

# Payments In Transit

Future Now Series



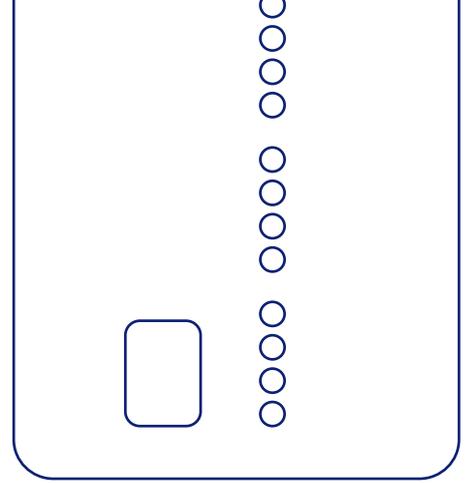
# A journey into payments

Frictionless travel is fast becoming a reality, with payments at the heart of the customer experience.

Over the last 10 years, contactless cards and devices have become firmly established as the preferred payment method and, in 2019, 49% of UK commuters surveyed by Visa cited contactless payments as the single biggest improvement in urban mobility.

The transportation sector has been shaped by a number of factors – global consumer expectations, technology, regulation and ownership – and now, by the hammer blow of COVID-19.

With contact-free payments playing such an important part in restoring consumer confidence across every sector, the industry that has led the way in contactless has an opportunity to innovate once again.



**49%**  
of UK commuters

surveyed by Visa cited contactless payments as the single biggest improvement in urban mobility.

Elavon is a key partner to many transport operators and part of a tightly integrated technical network offering sector specific solutions.

We are at the heart of transport industry conversations, always looking to innovate and simplify the experience of users while delivering on the needs of operators.

Join us as we explore the world of payments in transit and share our insight on the challenges and opportunities we're facing, together.



**Patrick Doherty**  
Head of Emerging Payment Verticals, Europe

# When contactless met transit...

When it comes to technology, we often talk about tipping points. Moments in time, when a significant event acts as a catalyst that fundamentally shifts behaviour.

It's widely recognised that in 2014, when Transport for London rolled out contactless EMV acceptance across its whole transit network, including buses, trains, tubes and with a mandate for taxis to do the same, the wider payments landscape began a rapid transformation towards contactless as a new normal.

Finally, contactless had an application that delivered on tangible value. By reducing queues for ticket purchases, improving station flow and speeding up journey times, adopting contactless payments enabled a commuter centric experience that felt immediately more positive and frictionless. And it worked, with **49% of UK commuters** surveyed by Visa in 2019 citing contactless payments as the single biggest improvement in urban mobility, having an immediate impact on wider usage outside of the transit network.

# 90%

With ridership down by as much as 90% some points during the pandemic, the need for safer payments in transit has never been greater.



Six years after Transport for London led the way, an industry ravaged by the impact of COVID-19 is looking towards contactless (contact-free) payments as an essential tool to rebuild confidence in passengers who have been told, by authorities for many months, to avoid public transport because it's a source of increased infection risk.

With ridership down by as much as 90% at some points during the pandemic, the need for safer payments in transit has never been greater. In all aspects of transportation – mass transit, parking, taxis, roads and tolls – we have a unique opportunity to deliver hyper-speed change to the way we plan, deliver and pay for travel, while at the same time answering many emerging regulatory, environmental and behavioural challenges.

# How it all began

When transport operators first offered electronic payments in lieu of tickets, closed loop, proprietary smart cards were the big hope.

From Oyster in London and Leap in Dublin to Navigo in Paris, smart cards were seen as the innovative answer to the question: How do we remove cash and paper ticketing from transit networks, to reduce costs and improve efficiency?



## Oyster paved the way

In June 2012, just before the London Olympics, there were 43 million Oyster cards in circulation which accounted for 80% of all public transport journeys in the city. Commuters demonstrated a willingness to tap for travel which undoubtedly paved the way for the contactless EMV adoption to come.

# 43M

Oyster cards in circulation

# 80%

of all public transport journeys in London



But today, domestic transit networks are part of a global infrastructure which connects travellers across borders. Our expectation is that we can arrive anywhere in the world and our transit experience will be accessible, unlocked using the tools – cards and mobile devices – that we already have in our pockets.

We expect access to information, to travel updates, to the cheapest fare options and to seamless payments, wherever in the world we are.



Cross border inoperability of smart card platforms means that most operators already offer or are moving at pace towards major scheme acceptance with contactless EMV transactions, made by cards and mobile devices, enabling and leading the charge.

In 2020, Visa was involved in more than 500 contactless transit projects across Europe, clearly demonstrating the consumer demand and operator desire to use cards and devices to transform the way we travel.

The two key requirements of a digital ticketing solution, for any operator, are functionality and integration. Solutions need to deliver the right tools to keep travellers informed and moving, while supporting fare payments across transit networks, and to be implemented with simple integrations into global platforms, all while delivering uninterrupted service.

There are clear benefits to implementing cashless transit services, for operators and users.

### **Consumers**

- Faster journey times
- Less queuing
- No need for change
- Safer and cleaner
- Personalised

### **Operators/local authority**

- Reduced admin and costs
- Increased security
- Valuable data and insight
- Enhanced user experience
- Safer and cleaner



# Contactless as the standard

**Translink**, the integrated transport provider for Northern Ireland serves 1.5 million passengers each day, operating 1,400 buses, coaches and trains which began contactless acceptance in 2018.

Aspiring to deliver on speed of service and convenience, **Translink** created its own Future Ticketing Programme to deliver it's full suite of fare logic, including capped fares, to contactless card and device holders, across its entire network.

Operating to the Visa MTT (Mass Transit Transaction) standards, **Translink** will enable users to tap in and out across its integrated network, while final fares are calculated as a back-office function and only charged at the end of a defined period. The rules behind MTT are clearly articulated and have created a gold standard across the industry;

- ✔ Contactless only acceptance
- ✔ Deferred authorisation
- ✔ No transaction charging at first tap
- ✔ Shared merchant/issuer liability
- ✔ Use of a deny list with back office management

Elavon and **Translink**, which have a long standing relationship, began delivery of a new MTT certified solution, working closely with technical partners NMI and Flowbird.

This significant investment will be measured against clear operator objectives – to continually improve connectivity across the region, reduce cash handling and associated costs, minimise security and fraud, delivering an exceptional user experience across all of **Translink's** integrated transit modes.

Contactless transit schemes now exist in most UK cities and rollouts are gathering pace across Europe, with Spain introducing a tap to travel programme in Seville, and Stockholm soon to follow for Sweden. As a result of COVID-19 and the safety concerns resulting from it, the business case has never been clearer.



In addition, operators who prioritise electronic payments gain access to valuable insight about the way we travel. Understanding user behaviour in real time, when there is currently little useful history to draw from, can help with scheduling and capacity planning, and to direct users towards the best, safest journey.

Contactless remains the solution of choice, but as technology advances more ambitious markets look toward Mobility as a Service (MaaS) which sees multiple transport modes, operated by different providers, assembled into one access point, often an app.

This sounds exciting and the ultimate in convenience, but MaaS brings challenges about service support, liability and commercialisation that are not yet resolved. Watch this space...

# Restructuring the parking landscape

The world of transport is so much wider than trains and buses.

The parking sector, made up of private and local authority operators has become highly fragmented and in need of a streamlined approach.



## Inherited complexity

After a busy period of acquisitions and estate takeovers, operators have inherited a jumble of different hardware and need to manage relationships with multiple gateways and acquirers, which together result in high costs and heavy admin.



## Decrease in cash

Lower consumer cash usage means secure collections from machines has become less frequent, increasing the risk of theft and damage. When cash isn't banked regularly, it can't work hard for businesses, so operators need to find ways to speed up funding, settlement and cashflow.



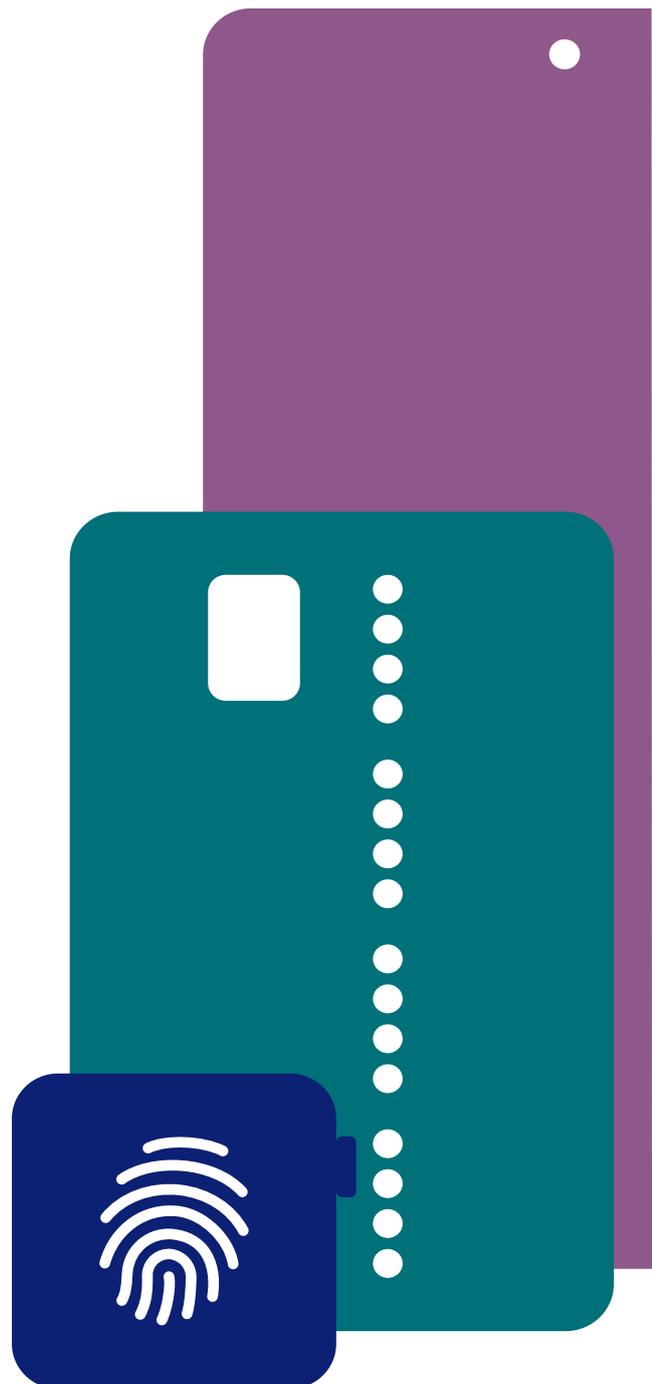
## Convenience

Today's operators seek to offer a simplified, more convenient experience to customers, which will encourage loyalty and increase revenue while reducing costs and admin burden. Convenience is key when it comes to expectations of parking. Fewer consumers are carrying cash so expect a choice of payment methods.



## Embracing technology

The technology is all there. Paying with apps including JustPark have enabled functionality like expiry alerts and the ability to extend parking periods remotely. As we use our devices more, we expect a better experience, including recognition and faster interactions.





### Improved efficiency

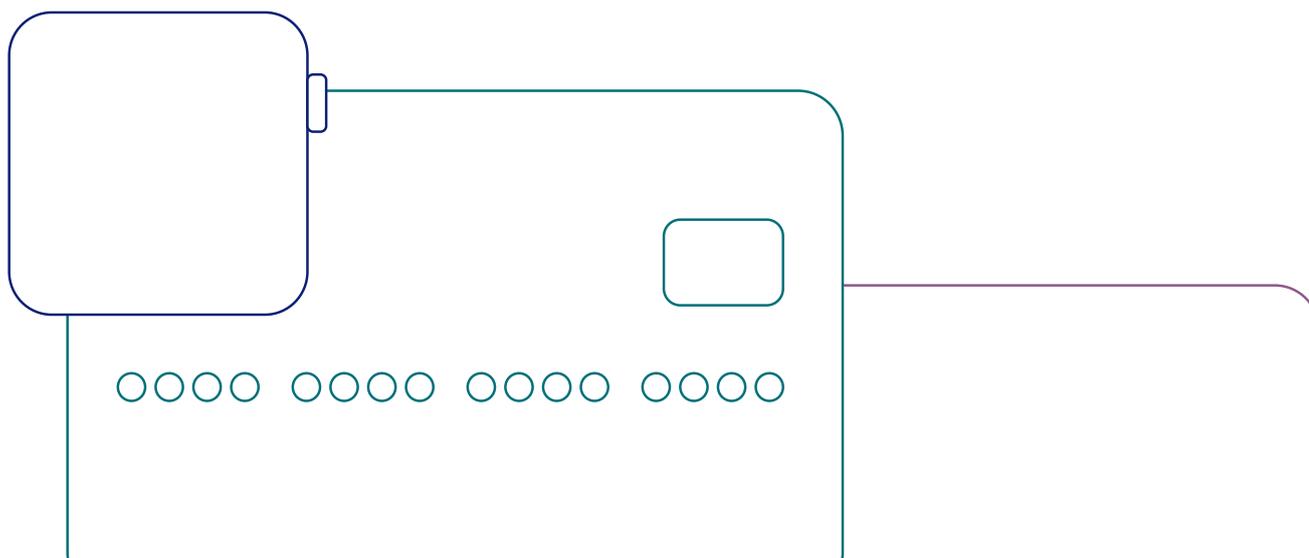
Parking services in high traffic areas like airports and shopping centres have long used Automatic Number Plate Recognition (ANPR), enabling use of tap in and out of barriers with a payment card or device, no ticket required. Parking space sensors, on and off road, are already starting to direct fee enforcement efforts toward the most lucrative opportunities and could soon support highly accurate charging too.



### Streamlined solutions

Specialist technical solutions providers are working closely with payments acquirers to clean up this complex landscape.

Together, consulting to unravel the challenges and propose simple solutions that look to standardise hardware, streamline payments relationships and simplify administration and processes.



# Then there was COVID-19...

Impacting the entire transit sector, there's never been a more appropriate time to talk contact-free transportation.

When COVID-19 began to take hold across Europe in early 2020, mass transit ridership plummeted with user levels dropping by up to 90% and cash handling declared as high risk.

Employees of large corporate organisations, who had packed into trains and buses just days earlier, were advised to stay away from offices and cities and to work from home.

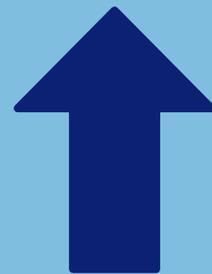
Across retail, hospitality and transit, many businesses and operators moved quickly to discourage cash options.

Contactless upgrade programmes across all sectors have been accelerated and in transit, have been prioritised as more important than ever - demonstrated by the 500+ live transit programmes being supported by Visa in 2020.

There's no doubt that contactless payments are having a moment, and COVID-19 is a major driver of that. According to Visa, 500 million transactions that would have previously required a PIN entry were processed as contactless in the first six months after limits were increased. Between April and Jun 2020, the value of transit fares paid by **contactless increased by 187%**.



Contactless payment  
increased by



**187%**

during April and June 2020  
due to COVID-19



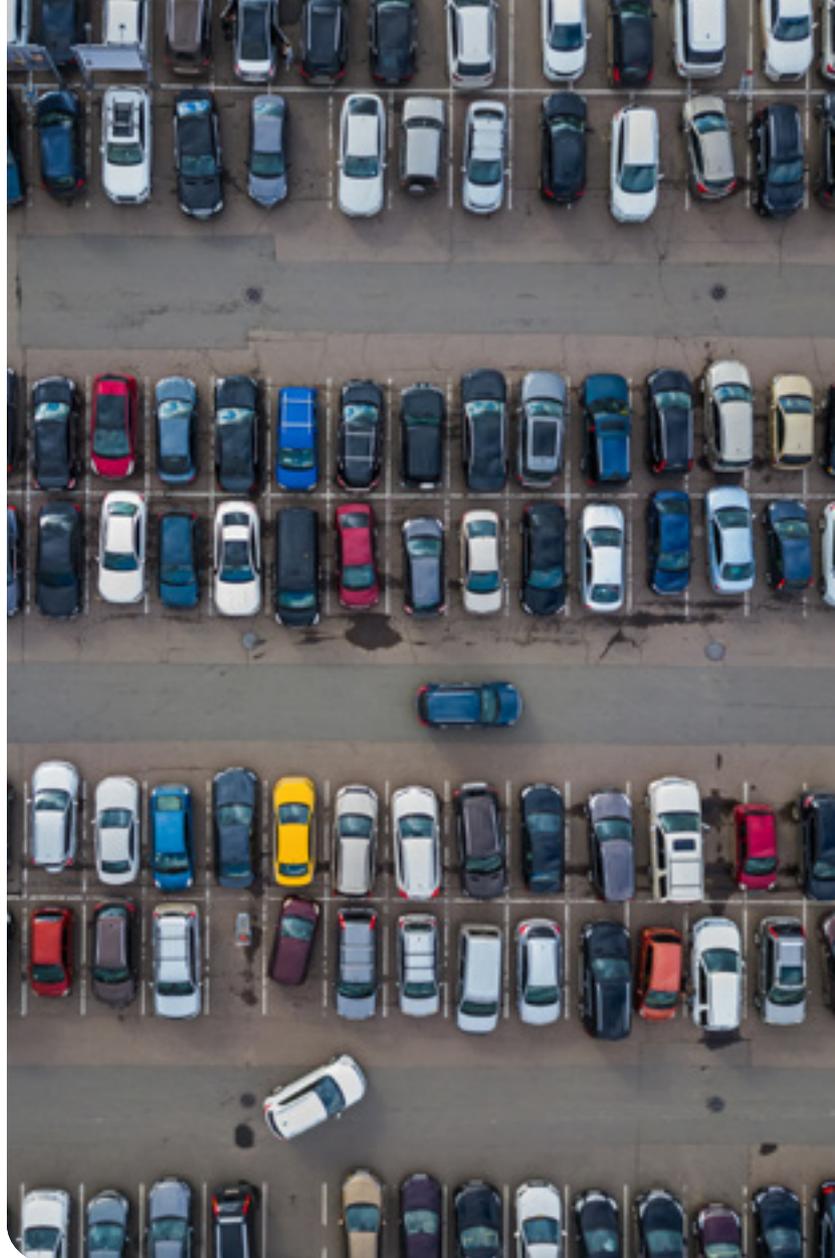
# Road safety

COVID-19 created new questions around using mass transit and as a result, global demand massively declined and Google searches for public transport journeys mid 2020 were down 70% vs same time last year.

Car, walking and cycling quickly regained most of their previous demand, which suggests users are seeking safer spaces in which to travel.

17% of respondents to a US research project claimed they would use their personal vehicle more going forward, and 28% would use public transport less often.

With COVID-19 leaving a long-term behavioural legacy, we should expect to see further investment in road-based services, including parking, tolls vehicle charging and cycles, as operators find more ways to monetise private vehicle use.



## Faster toll payments

A growing number of road tolls across Europe present new opportunities to show how payments technology can deliver on experience.

Fast flowing traffic comes to an abrupt halt when a toll point is reached, and queueing traffic at toll plazas can create huge driver frustration and slows vehicle flow.

When you add in the hygiene concerns around payments under COVID-19, it's an unnecessary and unwanted interruption.



## Simple solutions

The entry level solution is for toll operators to accept contactless payments using externally mounted card terminals, which removes the need for any physical contact with toll booth operators and reduces cash handling.

When Automatic Number Plate Recognition (ANPR) is combined with an eCommerce payment linked to a registered payment card, there is no reason for drivers to stop at all. This solution has been used to manage urban congestion charges in London and other European cities and we expect to see the same experience reach UK and Ireland toll booths soon.



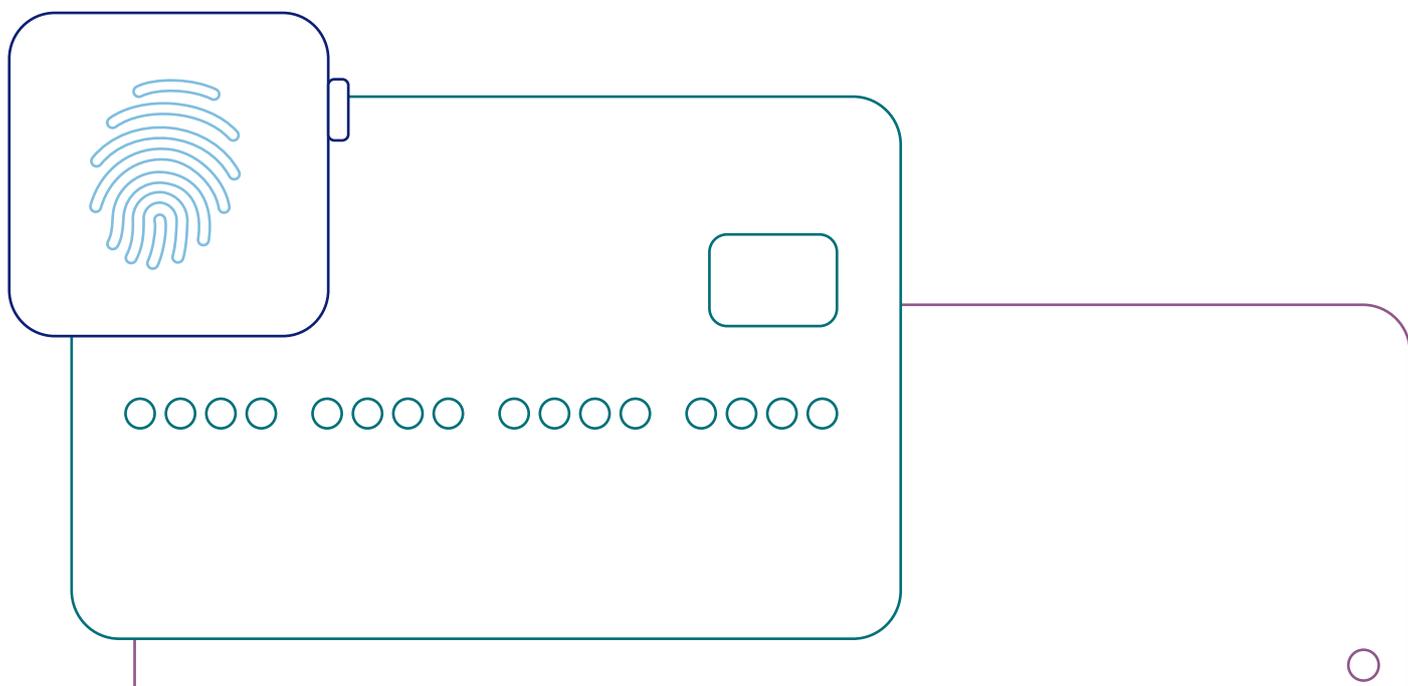
## Keeping the N6 moving

The N6 toll plaza in Ireland previously accepted cards, cash and tags, but with ageing legacy equipment supporting only mag stripe transactions, transactions were slow with high decline rates and PCI Compliance difficult to achieve.

Elavon worked with technical partner NMI, who provided Payter P68 unattended card readers, offering self-service EMV contact and contactless card acceptance.

With absolutely no downtime permitted, installation in June 2019 was straightforward with the card readers bolted on to the front of the toll pay station to replace the existing devices.

The readers send secure transaction data to NMI for fast and reliable bank authorisation and full data encryption helps bring the system into PCI DSS compliance.



# Fuelling the demand for convenience and greener energy

Private car use is on the rise, with 93% of people in a Google survey claiming to use their car more during periods of social distancing restrictions.

According to McKinsey, around one third of respondents said they valued their car more now than pre-pandemic.

## Profiting from fuel

The high cost of fuel is a barrier to use, but while the price of a full tank is significant, it's worth remembering that in the UK, **72% of the price of fuel is made up of duty and VAT, leaving just 28p in each £ to cover product sourcing, processing, distribution, retailing, business management etc.**

Much of Europe taxes fuel at a similar level, so it's no surprise that for fuel retailers, generating incremental profit requires innovation. New technology investments need to deliver a strong return by increasing efficiency, revenue and loyalty.



## Building preference and loyalty

BP.Me is a smart example. The app combines mobile payments to enable consumers to pay at the pump using a stored card, with rewards and loyalty tools to keep customers coming back. Repeat visits are encouraged by improving the customer experience - reducing processing costs and speeding up transactions which minimises queuing time.

And with **63% of UK drivers showing a preference for paying at pump**, there's no wonder BP and other for fuel retailers are fighting to differentiate and win through service and experience.

The app also presents a tool to help with business diversification, now and in the future. BP recognises that stations need to offer much more than fuel, so are flexing their mobile payments offer to include snacks and groceries. Options beyond petrol and diesel will become increasingly important as electric vehicle adoption grows and in Europe, BP.Me is already being linked to payments for electric vehicle charging services.

72%

of the price of fuel is made up of duty and VAT in the UK

63%

of UK drivers show a preference for paying at pump

# Unlocking taxi fares

Taxis have an important role to play, by offering a safer and more personal journey than other transport options.

However, they are clearly impacted by the downturn in leisure and hospitality and cab operators and drivers will have to work hard to keep passengers feeling safe and acting loyal.

In London, contactless and card acceptance in taxis was mandated as part of the TfL rollout so electronic payments already dominate the sector.

Outside of the big cities, things have moved at a slower pace and many local taxi operators are only now beginning to promote electronic payments ahead of cash. Some are using contactless, others are choosing apps for pre-booking and pre-payment or joining networks like Uber.

By doing so, they can increase consumer preference for their services by offering a seamless payment journey for customers, while reducing driver fraud and the cost of cash handling.

Because contactless solutions attract an exemption from Secured Customer Authentication (SCA) requirements under PSD2, they can deliver on the fast and convenient experience demanded by all cab drivers and their passengers.



## Choosing the right technology

Certification with the leading handheld and in-vehicle Point of Sale (POS) makes Elavon's solutions a smart choice for taxi firms, opening up all major card and wallet types as well as DCC on international transactions.

Payments are taken through an Ingenico terminal which talks directly to the Elavon platform, removing the need for additional gateways and unlocking DCC functionality for international passengers.

This ticks all the requirements for a safe, contactless journey while providing greater security for drivers, with less cash on board, valuable journey insight and reporting and opening up new customer segments.



# Connected technology

Across every transit sub-sector, the biggest perceived barriers to adoption of smart ticketing solutions are technology and the costs and impact of implementation.

Transport services are viewed as a public utility, moving critical workers from home to work, every hour of every day, so any risk of interruption to services must be minimised.

One way to mitigate risk is to choose expert partners who are already certified by and integrated with the sector leading solutions. For example, Visa MTT certification to support complex fare types is now a key requirement of many transit solutions.

Having a certified platform which is able to support deferred authorisations with a single clearing message is a key ask of acquirers, as operators demand contactless is enabled for the full logic of their fare offering – including time-based, multi-modal, fare capping and delay refunds.



Specialist technical providers of unattended terminals and function loaded gateways are growing in capability and reputation.

Making sure that your payments can be channelled through these, using pre-existing integrations where possible, simplifies project management and keeps down cost.

The landscape is complex, with multiple providers, software and applications, so operators should seek out providers who are well connected to other industry players, and able to offer plug and play integrations, saving time, resource and money.

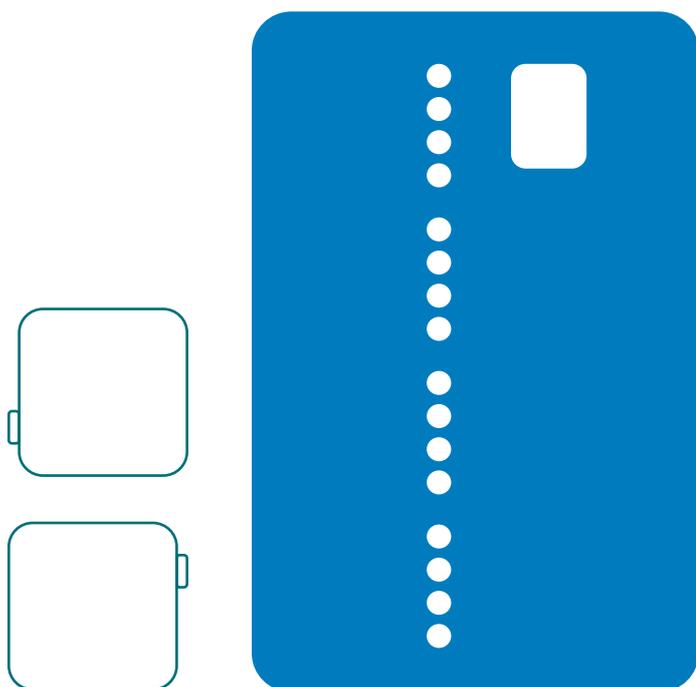
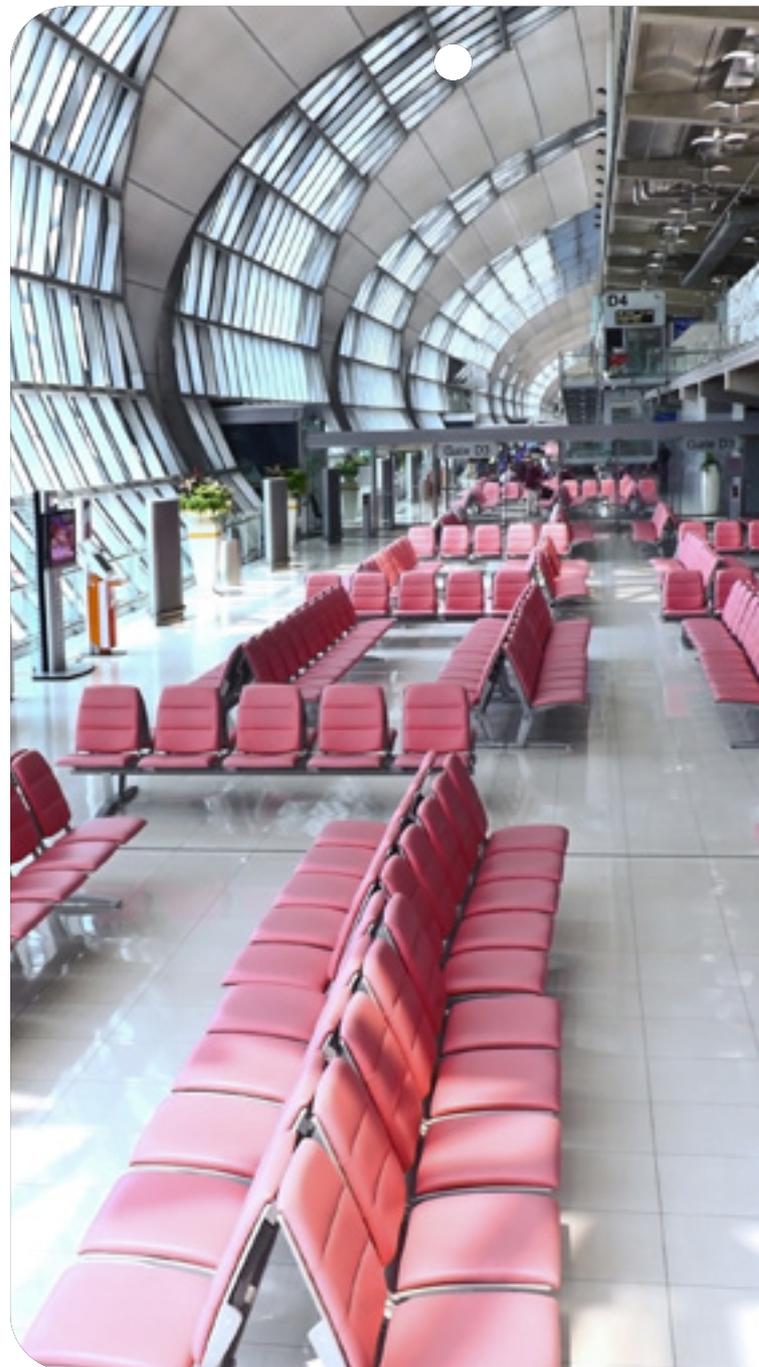
# Uninterrupted authentication

Payments is in a constant state of regulatory flux and the influence of PSD2 and the new requirement for every transaction to undergo multi-factor SCA has yet to be truly felt.

Contactless transport transactions have been granted exemption from SCA requirements, recognising that the speed of service required for uninterrupted travel wouldn't allow for additional authentication and would lead to build ups at barriers.

This exemption is critical for the continued expansion of contactless in transit, helping to maintain the seamless experience we all now expect.

Payments can feel like a regulatory minefield, so choosing to work with an expert partner can help you focus on the most important requirements and identify the greatest opportunities.



# Mobile at the centre

At the centre of any transit journey you'll often find a mobile device, acting as a key interface for communication, information and payment.

Driving this are the big tech players, Apple and Google, with stakes in every stage of the journey. Maps, timetables, wallet payments, service updates and conversations, all delivered through a myriad of social media and app-based channels.

Right now, mobiles are also providing the additional services we're being asked to use as part of our national COVID-19 responses, from location tracking and QR codes to online menus and ordering.

Payments made on mobile devices create extra value through transaction confirmation alerts and receipts.

They can be vehicles for loyalty and uniquely targeted offers, using behavioural and transactional data to predict patterns and target consumers.

The BP.Me app demonstrates this, using the mobile device to create a new payment solution without investing in the infrastructure usually associated with pay at pump, while harnessing valuable data and communications opportunities.

In a world where personalisation matters, mobile devices have a distinct competitive advantage over other payment form factors. The Google Pay transit journey illustrates this perfectly;



**Discovery:** Using maps and the internet to investigate and plan.



**Entry:** No unlock. Easy to transact and no surprises.



**Confidence:** Receipts, journey confirmation and intelligent fare-charging.



**Aware:** Keep users informed, transit updates, notifications, personal comms.

Whether viewing breaking news, communicating with family or understanding regional restrictions, staying connected in uncertain times is a critical way to improve confidence when travelling, locally or globally. With 532 million smartphone users in Europe, the tools we need are already right there, in our pockets.

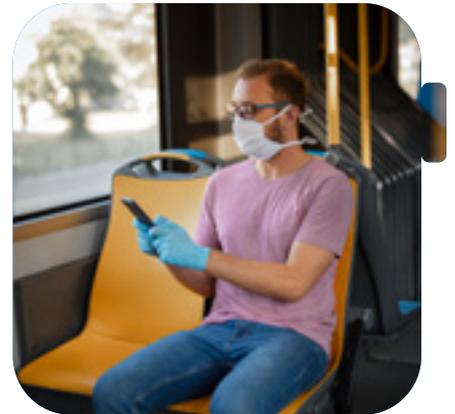
# Where do we go from here?

We've discovered endless ideas to explore, questions to answer and we're excited about working through some of these with our customers and partners.

Here are just a few areas which make great food for thought as we continue on our journey:

Financial inclusion – as we move away from cash, how do we make sure everyone can fairly access transport?

Greater use of cameras and sensors means our transport purchases can be calculated and charged in real time. What will that mean for parking, tolls and environmental charges?



As transport in cities becomes more automated, who's in control? Will we start to see city transport networks managed much like air space, from a central control point?



Growth of electric cars is dependent on a reliable and affordable network of charging points. How will we pay for these new services and who will we buy from?



New types of vehicles and ways to access them. From scooters to car clubs, how will unattended vehicle hire take hold?

With the growth of MaaS, single point access to multiple sources of transport data sounds great in theory, but how will that work in reality?

# Our trip around payments in transit is only the beginning of our journey.

The world is changing so quickly, only by talking and collaborating can we understand and address the opportunities and challenges facing the transport sector.

You could be a transport operator seeking a safer payments experience, a parking provider that wants to simplify your terminal network or a software provider looking to add payments to core services.

Whatever your interest or need, the transit team at Elavon is ready to help you explore your options and shape your plans.

**Payments in Transit** is the first in the **'Future Now'** series of Thought Leadership from **Elavon**.

We've created a suite of tools and support that will help you to explore and understand this fast-changing world, and you can view the latest by visiting: [www.elavon.co.uk/transport](http://www.elavon.co.uk/transport)

You'll find case studies, insight and information about the Elavon team of transit payments experts, who will be happy to start a conversation.

Look out for more **'Future Now'** content as we dive into other sectors, including retail, hospitality and more, exploring how payments innovation and technology can help businesses to build and grow, through economic uncertainty and recovery into an exciting and prosperous future.