

***Using Payment Innovation to Improve
Urban Transportation Networks***

Federal Reserve Bank of Chicago

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Today's Outline...

- **Market perspective**
 - **Payments**
 - **Transit**
- **Closed-loop systems**
 - **Overview**
 - **Focus on SmarTrip in Washington**
- **Open-loop systems**
 - **Overview**
 - **Focus on New York City Transit subway trial program**
- **Wrap up**
 - **Strategy and outlook**

Core theme...

Goals

- **Become a “retailer” for transportation services**
- **Become a “merchant” accepting payments in many forms**
- **Align core competencies for transit and payments industry**
- **Leverage contactless payment technology and infrastructure**

Value for customer

- **Convenience of multi-function card**
- **Alternative methods of payment accepted; flexibility**
- **Reduces perceived cost of transit trips; de-mystify fares**

Value for agencies

- **Increase ridership through convenience**
- **Cost savings merchant, not card issuer**
- **Process electronic transactions; cost savings over cash**

Capitalize on commercial payment system infrastructure

Overview of US Public Transit Marketplace...

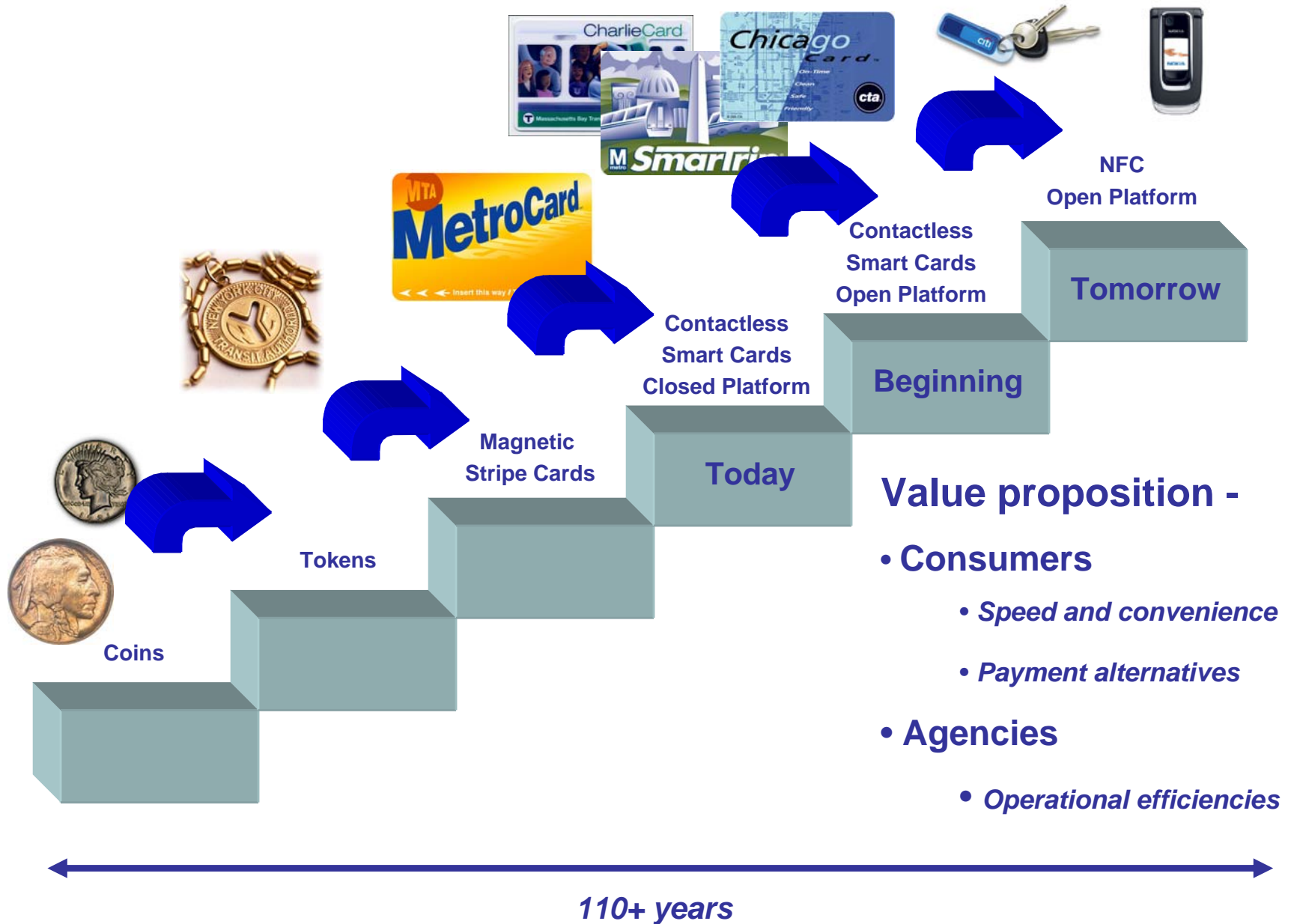
- **Transit ticketing systems**

- Nationally, once in a generation re-investment
 - Over \$1 billion in systems deployed or under contract
 - Replacing aging and obsolete systems
- All include state-of-the-art contactless smart cards
 - Push toward all-electronic systems
 - Easier to use, manage, repair; effective and efficient
 - Provides speed and convenience for customer
 - Fare policy changes fostering shift away from cash
- All are largely closed-loop systems; transit only

- **Ridership**

- Nationally, over 10 billion transit trips in 2006
 - Over 2% growth on year-to-year basis
 - Congestion, land use and fuel costs contributing to growth

Evolution of transit fare payment in US...



Confluence of Events...

- Payment applications worldwide are using contactless technology
 - Consumer and merchant benefits
 - Convenience and speed of service are essential



- **Global Standards based technology**
 - **Manufacturability and choice of vendors**
 - both cards and readers
- **Support from all major payment associations**
- **Highly flexible**
 - **Ability to support multiple applications**



...Transit Meets Payments Industry

Contactless payment implementations...

Key Adoption Facts

- > 17 million contactless payments cards issued
- > 30,000 payment acceptance points in US

Leading issuers

- Citibank
- JP Morgan Chase
- Keybank
- Citizens Bank

Leading merchants by sector

- Fast Food – McDonalds, Jack in the Box
- Pharmacy – CVS, Duane Reed
- Convenience – 7 Eleven, Wawa
- Theatres – AMC, Regal



Overview of US Public Transport Fare Payment Projects...

- **Seattle – ORCA, One Regional Card for All**
 - Linking 7 Agencies – covers bus, rail and ferry
- **Los Angeles – TAP, Transit Access Pass**
 - System for bus, light rail and Metro
- **Boston – CharlieCard**
 - System for bus, light, heavy and commuter rail
 - New fare policy; discounts for CharlieCard transactions
- **TransLink – San Francisco Bay Area**
 - Regional transit ticketing scheme; 26 operators linked
- **Chicago Card – Chicago**
 - Only account-linked system in operation
 - Consideration for regional expansion



All multi-operator closed-loop payment systems...

Washington, DC's Metro



Metrorail facts:

- 106 system miles
- 86 stations
- 1,000 car fleet
- 70 million miles traveled
- 588 escalators
- 237 elevators
- 750,000 transit trips daily
- 210 million trips annually

Second largest rail operator in United States

Washington, DC's Metro



Metrobus facts:

- **1,500 buses**
- **340 routes**
- **13,000 stops, 1,700 bus shelters**
- **10 garages, 2 shops**
- **48.3 million miles annually**
- **500,000 transit trips daily**
- **132 million transit trips annually**

Fifth largest bus system operator in United States

SmarTrip in Washington, DC...

- **Launched - May 1999**
 - Contactless smart card for transit
 - First fully integrated in nation; proprietary platform
 - Rail, parking and bus
 - Closed-loop payment system; transit only
- **Expansion to regional operators underway**
 - Washington operators nearly complete
 - Baltimore MTA underway
- **Back office support contract used for**
 - Customer service, fulfillment
 - Clearing and financial settlement between agencies
- **2,300,000 cards issued**



SmarTrip in Washington, DC...

- **SmarTrip continues to prove popular with customer base**
 - Market penetration
 - Rail – 65% overall; higher in peak periods
 - SmarTrip-only express lanes under field test
 - Bus – 22% overall; some >90%
 - Parking – 100%, exclusive method to pay
- **Demonstration project with Citi and MasterCard**
 - Single card for payment of transit fares and parking fees with credit capability for retail transactions
 - Up to 20,000 cards issued
 - Current and acquired accounts
 - Launched December 2004



Use the same card for ALL payments...hybrid open system

Overview of US Public Transport Fare Payment Projects...

- **New York City Transit**
 - Lexington Avenue Line trials, 2006
 - NYCT/Citi/MasterCard
 - www.mastercard.com/subwaytrial
- **Port Authority of New York and New Jersey**
 - Builds upon the New York City Transit Trial, 2007
 - Proposal evaluation phase
- **Salt Lake City**
 - Ski bus payment trial, 2006-2007
 - System-wide expansion under tender, 2007
- **Nashville**
 - Mag-stripe payment cards at farebox, 2007

All based upon open-loop payment systems...

Special profile...New York City Transit



- **Special pilot announced January 2006**
 - **NYCTA, MasterCard, Citibank**
 - **Pay at the gate with PayPass**
 - **No more swipe, just tap and go**
 - **Started summer 2006**
 - **Lexington Line, 25 stations**
 - **Revolutionary for industry**
 - **Consumers can't wait**
 - **Media has been “all over it”**

A revolution in the transit marketplace...

Special profile...New York City Transit

- **Guiding principles for demonstration program**
 - **Show marked improvement in customer service**
 - **Product performance at the gate**
 - **System and account experience**
 - **Overall cardholder impressions**
 - **Create open and interoperable solution compatible with surrounding traditional merchants**
 - **Meet or beat current operating and transaction costs**

Special profile...New York City Transit

- **Consumers can either:**
 - **Buy rides in advance and receive MTA discounts,**
- or.....**
- **pay-as-you-go**
- **Website content**
 - **Trial information**
 - **Ride history**
 - **Pre-fund (buy) rides in advance**



Solution is elegant in its simplicity...

Strategy for Transit Fare Payment...

- **Take a merchant-like approach to payments**
 - **Manage product pricing, fare tariff**
- **Provide customers layered payment options**
- **Keep the solution elegant in its simplicity**
 - **EZ Pass, IPass**
- **Evaluate traditional transit business models and ask...**
 - **Is custom-built, one-off system really required?**
 - **Does agency need to own the fare payment system?**
 - **Will the system be flexible and open?**
 - **Will the system evolve with evolving technologies and business requirements?**

What's Next for Transit Payments...

- **Payments market continues to expand product line**
 - **Contactless cards, payment tags, and other form factors**
- **Agencies will continue roll-out of contactless programs**
- **New transit trials and rollouts for open-loop systems**
 - **Issuance, investment and marketing**
 - **Develop products for full spectrum of transit payments**
- **Explore additional opportunities for bank/transit integration**
 - **Provide consumers options on product and form**

Thank you very much...

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