

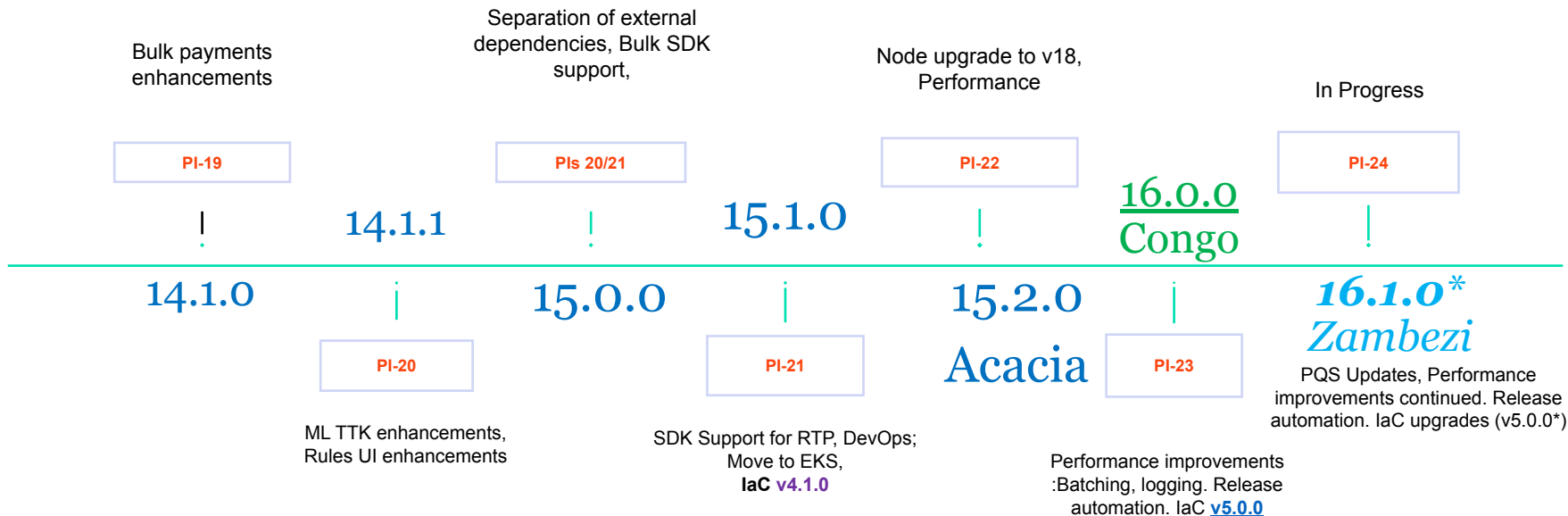


Mojaloop Releases & Core

PI-25 Mojaloop Online community event

Mojaloop

PI-25 UPDATE



Agenda



1. Mojaloop end-of-PI24 Overview
2. Mojaloop releases
 - a. Merchant payments updates
 - b. Quality improvements - PQS
 - c. Inclusion of Performance enhancements
 - d. Release automation
 - e. Maintenance updates: nodejs upgrades, bug fixes
3. Release Roadmap

Workstream Objectives PI-25



1. Maintain Mojaloop Congo - v**16.0.0** and improve stability along with IaC v**5.0.0**
2. Continue working on releases - Mojaloop v16.1.0 RC to be drafted
 - a. Enhancements done under perf-workstream to be included with Mojaloop releases
 - b. Merchant use case related services to be included
 - c. Security patches to be included
3. Maintain Mojaloop's QA/Dev environments for bug fixes and other changes
4. Support existing implementers by fixing bugs and performing other maintenance related tasks
5. Release for FX / NextGen settlement features in consultation with prod-council

Mojaloop Switch Functionality – FSPIOP Use Cases (PI-24)

Mojaloop FSPIOP API v1.1 Use cases

Payer-Initiated Transaction

- [●] P2P Transfers
- [●] Customer-Initiated Merchant Payment
- [●] Customer-Initiated Cash-out - Receive Amount
- [●] Customer-Initiated Cash-out - Send Amount
- [●] ATM-Initiated Cash-out
- [●] Refund

Bulk Transactions

- [●] Bulk Payments

Payee-Initiated Transaction

- [●] Merchant-Initiated Merchant Payment
- [●] Agent-Initiated Cash-out
- [●] Agent-Initiated Cash-In – Send Amount
- [●] Agent-Initiated Cash-In – Receive Amount

Payee-Initiated Transaction using OTP

- [●] Merchant-Initiated Merchant Payment Authorized on POS
- [●] Agent-Initiated Cash-out Authorized on POS

Key

- [●] Supported with functional tests
- [●] Supported
- [●] Proof of Concept
- [●] Not implemented
- [○] Out of Scope

Switch Functionality: Mojaloop End-points (PI-24)



FSPIOP API v1.1 Specification

Transfers*

- [●] POST - Prepare
- [●] PUT - Response
- [●] PUT - Error
- [●] PATCH - Notification
- [●] GET - Query

Parties

- [●] GET - Request
- [●] PUT - Response
- [●] PUT - Error

Quotes

- [●] POST - Request
- [●] PUT - Response
- [●] PUT - Error
- [●] GET - Query

Participants

- [●] POST - Create
- [●] PUT - Response
- [●] POST - Bulk Create
- [●] PUT - Error
- [○] DEL - Delete

Transactions

- [○] PUT - Response
- [○] GET - Query

TransactionRequests

- [●] POST - Request
- [●] PUT - Response
- [●] PUT - Error
- [●] GET - Query

Authorizations

- [●] GET - Request
- [●] PUT - Response
- [●] PUT - Error

BulkTransfers*

- [●] POST - Request
- [●] PUT - Response
- [●] PUT - Error
- [●] GET - Query

BulkQuotes

- [●] POST - Request
- [●] PUT - Response
- [●] PUT - Error
- [●] GET - Query

* Enhancements in PI-19

Key

- [●] Supported with functional tests
- [●] Supported
- [●] Proof of Concept
- [●] Not implemented
- [○] Out of Scope

Switch Functionality – Administration (PI-24)



Admin API v1.0 Specification

Participants

- [●] Manage Participants
- [●] Create Initial Values
- [●] Query
- [●] Update
- [●] Manage positions, limits
- [●] Create Initial Value
- [●] Query
- [●] Update
- [●] Manage Callback URLs
- [●] Create Initial Value
- [●] Query
- [●] Update

Settlement Models

- [●] Settlement models
- [●] Configure
- [●] Query

Participant Accounts

- [●] Manage accounts
- [●] Create
- [●] Query
- [●] Update
- [●] Funds In/Out

Transactions

- [●] Transactions
- [●] Query

* Enhancements in PI-19

ALS Oracle API v1.0 Specification

Oracles (ALS)

- [●] Manage Oracles
- [●] Create
- [●] Query
- [●] Update
- [●] Delete

Key

- [●] Supported with functional tests
- [●] Supported
- [●] Proof of Concept
- [●] Not implemented
- [○] Out of Scope

Switch Functionality – Settlement (PI-24)

Settlement API v2.0 Specification



Settlements v1.0 [Deferred, Multilateral Net]

- [●] Open, close Settlement Windows
- [●] Query Settlement Windows
- [●] Query Settlement Report
- [●] Create/Trigger Settlement with Windows
- [●] Process successful Settlement Acknowledgements
- [●] Reconcile Positions based on successful Settlements
- [●] Process failed Settlement Acknowledgements

Settlements v2

- [●] Settlement models
- [●] Designs
- [●] Settlement by Currency
- [●] Interchange Fees
- [●] Continuous Gross Settlement

Key

- [●] Supported with functional tests
- [●] Supported
- [●] Proof of Concept
- [●] Not implemented
- [○] Out of Scope

Switch – Third-party (3p) API v1.0 (PI-24)



Third-party API v1.0 Specification

Linking

- [●] Pre-Linking
- [●] Discovery
- [●] Request consent
- [●] Authentication
- [●] Grant consent
- [●] Credential registration

Un-Linking

- [●] Un-linking

Third-party (3p) Transfers

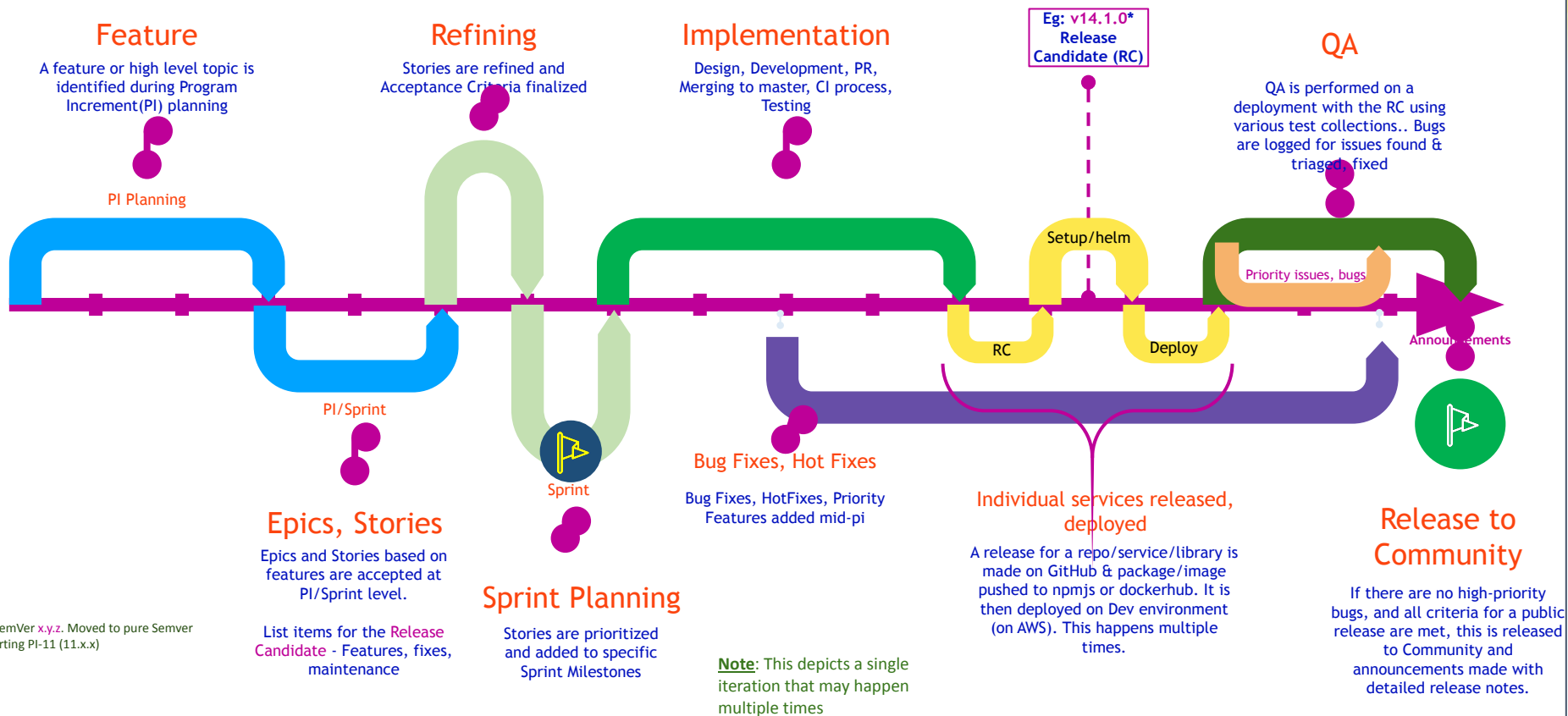
- [●] Discovery
- [●] Agreement
 - [●] 3p transaction request
 - [●] 3p authorization
 - [●] Signed authorization
 - [●] Validate authorization
- [●] 3p Transfer
- [●] Query trxreq status

* Enhancements in PI-19

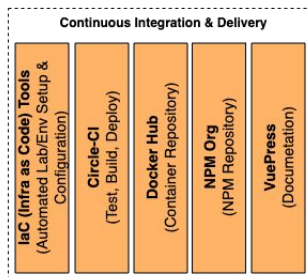
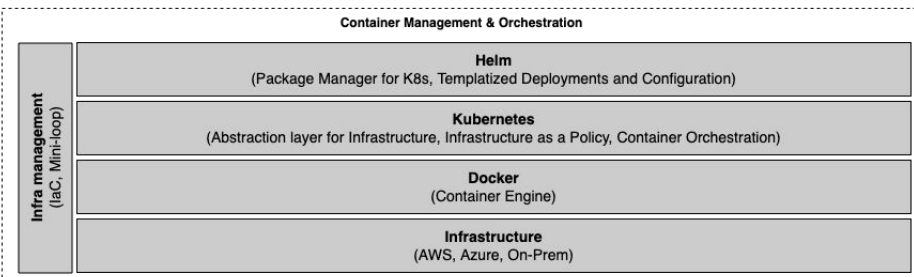
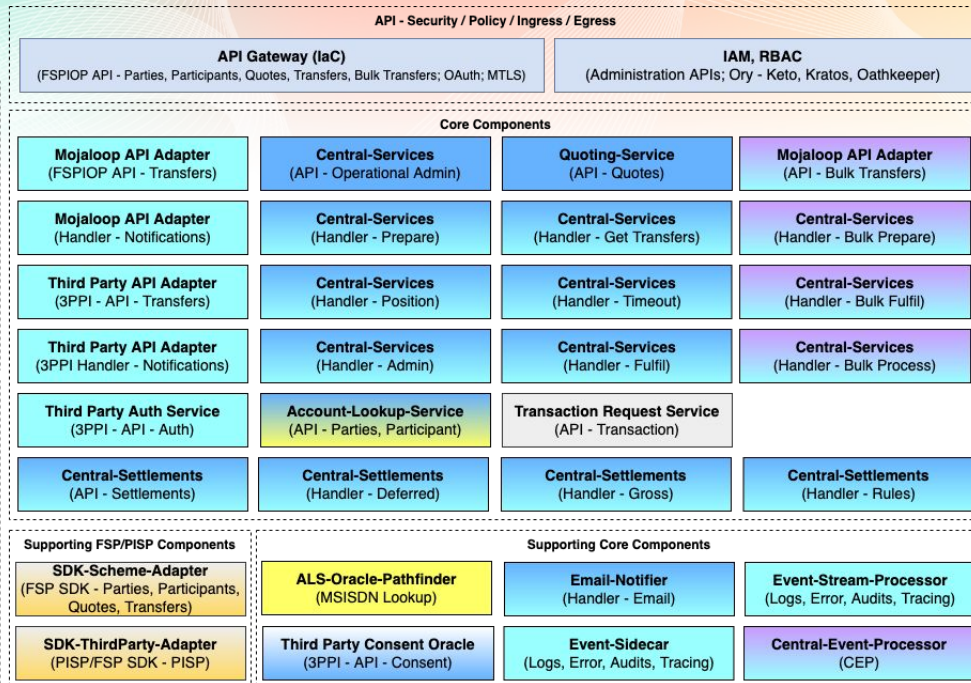
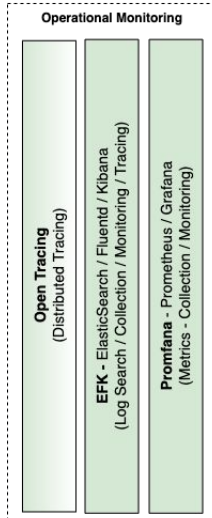
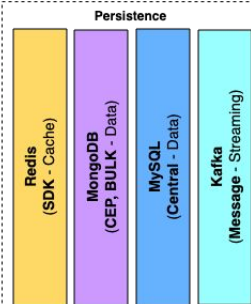
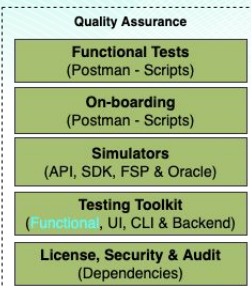
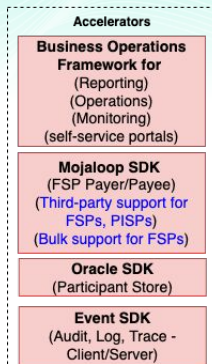
Key

- [●] Supported with functional tests
- [●] Supported
- [●] Proof of Concept
- [●] Not implemented
- [○] Out of Scope

Mojaloop Release Process



Mojaloop Component diagram PI-24 - Overview



Release Status v16.1.0 RC



Current ML v16.1.0 RC - *In progress*

1. Performance enhancements by community, performance workstream
2. Security patches, upgrades to dependencies, services
3. Deliverables from Merchant payment workstream (includes merchant registration portal)
4. Release automation validation - done
5. PR link for reference: <https://github.com/mojaloop/helm/pull/640> (will be updated based on testing)

Roadmap Features

1. Services from MOSIP integration workstream
2. Draft a Mojaloop **Release Candidate** for the next Mojaloop release (v16.2.0 or v17.0.0) - based on readiness
 - This RC to include changes to support **FX** feature
 - Deliverables from Proxy, inter-scheme workstreams when ready
 - Deliverables from ISO 20022 workstream when ready
 - To include performance enhancements done by perf-workstream
 - Settlements next generation features done by Settlement workstream
 - Platform quality & security related updates
3. General maintenance, bug fixes, release testing
4. Community support
 - a. Bug fixes (20-25% of sprint capacity for prioritized issues)
 - b. Support community contributions and absorption into Mojaloop as required

ML Releases: PI-24 update for reference



v15.0.0
(PI-20/21)

v15.1.0
(PI-21)

Acacia

v15.2.0
(PI-22/23)

Congo

v16.0.0
(PI-23)

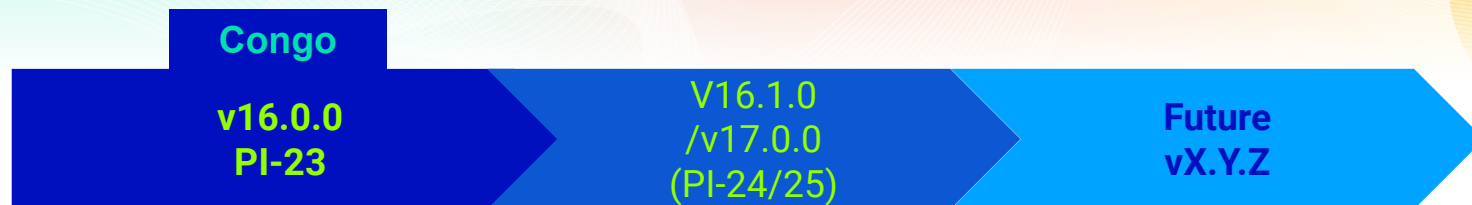
1. Separations of **external backend dependencies** from Mojaloop Helm charts
2. Utilise **externalised secrets** for **password** management (#3082)
3. **Bulk SDK** functionality **support** out-of-the box
4. **laC v4.0.x** with **support** for Mojaloop v15.0.0 & **passwords** with **Special Characters** managed by **HashiCorp-Vault**
5. **Finance Portal v3** (BoF v3.0.0) fixes for **passwords** with **Special Characters**

1. Test against **upgraded QA/Dev** with K8s v1.26/1.27
2. Refactored QA/Dev env **ease of maintenance** with **EKS**
3. Enhanced **SDK support** for **Request-to-Pay (R2P)**
4. Follow-up **bug-fixes**
5. **laC v4.1.0** with **support** for Mojaloop v15.1.0

1. **Upgraded** QA/Dev env & Tested against **K8s v1.28**
2. General **maintenance**
3. Node **upgrade** (v18 **LTS**)
4. **Performance** setup, profiling and document bottlenecks (perf workstream)
5. **Performance** Stream improvements (enhancements, fixes, instrumentation, & contribs)
6. Automated, CI tests on ML releases with **Helm snapshot** support

1. General **maintenance**
2. Node **upgrade** for supporting services not updated in v15.2.0
3. **Performance** enhancements done by perf-workstream included
4. **Automated** CI steps on **Mojaloop releases**
5. **laC** changes - new and refactored version

Release Roadmap: MLF Product, Community and work-stream



1. Performance enhancements done by perf-workstream included
2. IaC changes - new and refactored version
3. *Automated CI steps on Mojaloop releases (not included in the release but used in the process)*
4. General **maintenance**
5. Node **upgrade** for supporting services

1. Merchant payments features
2. **PQS** updates - security patches and upgrades
3. Include enhancements, updates from **Performance** workstream
4. General **maintenance**

1. Include enhancements from the **FX workstream**
2. **Settlements** improvements
3. PISP **Bulk** API support ([#109](#))
4. Enhance **tracing** components to use latest **open-tracing** standards
5. Automated **CI** testing on Helm PRs & Releases - completed
6. **Migrate Chart** (i.e. **BoF**) to **Helm** repo, and clearly **rename Finance Portal components** part of **BoF**
7. **Patch** notification support for failures

Mojaloop Congo - v16.0.0



1. Core - Mojaloop Release ([Helm Release 16.0.0](#))

- Base use-cases: P2P, R2P, Bulk, PISP
- Settlement: Deferred-net, Continuous Gross
- Admin: (Participant Lifecycle API)

2. Bundled Mojaloop IaC Release ([Mojaloop IaC Release 5.0.0](#))

- Gateway & Load Balancers
- RBAC via Istio and Ory Stack
- Mojaloop Security (mTLS, JWS, ILP)
- Finance Portal
- Reporting
- Control Plane for CI/CD (GitLab)
- Technical Operational Dashboards
- Participant Onboarding Support (Connection Manager)

Release Automation: validation, usage




1. Automated Update of Helm Chart Packages with **updatecli**
2. Detection of Breaking Changes - DB Migrations, Default Configuration Changes
3. Generation of Changelog
4. Determination of Next Release Version Number
5. Generation of Release Note
6. Deployment of RC to OSS Test Environment
7. Release Candidate Validation with TTK
8. Creation of Release Candidate Pull Request
9. Bug Fixes, PR Reviews, Github Release

The automation scripts can be found here:

<https://github.com/mojaloop/helm/tree/main/.github/workflows>

v16.0.0 - Congo Latest

 oderayi released this 2 weeks ago v16.0.0 e34bcf5

Helm Release Notes

Date	Revision	Description
2024-02-06	0	Initial draft
2024-03-13	0	Initial release

0. Summary

Enhancements and breaking changes to the [v15.2.0 Release](#), which includes:

1. Performance improvement in Central Ledger via batching of position prepare and position fulfill messages
2. Performance improvement in ALS with the addition of participant requests caching, and logging fixes
3. Refactoring of Quoting Service into an event-driven service to improve performance
4. Helm chart: external K8s secret are now used for JWS signing key source if present
5. General maintenance, bug fixes, and Nodejs upgrades

1. New Features

- [mojaloop/#3426](#) add participant req caching, enable cache metrics, log fixes ([mojaloop/#465](#)), closes [mojaloop/#3426](#)
- [mojaloop/#3427](#) add oracle endpoint db caching and oracle request caching ([mojaloop/#467](#)), closes [mojaloop/#3427](#)
- [mojaloop/#3441](#) nodejs upgrade ([mojaloop/#252](#)), closes [mojaloop/#3441](#)
- [mojaloop/#3636](#) batching implementation for position prepare messages ([mojaloop/#968](#)), closes [mojaloop/#3636](#)
- [mojaloop/#3524](#) add position fulfill to binprocessor ([mojaloop/#990](#)), closes [mojaloop/#3524](#)
- [mojaloop/#3524](#) add reserve action to fulfil logic ([mojaloop/#992](#)), closes [mojaloop/#3524](#)
- [mojaloop/#3666](#) refactor quoting service into an event driven solution to improve performance ([mojaloop/#321](#)), closes [mojaloop/#3666](#)

How we work



1. Messaging: [Short-term - Slack](#); [Community central](#) - announcements
2. GitHub: [Issues](#) for longer form discussion; Issue tracking, Project
3. Documentation
 - a. Markdown on GitHub for specifications and documents with long life.
 - b. Sequence diagrams: Plant UML, DrawIO, etc...
4. Our [Git process](#) (forking/branching WF), the CLA
5. Quality gateways
6. Apache 2.0 License for code
7. API specifications: docs.mojaloop.io/api , Change requests, Solution Proposals
8. Scaled Agile Framework (SAFe)