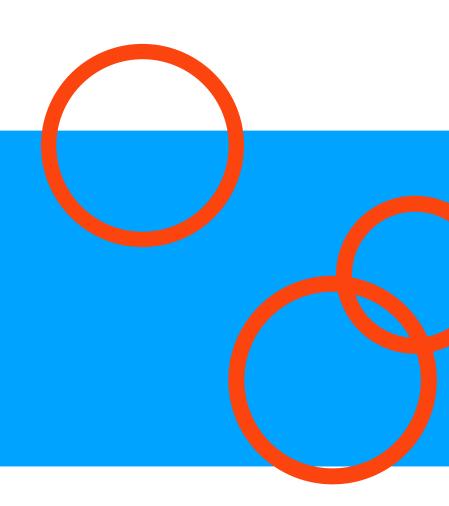




Apr 2022

vNext Team





Agenda

- Reference Architecture Documentation Status Update
- vNext Build Progress Update
- vNext Foundation details



Fixes and improvements

Ref. Architecture Documentation

Ref. Architecture Doc - Status

Released Initial Version during PI 16

Ongoing Review Process Almost Complete

5 task in review – 3 blocked – 1 in progress - 2 in the backlog

https://docs.mojaloop.io/reference-architecture-doc/





This is the official Reference Architecture documentation for the Mojaloop project.

Introduction →

What it is

In a software system, a Reference Architecture is a set of software design documents, that capture the essence of the product and provide guidance to its technical evolution. The Reference Architecture is the architectural vision of the perfect design.

Objectives

Identify abstractions, interfaces and standardization opportunities; Solutions and patterns to common problems; Enforces technical design principles; Provides guidance to the implementation architectures; Foster's innovation and contribution, by defining what can be done and how

Benefits

Q

Foundation for a Technical Roadmap; Guidance to decision-making regarding technology choices and implementation strategies; Alignment between technical vision and product vision



Progress Update

vNext Build

vNext – What is the Alpha Release

Internal release for developers

Stable interfaces

Happy path only

Fully testable

Requires load tests, but no optimisation



vNext - Alpha Release

Design

Build of the foundation & Cross Cutting Concerns

Lanny Path Footures

We're

finishing this

part!

Happy Path Features



vNext Build - PI 17 Objective

Deliver alpha version of the cross-cutting concerns

(objective revised at PI16 convening due to lack of resources)



vNext Build - Status

	Component Type	Repo name	Repo sub-dir / module
Done	Client - Shared Lib	platform-configuration-bc	config-client-lib
Done	Client - Shared Lib	platform-configuration-bc	secret-client-lib
Done	Service	platform-configuration-bc	config-svc
WIP	Service	platform-configuration-bc	secret-svc
Done	Client - Shared Lib	auditing-bc	auditing-client-lib
Done	Service	auditing-bc	auditing-svc
Done	Client - Shared Lib	logging-bc	logging-client-lib
Done	Service	logging-bc	logging-svc
Done	Client - Shared Lib	security-bc	authn-client-lib
Done	Service	security-bc	authn-svc
WIP	Client - Shared Lib	security-bc	authz-client-lib
WIP	Service	security-bc	authz-svc
	Service	security-bc	kms-svc
WIP	Service	scheduling-bc	scheduling-svc
WIP	Service	scheduling-bc	scheduling-cliente-lib
	Service	reporting-bc	reporting-svc
	Client - Shared Lib	platform-monitoring-bc	metrics-client-lib
Done	Client - Shared Lib	platform-shared-lib	nodejs-kafka-client-lib
Done	Client - Shared Lib	platform-shared-lib	messaging-types-lib
Done	Service Template	nodeis-template-bc	n/a





How does it work?

vNext Foundation

vNext Platform Configuration Bootstrap

Bounded Context A
/
Application X

Send Configuration Schema

(Includes app version)

Platform configuration BC

 Validate and store the configs schema

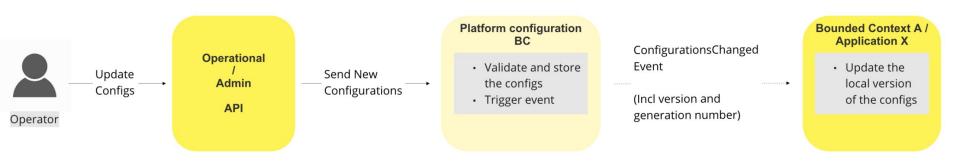
Configuration Store

Configs can be:

- Parameters
- Feature Flags
- Secrets

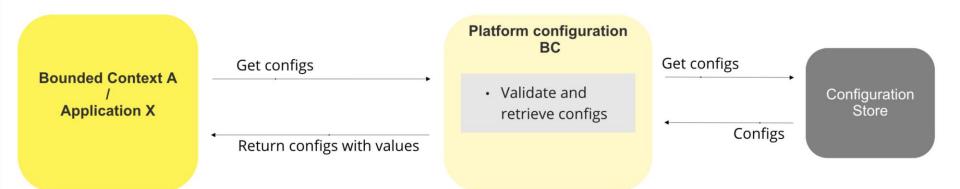


vNext Platform Configuration Operator Changes





vNext Platform Configuration Application Start





vNext Logging Event or RPC based logging

Bounded Context A
Application X

Log Entry Event
(or batch of entries)

Logging BC

Event listener that is Persisting log entries

— Persist — Persist — (ELK or equivalent)



vNext Auditing Event or RPC based auditing

Bounded Context A / Application X

- Something audit-worthy happened
- Locally sign audit entry and send it

(or batch of entries)

Auditing BC

- Validate Audit
- · Persist audit entry
- Validate BC Signature
- · Add own signature

GetPublicKey (caching supported)

Append only store

(ELK or equivalent)



vNext Scheduling

Create reminder

Bounded Context A
/
Application X

Create Reminder Inc. payload and transport

Scheduling BC

Validate and persist the reminder information

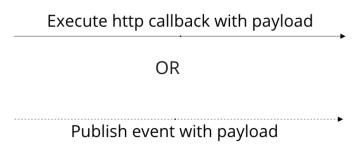


vNext Scheduling Trigger reminder

Scheduling BC

When time comes:

 Calls client BC or sends event with payload

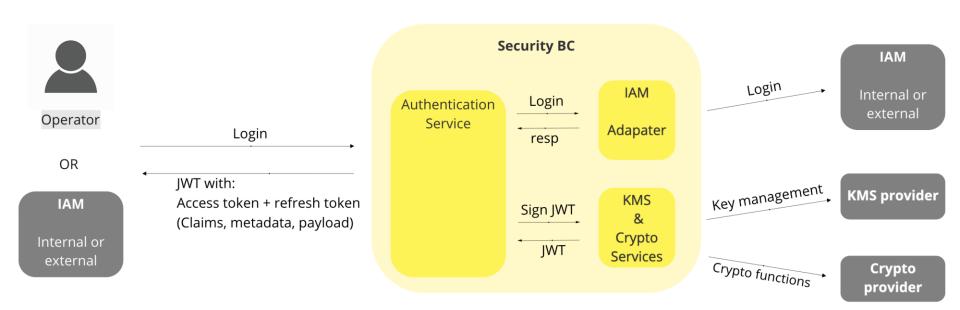


Bounded Context A
/
Application X

Do work



vNext Security - Authentication





We really need help!!

We STILL need developers willing to work on this effort



Questions?



Reading / References?

Official Ref Arch Doc Page: here

Ref Arch Working Doc: <u>here</u>

Ref Arch Miro Board: here

Next version build plan working doc: <u>here</u>

PI-13 Jan 21 - Mojaloop Performance, Scalability and Architecture Update: <u>here</u>

PI-14 Apr 2021 - Opening and Mojaloop Reference Architecture and TigerBeetle: here

PI-15 July 2021 - Reference Architecture v1.0: <a href="https://www.ncbe.ne

PI-16 Oct 2021 - Reference Architecture and V2 update: here, videos

