



# Merchant Payments

PI-23 – Mid PI Review

# Recap



- **Pillar 2: Increase adoption of Mojaloop**
  - Merchant Payments is an important use case
- **Transfers vs Payments:**
  - As far as the flow of funds is concerned both are same.
  - However, unlike Transfers, Payments
    - Are Transfers linked to delivery of goods/services.
    - Are carried out in different modes (Online/Remote, Proximity)
    - Are of different types (P2G, P2M, Utility Bills etc.)
- **The goal of this workstream is to**
  - Identify market needs and create necessary tools to support adoption of Mojaloop for Merchant payments.

# Progress since March 2023



## PI-21

- Workstream re-initiated
- Identified Epics and Stories
- Prioritized focus on Small merchants and Proximity Payments
- Merchant onboarding & Merchant Registry (Oracle)

## PI-22

- Started design of UI/UX for Merchant Portal
- End-end flow diagrams and documentation of functionality
- DA Approval on design and interaction between Merchant Registry and Mojaloop.
- Development of Merchant Portal & Registry components (MVP Features)
- Integrated Registry with Mojaloop ALS

## PI-23

- Enhancement of Merchant Portal with priority features
- Test Case automation and CICD Setup
- Complete release Checklist for Beta Release so the components are ready for **Production**



# Mid-PI Progress

- **Enhancement – New features**
- **Test Case Automation and CI/CD setup**
- **Packaging – Getting the V1.0 ready for release and adoption by community.**

# Enhancements – new features



New Features (targeted for PI-23)	Requirement Analysis	Technical Design	Development	Testing (automation)
Enhancements in User Management – Hub users	Done	Done	Done	Done
Enhancements in User Management - DFSP user creation UI	Done	Done	Done	Done
DFSP Onboarding	Done	Done	Done	Done
Merchant Self service onboarding	Done	In Progress	Not started (will be part of V1.1)	Not started
Allow Merchant to change DFSP on their own without changing Alias	Done	In Progress	Not started (will be part of V1.1)	Not started

# Document references



- **Documentation on Github**
  - <https://github.com/mojaloop/merchant-payment-docs>
- **Implementation Repository**
  - <https://github.com/mojaloop/merchant-registry-svc>



# Packaging for release

- [Release checklist](#) - Out of 32 items, 22 items are done.
- Test Case Automation and CI/CD is completed as part of this.
- Remaining are mostly in progress or ready for review.
- We are targeting the first release with updated documentation within February 2024.



# Target for March 2024

- Release v1.0 in February and publish on Mojaloop Github
- Roll out additional enhancements as an update V1.1
  - Caveat – need developers to contribute on tasks in February





# Work pipeline

- **Priority Tasks -**
  - **Complete release checklist**
    - Release packaging
    - Security testing
  - **Functionality – backlog**
    - Merchant initiated onboarding request
    - User/Role management UI + integration with OIDC provider
- **Design Tasks**
  - Bulk merchant onboarding support
  - Adding 2FA on Portals
  - Request to Pay – Merchant initiated request
- **Demo Lab Setup**
  - Setup a 24x7 demo lab with Customer and Merchant Apps for adopters to view and run end-end transactions

# Community Support required



- **Currently active members are from**

- ThitsaWorks
- Paysys Labs
- iMoSys



- **Meeting schedule**

- Development team
  - Twice a week – 30-60 minutes session
- Workstream Update
  - Every alternate Friday – 30 mins to 1 hour

- **We need more active participation of other members**

- **Developers**
  - DevOPS engineers – helping with CI/CD tasks
  - QA/Testing person – Security testing
  - Adopters – to give feedback on the functionality to be prioritized.

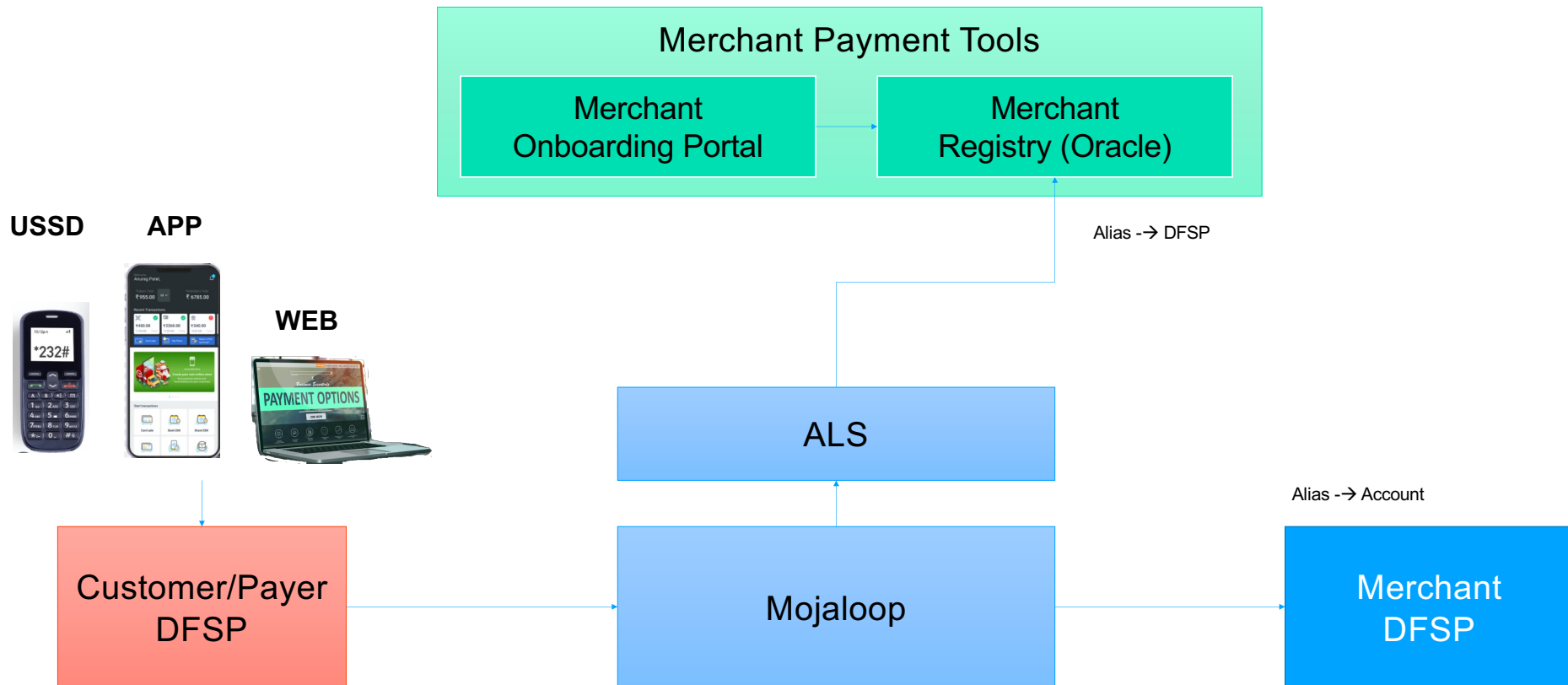


**Thank You**

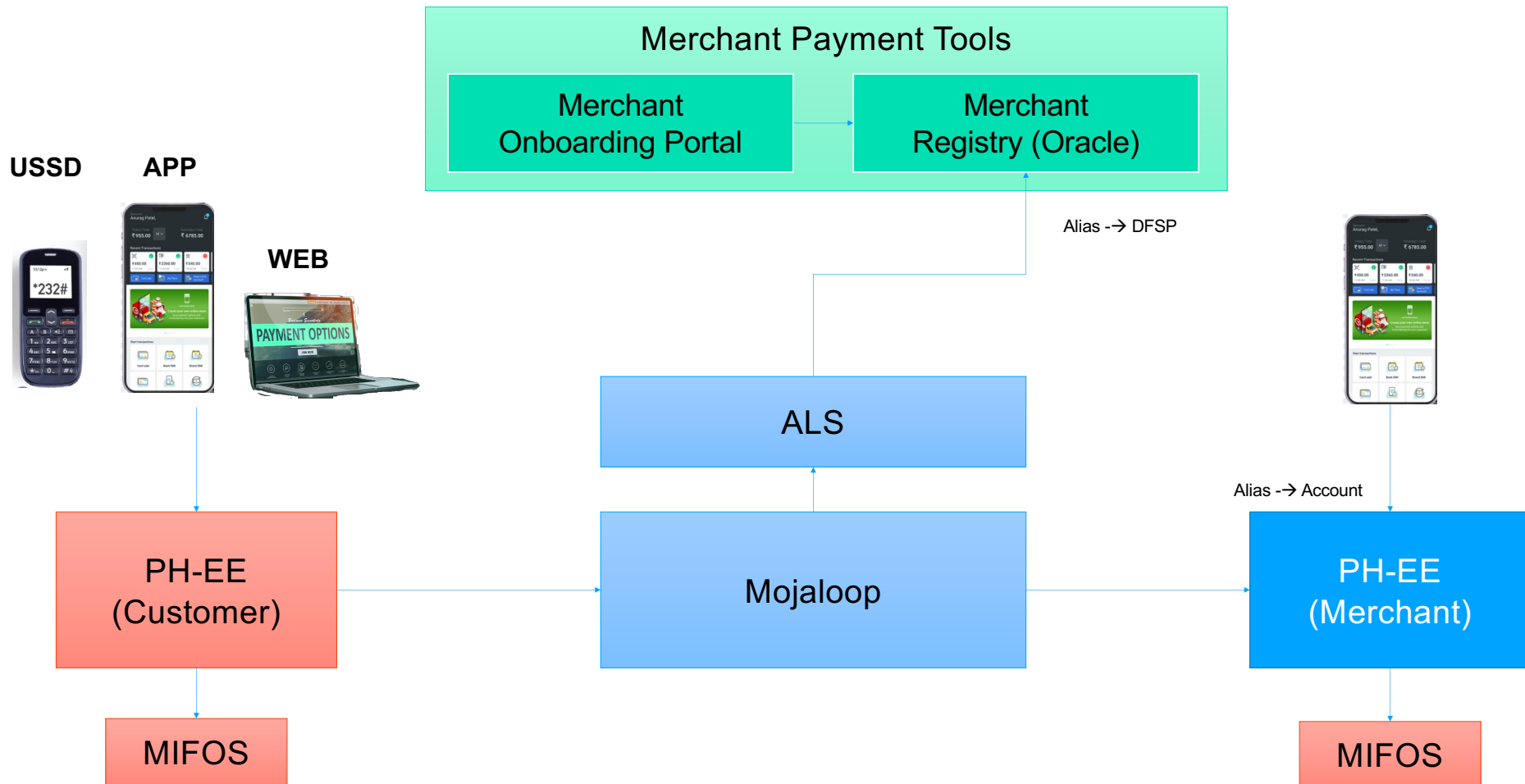


# Backup slides

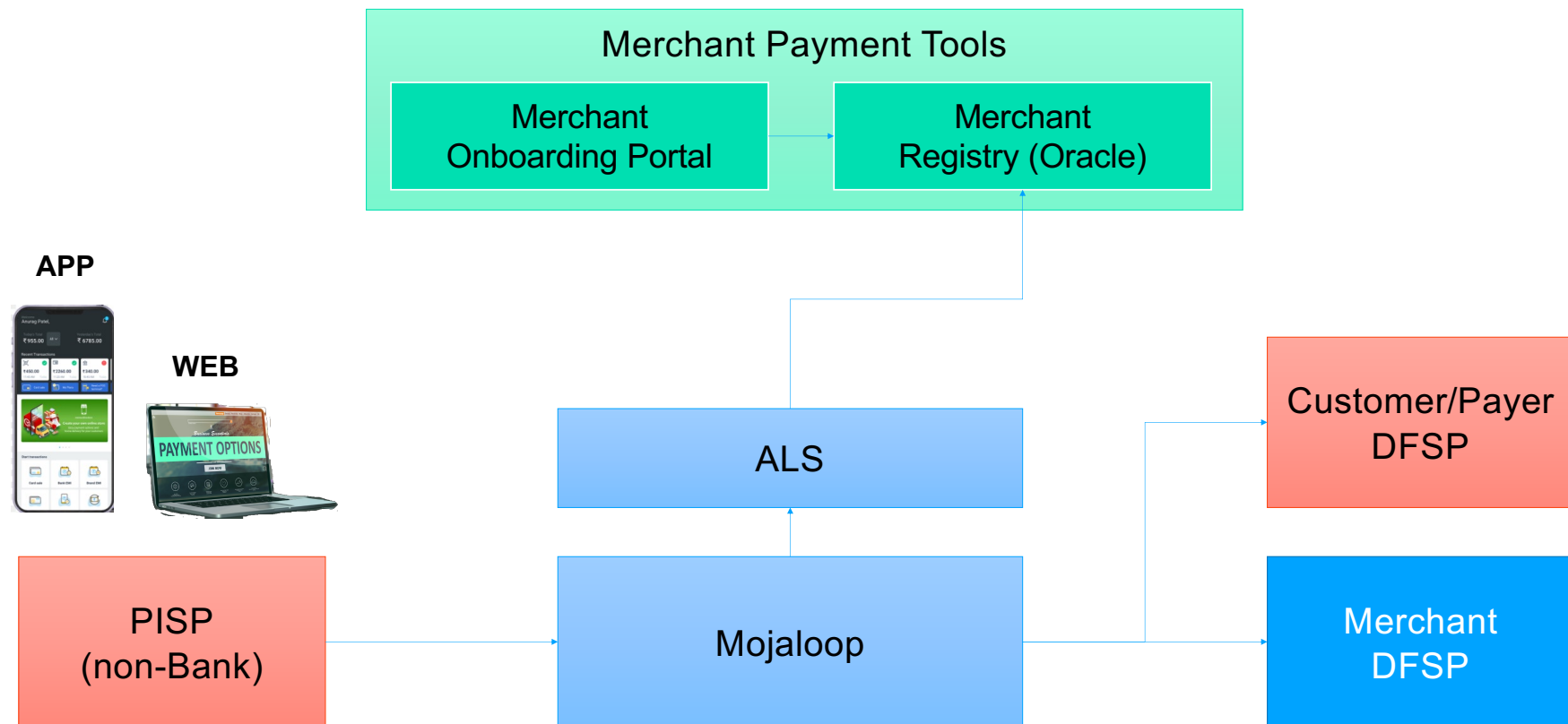
# High level architecture



# High level architecture



# High level architecture – Alternate





# Merchant Acquiring Portal

- **Designed for**
  - Hub Operator
  - DFSP participating in scheme as Merchant DFSP
  - Merchants
- **Features**
  - Merchant onboarding life cycle (Approval, Revert, Reject)
  - Designed to support different types of Merchants
  - Merchant QR generation
  - Audit Logs
  - Merchant initiated onboarding (WIP)
  - Merchant feature – Change DFSP (WIP)





# Merchant Registry

- **Acts as a Central Oracle for Merchant Alias**
  - Centralized Alias generation (either DFSP provided or auto-generated)
  - Holds Alias – DFSP mapping
  - API based interface for to request addition in registry
    - Merchant Onboarding Portal.
    - Any DFSP participating in scheme.
  - Interface with Mojaloop ALS
  - Audit Logs

# Our universe of Payment use cases



Payee	Channels	Mode	Type
<ul style="list-style-type: none"><li>• Small shop</li><li>• Large store</li><li>• Chain store</li></ul>	<ul style="list-style-type: none"><li>• USSD</li><li>• Mobile App</li><li>• Web</li></ul>	<ul style="list-style-type: none"><li>• Proximity</li><li>• Online/Remote</li></ul>	<ul style="list-style-type: none"><li>• Merchandise</li><li>• Service (Utility)</li><li>• Government</li></ul>
<p>Different merchants have different needs.</p> <ul style="list-style-type: none"><li>- Pay in a bank/mobile money account</li><li>- Pay store-wise</li><li>- Pay all North region in Bank “X” and South in Bank “Y”</li></ul>	<p>Depending on channel and type of Payee business, important to consider how customer and merchant are notified that a payment is done and goods/service can be given.</p>	<p>How the Payer is interacting with Payee (Merchant) differs between Proximity and Online payments.</p> <p>Implications on Fraud and Risk Management</p>	<p>Depending on type of payment, there may or may not be a Bill presentment prior to payment.</p> <p>Contextual information about Payment needs to be exchanged.</p>