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Mobile Payments Solution



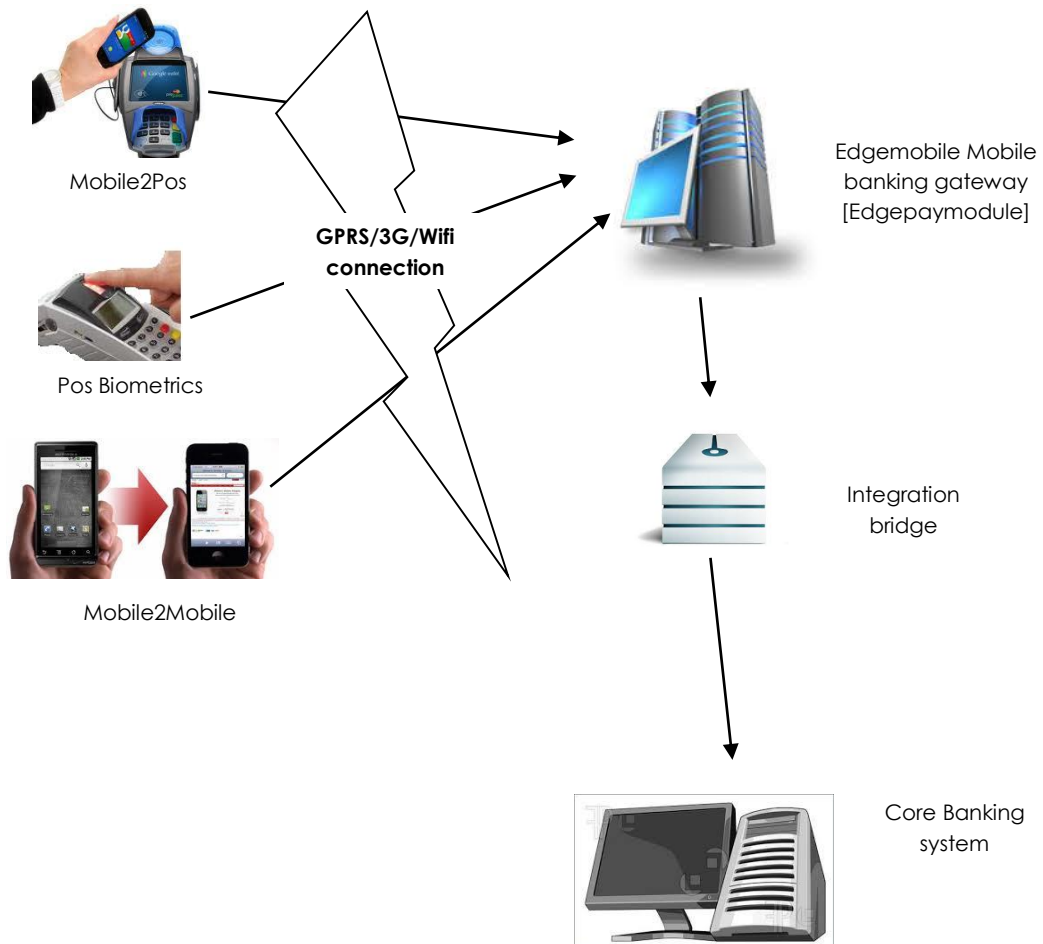
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Introduction

This document provides details on how the edgepay mobile payment product works. Edgepay enables customers to make payments for goods and services from a point of sale (POS) terminal using only their mobile phone.

EdgePay architecture overview



Edgepay allows customers to make payments from their bank account or e-wallet accounts using the following ways

1. Mobile2Pos native app
2. Mobile2Pos USSD
3. Mobile2Mobile
4. Pos Biometrics

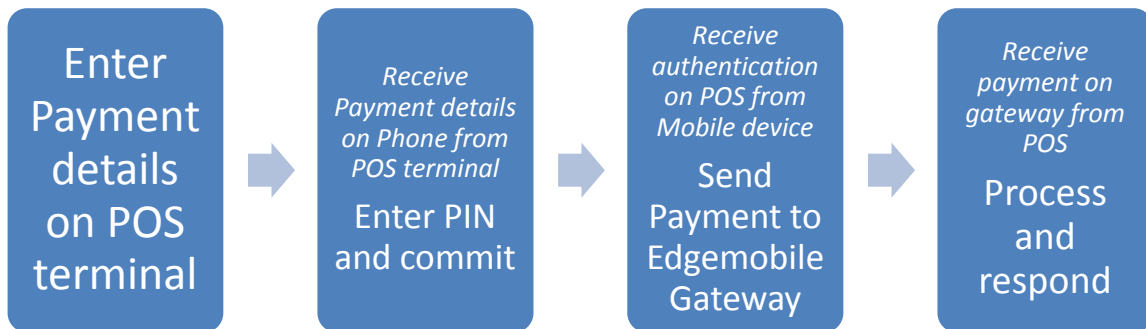
Edgepay can be used to achieve the following (but not limited to)

- Customers paying for goods and service at merchants or any point of service (from their bank account or ewallet)
- Cashback on POS terminals from bank account or ewallet
- Agency banking
- Customer to customer transfers
- Utility and bill payments at a POS terminal (from bank account or ewallet)

Mobile2Pos Native app

Mobile2Pos allows a customer to authenticate for payment using their mobile phone device. Edgepay uses nearbytes sound data transfer technology to transmit data between the mobile phone and the POS terminal.

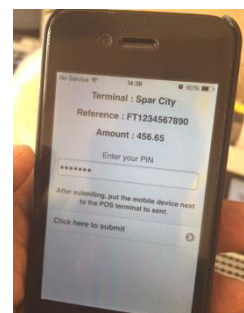
Payment process



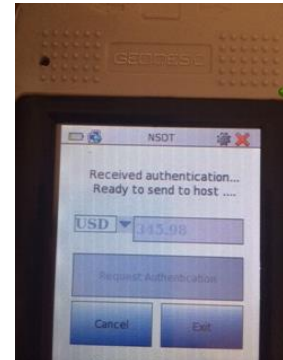
- Enter the transaction amount to be paid on the POS device and tap “Receive authentication” button



- On the mobile device, the customer open the edgepay native app and then place the phone next to the POS terminal
- The POS terminal will transfer the transaction details to the customer's mobile phone using nearbybytes technology. The details transmitted to the customer's mobile phone are
 - Transaction amount and currency
 - POS terminal ID and description
 - POS terminal Reference number
- The customer is required to enter their mobile banking PIN on their mobile phone on the screen provided by the native app. After committing, the customer should put the phone next to the POS terminal



- The phone will transmit the authentication details to the POS device. The details include
 - PIN (encrypted)
 - Mobile phone UUID number
 - Amount authenticated
 - Terminal Reference number (originally send from the POS terminal)
- Once the POS terminal receives the authentication, it automatically send the transaction details (including authentication details from the mobile phone) to the Edgemobile mobile banking gateway for processing.
- A response is sent back to the POS terminal from the edgemobile gateway
- POS terminal prints receipt on the thermal printer
- The customer can also retrieve the receipt on their edgepay native app on the mobile phone



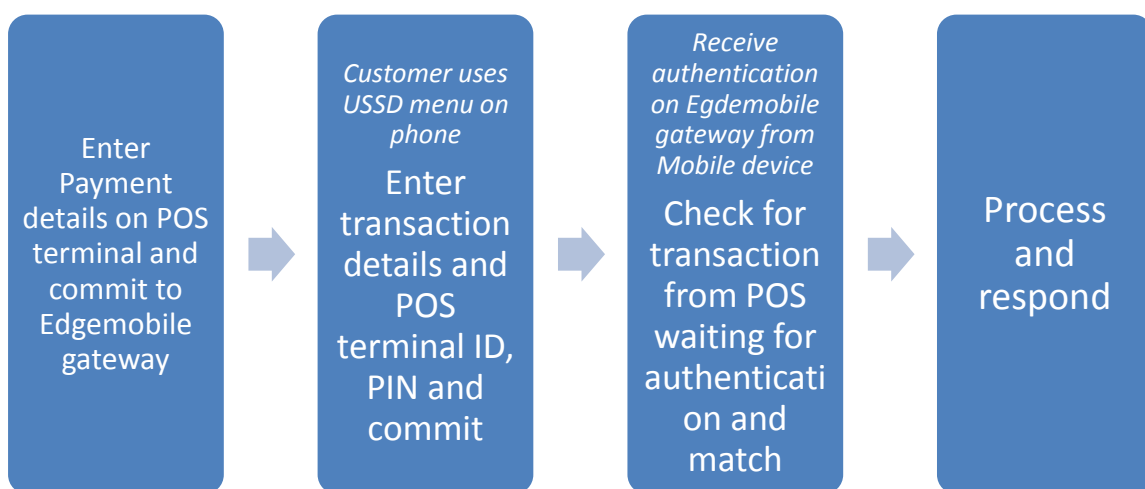
A demo video is available at <http://youtu.be/K9nFC45BmlA>

Kindly view the demo video to get an appreciation of how this process works

Mobile2Pos USSD

For those customers without smartphones, mobile payments can also be achieved using USSD.

Payment process



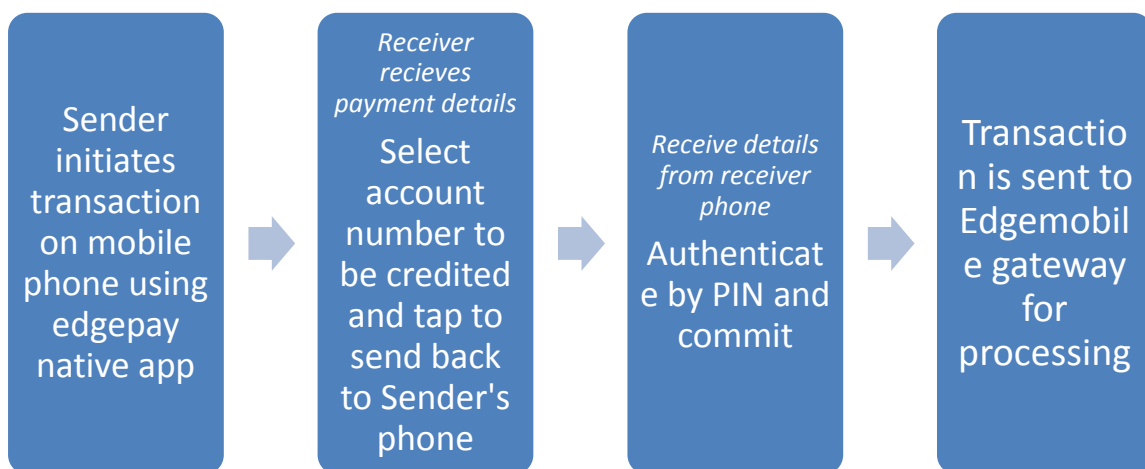
- Enter the transaction amount to be paid on the POS device and tap “process” button. This will send the transaction details to the Edgemobile gateway. Details sent include
 - Transaction currency
 - Transaction amount
 - Customer mobile number (This is the mobile number registered for mobile banking)
- Edgemobile gateway receives details from POS, and put transaction in status “Awaiting customer authentication”
- Customer initiates USSD menu on his mobile phone, and selects “Authenticate POS transaction”

- Customer enters transaction details, authenticates with PIN and commit. Details include
 - Transaction currency
 - Amount
 - POS terminal ID
- Edgemobile receives transaction details from customer, searches for a matching POS transaction “awaiting customer authentication”. If match is found, transaction is processed. If not found an error is sent to customer as responds
- After processing transaction, edgemobile gateway sends receipt to POS terminal
- POS terminal prints receipt on thermal printer

Mobile2Mobile

Mobile2Mobile allows one customer to transfer funds from their bank account or ewallet to another customer by transferring data from phone to phone using nearbybytes technology

Payment process

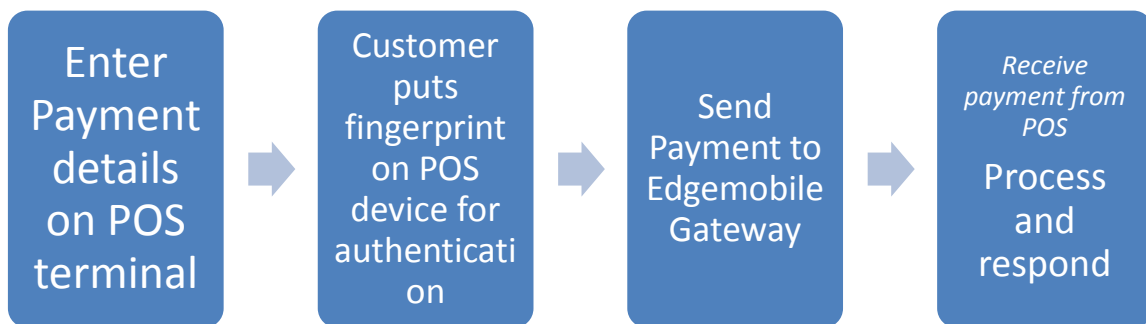


- The sender initiates the transaction on his mobile phone using the edgepay native app. Details entered include
 - Currency of payment
 - Amount
 - Payment details
- After entering details, the sender taps on button "Receive details from beneficiary"
- The receiver opens edgepay native app and select "Receive details from sender" and put mobile phone next to the sender's mobile phone
- The receiver's phone receives transaction details, and selects his account to be credited and then press button "Send" and put phone next to sender's phone

- Sender receives account to be credited on his mobile phone, and authenticates using his PIN and tap commit
- On commit, the sender's mobile phone sends transaction details to the Edgemobile mobile banking gateway
- Edgemobile gateway will process that transactions and respond

POS biometrics

Payment Process



- Enter transaction details on POS terminal. Details entered include
 - Transaction currency
 - Transaction amount
 - Customer mobile number (This is the mobile number enrolled for mobile banking with the bank)
- Customer places fingerprint on the biometrics scanner on the POS device (The customer should use any one of the fingers enrolled with the bank)
- The POD terminal sends transaction details (including fingerprint biometrics data) to Edgemobile mobile banking gateway

- A response is sent back to the POS terminal from the edgemobile gateway
- POS terminal prints receipt on the thermal printer