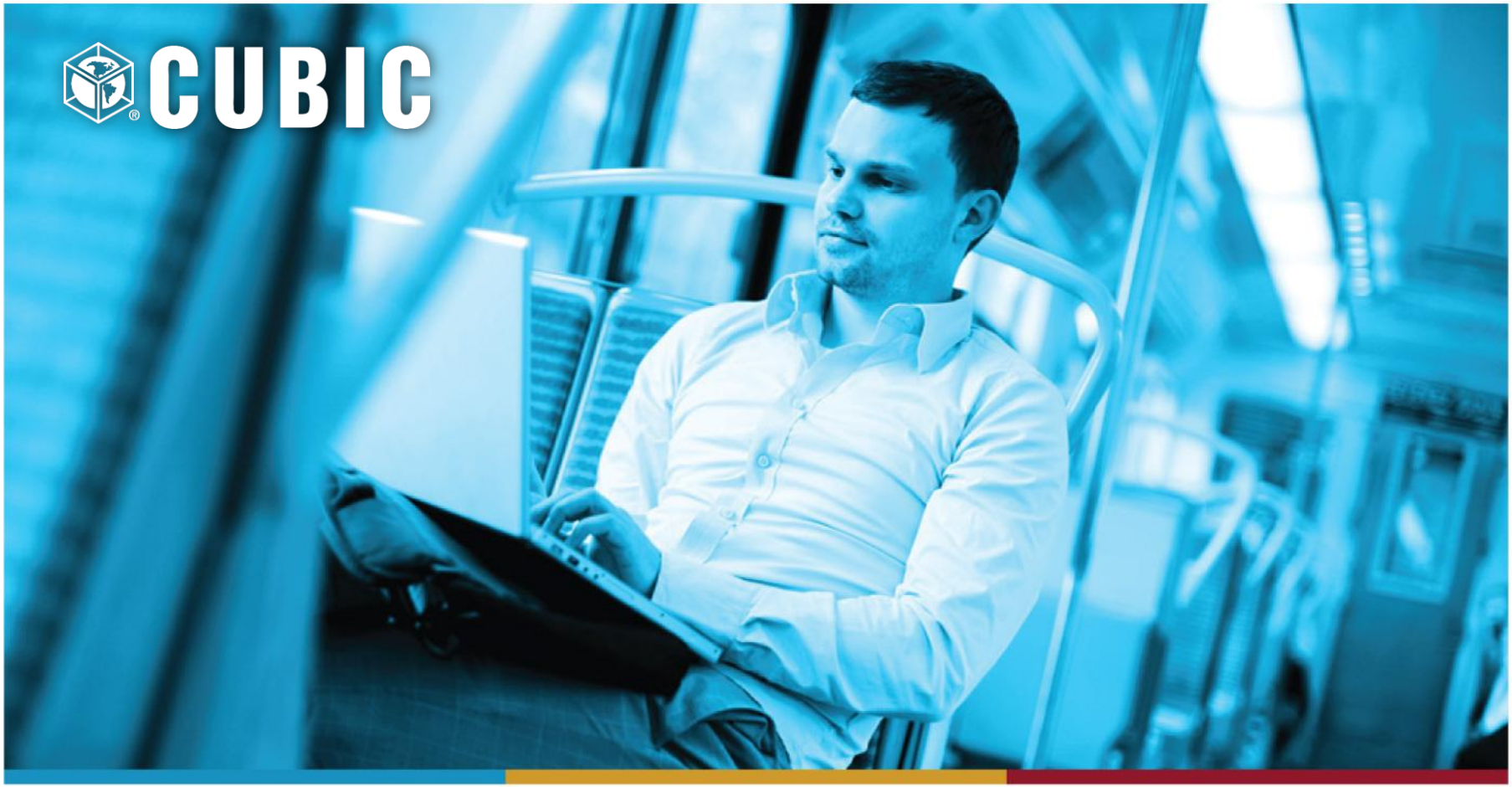


OPEN PAYMENTS IN TRANSIT AS LEVERAGE FOR TOLL SYSTEMS – JIM CONNORS

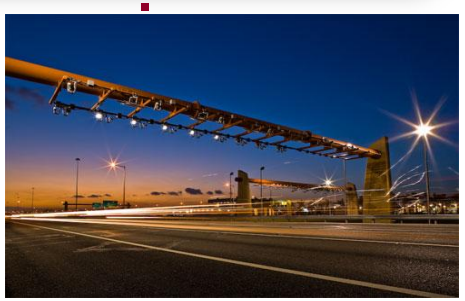
CUBIC TRANSPORTATION SYSTEMS

07.24.2012

Transit Payments History

Today

COINS	TOKENS	MAGNETIC STRIP CARDS	CONTACTLESS SMART CARDS	FUTURE



Definitions

Card-based Systems – media is read/write; business rules/fare calculations are performed by field devices

Account-based Systems – media is read-only token; business rules/fare calculations are performed by back office

- Account-based systems accept Open Payment cards as well as any media that can uniquely index an account in the back office
- The account can contain funds and/or products
- Electronic Tolling is a type of Account-based application

Open Payment/Account-Based Transit Systems

- NYC Pilots in in 2006/2010
- Utah Transit pilot in 2006 and launch in 2009
- Cubic's PATCO (PA/NJ) system is in production for both card-based and open payments
- Vancouver BC awarded Cubic a contract to provide both card-based and account-based processing for both US bank cards and EMV bank cards
- Chicago (CTA) and S.E. Penn (SEPTA) awarded contracts for new Open Payments systems in 2011
- London (Oyster) will be deploying Open Payments in 2012

Account Processing

- Fares are situational – depend on status of journey, time, day, concessions, organization, location, direction, product type…
  - The fare is an intersection point in a multi-dimensional array of many factors
- Accounts can be pre-paid, subscription, registered or anonymous, individual or group.
  - While post-paid could be supported for registered accounts, it is not a typical transit model
- Cubic is separating the fare engine from the account management logic allowing additional payment Aps to plug in

Software Infrastructure

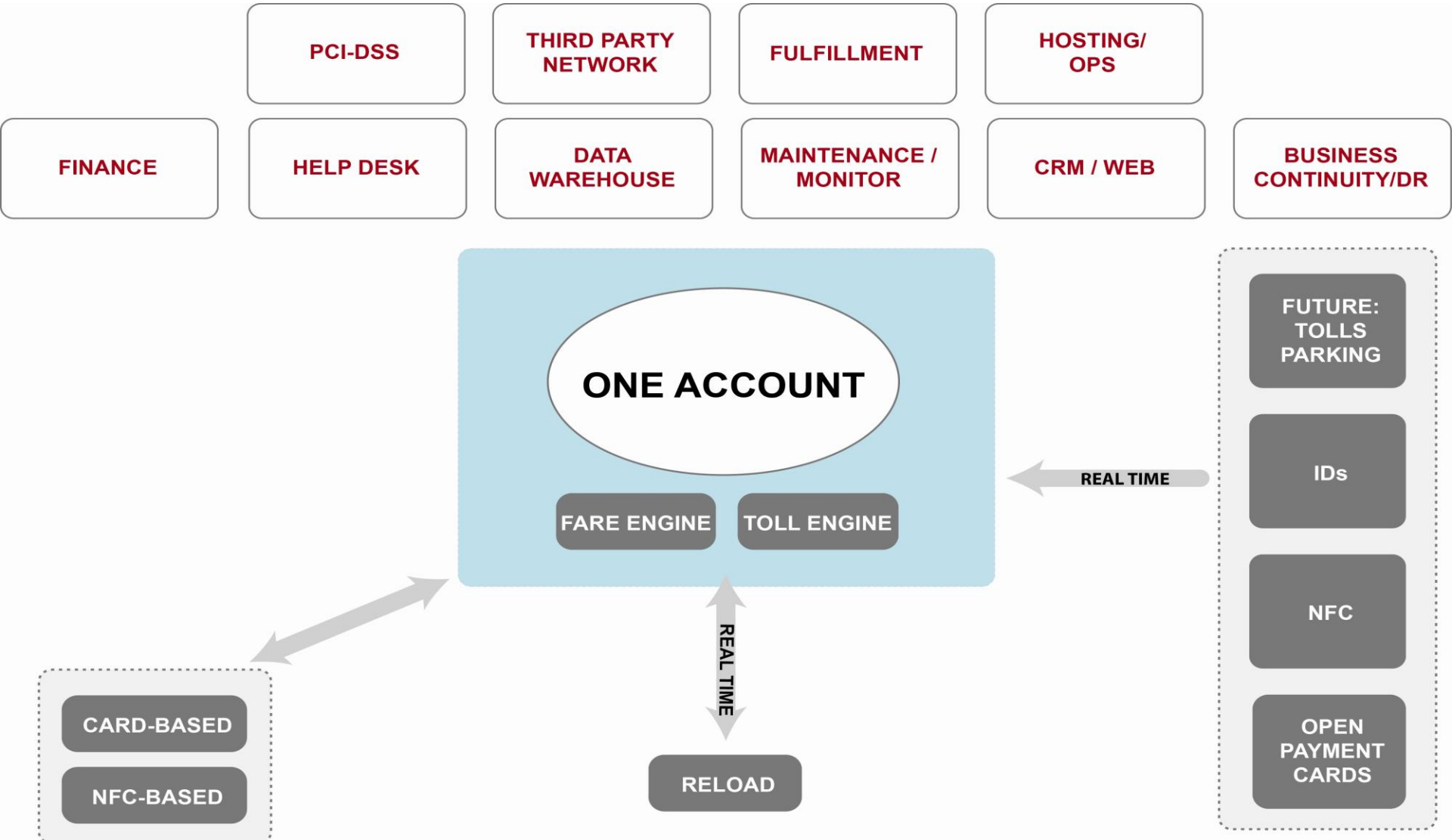
- Historically, transit was deployed as a stand-alone monolith
  - Transit-centric solutions for CRM, HR, Asset Management, Monitoring, Finance, Fulfillment, etc.
- Current trend is to leverage existing IT assets for non-transit specific operations via an interface to the 3rd Party App
  - Transit-specific rules engine separated from other functions
- **Enterprise third-party Aps provide the IT architecture for transit support**

One Account Vision

Separation of transit-specific functions from other business systems enables the use of a single account for transportation

- ✓ Integration of transport payments
- ✓ Integration of information
- ✓ Smarter journey planning
- ✓ Integrated, dynamic pricing
- ✓ Acceptance of multiple tokens and token types

One Account Leverage



Thank You

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