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Mojaloop Training Program

In collaboration with

MODUSBOX

Goals of talk

Explain new branding - MPP to MTP

Show that the Mojaloop Training Program is a useful resource that has real structure and value and is available to everyone.

Promote Usage of the Program

Show that all community member can contribute - and explain how.

Why do we need a Training Program?

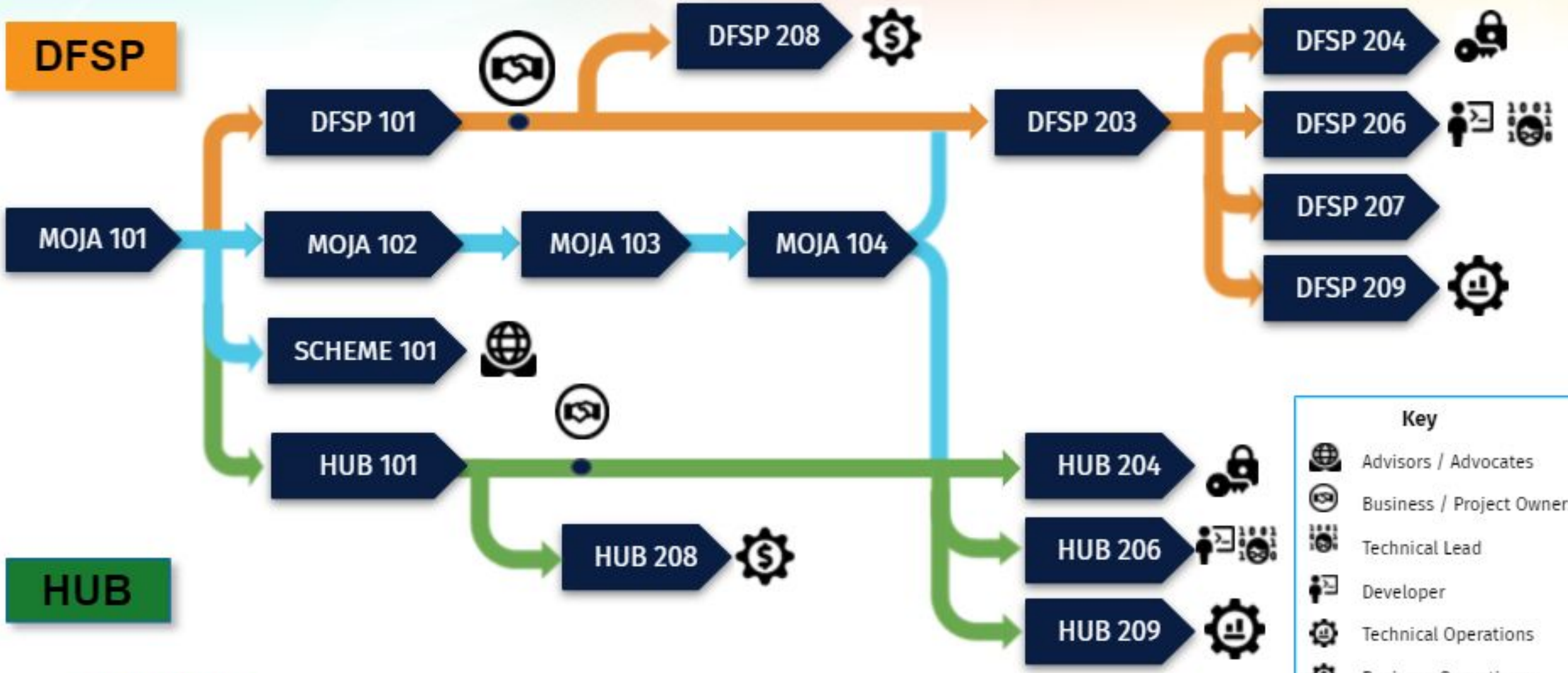
Build Mojaloop Adoption?

Mojaloop's brilliance is in the details. The more you know about Mojaloop the more you want to be part of the community.
Onboarding needs to be easy.

The **Mojaloop Training Program** is designed to explain the ideas of Mojaloop clearly, concisely to build and understanding of Mojaloop with minimal effort.

Training Program is designed to support other onboarding initiatives.

Mojaloop Training Program - Course Outline



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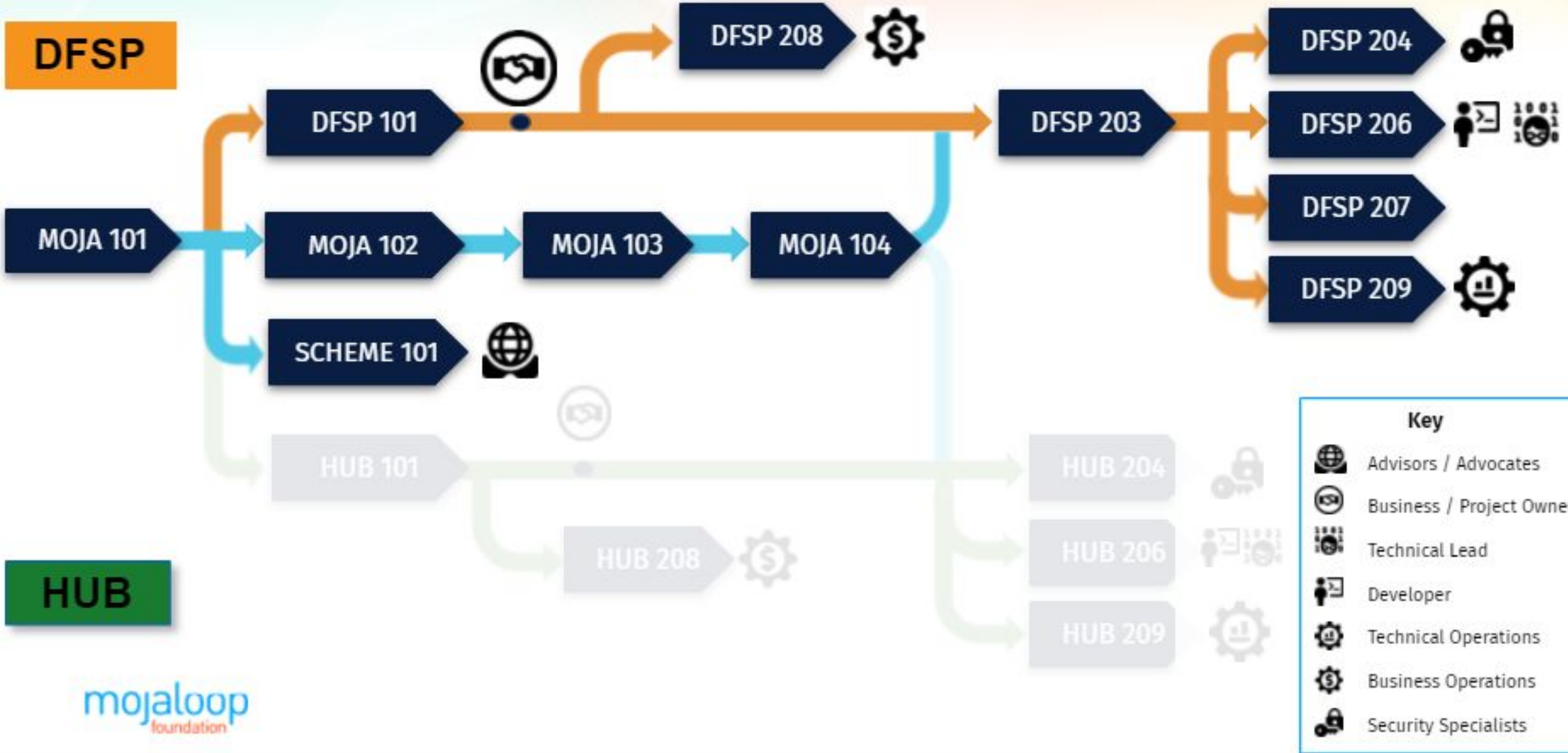
Mojaloop Training Program - Course Outline



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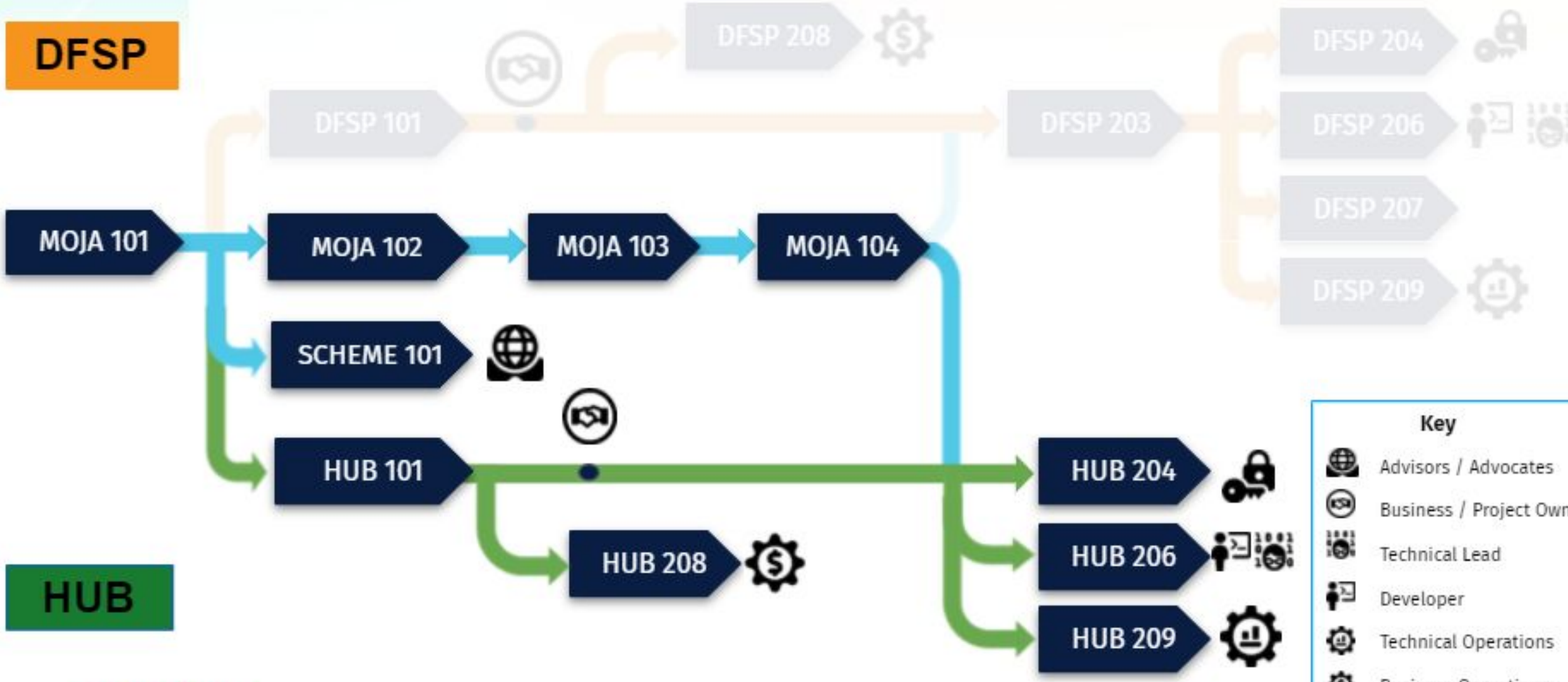

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How can community contribute?

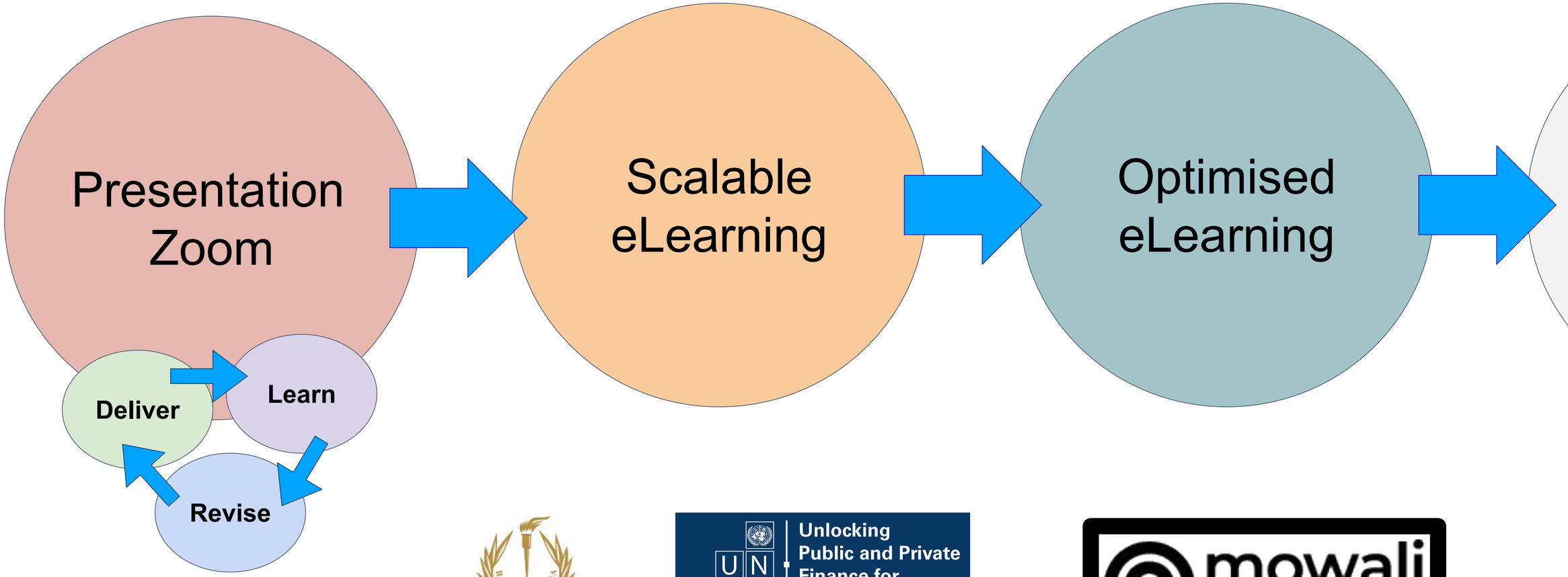
Who	Organizational Contributors	Individual Contributors
What	***Now*** - provide comprehension feedback on existing course content	***Next -*** add new courses, update course content with best practices
Why	***Community recognition***	Build community knowledge ***Community voting***

*Stay tuned for **how**...*

Designing a course

1. Description and Goals
2. Audience and Prerequisites
3. Structure into topics 10 - 20 minutes long
4. Build a storyboard - Presentation and collect supportive references and other media

Course Development Process



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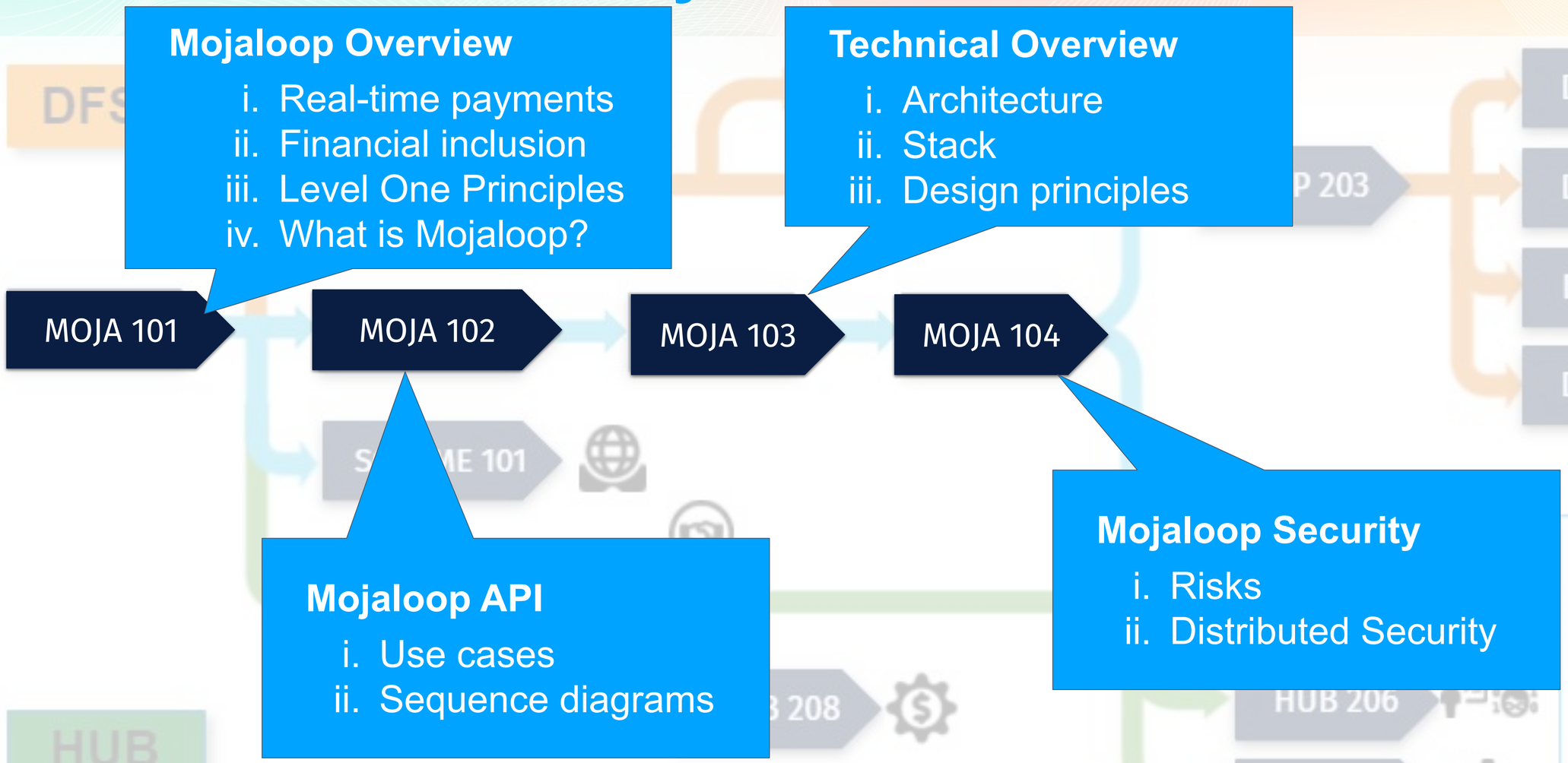
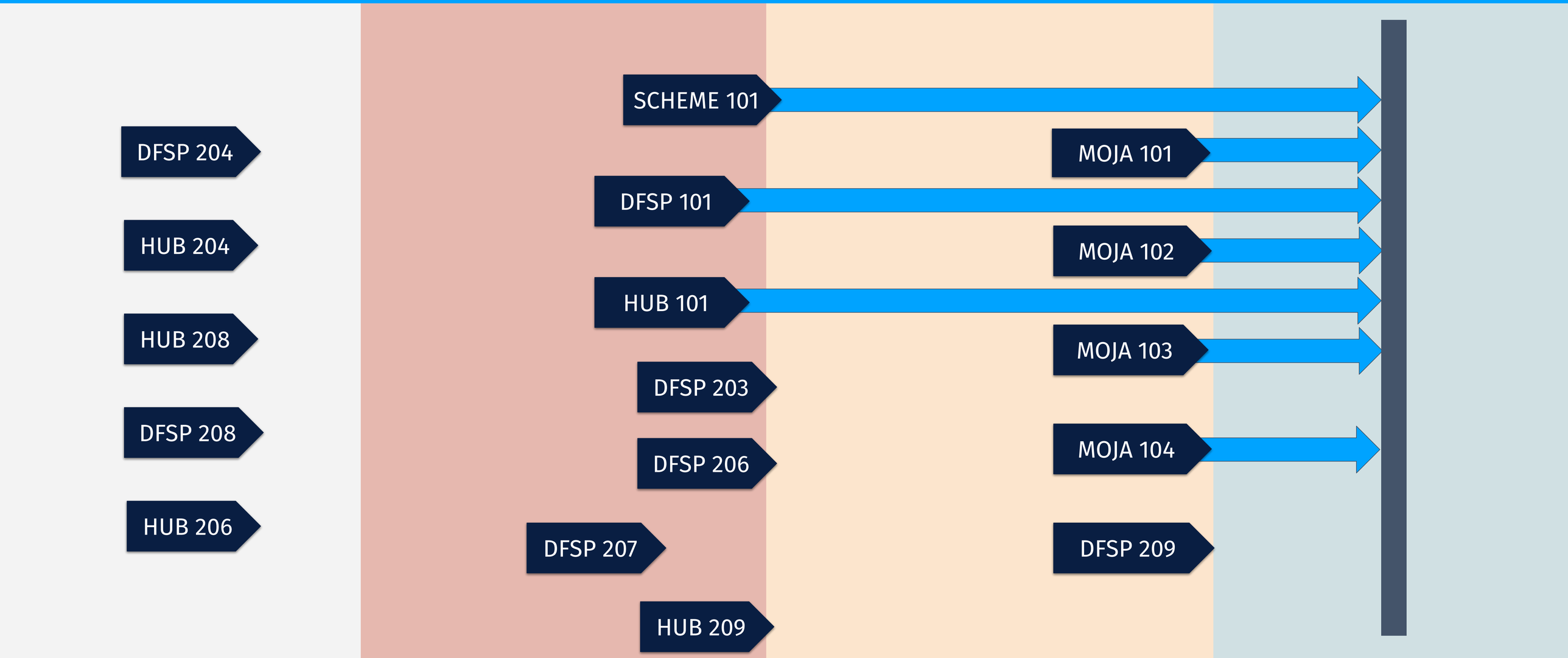
Unlocking Public and Private Finance for the Poor

mowali

Courses currently available in Scalable eLearning



Course building status

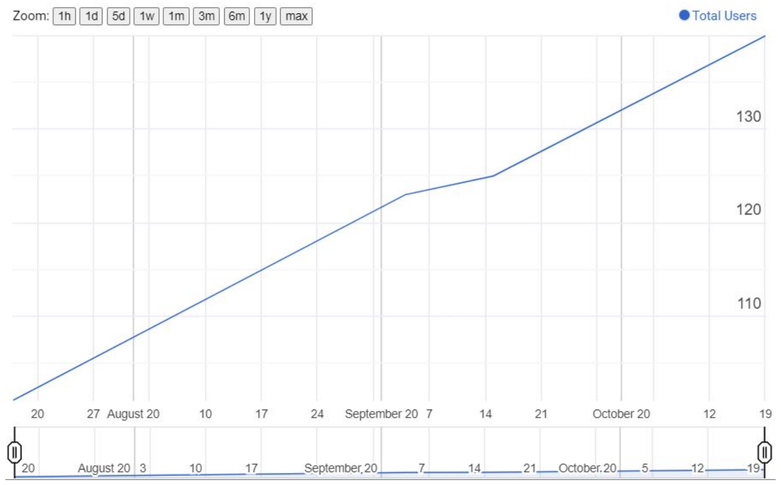


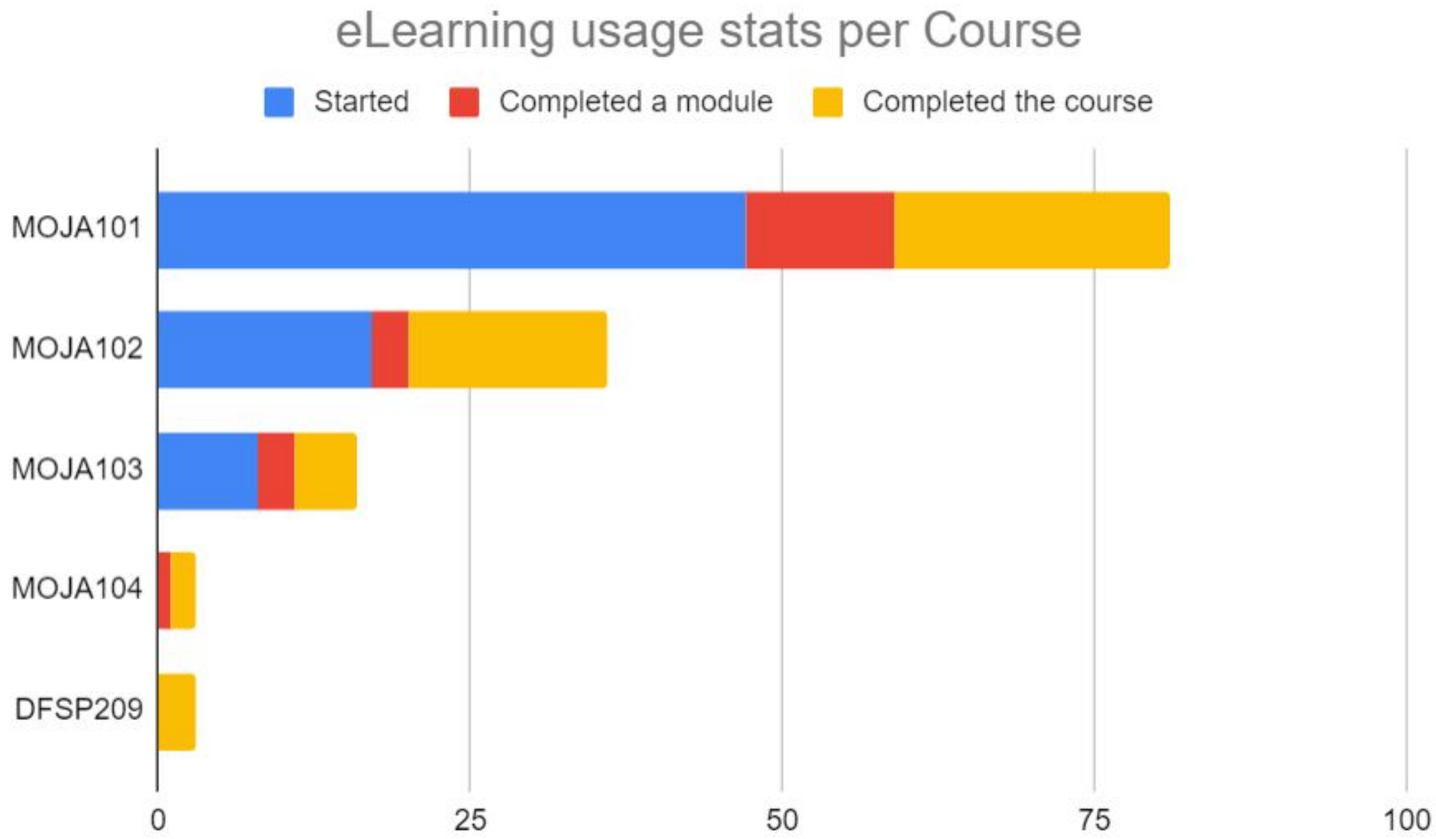
How can community contribute?

Who	Organizational Contributors	Individual Contributors
How	*Sponsor a Zoom presentation (with feedback)* *Develop new courses for areas of particular interest*	*Join a Course Working Group* *Do online courses and send feedback via the online system*

Participation Stats

Total Users: 140
Increasing at 3 users / week





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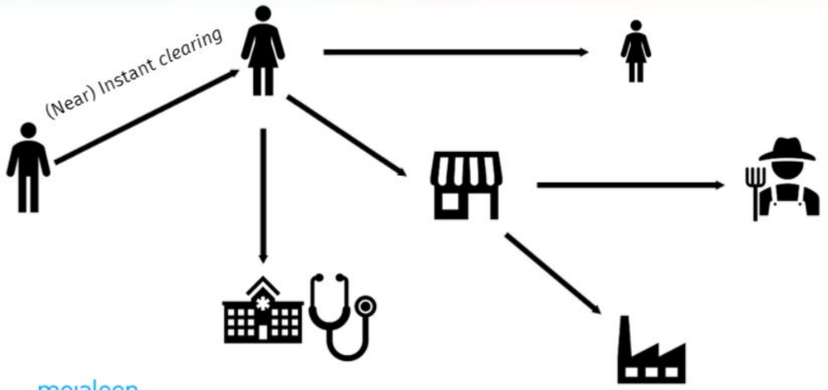
MOJA 101 - Mojaloop Overview Teaser

Real time payments: Why should we care?



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What is Mojaloop: Why use Mojaloop?

Mojaloop is a real-time payment switch for interoperability ...

Switch interoperability

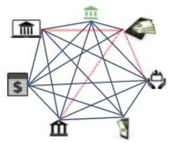
Cheaper to run
Greater liquidity efficiency
Inclusive

... between all classes of digital financial service providers (DFSPs).

VS

Not financially inclusive ——— Underserved markets

Bilateral interoperability

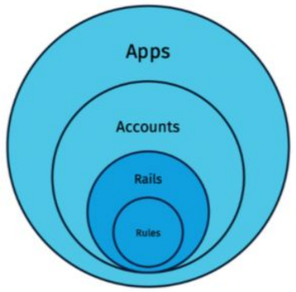


Integrations		
7	7 DFSPs	21
50	50 DFSPs	1,176

Increased complexity → Increased running costs
Some DFSPs favoured over others
DFSPs stuck in silo's
Limit transfer use-cases
Low - valued transactions are not prioritised
Non-banks are treated differently

Real time payments: Early iterations

Level One Project: Payment system components



Apps	**Innovation Market for Value Added Services & Products** *Enable market ecosystem innovation that delivers affordable, effective pro-poor services and products* Interventions: APIs and software library for developers to build, offer and deploy applications	Competition Space
Accounts	**Digital Accounts & Transactions** *Enable account opening and manage accounts for consumers, agents, merchants, and payees* Interventions: APIs and software library for IST integration, vendor certification, selection, SLAs	Competition Space
Rails	**Infrastructure for Connectivity & Interoperability** *Define requirements, buy/build IST and Fraud Risk solutions* Interventions: Requirements and build/buy IST, Requirements build/buy fraud system, API library, vendor, providor, operator SLAs	Collaboration Space
Rules	**Regulatory and Governance Framework** *Establish Legal and Regulatory Framework to initiate and sustain digital financial services scheme and platform* Interventions: Create and guide mechanisms for rule setting, stakeholder collaboration, governing and operating the DFS scheme, participants and performance	Collaboration Space

DFSP Product Considerations: Impact of Key Decisio

Ownership Model	Operating Model	Use Case Launch Roadmap	Participation Model
Governance Model	Settlement Model	Scope of Fraud Utility	Payee Identifiers
Common Scheme Brand	Connection to other systems	Scheme Exception Handling	Pricing Considerations

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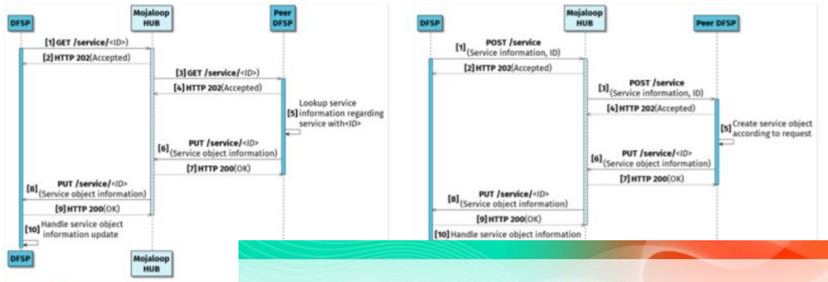
MOJA 102 - Mojaloop API and use cases teaser

Mojaloop API overview: HTTP methods

- **GET** – Get information about a previously created object
- **POST** – Create an object
- **PUT** – Always used as callback to a GET or POST
- **DELETE** – Delete a previously created object (**only** for Account Lookup System)



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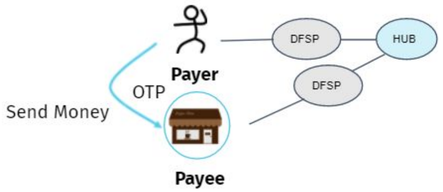
Payee initiated: Merchant-Initiated Merchant Payment -POS

Merchant-Initiated Merchant Payment - Authorized on POS

In this use case a merchant initiates a request for payment from the customer; the customer reviews the payment request on a merchant device and authorizes the payment by OTP or QR code on the merchant device. The customer authentication information is sent from payee FSP to payer FSP for authentication by payer FSP.



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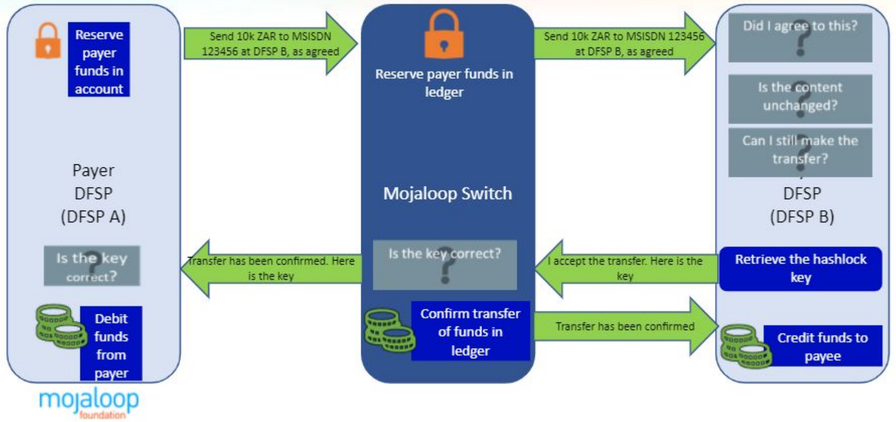
End to end example: Transfer



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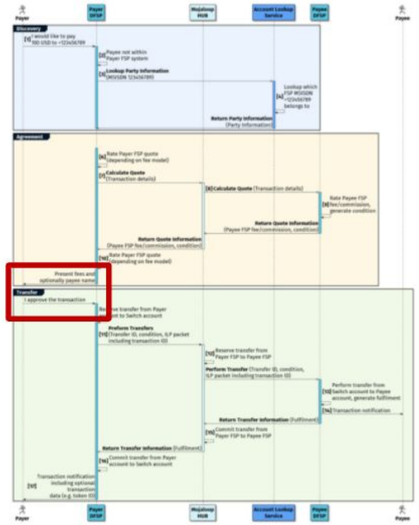
Mapping a high-level transfer to API calls

DISCOVERY

AGREEMENT

TRANSFER



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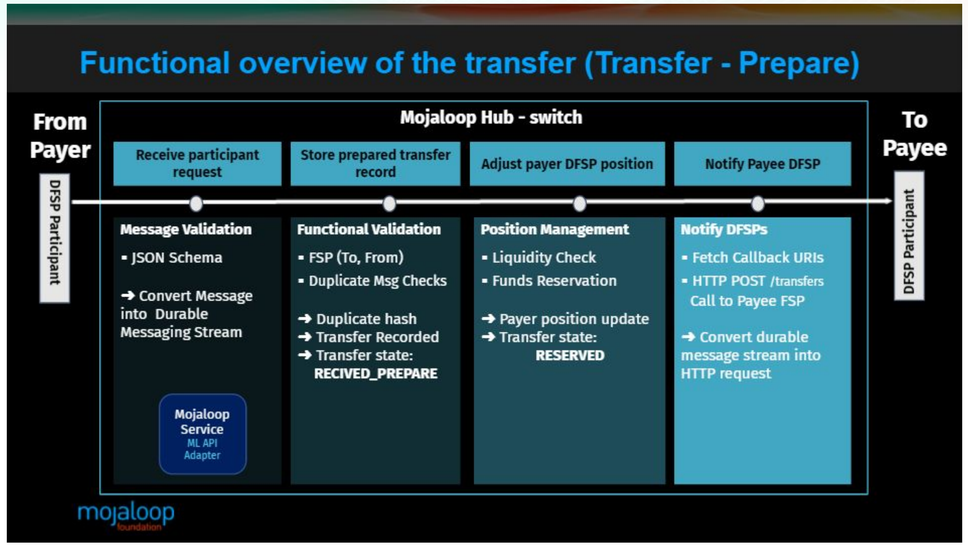
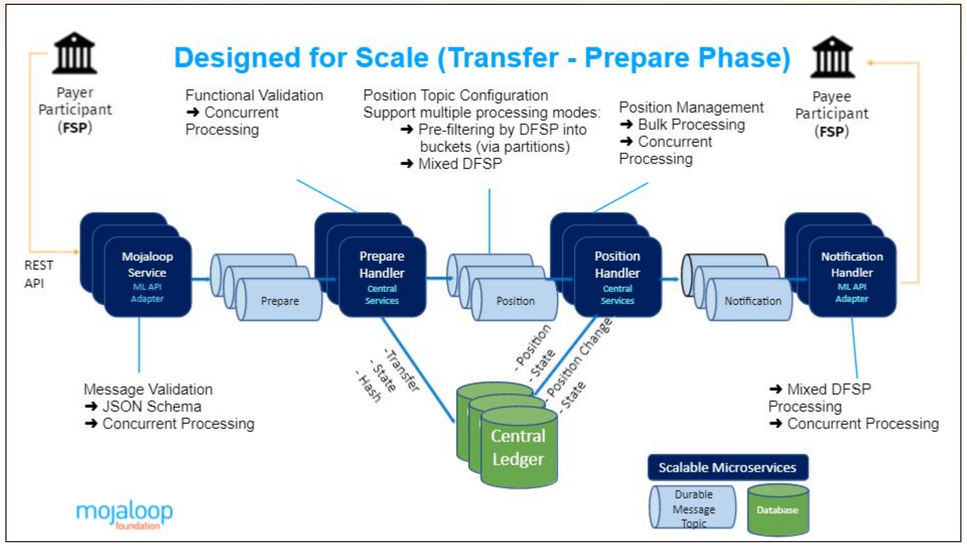
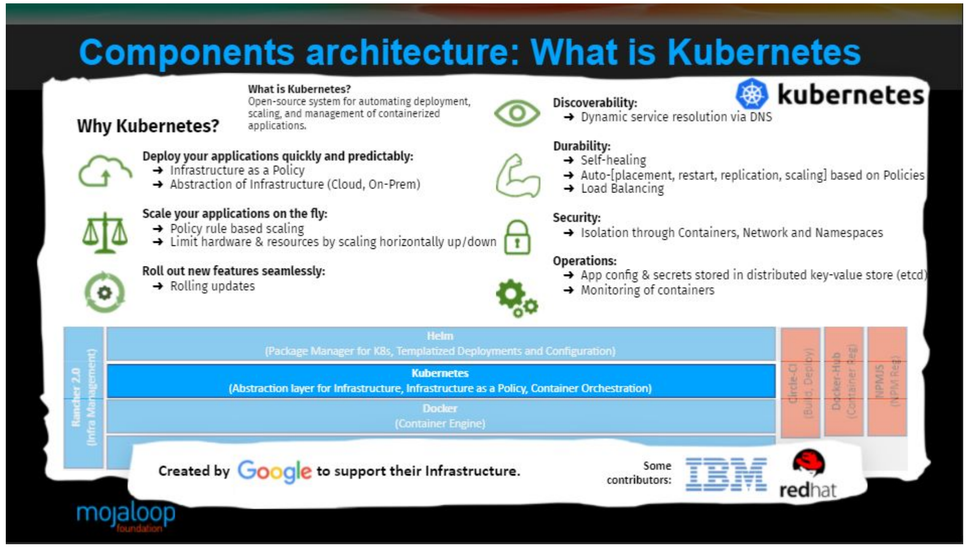
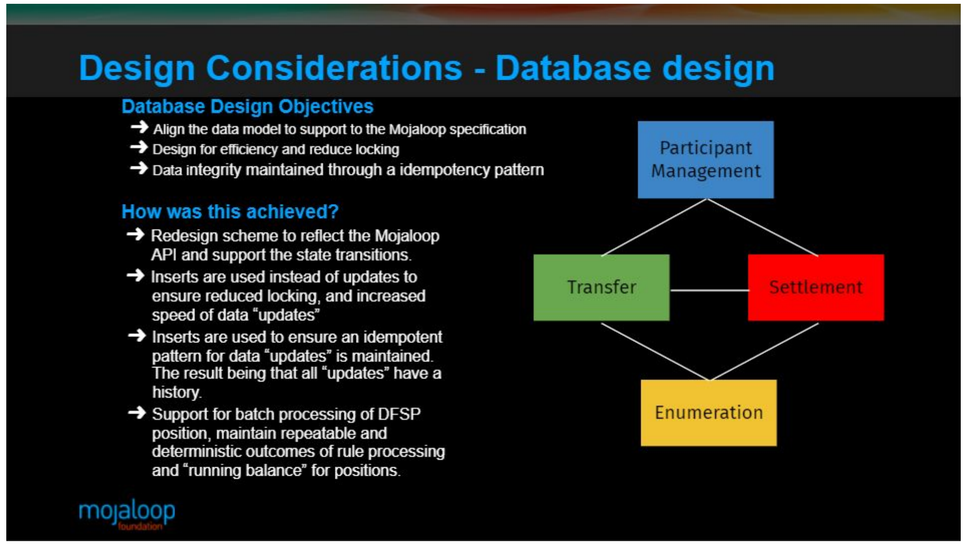
MOJA 103 - Mojaloop Technical Overview Teaser









Moja 104 - Mojaloop Security Overview Teaser

Mojaloop API security: Secure Communication between DFSP and Hub

Mutual Transport Layer Security (mTLS)
secures the communication channel for bi-directional asynchronous connections

OAuth2 is used to provide role based access to Hub endpoints (API authorisation)

IP Whitelisting reduces the attack surface of the Hub to know DFSP addresses

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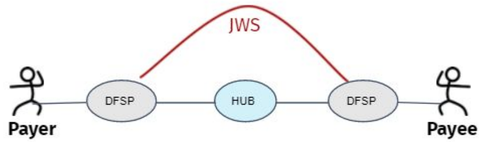
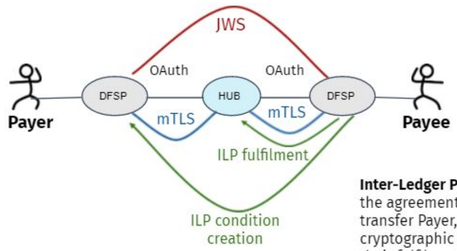
Mojaloop API security: Are you who I think you are?



JSON Web Signature (JWS) ensures Payer DFSP and Payee DFSP can trust messages shared between each other without potential modification by the switch.

Mojaloop API security: Transactional proof

Transactional proof is achieved by ensuring that all parties are who they say they are, and that the transactional condition of the transaction is agreed to.



Inter-Ledger Protocol (ILP) ensures that the agreement is binding and during transfer Payer, Payee and switch can test cryptographic lock via conditions and their fulfilment.

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