22.R2 Platform Enablement

FintechOS Partner Product Enablement Week

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Release Summary

Enterprise, usability, extensibility & more!

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Raising the Platform Enterprise Bar

Security & Compliance

FintechOS Identity Services

Identity broker implementation provides consistent approach to different security providers and the ability to map the provided claims with FintechOS security roles.

Key Management

Moving system and configuration parameters to secure key management and storage

Observability

New unified logging infrastructure stores a contextual log for applications and links every event with business data context for corelated events

Automation Blocks

More compliance with eIDAS and ADR

Performance & Stability

Improvements for Jobs

Execute FintechOS jobs in parallel multiple jobs queues

Overall Performance

Average 10% - 15% Performance Improvement

750 Defects Resolved!

no known critical nor major issues

Data & Integration

Integration Framework

Integrate to 300+ systems with standard and scalable connectors, and create your own

Document Export

Export business date to CSV, XLS or PDF

Usability, Extensibility & More

Usability

Improvements for Jobs

Execute FintechOS jobs in parallel multiple jobs queues

Innovation Studio

New UI components, menu, and homepage redesign

SDK Regular Upgrades

Mobile and Browser updates quarterly

Digital Assets

Give developers better control over delivery cycle

Analytics

Digital Journey Analytics

Understand the digital journey performance with a built-in graphical data representation

Automation Blocks

AriadNEXT

Improved KYC capabilities

Onfido

Improved KYC capabilities

Extensibility

Digital Journey API.

Expose digital journey orchestration through APIs so the digital journey can be consumed by external applications

Standard Open API

Redesign of FintechOS open API to be swagger compliant and with the addition FintechOS IDP authentication functionality.

Connectors

CODAT Connector

Offers easily integrating with companies accounting, banking, eCommerce, PoS, and payment software.

Digital Journeys

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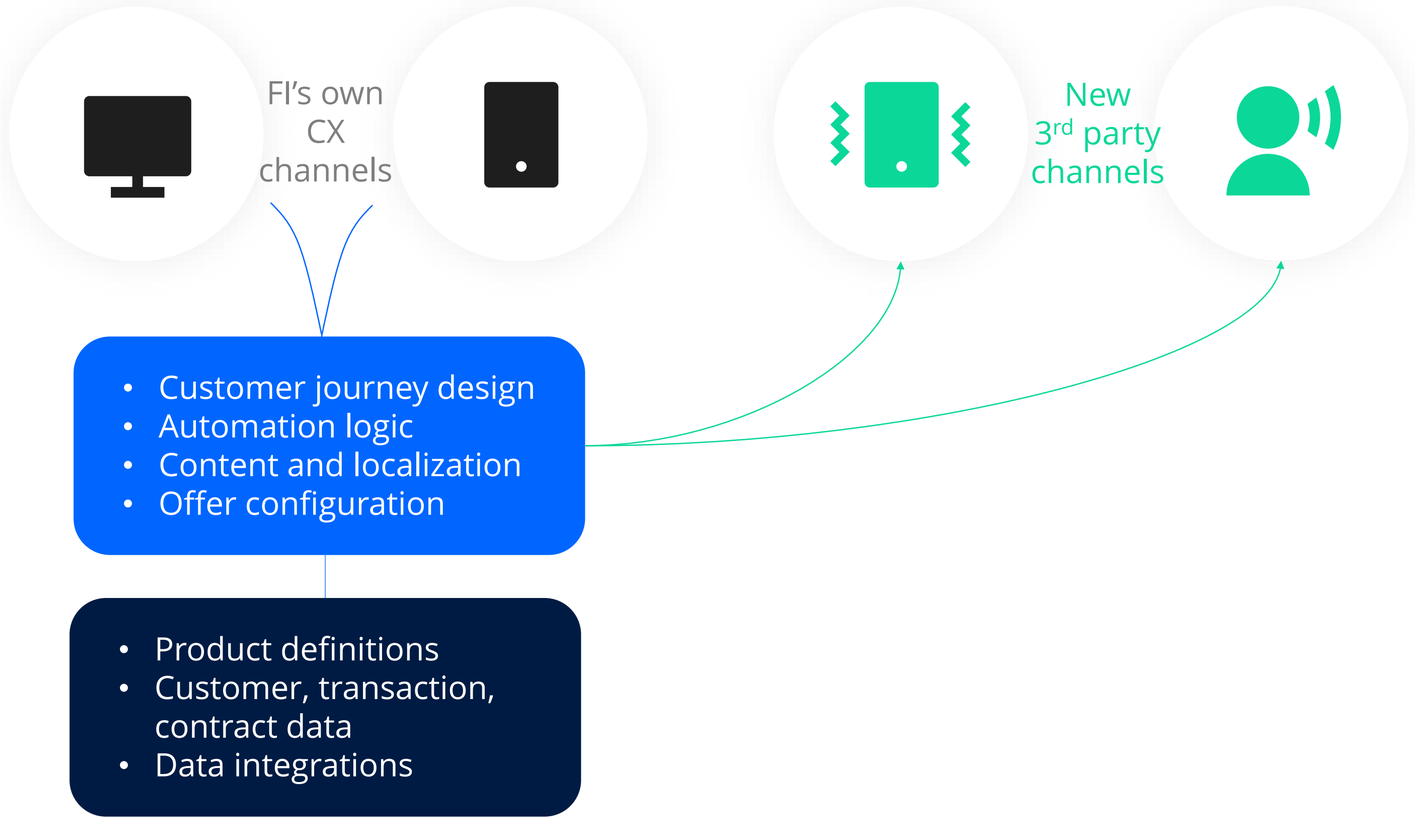
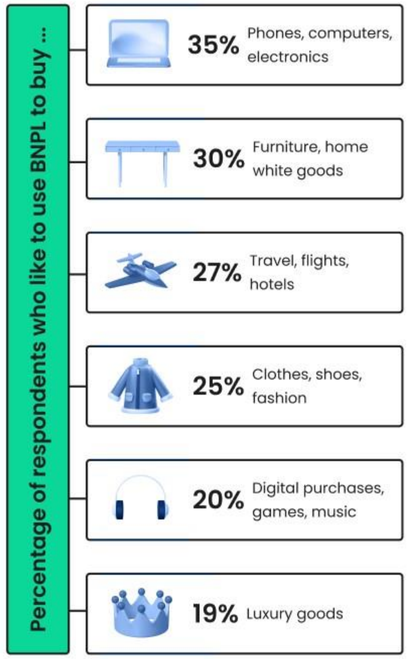
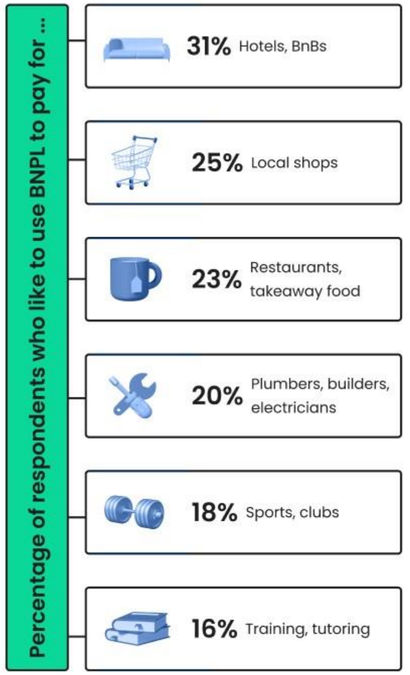
Digital journey APIs

Digital construction teams can now expose digital journeys via APIs, making it easier to set up digital journeys for bank's own frontend, third party CMS, embedded etc.

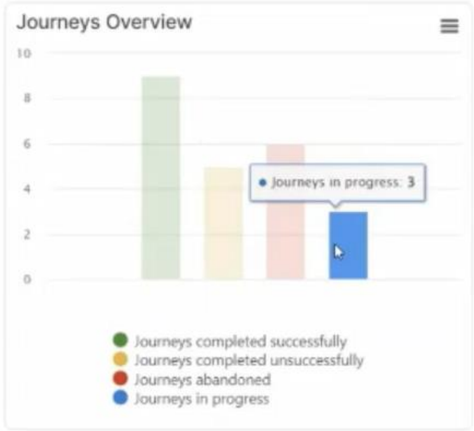


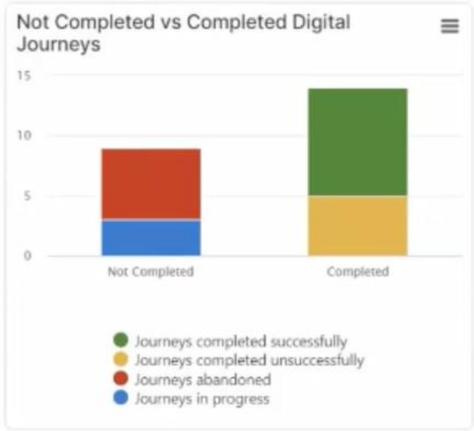


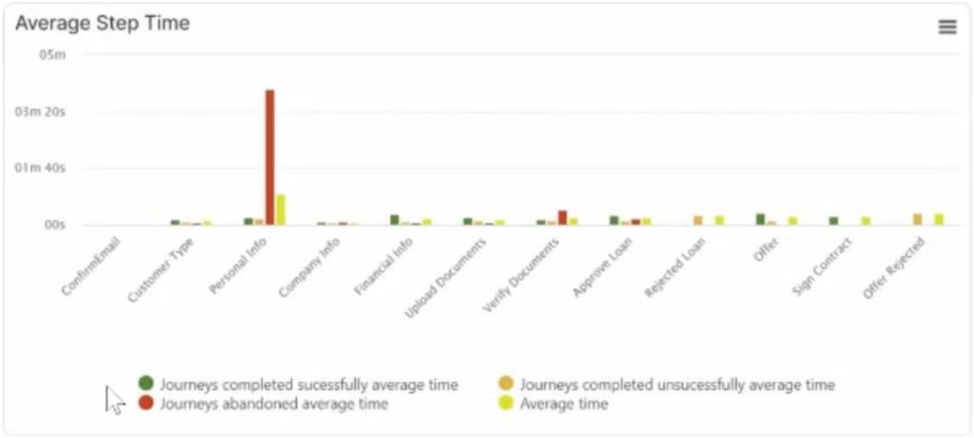


Journey Analytics

Built-in analytics help you understand if your digital journeys are effective







Visually identify where customers or prospects are dropping off and the time spent on each step.

Connectors

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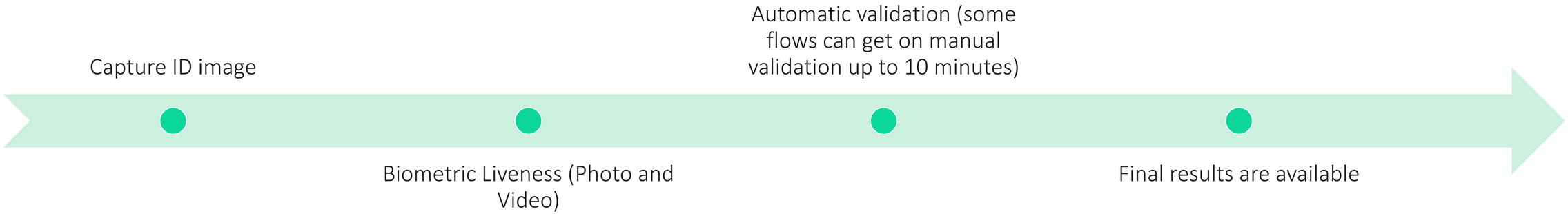
Onfido

Main flow



Can be set:

- OCR

- Biometric liveness

- Document details

- Default applicant data

Results processing:

- OCR data can be used for autocompletion.

- Final results are separated by each report type: ID Validation; Liveness based on Photo or Video

- After completing the capturing steps, a Notification is received in each FTOS instance as:

- **Reports are available and verified**
- **Reports can be extracted**

Account setup and documentation

Account setup

Each client have own account, first for DEMO (DEV & UAT) and after for Production.

Documentation

Public documentation: https://docs.fintechos.com/APs/Onfido/21.2.2300/Home.htm

CI/CD

This is how the slides look like when you actually place content in them

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Digital Assets

Less motion for putting together business solutions

1. The latest release makes configuration work more intuitive by introducing the notion of **Digital Asset type**.

Users can split any Digital Solution into several Digital Assets which serve a specific purpose instead of bundling everything together.

By choosing between Data Model, Data Config, Digital Journey, Digital App or Resources, the user can better manage the solution life-cycle.

2. **Digital App** is now the choice for creating and configuring employee facing business solutions where tabular forms are usually needed.

To support Digital Apps and modular delivery of solutions, it is now possible to **package and export entity form sections** standalone from the parent tabular form.

Secure Configurations

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Key Management (1/4)

System and configuration parameters are now stored and managed in a more secure infrastructure

Scope:

- system parameters,
- environment variables,
- services credentials or API keys

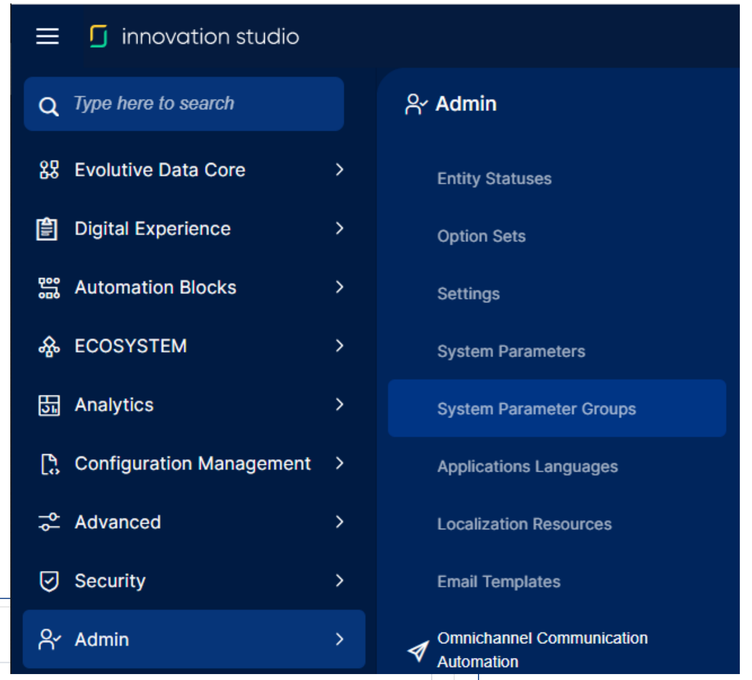
Main benefits:

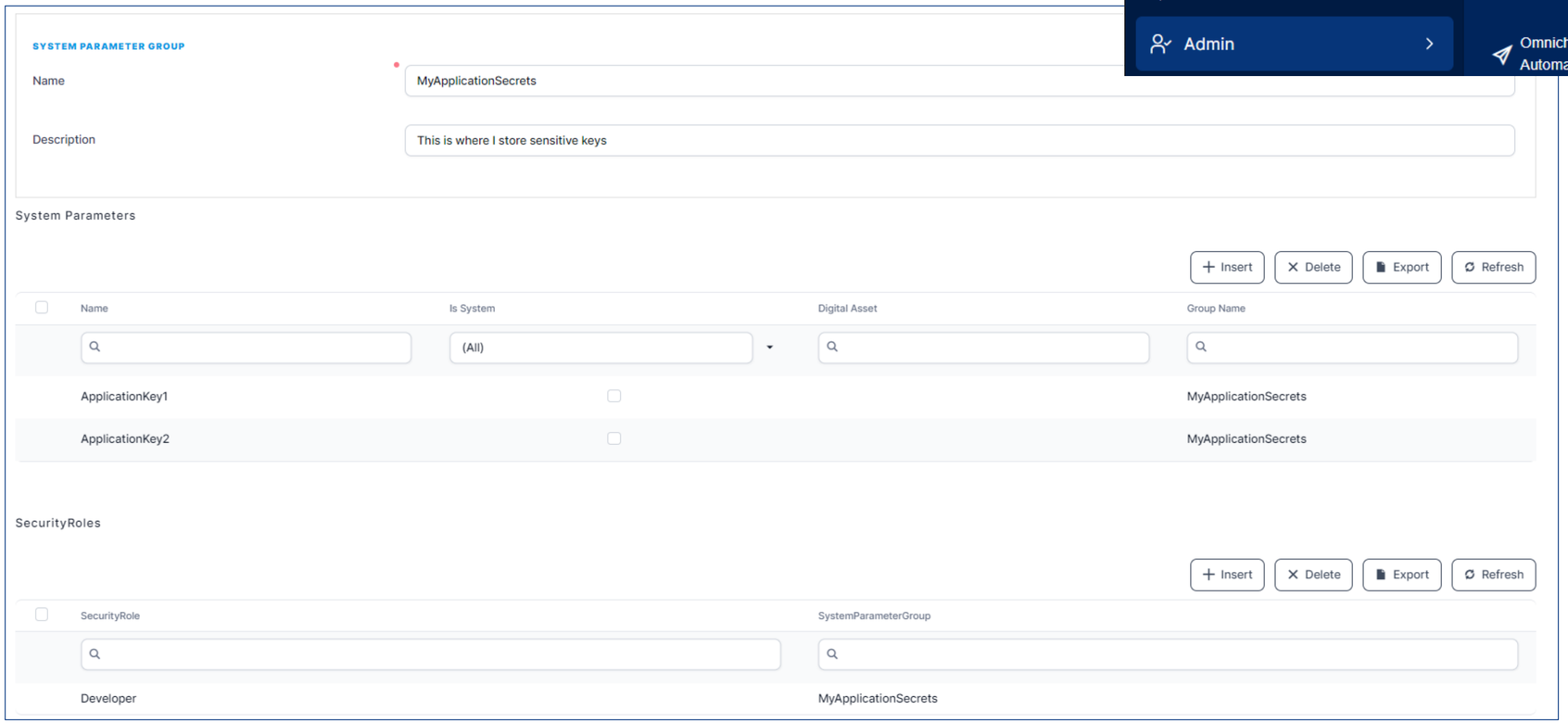
- Increased security and control over keys and secrets
- Applications have no direct access to keys
- Reduced latency with cloud scale

Key Management (2/4)

System Parameters

- Use Innovation Studio to create and edit parameters
- Bundle related parameters into System Parameter Groups
- Assign security roles to a System Parameter Group

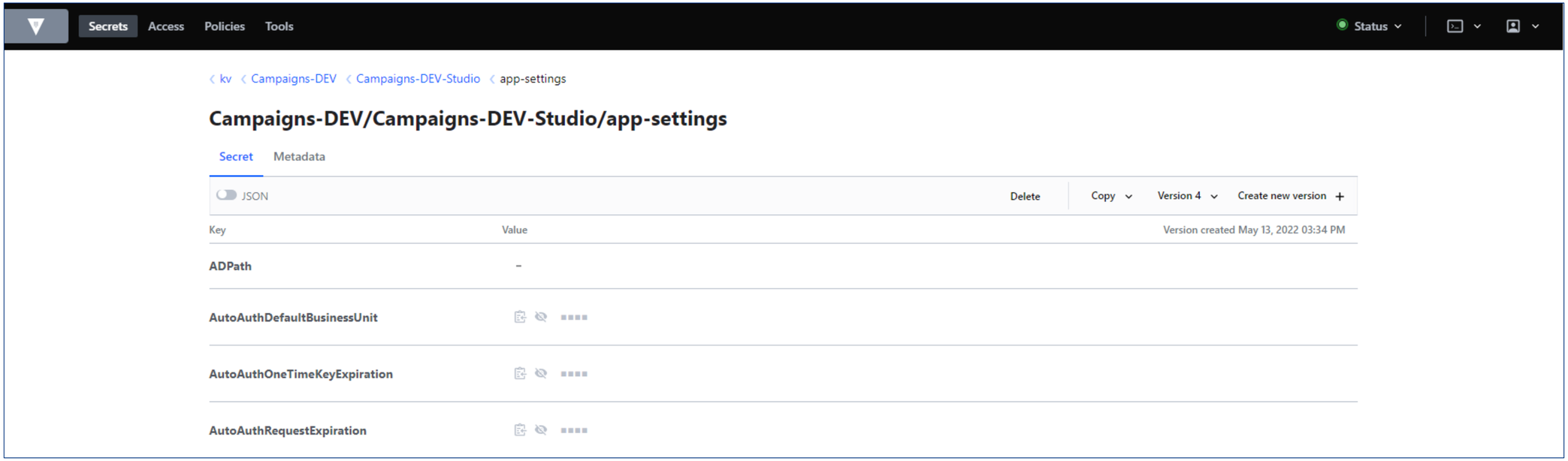




Key Management (3/4)

Application settings

- Use Cloud Configuration Manager to manage environment variables, services credentials or API keys
- Perform bulk update using JSON format not XML
- Versioning is supported
- How to uses case – here



Key Management (4/4)

General considerations about using v22 (clean install or upgrade)

- System and configuration parameters are automatically synchronized with your Cloud Configuration Manager instance.
- Existing values, if the case, are not overwritten but versioned

Observability

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What is FintechOS Observability

Observability allows the platform to generate log events and push those logs to various destinations such as system consoles, files, log servers, or Application Performance Management (APM) services.

Through observability, customers can control sending log messages to the following destinations:

- System console
- Local file storage
- Seq. structured log server
- Azure Application Insights service

Why use FintechOS Observability

FintechOS Observability can provide valuable insight, such as:

- Event Sources
- Business messages - relate to the events within the business logic of your application.
- Framework (and library) messages - those that relate to libraries, frameworks, and other low-level code which your application uses
- Infrastructure - infra events (ram/cpu/storage/...)

Logging context properties

The concept of logging context properties can be split in two interest areas:

HPFI developers

- Can be set-up by HPFI devs by consuming the C# code

Digital Developers

• Can be set-up inside the Server side scripts. FintechOS has built a list of exposed API that can be consumed by a digital developer. Logging Context can be accessed anywhere in server side scripts code automatically. It has the following exposed APIs available in the main bundled JavaScript library:

- getLogPropertyValue(string key);
- setLogProperty(string key, string value)
- isLogPropertySet(string key);
- clearLogProperty(string key);

Additional observability features

The following observability topics have been addressed in this release

•API logging – inbound requests

•CRUD operations logging

•Authentication events logging

Key take-aways

Logging these type of events has been moved out of the DB, and into APP insights

- Will decrease DB storage significantly
- Have on/off switch
- Fields are mapped accordingly

Documentation: Observability (fintechos.com)

Data & Integration

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Use cases for Integration Framework

- Custom integrations
    - Integrate FintechOS with customers' systems

- Connectors
    - Create components integrating the FintechOS platform with 3rd party apps and data sources

Why Integration Framework

- Integrate the FintechOS platform with 3rd party systems utilizing various technologies and protocols (REST, SOAP, JMS etc.)
- Provides more than 300 components to integrate with
- Reduce the required effort to implement working integrations
- Scalable on its own: decoupled integration logic and runtime from the platform
- Introduce integration patterns needed in practical applications of system integration such as content-based routing, dynamic routing, throttling etc.

Documentation:

- Please check out the following links on setting up the Integration Framework and features:
    - FintechOS Service Pipes
    - Calling External Services via Service Pipes (fintechos.com)

FTOS Open API

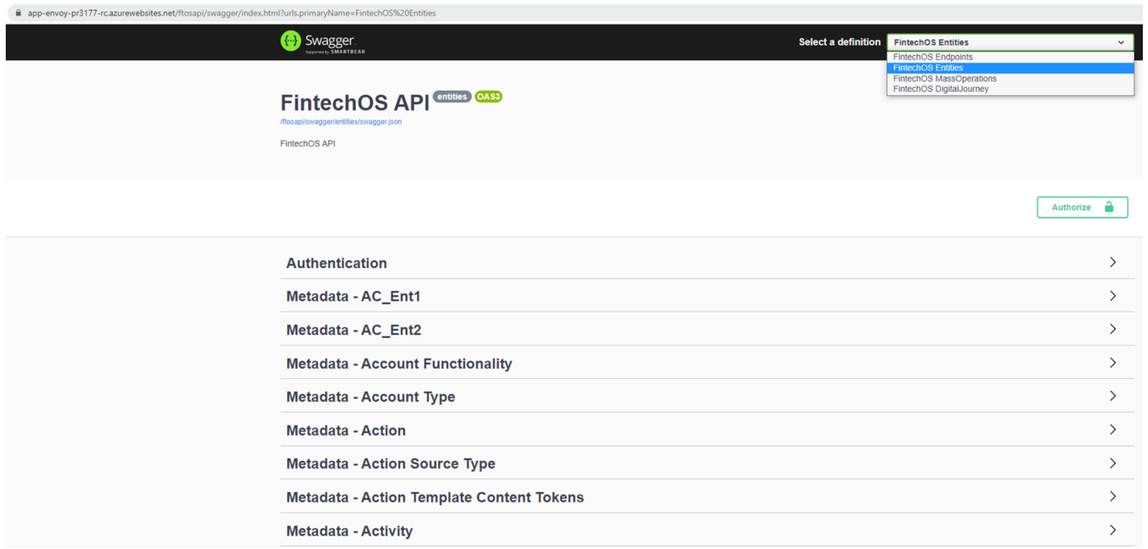
What is FTOS OpenAPI

OpenAPI is the first step in making our architecture openAPI 3.0 (Swagger) compliant, and there is a need to cover other endpoints from the platform in subsequent future releases. The FintechOS API is a Swagger-based web app (or Windows service) that provides FintechOS platform APIs which are compliant with the OpenAPI 3.0 (Swagger) specifications.

This will enable our platform/clients to:

- expose & consume our APIs
- have authentication/authorization methods that are industry wide compliant with several auth standards (e.g. OAuth 2.0)

FTOS OpenAPI interface



- **FintechOS Endpoints** -endpoints for server-side scripts
- **FintechOS Entities** - endpoints for all non-system entities and non-bw entities
- **FintechOS MassOperations** - endpoints for mass operations
- **FintechsOS DigitalJourney -** endpoints for digital journeys

Why FTOS OpenAPI?

- Enterprise fit into enterprise customer IT landscapes
- FintechOS OpenAPI aims to comply with and follow industry wide standards.
- This will enable our platform/clients to:
    - Expose & consume our APIs
    - Have authentication/authorization methods that are industry wide compliant with several auth standards (e.g. OAuth 2.0)

Documentation: FintechOS API Guide - FintechOS API Guide

FTOS IDP

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Why FintechOS IDP

The FintechOS Identity Provider supports identity brokering, allowing users to log in to FintechOS applications and services using any external identity provider that supports the OpenID Connect standard. Most common external identity providers are:

- Azure AD
- Okta
- AWS Cognito

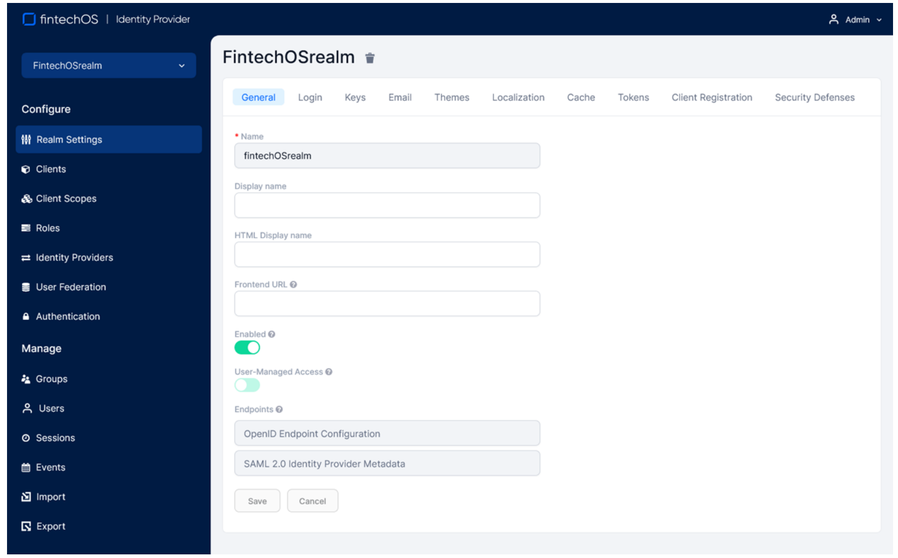
FintechOS IDP also enables:

- Single-Sign-On (SSO)
- Identity Brokering and Social Login
- User Federation
- Client Adapters

Features

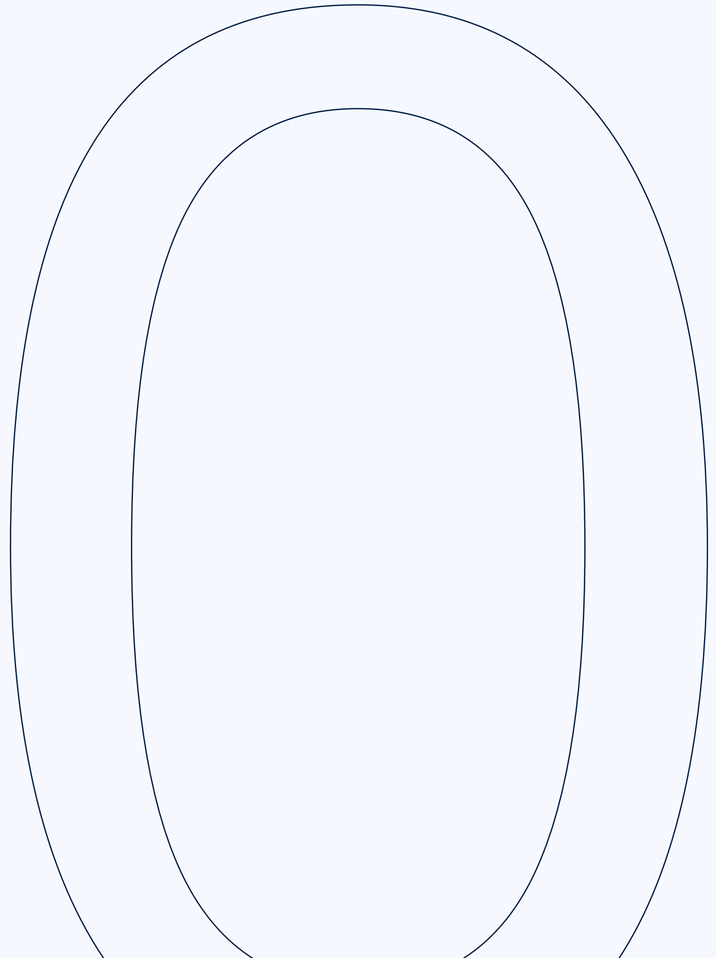
• Users authenticate with the FintechOS IDP rather than individual applications. This means that your applications don't have to deal with login forms, authenticating users, and storing users. Once logged-in to the FintechOS IDP, users don't have to login again to access a different application

• FintechOS IDP comes with its own management console, where the available features can be managed accordingly



More details & documentation: [FintechOS Identity Provider]

Async & Recurring Services



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Async & Recurring Service

Usage

- Running of asynchronous Tasks in HPFI is enabled by the JobServer service.
- JobServer has been integrated with Fintech Innovation Studio via Schedule Jobs and are triggering on demand script executions. It can also trigger SQL procedure executions.
- JobServer was created to resolve business cases such as: **calculate financial statement, generate payments, generate reports, send notification, send /retrieve data from third parties, execute tasks that take long time, based on a schedule with a specific frequency.**

JobServer Services

Async & Recurring Service 22.1.0

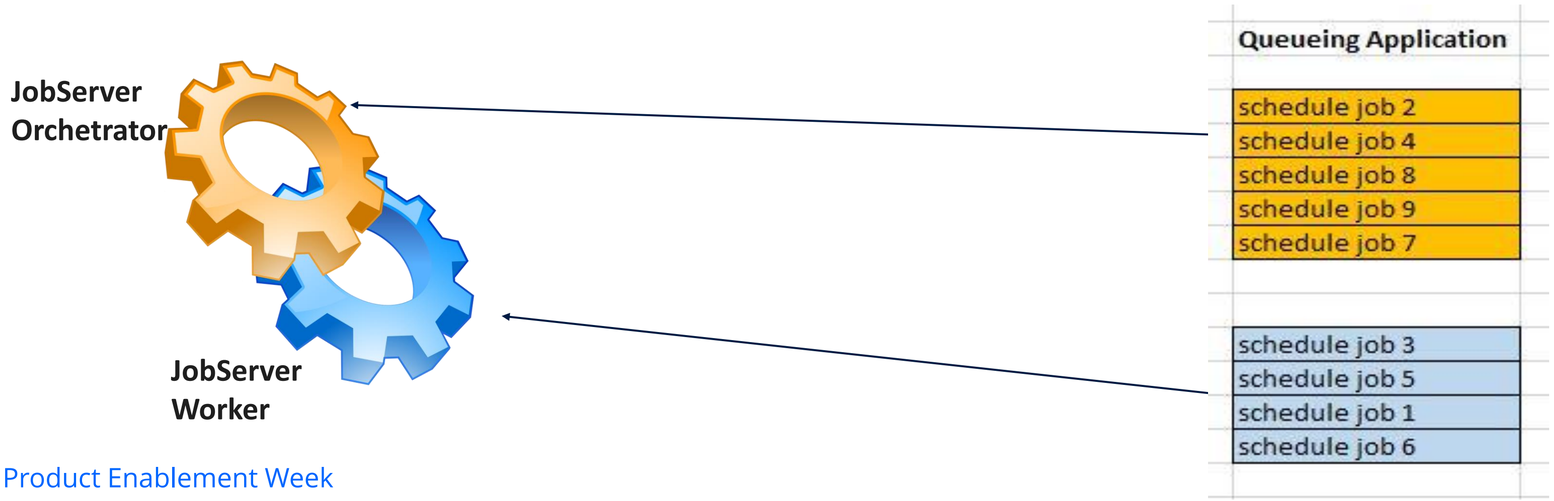
New Feature – Queueing capabilities

Until 22.1.0 the user could not use more than 1 JobServer, if thete was the need, becaue the execution of the schduled jobs from Fintech was multipled with the number of services installed.

From 22.1.0 if there is the need, more than one Jobservers cand be installed using de services trigger queue mecanism. This means that you can set the Services to work with queues after the queueing applications.

New Feature – How it works

After installing more than one JobServer, only on of them will be set as an Orchestrator, and the others as ‘workers” and they can share the load. Each cand be configured to trigger several scheduled jobs and each will receive a random job to executed, and it will always execute those jobs. This way the jobs won’t be executed more than once at the same time.



Thank you!

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