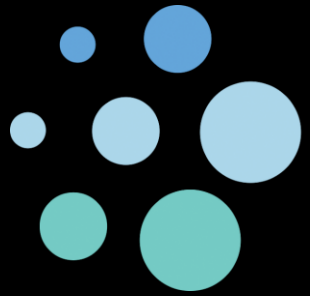

DFS
LAB

# #Mojacamp

The DFS Lab Hackathon-ish, design sprint-y event we ran in April

# Agenda

- DFS Lab Intro
- The Hackathon
- Some “technical” briefs
- What’s next

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# The DFS Lab in <280 Characters

The DFS Lab mission is to work with the best FinTech companies in Africa and South Asia and play a meaningful role in their success.

We invest in early-stage FinTech companies and work on ecosystem initiatives in the FinTech space.

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# Everyone Has “Customers”

- Hub Operators →DFSPs
- DFSPs → Individuals, businesses
- FinTechs → Individuals, businesses, etc… (sometimes to fill an unmet need in DFSP services)
- Interoperability & Mojaloop will affect everyone’s customers and we wanted to test how this community could engage and benefit from working with 3rd parties, i.e. Not a hub operator or implementing DFSP

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# The Hackathon

# Participants

grameenphone

FAMOCO

ethioPay

one load

Juvo

JUMO

paystack

carbon

ssnapp

TELLER

## Mentor Representatives

cba

PayPal

beyonic

konga.com

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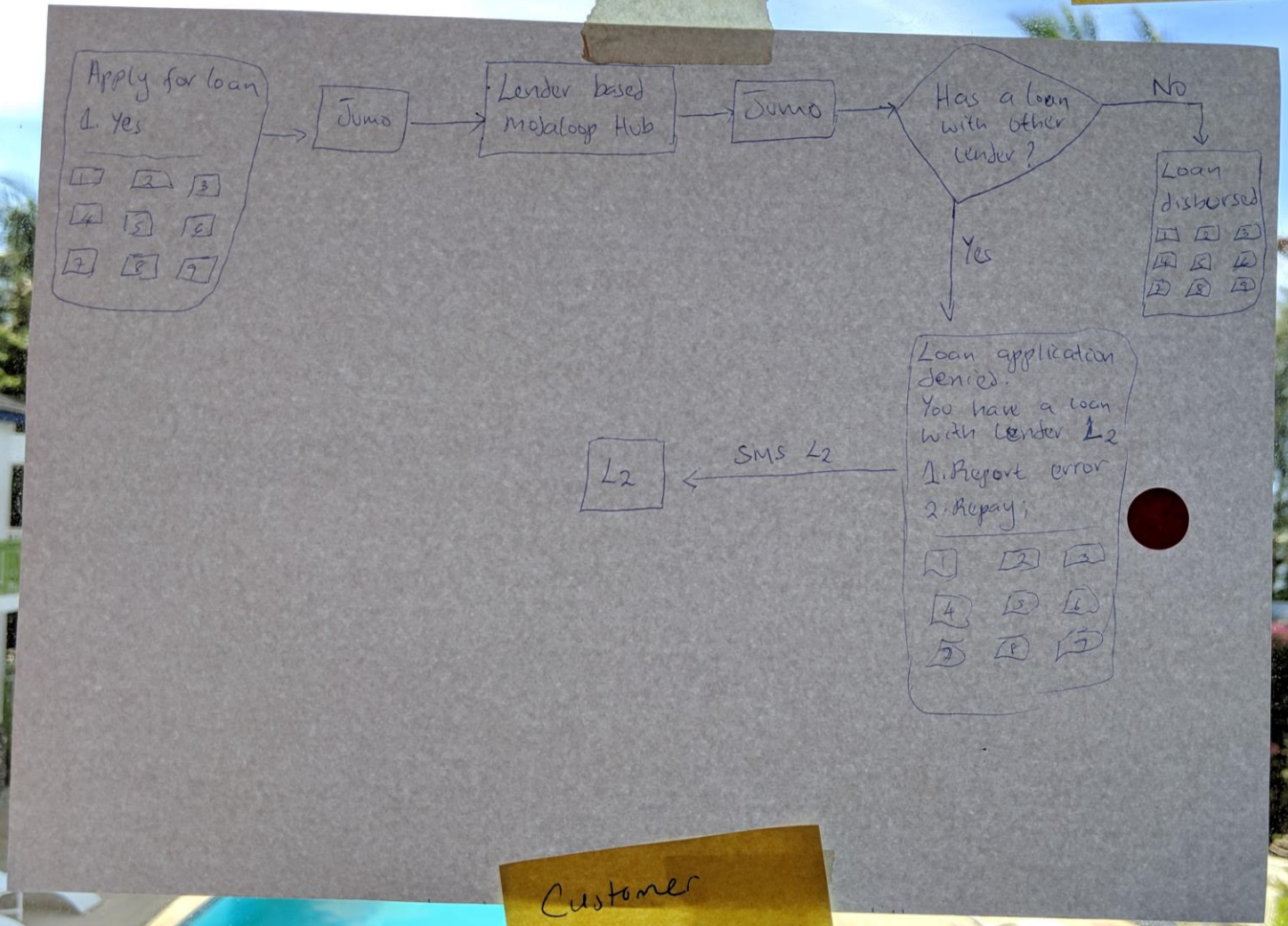

Apply for loan
1. Yes
Jumo
Lender based
Mobaloop Hub
Jumo
Has a loan with other lender?
No
Yes
Loan disbursed
Loan application denied.
You have a loan with Lender L2
1. Report error
2. Repay;
SMS L2
L2
Customer

# The Format (Days 1 & 2)

**Introduction to Mojaloop**

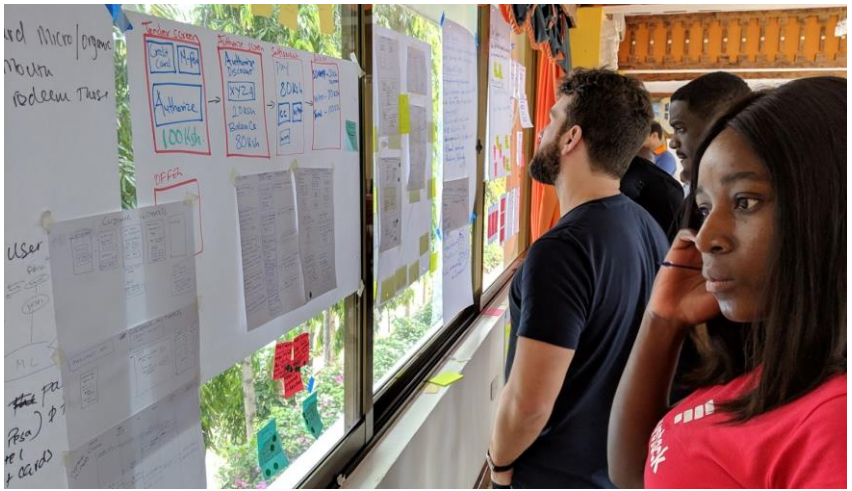
- Technical Intro

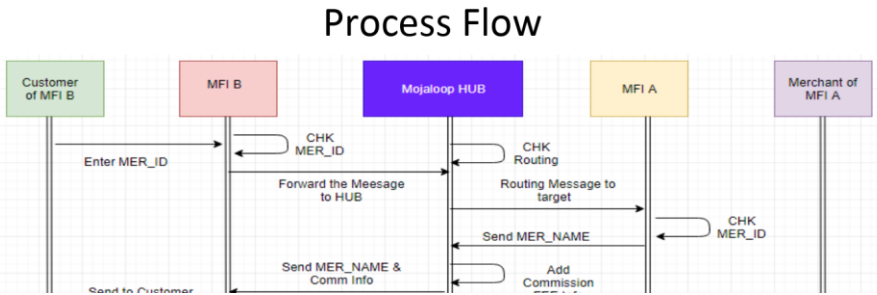
**Design Sprint**

- Bring participants “to the users”

**Outputs:**

- Storyboard (UI/UX)
- Process Maps





# The Format (Days 3&4)

**Build**

**… and then demo!**

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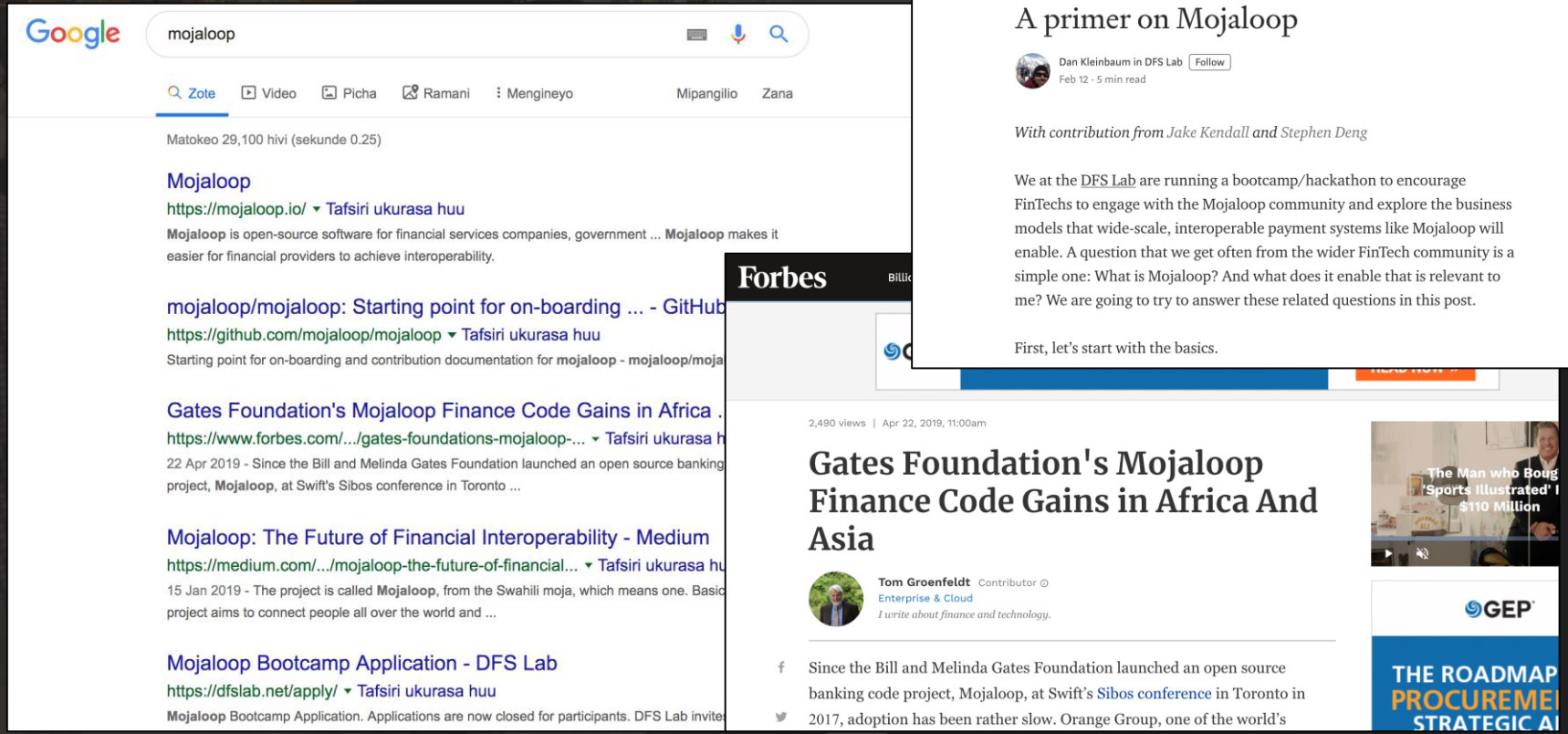
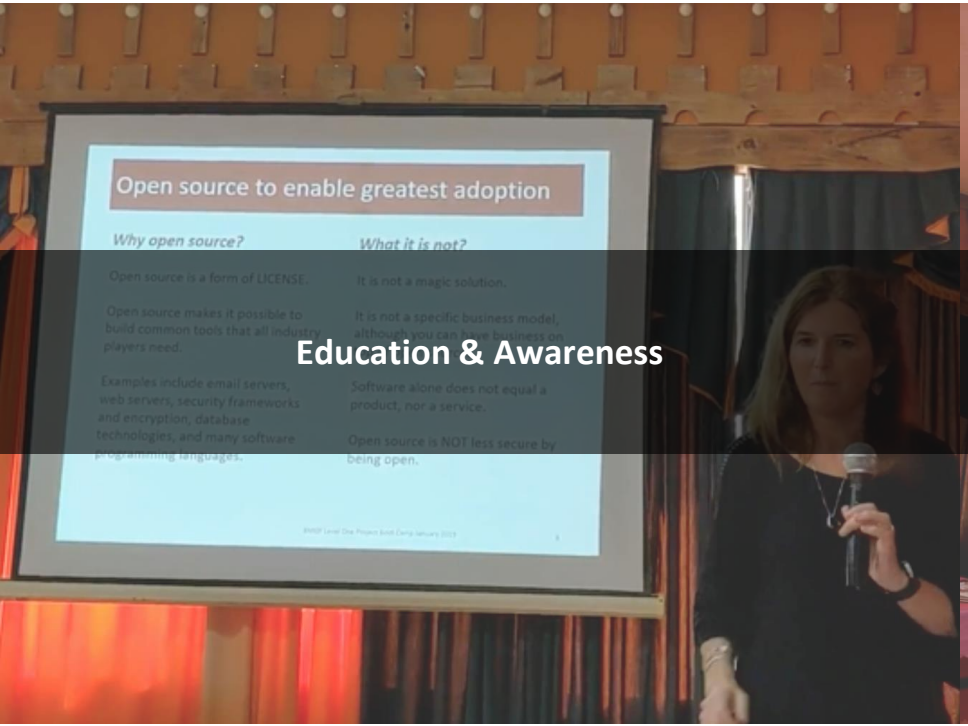
# Outreach & Communications



# Why run a hackathon?




Education & Awareness

Test and Validate Commercial Use Cases

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# Participants

- Interoperable ‘agent’ networks
- Potential Hub Operators
- “Will Mojaloop work for me?”

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- Lending markets/credit reference bureau
- 3rd party FinTechs
- “How can Mojaloop/L1Ps be applied outside of payments?”

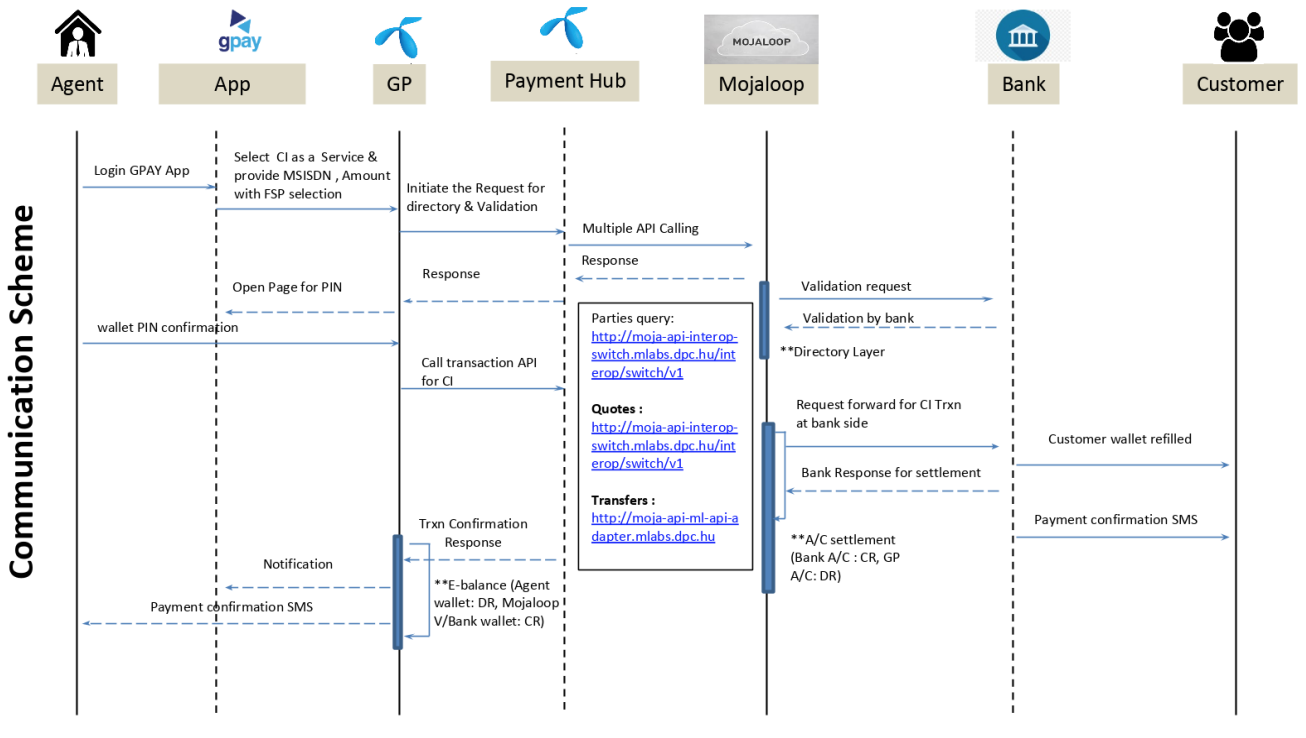
---

- Consumer-facing products
- 3rd party Fintechs
- “[How] does Mojaloop change my life?”

# Hub Operator (kind of)

grameenphone

**Core Goal:** Connect the gap between 50mn bank accounts, 67m MFS wallets and 1m agents all in disparate systems. Currently, 6 large banks are on board, but the 53 remaining banks present a large logistical and technical hurdle to on-board.



**Questions & Opportunities:**

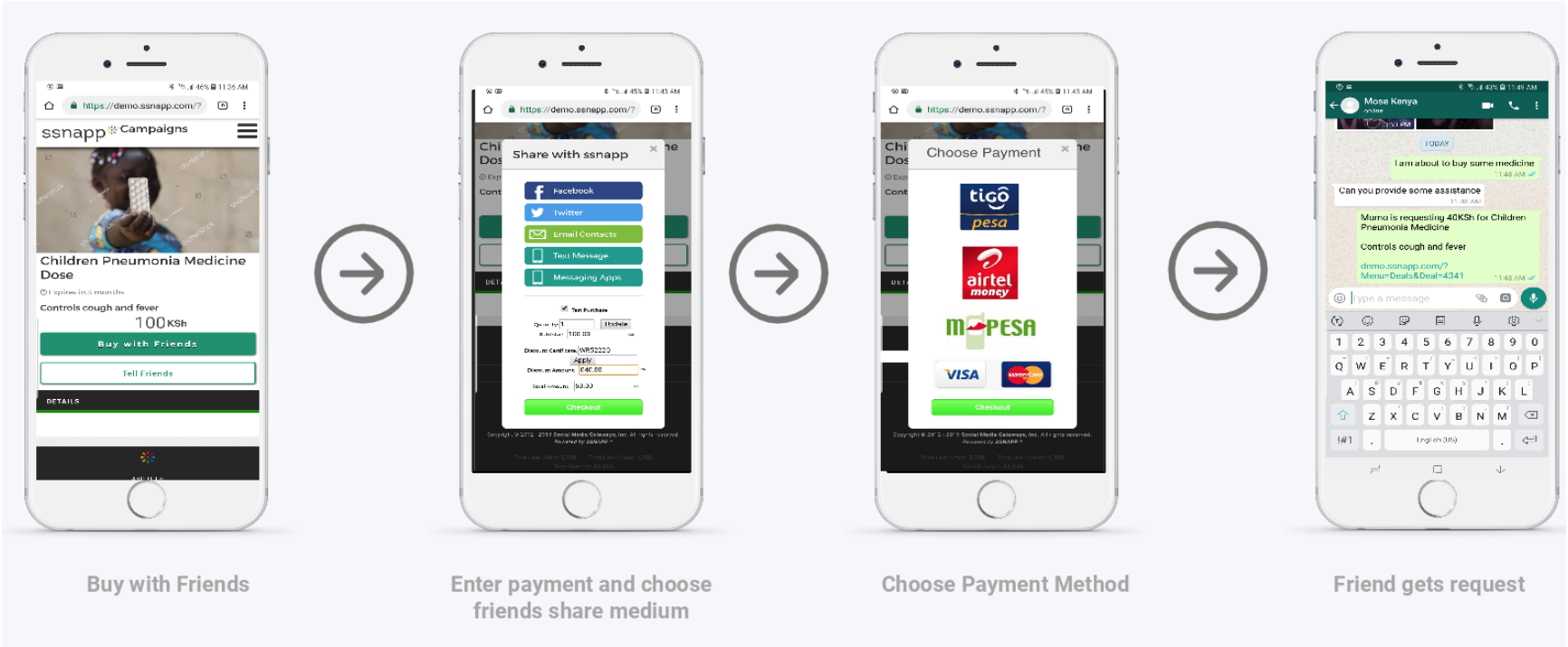
- A lack of settlement API on the sandbox did not give them confidence that they could meet their performance requirements
- What do you do with a person with multiple accounts at different FIs all linked to one MSISDN?

**High Note:** There is an acute need to figure out how to integrate a large number of providers and build a switching platform and the GrameenPhone team is pursuing a pilot

# Mojaloop and e-commerce

**Core Goal:** Enable anyone to buy and sell anything, from anywhere

**Mojaloop Goal:** Merge multiple payments from payees on multiple DFSPs to a single merchant request.



ssnapp™

**Hurdles:**

The sale of any type of good under L1P would require the ability to do bilateral ”interchange” between merchants and the producers of goods for commissions, and the buyer of a product to make a payment and have it split between the merchant and the buyer. This requires two things:

1. Split-payment from one payee to multiple recipients.
2. Multiple-quote combination

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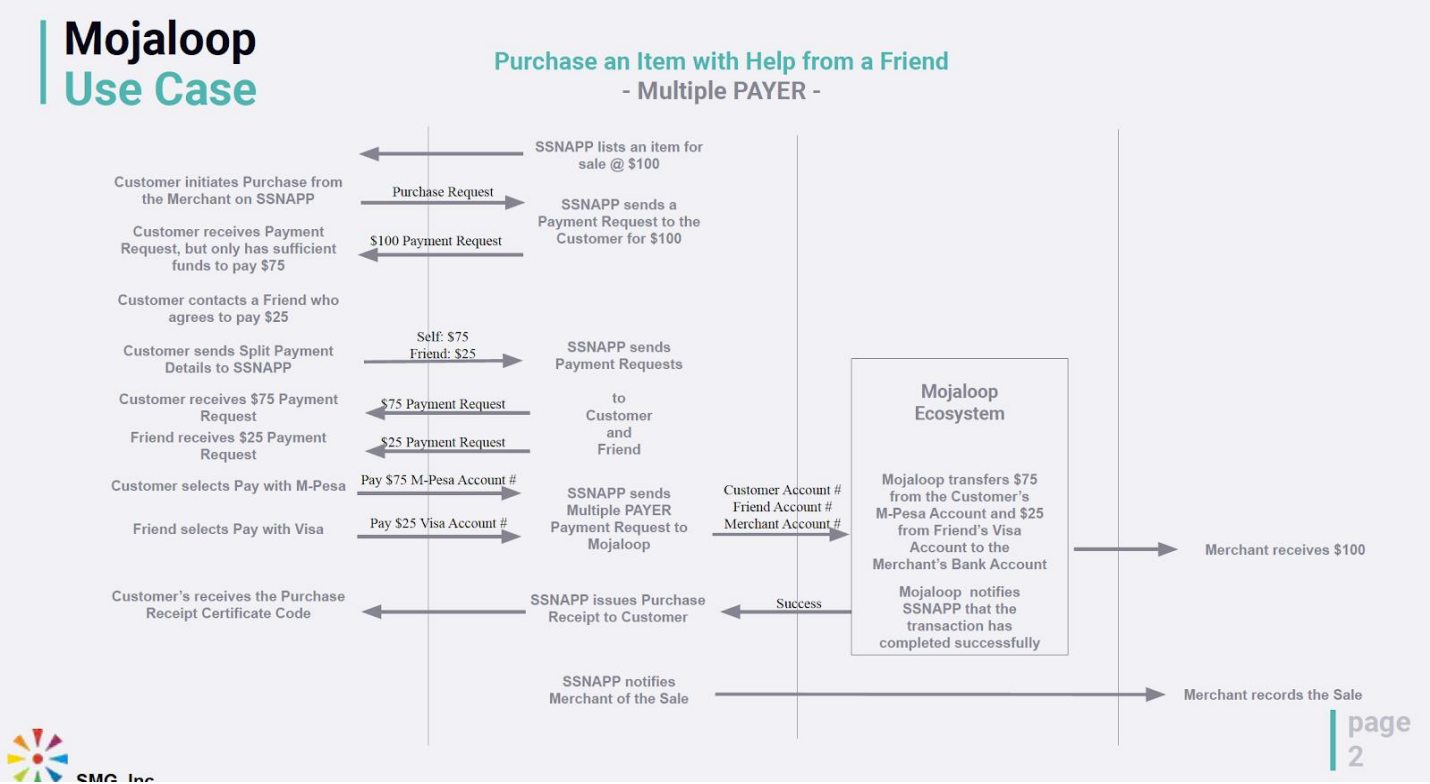
**Get “buy” with a little help from a friend**

**(Note: This is not an API call)**

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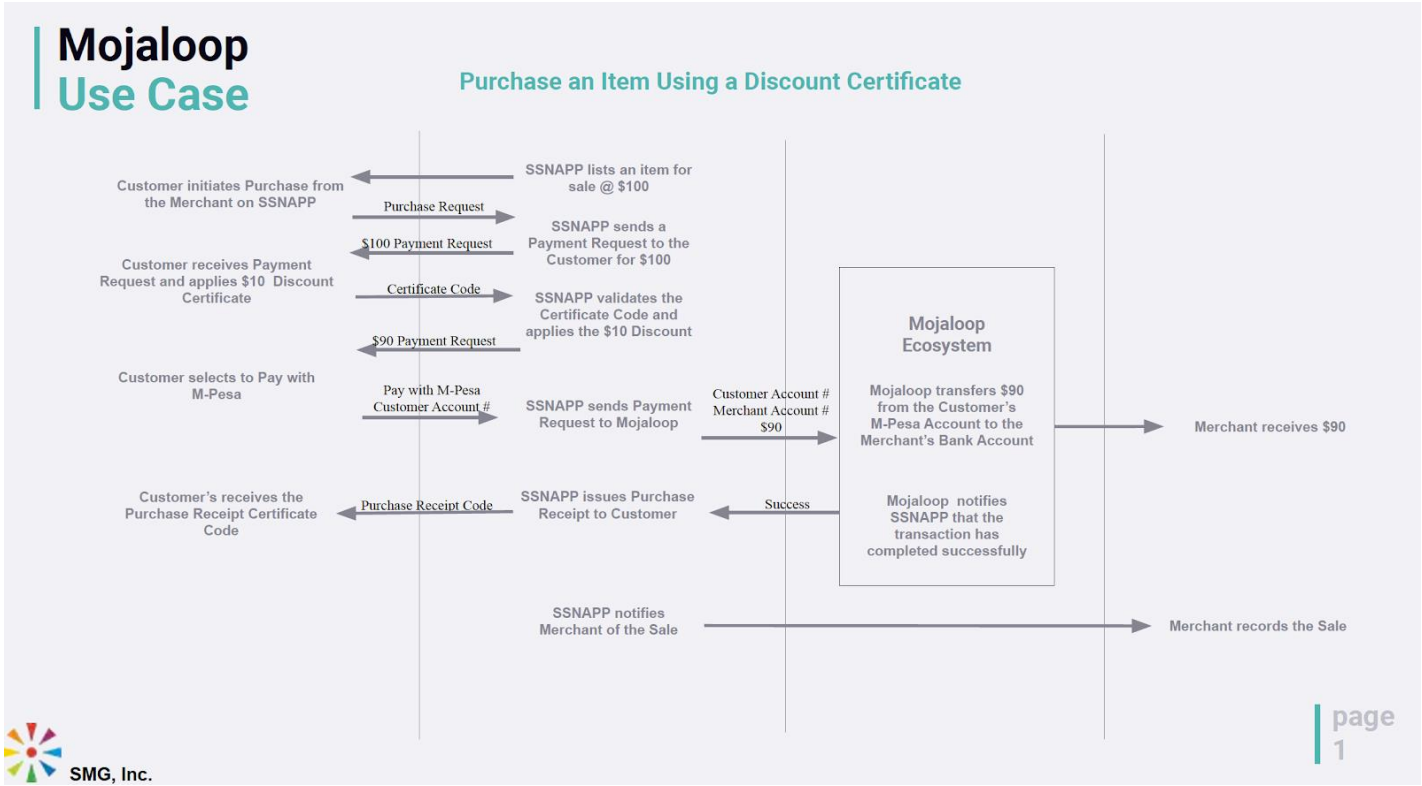
**Promotional Discounts:**

**“Refer a friend to Mojaloop and get $10 off!”**

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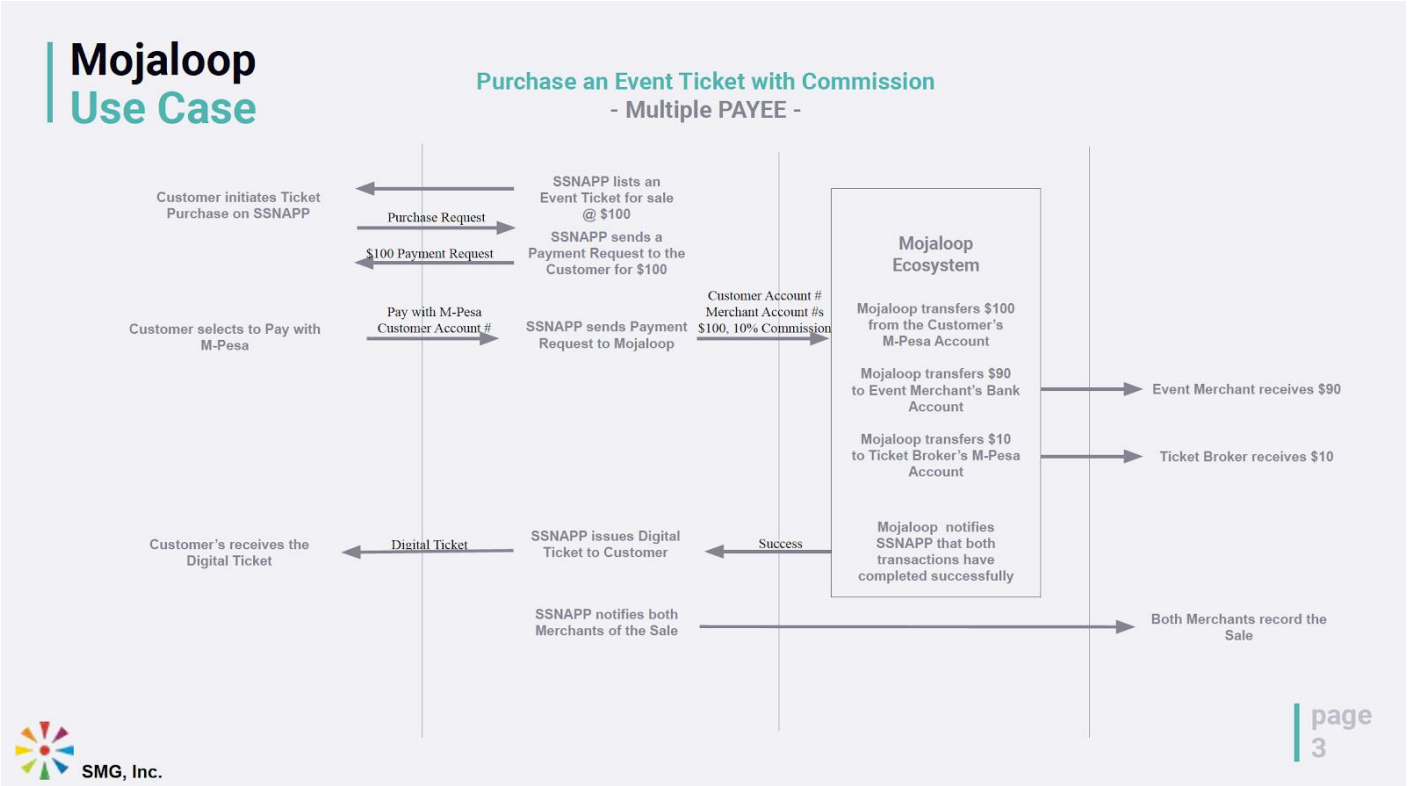
# Commission-based reseller model

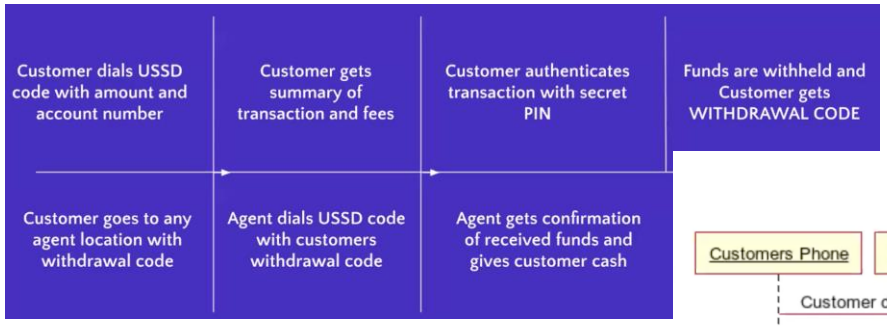
**“Get 10% of whatever products you sell”**

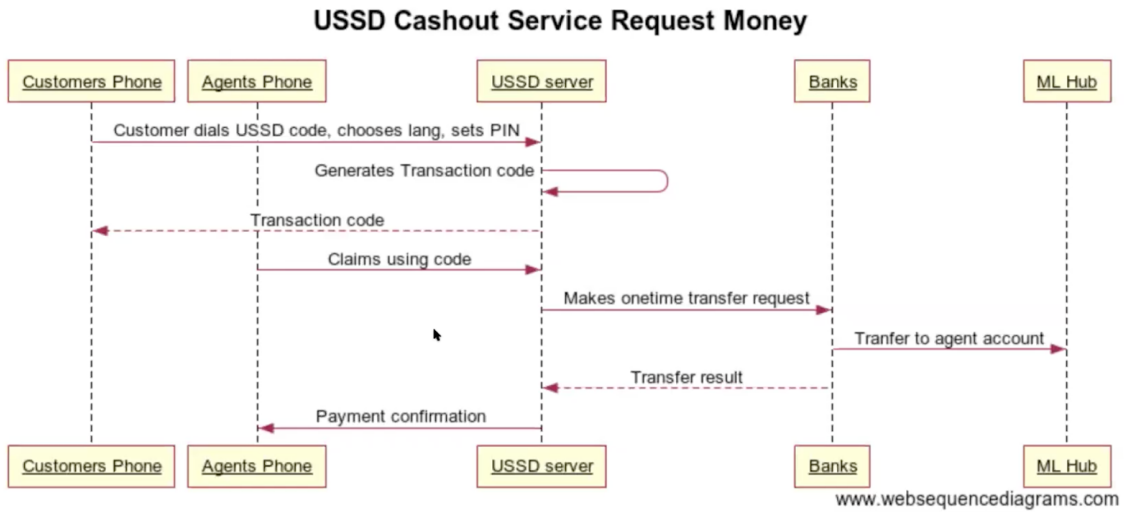
**(Note: This is not an API call)**



**Core Goal:** To provide DFS to the under-banked by expanding beyond digital loans.

**Mojaloop Goal:** Demonstrate how a customer can redeem a voucher from any agent on their network through a Mojaloop deployment

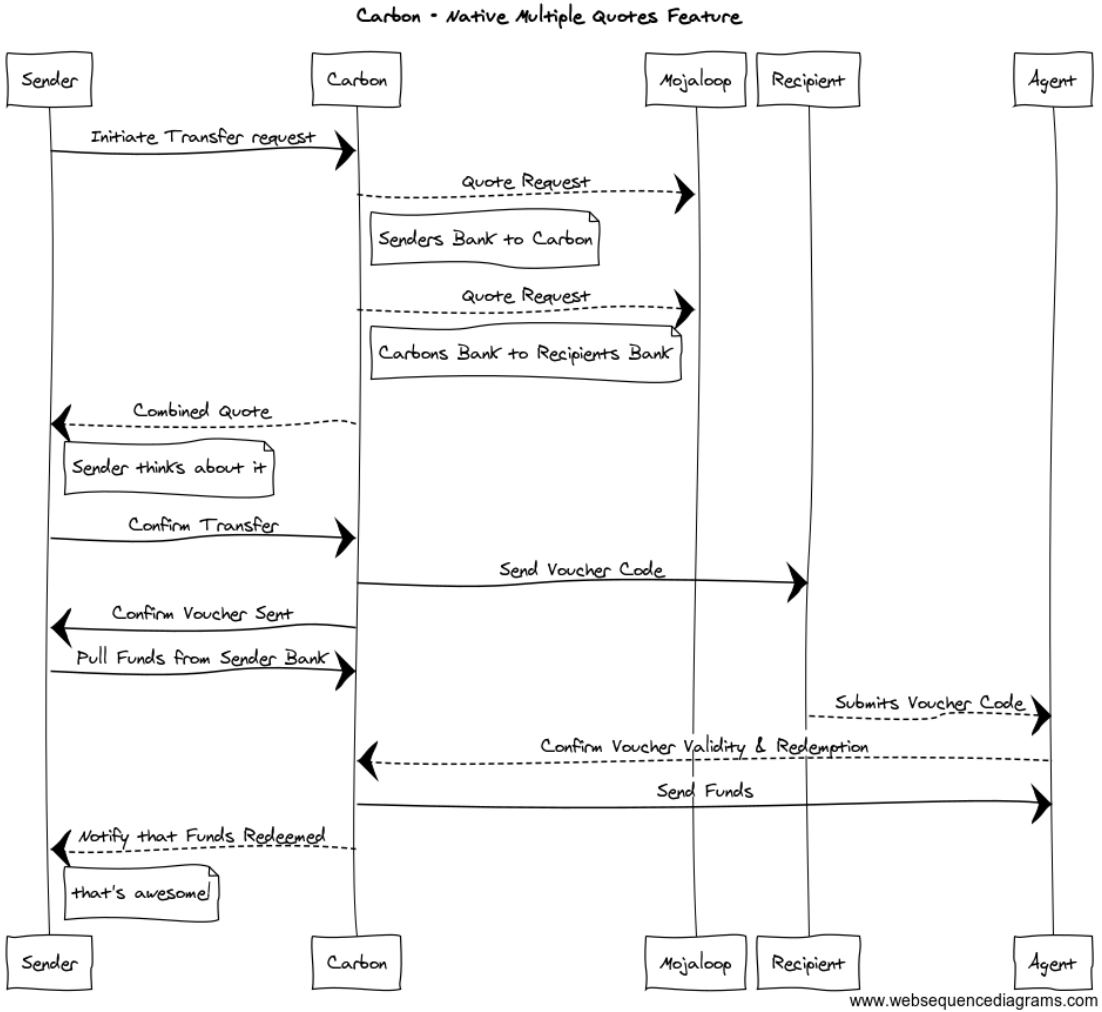


carbon

**What Carbon Wants:**

- Multiple Quote Combination
- “Digital Scratch card” – for non-real time voucher redemption
- From the ATM Conversation, is a “really long timeout” the best solution for this?



# How Mojaloopy can it get?

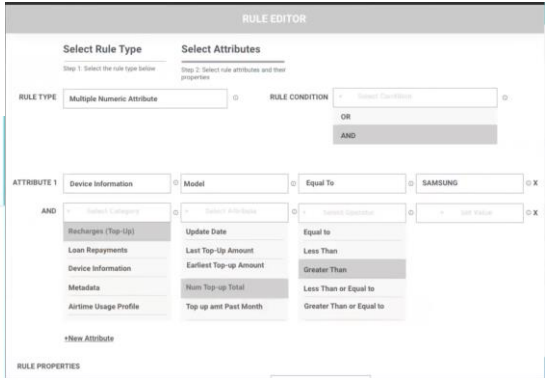
**Core Goal:** Offer equitable finance services to mobile-only customers

**Mojaloop Goal:** Build out a credit marketplace on top of a Mojaloop deployment

## 01: Loan Request | Credit-Check Policy

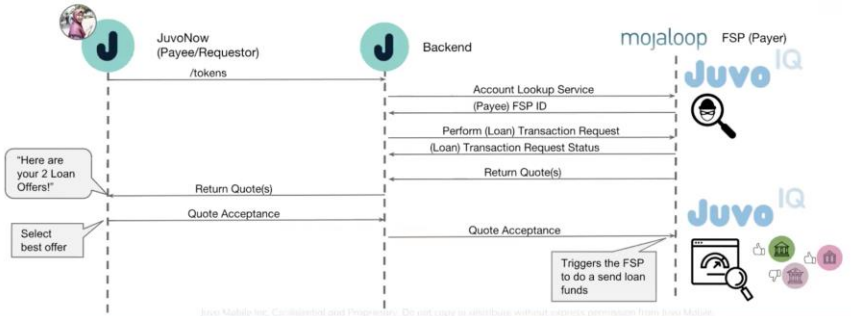
```
POST /v1/iq/policies HTTP/1.1
Host: iq.juvo.com
ApplicationId: mojaloop.tigo.policy.tz
Content-Type: application/json
Authorization: {reducted}
Cache-Control: no-cache

{
  "name": "policy_mojaloop_credit",
  "properties":
  {
        "score_min": 0,
        "score_max": 100,
        "decision_tiers": {
            "approve": [41,100],
            "deny": [0,20],
            "manual_review": [21,40]
        }
```

```
{
    "custom_variables": {},
    "decision_properties": {
        "number_of_rules_evaluated": 3,
        "policy_execution_terminated": "NO",
        "policy_name": "policy_decision_example_1",
        "reason_codes": [
            [
                "max_monthly_payment_150
                30
            ]
        ],
        "rules_not_evaluated": [
            "max_monthly_payment_750"
        ]
    },
    "decision_result": {
        "decision": "review",
        "score": 30
    },
    "request_timestamp": "2019-04-10 12:
```




## 03a: Loan request initiated | enhanced

Using Juvo's data-driven **policy engine to address fraud** & **enable better FSP decisioning** for offers & assess risk

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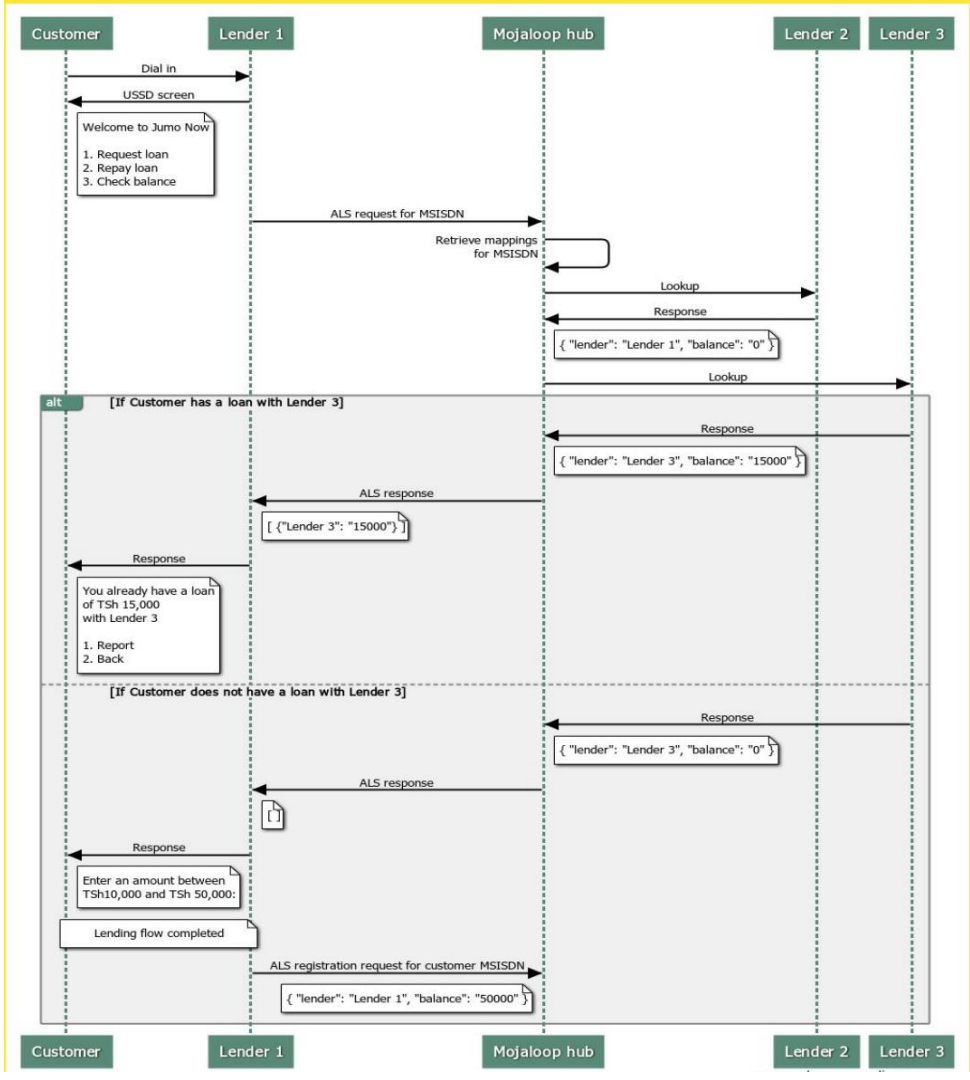
Juvo

**What Juvo would want:**

- Currency utility for cross-border use-case
- Merchant directory for merchant-payments use case
- Enriched FSP directory where we have a list of services and products the FSP can provide.
- Metadata
- Ability to deploy a local instance of Mojaloop as part of the workshop requirements



**Opportunities, Questions & Challenges:**

- What would the Level 1 Principles look like applied to lending?

- How do we want to allow metadata to be incorporated into “add-on” use cases like lending marketplaces?

- Why async vs. sync API requests?

- Zero-knowledge proof system to allow lenders to share and validate data without having to violate privacy agreements or give up proprietary data presents an opportunity to create a fairer, more open and affordable lending market.

# What else we kept hearing

**Testing is Hard**

- Documentation is outdated
- Async vs. Sync APIs
- Deploying a standalone instance is not trivial

**Functional Requirements**

- Settlement Performance Questions
- Security/Fraud Questions
- Regulatory Requirements Unfulfilled

**Business Cases**

- The questions to ask are clear
- The answers were not

**New Use Cases**

- Multiple Addressing
- Split Payments -> multiple recipients
- Combine multiple payments → single authorization

**”How does this work (or not) with L1P?”**

- Push ←→Pull Adaptation.

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# What's next

- Full Technical Briefs → GitHub
- Another hackathon (likely)
- Test a workbench strategy
- Generally, ask: who are our current customers? Who *can be* our customers? How will we need to serve them?

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**Did someone say containers?**

# Thanks!

**More Info:**

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