

Smart Ticketing and Payment future-oriented fare management solutions

Our systems such as the Validator MV3000 or ABT3000 support various options in the direction of a future-oriented fare management solution.

Previous developments

In the last twenty years, automated fare collection (AFC) systems have revolutionized the transport ticketing industry globally. From the first national deployments AFC systems have made the business of managing tickets and fares faster, cheaper, simpler and more resistant to fraud, both for the customers using the services and the transit operators delivering them.

There are national developments such as the VDV Kernapplikation in Germany through to proprietary systems. We have been supporting all of this with our systems for a long time, regardless of whether smart card or barcode tickets are used. Our validators are used for checking tickets (entry control) or for selling and billing electronic tickets. The keywords are single tickets, multi-ride or subscriptions.

Current status

One trend is the relocation of data and applications to the cloud. We have a lot of experience here; we have been practicing this for a long time. Added to this is the widespread acceptance of mobile apps and contactless payment, which has been considerably simplified in recent years - especially from the passenger perspective. Increasingly, consumers are demanding choice and flexibility over how they interact with - and pay for - the services they use. In the public transport ticketing world this means growing demand for faster, more efficient, seamless and interoperable services.

Contactless payment (EMVco)

As a first step our certified validators can be expanded for contactless payment with usual debit or credit cards. The ticket purchase can be initiated by personnel, for example via a ticket printer on the bus; in this case the passenger can receive a paper ticket. The second option is to initiate the ticket purchase on the validator itself via a touchscreen; then the ticket is managed virtually in the back office.

ABT account-based ticketing

The virtual ticket is the first step towards an ABT system. If several tickets are paid for with a contactless debit or credit card within a certain period of time - for example, monthly - intelligent price models can be used. This also applies to any usage or distance-based price calculation, including CheckIn CheckOut. The calculation and billing takes place exclusively in the back office.

Closed loop or open loop or both

For the system as a whole, it is irrelevant whether the transport company's own media or payment media from the banking industry are used. The validators in the vehicles or at train stations on the one hand and the back office on the other hand can process both procedures in parallel. One possibility is closed loop for regular customers and open loop for occasional users or tourists.

Costs, risk and fraud

A combination of the different systems reduces this cost by avoiding expensive infrastructures such as vending machines. And an intelligent, adjustable system architecture offers maximum security against payment defaults or fraud.

Fast, simple and flexible user experience

With Closed Loop systems Travelers no longer need to concern themselves with 'topping up' their cards, or having sufficient funds preloaded onto their card to complete their journey. Instead, their ABT account can be linked to their bank. Additionally, users can utilize their preferred authenticating media as they wish with account-based systems - whether that's a smartcard, a mobile device or a wearable. With open loop systems, many of these processes are transferred to the banking industry, which significantly reduces the operational costs of the transport companies.

Will app-based systems on smartphones replace these current developments? As experience shows, this will certainly not be the case. Smartphones can only be an addition.