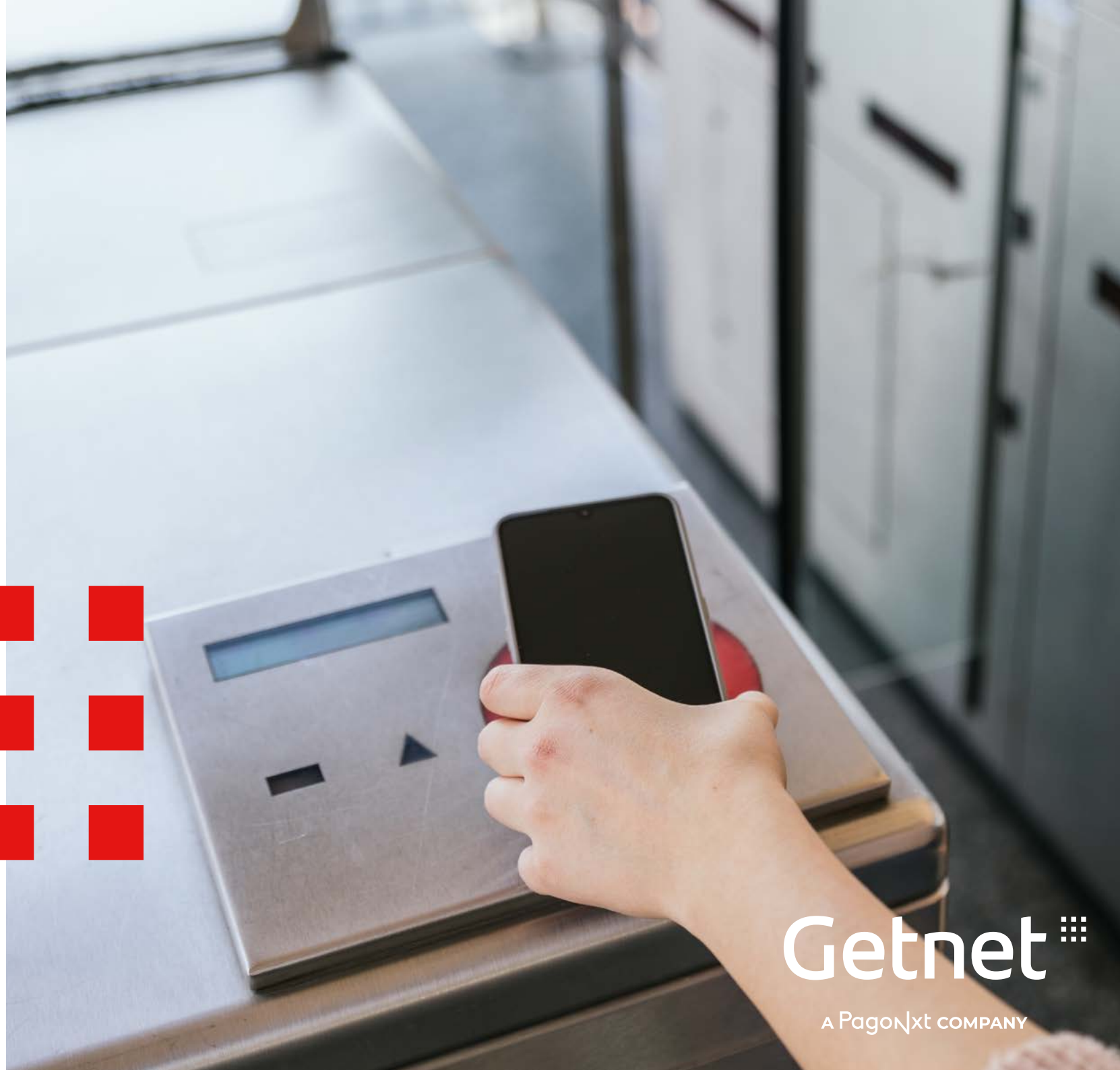
Payments trends

The future of payments in public transport



Getnet

A PagoNxt COMPANY

2023

Intro

Embarking on a journey of change

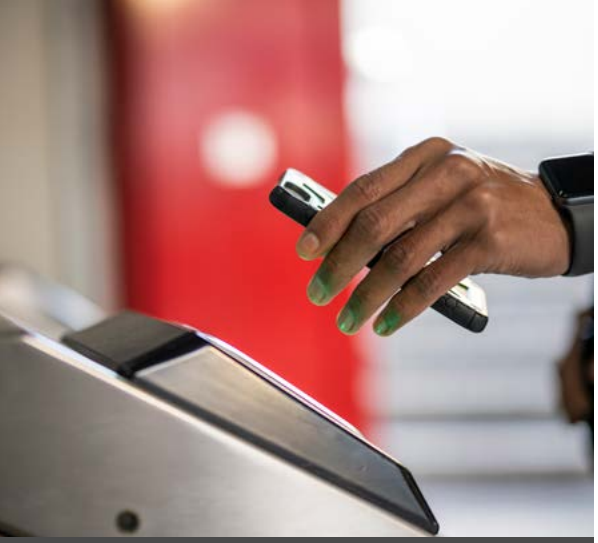
A lot can change in a decade. Just over 10 years ago, Transport for London set out a bold ambition: to revolutionise the public transport system across the UK capital with a new contactless payment system.

'London leads the way in so many different fields and we will be the first in the world to allow the millions using our Tube, trams, buses and trains to benefit from the ease of using this technology,' pledged the then Mayor of London Boris Johnson.

While the move was initially met with safety and inclusivity concerns, more than **2.5 billion** passenger journeys have since been made using bank cards, mobile devices and smart watches. Across the capital's transport network, more than **130 million** contactless cards or devices have been used from over 180 countries, highlighting the simplicity of usage.

London's successful blueprint has since been followed around the world. Global megacities such as New York, Mexico City and Rio de Janeiro have followed suit, with cashless systems now the norm. In June 2023 a major milestone was met, with the Netherlands becoming the first country in the world to launch a fully contactless public transport payments system nationwide.

The future of transport will be defined by contactless payments, and ongoing innovation will only elevate the passenger experience and reduce pain points further. In *The Future of Payments in Public Transport* we outline why more authorities should implement fintech solutions to drive change, and how this can be of great benefit to society.



01

Why networks must digitise payments

There are two key reasons why transport authorities must modernise public transport networks through the rollout of contact payments technology.

Firstly, commuting is widely accepted to be a stressful part of the working day. While successful journeys can be affordable and efficient, the fragility of public transport networks can often be unpredictable, leaving commuters feeling out of control.

This is where a first-class payments experience can be a boon. Multiple payment points and confusing ticketing options only compound stress further. Waiting in lines for ticket machines to become available is frustrating, as is misplacing a paper ticket midway through the week. Meeting a commuter's evolving payment expectations will not only increase convenience and reliability but will significantly improve the journey – much like extra legroom or free WiFi. We're increasingly living in a contactless society, and public transport systems must reflect this.

According to research by Visa

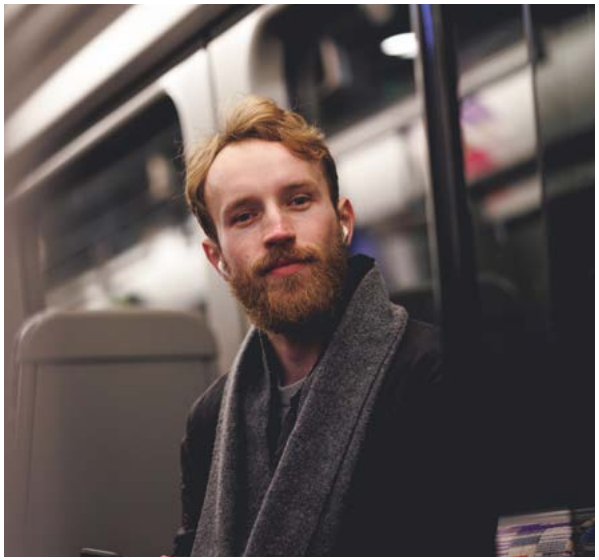
49%

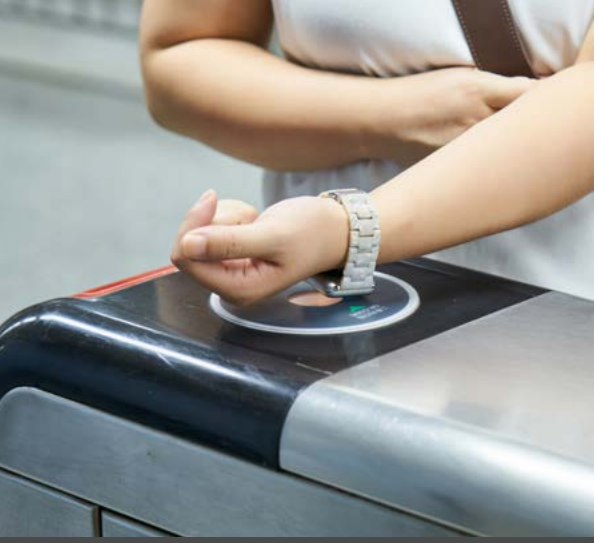
of UK commuters say open loop contactless payments have been the single most significant improvement to their overall urban mobility experience

Secondly, over the past two decades, urban mobility has seen significant challenges, including (but not limited to) relentless expansion of cities, changing rider preferences, decarbonisation imperatives, fiscal constraints and – most notably – a global pandemic. For this reason, more cars have continued to join already overcrowded roads.

Increasing the uptake of public transport is essential. Designed well, public transport can offer universal accessibility for most citizens in the city, remove car maintenance fees, and lower pollution. For this reason, we must strive to remove the legacy systems that define many transport networks and increase their appeal.

In short, digital payments can help the sector recover and must not be overlooked.





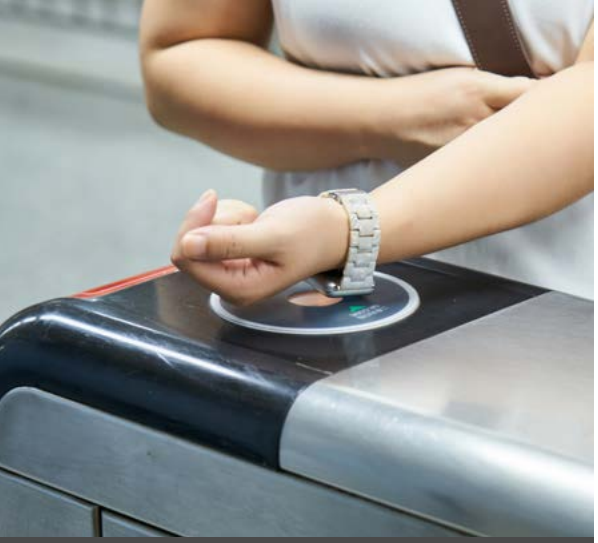
02

How contactless payments work today

Two distinct approaches have emerged in electronic ticketing: closed-loop and open-loop systems.

In a closed-loop system, passengers are provided with a credit card-sized smart card that they can conveniently top up with funds. Madrid Regional Consortium Card and Transport for London Oyster Card are a prime example of a closed-loop system.

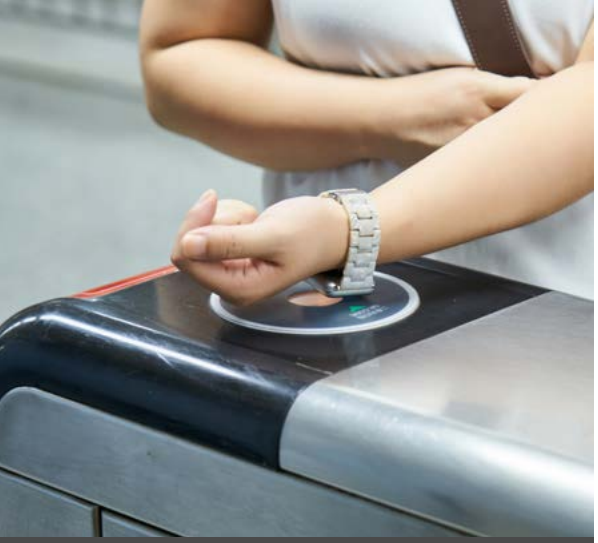
On the other hand, open-loop payments allow passengers to utilise their existing contactless cards or devices, ranging from debit cards to wearables. This approach offers the same level of seamless travel as the closed-loop system but critically eliminates the need for an additional card and the requirement to remember to top it up.



02

How contactless payments work today

	Closed-loop	Open-loop
Advantages	• Fast transaction speeds • Serves the unbanked • Transit provider controls fare collection system	• Convenience • Universal, interoperable systems • Ideal for low-income riders
Disadvantages	• Lack of interoperability across different cities and/or countries • Transit providers must pay for upgrades	• Transit operators must pay banks' fees • Expensive to build



02

How contactless payments work today

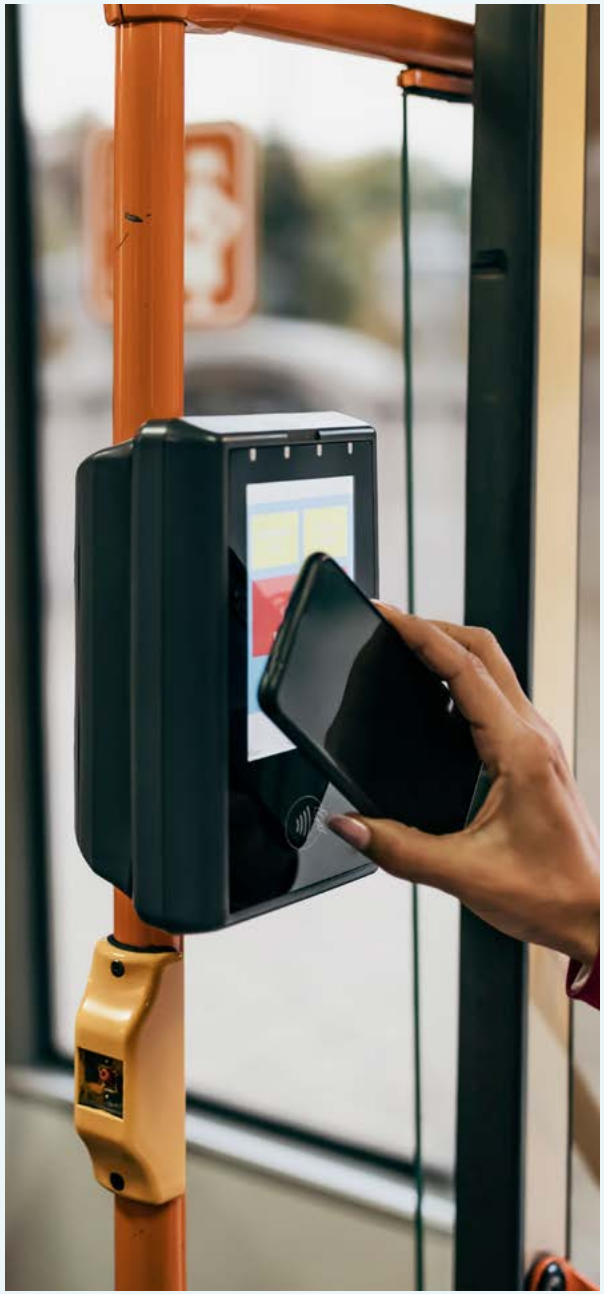
Current contactless payment applications in public transport use radio-frequency identification (RFID) and near-field communication (NFC) technologies.

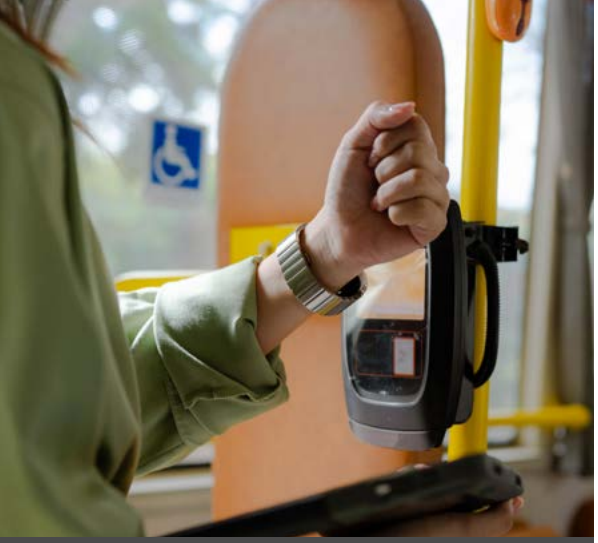
NFC technology enables users to store information on their devices in the cloud so that they can later collect loyalty points, and store their travel passes or payment credentials.

Such contactless payments which are based on NFC provide users with speed as they take almost half of the time compared to traditional card payments or cash.

Another payment technology that is currently being used by public transport providers is carrier billing, which charges the mobile account of commuters. They use a form of two-factor authentication and do not require the user to preregister or provide their debit/credit card information, thereby increasing security for the users.

Several new third-party players continue to enter the marketplace to provide convenient, mobile-first alternatives for riders. Dōcō offers Spanish users the ability to combine trains, scooters, mopeds, taxis, VTC and other mobility services in one single app, while the likes of CityMapper have also explored payments functionality in recent years.





03

The key benefits of enhanced payments on public transport

Seamless, systematic and suitable:

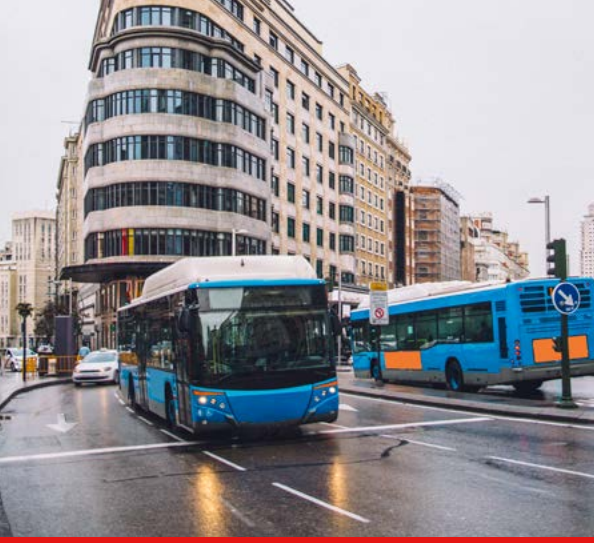
- People demand seamless and efficient payment processes when paying for public transport, just as they would in a store or at an event.
- According to Visa, almost all respondents in Chile and Mexico **(95% and 96%)** now expect public transport to offer contactless payments

Getting the best bargain:

- While passengers using traditional payment methods are burdened with the task of researching the most affordable tickets, contactless payments guarantee that consumers never pay more than necessary
- Europeans, on average, allocate **13.2%** of their total consumption expenditure to transportation, making it the second largest household expense in the EU after housing
- Digital payment systems offer the convenience of a pay-as-you-go approach, accurately calculating fares for each journey. With the implementation of fare-capping, this pay-as-you-go system takes into consideration all trips made within a day or week, ensuring that passengers do not exceed the maximum fare limit

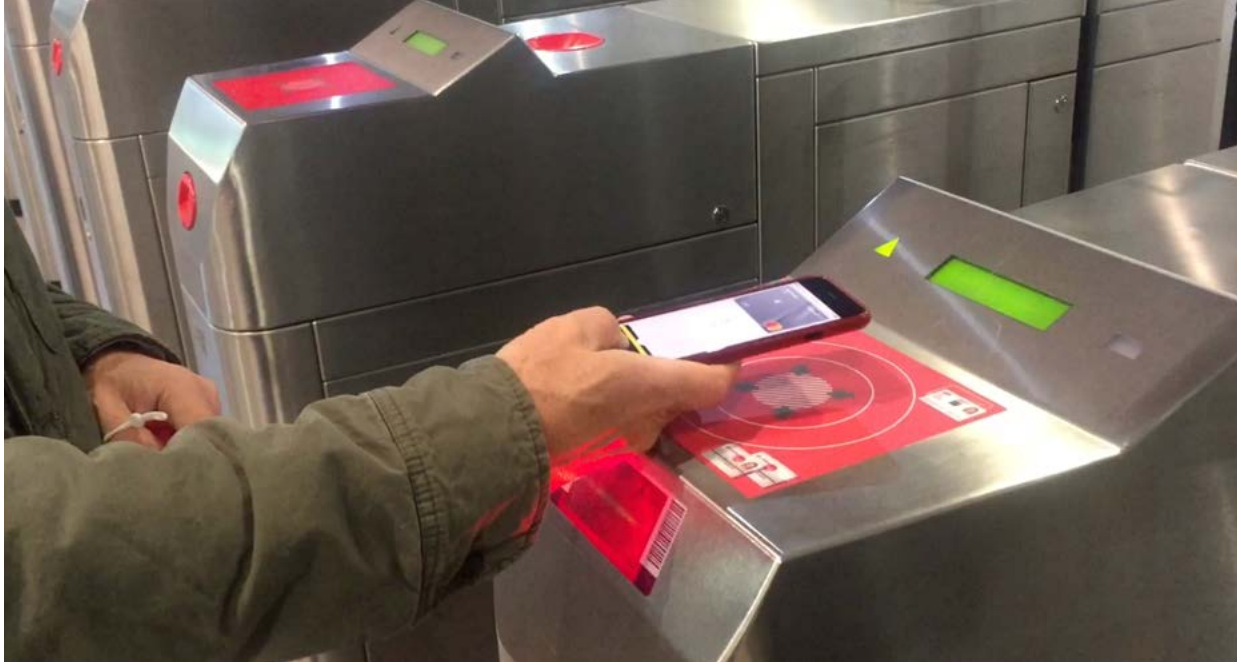
Time is money:

- Research has consistently demonstrated that each additional minute of our daily commute takes a toll on our personal wellbeing, satisfaction, and overall happiness
- So, the availability of a user-friendly payment method, such as contactless payments, becomes crucial in minimising travel time for customers
- Remarkably, average anxiety levels increased with each additional minute of the commute. Recognising this, authorities must prioritise the implementation of more time-efficient payment options to shape the future of public transportation
- The faster commuters can complete their journeys, the more enhanced their overall experience becomes



04

How Getnet has helped shape public transport in Spain



At Getnet, we actively embrace innovation. That's why we have pioneered projects across Europe and Latin America.

For example, in 2022 in Spain, we joined forces with Renfe to provide direct access and payment at turnstiles using a bank card. This streamlined approach enables passengers to board trains effortlessly by simply presenting their physical bank card or mobile device at the turnstile, eliminating the need to purchase tickets in advance. This innovation not only saves time but also reduces costs.

In Madrid we worked with Mastercard to digitalise payments on buses and enabled payment gateway and card top-up via an app, while in Seville we have made it possible for card payments to be implemented at the barriers of the metro system. As a company we are proud to say that these projects have been successful, as we aim to use digital payments to transform the transport industry.

In 2021 we worked with Visa to implement a contactless payment system on three lines of Mexico City's Metrobús system, meaning almost one million users can now access the lines using contactless credit and debit cards, as well as smartphones and smart watches.

With the assistance of fintech, the public transport industry can ensure its seamless adaptation to modern times and proactively prepare for the future.

05

Next stops: smart cities, new innovations and improved security against fraud

As outlined above, the benefits for consumers are clear and abundant. But, looking further afield, what about society? And how will payments in the public transport sector continue to evolve further?

Here's what we consider to be the three biggest trends which will shape the coming years:

#1: Payments will help smart cities move one step closer

Data shared from private industry – particularly payments – can provide insight such as peak times for commerce, where people are shopping, when people are travelling and from where. In turn, this can help provide valuable information that can help plan additional states, parking or add in new bus lines.

Similarly, real-time passenger counting data can also be integrated into apps that customers use to plan their travel, helping them to avoid the busiest times that may present congestion challenges.

By creating a sophisticated system that works in a predictive manner to ensure that assets are in a place where they will be needed as well as directing users to where there is less congestion, cities, transit operators and private companies can create a vastly improved consumer experience.

05

Next stops: smart cities, new innovations and improved security against fraud

#2: Payment innovation continues at pace

Embracing the next generation of urban mobility payments can help cities and public transit operators create more inclusive, sustainable, and efficient mobility systems.

Biometrics are likely to emerge as a key player in payments. Developments in facial recognition would offer a quick and easy way of payment – without lines and the need to carry a physical card. Chinese giant Baidu is already developing a system for people to pick up tickets for mass-transit by showing their face and is working with the government of Wuzhen, China, to use it for access to tourist destinations. In Europe, meanwhile, via a pilot project created in 2019 by the Madrid Municipal Transport Company (EMT) with technology company Saffe and Santander Bank, bus fares were charged from an image of the passenger as they passed through the turnstile.

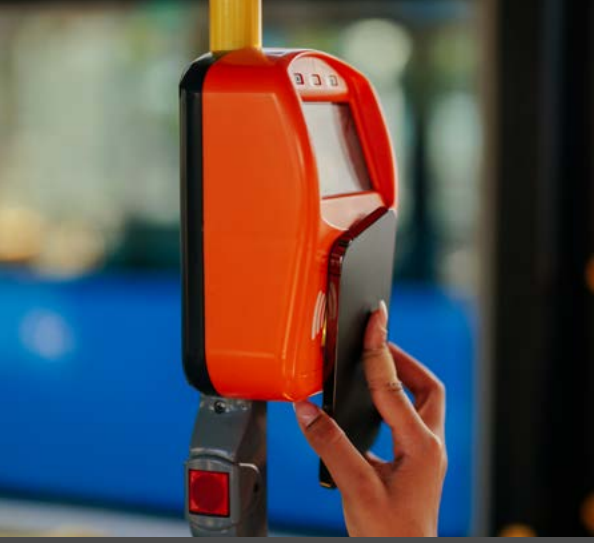
Amid the cost-of-living crisis, Buy Now, Pay Later (BNPL) could also support annual season ticket purchases which can be costly, while recurring billing could enable a subscription-like travel service.

#3: The fightback against fraud will intensify

The surge in friendly fraud, card testing using low-value top-ups, and account takeover for annual passes mean that — for closed-loop systems in particular — end-to-end security must be enabled to safeguard potential revenue streams.

For open-loop solutions, tokenization mechanisms secure the 16-digit card number as a passenger taps to ride.

This makes payment seamless and secure and helps facilitate PCI DSS compliance for operators as they don't need to store sensitive payment card data.



06

Final stop:
A better tomorrow

With public transport under such strain, local authorities, governments and private agencies must strive to adapt and innovate, creating transport systems that are not only flexible and equitable, but genuinely fit for tomorrow's generation.

Fintech companies will play a pivotal position in shaping these systems, unlocking innovation within the industry. As public transport becomes more agile and innovative, fintech companies will offer valuable support in digitalising payment systems, benefiting both passengers and transport companies.

With the assistance of fintech, the public transport industry can ensure its seamless adaptation to modern times and proactively prepare for the future.