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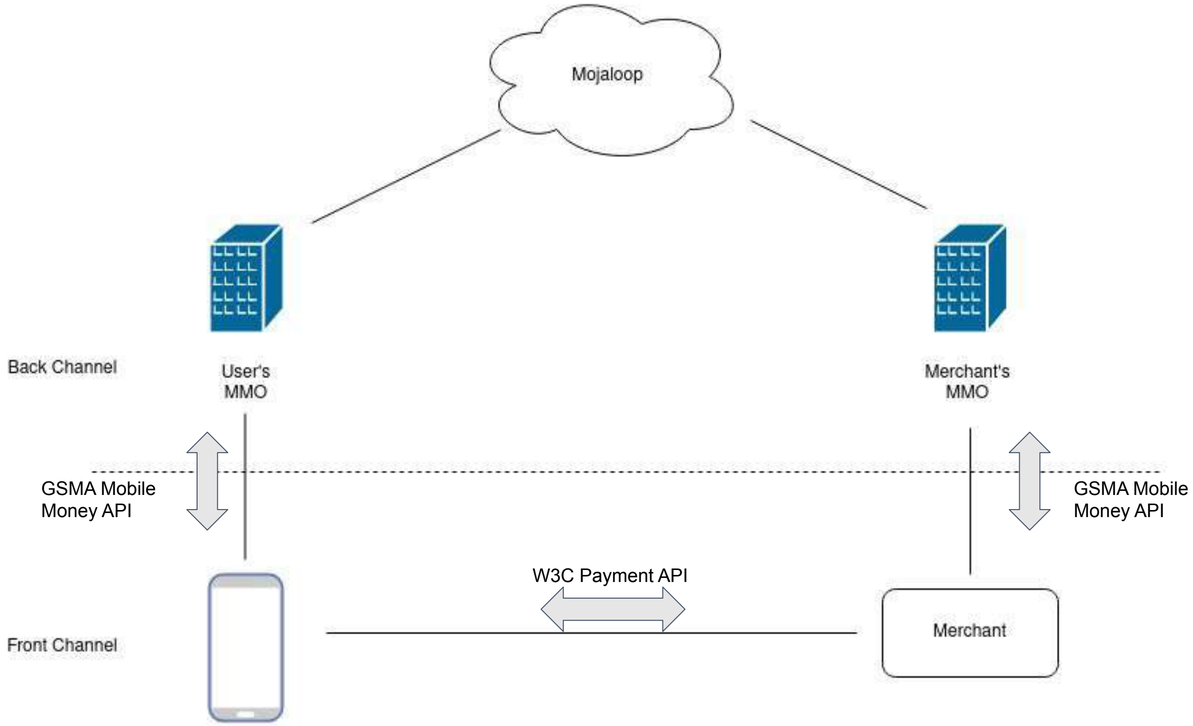
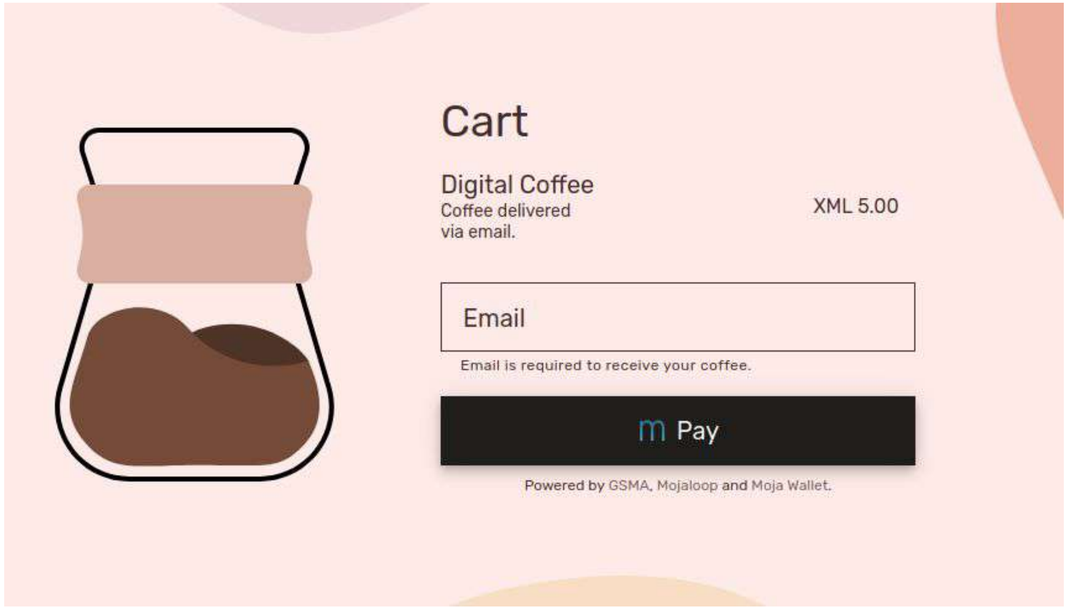
Web Payments

Ecosystem


Mojaloop
Back Channel
User's
MMO
Merchant's
MMO
GSMA Mobile
Money API
GSMA Mobile
Money API
W3C Payment API
Front Channel
Merchant

Use Case

The user is making a purchase on the Web from the merchant, who can accept payment to their mobile money account. The user wishes to pay using their mobile money account.



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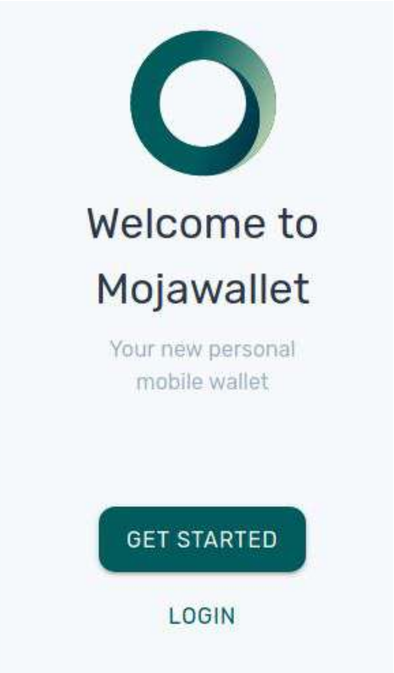
Assumptions

1. The user has a mobile money account and an app on their phone that provides access to that account.



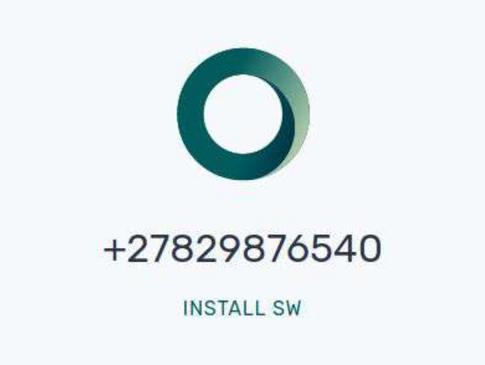
Assumptions

2. The User's mobile money provider has implemented the GSMA Mobile Money API for the merchant payments use cases (user initiated and/or merchant initiated). The supported endpoints implemented here are the /transactions and /authorisationcodes APIs. See https://developer.mobilemoneyapi.io/1.1

3. Note if user has a mobile money account with a mobile money provider, the merchant needs to have on-boarded with that mobile money provider or another mobile money provider with whom they are interoperable through a interoperability switch such as a Mojaloop hub.

Assumptions

4. The app (web or native) is registered in the user’s browser as a payment handler.
   Note the user’s browser should be one which support the W3C Payment Request / Payment Handler APIs (currently Chrome and latest Edge).



See https://www.w3.org/TR/payment-handler/

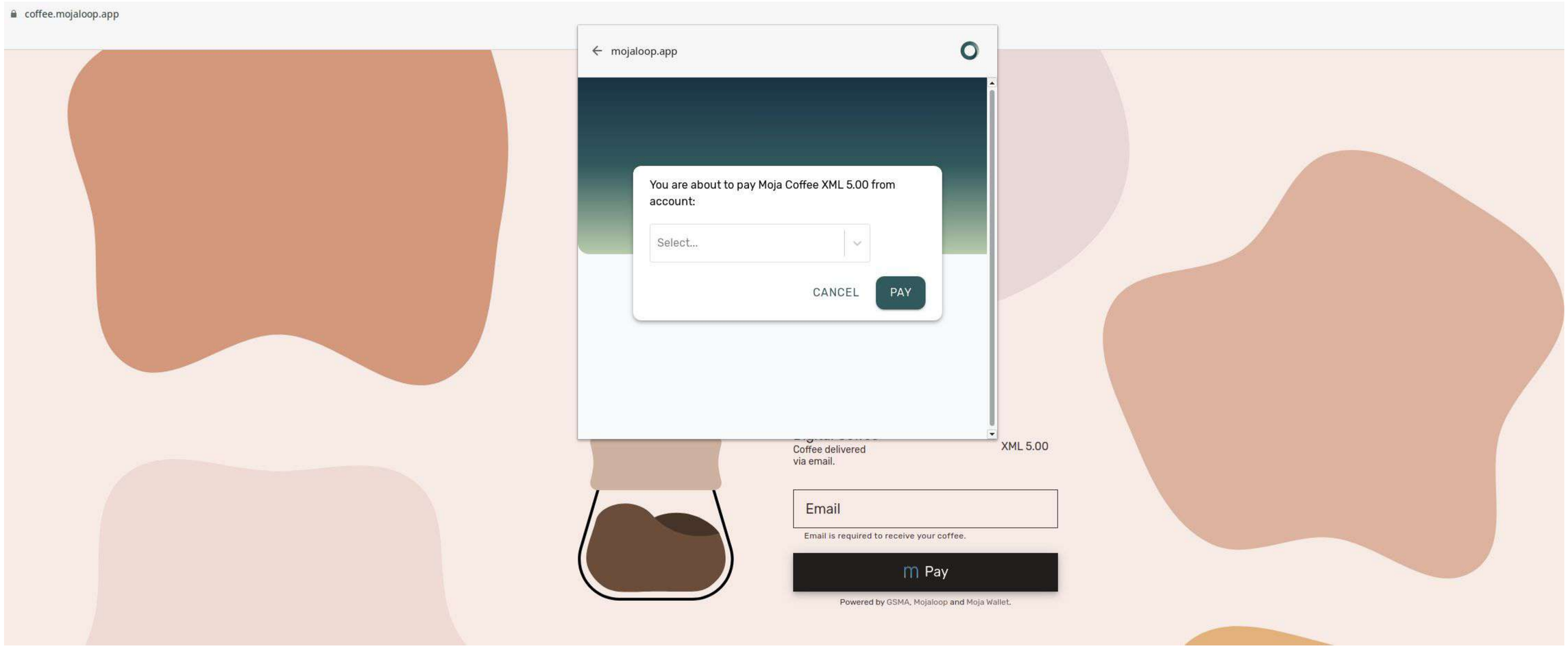
Assumptions

5. The payment method that the merchant supports is defined by the mobile money platform. This might be a specific list of DFSPs or an identifier for a scheme (e.g. Mowali)

Payment Request

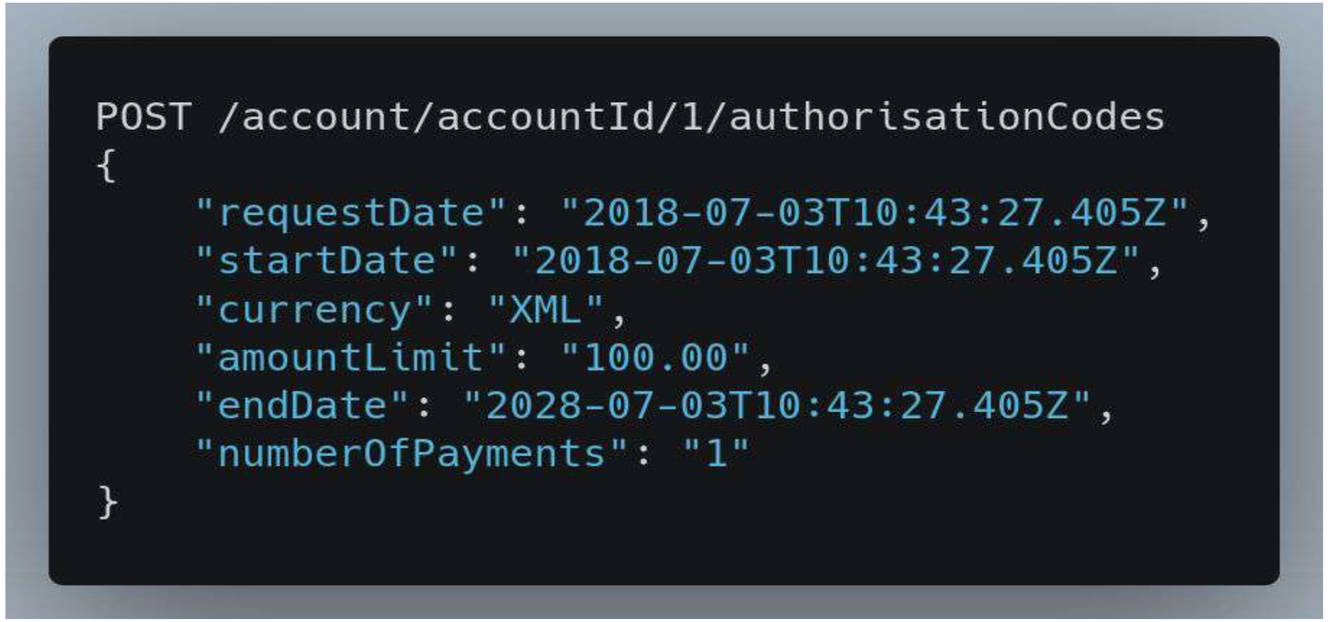
```
const paymentMethodData: PaymentMethodData[] = [
  {
    supportedMethods: methodName,
    data: {
      amount: '5.00',
      currency: 'USD',
      MSISDN: '+27829876540'
    }
  }
]
```

Payment Window



Mobile Money - Pre-authorisation

- User chooses the mobile money account from which to pay
- Payment handler retrieves an authorisation code from Moja Wallet
- Note the Mobile Money authorisation codes API provides pre-approval of a payment request such as a merchant payment through the user authorising a code request prior to the payment. This call will return a one time code back to the wallet app to use on subsequent Mobile Money transaction API requests.



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Mobile Money - Transaction

The Mobile Money API transaction request does not differ in user initiated or merchant initiated payments and will include a creditParty and debitParty. However the MM system will be able to retrieve the Client ID property from the request to differentiate. If the one time code has not been provided, the user can confirm payment via app.

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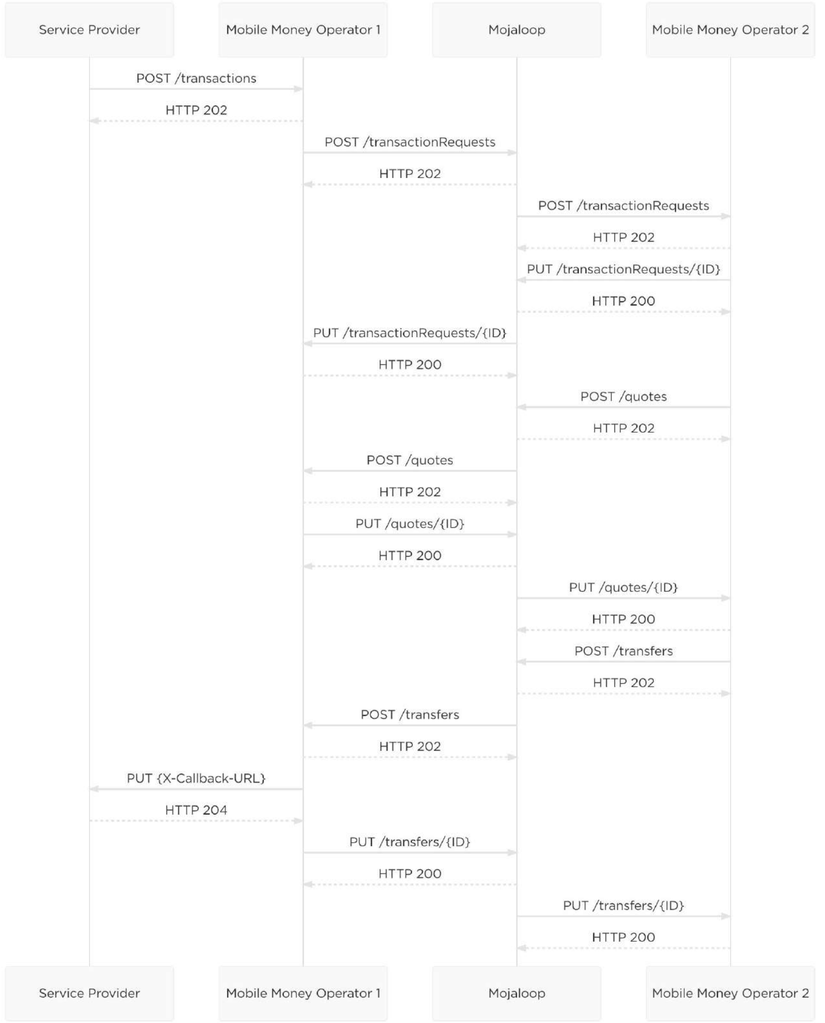

Figure taken from https://interop.gsmainclusivetechlab.io

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Variations

- User initiated

  This can work directly from the user's wallet app which has been integrated with the user's MM account to initiate the mobile money payment via the Mobile Money API.

- Merchant initiated with out of band auth

  This can work in the same way as the demo above but with the user's payment confirmation received in real time via any suitable method (e.g. app confirmation, SMS push, USSD push etc.).

Learnings

- User vs Account - Current Mojaloop API does not have concept of account.

Thank You

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