Hello
Safe Harbor

Forward-looking statements are not guarantees of future results, events, levels of activity, performance, or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. These statements involve known and unknown risks, uncertainties, and other factors that may cause actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by these forward-looking statements.

We are under no duty to update any of the forward-looking statements in this presentation to conform such statements to actual results or to changes in expectations. We assume no obligation to revise or update any forward-looking statements for any reason.
Making the move

Smart Transport Ticketing in India

Verifone India
5th Nov 2017
For over 30 years, we have been making history. Now, we are creating the future.
Leader in almost every market we operate

~5.4B transactions/year

>29 million devices

In >150 countries globally

FY16, $2B revenue

Over 5,700 people across 42 locations
Largest Terminal provider in India

INDIA HAS BEEN CRITICAL TO VERIFONE FOR 25 YEARS

1.7M+ Terminals in India
500+ Engineers
85+ Cities

Field Service, Repairs, Application Development, Helpdesk, Operations
Petro loyalty program management

India's LARGEST FLEET CARD & LOYALTY MANAGEMENT PROGRAM

26K+
Terminals in India

3MM+
Active cards

$19B
Transactions processed per year

India's SOLE provider of Fleet Card Program Management

Field Service, Repairs, Application Development, Helpdesk, Operations

10K+
Terminals with Wallet acceptance

Services
Smart Ticketing – Cashless, Interoperable
After all its payments!

Interoperability?

Across modes of transport?  
Across retail and transit?

Intra City? Or Inter City?  
Across country?  
International?
Problem Statement

Move riders quickly through the fare gates while ensuring that the transit authority collected its appropriate fare from each rider.
Evolution of payments

Transit world

MTA NYCT + MC + CITI

Retail

Transit


Payment world

VISA

mastercard

EMVCo

Ready
Payment Ecosystem

1. Card dip + PIN entry
   - Data packet size is 100B

2. Txn routed via Dialup and GPRS N/w's through NAC's

3. Host routes txn to schemes

4. Scheme contacts issuer for authorization

5. Successful authorization redirected to schemes

6. Scheme redirects to acquirer

7. Approved txn; chgslip printed

Issuing host contains card data & balances

PSTN N/W
- 4 seconds ~ 7 seconds ~ 2 seconds

GPRS - 4 seconds
- ~ 2 seconds

Fact of the matter

Most transit agencies have proprietary fare payment systems today. These systems were implemented years or decades ago when there was no practical alternative, and even today they are still the most proven and widely available transit payment systems.
Push Factors

- Cost
- Vendor Lock-in
- Resource allocation
- Customer Inconvenience
- Lost revenue opportunities
Pull Factors

- Electronic payments
- Prepaid cards
- Open loop payment systems
- Contactless Payment Systems
- ISO standards
- Demonetization / Cashless society
- Smart Cities
Challenges

- Very few cases to follow
- Differences between card systems
- Interchange fees
- Banking laws
- Payment association rules
- Hostile conditions in emerging markets
- Make in India
- Resistance from crew due to personal interests
- Bank concerns - ROI
Unattended Solutions

- Verifone’s UX series of unattended terminals – enabling contactless use cases
- Acceptance of closed/open loop payments – across card & Mobile forms
- Capabilities to manage end-end AFC Programs for bus/rail/metro transit systems – including:
  - Stored value management systems
  - Authentication systems
  - Access control systems
Attended Solution

- Issuance
- Acceptance (NCMC, EMV, CTLS, MiFare)
- Online
- Ticketing
- Integrated into AFC as well as Acquirers over private network
BMTC
- Instant Issuance

Kochi Metro
- Closed loop & Open loop
- Unattended (Integrated into the Kiosk)

Ahmedabad – BRTS & AMTS
- QR ticketing
- Terminals double up as gate validators
Card holder’s identity

- Track 2 data
- PAN
- PIN
Secure POS

- Application Authentication
- Tamper Proof
- Secured memory
- Water tight partitions
- Secure PIN entry
- P2PE
Secure Card processing

- Data Authentication
- Card holder verification
- Processing restrictions
- Risk Management
- Generate Application Cryptogram
- Issuer data authentication
Secure Application

- Transient card data
- Mandatory PIN
- Batch data encryptions
- PAN Masking
Secure Data Exchange

- Secure Key Injections
- PIN Encryption
- MAC authentication
- Message / Data encryption
- TKS 1.2 over IP media
- Private Networks
Secure Estate Management

- Secure upgrades
- Secure Diagnostics
- Secure Repairs
- Alerts enabling better remote control
Evolution