

Massachusetts Bay Transportation Authority

Fiscal Management and Control Board **The RIDE Transformation Update**

April 29th, 2019

Summary

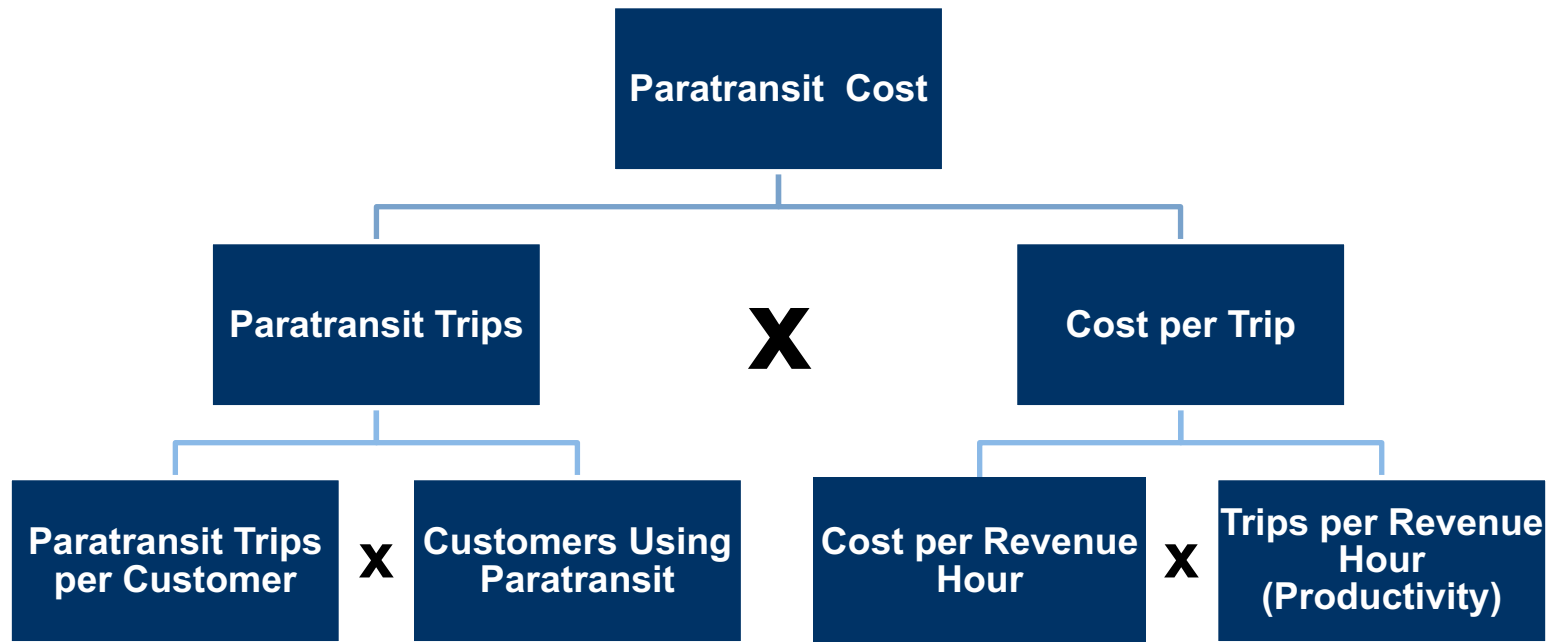


This presentation will cover:

- A discussion on impacts to the existing paratransit industry structure
- An evaluation of transformation initiatives to address industry changes
- On-Demand Pilot Program Changes Effective July 1
- RIDE Account Withdrawal Policy Changes Effective July 1

No board action is required.

An appendix contains more detailed information on each transformation initiative



Increasing Demand:

- The RIDE's customer base is expected to increase by 2% annually as Baby Boomers reach retirement age
- TNCs' emergence has cut demand, but continued growth is uncertain

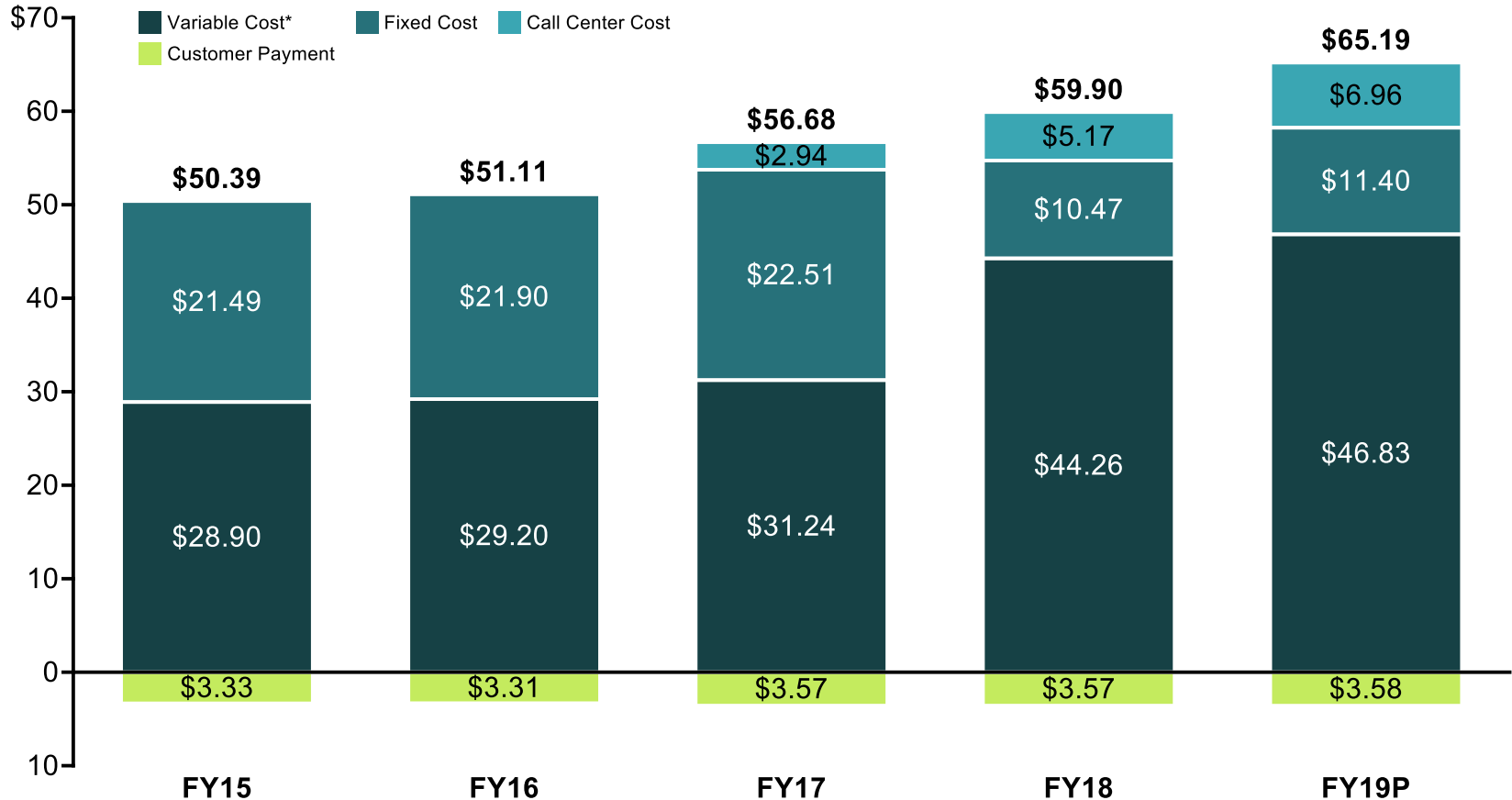
Increasing Per-Trip Costs:

- High cost of inputs (insurance, fuel, labor) drive up the variable cost per hour of service
- Growing traffic congestion in the Boston area* impacts service efficiency and reliability

Traditional service costs have increased significantly in the past three years



FY15-FY20 Per-Trip Costs (excluding Uber/Lyft)



It is important to note two major changes in FY17: the initial implementation of the centralized call center and structural changes to the dedicated service provider (DSP) contracts. DSP contracts were initially amended in FY15 and these amendments expired in FY17. These amendments had shifted a significant portion of costs from variable to fixed. Additionally, DSP contracts were set to adjust upon a DSPs integration into the centralized call center. From mid-FY17 to early-FY19, DSPs were integrated into the centralized call center, enacting these contractual changes.

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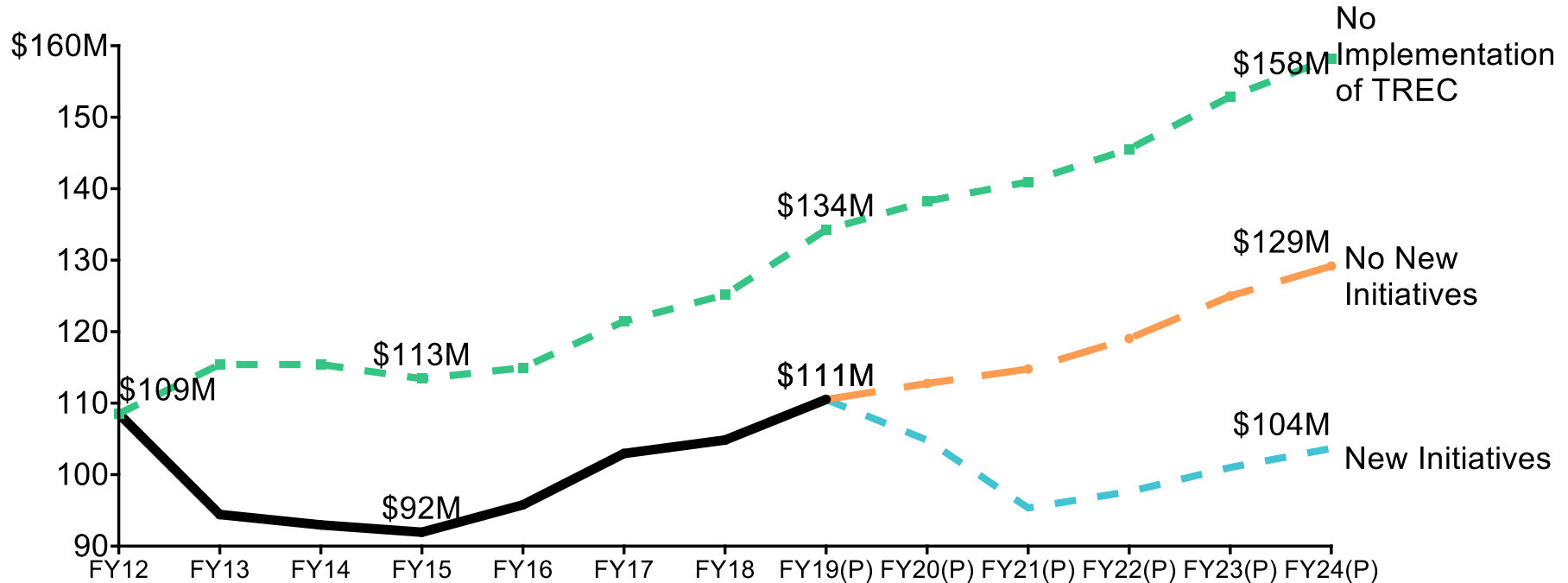
* Does not include the per-trip cost of vehicle purchase (~\$2 per trip), eligibility center costs (~\$1), or OTA wages and professional services (~\$1)

** Variable cost displayed is net customer payment (i.e., payment to vendors for variable is customer payment plus variable cost)

Reducing expenses required several policy changes and new initiatives



RIDE Service Provision Costs*



- The implementation of in-person eligibility determinations at TREC (2013) significantly reduced paratransit demand – without this decision costs could be 30% higher today
- Managing the cost of service going forward will require new and in-flight initiatives across all facets of RIDE service

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* Service provision costs include (1) provider variable costs (net of customer fares); (2) provider fixed costs; (3) call center cost; and (4) software licensing / incentive payment costs.

The RIDE has begun to address these concerns through multiple initiatives



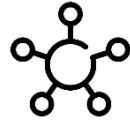
In-Person Eligibility Center

2013



On-Demand Pilot

2016



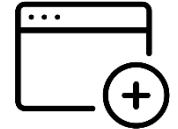
TRAC Centralization

2016 - 2018



Integration of Non-Dedicated Service Providers

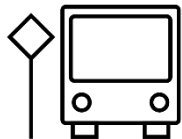
Spring 2019



New Software Implementation

Summer 2019

Fall 2019



Fixed Route Integration

Winter 2019-2020



New Dedicated Service Provider Contracts

Ongoing



New Vehicles and Enhanced Customer Service Initiatives

Ongoing



Academic Research and Additional Pilots

Early transformation initiatives have produced mixed results



Initiative	Customer Impact	Cost Impact	Timeline	Grade to Date
In-Person Eligibility: Applicants must receive an in-person assessment	-	\$\$\$	2013 - Present	A
Free Charlie Card Pilot and Taxi Pilot 1.0: Assess the mobility and financial impacts of providing customers free access to fixed route and subsidized taxi trips	+	-	2016 - 2018	D
On-Demand Pilot: Customers receive a monthly allotment of MBTA-subsidized trips through Uber, Lyft, and Curb.	+++	\$	2016- Present	B
Centralized Call and Control Center (TRAC): Centralized reservations, scheduling and dispatch	- / +	\$	2016 – Present	C
Academic Research: scheduling algorithms and roadway/weather impacts on efficiency / performance	+	\$	2017 - Present	B

Multiple new initiatives are already under way to transformation The RIDE

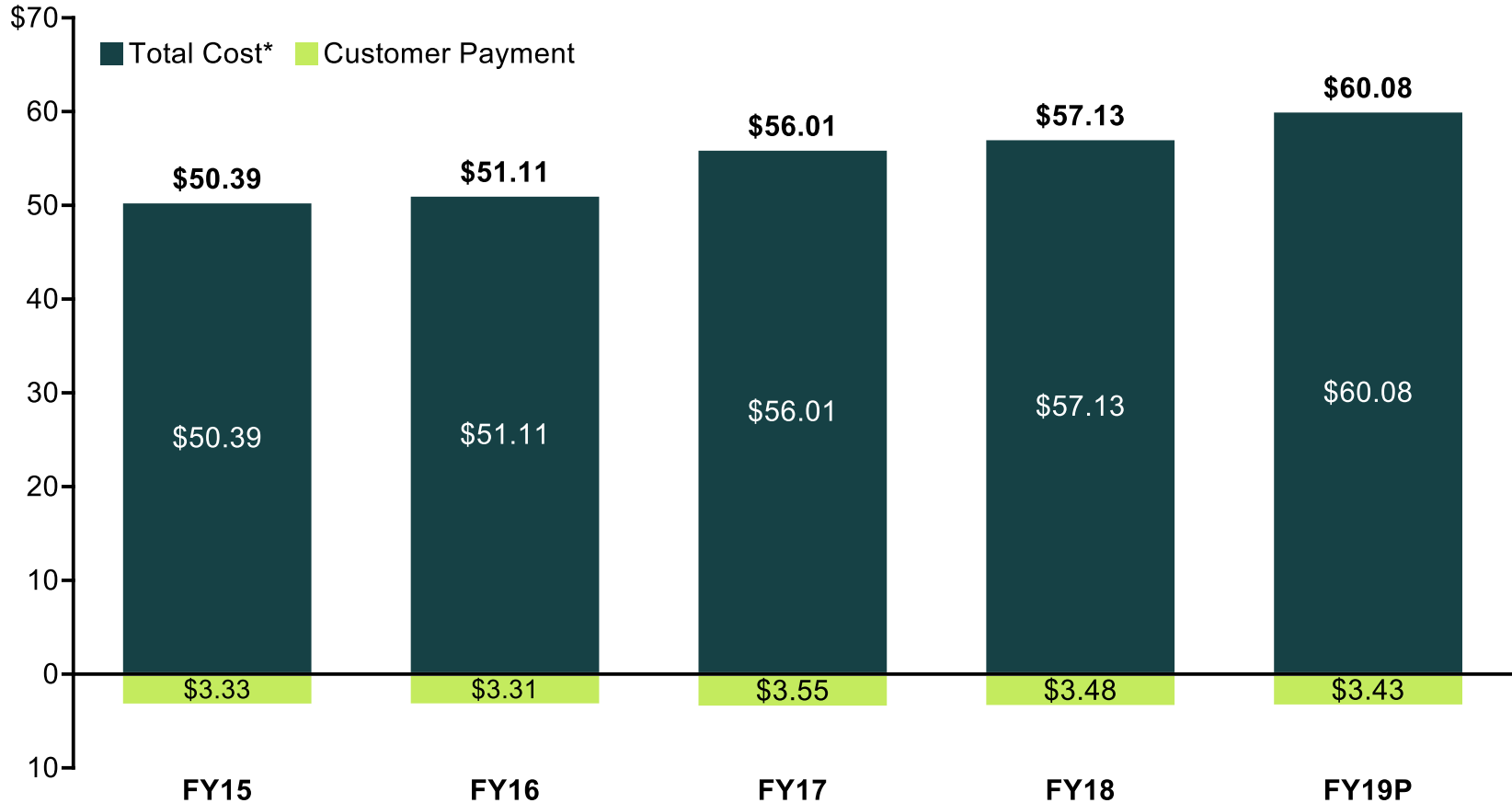


Initiative	Customer Impact	Cost Impact	Timeline	Grade to Date
Software Procurement: New software to improve routing efficiency and customer self-service functions	++	\$\$\$	July 2018 - 2020	TBD
Dedicated Service Provider Procurement: Re-design of DSP contracts to promote reliability and productivity	- / +	\$\$\$	Aug 2018 - 2020	TBD
Fleet and In-Vehicle Technology Upgrades: Purchase new vehicles, and install in-vehicle tablets.	+++	\$	Ongoing	TBD
NDSP Integration: Optimize the mix of providers to increase overall scheduling efficiency	+	\$\$	Mar 2019 - 2020	TBD
Fixed Route Integration: Encourage customers to access fixed route system instead of relying on RIDE	- / +	\$\$	April 2019 - 2020	TBD
New Innovation Initiatives: Offer additional travel training; new technology training; and a customer app.	++	\$	Ongoing	TBD

To date, these initiatives have begun to show progress on the cost per trip



FY15-FY20 Per-Trip Costs (Dedicated Service Providers, Uber, and Lyft)



Trip cost increases have begun to slow with the use of Uber and Lyft; future costs are expected to decline due to new software, contracts, and innovations

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* Total cost displayed is net customer payment (i.e., payment to vendors for variable is customer payment plus total cost)

Changes to the On-Demand Pilot have been built into the FY20 budget



	FY20 RIDE	Current Pilot	Pilot with Changes
Co-Pay (Shared Trip)	\$3.35 (\$5.60 for premium)	\$1.00 Uber / \$2.00 Lyft	\$3.00
Co-Pay (Non-Shared Trip)	N/A	\$2.00	\$6.00
MBTA Max Subsidy	Unlimited	\$40	\$40
Monthly Trip Allocations	Unlimited	2, 10, 20, 30, or 40	Same tiers; new tier “re-baseline” policy for customers with significant trip history changes

Expected Impact of Changes

- Total annual expected savings of \$1.6M
- Impact is highly dependent upon on
 - The decrease in pilot demand
 - Any “re-conversion” of decreased pilot demand into increase RIDE demand
- Increase in mobility for customers whose dependence upon The RIDE has significantly changed

Based on the potential for these changes to impact an expected July software implementation go-live, we are proposing to delay changes until August 1



Background

- MBTA currently has over \$3M in RIDE customer funds
- MBTA processed more than 1,000 withdrawals and transfers between accounts in 2018
- Current setup disadvantages RIDE customers and MBTA

Upcoming Changes

1. Effective July 1, MBTA will only allow full account withdrawals upon closing accounts – it will no longer issue partial withdrawals of balances or transfers between RIDE accounts.
2. Customers may request a partial or full withdrawal of funds through June 30. RIDE accounts inactive for three years will have balances transferred to Massachusetts Unclaimed Property Fund, in accordance with M.G.L. c. 200A.

Customer Communication

- Presented to R-TAG Board and at General Meeting (April 1 and April 9)
- Letters to be mailed to all RIDE account holders notifying them of the change and how to request a full or partial withdrawal
- Customers will receive additional notification via vehicle seat drops, MBTA website, and additional communications with advocacy and community groups



Summer 2019

- Transition to new scheduling and dispatch software
- Implement On-Demand co-pay / subsidy changes
- Ramp up Non-Dedicated Service Provider integration testing at TRAC
- Complete Dedicated Service Provider procurement and contracts

Fall 2019

- Finish procurement of permanent Non-Dedicated and On-Demand providers
- Implement Fixed Route Integration

Winter 2020

- Transition to new Dedicated Service Provider contracts



Appendix

Initial Transformation Initiatives

The RIDE Eligibility Center (TREC) In-Person Eligibility Assessments



Initiative Summary

Customer	Cost	Timeline	Grade
-	\$\$\$	2013 – Present	A

Impact is **Positive** or **Negative** and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/--/\$\$\$)



- In 2013, The RIDE began requiring in-person eligibility assessments; previously, applications were sent in by mail. Eligibility determination work is now outsourced to a third party which operates The RIDE Eligibility Center (TREC).
- TREC additionally serves as a valuable intercept point for customer education and communications

What's Been Done to Date

- Implemented in-person eligibility assessments through The RIDE Eligibility Center (TREC) for more thorough and consistent evaluations of prospective customers

What's Coming Next

- TREC will continue to offer in-person eligibility appointments based on the current level of success and customer adoption
- MBTA will provide continued eligibility training to staff responsible for appeals board
- TREC is leading the Fixed Route Integration initiative, which will provide complementary travel training and TAP Card application assistance

Challenges and Risks

- Change to in-person assessment succeeded due to significant community input

Initial Transformation Initiatives

Taxi Pilot 1.0 and Free Charlie Card Pilot



Initiative Summary

Customer	Cost	Timeline	Grade
+	-	2016 – 2018	D

Impact is **Positive** or **Negative** and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/---/\$\$\$)



- In 2016, the Taxi Pilot was established to subsidize customers' use of Boston-area taxis. It was the first attempt to determine if a non-dedicated provider offering on-demand service could help reduce costs and promote mobility
- In 2017, The RIDE tested whether offering customers free access to buses and trains would reduce their reliance on The RIDE

What's Been Done to Date

- The Taxi Pilot completed over 3,200 trips and ended in late 2016.
- The Free Charlie Card Pilot provided roughly 400 RIDE customers Free Charlie Cards, and assessed their fixed route and RIDE usage during a six month period from May–December 2017.

What's Coming Next

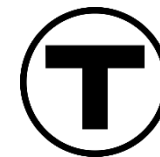
- No new versions of these pilots are expected

Challenges and Risks

- The Taxi Pilot was ended due to limited coverage area and no savings. Staff's ability to make programmatic decisions and evaluate costs was limited by a lack of data
- Free Charlie Card pilot did not have a statistically significant impact on use of The RIDE and offered only a modest mobility benefit. Data also showed some customers engaging in likely fraudulent activity

Initial Transformation Initiatives

On-Demand Pilot with Uber, Lyft, and Curb



Initiative Summary

Customer	Cost	Timeline	Grade
+++	\$	2016 – Present	B

Impact is Positive or Negative and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/--/\$\$\$)



- Subsidizing customers' use of ride-hailing apps increases mobility and independence while potentially reducing total costs (through a reduction in RIDE trips)
- Pilot initially started with Uber and Lyft and was then expanded to include Curb, which operates like Uber and Lyft, but using taxis

What's Been Done to Date

- The On-Demand Pilot now provides over 17,000 subsidized Uber/Lyft trips per month
- The Pilot continues to grow rapidly (3 – 4% month-over-month)
- The MBTA and MassDOT recently started a WAV subsidy program to increase supply

What's Coming Next

- Re-design of customer co-pay to increase program-related savings while preserving customer mobility benefit

Challenges and Risks

- Continued success of Pilot depends, in part, on Uber/Lyft trip costs remaining low
- Booking with Uber/Lyft reduces TRAC efficiencies and may impact productivity
- Wheelchair accessible vehicle (WAV) availability remains lower than needed

Initial Transformation Initiatives

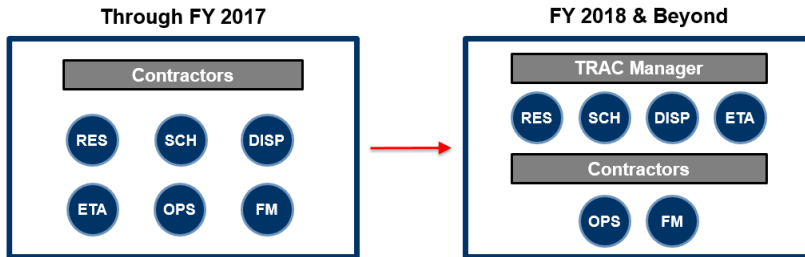
The RIDE Access Center (“TRAC”) Centralization



Initiative Summary

Customer	Cost	Timeline	Grade
-/+	\$ \$ \$	2016 – Present	C

Impact is **Positive** or **Negative** and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/--/\$\$\$)



- Contractors previously operated/maintained vehicles and had separate call centers – centralization creates a single contractor responsible for all call center activities
- TRAC offers an integrated, customer-focused approach and greater efficiency via reduced duplication of contractor responsibilities, increased contractor competition, and enhanced MBTA oversight

What’s Been Done to Date

- TRAC was originally awarded in June 2016, but issues with the contractor required a re-bid in January 2018
- A holistic redesign of TRAC was completed prior to issuing a new RFP
- TRAC’s new contractor took control in June 2018, completed the centralization in August 2018, and worked with MBTA support to stabilize service quality since
- There are now delays in focusing on new activities to reduce cost / improve service

What’s Coming Next

- Continued employee training and efforts to better coordinate with other contractors

Challenges and Risks

- Without a stable TRAC operation, future initiatives could be at risk

LEGEND

RES: Reservations
SCH: Scheduling

DISP: Dispatch
ETA: Arrival Time Messaging

OPS: Operations
FM: Fleet Maintenance

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Initiative Summary

Customer	Cost	Timeline	Grade
+	\$	2017 – Present	B

Impact is **Positive** or **Negative** and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/---/\$\$\$)



- Leverage vast amount of data collected by the RIDE systems to improve service for customers
- Utilize in-house analytics support as well as university partnerships for class projects and graduate student research papers
- Take lessons learned from analysis and use to better conduct procurements and improve existing technology and service for customers

What's Been Done to Date

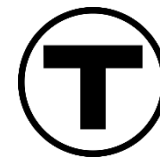
- Conducted the following research:
 - Customer Analysis and Segmentation (Harvard Kennedy School student)
 - Optimal Use of NDSPs (UMass Transportation Graduate Program)
 - Limited Trips NDSP Model (MIT Sloan School of Business Class Project)
 - Single-Day NDSP Model (Northeastern Undergraduate Class Project)
 - Multimodal Dispatch Optimization Tool (MIT Masters in Analytics Student Project)

What's Coming Next

- New research with MIT Masters in Analytics students will focus on developing a tool to determine impact of weather on service
- New research with Harvard Economics PhDs will evaluate behavioral changes within the Uber/Lyft pilot program

New Transformation Initiatives

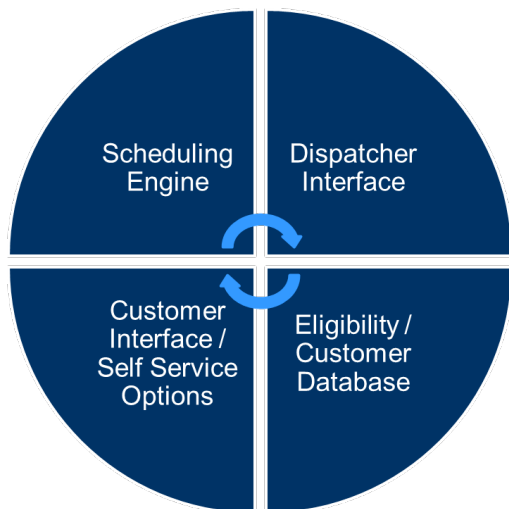
New Reservations, Scheduling, and Dispatch Software



Initiative Summary

Customer	Cost	Timeline	Grade
++	\$\$\$	July 2018 – 2020	TBD

Impact is Positive or Negative and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/--/\$\$\$)



- New software will improve customer experience (more self-service channels and real-time information) and enhance service reliability and efficiency (improved routing algorithm – the single biggest opportunity for savings)

What's Been Done to Date

- The RIDE's software was rebid for the first time since its initial 2004 installation
- Routematch was selected, bringing extensive large paratransit agency experience and innovative partnerships
- Contract is structured with significant portion of fees at risk to align incentives for increased system efficiency
- Significant system configuration and transition planning is already under way

What's Coming Next

- Ongoing configuration, training, change management and communication activities for expected July 1 Go-Live

Challenges and Risks

- Multiple critical stakeholders (customers, call center, drivers) have seen no software change in 15 years

New Transformation Initiatives

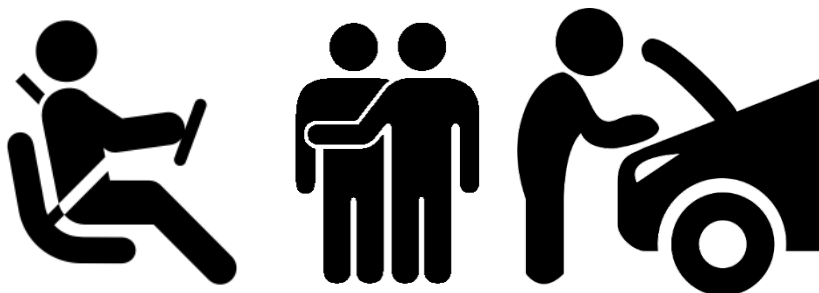
Dedicated Service Provider (“DSP”) Procurement and Integration



Initiative Summary

Customer	Cost	Timeline	Grade
- / +	\$ \$ \$	Aug 2018 – 2020	TBD

Impact is **Positive** or **Negative** and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/---/\$\$\$)



- Complete redesign of the Contracts to take full advantage of TRAC and new software system
- Key contract changes are expected to drive enhanced value for customers and MBTA, including introduction of new incentives and penalties to increase DSP reliability and performance

What’s Been Done to Date

- Redesigned entire service and associated RFP from July 2018 through February 2019
- Met with entire industry and all current providers to seek feedback on design
- New RFP was released in February ‘19

What’s Coming Next

- Complete the proposal evaluations followed by site visits; make final selection on Best Value basis
- Develop/deploy a phased-in mobilization plan to transition all providers

Challenges and Risks

- Winter weather could impact the transition and mobilization period (Winter 2019)
- Current providers have provided service for the past 15+ years; many customers have become used to the same drivers / service



Initiative Summary

Customer	Cost	Timeline	Grade
+++	\$	Ongoing	TBD

Impact is Positive or Negative and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/---/\$\$\$)



- Many RIDE vehicles are past their useful life and nearly 85% of the fleet will need to be replaced by FY23. More frequent repairs and downed vehicles harm the quality and cost of service.
- Vans are also outfitted with old tablet technology that does not take advantage of current live traffic data and other new functionality to improve driving and routing efficiency

What's Been Done to Date

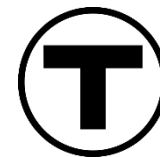
- Established a replacement schedule for the entire RIDE fleet with over 150 vans replaced in the past year
- Selected a new sedan model (Ford Flex) with the input of RIDE customers. An order of 118 new vehicles is in-process
- Decided to make the fleet 100% MBTA owned (now ~82%) to increase competition on future service provider procurements
- All vehicles in the fleet are currently being outfitted with new tablets to support live traffic data, improved radio communication, and enhanced software functionality

What's Coming Next

- All vehicles will be outfitted with tablets by the end of April
- 250 additional vehicles will be purchased in the next 1.5 years to keep the fleet current

New Transformation Initiatives

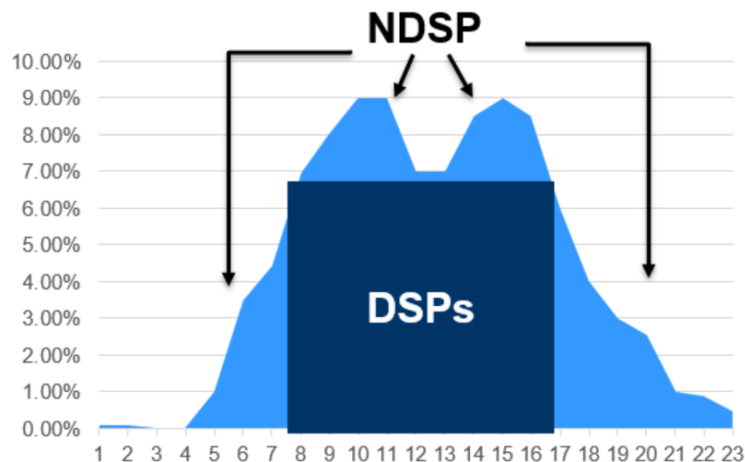
Non-Dedicated Service Provider (“NDSP”) Procurement and Optimization



Initiative Summary

Customer	Cost	Timeline	Grade
+	\$ \$	March 2019 – 2020	TBD

Impact is **Positive** or **Negative** and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/--/\$\$\$)



- NDSPs such as Uber, Lyft, or local taxis, may be used to supplement dedicated service
- NDSPs are used for individual inefficient trips to allow for more efficient overall scheduling

What’s Been Done to Date

- The On-Demand Pilot has proven NDSPs can be cost-effective and customers are satisfied with driver and service quality
- A new pilot has just begun to test TRAC’s capacity to utilize NDSPs in scheduling

What’s Coming Next

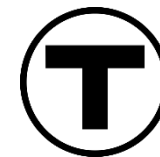
- Run a full procurement (summer/fall) before NDSPs can be integrated
- Develop/deploy a software optimization feature to efficiently schedule all providers

Challenges and Risks

- Impact depends in-part on customer opt-in to service with different standards
- Adding providers and software integrations are lengthy and can complicate reservations/scheduling

New Transformation Initiatives

Fixed-Route Integration Design & Roll-Out



Initiative Summary

Customer	Cost	Timeline	Grade
- / +	\$ \$	April 2019 – 2020	TBD

Impact is **Positive** or **Negative** and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/--/\$\$\$)

Trip Planner

- Enforcing “trip-by-trip” eligibility would mean determining, for each trip request, whether the customer is able to use the fixed route system for travel instead of The RIDE.
- Trip-by-trip eligibility determinations require that The RIDE assess the accessibility of the fixed route’s stations and stops, as well as the customer’s path of travel.

What’s Been Done to Date

- The RIDE Eligibility Center (TREC) has hired its first “route checker,” who will scout paths of travel to determine accessibility

What’s Coming Next

- The RIDE’s new software will develop a solution for TRAC’s reservationists to determine eligibility on a trip-by-trip basis
- Meetings with community and advocacy groups to determine what additional measures will best support customer mobility and confidence in using the fixed route

Challenges and Risks

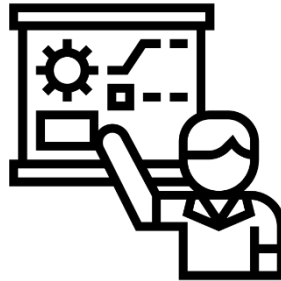
- Trip-by-trip eligibility will limit some customer’s usage, for some trips
- Cost impact highly dependent on level of accessibility of paths of travel (currently tbd)
- Roll-out cannot occur until new software is fully functional



Initiative Summary

Customer	Cost	Timeline	Grade
++	\$	Ongoing	TBD

Impact is Positive or Negative and Low (+/-/\$), Medium (++/--/\$\$), or High (+++/--/\$\$\$)



- Continuing innovations around reducing demand, including technology training and integrated TAP Card applications, have recently been completed or are in planning stages

What's Been Done to Date

- The RIDE has coordinated with the Charlie Card Store and TREC to streamline the process to apply for a TAP Card for RIDE customers

What's Coming Next

- Beginning in early May, The RIDE will be offering free technology training through the Boston Public Library tailored to the needs of RIDE customers, including online shopping, using Lyft and Uber, and an introduction to the new RIDE app

Challenges and Risks

- Technology training may fail to reduce demand for customers opting in to learning about online shopping
- As with the RIDE Charlie pilot, access to discounted fixed route options may not translate to reduced RIDE demand