

EMV transit cards: unlocking the future of public transport

EMV is the future of transit cards. By combining the advantages of traditional transit cards (closed-loop system) with bank cards (EMV open-loop system), EMV transit cards make life easier for both user and transport operator.

PAYMENT

POSTED ON 11.29.22

Today's public transport landscape

With EMV open-loop payment, the commuter only has to tap their contactless EMV bank card to pay for any transport ride. This payment method has benefited from the development of mobile ticketing and the acceptance of contactless technology. More than 100 cities already accept it and around 150 cities are looking to switch to open-loop solutions.

However, conventional **closed-loop transit cards are not set to disappear just yet**. Indeed, they are essential in many ways. First, for managing customer subscriptions. With EMV open-loop Payment, it is not possible to identify the user, only their bank card. It allows the user to pay for single or daily tickets, but not to benefit from their subscription. The closed-loop card remains essential for providing transport network users with the offering that best suits their needs. Moreover, the transport card remains the network emblem: a significant component of the company's overall image.

Only one product allows to combine the advantages of both systems – i.e., EMV closed-loop and open-loop systems – namely, EMV transit cards.

What is an EMV transit card?

EMV transit cards are contactless, access control cards **powered by White Label Alliance technology** to ensure a best-in-class customer experience that combines convenience, reliability and top-notch security.

For transport operators, implementing the EMV White Label system has the advantage of streamlining their infrastructure and **using a single technology** instead of at least two: one for open-loop (EMV bank cards) and another for closed-loop systems (MIFARE®, Calypso® or Cipurse™ transit cards). This synergy generates savings in support services as well as in infrastructure. Moreover, it makes transport operators the owners of their payment system.

EMV transit card infrastructure also **supports Account-Based Ticketing (ABT)**, a fare-collection system where proof of entitlement to travel is held in the form of a token in a back office. With Account-Based Ticketing, the **ticketing is no longer "card-centric"**. This means that EMV transit cards provide a secure identification token for the tickets on the back end, as tickets purchased by customers are stored in their accounts in the back office. Passenger identification and authentication are guaranteed by embedded EMV security. Moreover, EMV technology, already widely deployed in **digital payment systems**, complies with all form factors: cards, wearables, smartphone, etc.

Benefits for both operators and users

As explained previously, by **replacing their legacy infrastructure**, public transport operators reduce maintenance costs and save time and resources. Moreover, EMV transit cards provide them with the flexibility of open standard technology. **Open standard agility** enables prompt go-to-market once a contributor has come up with a new development and can easily lead to multi-sourcing, thus mitigating supply problems. Last but not least, with the EMV transit card, transport operators can leverage all the benefits of EMV technology while giving their brand maximum customer exposure. Just like their legacy closed-loop card, the EMV transit card enables operators to foster user loyalty with a physical or digital card that reflects their colors and values, and provides them with the best fares depending on their commuting needs.

For users, as noted above, EMV infrastructure enables them to use their everyday payment card for public transport in places they are just passing through. For regular users, EMV transit cards provide a smooth customer experience by supporting **mobile ticketing services**, including via Apple Pay (which is not possible with conventional closed-loop transit cards). Digitalization makes it easy to generate cards in digital form on smartphones, which may be used if physical cards are lost or forgotten.

EMV transit cards in Stockholm transport network

Storstockholms Lokaltrafik (SL) decided to switch to EMV technology, becoming the first ever public transport operator to adopt a card based on the EMV White Label standard.

After implementing EMV Open Loop Payment on their network, SL decided to leverage this infrastructure upgrade for all of their travel cards. Hence the choice of the EMV White Label solution for their closed-loop transit cards was the obvious next step in fully leveraging their investment.

SL was not burdened by any additional infrastructure investment as they already supported EMV Open Loop payment with JCB kernels, underpinning an Account-Based Ticketing infrastructure. The ability to provide EMV transit cards in OEM wallets became a high-value feature for Swedish commuters. SL plans to remove legacy infrastructure in the future to allow their customers to fully embrace the EMV transit card.

Stockholm transport network has established EMV White Label as the new dominant standard in the Nordic public transit sector, paving the way for other transport operators to follow.

Mobility as a Service (MaaS)

By facilitating digitalization and developing interoperability, EMV transit cards are helping to drive the development of MaaS (Mobility as a Service), i.e., combining all interactions with different transport operators on the same mobile app. Indeed, the system can simplify multimodal digital solutions when commuting from A to B, shaping a seamless transportation future and making life easier for consumers and transport operators alike.

Sources:
Mobility Payments, Special Report: Interest Grows in 'White-Label EMV' for Closed-Loop Transit Cards – Mobility Payments, October 2021
ABI Research, Contactless Ticketing, March 2022
