



Tackling Fare Evasion on Commuter Rail

April 25, 2016

Outline

- ① Background to today's presentation: fare collection and fare evasion
- ② Commuter rail system overview and best practice
- ③ Quantifying fare collection on commuter rail
- ④ Tackling fare evasion: best practice strategy
- ⑤ Stepping-up short-term fare collection
- ⑥ Summary

Background to today's presentation

- ⦿ Based on recognition by Keolis that opportunities exist to address long-standing structural issues relating to fare collection and fare evasion, Keolis has established a team with senior level experience in leading international railroad businesses. This team has been based **in Boston** since February 1, and has commissioned a series of studies and carried out other activities to identify both fare collection and other revenue growth opportunities for commuter rail.
- ⦿ We should also stress, that the future growth and success of Commuter Rail is dependant upon providing our riders with a consistently high level of service, each and every time they travel with us. We continue to have dedicated teams, working separately, on service delivery and development and implementation of these proposals and plans.

Fare collection vs. Fare evasion

- 362 conductors attempt to collect fares and stop fare evasion while performing other key operating tasks. During peak hours of service, on average 1 conductor covers 2 coaches. The other key operating tasks include retail, safety, doors and passenger assistance

Fare Collection

- Conductors check tickets and passes of commuter rail customers
- Ticket media include:
 - Paper tickets
 - Mobile tickets
 - Paper rebates
- Fares include:
 - Single trip
 - Round trip
 - 10 ride
 - Monthly pass

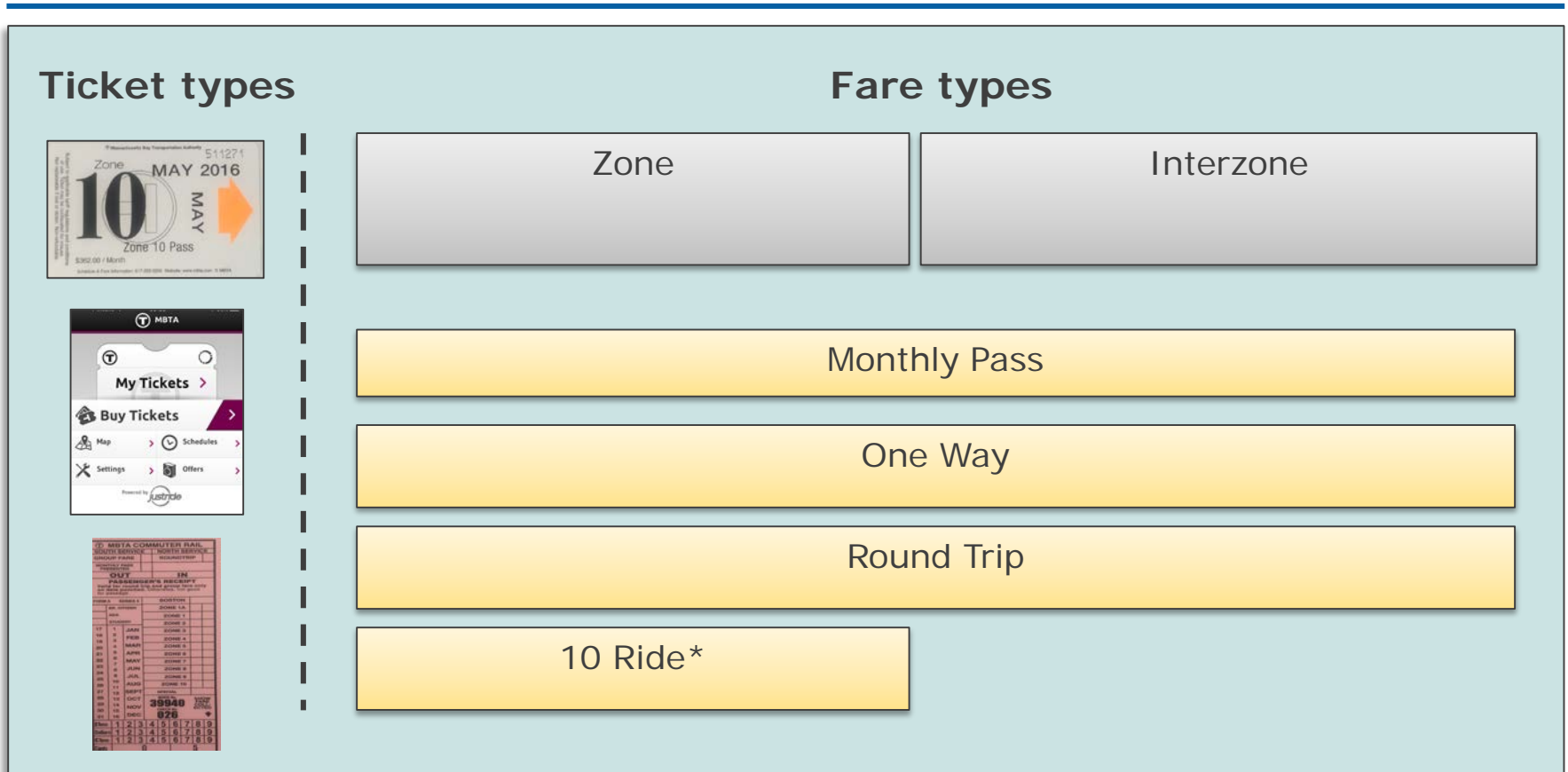
VS.

Fare Evasion

- Passengers evade paying the correct fare
- This includes under paying even when inspected
- Common evasion techniques include:
 - Short-zoning
 - Reusing tickets from previous years
 - Screenshot of M-ticket
 - Not activating M-ticket
 - Inserting seat checks
 - Moving seats

Improving Fare Collection and addressing Fare Evasion are both critical to providing a fair service to paying customers and increasing revenue

Commuter rail ticket and fare types



- Ticket media are paper tickets, mobile tickets and paper 'rebates' punched by conductors
- Fares are singles, round trip, 10 rides, monthly passes
- The official tariff will be brought to the FMCB on June 6 for consideration

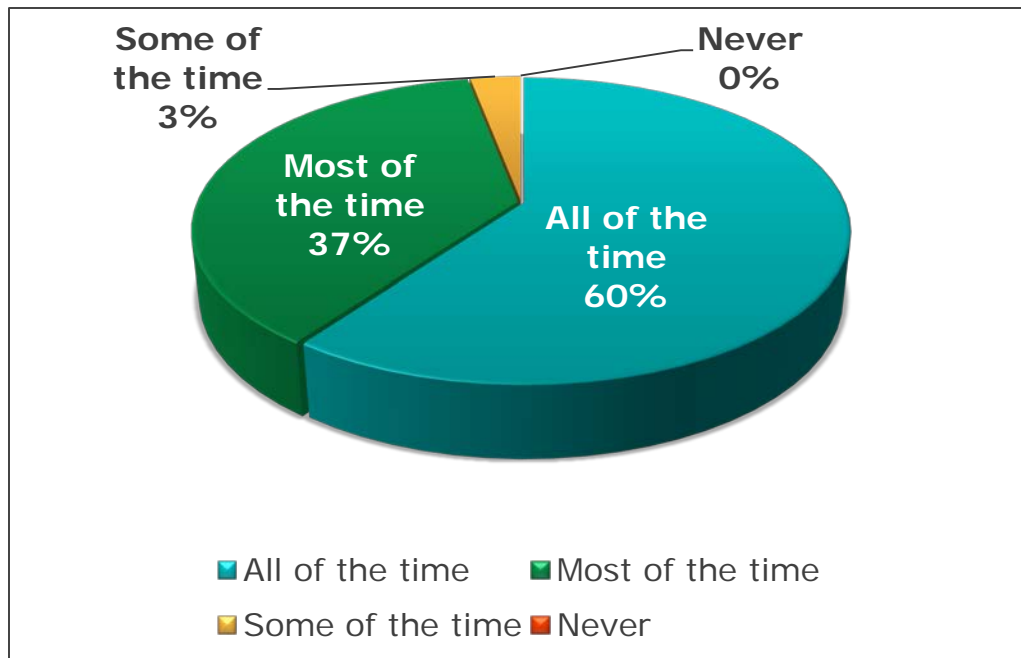
* Paper version being phased out in July

Quantifying fare collection

- As part of efforts to improve fare collection riders were asked about fare collection in the Fall '15 Customer Satisfaction Survey.
- Over 7,000 riders were surveyed and 97% reported their fares were collected 'all of the time or most of the time'.

Q: How often is your fare collected?

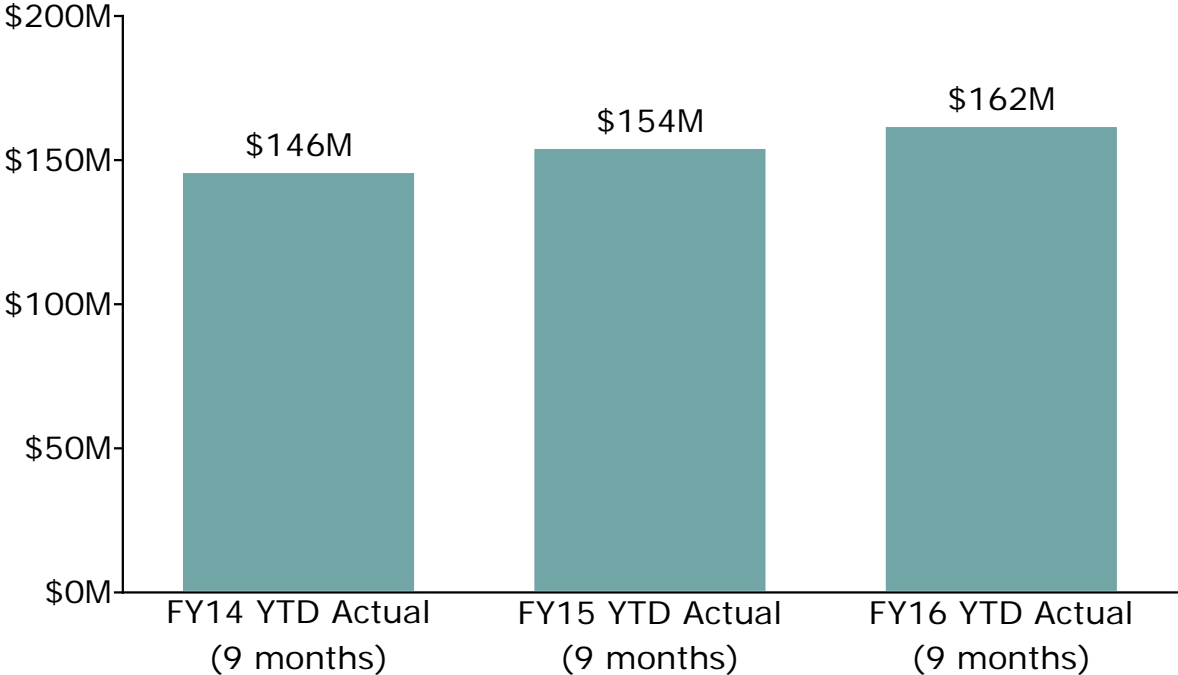
- All of the time: 60%
- Most or some of the time: 40%



- While the survey results were positive the judgment of MBTA and Keolis management was that further opportunities existed to improve fare collection.
- 30 Assistant Conductors were recruited and trained and started service.

Revenue is up 5% over FY15, and 11% from FY14

YTD (9 months) Commuter Rail Fare Revenue (Unallocated)



| YTD Commuter Rail Revenue Growth (9 months) | |
|---|-----|
| FY16 / FY15: | 5% |
| FY16 / FY14: | 11% |

Note: Chart above shows “unallocated” commuter rail revenue, prior to CTPS allocation for linked trips to other modes. Subway, Bus, Ferry, RIDE revenue includes all adjustments to total fare revenue
 Source: MBTA Internal Data

Stepping-up short term actions

- ⦿ The fare evasion survey has identified a significant loss of revenue due to passengers actively seeking to avoid either paying a fare or paying the correct fare.
- ⦿ Based on extensive best practice, the most effective strategy to tackle this and reduce fare evasion to levels seen in major railroad markets, is to invest in the ring-of-steel and associated activities.
- ⦿ Such a strategy typically takes 15+ months to implement and is subject to property, and other, approvals being received in a timely manner.
- ⦿ There is therefore a need to take action to increase the effectiveness of fare collection and reduce fare evasion in the short-term, and start moving towards best practice levels. A plan is being developed that encompasses 3 levers:

1. Step change 'fare is fair' – 4 strategies are being evaluated and costed:

- I. **Line blitz** – check every ticket at every inbound station on a specific line, and for a sufficient period of time to change behaviors (e.g., 4-8 weeks).
- II. **'Random' line blitz** - as above but alternating stations/days to increase efficient use of resource and cover more passengers.
- III. **Zone blitz** – check every ticket at key stations within a single zone.
- IV. **Hot spots** – use conductor and passenger feedback and data to target hot-spots on-board and at station.

Stepping-up short term actions

2. **Communication:** implement a communication plan to tackle the scofflaws culture that is prevalent in commuter rail:
 - Communicate passengers' responsibilities, and that fare evasion is anti-social and unacceptable. Conduct focus groups to fine tune the messaging.
 - Encourage and facilitate more customers to provide feedback on fare evaders, including through launch of ['fareisfair@keoliscs.com'](mailto:fareisfair@keoliscs.com) dedicated email address.
3. **Enforcement:**
 - Gain support of T Police to assist conductors on 'problem' trains, at special events etc.,
 - Work with MBTA to increase authority of conductors to effectively tackle fare evaders.
 - In line with MBTA fare collection strategy, move towards introduction of a 'buy before you board' policy where passengers pay a premium or penalty for buying on board.

NOTE:

- Elimination of 10-ride paper tickets, scheduled for July 1, 2016, should have a positive impact on reducing fare evasion.
- **Evaluation:** evaluation of effectiveness of plan based on ongoing surveys, customer feedback and, with support of MBTA, analysis of point of sale data from TVMs, 3rd party vendors, M-ticket vendor.

Commuter rail – retail and fare inspection system



Retail System

- It's relatively difficult to buy a ticket off-board:
 - Of 137 stations, 3 stations have ticket offices and TVMs
 - 8 other stations have TVMs
 - Poorly maintained network of 3rd party agents
 - M-ticket is not inter-operable with other modes
- Therefore no obligation to buy in advance, and no penalty for not doing so



Fare Inspection



- Commuter rail, in contrast with subway, does not have gated stations
- The gatekeeper is therefore the conductor
- Team of 362 conductors (as per bid)
- On average 1 conductor per 2 coaches during peak team (220 + to 360+ riders)
- Duties include inspection, retail, safety, doors, passenger assistance
- Attempts to evade fares are very low risk

In transport networks with these characteristics it's not unusual for fare evasion levels to be between 10% and 25%

Fare evasion – international best practice



Multi-channel retailing

- Barcode based tickets
- Full contactless & M ticket systems

Always possible to buy before boarding

- Obligation to buy before boarding
- Onboard price materially different to off-board price
- Fines and criminal action for refusal to pay for deliberate evasion



Fare evasion control rather than fare collection. Less human resource intensive -> better ROI

Significant use of gating in major commuter stations

Legal obligation to validate smart cards before boarding.

Intelligence/data led controls



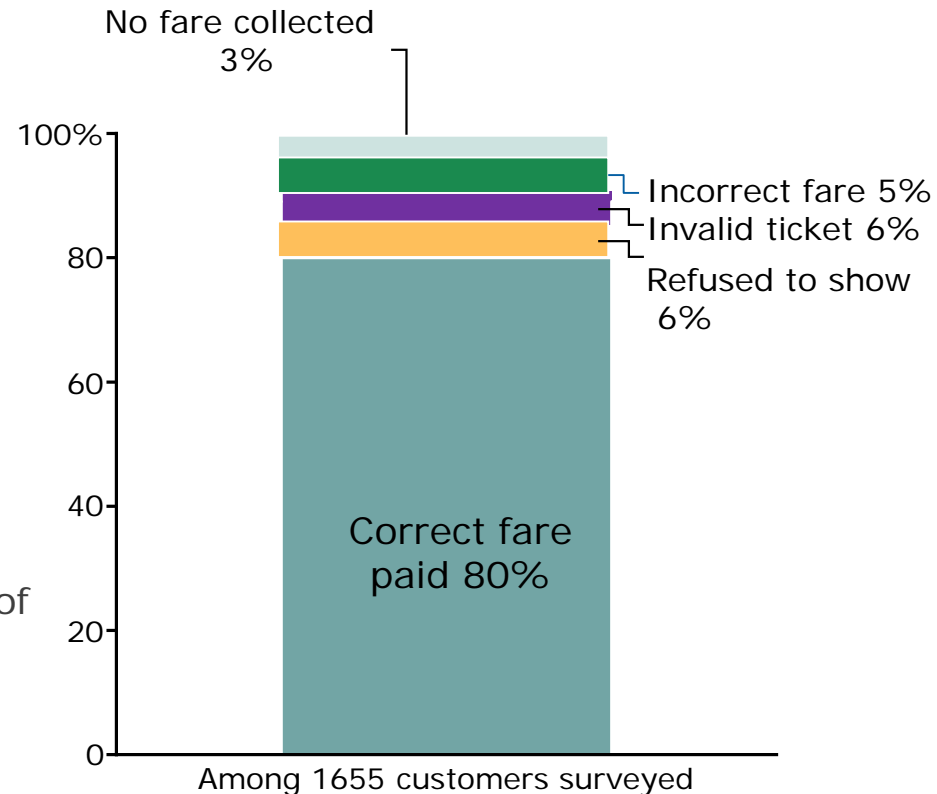
Lyon Metro, France
○ Fare evasion reduced from 14% to 6%



Charing Cross, London
○ Gate walkways handling significant commuter flows

Quantifying fare evasion on commuter rail

- Customer satisfaction survey shows 97% of passengers state that tickets are checked all of the time or most of the time.
- However we are aware that passengers use a variety of means to evade paying the correct fare. This is common knowledge and a long-standing issue that has never been tackled – **until now**.
- We conducted the first ever commuter rail fare evasion survey on 1st and 2nd March - 1,655 surveys completed, including on AM/PM peak and off-peak services, with a good sample of each line.
- Survey found that **between 15% and 20%*** of passengers are not paying the **correct fare** for their journey, with the revenue loss varying depending on the type of fare evasion (e.g., short-zoning, altered ticket etc.,).
- In transport networks with these characteristics it's not unusual for fare evasion levels to be between 10% and 25% - the actual figure depending on the precise characteristics e.g., rider volumes etc.,



*** this is not the same as revenue being lost as some riders pay the incorrect fare.**

Tackling fare evasion - 2 broad strategies

1. Enhanced fare inspection and onboard retailing

- Increase conductors on board to allow more time to inspect tickets, along with granting more powers to tackle fare evaders.

However:

- Not cost effective – at present there is 1 conductor for every 2 cars on peak services. To have 1 conductor per car for peak services would require an additional 280 conductors at an annual cost of over \$30m.
- This is an annual cost and is greater than the revenue increase this would generate.
- This strategy is inconsistent with AFC 2.0 in which fare collection (and cash) will be removed from on-board trains – to open fare payment channels (e.g., bankcards, smart-cards, NFC smartphones).

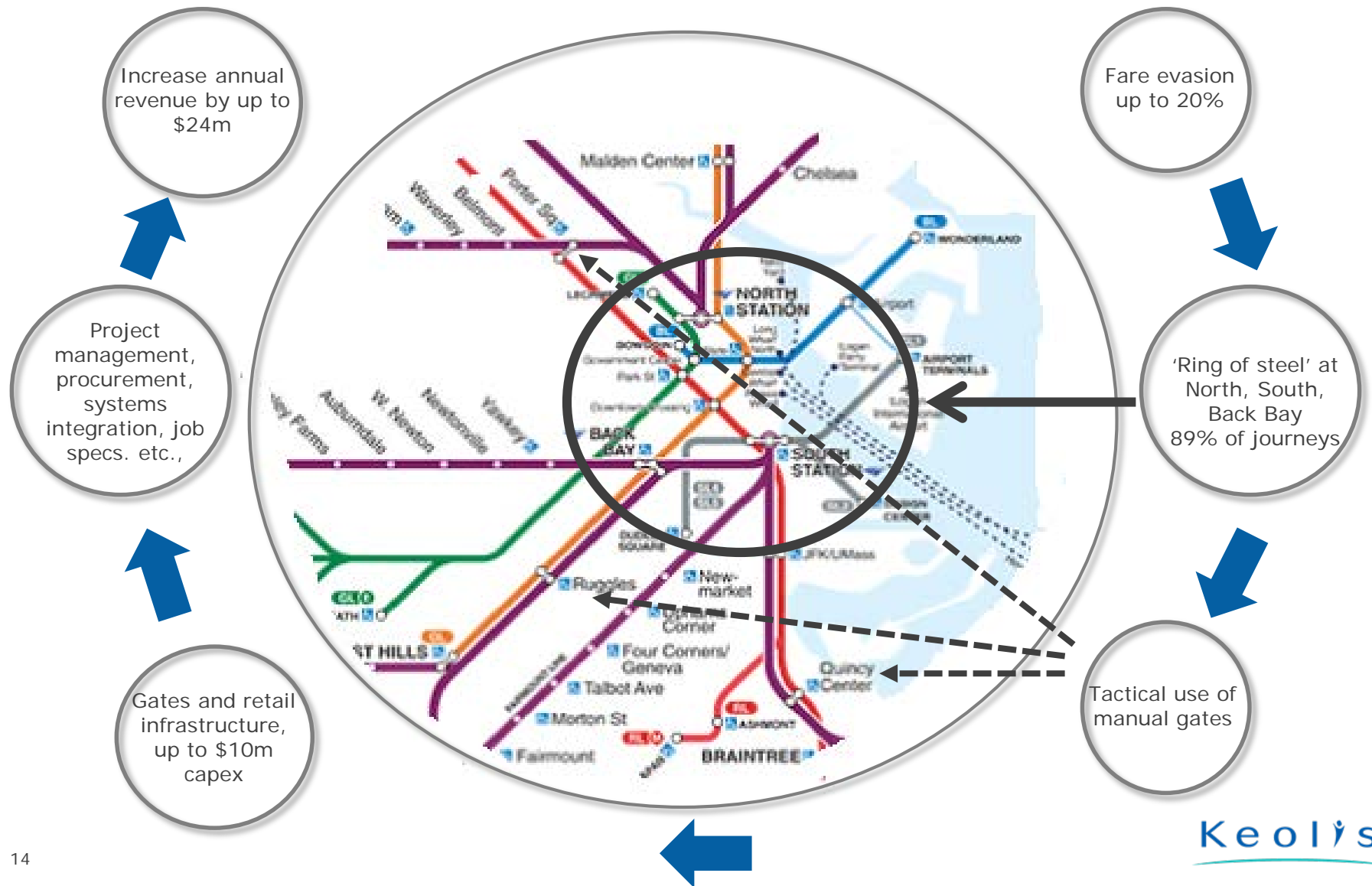
2. Fare evasion strategy in line with international best practice

- In line with best practice move to a fare evasion strategy.
- Create a 'ring of steel' around North Station, South Station and Back Bay – which account for 90% of inbound/outbound journeys – by introducing automatic ticket gates.
- Improve ability of riders to purchase tickets at stations and through 3rd party vendors, corporate pass program.
- Grant more powers to conductors to tackle fare evaders.
- Conduct fare evasion surveys to take a data led approach to tackling evasion.
- This strategy is consistent with, and paves the way for, AFC 2.0.
- This strategy requires capex of circa \$10m.
- This approach has reduced fare evasion to <5% in other major railroad businesses.

By adopting this strategy on commuter rail we estimate that up to \$24m of revenue can be recovered annually

KCS and MBTA believe the solution is not solely a human one but rather, in keeping with international best practice, a combination of technology, gates and human inspection

Big picture – the 'ring of steel'



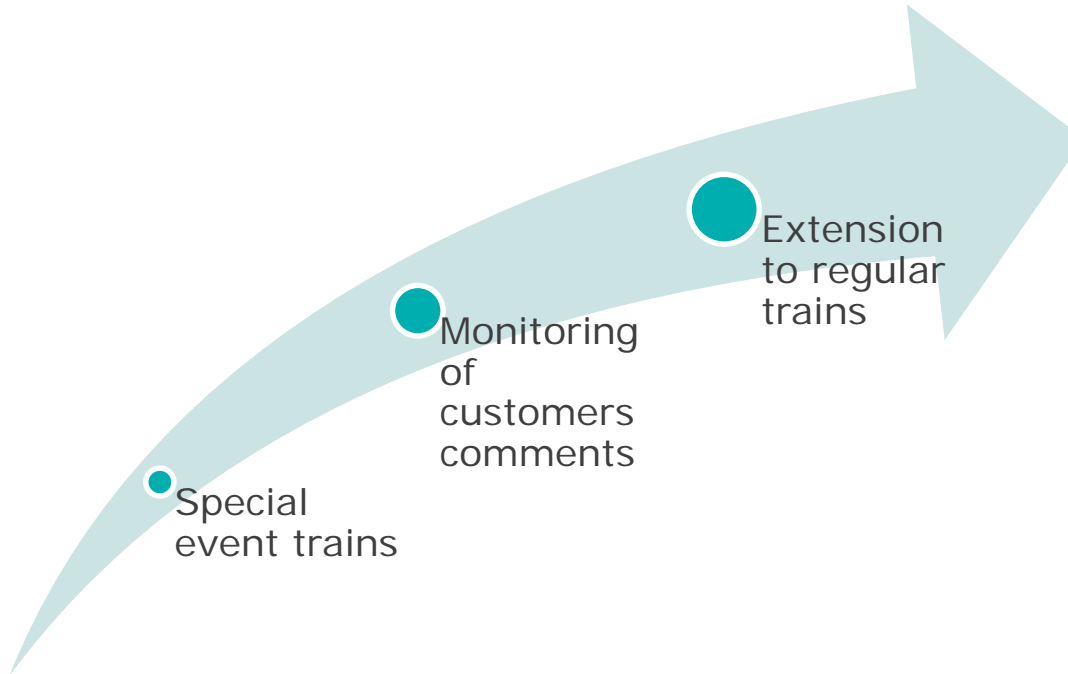
Summary

- ⦿ Commuter rail fare collection system and policies differ widely from best practice in other railroad networks.
- ⦿ While the customer satisfaction survey reveals a high level of ticket checking, the underlying weaknesses in the system leads to a high level of fare evasion. This is a long-standing problem that has never been tackled – until now.
- ⦿ The first ever fare evasion survey conducted on commuter rail has revealed that an opportunity exists to capture additional revenue. This can be achieved through investment in a modern fares system – predicated on installing a ‘ring of steel’ at the 3 major stations, enhancing the ability of passengers to buy tickets before they board and deploying an all encompassing fare evasion strategy.
- ⦿ Short-term actions have already been taken to improve fare collection. A plan is being finalized that, within the constraints of the current system, will improve the effectiveness of fare evasion interventions before a step-change solution can be implemented.

Appendices

Actions already implemented to reduce fare evasion

In order to reduce fare evasion, a “fare is fair” program has been progressively implemented since 2014



“Fare is fair” operations conducted on special event trains since summer 2014

- ⦿ Adoption of a zero tolerance fare evasion approach for special event trains to Gillette Stadium (Patriots games, concerts).
- ⦿ At Boston and Dedham Corp, controlled access to the platform carried out by Conductors, Transportation staff and Customer Service teams in the presence of T Police officers.

Actions already implemented to reduce fare evasion

Monitoring of customers comments

- ⦿ All non-fare collection complaints are shared on a daily basis by the Customer Service teams with Crew Management for investigation and corrective actions.

Increase in “fare is fair” events since fall 2015 with the following main principles

- ⦿ Deployment of fare inspection teams during peak hours (4pm to 6pm) at North or South Station as well as local outlying stations (5am to 8am).
- ⦿ Assistance of T Police Officers (in the event of difficult situations).
- ⦿ Increased awareness through public address and social media.

Lessons Learned from these different initiatives

- ⦿ 100% fare collection on heavy ridership trains (1,200 to 1,400 riders) for special event trains.
- ⦿ Efficient and orderly crowd management allowing for on-time departure of train.
- ⦿ Better acceptance of these interventions for special event trains.
- ⦿ Identification of popular fare evasion strategies (expired tickets, altered tickets, counterfeits, short zoning, non activation of M-tickets).
- ⦿ Identification of inherent weaknesses in the overall fare collection system.