



BGS Wallet

BGS Wallet is a modular mobile banking and fund transfer solution that allows users to manage and perform a broad range of information and fund transfer operations. Our aim is to provide stand-alone and integrated wallet products and features that cater for the widest possible spectrum of financial services, enabling institutions to enter this market segment whilst breaking down the traditional barriers to entry.



The core of BGS Wallet is its secure and flexible application host based on our proven card payment system. It is the backend engine enabling the various functionalities and channels in combination with the mobile device as the frontend. It can be utilized as a standalone card management and accounting system or just as the smart middleware to the existing backend systems within the respective environment.

BGS Wallet is a market proven, robust and scalable solution for financial institutions, telecom operators, cable networks, retailers, payment service- and utility providers. It is the perfect tool to extend traditional distribution channels and reach to attract new customers. It offers new revenue streams and generates valuable insights about the customers' usage pattern. There is a great number of use cases for the BGS Wallet, such as:

- Cashless Payments using various alternative channels
- E-Commerce transactions
- Government payments
- Peer to peer transactions
- Mobile Banking and ATM withdrawals
- E Durea for closed loop acceyetame, such as schools and universities
- Managing pre-paid accounts for public transport, fleet cards, utilty usage
- Creating loyalty schemes and coupon programs









Smart Connectivity Agent

Its innovative Smart Connectivity Agent ensures the quick and seamless utilization of the transaction protocol most appropriate to the service that is executed. This can be NFC, Bluetooth or Bluetooth Low Energy. Understanding that technological limitations have a direct effect on service and product adoption with consumers, the Smart Connectivity approach allows for the utilization of the available and therefore most suitable communication channel in order to process a transaction.



NFC has spread its way across the mobile landscape and now new technologies such as BLE, Beam, and iBeacon offer possibilities for an enhanced consumer experience that were never before available with such ease. These, coupled with the more traditional but ubiquitous QF code, make it possible for BGS Wallet to offer an interactive and sophisticated user experience for shopping, payments, and banking anywhere and on any device.

These technologies open up a huge array of business cases since they enable the transferring of just about anything whether it is payment details, a contact card, a picture, or a shopping list. The process can be as simple as taking a photograph or touching two devices together. We see these communication protocols as the essential tools for establishing new and exciting business cases for funds and information transfer such as:

- C2B payment at a store or street merchant
- P2P funds transfer between friends or family
- B2B funds transfer models between businesses such as distribution of goods



Internet fraud particularly surrounding online payment transactions has been a growing problem. The prevalent approach of entering personal payment information such as a credit card number into an insecure space, such as the internet, has been the source of risk and subsequent fraud. Anytime a consumer is asked to enter his account or card information it becomes open to fraud. Click-n-pay utilizes the sophisticated and secure features of the BGS Wallet host to offer consumers a convenient and secure way to pay on the internet.



The way that Click-n-Pay works is by using one-time Virtual Cards such that every time a consumer wants to perform an online transaction, he is provided with unique card credentials by the app that can seamlessly be entered into the fields provided on the merchant web shop checkout page.

This approach implies no changes at the merchant and acquirer side and results in the consumer entering the provided card data into the fields provided by the respective sites. It is transparent to all parties involved and is therefore an extremely easy way to enable secure online transactions using existing infrastructure.



Click-n-pay can be configured in multiple ways to further enhance and protect the respective transaction, such as defining charge limits for a particular card, or designating a card for exclusive use at a particular merchant, to give just a few examples. It is a simple yet effective way to minimize the fraud surrounding online payments, especially using international credit- and debit cards.



QR-n-pay

Mobile payments are growing in new and exciting directions, yet some of their earliest forms are still prevalent. The use of QR codes is still convenient, effective and hugely popular across a wide range of sectors. They simplify much of the technology necessary to get started. The QR code can contain payment information such as card or account details, as well as contain transaction specific information relevant to the stakeholders of the transaction (merchant, consumer financial institution, service provider).



BGS offers QR-n-pay both as a standalone payment tool as well as an enhancement to existing schemes, making a wide array of possible applications and use cases possible.

It is a simple, cost effective and an immediate way to connect merchants to modern cashless payment channels. Depending on the scale of the business even the smartphone of the merchant can be turned into a POS.

QR-n-pay in its standalone form has been conceived as a closed-loop payment ecosystem, with all trans actions and flows under constant control of the operator. This ensures independence of international payment schemes and helps to maximize the revenue stream within the organization. No physical cards need to be issued since QR-n-pay can be linked to any funding account on the backand.

QR-n-pay is a multipurpose application that offers a secure and convenient cashless payment method to merchants and customers with minimal technological requirements. It allows for various use cases. It can be used as an in-store solution, as well as for a quick check-out from web shops. It simplifies bill payment and helps to reduce erroneous transactions, due to the full encapsulation of the transaction details within the code.



Key Benefits

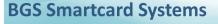
Quick start to cashless payments - QR code payment is simple to implement, easy to use and has a huge market adoption potential due to the elimination of expensive payment infrastructure such as terminals, thus breaking down the barriers to entry.

Flexible fee structure – As all transactions stay within the scheme, no participation in international payments schemes is required. The subsequent control of the respective fee structure provides the ideal tool to offer a viable mass market product.

In physical stores and web shops - The QR-n-pay client application offers all the convenience of a mobile, cashless payment experience to the customer. It is a powerful tool that ensures a quick and convenient check out in any shopping scenario, be it at the physical store, in the web shop or at home paying for bills received by mail.

Data integrity - QR-n-pay is a perfect tool to ensure data integrity for bill payments and to reduce rejected transactions due to mistakes whilst transcribing account details. The QR code can be printed on the payment form for utility payments, taxes, and fines.

Easy integration of CRM and loyalty schemes - Possibility to create flexible loyalty schemes for attracting new customers and communicating with them via push notifications, chats and geotargeting. Automation of sales and inventory management.





QR-n-pay

System Design

The central processing engine of QR-n-pay is the host. It consists of the Merchant Management System (MMS) and the Wallet Management System (WMS). The user interfaces are the Merchant Application and the Customer Application.

Merchant Management System

The Merchant Management System maintains the merchant registration records. It allows to create and delete merchant accounts, to define inventory- and price-lists and to attach product graphics. The MMS can also be used for managing merchant staff i.e. to create employee profiles and access credentials to track sessions of each employee for relevant data and KPIs. In addition MMS allows to use and administer a Customer Analytics Tool to define customer specific loyalty programs and rewards. The MMS validates and executes payment transactions and provides access to the billing systems of the service providers.

Wallet Management System

The Wallet Management System is the component of the QR-n-pay host which provides the wallet functionalities. The WMS maintains the QR-n-pay customer accounts. It enables life cycle management of mobile wallets as well as user profile management. It keeps balances of the customer's wallets and provides the authorization of payment requests coming from merchants including risk management features.

Merchant Application

The Merchant Application is the front-end solution at the merchant's side to facilitate payments in QR-n-pay mode. The Merchant Application can be operated on tablets, kiosks or mobile phones, and can be configured as a full-size Merchant POS inventory system giving the merchant real-time records of his inventory and sales statistics. It generates the QR code or alternatively an NFC tag or BT marker which can be processed by the Customer Application as a transaction trigger. It contains all necessary transaction data, such as payment amount and merchant account number.

Customer Application

The Customer Application allows selecting funding accounts, managing security profiles and completing payment transactions by scanning the displayed QR code, NFC tag or BT marker and confirming the transaction.

Issuer Benefits

Closed-loop scheme – This offers a proprietary business case approach placing the focus on a local and thus more flexible implementation. Such payment scheme would allow for the inclusion of a wide spectrum of the local economy to optimize and increase the usage of cashless systems.



It most critically allows for the issuer and the respective stakeholders to define the underlying rules to ultimately offer a more comprehensive, inclusive and commer-cially viable product or service for the respective market.

Stakeholder specific adaptations of this scheme could be introduced for retailers and chains not only offering a fast and cost effective payment method that would typically be executed as an account-to-account transaction. It could also be embedded within the retailer's application allowing for the inclusion of additional data processing to increase the overall value proposition by expanding the service from a payment only offering to a more comprehensive CRM offering.

Alternatively the issuer can decide to either run an open-loop scheme, or even a combination of both, closed- and open-loop scheme.

Open-loop scheme – QR-n-pay can be used as a card-not-present transaction. The custome application triggers a payment to a third party by

- 1) scanning a respective QR-code with the transaction details and choose to pay for i using a linked credit card for example and thus executing a card-not-present transaction, which implies accepting the underlying commercial rules.
- 2) generating a QR-code with the underlying card details that can be transmitted to th acquirer/issuer via the merchant.



Mobile Banking

Account Details

See your accounts in a flash anytime, anywhere. The Mobile Banking module allows to link several different accounts to your application. It lets you conveniently select the account you want to see and displays the current balance of this account. Scroll through your latest transactions, or search for a particular transaction amount, or date. With the same convenience you can also get an instant overview on your credit card transactions, your mobile payments and your savings account.

Bill Payment

BGS Wallet offers a range of tools to facilitate bill payment. It helps to avoid erroneous transactions, by scanning a bill, or a barcode and letting the app fill the fields correctly, with built in checking algorithms. Once a payment is completed, the transaction data can be saved and easily used to schedule standing orders or ongoing payments. BGS Wallet sends you an alert, when payments are received or your scheduled transactions require your authorization.

Transfer Funds

You want to send money to your family or friends. Set up your list of favorites and send money in an instant. Let the app remind you of important dates, such as birthdays or other anniversaries. Never forget to send a small gift anymore.



Personalization

The Mobile Banking module offers a multitude of options to personalize the application to make best use of the many features. Login with the touch of a finger and get quick access to your personal data. Security is guaranteed by using finger print authentication on both, Android and iOS phones. Personalize the app with a profile image and add a list of friends and family that you regularly send money to.

Deposit checks

Skip the way to your bank and deposit checks directly into your selected checking or savings account using the Mobile Banking services of BGS Wallet. Your deposit is secure and convenient. Simply take photos of the front and back of your check and submit. A confirmation is sent to your device for each successful deposit. A deposit confirmation is also sent to your primary email address and your online banking secure mailbox.

