

Expanding Payments by Tapping & Zapping: Mobile Payments and Mass Transit

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**Elisa A. Tavilla
Industry Specialist, Payment Strategies
Federal Reserve Bank of Boston**

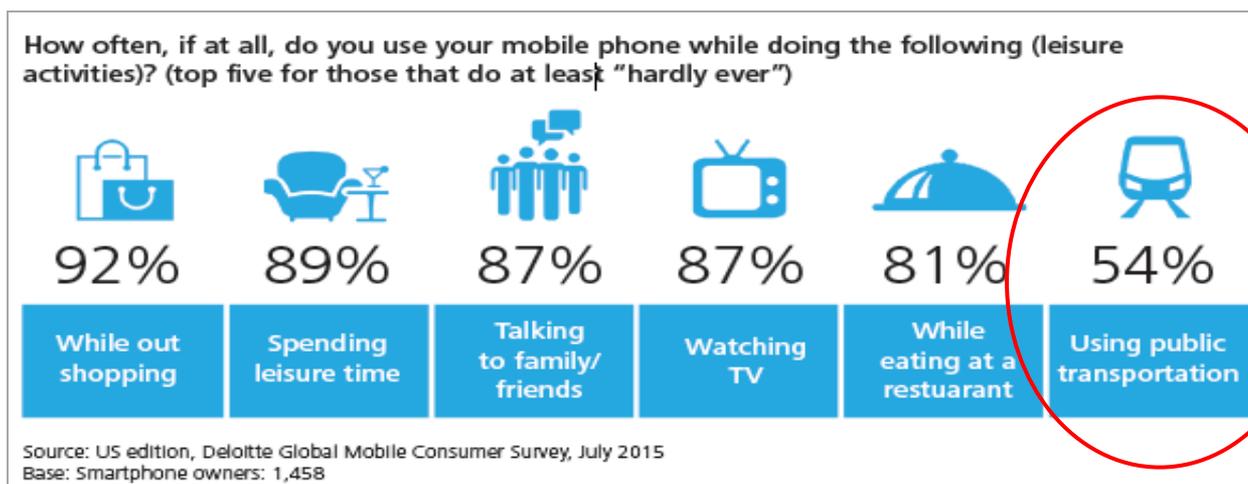
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Today's Discussion

- Benefits of mobile payments for transit customers and operators
- Current transit mobile payment implementations
 - Mobile ticketing
 - NFC mobile payments
- Opportunities to increase adoption

Most commuters travel with smartphones

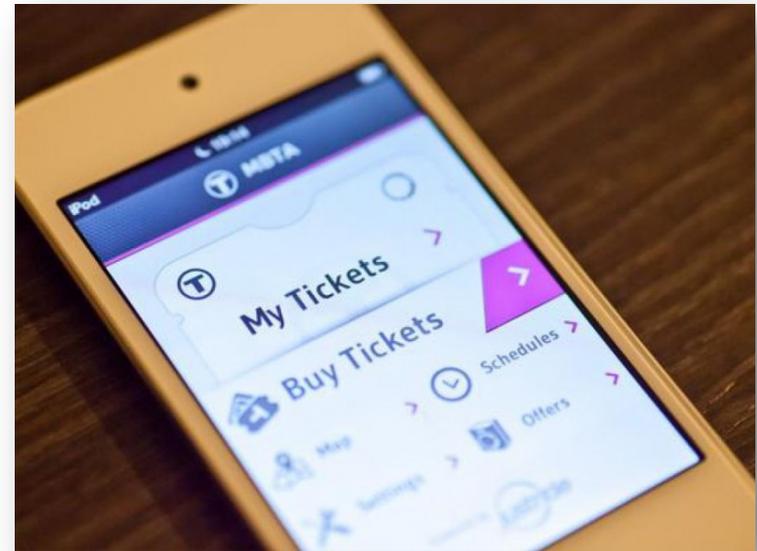
- Commuters already use smartphones for mobile commerce
- Commuters want more convenient and efficient ways to pay for transit:
 - Avoid waiting in lines to buy or add money to fare card
 - Avoid need to carry cash or exact change



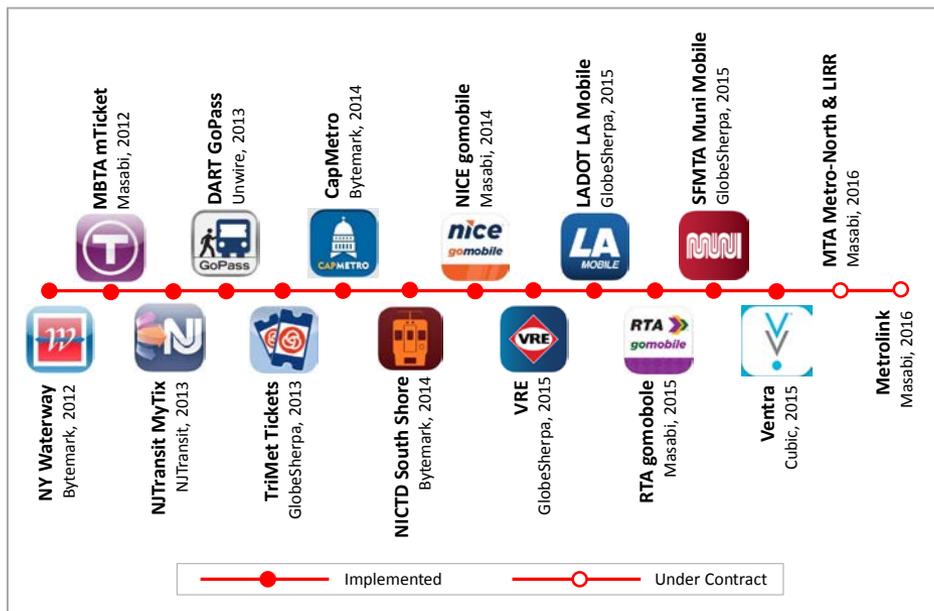
More transit agencies leveraging mobile

Mobile payment benefits for transit operators:

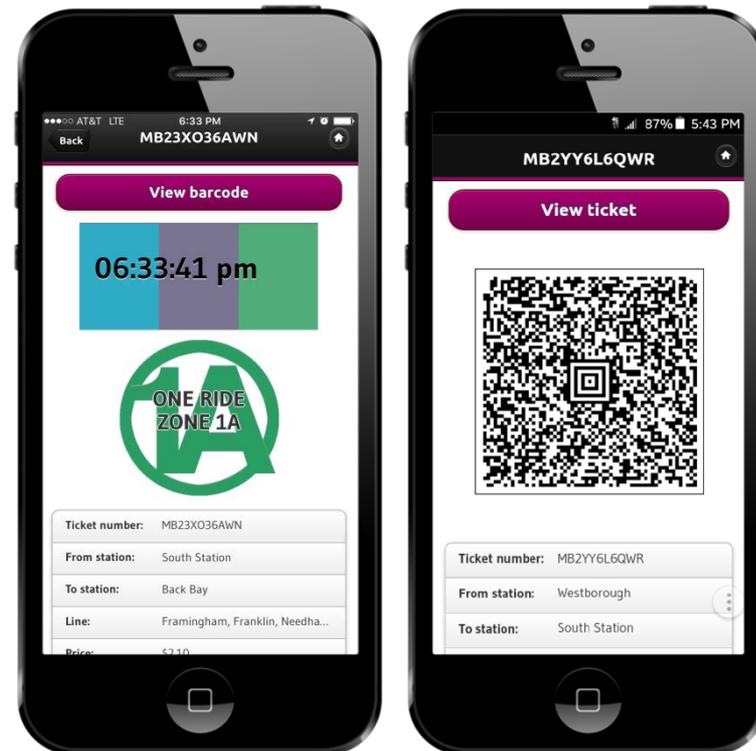
- Create more convenience and payment options
- Reduce fare collection costs
- Create additional value with travel-related services
- Increase customer engagement and data
- Improve operational efficiency



Transit mobile ticketing

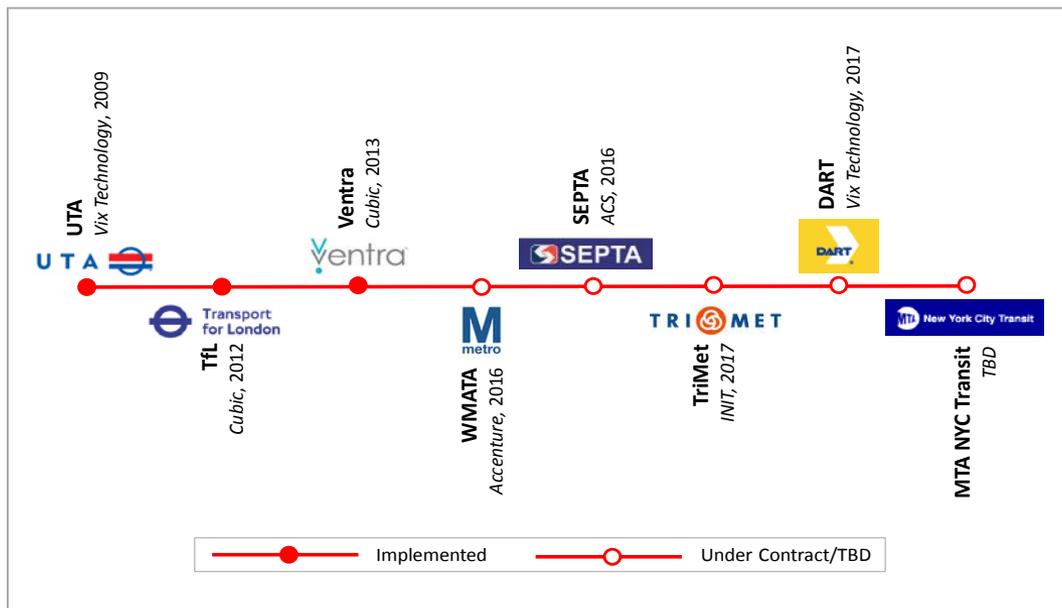


Source: Payment Strategies, Federal Reserve Bank of Boston, 2016



- Remote mobile payment transaction using credit/debit card
- Common for open entry – no turnstile/fare gate (e.g., commuter rail, ferry)
- Alternative to paper tickets/passes; use visual or QR code validation
- Easy deployment; limited hardware upgrades and integration required

NFC contactless mobile payments



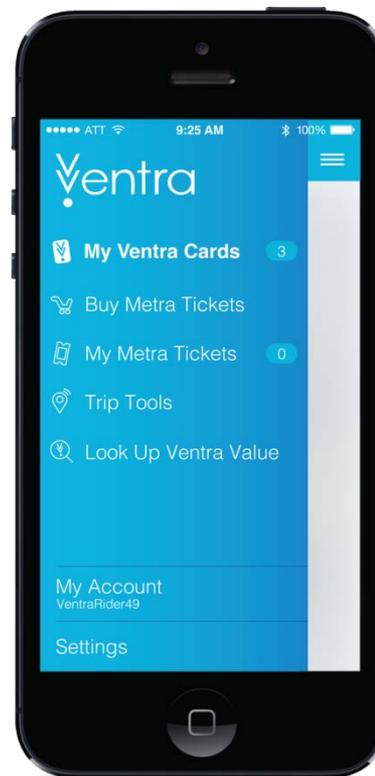
Source: Payment Strategies, Federal Reserve Bank of Boston, 2016



- Similar to mobile in-store POS purchase with credit/debit card
- Fare systems that accept contactless bank cards and NFC mobile wallets (e.g., Apple Pay, Android Pay, and Samsung Pay)
- Suitable for large, high-volume systems with turnstiles/fare gates (e.g., New York, Chicago, London); faster read-speed (< 500 milliseconds) than QR codes

Transit mobile payments can increase consumer adoption

- Integrated transit mobile apps
 - Trip planning, real-time bus/train tracker, parking, multi-modal
- Bundled ticketing
 - Admission to public events and attractions
- Location-based offers and loyalty rewards
- Mobile marketing in transit venues
 - QR code and NFC signage



Lessons learned

- Consumer education is essential
- Recognizing product characteristics is important
- Intuitive app design is a must
- Habitual transit mobile payment can influence consumer behavior
- Mobile provides value for transit agencies and customers

Questions?

Thank you

Elisa.Tavilla@bos.frb.org

Full report available at:

<http://www.bostonfed.org/bankinfo/payment-strategies/publications/2015/transit-mobile-payments.htm>