



➤ **Automated
Fare Collection**

➤ Mastering the challenges of frictionless fare collection

Mobility is one of the key success factors for economic growth and therefore, it is increasingly becoming an issue that governments and public transportation companies need to address.

Investing in a good public transport infrastructure is only part of the equation. Operators of public transport services need to look for efficient ways to collect fares and provide simple and convenient payment options to make the service attractive to passengers. At the same time, it is paramount to keep operating cost under control and increase turnover.

Current ticketing systems, whether those are cash based or digitized, do not always cater for these requirements, making it challenging for transportation service operators to roll out frictionless solutions to their end clients. Automated Fare Collection offers greater levels of transparency, not only for ticket prices but it also significantly reduces the levels of abuse, theft and corruption as the payment for transport fares will occur through the collection facility rather than in cash.

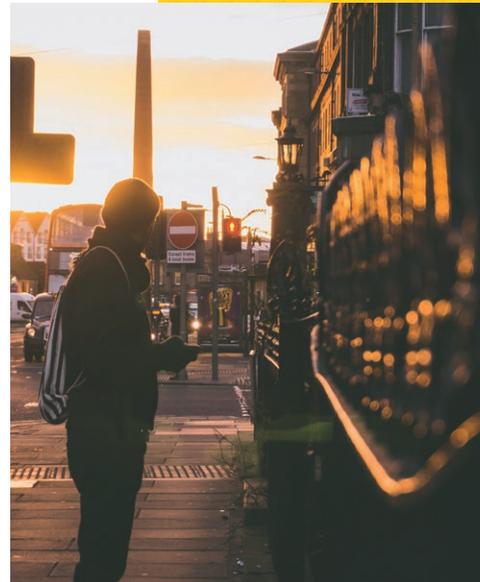


➤ Beyond convenience - creating richer customer experience

Automated fare collection creates an opportunity to build out a comprehensive and convenient user experience. Cash or paper based ticketing systems require a transportation company to incur a high operational cost due to the resources required to accept and manage cash. But even in existing cashless systems, data related to ticketing tends to be stored in a multiple places: credits are stored on the user's transportation card while information regarding the applicable fares is typically stored elsewhere.

This does not create a seamless journey for the consumer. Centralizing this information in the core system rather than on the individual front ends, will get passengers access to up to date tariff information and creates transparency on applicable fees towards customers. In addition, it allows to create a fare collection solution without any dependency on using dedicated cards or devices to access public transportation.

Moreover, the solution could also be rolled out to support paying of other types of services such as parking, bike rental, museums or any other public service, creating a stepping stone to building a complete Smart City.





BPC's Automated Fare Collection



BPC delivers a convenient account-based ticketing system, using the latest technology to implement automated fare collection for public transportation. The solution provides a seamless journey across multiple forms of transportation, even across different operators and covering different cities or regions if required. It is highly scalable to ensure it can meet the necessary performance requirements when the system becomes more widely adopted.

Efficient end-to-end user experience

BPC's automated fare collection allows customers to use different types of identifiers, including 2D barcodes displayed on smartphone screens, contactless cards

or any other device, to get access to transportation services without ever having to go to a ticket office. Passengers can use a single account for paying for their fares and this account can be topped up using different payment methods such as cards, bank transfers, mobile phone accounts or even cash. Not only does the solution provide a convenient option to pay fares, it will also ensure the customer gets the best price for the service by managing the tariffs centrally.

Building the new generation ticketing systems

For public transportation companies, it is crucial that operational efficiency is ensured and cost of implementing and operating the system is kept under control. Therefore, one of the key benefits of the account based ticketing system is the fact that it does not require the operator to issue special cards or tickets as these are not needed to store ticket information. The solution can easily be implemented in parallel with existing systems and is not tied to specific public service which opens the possibility for different transportation companies to share the cost of implementing the solution.

Simplicity and transparency at the heart of the solution

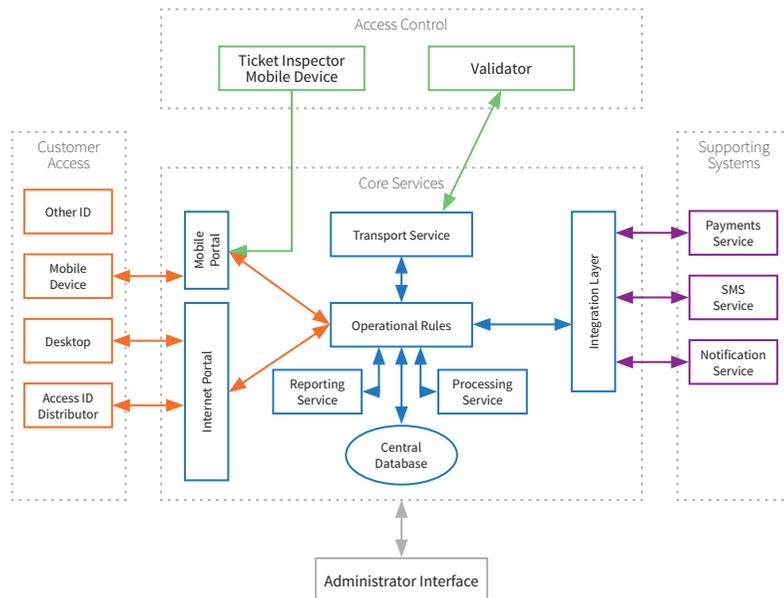
For consumers, the registration process is straight forward. Via the online or mobile portal, a customer can simply register to access the service and indicate which identifier they would like to use for this service. As soon as users are registered, they can top up their account via the payment method of their choice and are ready to use their access identifier to access transportation services. By tapping the identifier (whether that is a card or a 2D barcode on a mobile device) on the validator, the fares are calculated and automatically debited from the client account which allows the settlement with the service operator to occur. The solution automatically calculates the best price for the requested service and clients can view the history of all operations in the client portal.





Key solution components

The solution offers consumers access to the system through the internet and mobile portal and operators can manage accounts and acceptance lists through the operator portal. The solution integrates with the validators and mobile ticket inspector devices and other types of self service terminals and supports these devices through a powerful operational diagnostics capability. The various payment methods and notifications services are supported by the core of the solution.



Core Services

The core services of the platform provides centralized storage and processing of all the data that flows through the system. The internet and mobile portal are an inherent part of the solution and provide the users

of the system, both customers and operators, access to their data. The processing system is responsible for account maintenance and creating the acceptance list containing the IDs that are valid for using the services. The solution is able to generate detailed statements for end users through the reporting services. The system also manages the various acceptance devices (such as validators or mobile ticket inspector devices) and runs equipment diagnostics for these devices.

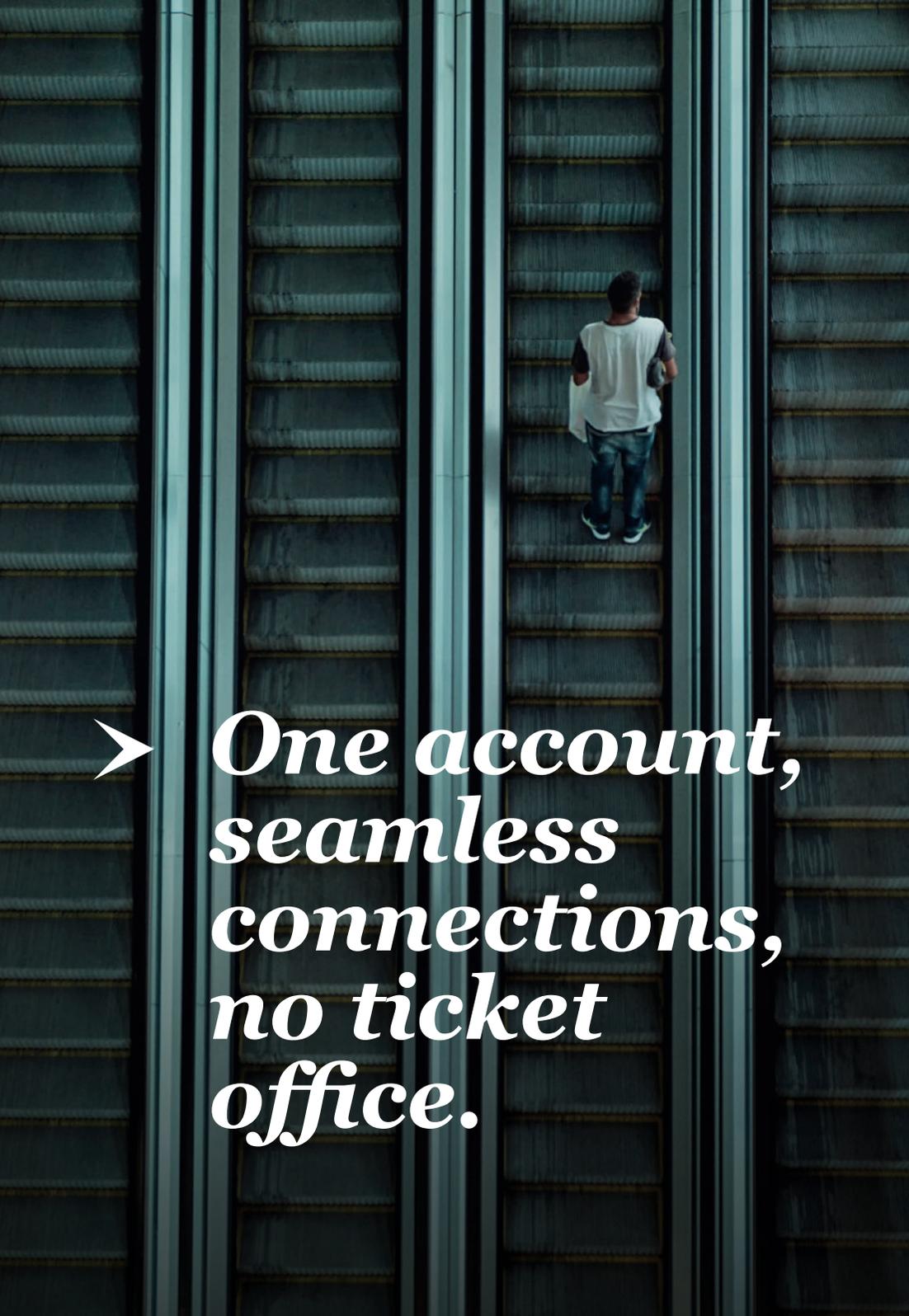
Access Control

The Access Control plays a crucial role in the overall set up as it allows clients to validate their IDs and get access to the transportation service. The automated fare solution offers the option to support different types of devices to perform this function and create the most relevant experience for consumers. Validators can be installed in transport vehicles and stations or at the entrance of buildings such as museums for example. Turnstiles, gates and information kiosks can be connected to those validators and ticket inspectors can be equipped with mobile devices to check tickets or even allow customer to pay for their fares.

User Access

Consumers can use their mobile phones to access the system and mobile phones can equally be used as an access identifier. The solution is however not limited to using mobile phones as an access identifier and can support any media that uses the ISO1443 contactless interface, such as transport cards, bank cards or ID cards. For those customers that cannot provide their own access identifier, an Access ID distribution system can be used as a point of sale for access IDs.





➤ *One account,
seamless
connections,
no ticket
office.*



Solution Benefits

Reducing implementation and operation costs

Account based ticketing does not require an organization to issue special cards or tickets as it can leverage mobile devices or existing identifiers. This also means that it offers clients the possibility to use the identifier of their choice. By eliminating the need to install ticket offices, removing the cost of cash collection and the costs associated to encoding, processing and distributing tickets, the overall cost of operating the system can be reduced significantly. Due to its cloud based nature, the solution facilitates a “build and operate” service approach to system implementation. With fully digital fare collection, ticket fraud can be reduced and effective controls can be implemented thanks to the powerful reporting capabilities of the platform. Automated Fare Collection can be implemented across multiple organizations, whether it is multiple transport companies, regions or cities, irrespective of their size. This creates a tremendous benefit for smaller organizations to join as the operational cost is shared rather than incurred by a single organization that is implementing a proprietary system.

Removing dependency on existing infrastructure

The solution does not store ticket information on a service access card and is independent from a specific infrastructure or special equipment. It can easily be implemented in parallel with existing systems in case those exist to ease the transition from the existing ticketing solution to account based fare collection. By accepting any means of payment and adopting the principal of “bring your own access ID” the system does not depend on the existing infrastructure and offers both system operators and consumers the ability to choose the most convenient options.





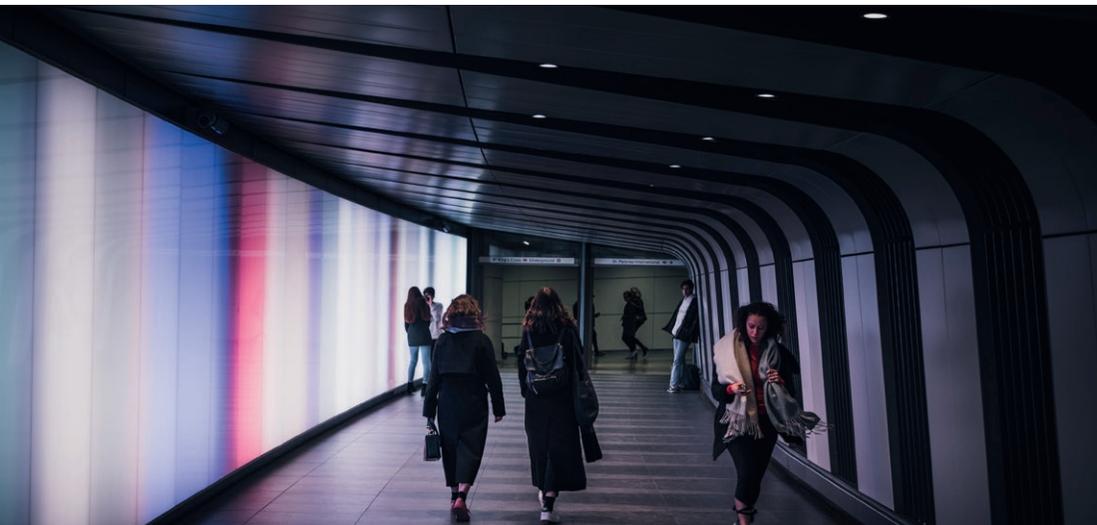
Solution benefits

Supporting flexibility for service operators

Service operators need efficient yet flexible tools to run their business. By centralizing all processing and data in the core services layer rather than rolling out pieces of information across dispersed systems, the operators can better control and operate the system on a day to day basis and data will become available 24/7 and in real time. The operator can manage tariffs and apply new rates within seconds. Field devices such as validators or mobile inspection devices or payment services can be managed from a central location, allowing public transportation companies to provide customers with secure and convenient access to their service.

Creating seamless customer experience

Customers can pay for their fares from a single account, topping up this account with a payment instrument of their choice. Passengers do not have to worry about anything except identifying themselves when starting their journey and the service will take care of everything else, including finding the best rate. Ticket tariffs and supplementary ticket products can be determined automatically and dynamically based on user profile, the current rate and tickets already issued. It is even possible for customers to link multiple identifiers to one account, for example to allow families to share a single account. At the same time, automated fare collection also creates a significant efficiency gain for passengers as they no longer need to spend time purchasing transportation tickets.



For Government/Schemes

- Reduce expenditure on infrastructure servicing
- Unified platform for access to various public services
- Decrease in cash payments and reduced fraud and abuse risk
- Transparent settlement with transport and other services
- Improved quality of client services



For Service Operators

- Makes cash redundant (eliminates cost of cash handling),
- Reduce expenditure on infrastructure support for ticket sales,
- Efficiency gain by encoding, processing and distributing tickets electronically
- Cost reduction as a result of centrally managed ticketing system
- Reduced ticket fraud or abuse thanks to eliminating cash payments
- Effective control thanks to reporting
- Low investment cost



For Clients

- Payment from single account
- Account top up with payment instrument of choice
- Seamless, rich customer experience
- Automatically getting access to best rates
- Single access to multiple transportation services



➤ Automated Fare Collection

➤ Want to find out more?

Request a free discovery workshop from BPC Banking Technologies and one of our experts will be in touch to book your 1-2-1 workshop.
bpcbt.com | info@bpcbt.com



SMARTVISTA®



Banking



Payments



eCommerce