

# **KEYCLOAK - OPEN BANKING**

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# OPEN BANKING

Opening up banking services to be provided to the consumer by regulated fintechs.

Consent and Data Privacy are key to open banking



## Regulatory Driven

Improve Competition  
Financial Inclusion



## Market Driven

Innovations  
Financial Inclusion

# OPEN DATA EVOLUTION

- Data is the new oil
- Data belongs to the consumer - Consent and Authorisation
- Federation of data - bringing all customer data to one place
- Improve customer offerings through personalisation



## Open Banking

UK and Europe lead the open banking regulations covering only payment accounts

## Open Finance

is the next step of open banking - covers Investments, Pensions, Mortgage, Loans, Savings ..

## Open Insurance

accessing and sharing insurance-related personal and non-personal data usually via APIs.

## Open Energy

Open Energy makes it easier to discover, share, access and use energy and related datasets ...

# OB BUILDING BLOCKS

- Authorisation Server - OpenID FAPI, CIBA
- Identity Provider Integration
- API Gateway
- Consent Management
- Strong Customer Authentication
- Regulatory Authorisation Checks
- Core Bank Integration



# IAM vs APIM

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**Open  
Banking is  
more about  
IAM than  
APIM**

## IAM

- Authentication (SCA)
- Authorisation
- Consent Management

## API Management

- Developer Portal
- API Analytics
- Product Catalogue
- Monetisation



# KEYCLOAK

Keycloak/RHSSO is the most supported open source and is also widely used within the banking community

Very early implementors of FAPI or any new Identity standards for that matter - JOIN US

## Authorisation Server

Open Banking standards across the world looked for strong authorisation model better than vanilla OAuth2 - which led to FAPI

Open Banking UK - started with the implementor draft of FAPI 1.0

Today - all jurisdictions are recommending/mandating FAPI - UK, Australia, Brazil, Bahrain, Saudi Arabia

## Identity Brokering

Banks provided their own legacy or bespoke identity provider - some supported SAML, OpenID/OAuth2.

Banks didn't want the customer credentials inputted on the open banking platform

Support for

- redirect flow - web or app-to-app
- decoupled flow - push notifications (CIBA)

## SPI

Many authentication methods were served through identity Brokering - but still, some are embedded as SPI in connecting to banks' IDP

Certain country-specific FAPI customisations are implemented as SPI

## Token Management

Implementing different token strategies for AISPs, PISPs and others

access\_token, refresh\_token, id\_token - different configs for the flows

Long-lived token - change in regulation (90 days rule changed to long-lived)



# CONSENT MODEL

## Open Banking Consents

Resource-based fine-grained consent model

Each API had a consent resource associated and the checks were done in different ways - within the API, as IAM Policies

## User Managed Access (UMA)

User-Managed Access (UMA) is an OAuth-based access management protocol standard - Kantara Initiative

Implemented in UK's - Open Pensions (Pensions Dashboard by Origo)

# **THANK YOU**

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**FOR COMING**