

# Mastercard® Transit Solutions

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## Cities have become the key driver for global economic growth.

Transit networks are critical to ensuring cities continue to grow and flourish successfully.



**Cities are growing at an unprecedented rate.**

**70%**

of the world's population will be in cities by 2050<sup>1</sup>

**Cities are also seeing a historic influx of visitors.**

**1.8B**

international tourists annually by 2030<sup>2</sup>

1. The United Nations, "2014 World Urbanization Prospects", 2015
2. UNWTO, "2016 Tourism Highlights", 2017



## CHALLENGES

Transit agencies face a range of obstacles when trying to address these challenges.

Current fare management and distribution methods are expensive

14%

of each ticket's price is spent on fare collection<sup>1</sup>

- **Overcrowding**
- **Excessive dwell times<sup>2</sup>**
- **Long lines at ticket booths or top-up kiosks**

Aging infrastructure is difficult to future-proof



Increased fraud risks



New payment technologies



No global standards



Not digitally compatible

Barriers to convenience



Complex ticketing options



Long queues and large crowds at peak times



Transit delays due to dwell times



Lack of interoperability with 3<sup>rd</sup> party service providers

1. Transport for London, "Commissioner's Report," February 2016

2. "Dwell time" refers to time spent by a transit vehicle in a stationary position, while rider ticket transactions are processed

# There are three ways we can help you deliver better urban mobility experiences.

From Contactless solutions to Mobility as a Service, we'll work with you to identify the right solution mix to meet your goals.

1

## Physical Card Solutions

Help riders "tap and go" with contactless, dual-purpose or prepaid cards they already carry with them:



### EMV Open Loop

Riders use the cards they already carry

### Dual application cards

Combine transit and payment features into a single card

### Prepaid transit cards

Create specific EMV Transit Operator cards to ride in cities

2

## Digital & Mobile Solutions

Help riders "go digital" by managing their ticket and travel options anywhere, any time:



### EMV Open Loop

Provision through digital wallets

### QR-based ticketing

Works with readers and includes "Visual Inspection" feature

### Private label proposition

Provision of a specific Transit-only token through the digital wallet

### Mobility as a Service

App-enabled multi-modal and seamless travel for passengers

3

## Value-Added Services

Our broad suite of services can help cities and transit agencies manage mobility more intelligently and cost efficiently:



### Data & Insights

Inform policy development by gleaning insight from rider behavior and retail spend data

### Mastercard Payment Gateway Services (MPGS)

Simplify and accelerate all payment processing through one gateway

### Shared best practice




Learn mobility best practices (e.g., managing demand of rider behaviour during peak travel times) through the City Possible Global

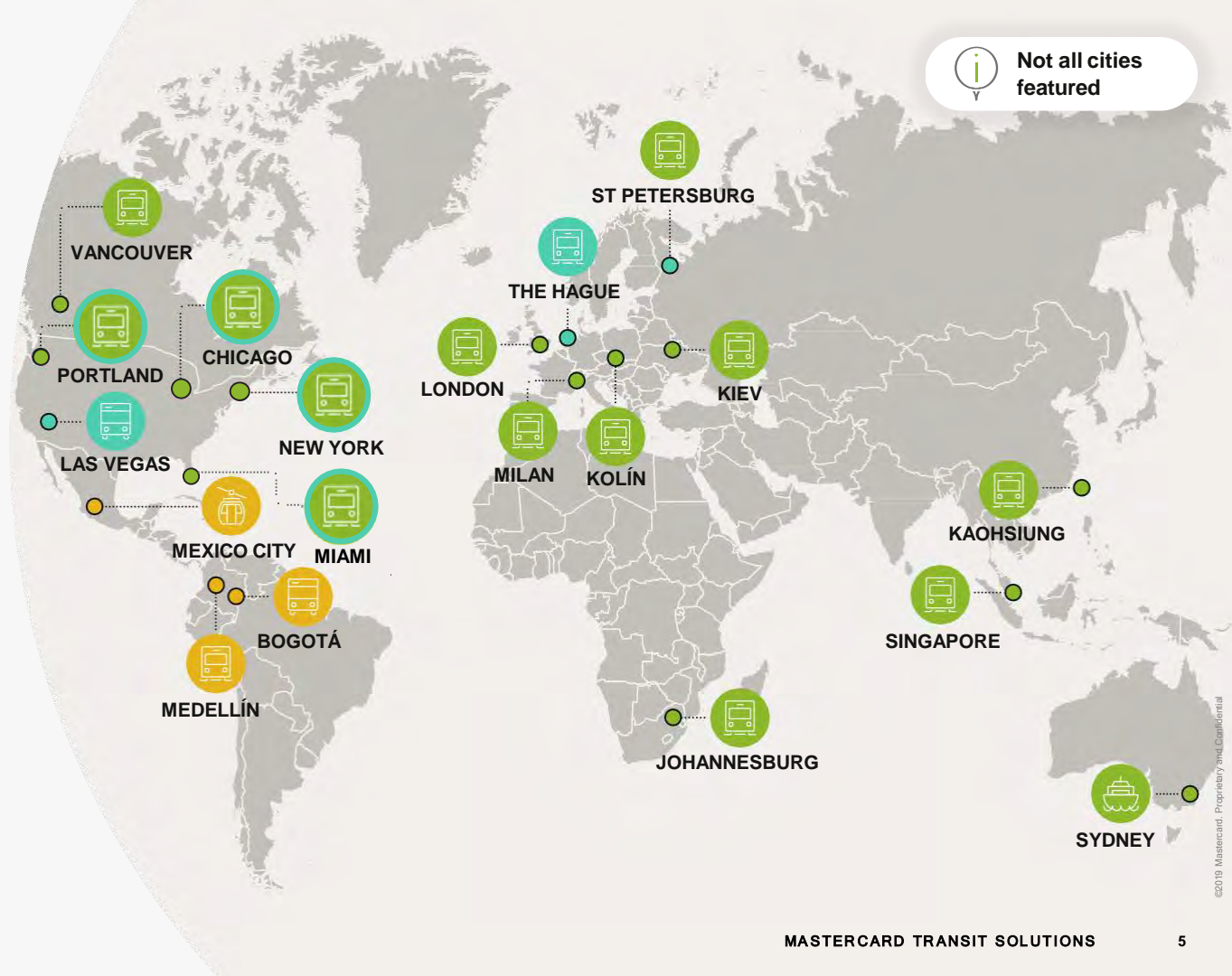


Mastercard has simplified the daily commute in more than 150 global cities, including:



#### Payment solution

-  Contactless ticketing
-  Dual-purpose debit card
-  Mobile ticketing



Not all cities featured

# Enabling Contactless EMV NFC ticketing and payment flow “on behalf of a consumer”



## Capabilities

- ✓ Supported by a UK based Mastercard pre-paid issuer
- ✓ Uses a Mastercard branded consumer pre-paid card with selective authorisation restrictions to ensure it is used “for transit spend only”
- ✓ Pre-paid card is topped up via Card on File capabilities

## Convenience

- ✓ Operates as a subscription model, or pay-as-you-go
- ✓ Initial launch provided users with a plastic card they can use to tap in / tap out at TfL transit merchants
- ✓ A digital version of the card will use the MDES platform to tokenise and provision the card to mobile wallets such as ApplePay and GooglePay.



## First and Last Mile integration Link to Contactless Payment for Rail Users



# Uber Transit



### Scope

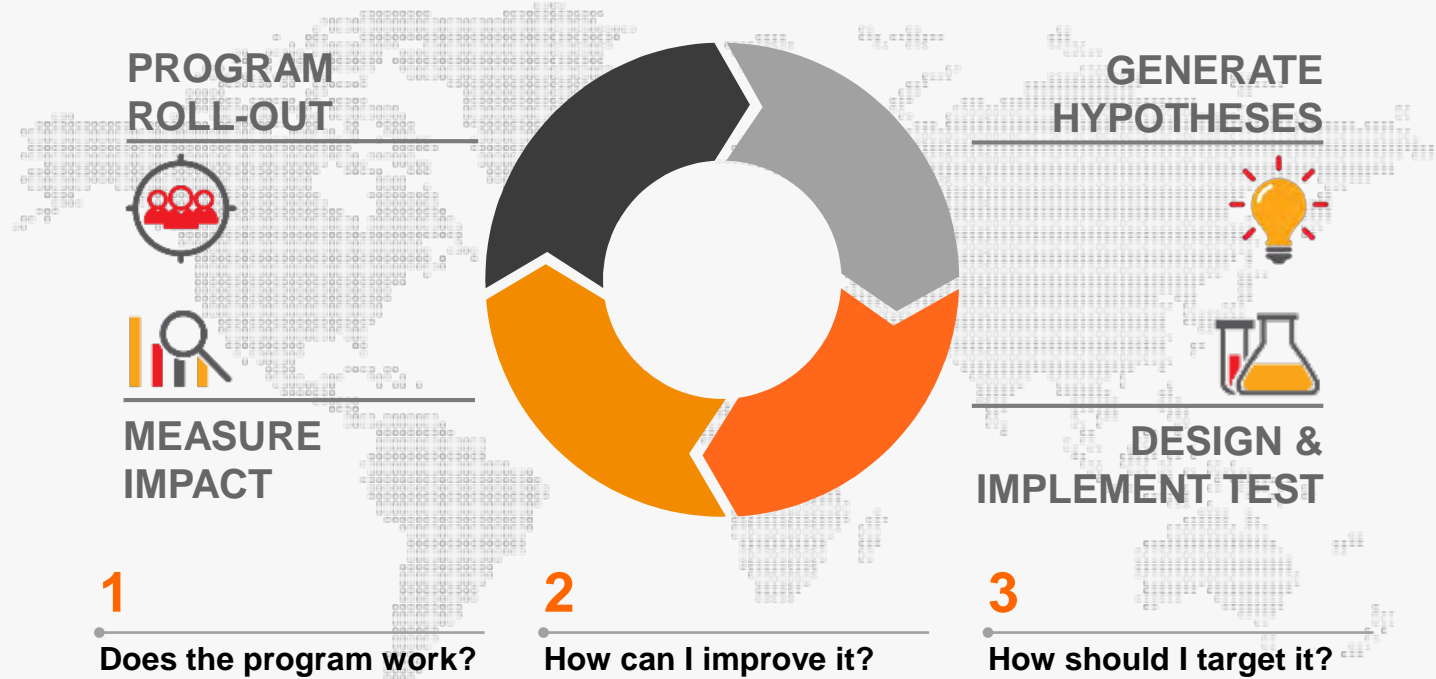
- ✓ Commuters using Metrorail Park & Ride
- ✓ Daily commuters who drive to and from city
- ✓ Use a Mastercard branded contactless prepaid card for public transit and discount code for Uber ride to and from the station
- ✓ Measure the outcome



### Result

- ✓ Convenience, cost and reliability as greatest transit choice influencers
- ✓ 71% found contactless bank card use for transit to be more convenient than current ticketing options including cash
- ✓ Primary weekday Uber rides took place at 7-9AM, 1PM, & 4-7PM. 50% of all trips was taken over weekend.
- ✓ Lessons learned for future multi-modal studies

Software platform isolates the causal impact through the use of small-scale, rapid experiments





# Let's get started



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