

Telia Smart Public Transport

Ticket Sales & Validation

Smart account-based solution

Smart and efficient public transport solutions that improve the travel experience by simplifying ticketing for passengers and that work seamlessly for public transport operators and authorities.

A seamless and modern ticketing solution

Telia's ticketing solution offers modern ways of purchasing tickets: *Account-based ticketing* (ABT) offers travelers the most comfortable ticket purchasing method, with all relevant information linked to their account in the back-office. *Mobile applications* enable the mobile phone for purchasing and validating. Additionally, our ticketing solutions support *contactless bank card* (cEMV) payments directly in validators, ensuring a seamless and efficient experience.

Account-based ticketing (ABT)

Account-based offers the most comfortable ticket purchasing method to passengers with all the relevant information linked to their account in the back-office in form of a digital account.

Passengers can use various light media (NFC cards with tokens only or QR codes) to unlock the account for use in a vehicle. This approach gives passengers many benefits, including the possibility to pay for their trips in a modern and comfortable way. For operators, such a system means lower setup and operational costs, compared to card-based ticketing solutions where travel cards need constant reprogramming.

Flexibility, usability and reliability

Our ABT solutions support closed-loop travel cards, contactless bank card (cEMV) payments, mobile ticketing and QR codes, with maximum flexibility in fare calculations. We always focus on usability and reliability, so that the passenger experience is optimal.

Key benefits

- Account-based ticketing (ABT)
- Flexible ticketing options and fare policies
- Simple, convenient and easy to use
- Supports contactless bank card (EMV) payments directly in the ticket validator

We provide ABT solutions with both:

- Closed-loop travel cards and QR-codes
- Open-loop EMV contactless bank cards

Our ABT solutions also feature:

- Mobile ticketing
- API integrations for Mobility as a Service (MaaS)

Working both on and offline

Account-Based Ticketing can operate in both an online and offline world. Appropriate revenue protection measures are used for risk management. Data is regularly synchronized, depending on the network capabilities and technical configuration of the system, enabling offline operations and continuous service even during network outages.

Benefits account-based ticketing:

- Lower costs for operators with no extensive infrastructure
- Modern and simplified ways to pay
- Best price fare policy for the passengers

Mobile ticketing

Mobile ticketing for public transport enables the usage of mobile phones for ticket purchase and validation. The solution also allow instant top-ups and ticket purchases.

There is a variety of API-s available to MaaS operators for integrating ticket information into their applications and enabling multi-solution services. These APIs allow the provision of combined tickets as well, such as for concerts or sports events, bundled together with public transport travel rights.

Benefits mobile ticketing

- No queueing for ticket purchase
- Convenient to use
- Added value with ticket bundling and multi-solution service

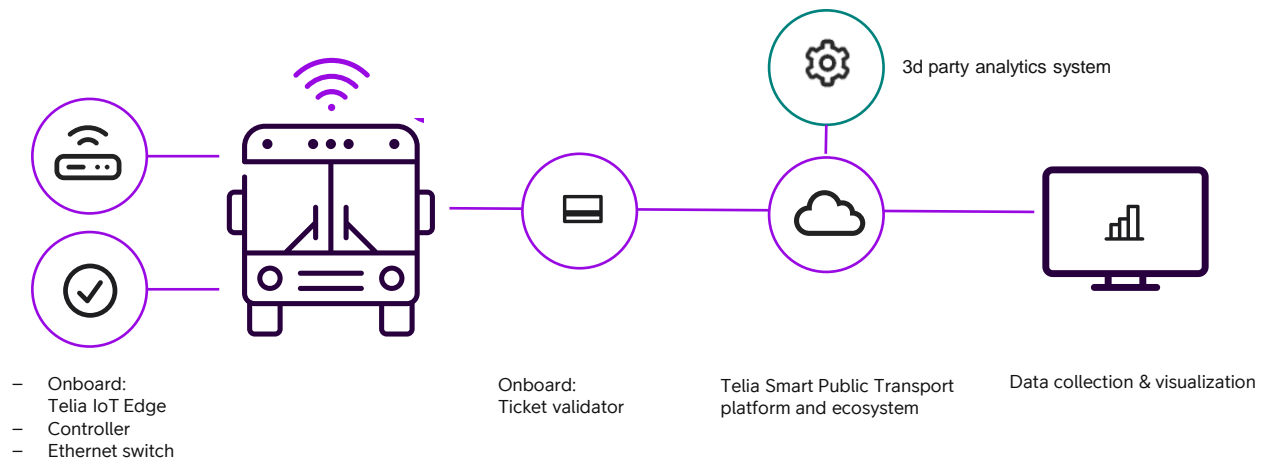
Contactless payment

Our ticketing solutions support contactless bank card (cEMV) payments directly in validators. Making it easy for anyone to travel by public transport. It is developed specifically for public transport purposes, in full compliance with Visa and Mastercard guidelines for Mass Transit. We can cover the entire EMV payment chain, starting from the tap at a validator until a settlement at the authority's or operator's bank account.

Our EMV solution is PCI-DSS certified, granting that transactions and card data are secure.

Benefits contactless payment

- Travelers can simply tap and go onboard using QR Code, NFC, Google Pay and Apply Pay
- Pay-As-You-Go and best price fare policy
- Interoperability with accepted open-loop EMV bank cards used globally



End-to-end security, reliability & support

Consolidate your IT systems to one open platform

Telium IoT Edge is a powerful onboard edge processor and communication gateway. It is retrofittable and connects onboard systems and devices to the cloud. This makes it possible to download vehicle data, control, survey, update and configure IT-systems in the vehicle remotely. Telium IoT Edge combines robust, maintenance-free design with reliable and open software and application.

With an open platform, APIs and standards; you can easily integrate your own services – or add third party applications. So you can make the most of whatever the future brings.

Technical components:

Telium Ticket Sales & Validation

Onboard unit Telium IoT Edge (MIIPS)

Ticket controller

Ethernet switch

Ticket validator

Want to learn more? Let's talk!

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