



Emerging Trends in Digital Fare Collection

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Delhi Integrated Multi-modal Transit System Limited

Joint Venture of Govt. of NCT of Delhi and IDFC Foundation

An ISO 9001, 14001, OHSAS 18001, ISO 27001 & CMMI L3 Certified Company



DIMTS IT Solutions Portfolio



Vehicle Tracking System



Water Tanker Management System



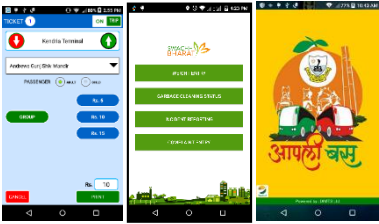
Transit Operations Research & Analytics



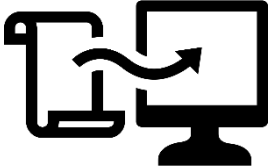
Telematics 2.0
CAN Bus/ OBDII



SOLID WASTE MANAGEMENT SYSTEM



Mobile Solutions



Digitalization of
Bus Operations



Digital Fare Collection Solutions



INTEGRATED *fleet* MANAGEMENT
SYSTEM



Trends & Practices - On Board Ticketing



CITY BUS TICKET

Date : 7/4/2013
Time : 11:25 PM
TicketNo.: 7392
BusNo.: 512
Route: RJT -- AHM
Full: 2 X 9 = 18
RS.18.00

S

7392

HelplineNo.: +91 9999999999
* NOT TRANSFERABLE



Tap-in Tap-out



Bluetooth®

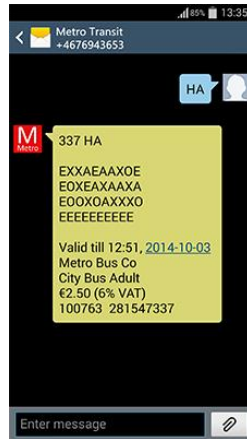


Voice



Trends & Practices - Off Board Ticketing

Ticket Media



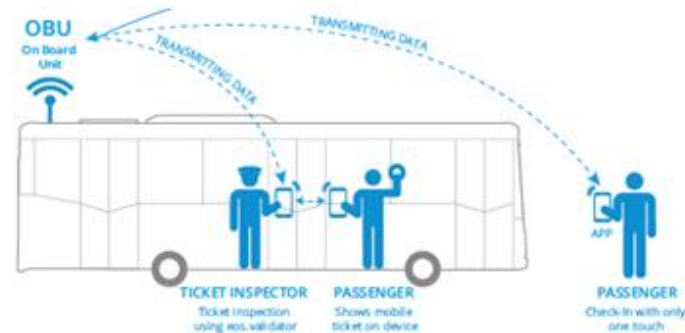
Validation



High Speed: 200 times/sec;
Precision: 5mil;

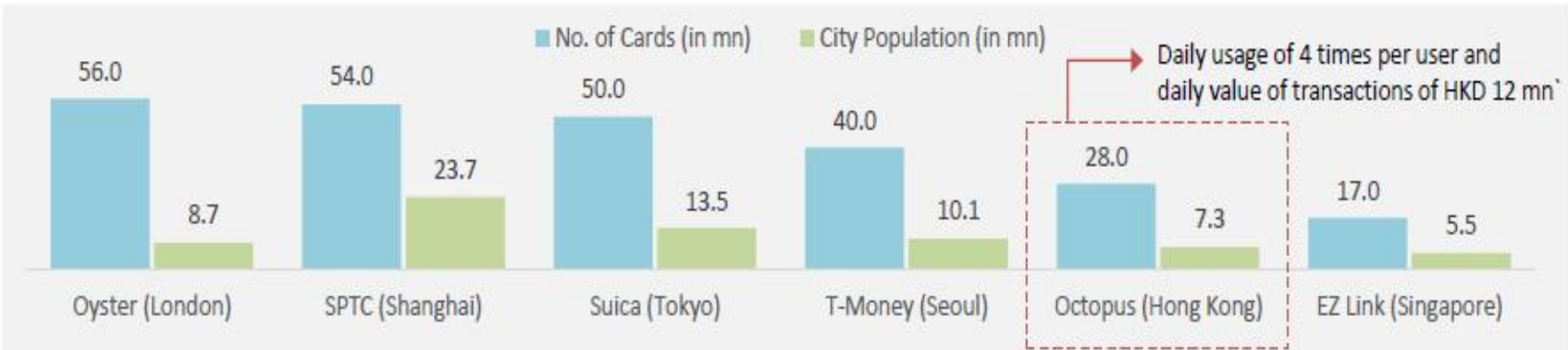


Voice



Be - in
Be - out

Leading Digital Fare Collection implementations across the globe



Led by transportation | Widely Followed by Retail | 100%-500% Penetration
Have Become the De-facto Cash in their respective cities

Source: Management Research
Note: * SmartCard and Population Data is as of 2015

Strictly Private and Confidential
Aug 2017

Overall Observations from the Global Case Studies

- Most leading global implementations are based on Open Loop or Semi-closed Loop Cards
- Mobile as a form factor is gaining traction

Why Open Loop



Multi-mode | Multi-Channel | Multi-Form

Form
Factor

Transit – Tap and Go



Other Cases – Taxi, Museum, Parking, Tolling



E-Wallet: In Store and On Line



Government and Utility Payment



Ration shops

DTH/ Mobile bills



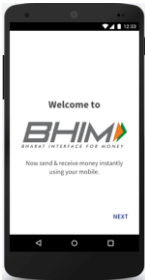
Contact &
Contactless
Card



Wearable
Devices



Mobile
Wallets



Readiness of Digital Fare Collection in SRTUs in India

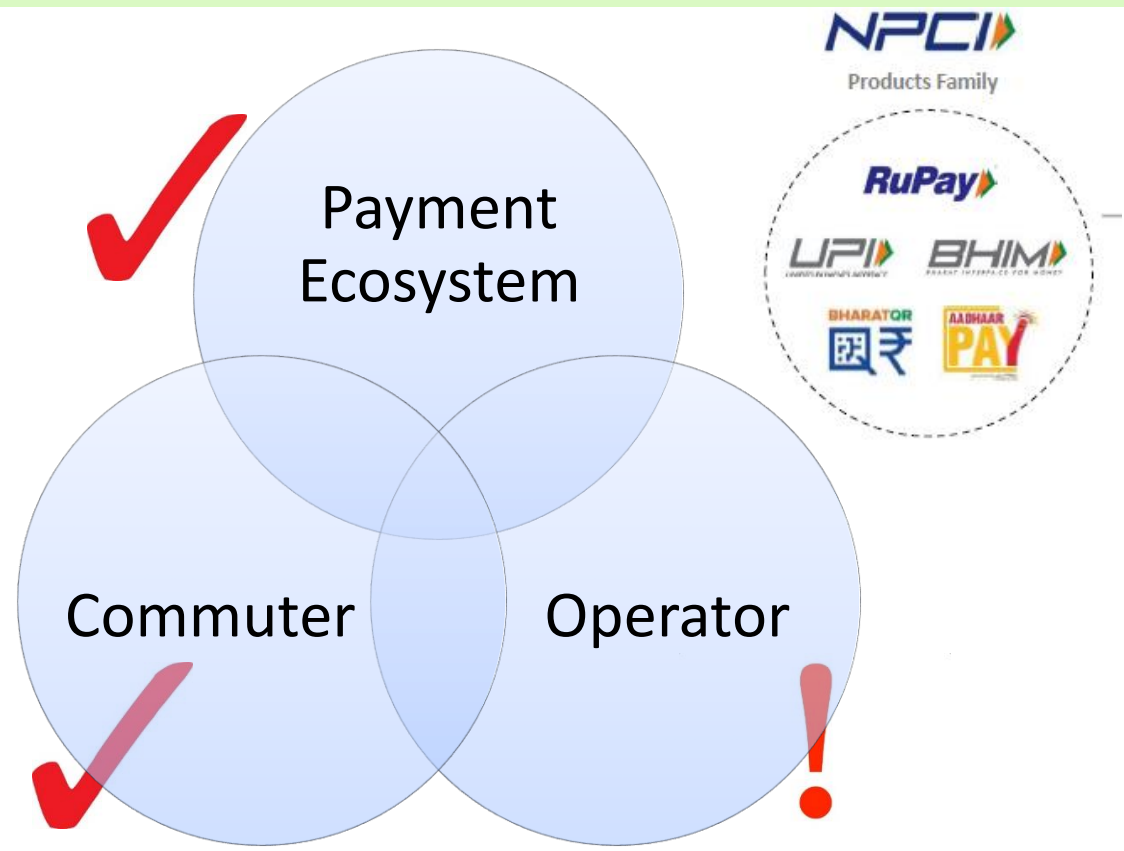
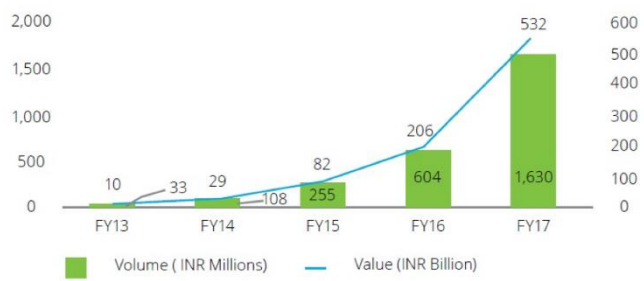


Figure 3: Mobile wallet transactions FY13-FY17



Source: Reserve Bank of India data; Deloitte Analysis

Total no. of SRTUs across the country – 62

Total revenue – INR 510 Billion

Total no. of tickets – 25 Billion

Less than 4% of payments made digitally

***Performance report for FY 14-15:*

Current Status of Open Loop Cards in India

National Payments Corporation of India (NPCI) has developed the standard for **National Common Mobility Card** based on Rupay contactless cards (interoperable, open-loop, EMV based)

Projects Launched

City	Bank	Status
Ahmedabad	ICICI Bank	Launched on June 24th, 2017
Kochi	Axis Bank	Launched on June 17th, 2017
Bangalore	Axis Bank	Launched on June 17th, 2017

Projects In Progress

City	Bank
Surat	ICICI Bank
Bhubaneshwar	ICICI Bank
Nagpur	SBI
Noida	SBI

Upcoming Projects

City	Bank
MMRDA (Mumbai)	TBD
Raipur	TBD
Gurugram	Multibank

Closed Loop System NFC Cards

Delhi Metro



Mumbai Metro



Closed Loop System NFC + EMV Debit Cards

UPSRTC (Uttar Pradesh)



NFC Contactless Open Loop Prepaid Cards

BMTC (Bangalore)

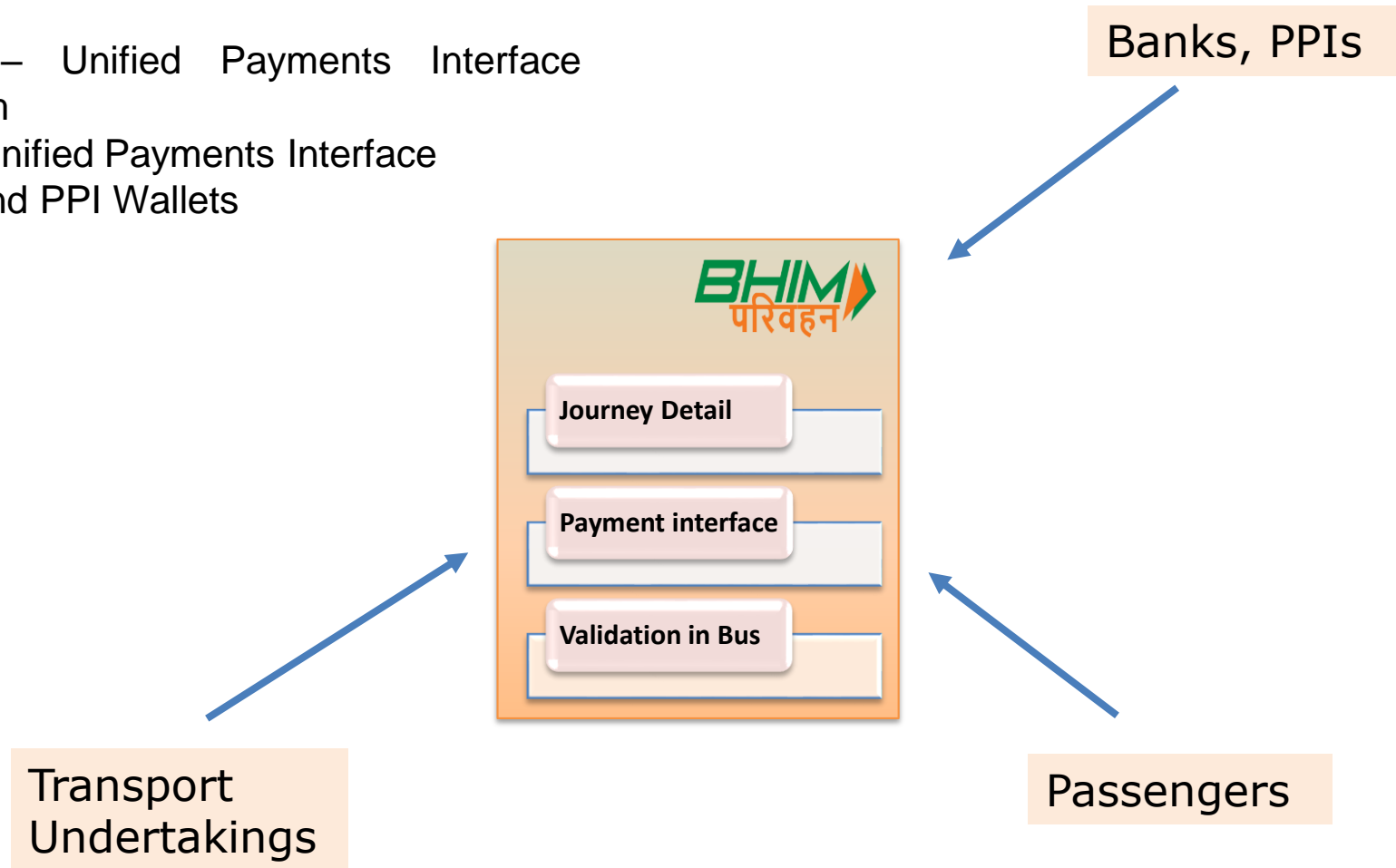


Kochi Metro

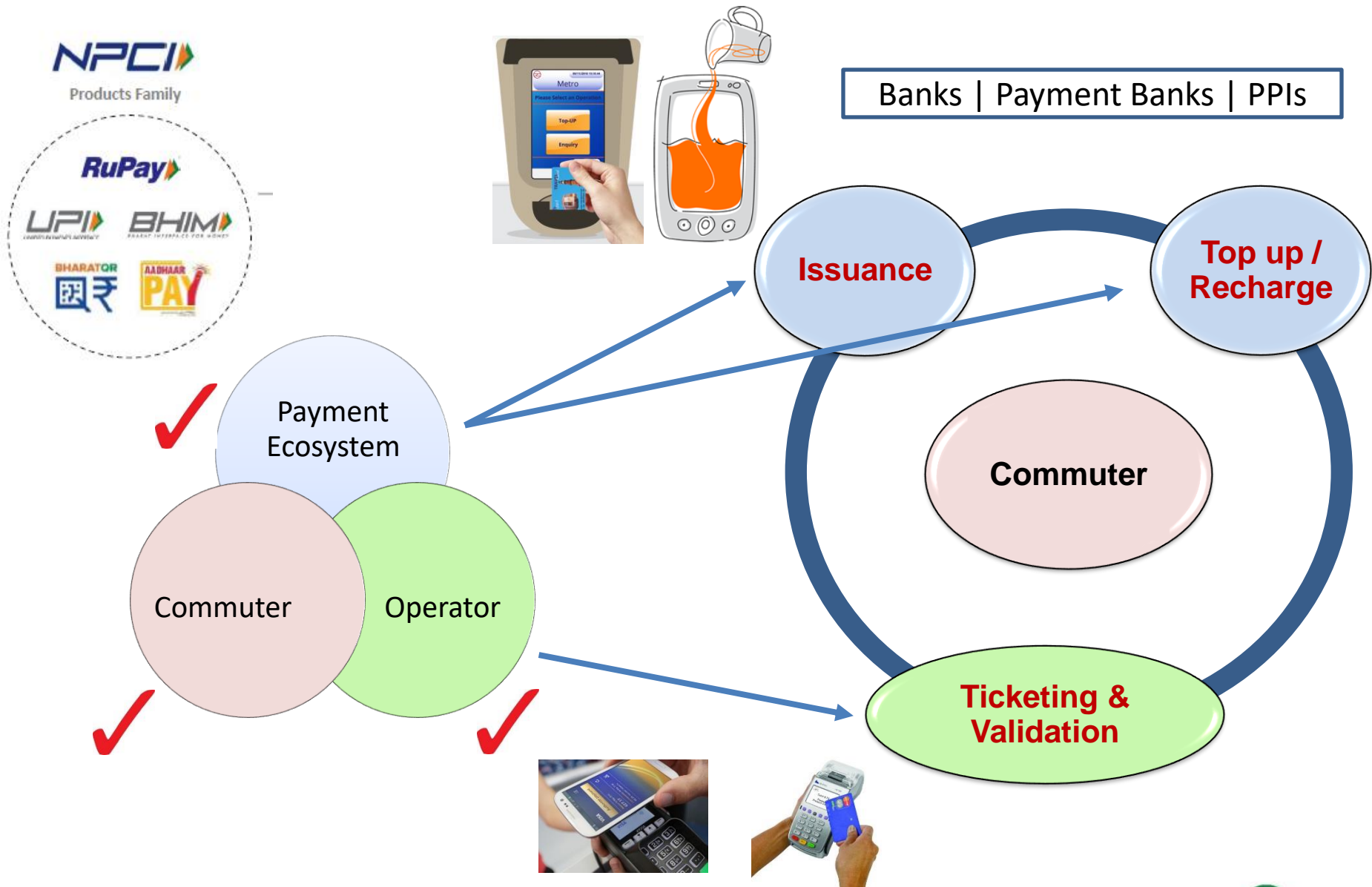


Mobile Ticketing Platform – Built on BHIM UPI

- **‘Simple to Use’** Common Platform for Passengers and SRTU’s
- Leverages the existing payments infrastructure using:
 - BHIM – Unified Payments Interface Platform
 - UPI – Unified Payments Interface
 - Bank and PPI Wallets



Recommendation for Digitalizing Fare Collection





Thank You!

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