



# Workshop Content - Day 1

*First - understand the challenges for achieving interoperability*

## Interoperability Basics

- **Interoperability** is not just a technical issue; domestic passengers and visitors need a comprehensive offer of local transport products & concessions; plus the ability to travel nationally without knowing the tariff rules in every locality
- **ISO 24014-1** interoperable fare management standard for public transport defines scheme roles; including registrar, security manager, card (app) issuers, PAYG balance holders, top-up retailers; product owners; transport service providers
- **ID or server-based** technology offers significant benefits; allows bank-issued or govt cards; cost savings
- **Interoperability** is not only about card standards; customers need more than technical interoperability; they need automatic best value/lowest cost for journeys; ease of purchase; and PAYG removes the complications and costs of the retail process

## Making Interoperability work

- **Server-based architecture together with PAYG** offers the best chance for real national interoperability; in cities & regions and nationally; called PAYG Roaming
- **Business architecture** based on ISO 24014-1 roles recognising the distinctions between product owners, PAYG balance holders and service operators
- **Commercial Agreements** needed across actors; can be bilateral and/or scheme-wide; PAYG balance holder & product owner relationships can reflect acquiring contract using transit model rules
- **Governance** essential to manage standards; test & certify; provide service and change management; hold ref data; harmonise concessions & discounts; manage keys/crypto; manage SLAs/KPIs between scheme participants; plus national transit model rules for Indian banks
- **Settlement** is not dependent on central clearing; can be bilateral and quick; use faster payments IMPS or NEFT

## The Indian case for PAYG Roaming

- **PAYG Roaming** allows all NCMC cards to be used everywhere in India
- **Options** exist for migration of legacy systems and interfacing with long distance modes such as rail
- **Needs national scheme** business architecture; commercial agreements; governance, scheme operational management
- **Technically based** on NCMC's EMV base; can use writable space on card for risk management and to manage first ride risk; can be either card or mobile app
- **PAYG products** need adding in cities where not already available; either retail or transit model equivalents; a common acceptance logo on cards and readers needed to help passengers know what to do
- **Operational issues** need consideration such as customer service; does customer contact bank or transport operator or scheme management with problems;
- **Wrap-up & Summary**  
Q&A and discussion will run throughout the workshop as well as the final session.



## Working Group Meeting - Day 1

*Second - develop a harmonised approach and roadmap for interoperability*

Experts from all sides of the transport payments industry will be invited to make presentations and then join a working group discussion with stakeholders to discuss the issues raised and ideas presented in the workshop for achieving:

### 1. Locally interoperable transport ticketing and payments

Between transport services within the same urban area that must become part of the city common mobility scheme and meet compliance requirements to achieve smart integrated multi-modal ticketing.

### 2. Bilateral interoperable transport ticketing and payments

Between transport services of common mobility fare payment schemes in the same region or state. Extending transport ticketing and payments services as a precursor to national interoperability.

### 3. National interoperable transport ticketing and payments

Between any public transport services provided by any transport authority, rail operator, road transport undertaking or mobility provider, nationwide.



The objective will be to achieve consensus on how transport stakeholders can collaborate on a harmonised approach towards achieving interoperable transport ticketing and fare payments in India. This will be relevant for operators of all transport modes either launching new NCMC-compliant transport payments schemes or planning to migrate existing schemes to NCMC compliance in the future. Presentations will be invited from government authorities, transport operators, payment schemes, banks, systems integrators and solutions providers.