

Currency conversion for Mojaloop

PI7 Goals

Product Workstream Charter:

FX

Reminder of Mission/Charter:

Workstream Owner:
- Michael Richards

Provide currency conversion functionality for Mojaloop

The problem today: Although Mojaloop allows the use of multiple currencies, it doesn't currently support conversion between currencies. There is significant customer pressure from existing and potential adopters to provide these functions.

When this is done: Mojaloop will be able to support currency conversions, both retail (as part of a transfer) and wholesale. Multiple organisations will be able to offer these services in a single Mojaloop scheme.

The expected impact:

- Improve functionality and ease of use for existing implementers
- Extend the number of use cases which Mojaloop supports off the shelf
- Allow new types of participant to enter the Mojaloop marketplace.

Where have we got to?



- A workable definition of the FX API.
- Initial analysis of the switch code requirements.
- A detailed proposal for how the switch might control currency conversion.
- A demonstrator for currency conversion in Mojaloop.

Possibilities for PI7

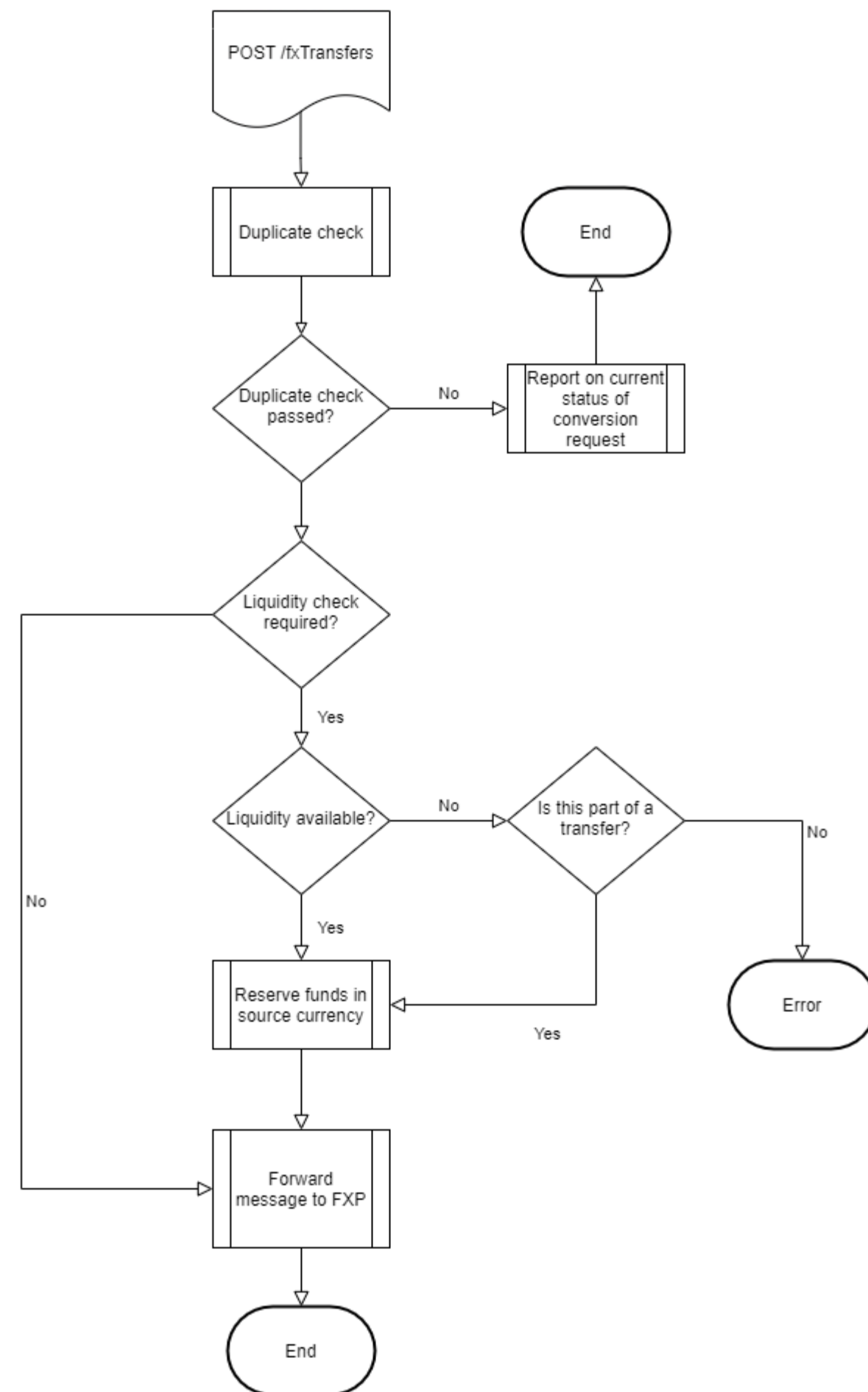


- In any case, we need to have the FX API agreed and published.
- Alternative development possibilities:
 1. Switch modifications to support FX API
 2. Payment Manager modifications to support FX without requiring DFSP changes (requires 1)
 3. Code changes to allow the switch to control currency conversion
 4. Cryptocurrencies as a form of currency conversion
 5. ... or what have you...?

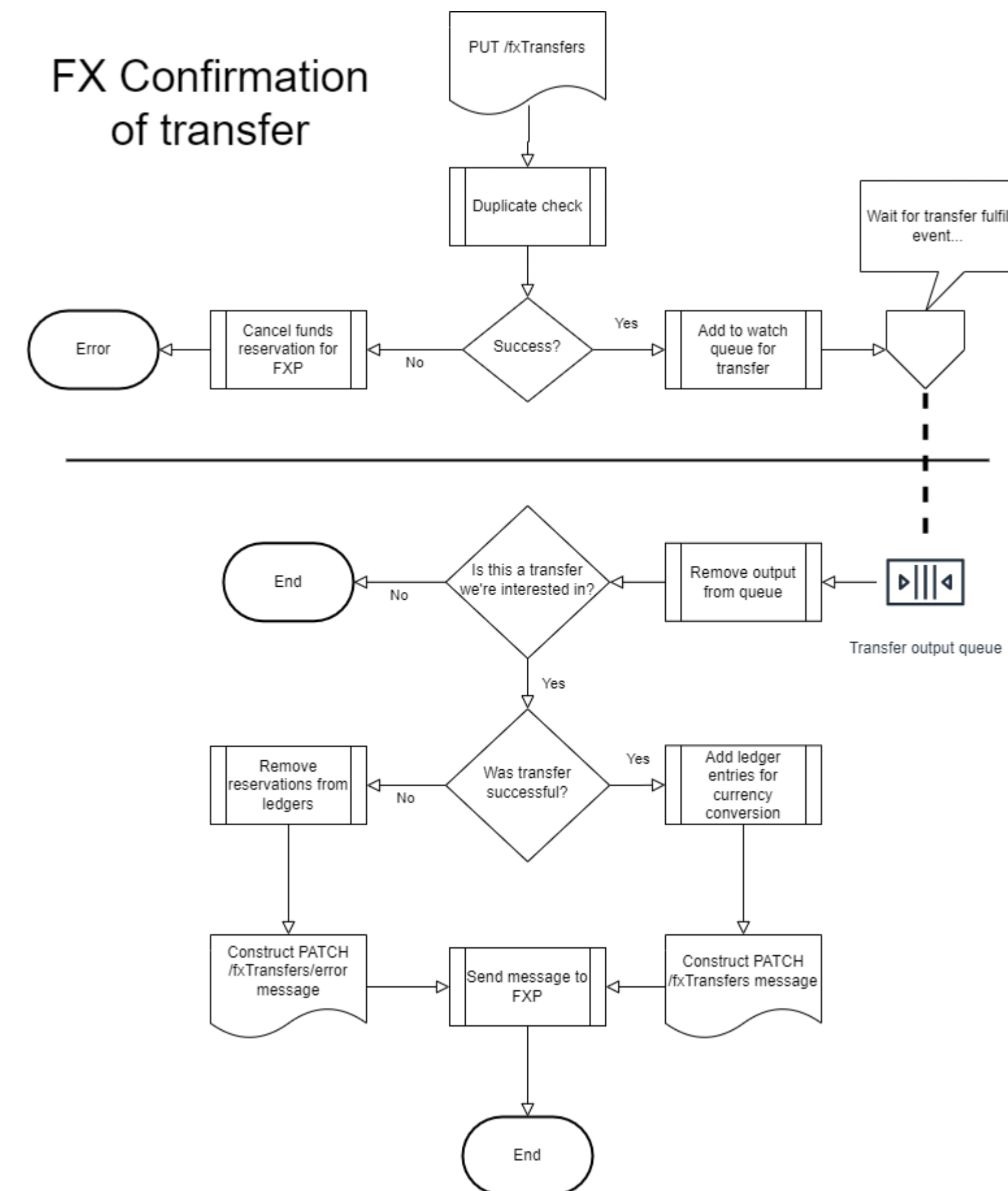
1) Draft flowcharts for code changes to support currency conversion in the switch



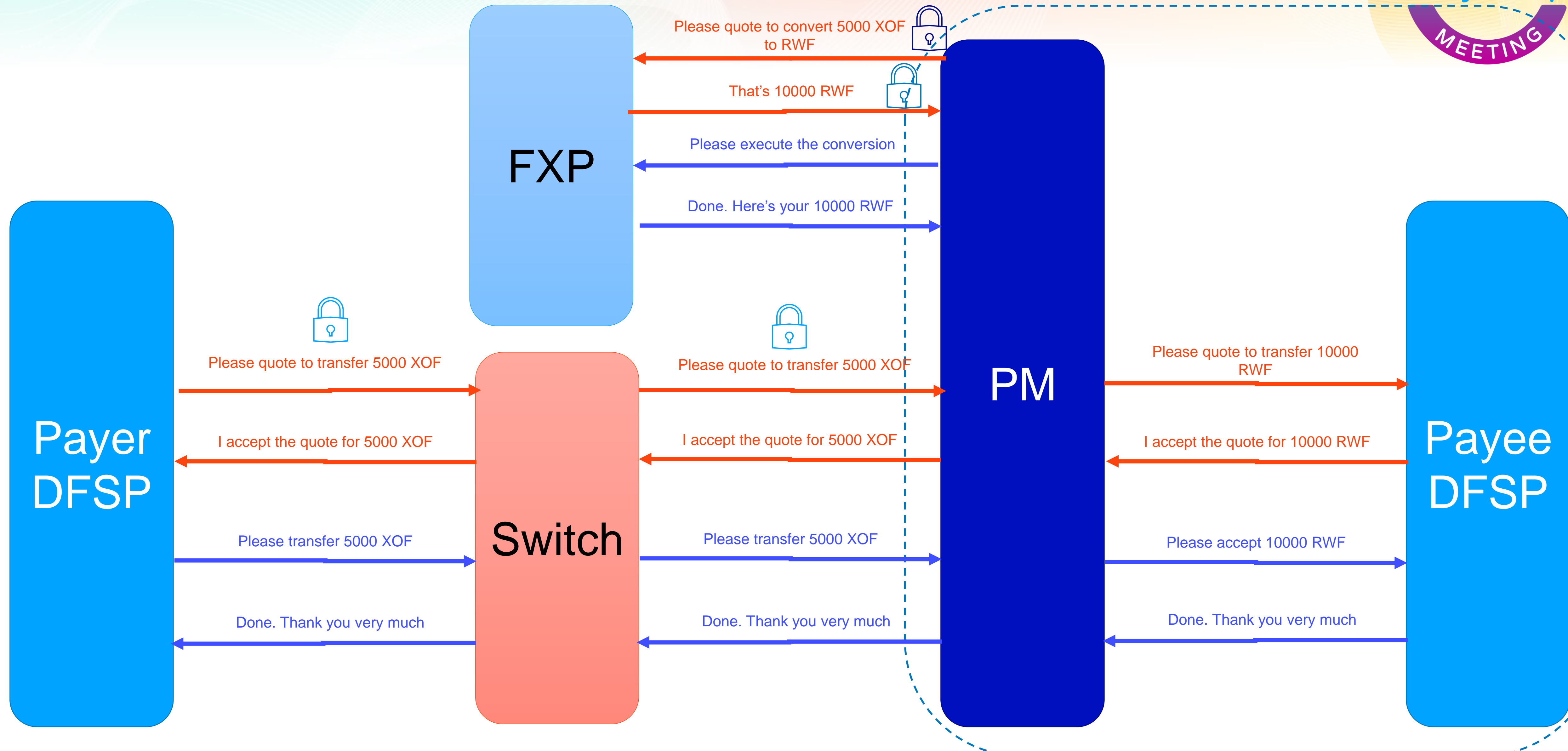
Receive FX transfer request



FX Confirmation of transfer



2) Managing currency conversion with Payment Manager



3) Code changes to allow the switch to perform currency conversion



- Requires considerable modification to the switch
- Philosophical problems with non-repudiation signatures
- There is a draft sequence diagram [here](#) describing in detail how this process could work

4) Supporting crypto and digital currencies



- There's a perspective from which converting between fiat currencies using a crypto or digital currency (exchange) is analogous to doing currency conversion via a reference currency...
- ... so we could use the FXP API to support transfers of this kind...
- Which would not require settling (at least, in the normal way)...
- And might support transfers between schemes.
- This needs definitional work.

PI 17 Goal – FX

Confidence
Vote:
1 - low, 5 - high

Goal	Goal: TBD			
Key Epics Objectives	1. API signatures approved by CCB	4	2.	0
	3.	0	4.	0
Not Doing now but important next & Risk / Issues	<div><div>Out of Scope:</div><ul style="list-style-type: none">• Complete build of FX code<div>Extra resources/skills that would be valuable:</div><ul style="list-style-type: none">• Business analysis• Architects, developers<div>Risks you might need to track:</div><ul style="list-style-type: none">• Clear business model for FXPs</div>			
Success Defined How?	<ul style="list-style-type: none">• TBD			