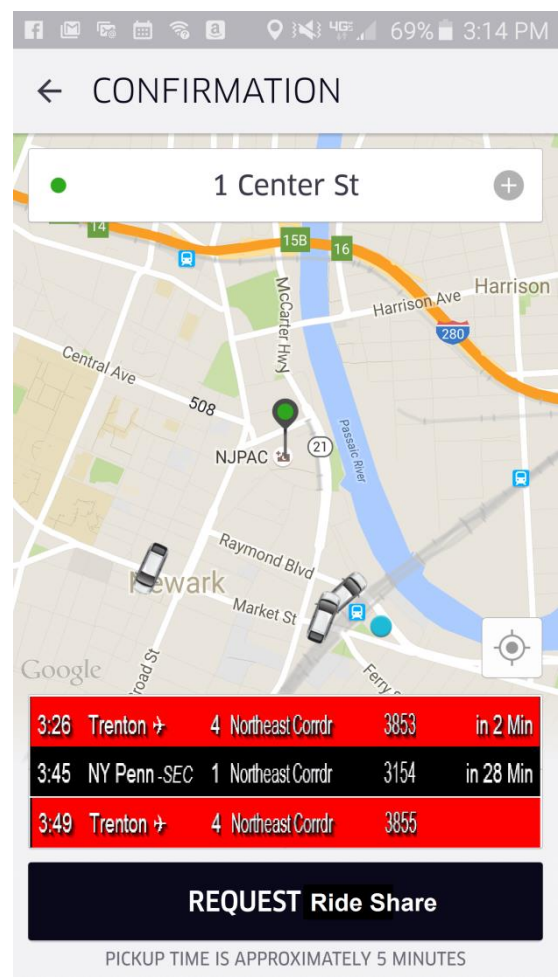**HNTB**
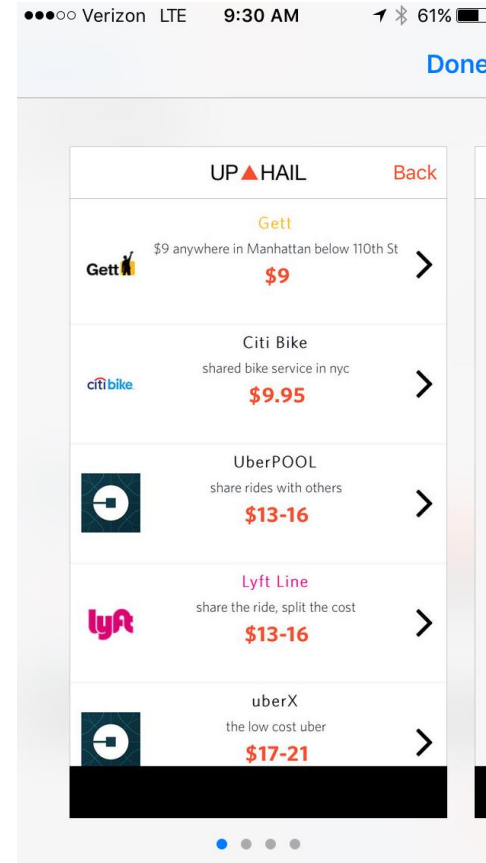
Mobile Ticketing Modifications

Seemless integration with mobile ticketing

Add first/last mile to mobile ticketing (Paratransit User ID in customer profile)

Provide accessible vehicle option to user profile

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New Trip Screens

Pickup address

Next couple trips on the customer's train line with status for the trains.

Estimated arrival time for service provider vehicle

Reasons for Agency Control over MOD

- <u>Tightly</u> integrate with Mobile Ticketing to offer one stop shopping
- Coordinate pick-ups and drop offs with real-time train arrivals
- Make TNCs compete with each other to lower cost
- Control ridesharing requirement
- Control data
- Address Title 6, ADA and driver training/testing to qualify for NTD subsidy

Agency Responsibilities

- Define pick-up areas at each station
- Renegotiate paratransit contracts
- Provide driver training/drug testing to qualify TNC drivers
- Collect credit card transactions and make monthly payments to TNC and Paratransit vendors
- Marketing of service to riders and non-riders
- Needed Application Development
  - Add vendor accounts to ticketing system to pay vendors
  - Add user interface from Mobile Ticketing App to choose service provider based on estimated time to arrival
  - Add display user interface to show pick-up status/map at each stage of the first/last mile trip.
  - Add TVM and ticket window ability to purchase first/last mile trips. Activated by phone call to IVR system
  - Provide driver App and Tablets for agency vehicles

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TNC Vendor Requirements

- Require to meet a minimum fleet size in a given area

- Provider to set their price per trip, per mile and per minute within coverage area (Can work out separate rates outside coverage area.) They will be competing with other service providers. Default "included" provider will be lowest cost (or accessible vehicle) but Rider can select a higher cost provider at the customer's expense.

- Require accept a ridesharing option in their interface (Driver app to allow multiple passenger pickup points.)

- Require to provide time estimate pre-trip and status updates at each phase during the trip

- Required to provide driver and car details for user to identify car and ability for driver to view passenger details

- Background checks and clear driving record for drivers are set in state legislature

- Minimum insurance coverage for driver after accepting a trip until completion and passenger liability insurance are set by state legislature

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Mobile App Suggestions

- ## Debug Current Apps
  Several bugs are found in the layout of the current apps. Needs a thorough testing. Suggest some format changes for ease of viewing.

- ## Mobile Ticketing
  Deploy ASAP. - Combine NFC and 3D bar Codes - Driver visual validation and NFC at turnstiles. Most turnstiles will take NFC interface.

- ## Add First/Last Mile
  Add Taxi/Uber/Lyft/Paratransit Integration

- ## Interactive Real-time Info
  Dynamically changes based on your location and user preferences to show you what you need to know at the right time. Add interactive maps for all modes combined. Use 3rd party content instead of using your own.

- ## Expanded User Preferences
  Have preferred modes and stations as saved parameters. Add Notifications for Selected Trips.

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Operations Use of Apps

- Safety Mobile App for Right of Way workers
  - Warn right of way worker of approaching trains
  - Warn engineers of upcoming active worksites
- eStarter Mobile Dispatch
  - Get rid of log sheets and save 100s of man hours in OTP reporting
  - Allow real-time information to the yard or field dispatchers
  - Allow yardmaster to verify engineers are logged in correctly and consist is entered correctly

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Operations Use of Apps (Cont.)

- Customer Service Ambassadors
  - Access to the latest info
    - Arrival times
    - Delays
    - Track arrivals for changing escalator directions
  - Consistent Messaging to Customers
- Yard Management
  - Modifying consists
  - Completing reports
- Conductor Fare Collection
  - Seat check replacement
  - Ticket validation
  - Credit card authorization

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Questions?

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