



CONTACTLESS PAYMENTS

Ready for rush hour

J.P.Morgan

Contactless payments— ready for rush hour

Improving the speed and convenience of public transit isn't just about upgrading rail lines, using autonomous vehicles, or getting riders to their "last mile" with electric scooters. The process begins before riders board a bus or get to the subway turnstile—with payment systems that save precious seconds and offer universal access for out-of-town passengers.

This isn't news to transit systems, which for decades have looked to improve fare collection, migrating from real currency to tokens, then transit passes to mobile apps. While each iteration has offered more options for riders and reduced collection costs, there is room for improvement. Just ask anyone who has frantically tried to add rides to a transit card or download a mobile app as the train approaches the station.

Now for some good news: With contactless payments reaching critical mass --via credit cards, debit cards, and mobile wallets--transit systems finally have the ability to provide riders with a safe, seamless and universal solution to pay their fares.

As a leader in both card issuing and merchant services, J.P. Morgan is uniquely positioned to help transit authorities implement and manage this new era of payments. We not only understand the unique concerns and challenges of this business—we have worked with major payment brands to create an industry standard for addressing them.

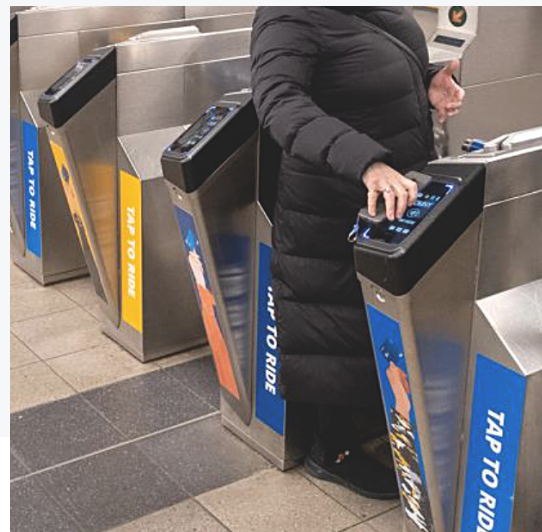
The old way:

Waiting in line at a kiosk to buy or load a transit card, or trying to download yet another mobile app while the train pulls into the station.



The new way:

Walking straight to the turnstile and tapping the payment card or app you already use every day, whether in your hometown or visiting a new city.



Tap to pay technology: a game changer for transit

In the early days of public transit, passengers could pay their fare with the coins in their pockets if they had exact change. For riders, it was a simple transaction, but for transit systems it wasn't keeping up with changing times. This ultimately paved the way for transit-specific cards, which allow systems to accommodate different kinds of fare classes and riders—and eliminate the need to collect physical currency from buses and turnstiles.

Contactless payments by the numbers

88%

of riders expect their local transit system to offer a contactless payment¹

1.2^B

tap to pay transactions have been made since Chase launched contactless cards²



Today, virtually every transit authority in North America requires its own card or mobile app. While regular users learn how to navigate the ins and outs of their hometown systems, the nuances of fare collection can be a significant barrier for less-frequent users, business travelers and tourists. For many, the uncertainties around fare collection are what lead them to opt for the familiarity of a taxi or ride-sharing service.

Fortunately, payment technology has come a long way in the last several years, and at a time when consumers are embracing new ways of transacting, namely via contactless payments.


Contactless-ready cards use near field communications (NFC) to connect to a point-of-sale device with a single tap. Typically through NFC, the card encodes information and exchanges a token with the payment device, where it is instantaneously decoded and the payment is made.

While safety concerns related to the global pandemic spurred rapid adoption of contactless payments, the majority of consumers say they don't plan to go back to their old way of paying, and understandably: Contactless payments reduce the transaction process by approximately three to five seconds, and for debit cards require no personal code.

For transit, contactless payments are potentially transformative. Instead of relying on kiosks and mobile apps to buy and reload rides, passengers can use the payment cards already in their wallets.

Regular commuters benefit from fewer lines and faster access—as well as better insight and fares based on their actual usage. Less-frequent riders and out-of-town travelers can opt for public transit without the stress of navigating unfamiliar fare rules or loading transit cards with more funds than they need.

All told, more seamless payment options add up to improved customer experiences, less crowding in stations, and potentially increased ridership. There's also the potential for cost savings. While the economics of every transit system are unique, an analysis by McKinsey & Company found that most public transit operators spend between 10% and 15% of their revenue collecting fees from passengers.³



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New York’s Metropolitan Transportation Authority (MTA)

How J.P. Morgan worked with the largest public transit agency in North America

MTA outlined an ambitious plan to integrate contactless payments. The largest public transit system in North America, MTA saw the potential for contactless payments to improve the overall experience for regular riders, reduce friction for tourists and infrequent riders, and improve operational efficiency in the process.

Still, change is never easy—particularly for a system that serves millions of passengers everyday. To help make the transition, MTA worked with J.P. Morgan and other industry leaders. In addition to creating the first ever specification for a transit transaction model with the world’s largest payment processing brands, J.P. Morgan collaborated with our in-house issuer, Chase, in a major card re-issuance focused on getting contactless cards into the hands of our Chase card customers in the New York region. Other major card issuers followed suit and re-issued contactless-enabled cards.

Meanwhile, we partnered with MTA to educate the public and raise awareness of the convenience and safety of getting on board with contactless payments. The rollout for the payment infrastructure began at a limited number of stations in May 2019 and was completed in December 2020. New features and functions will continue to be rolled out through the first half of 2023 that will continue to improve the overall ride experience. Based on rider adoption so far, contactless payments are gaining a steady following and tap to pay on MTA has increased more than 225% since the start of 2021.⁴

Addressing the nuances of transit **with payment technology**

With consumers embracing contactless payments, it's an opportune time for transit authorities to give passengers a universal "open loop" payment option. However, it's also important to recognize that transit payments are far more complex than a typical consumer transaction.

Embedded in every transit "tap" is the need for speed—there's no time to authorize payment before a go/no go customer prompt is required to maintain safe throughput for example. Transit payments also require managing ridership accounts, providing customer service, and minimizing fraud while avoiding false declines.

Taking this further, we worked with our partners, both internally and externally, to create solutions and standards that make sense for a wide range of systems, modes of transit and passenger profiles.

What makes transit payments unique?

- Open loop acceptance
- Deferred authorization
- First ride risk



- Transaction aggregation
- Application transaction counter (ATC)
- Unique considerations for customer service

Deferred Authorization

A key distinction between contactless technology used for retail and what is used for transit is payment authorization. In transit, there is no time to authorize every transaction, even with the improved speed of contactless payments. As a solution J.P. Morgan and our partners use deferred authorization—meaning that the authorization isn't completed at the exact time of the transaction.

This could potentially pose a unique type of risk known as the First Ride Risk which requires extra due diligence for transit providers.

Transaction aggregation and frequency

Along with our industry partners, we've also addressed the need for Transaction Aggregation, which allows for the settlement of several transactions instead of charging every single ride. Merchants typically incur fees for every transaction. In the open loop transit model, where every ride is its own, low value transaction, aggregation of transactions is critical to help minimize costs for the transit authority. As an example, if transaction aggregation were not in place, the numerous, low dollar transactions could end up costing more in transaction processing fees than a onetime, larger advance fare purchase.

Similarly, transit requires a different approach to frequency. A typical consumer or business transaction flags multiple taps to avoid erroneously overcharging the customer. In transit, cardholders or mobile app users will want to use their cards for family members, friends, or colleagues. As a solution, J.P. Morgan and our partners incorporate Application Transaction Counter (ATC) technology to allow multiple transactions on the same card for the same dollar amount at the point of sale. This can help prevent legitimate transactions from being flagged as fraudulent.

Customer service considerations

To truly evolve, the entire customer journey, including customer service had to be considered. In the past, passengers could contact customer service and simply provide their transit stored value card number. With the move to contactless, servicing customers changed slightly. J.P. Morgan has tools in place to help manage back office functions and help service customers due to the unique parameters of the open loop network.

“Transit payments have evolved considerably over the last several decades—and will continue to keep pace with changes in technology and customer behavior. No matter where the future of payments goes next, transit systems can trust J.P. Morgan to get them where they need to be.”

Matt Leman
J.P. Morgan Merchant Services



Working with transit at every point

Payments are so much more than a simple transaction. Across industries, payments are not just the lifeblood of business, they represent a key point of contact with customers. Seamless payments translate to improved customer experiences and retention.

Recognizing this, J.P. Morgan offers our transit clients far more than best-in-class technology. We not only leverage specific expertise within J.P. Morgan to cover nearly every part of the transaction, we also liaison with third parties to address specific needs based on location, mode of transit and fare structures.

[Learn more](#) about J.P. Morgan's e-commerce expertise and solutions including the ways we can help you optimize your digital wallet strategy.

LEARN MORE

While each transit system is unique, J.P. Morgan continues to build on the success of other major upgrades to give transit clients the support they need to implement new systems and educate riders to increase their comfort levels and improve adoption. We understand that at the same time transit is complex, the nuances of working in public-private settings requires additional care and expertise. Our goal isn't merely to provide a cost effective solution, we really want to build a holistic solution that improves the rider experience and ultimately increase ridership.





¹ Visa “Future of Urban Mobility” survey, June 2021

² Chase Data, June 2021

³ [McKinsey Insights](#)

⁴ Metropolitan Transportation Authority Data, July 2021

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