MODUSBOX

ModusBox Update
September 2019

mojaloop

ModusBox Updates

- mojaloop SDK
- ModusBox Connection Manager (MCM)
- Open Source Mapper
- Simulator UI

MCM Current Functionality

End Point Management

Hub Ingress and Egress Entry

DFSP Ingress and Egress Entry

Entry Progress Monitoring and Updating

Certificate Management

TLS (Client + Server) Certificate Hub and DFSP

JWS Certificate upload and sharing

Role Based Authentication

Certificate Validation

Certificate Signing (local CA)

CSR Creation or upload

CSR Progress Monitoring + Updating

Deployment Management

Docker Container for Portal and Server

Helm Charts for CI/CD

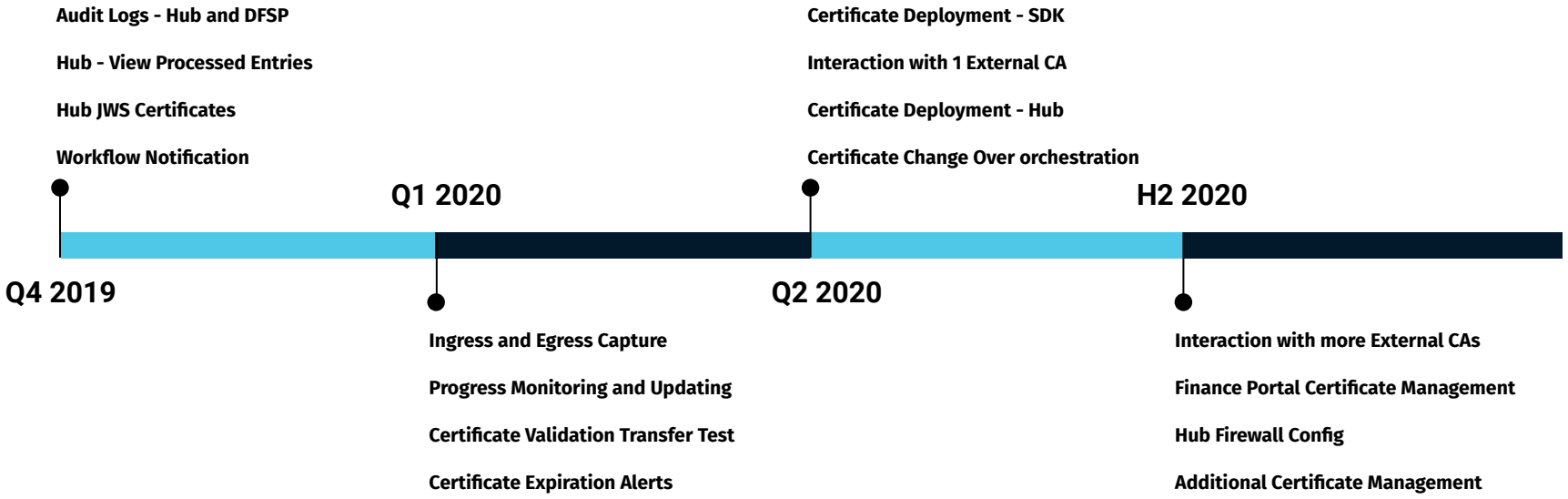
Release Management Scripting

WSO2 + 2FA integration + Password Reset

Web Page to Add DFSP

https://github.com/modusbox/connection-manager-api
https://github.com/modusbox/connection-manager-ui

MCM Roadmap



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Open Source Mapper - why a mapper?

- Externalize message transformation from the code
- Normalizing data formats
  - “Canonical” or “domain” messaging pattern
  - “Standards” that allow variation with multiple external partners/system
- Customize without recompiling
- Better suited language for transformation than raw code
  - Functional Programing Model
  - Function libraries that simplify common scenarios
- Approachable for non-developers
  - Don’t need typical developer IDE/tools
  - Can provide easy-to-use UI Mapper
  - Scripting language for advanced scenarios

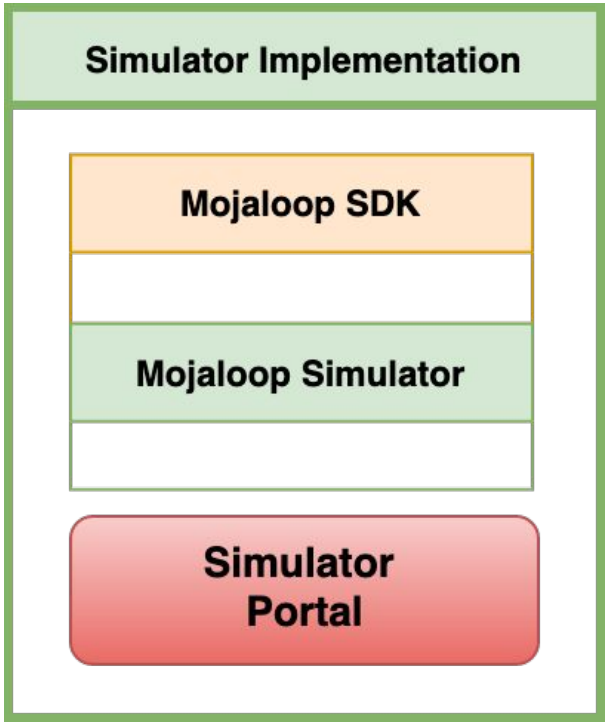
Open Source Mapper

- Free, vendor-neutral (no lock-in!) mapper solution
  - Think like the modern XSLT
- Extends JSonnet, a templating language for generating config files.
  - Easy to use
    - JSON-like syntax (similar to Dataweave)
    - Can embed unit tests for validation
  - Rigorous Language design (designed and sponsored by Google)
    - Formal syntax, semantics, and type system
    - Highly modular
    - Predictable Performance
  - Broad Adoption and Use
- Will be released as Open Source (Apache 2) in the next few weeks

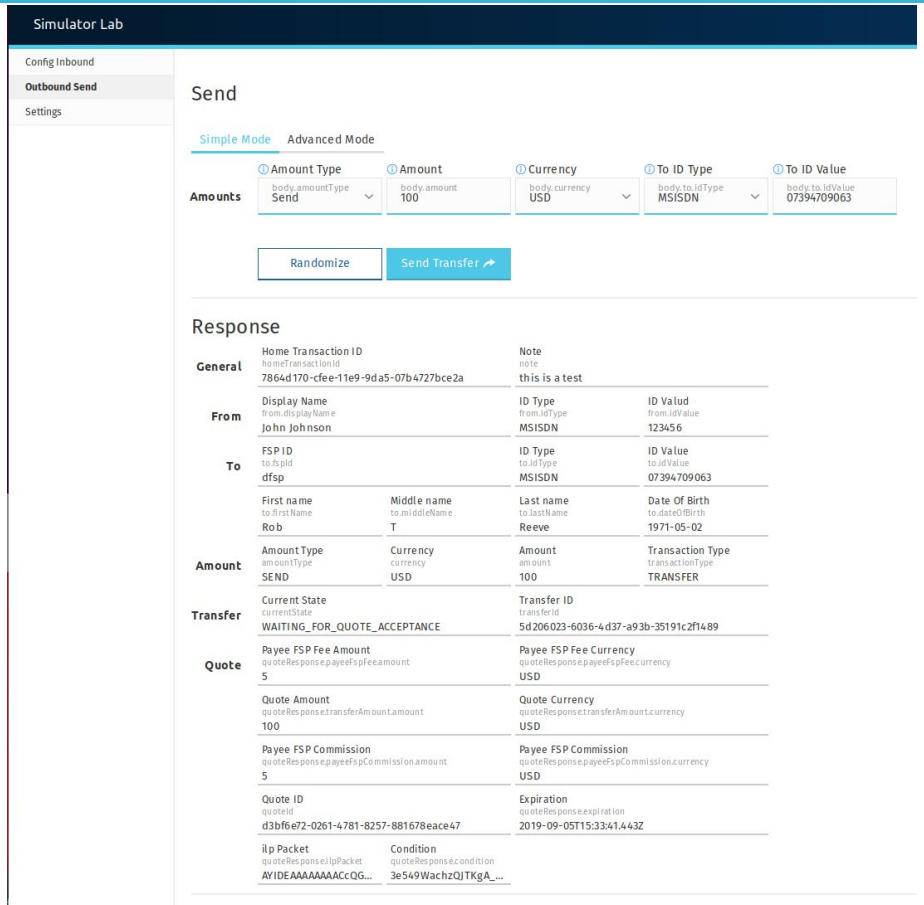
Enhancing the Mojaloop Simulator

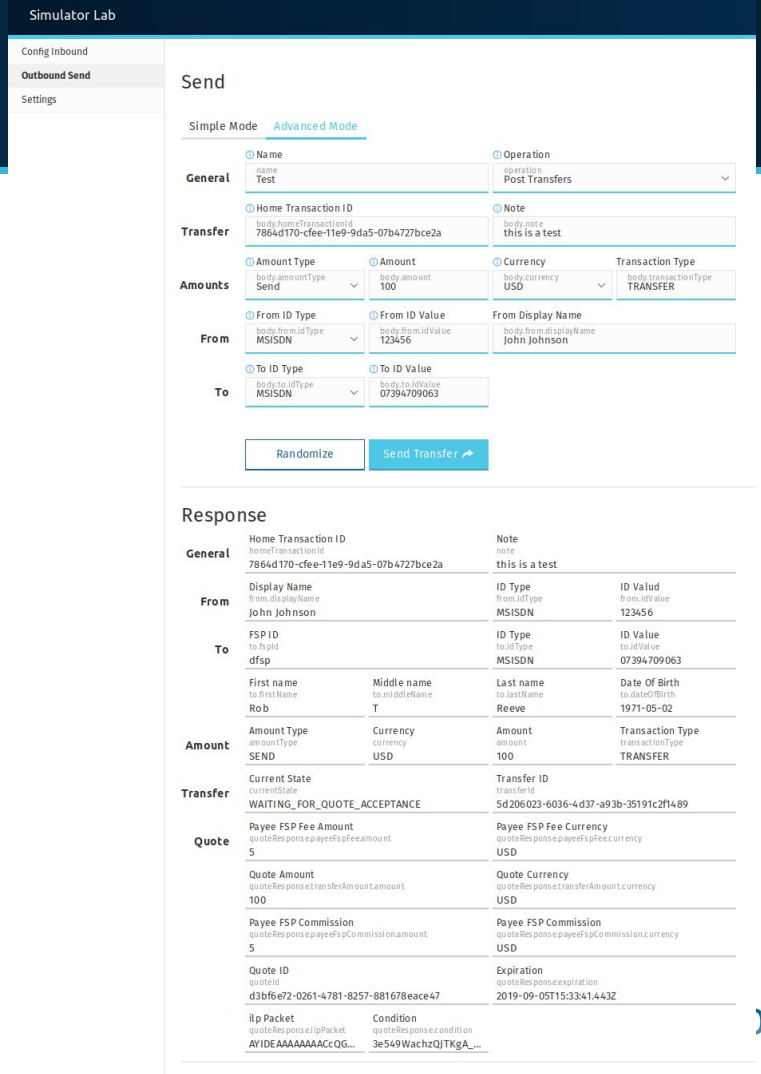
Making the Simulator more accessible at early stages and for those without a detailed understanding of Postman or CURL

https://github.com/modusbox/mojaloop-simulator-ui



Mojaloop Simulator UI





Lessons from Onboarding DFSPs

6 steps to Technical onboarding

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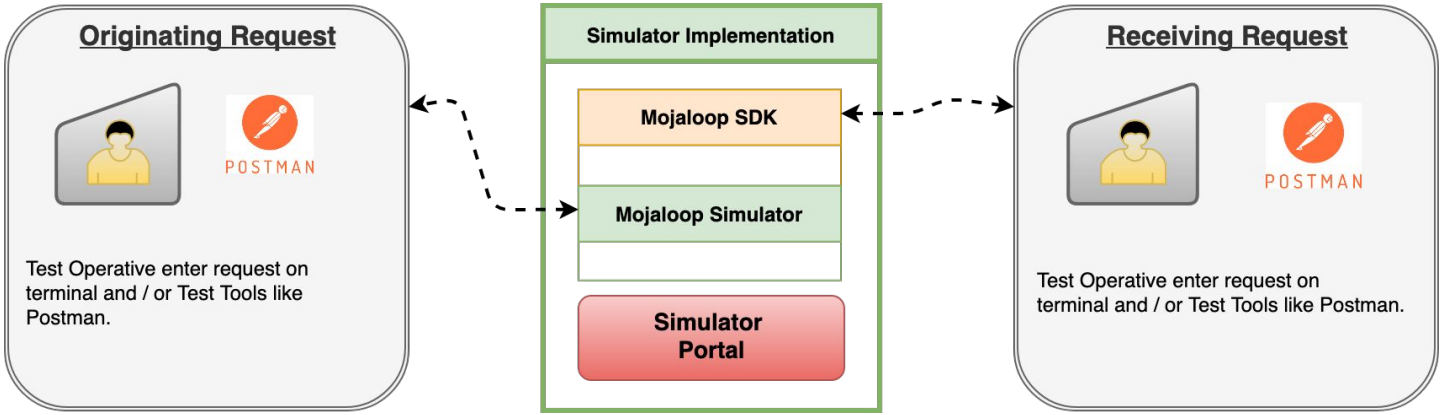
Testing Implementation Environment

Step 1

Local Simulator implementation.

Objective

Prove that the local environment is capable of running the Simulator in a Docker container, which is verifiable via Postman.



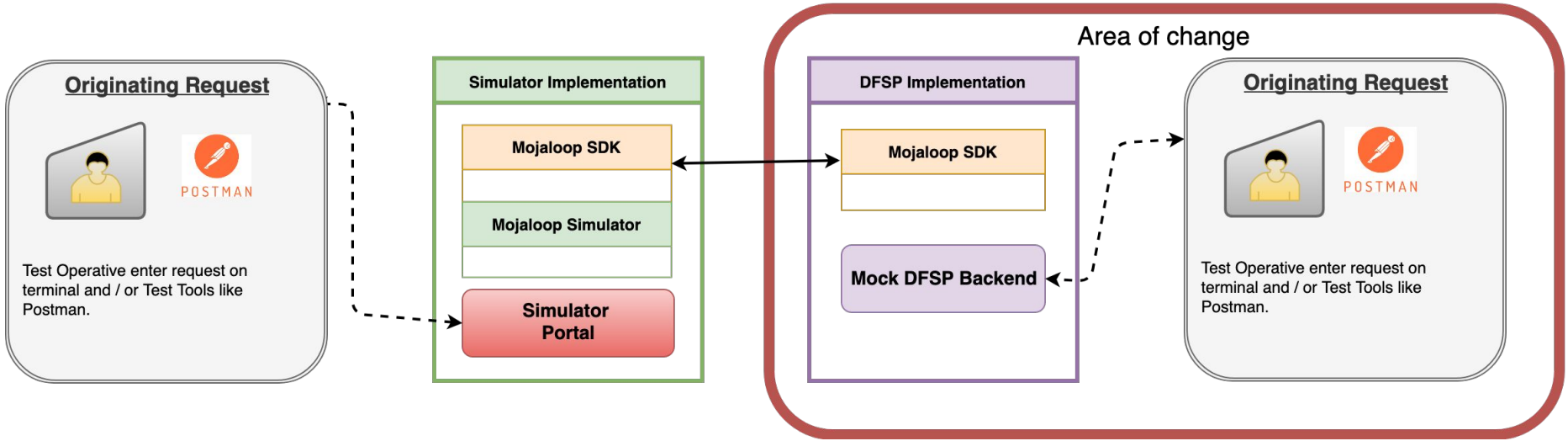
Exploring Capabilities of Scheme Adapter

Step 2

Single Simulator implementation with SDK.
Mock DFSP Backend with SDK.

Objective

Prove that by processing requests via the Simulator, through the SDK, the DFSP has a local SDK working properly



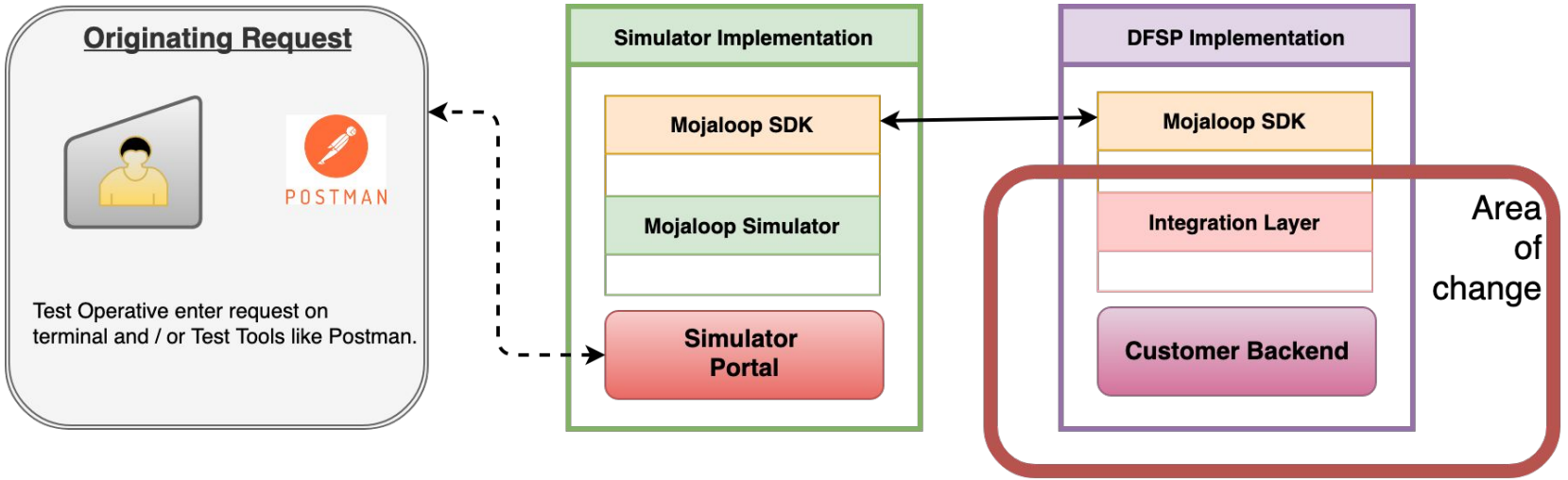
Interacting with a DFSP Backend

Step 3

Single Simulator implementation with SDK. DFSP with SDK, Integration Layer and Customer Backend.

Objective

Prove that by processing requests via the Simulator, we can demonstrate a full end to end scenario - completing a payment via the Customer Backend.



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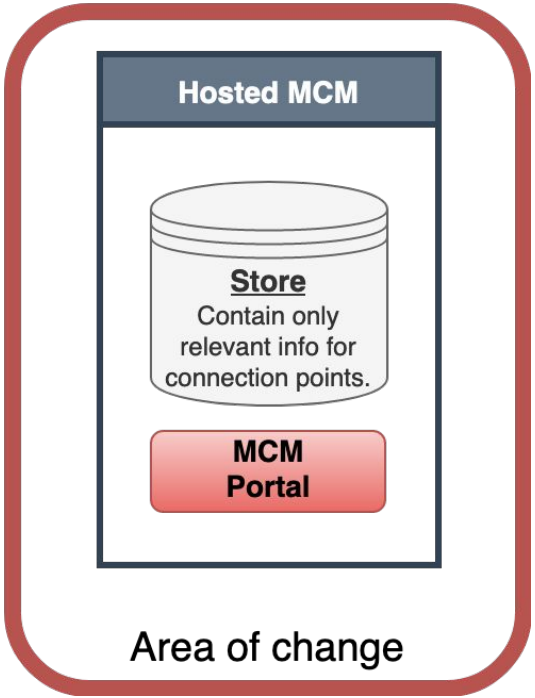
Securing the Connection with ModusBox Connection Manager

Step 4

Implementing the Connection Manager functionality. Connection Manager is maintained manually via a Web Portal.

Objective

FSP Provides their Security Information



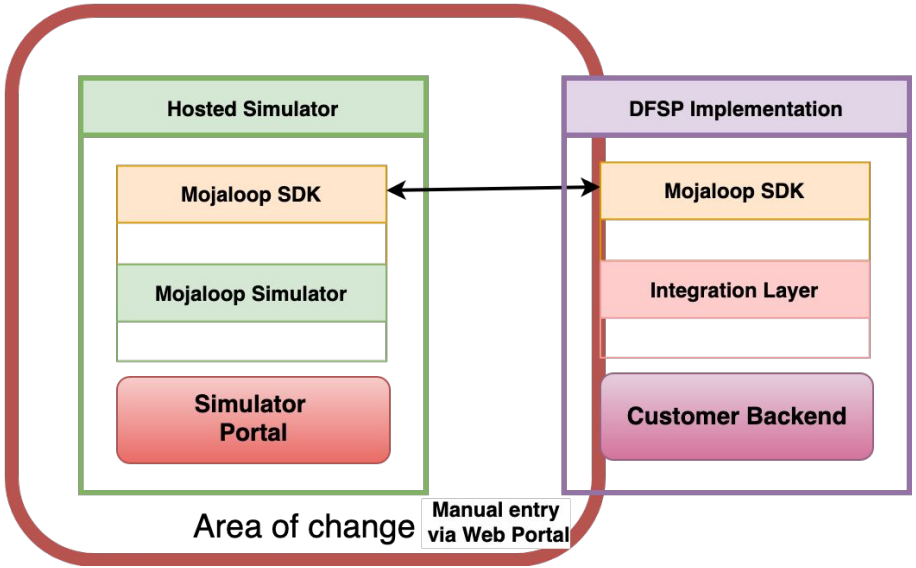
Moving to Cloud-Hosted Environment

Step 5

Hosted Simulator workbench.
DFSP implementation with Customer Backend integration.
Connection Manager functionality enabled. Connection Manager is maintained manually via a Web Portal.

Objective

Prove that the local environment is capable of connecting to the Hosted Simulator
FSP Provides their Security Information
Hub Operator can observe testing



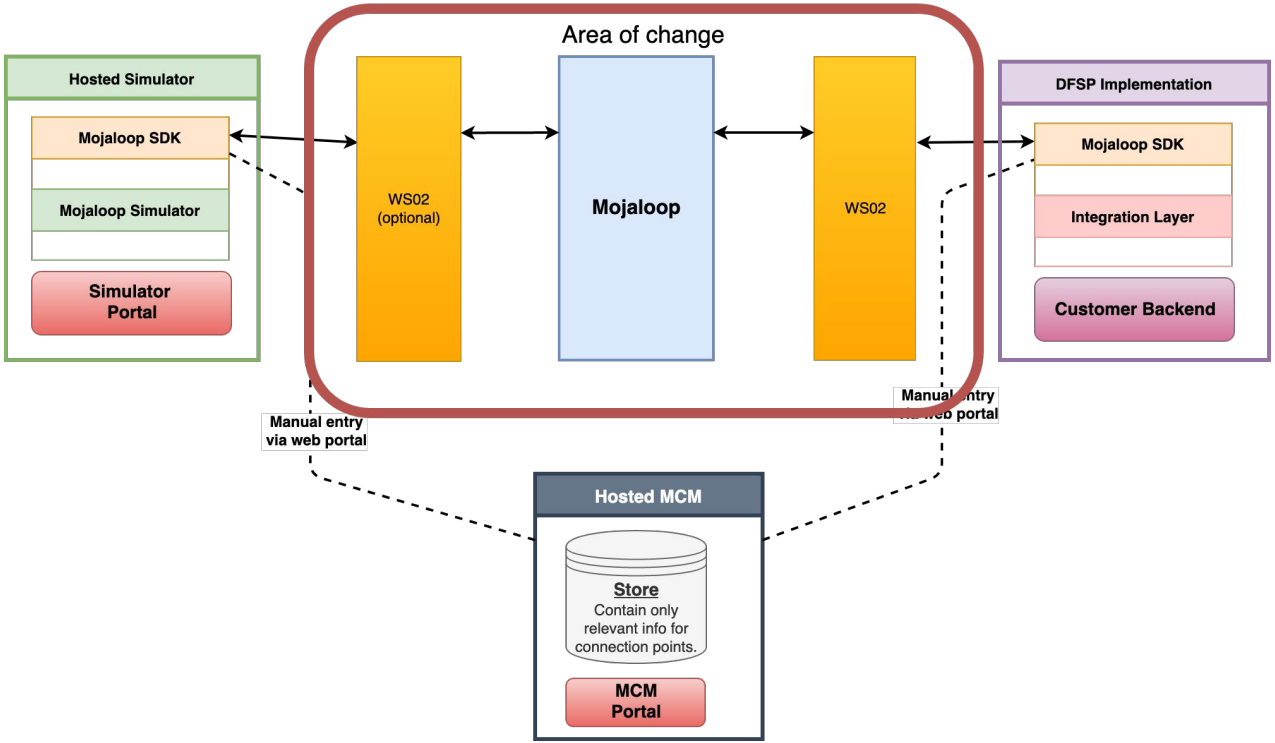
End to End Testing

Step 6

Complete Hosted workbench.

Objective

Introduce WS02 and Mojaloop on the hosted environment to provide a complete production ready experience.



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ModusBox OpenLab

1. A Hosted Environment to allow a DFSP to test integrating with Mojaloop
2. Currently being tested with a number of Partners
3. Being Used to Support the Include Everyone Hackathon
4. Due for Public release later this year

Contact us if you need early access

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Thank You

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