Mowali

A payment scheme for mobile money

Status

Forex approach

June 2019

Reminder: Mowali enables interoperable mobile money services by adding interoperability rules on top of transaction mediation services

The scheme has defined a common business and technical framework …

Business rules
- Business terms
- Business processes
- Compliance requirements
- Merchant acceptance label
- Interchange rules

Technical standards
- API/Transaction messages *mojaloop*
- Merchant payment
- Security standards

Transaction mediation
- Transaction routing *mojaloop*
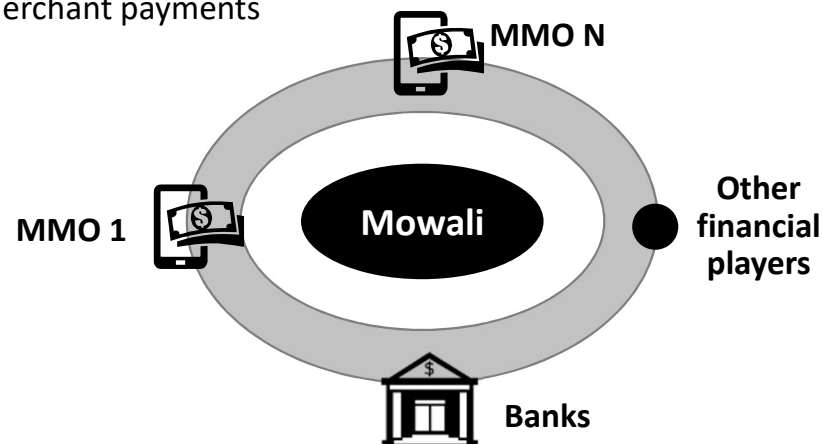- Clearing/Settlement *citibank*
- Forex management

… to provide a full range of mobile money interoperability services for the whole ecosystem
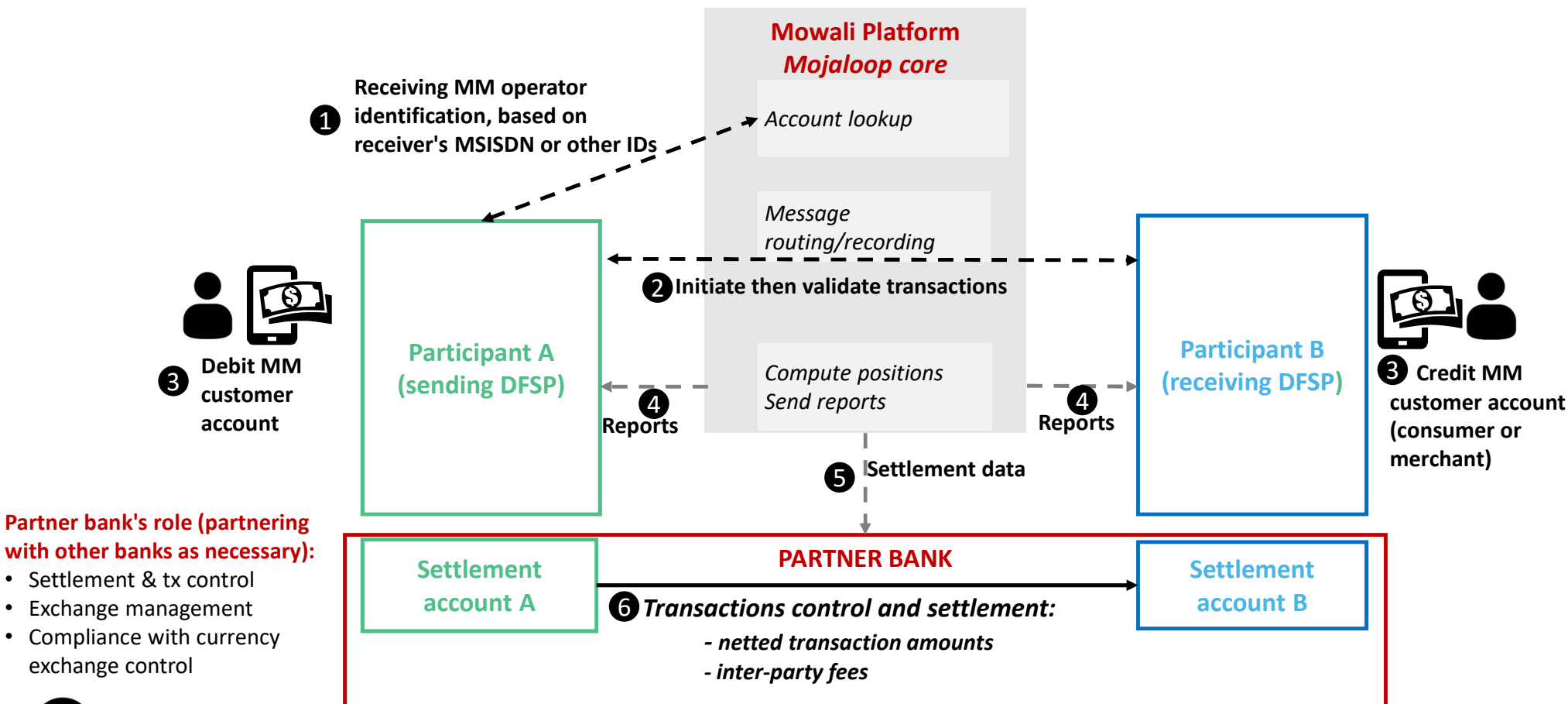
First priorities (2019):
- International and domestic Money Transfer
- E-commerce
- Forex
- Merchant payments

Extensions (2020):
- Bulk payments
- Bank-to-wallet
- Other verticals' specifics

MMO N

MMO 1 — Mowali — Other financial players

Banks

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Mowali's platform – how it works

Mowali Platform
Mojaloop core

1 Receiving MM operator identification, based on receiver's MSISDN or other IDs

Account lookup

Message routing/recording

2 Initiate then validate transactions

Participant A (sending DFSP)

Participant B (receiving DFSP)

Compute positions Send reports

4 Reports

4 Reports

3 Debit MM customer account

3 Credit MM customer account (consumer or merchant)

5 Settlement data

Partner bank's role (partnering with other banks as necessary):
- Settlement & tx control
- Exchange management
- Compliance with currency exchange control

PARTNER BANK

Settlement account A

Settlement account B

6 *Transactions control and settlement:*
- netted transaction amounts
- inter-party fees

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Mowali's platform is ready to go

Where we are

- ◢ **Company set up in Abidjan** – **CEO and CTO onboarded**, hiring as a top priority

- ◢ **Partner bank for settlement : Citibank** – **first DFSPs' accounts open**

- ◢ **Platform in production (FUT)** with first Orange/MTN DFSPs – launch pending BCEAO authorisation

- ◢ **Product roadmap - following steps:**
  - ◢ **merchant payments and cross-currency transactions** – launch S2 2019
     Inbound transfers (e.g. from Europe), intra Africa (e.g. East-Africa)
  - ◢ **Enhanced operational and onboarding tools** to support more operators

Want to onboard?

- ◢ **Documentation available** on request: business rules, technical specs & guidelines, brand guidelines

- ◢ **Ready to onboard other operators (P2P, Xborder same currency)**

- ◢ **Target customers :** **all Mobile Money operators** in Africa

Shareholders

- ◢ **Initial shareholders: MTN and Orange**

- ◢ **Open to more shareholders** to increase scale and momentum

A few learnings

- First DFSP integration have raised issues linked to slightly different implementations but also different deployment processes, esp. regarding security components

- Security at scale requires

  - Pre-hardened OSS components, thoroughly tested

  - Full technical API and onboarding documentation <u>and</u> proper "automated" onboarding tools

  - Tough discussions upfront to avoid problems later

  - Smooth and accurate infra & app deployment & configuration: no approximation!

  - Mutualisation of security components (JWS, TLS, ILP) : lower costs, consistent implementations

- We need progress on WSO2 components deployment
  - Has cost us too much already (money and delays)

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What comes next

- **Onboarding**
  - **Connection manager**
  - **Simulators – test scripts are key!**

- **Forex management**
  - **Update transaction & settlement management in the platform**
  - **Select and FXP implementation**
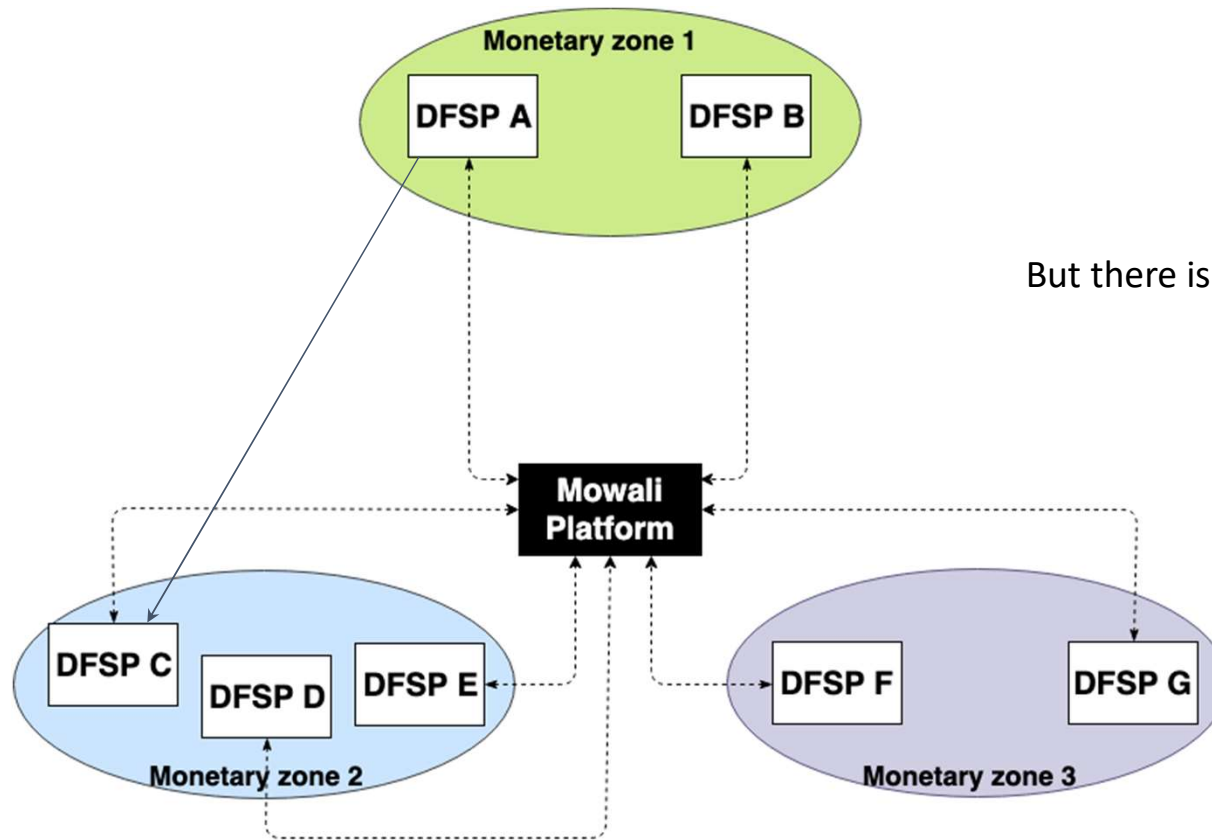 - **Deploy settlement architecture with Citi**

- **Business process automation**

- **Merchant payments**
  - **Basics in place = execute push transaction based on merchant ID**
  - **Operational version will support additional merchant data**

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Mowali's approach to forex

Multiple Currencies can Co-Exist in the Hub

But there is no route Between Currency Zones

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Assumptions we worked to

- Each DFSP, other than the FXP, can support only one currency

- There will only be one Foreign Exchange Provider in the scheme

- The Payer DFSP will know from the Country Code that this is an FX transfer

- The scheme will support SEND and RECEIVE amount types

- The quote and transfer request will be linked by having the *transferId* field in a request for quotation

and transfers contains the *transactionId* field from the matching request for quotation

Small changes have allowed us to support FX
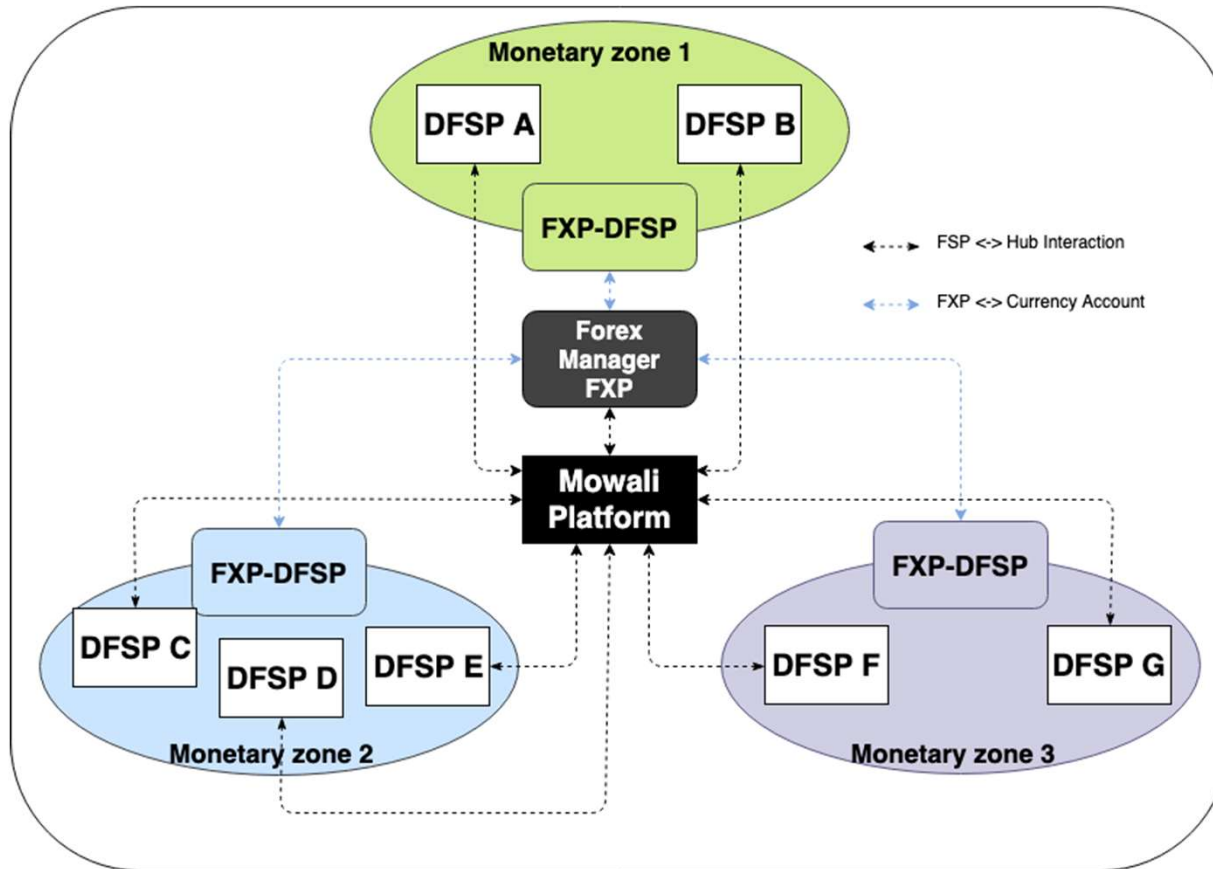
1. Addition of FXP with multiple currency support
2. Changes to Quotes
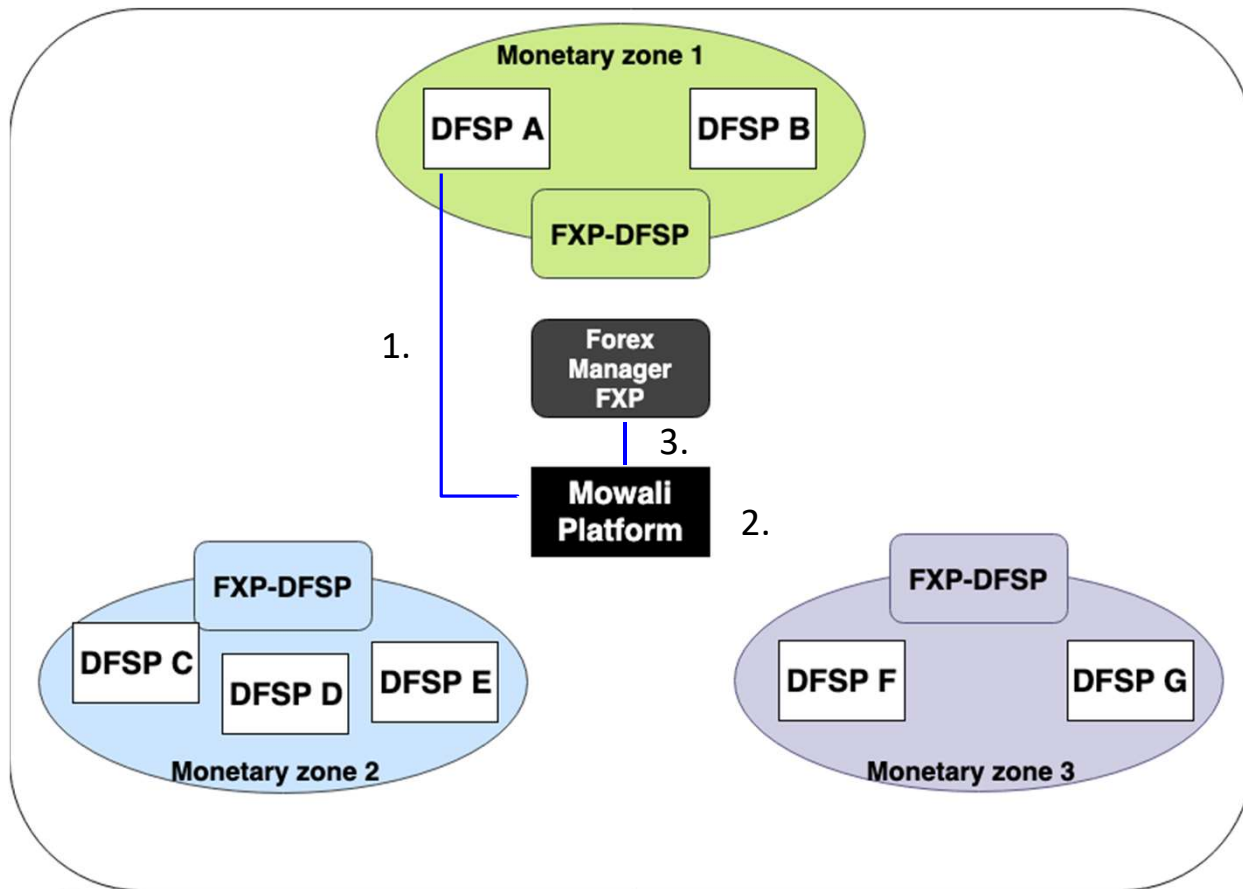
1. Quote sent in as normal (A to C)
   a. With KYC Data
   b. Send in Originating currency Or Receive in Destination Currency
2. Switch identifies in Quotes that Send and Receive are not same currency
3. FXP receives quote - and creates 2nd quote to send to DFSP C
   a. Send - FX Applied
   b. Receive - Change FSPIOP Source
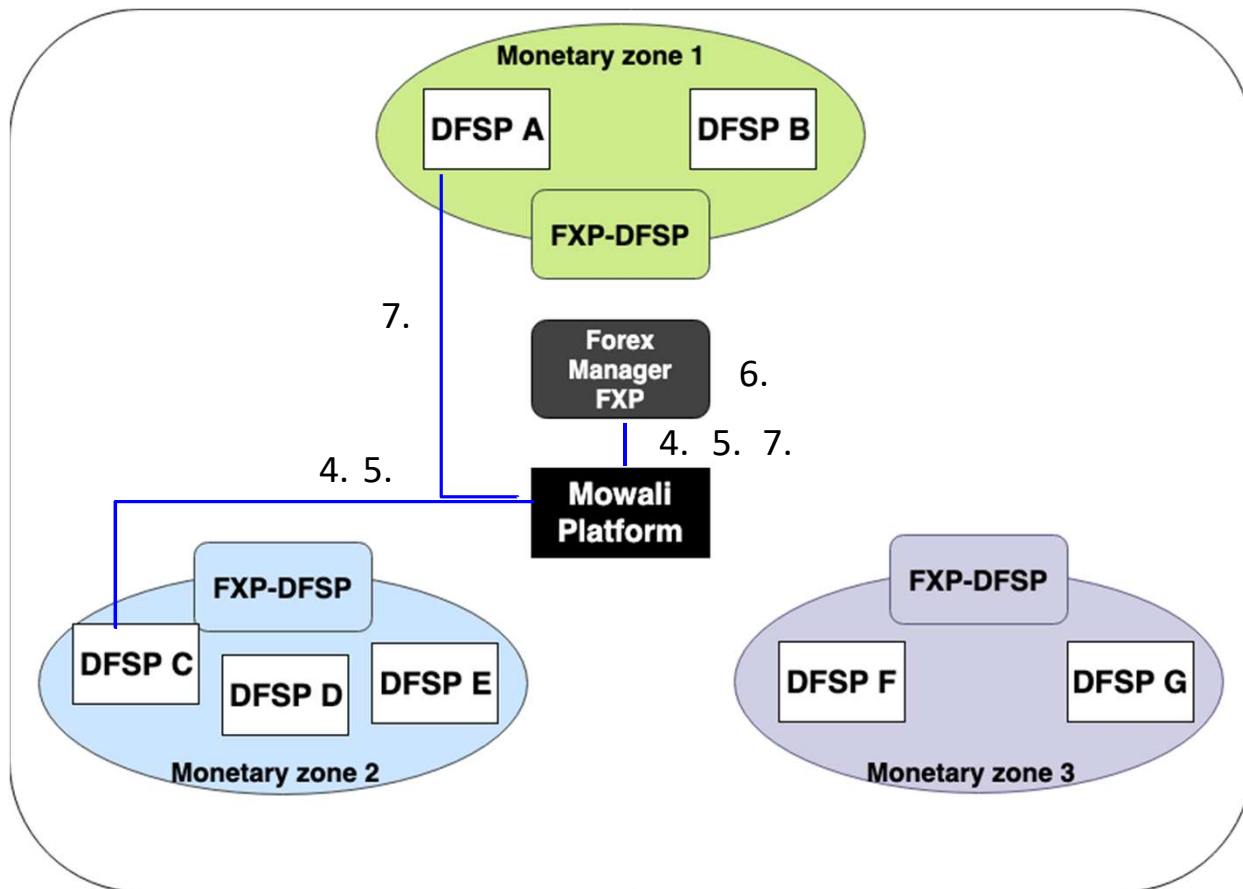
4. New Quote Sent to DFSP C
5. Quote responded to as normal
   a. KYC Data added
6. FXP Calculates Amount required to respond to DFSP A and creates response to Original Quote
7. Quote Returned to DFSP A - With FSPIOP source as FXP

Transfer Changes
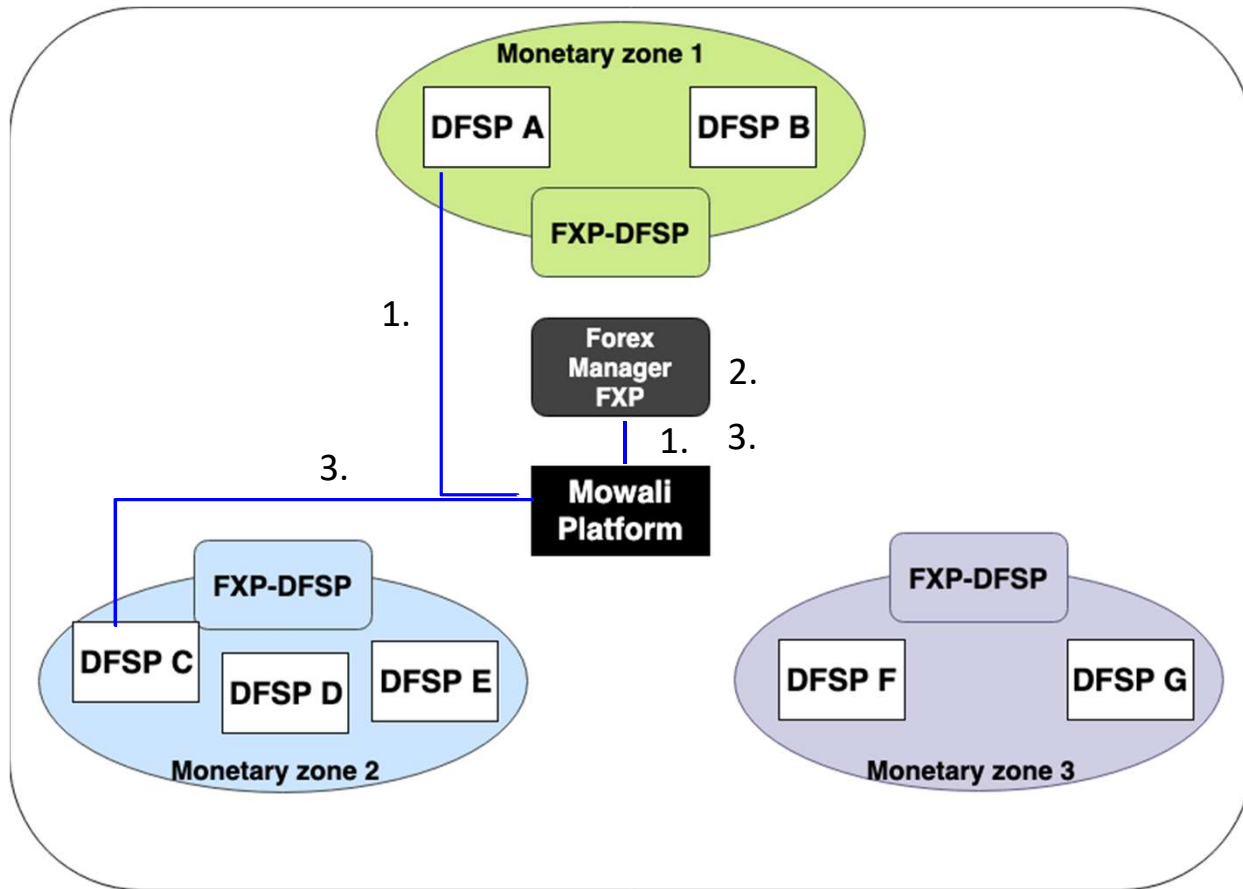
1. Transfer Sent to FXP
2. FXP matches transfer to original quote
3. FXP sends second transfer to DFSP C

Note should be taken that transfers are committed in order to ensure funds have been released

Thank you!