



Fare Collection 102 Training

APTA Fare Collection
Workshop

Ft. Worth, TX



The Thought Leaders

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Trends to Open Architecture in Transit Fare Payment Systems

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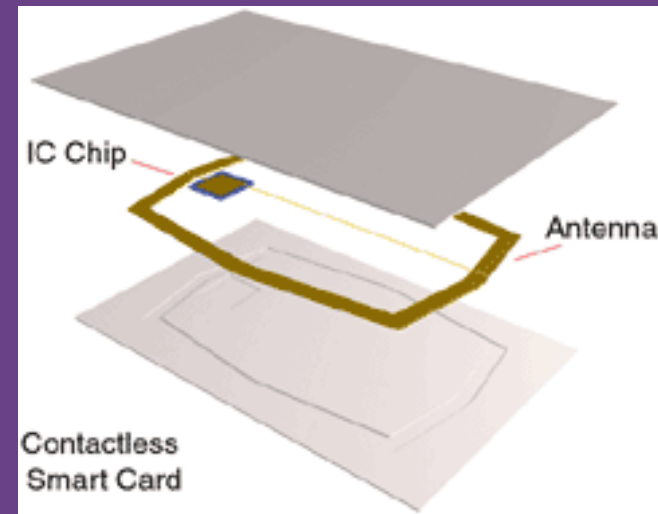
2012 FARE COLLECTION WORKSHOP

Presentation Overview

- Background of Transit Payment Systems
- “Traditional” Approach Discussion
- How Traditional Approach led to Open Approach
- Standards Development
- At the Crossroads of Innovation

Contactless Is the Key!

- Transit Use Case Required Contactless
 - High speed, high volume
 - Convenient and flexible for consumers
- Transit Agencies gained efficiencies
 - Shrinkage/fraud prevention
 - Data capture and analysis
 - Enhanced customer experience



The Traditional Smart Card Fare Collection System

- Cards issued and managed by transit agency (i.e. closed system)
- Used for *transit service* only (and certain concessions)
- Customers pre-pay for transit products
- Electronic purse on card
- This was the only approach at the outset of smart card-based systems



Traditional Approach Strengths



- Proven and Reliable
- Addresses agency need to increase operational efficiencies
- More customer convenience and flexibility
 - Multiple avenues for top-up/purchase of fare products
 - Ability to pay for transit and park n' ride
- Customers love the speed and convenience

Traditional Approach Limitations

- Limited numbers of system integrators and vendors
- Limited customer options for fare payment choice
- Tends to be proprietary; limits competition and truly open procurements
- Closed system limits partnering, particularly among transportation modes



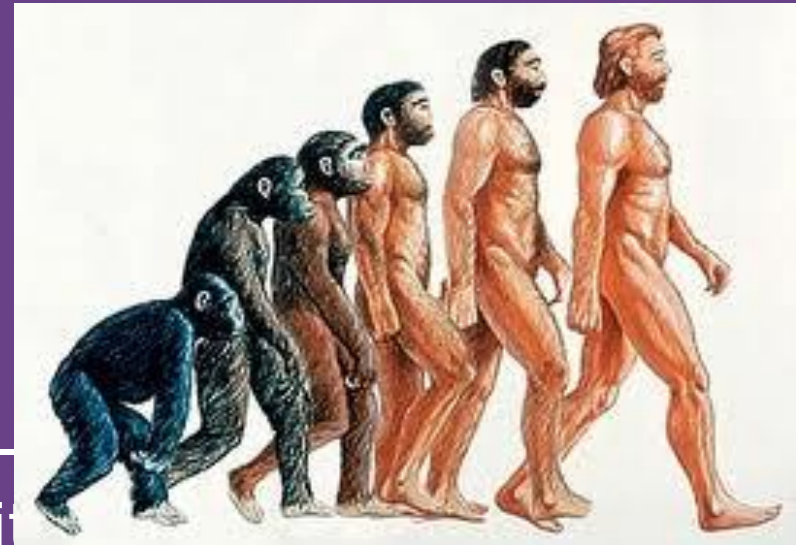
Smart Card Systems Led to Innovations



- Regional coordination (in Seattle, SF Bay Area, Washington) targeted key benefits:
 - Single card for multiple transit services
 - Enhanced customer experience
 - Cost sharing
- Enhanced institutional programs (Universities, Transit benefits automation, Visitor Passes, etc.)
- Early multi-modal payment programs (WMATA parking)

Traditional Approach leads to Open Approach

- Financial Industry interest in transit market and micro-payments
- Transit Industry desire to *enable payment* not collect fares
- Active pursuit of pilots for co-branded payment card/transit card, mobile payments, etc.
- Development by transit industry of standards for traditional systems



A Burst of Activity in the Marketplace

2002- Pursuit of a US National Standard for Transit Fare Payments - FTA, APTA, Public Transit and Private Sector
CFMS Standard developed in 2007

2003- Burgeoning Discussions Begin in Trade Associations
SCA creates Transportation Council

2005- New York MTA Open Payment Pilots

Leads to System Implementation

2009- Utah Transit Authority rolls out “account-based” system that leverages open payment system

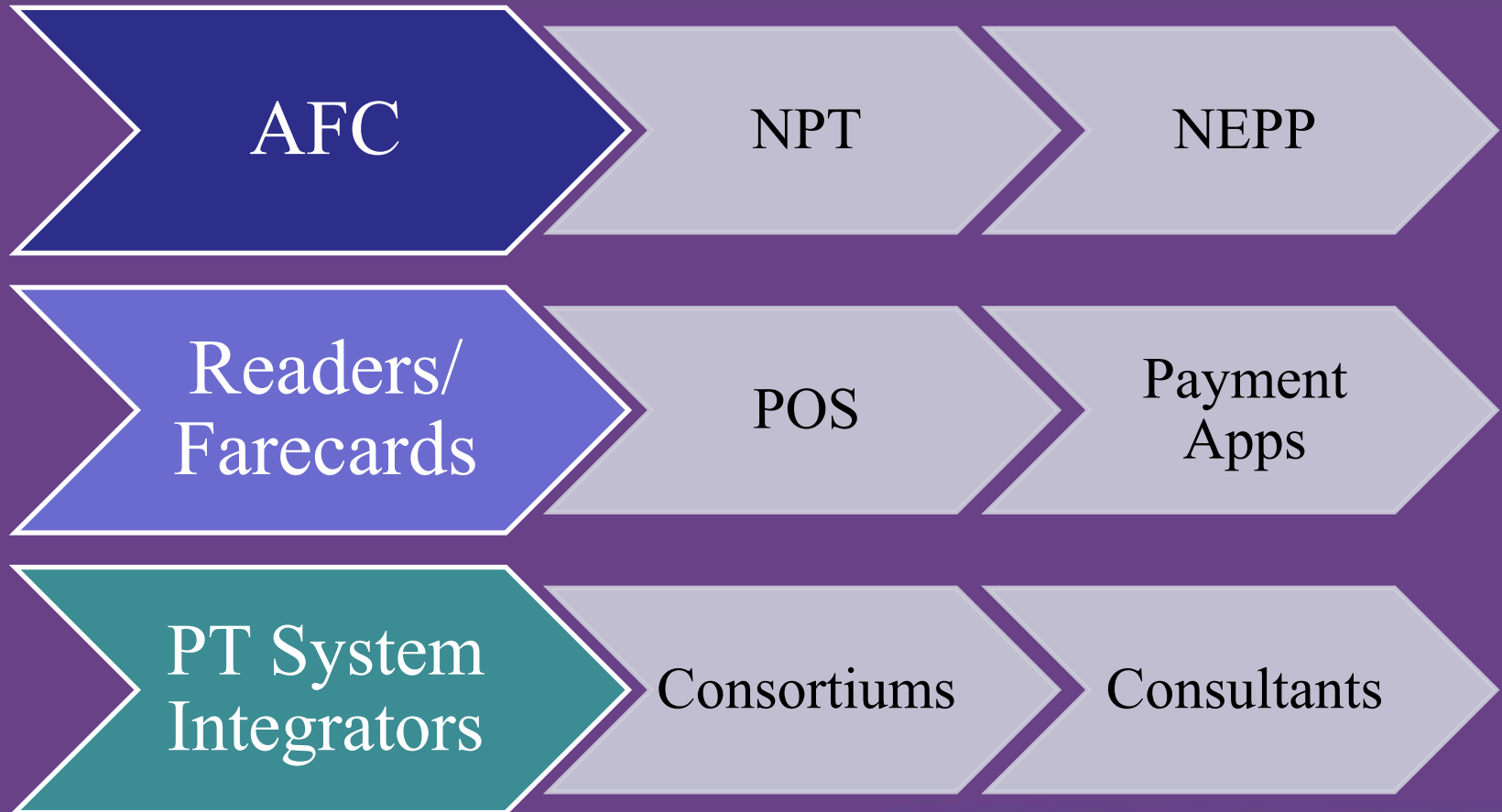
2010- RFPs for Open Architecture/Open Payment Systems-

Chicago, Philadelphia, New York, Washington

2011- CTA Awards to Cubic; SEPTA awards to ACS

Cubic team includes First Data, Bank of America, and Bank of America Merchant Services

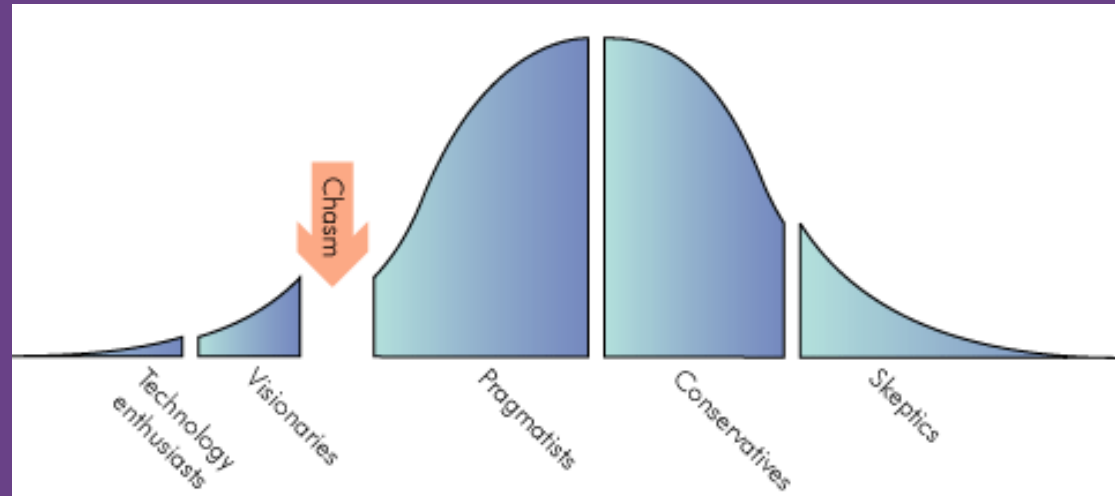
New Terminology, New Players



We Are Crossing the Chasm

Open Architecture/Open Payment Systems Issues include:

- Prove system reliability
- Prove ability to handle all fare types
- Show cost effectiveness versus traditional method
- Need further education between financial payment industry and transportation industry
- **Need widespread availability of contactless payment cards**



Source: Crossing the Chasm: Marketing and Selling High-Tech Products to Mainstream Customers, Geoffrey A. Moore

At the Crossroads of Innovation

Many innovations in fare payment systems:

- Open payments
- Open architecture
- Account-based approach
- Multiple form factors for payment devices
- Mobile payment applications
- Use of credentials for transit payments



What will the Future Hold?

- Open Architecture is *ESSENTIAL*
- Back-office centric approach allows easier migration
- Approaches will be regionally specific
- The traditional system and open payment system both have strong benefits
- The choice may not be one or the other, but a hybrid
- **Can multi-modal payment systems (parking, tolling, transit, HOT/HOV, dynamic pricing, etc.) be achieved?**



Let's Think Out of the Box!

- Transit Agencies no longer want to be “Fare Collectors”
- Agencies want to leverage open standards, APIs, and interfaces
- Striving for a COTS environment
- Integrating payment into the agency enterprise

