ID-/Account-based Ticketing

New options of providing higher service quality

init

The Future of Mobility

Transportation companies can achieve their primary goal of offering an attractive public transportation system only if they stay competitive in the quality of their service offerings. Today's passengers require easy access to convenient ticketing choices. This is especially true for occasional passengers of public transport who may not understand the fare structure. Innovative ticketing options from INIT offer the solutions both you and your passengers need. The results? Better access to your services and greater potential for increased ridership.

Ticketing options

Open Payments (EMV)

Apple Pay, Google Pay, Samsung Pay

Virtual Smart Cards in mobile wallets

Multiple Sales Channels

More flexibility.
Better service.

The requirements are clear: Even when passengers are unfamiliar with the fare structure of the transportation company or association, they want to buy the right ticket simply and quickly, at the lowest possible price. Innovative e-ticketing systems offer the right solution for breaking down barriers of access to public transportation. They support intermodal travel chains, deliver best price options and facilitate a customer-oriented mix of distribution channels.

Lately, there has been a significant boost to innovation in the field of e-ticketing solutions. Standards such as VDV-KA, Calypso and ITSO have been established, and are now complemented by ID-/account-based systems and Open Payment methods. The resulting improvements mean that transportation companies are increasing their investments in e-ticketing solutions.

Open Payment

With Open Payment, the payment methods the passenger already uses – such as contactless credit cards or NFC-enabled smartphones with credit card emulation – can be used to purchase tickets. This trend can be observed, in particular, in areas where paying with credit cards is already extremely popular. The advantages are clear: passengers can use public transportation without additional hurdles. They do not have to install an app first or buy a smart card. They can simply use a medium that they already possess, and they don't have to worry about potentially unused credit balances. The transportation company, on the other hand, is spared the administration costs for its own media and the complex management of remaining credit balances. Open Payment options can be very easily integrated into ID-based ticketing systems due to the similar technical approach used.
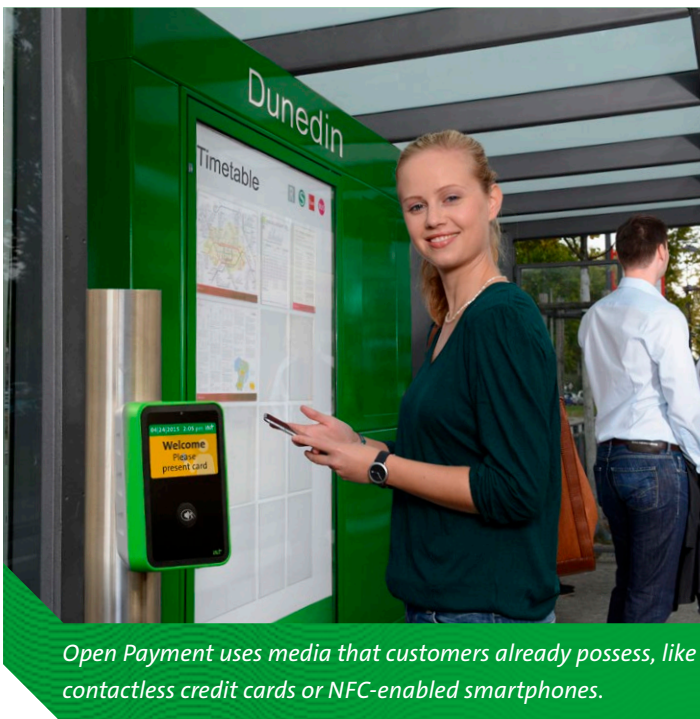
Open Payment uses media that customers already possess, like contactless credit cards or NFC-enabled smartphones.

Intermodal payment network

Modern e-ticketing systems support another mega-trend – the implementation of intermodal travel chains. The interlinking of transportation services and sales systems of various modes of transport is increasing in significance because it offers passengers a vital increase in convenience. The only way for customers to avoid the hassle of a completely different payment method for each step of their journey is through an intermodal solution. If they for example, start their journey with a train ride, then transfer to a bus, and complete the last few kilometers with a rental bike. Ideally, the entire travel chain should be supported by a smart card and billing systems that cooperate with each other.

ID-/Account-based Ticketing

In ID-/account-based ticketing systems, all the data and fare logic are exclusively stored in the back-office system. Each customer card has a unique account linked to it, in which the current balance and associated products are stored. The cards themselves are only used for clear identification of the user account. Therefore, the technology is called ID-based.

To buy tickets or add credit to the account, the field device, such as a passenger terminal, sends a query to the central back-office system. This does a check of the query in real time, performs the necessary transaction, and sends a response back to the field device, which only reads the card and is not aware of the transportation company's fare system.

As the world's first supplier, INIT facilitated the integration of a regional account-based virtual transport smart card. For this purpose, the closed-loop card is stored securely in the smartphone's wallet app.

ID-/account-based ticketing systems rely on fast, reliable communication between the field devices and the central back-office system, because the passenger terminals must receive the response to a query in real time. Fast mobile
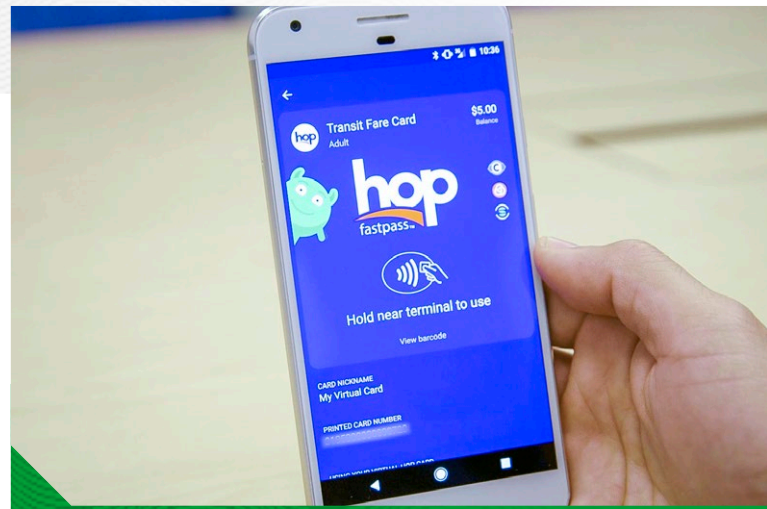
The virtual ticketing smart card in the smartphone offers passengers all best price options.

networks now make this possible. Since full coverage at all times cannot be guaranteed, however, rapid and reliable processing has to be ensured even without a communication link. For this purpose, the field devices are provided with offline evaluation rules, such as hot lists and white lists. This enables the ticket terminal to carry out a risk assessment locally and validate the requested trans-action offline. An ID-/account-based system from INIT guarantees that a checking procedure will not take any longer than 500 ms, so that the passenger can get through the process with virtually no delay.
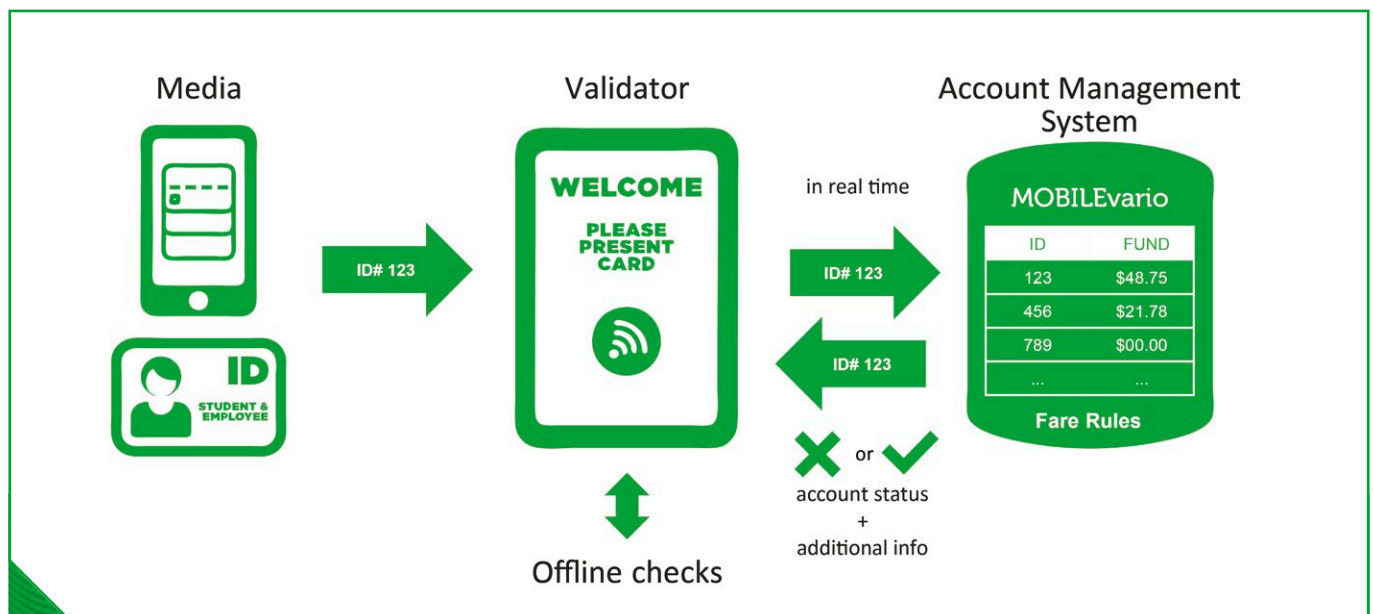
In ID-based ticketing systems, the intelligence is stored in the back-office system.
All transactions are carried out there in real time.

Powerful back-office system: MOBILEvario

The back-office system plays a crucial role in all account-based systems, especially since all transactions from the field devices are checked and processed in real time. Therefore, all fares, products, and checking requirements are defined in the MOBILEvario rate management module. The user is largely free to choose the design of new products or the modification of existing products and can easily define complex fare products through INIT's unique rule-based approach. Once the new fares are defined, the changes are put into production. From that moment on, the changes are active and are incorporated into every new accounting transaction. At the same time, MOBILEvario constantly updates the offline information on the field devices. In turn, sales data are immediately available in MOBILEvario. Hence, they can be used in revenue management, as well as in the statistics module, and can be transferred for accounting.

The back-office system can also be operated as a multi-client system to minimize investment and operational costs. The participating companies maintain their corporate independence as MOBILEvario ensures that each client only sees the data that is released for shared use. At the same time, the participating companies benefit from the lower costs of a shared infrastructure.

The open architecture approach facilitates the integration of various distribution channels.

Open system architecture = multiple distribution channels

MOBILEvario is well-prepared for what the future holds. In addition to the extraordinary range of functions and its multi-client architecture, it offers a high degree of investment security with its open architecture approach.

The individual components of the ticketing system are connected to MOBILEvario via open interfaces. This way, existing third-party systems can be easily integrated and additional specialized solutions can be connected to the back-office system with no complications. With this open system architecture and the concentration of intelligence in the back-office system, multiple distribution channels can be integrated at low cost, and individual modules can be updated or expanded at any time. This allows for the range of passenger services to be easily expanded at any time at a reasonable budget. The interfaces are integrated both into MOBILEvario's security concept and its rights and role management, so that transportation companies can precisely establish secure access for all system participants.

This also applies to institutional customers, who can now manage their accounts much more conveniently through websites that are developed specifically for them. They can now directly determine which employee or student gets which product and how the institution promotes participation in public transport. This enables the institution to have a much better overview of their expenditures, and allows the transportation company to save on administration costs. The extremely simple processes offer significant potential for attracting additional institutions and companies as key customers.

In addition to common sales devices, passengers should also have online applications available on their smartphone or PC to allow them to conveniently manage their user account, top up their credit balance, or purchase a time pass. As credit balances are added to in real time, they can be used immediately in ID-based ticketing systems. There is no latency between activation/addition and the actual use of the credit balance. This is a very significant advantage for riders who would want to use their credit balance immediately.

Travel made extremely easy. The system automatically calculates the best price.
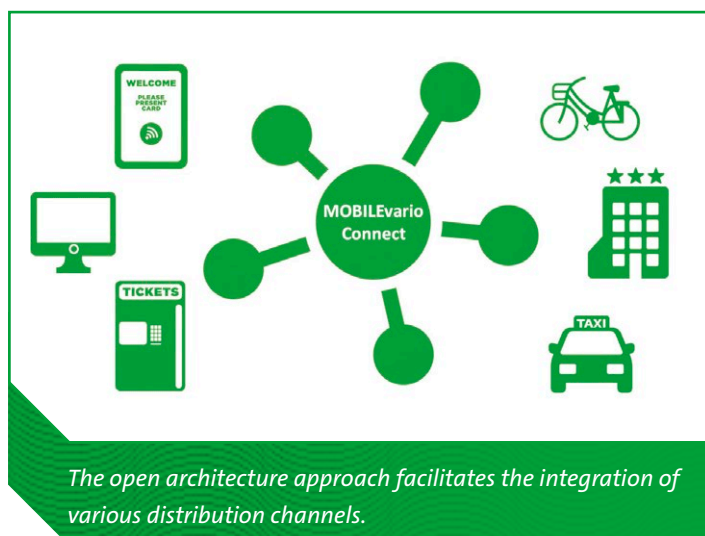
Best price calculation

In terms of service orientation, the transportation company can go a step further and offer its customers the best price calculation. This ensures that passengers always pay the best possible price for transport. They simply validate their card at each entry. If they should reach a determined cap, the system automatically ensures that charges will be made only up to this limit and no more – a process known as fare capping. The caps can apply both for daily and monthly tickets. MOBILEvario even allows users to set additional, freely definable time periods. Consequently, some transportation companies don't continue the sale of stripe cards, daily, or monthly passes. This provides exceptional convenience because the passengers no longer have to think about which product is best for them. The ticketing system automatically calculates the best price. Incidentally, this is also more socially equitable for lower-income individuals who have been reluctant in the past to purchase a monthly ticket, even though it would be a more economical option.

Time is money

ID-/account-based systems offer participating transportation companies significant advantages. Fare changes become effective immediately in all distribution channels, and on all field devices. This eliminates time-consuming update procedures, particularly within interoperable and intermodal systems, in which changes need to be carried out and coordinated via the systems of multiple participants and technology partners. An ID/account-based system provides for considerable decreases in expenditures while allowing the transportation company to offer flexibility to its customers.

Since all transactions become available to the transportation company at any time, and in real time, all partners can receive updated and correct information about their revenues continuously. In addition, a transportation company can identify and react to changes immediately. The security of the system is increased through so-called fraud detection procedures – the same analyses credit card

Good for INIT customers

Account-based ticketing systems from INIT provide a solid basis for an open mobility platform.

institutions apply. These tests determine if a card/ID is being used in a way that suggests an attempt to commit fraud. Transportation companies can also notice a sudden increase in use immediately, contact the customer directly, and if necessary, react appropriately to these changes in usage behavior.

Bottom line

ID-/account-based systems offer many advantages to both passengers and transportation companies. They offer transportation companies the opportunity to give their passengers easy access to the right ticket by using multiple distribution channels and innovative methods, while keeping their own expenditures under control.

If all the possibilities for modern ID-based ticketing systems are used, where applicable, in combination with Open Payment methods, a uniquely accessible ticketing system evolves that enables every potential customer to easily purchase the right ticket.

INIT Ticketing Portfolio

MOBILEvario for fare management and clearing

Range of features:
- Account management
- Fare management with business rule editor
- Online validation
- Best price calculation
- Hotlist management
- Revenue management
- Financial settlement
- Export to financial accounting
- Maintenance of master data

Technical information:
- Supports all common ticketing standards, including VDV-KA, ITSO, Calypso etc.
- Supports Open Payment methods, such as EMV
- Supports intermodal payment networks
- Open architecture approach
- Standardized interfaces for simple interlinking of additional distribution channels
- Multi-client capability
- Extensive rights and security management
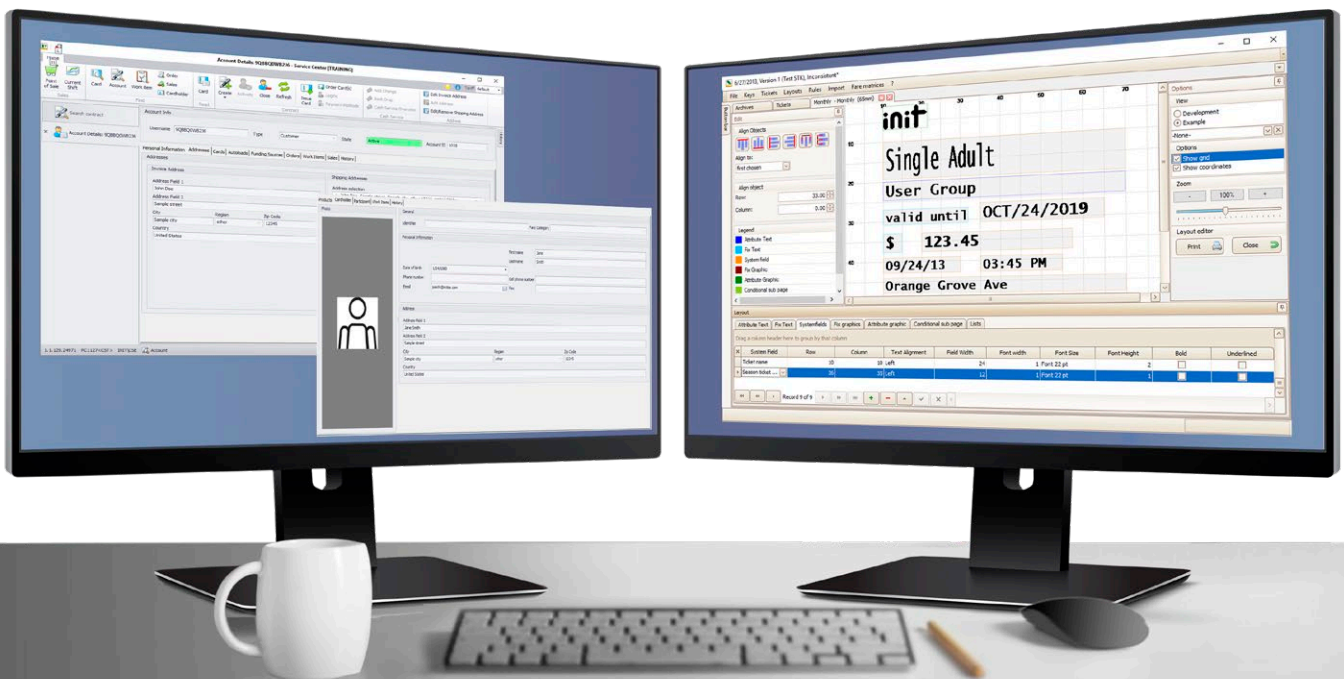
On-board the vehicle / at the stop

PROXmobile3

- Passenger terminal for vehicles and stops
- Hybrid card reader
- Compact housing
- Backup storage of sales data

On-board

EVENDpc3

- PC-based ticket printer and on-board computer
- Full on-board computer functionality
- Paper tickets, barcode tickets, hybrid card reader
- Large touchscreen with compact dimensions
- Highest computing performance
- Backup storage of sales data

At the stop

VENDstation

- Stationary ticket machine
- All payment methods
- Accessible for disabled persons
- Card charges
- Issuance and return of cards

Location-independent

The open architecture approach allows simple integration of various smartphones or online applications as additional distribution channels, e.g.:

- Mobile ticketing
- Administration of the customer account
- Administration of institutional customers
- Pre-sale applications
- Telephone services

If you would like to know more about ID-/Account-based Ticketing,
please contact us at sales@initse.com. We look forward to hearing from you.

More than 1,100 transport providers worldwide rely on our
integrated solutions to support them with their daily tasks

- *Planning & Dispatching*
- *Ticketing & Fare Management*
- *Operations Control & Real-Time Passenger Information*
- *Analyzing & Optimizing*

Moreover, transport companies can also master all requirements of electromobility
and set up a single sign-on mobility platform using our integrated solutions.
A robust package of operational services completes the INIT offer.

INIT is the worldwide leading supplier of integrated planning, dispatching, telematics and ticketing systems for buses and trains. For more than 40 years, INIT has been assisting transport companies in making public transport more attractive, reliable and more efficient.

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