

# mojaloop

## Sybrin Update

PI 10 – April 2020

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mojaloop

# Company Overview - Sybrin

- A customer-centric software company focused on the development and implementation of complex applications using our own Rapid Application Development Platform – Sybrin Nitro & Accelerators in Banking and AI
- Sybrin has a rich history in the financial services industry with solutions deployed specifically in domains such as payments, KYC, AML, information processing and process automation
- Unlike similar package software products, our product provides a full stack rapid application development framework from front to back, focusing on the power developer and enforces the best practice for building, managing, and deploying enterprise apps

**1991**

Sybrin was established in 1991. We have more than two decades worth of experience in the provision of bespoke solutions in the payment and information management industries.

**600**

We have sold more than 600 systems across Africa, Europe, and the Middle East.

**250+**

Sybrin has over 250 employees, and we are steadily growing our team with staff who are dedicated, resourceful, and passionate about their work.

**20**

Our solutions are currently deployed in 20 countries worldwide and we are actively expanding into new territories.

**30%**

Sybrin has experienced a consistent growth rate of over 30% year-on-year. We are expanding rapidly to best serve our growing customer base in and around Africa.

**EOH**

As an EOH company, we benefit from being part of one of the largest, JSE-listed, information technology providers in South Africa with over 15 000 staff.



**FNB**  
First National Bank



**Ecobank**  
The Pan African Bank

**BARCLAYS**

**BIDVest BANK**

**Standard Chartered** **CHASE BANK**

**OLD MUTUAL**

**citibank**

**NEDBANK**

**Sanlam**

# Company Overview - Sybrin

- A customer-centric software company focused on the development and implementation of complex applications using our own Rapid Application Development Platform – Sybrin Nitro & Accelerators in Banking and AI

- **Nearly 100 Banking Brands as customers.  
As well as a few Central Banks and Clearing Houses.**

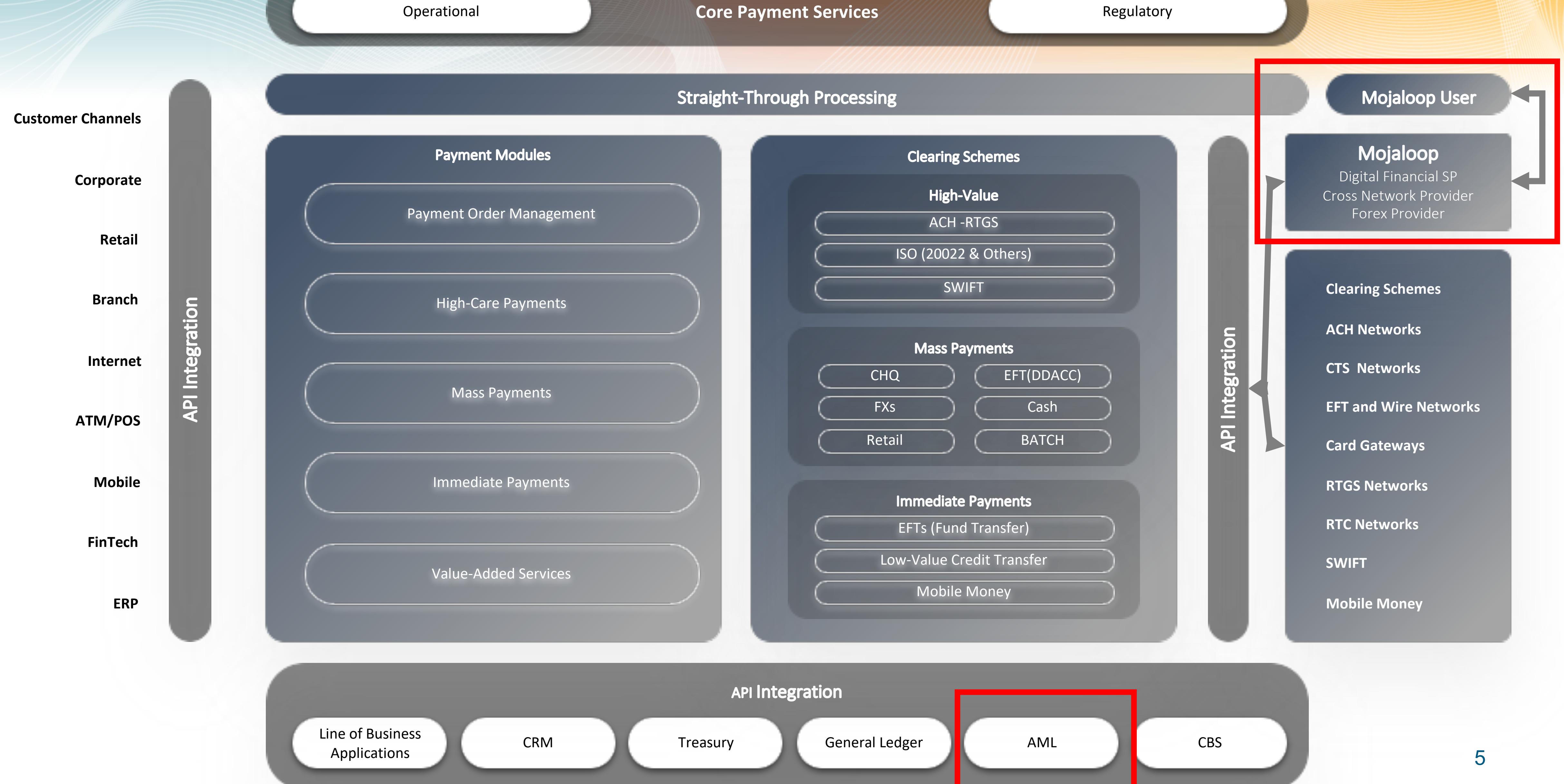


# Sybrin plans to leverage Mojaloop

- With our clearing house customers
  - Additional real time switch option
  - With cross border payments
- Providing integration components and connectivity to other payment networks
  - At the clearing house and
  - FSP
- Providing switching to our FSP customers
- Providing Fraud Risk Management Solutions for the Mojaloop ecosystem – as a service, SaaS, or on prem

# Specifically with the Sybrin Payments Hub

## Management Cockpit

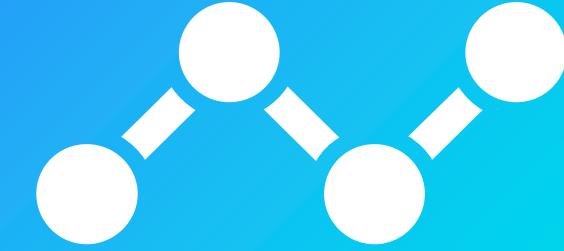


# Use w/ Our Fraud Risk Management (FRM) Tools



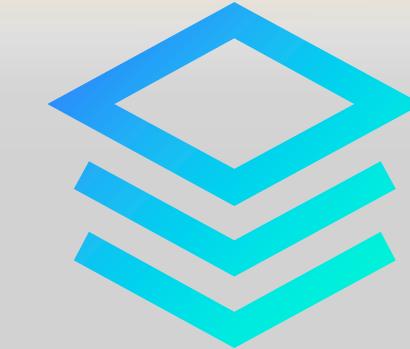
## Case Management

- Process Control
- Investigation
- Audit



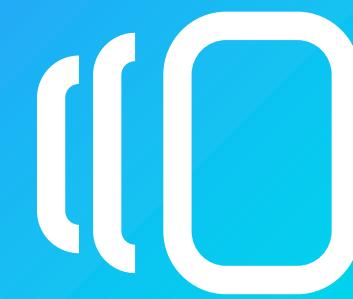
## Acceleration

- Machine Learning / AI
- Classification
- Automatic Data Extraction



## Data Management

- Consolidation
- Filtering / Lists
- Governance



## Frameworks

- Rules
- Processes
- Models



## Analytics

- Real-time
- Predictive
- Alerts



## Reporting

- Transacting
- Messages
- Audit

# FRM Lookups, Checks & Validations

White Label  
Channel Apps

Remote Biometric On-Boarding Apps



Mobile



Web



Chat

Operational Portal



KYC/AML Operational Portal

ID & V / KYC



Consumer ID & V



Business ID & V

Screening



Sanction & Watch Lists



PEP



Adverse Media



Investigations



Monitoring

EDD



Source of Wealth



PEP & Status Link



Adverse Media



Investigations



Monitoring

Mngt  
Cock pit



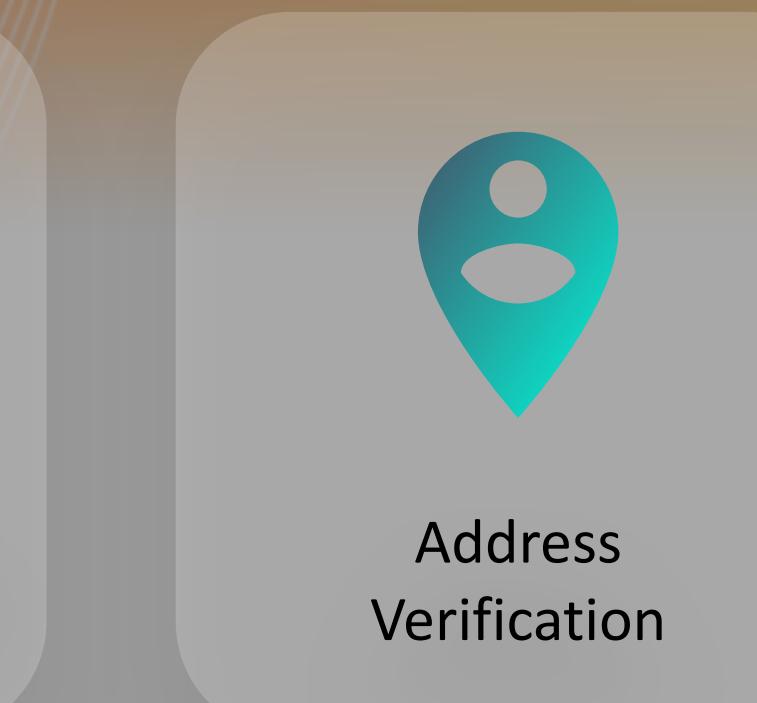
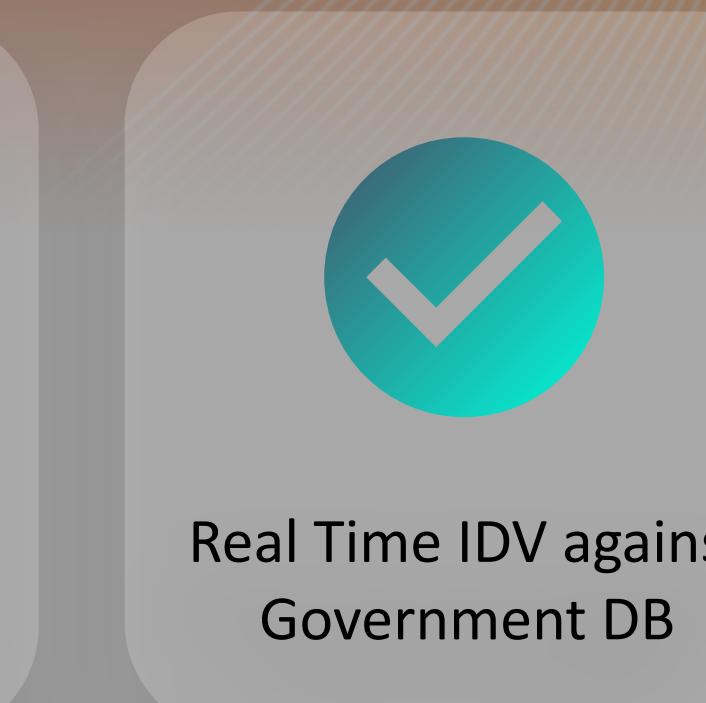
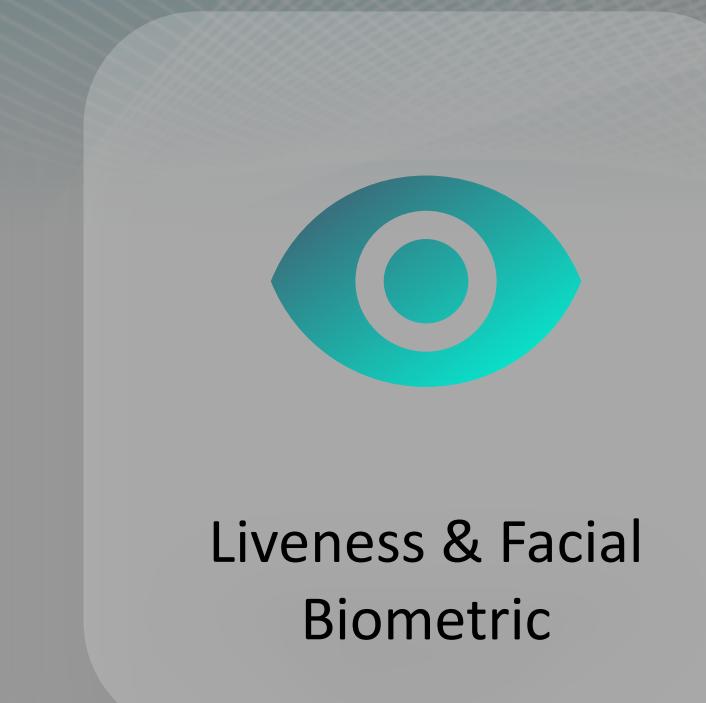
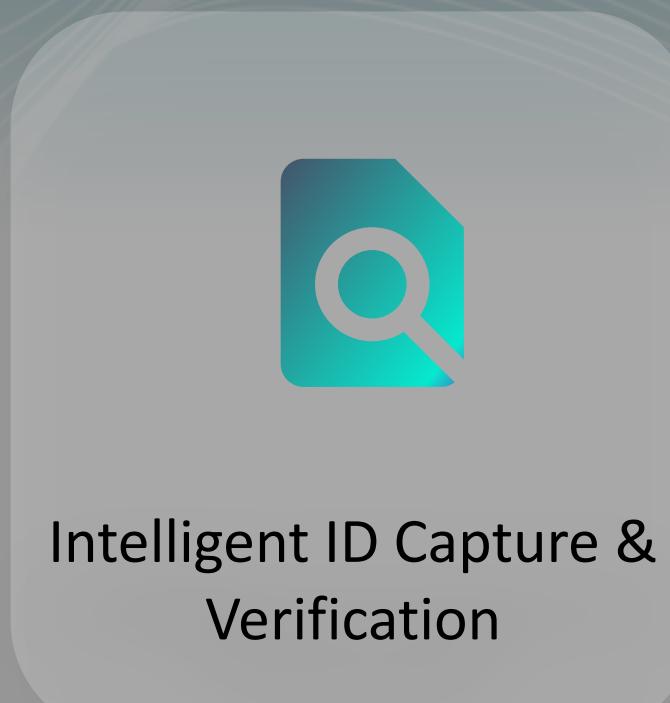
Regulatory View



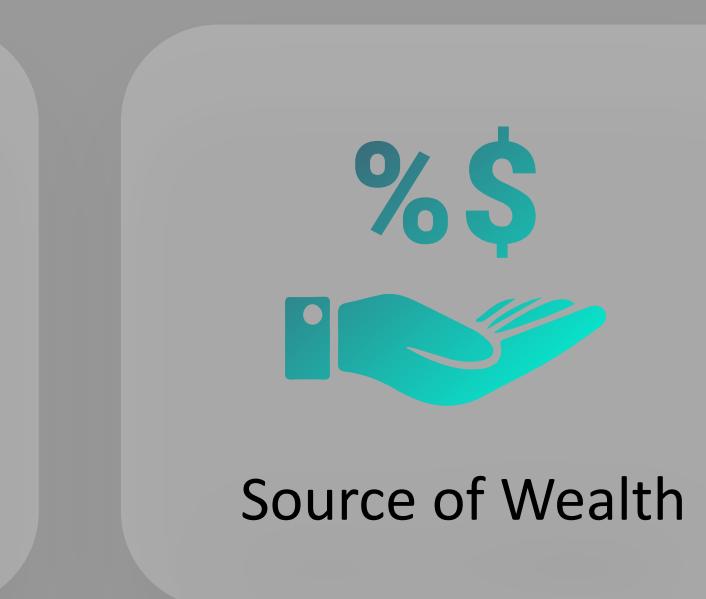
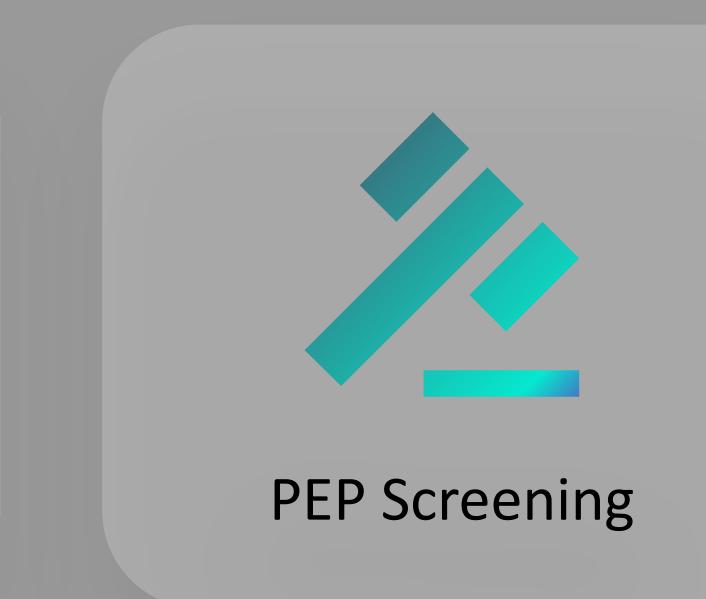
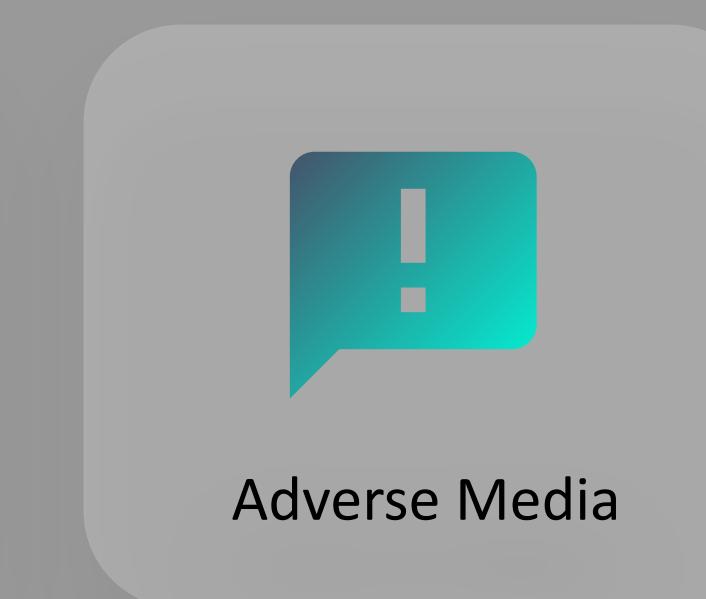
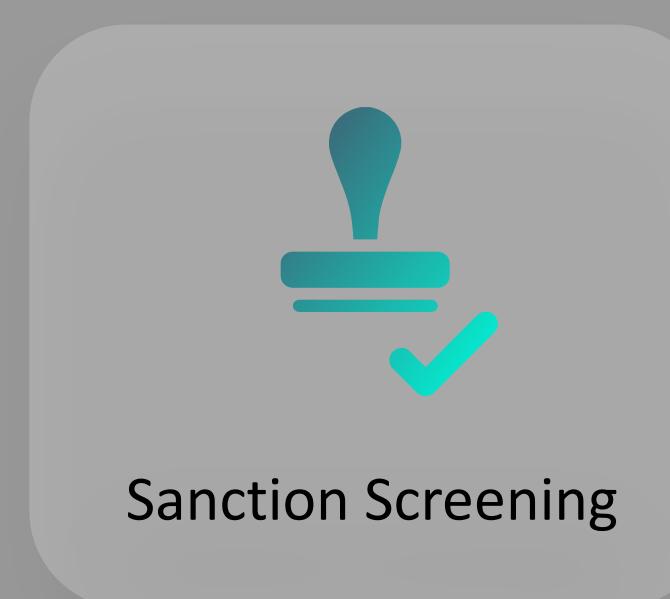
Operational View

# FRM Lookups, Checks & Validations

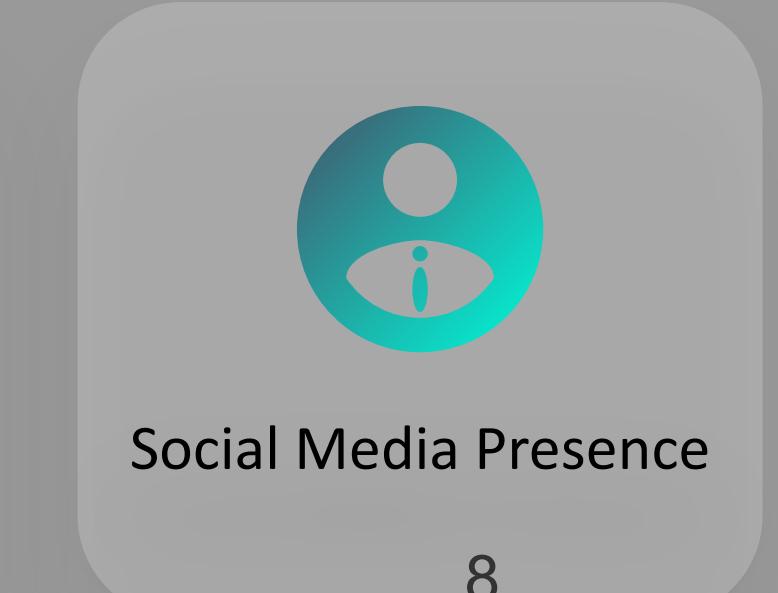
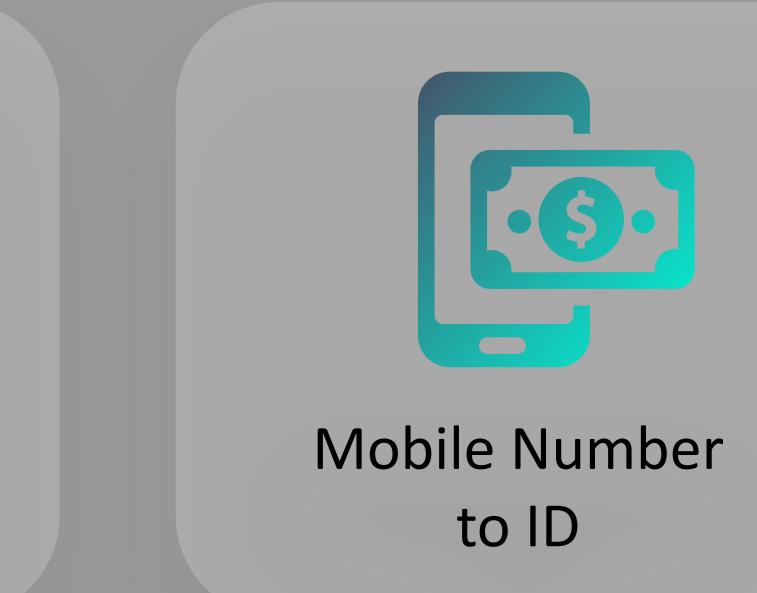
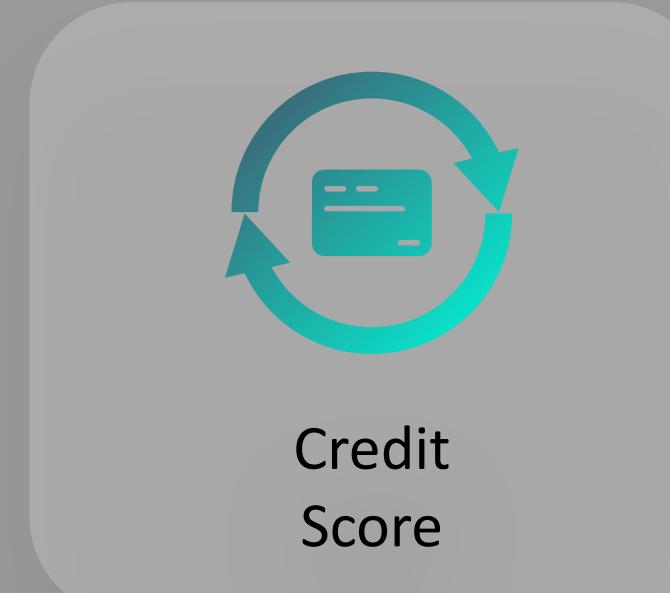
Remote Biometric  
On-Boarding



Sanction Screening



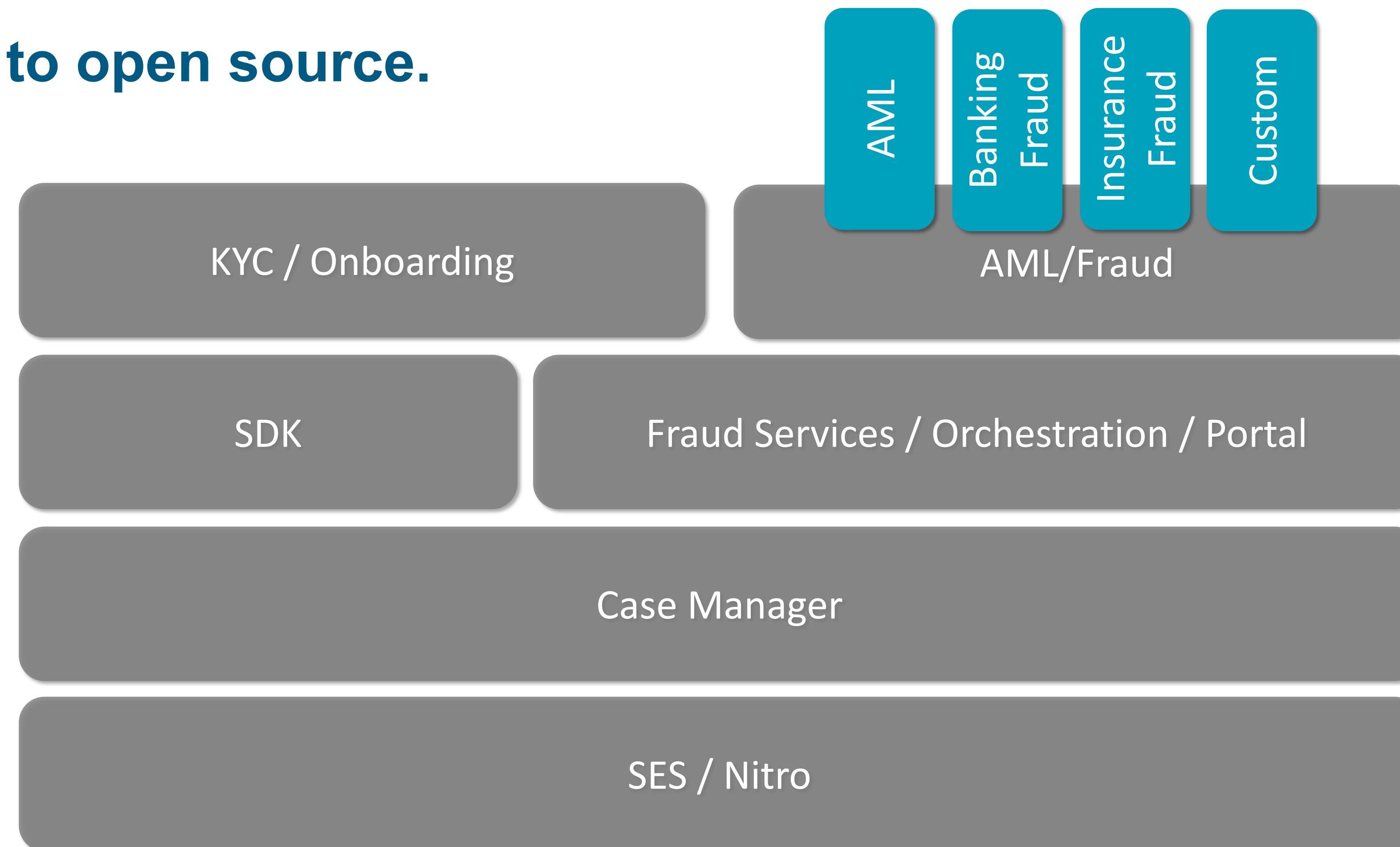
Other Checks



# Fraud Risk Management (FRM) Tools

**Comprehensive complimentary and integrated stack.**

**Hard to open source.**



# Simplified Integration Configuration

Sybrin Profile

http://ProfileApp.Sybrin.com

Sybrin Profiles Development 1124 AM

Search ...

Home APIs Lists Data Base

**Providers**

Activated	Provider	Activated By	Datetime Activated	Last Used
<input checked="" type="checkbox"/>	Sybrin	KYC Manager 1	2020-02-01	2020-02-06 16:10:00
<input checked="" type="checkbox"/>	PBVerify	KYC Manager 1	2020-02-01	2020-02-06 16:10:00
<input type="checkbox"/>	2Identity	-	2020-02-01	2020-02-06 16:10:00
<input type="checkbox"/>	TransUnion	-	2020-02-01	2020-02-06 16:10:00
<input type="checkbox"/>	XDS	-	2020-02-01	2020-02-06 16:10:00

**Provider Details**

URL: https://www.veriid.com/PBVerify/webservice/  
Port: 443  
 Use sybrin's credential  
API Key: XXXX-XXXX-XXXX-XXXX-XXXX  
Username: \*\*\*\*\*  
Password: \*\*\*\*\*

**Define APIs, Data Sources, ETL, Lists, Automations, Statistical and Machine Learning Models**

**API Calls**

Activated	API Call	Calls made this Month
<input checked="" type="checkbox"/>	Home Affairs ID verification	543
<input checked="" type="checkbox"/>	Express Consumer Score	338
<input checked="" type="checkbox"/>	Consumer Report	256
<input type="checkbox"/>	Address ID	0
<input type="checkbox"/>	Bank AVS	0
<input type="checkbox"/>	Drivers License Validation	0
<input type="checkbox"/>	Consumer Trace	0
<input type="checkbox"/>	Contact ID	0
<input type="checkbox"/>	Company Credit Check	0
<input type="checkbox"/>	CIPC - Company and Director	0
<input type="checkbox"/>	Bank Code	0
<input type="checkbox"/>	Digital FICA KYC	0

**Preview of API response**

Download

Home Affairs ID verification

```
[{"Status": "Success", "idProfile": {"traceId": "10286383", "idNumber": "0000000000000000", "firstNames": "JUST", "surName": "GOOFY", "dob": "1983-07-06", "age": null, "gender": "Male", "citizenship": "South African", "status": "1", "dateOfIssue": null, "deathDate": null, "deathPlace": null}}]
```

# Rules, Microflows and Workflows

Sybrin Profile

http://ProfileApp.Sybrin.com

Sybrin Profiles Development 11:24 AM

Search ...

Home Gilchrist Custom Set 221 Rule Set

Gilchrist Rule Set Versions

Search ... All Pending Active Inactive Add Filter Remove Edit Add

Version	Status	Active	Created by	Approval	Date Time
3.0	Pending	Inactive	KYC Agent 1	KYC Manager 1	2019-11-18 14:00 pm
2.0	Rejected	Inactive	KYC Agent 2	KYC Manager 1	2019-11-18 15:00 pm
1.0	Approved	Active	KYC Agent 1	KYC Manager 2	2019-11-19 08:00 am

Rule Set Information

Name: Gilchrist 101

Description: Latest rule set adjustments to lower requirements and ensure a higher pass rate

Additional Information

Add Comment 1

KYC Agent 2020-01-14 10:00:00 Please check and approve updated ruleset.

KYC Manager 2020-01-14 10:05:00 Declined. Lower all value requirements for higher pass rate

Reply

Create edit and version rules, microflows, workflows and orchestrations.

# Rules Configuration

Sybrin Profile

http://ProfileApp.Sybrin.com

Sybrin Profiles Development 11:24 AM

Cancel Bulk Upload Submit Save Reject Approve

Simulation Run Simulation Close Simulation

**Inputs:**

- vID Profile - ID\_Profile\_2ss
  - Citizen
    - South African
  - Age
    - 34
  - Gender
    - Male
- Credit Score - CScore987

**Outputs:**

- ID Profile - ID\_Profile\_2ss
  - Text Result
    - PASS
  - Numeric Result
    - 8
- Credit Score - CScore987
- Risk Model (Final Rules) - RM\_334rd

**Model**

Gilchrist  
101BasicRule

Define rules as DRD diagrams.

```
graph TD; A((PBV ID Profile API Result)) --> B[ID Profile Rules]; C((PBV CreditScore API Result)) --> D[Credit Score Rules]; B --> E[Risk Model (Final Rules)]; D --> E;
```

The diagram shows the flow of data from two API results ('PBV ID Profile API Result' and 'PBV CreditScore API Result') through two rule engines ('ID Profile Rules' and 'Credit Score Rules') to a final 'Risk Model (Final Rules)'.

# Rules and Microflows

Sybrin Profile

http://ProfileApp.Sybrin.com

Sybrin Profiles Development 1124 AM

Cancel Bulk Upload Submit Save Reject Approve

Simulation Run Simulation Close Simulation

Inputs:

- vID Profile - ID\_Profile\_2ss  
Citizen
- Credit Score - CScore987

Outputs:

- ID Profile - ID\_Profile\_2ss  
Text Result  
Medium Risk  
Numeric Result  
7
- Credit Score - CScore987
- Risk Model (Final Rules) - RM\_334rd

Define table-based rules, switch between DRD and table views.

Model

Data Source Save View DRD

ID Profile Rules							
IDProfileRules		Input +		Output +			
U	Age	Gender	Citizenship	Status	Text Result	Weighted Result	Annotation
1	<= 17	Male	'South African'	Fail	3		
2	<= 17	Female	'South African'	Fail	3		
3	[18..25]	Male	'South African'	Medium Risk	5		
4	[18..25]	Female	'South African'	Medium Risk	5		
5	[26..35]	Male	'South African'	Medium Risk	7		
6	[26..35]	Female	'South African'	Medium Risk	7		
7	>=36	Male	'South African'	Low Risk	9		

# Audit / Review

Sybrin Profile

http://ProfileApp.Sybrin.com

Sybrin Profiles Development 11:24 AM

Back

Selfie Onboarding by Sybrin

First Name	Salvatore	Result	Approved	Type	Mobile	Status	Success
Surname	Errera	Message	9	Duration	4 s	Message	200

ID Profile Verification by PBVerify

Type	API	Result	Successful
Duration	5 s	Message	9

Consumer Credit Report by PBVerify

Type	API	Result	Successful
Duration	8s	Message	9

**Result Summary**

**650 / 710**

**Risk Rating: Low Risk**

**Identity Profile DMN Results**

Output	Value
Text Result	Pass
Weighted Result	8

**Review details of transaction, success, failures, rule results, alerts. Full**

**API Result**

Status: Success

IdProfile:

traceId: 10286383  
idNumber: [REDACTED]  
firstNames: Salvatore  
surName: Errera  
dob: 1982-05-05  
age: 38  
gender: Male  
citizenship: South African  
status: 1  
dateOfIssue: [REDACTED]  
deathDate:  
deathPlace:

TraceID: 10286383  
ID number: [REDACTED]  
First Name: Salvatore  
Surname: Errera  
Date of Birth: [REDACTED]  
Age: 34  
Gender: Male  
Citizenship: South African  
Status: 1  
Date of Issue: 18-09-2017

**Document Viewer**

REPUBLIC OF SOUTH AFRICA NATIONAL IDENTITY CARD

Surname: ERRERA  
Names: SALVATORE  
Sex: M  
Signature: [REDACTED]



Gilchrist 101 Version 1.0

# Investigator Suite and Transactional Monitoring



Investigate cases and identify fraudulent pattern suspicious and social networks to find new forms of fraud



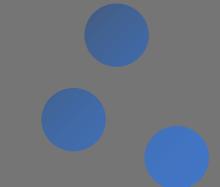
Use business events in real-time to get smarter operational processes and decrease fraud



Consolidate internal and external data to obtain a unified view on the data



Event Manager



Investigator module

INVESTIGATOR SUITE



Real-Time Event Engine



Follower

REAL-TIME EVENT SUITE



PROCESS INTEGRATION LAYER

DATA CONSOLIDATOR MANAGER



IDB

PDB

OSINT

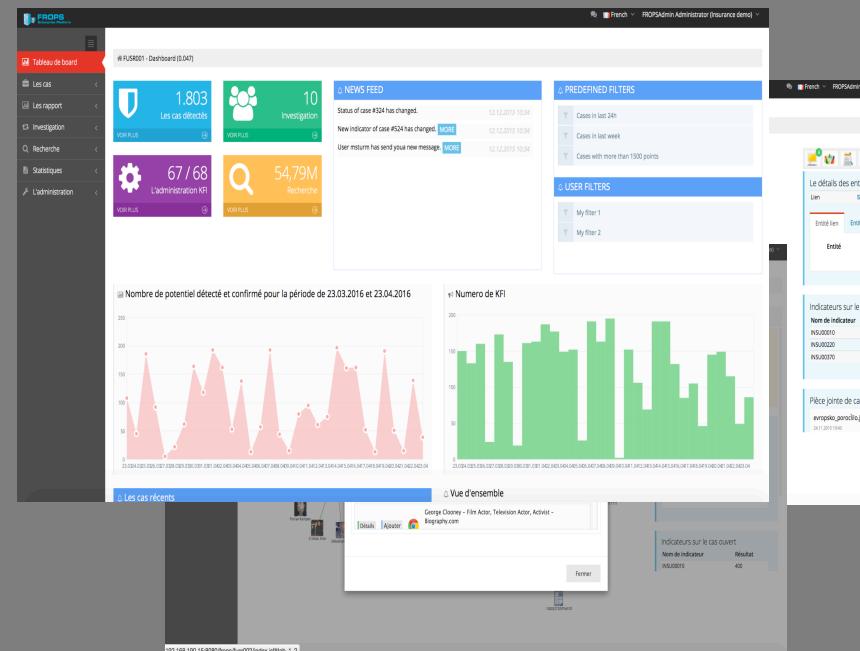
Unstructured  
DATA

KFI  
Database

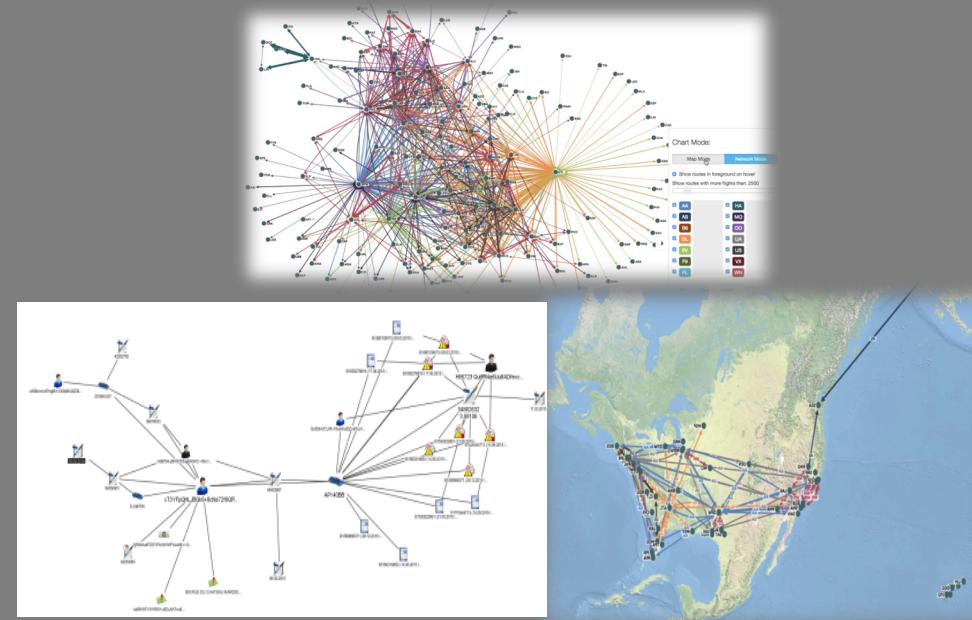
# An Interactive Tool for the End-User

A User-Oriented Solution, Simple to Use, Dynamic and Efficient.

## Dashboard



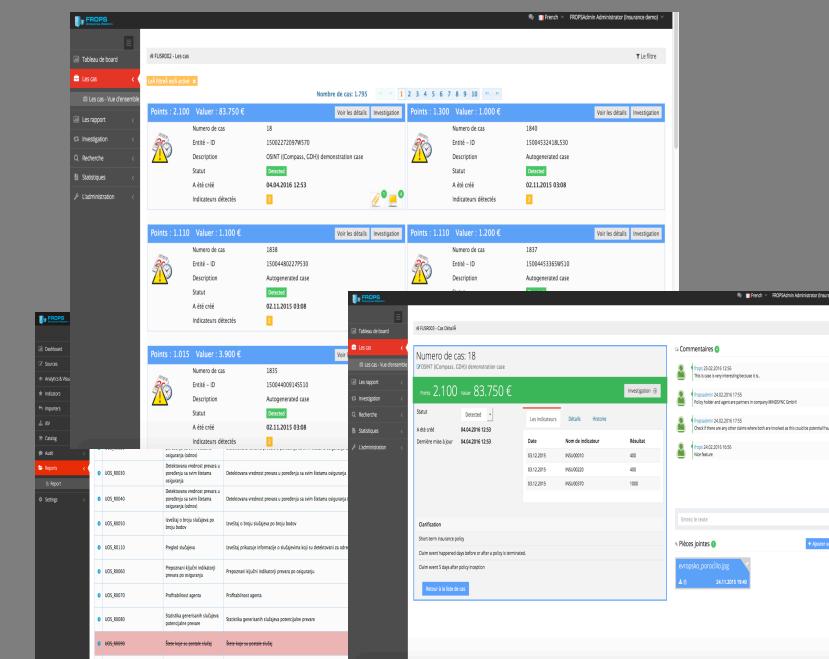
## Visualizer



- The dashboard allows the end user to see in interactive way and clearly all cases under investigations.
- It shows also the tasks to handle and the advancement of cases and the recent updates.

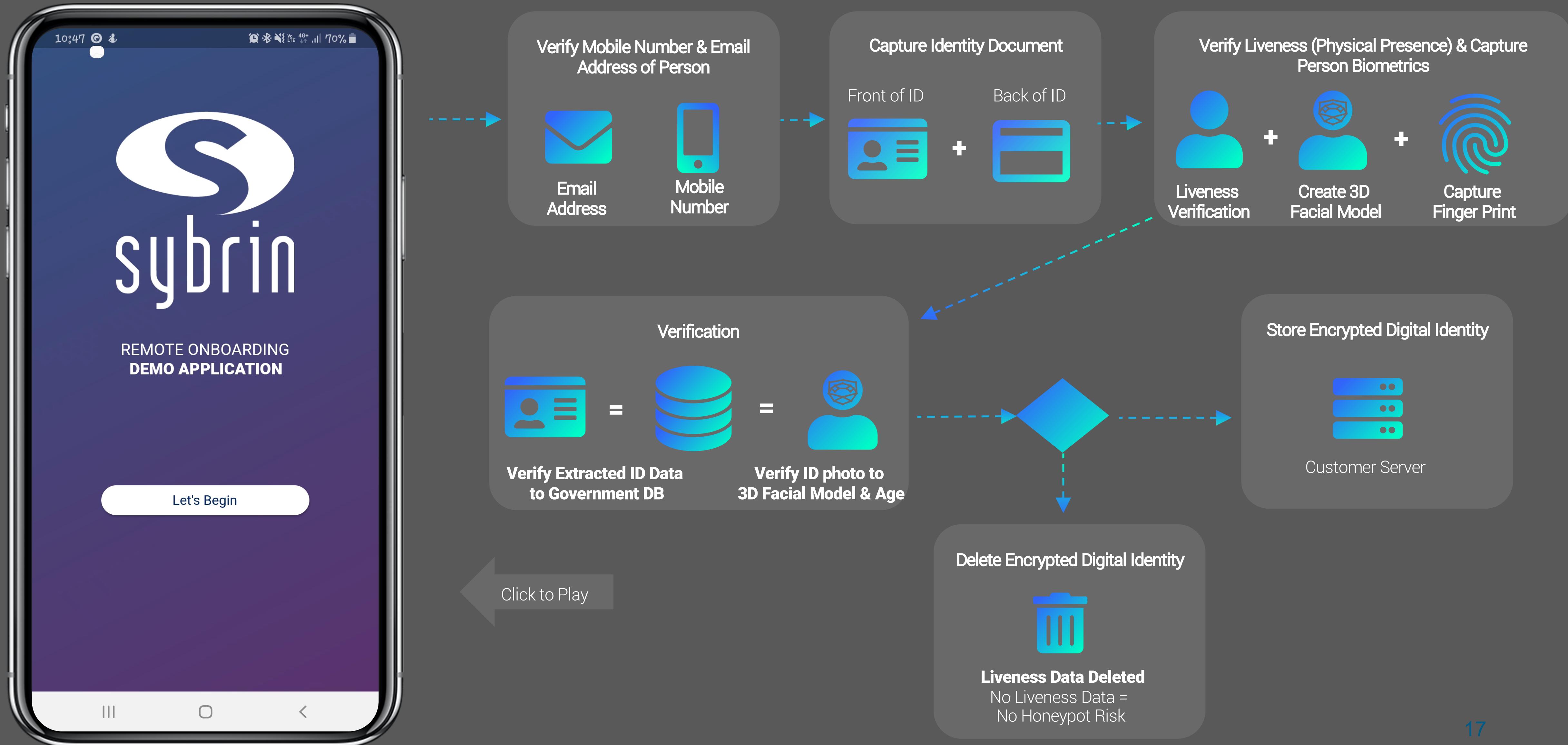
visualizer allows the client to perform effective and quick analysis for both the links and relations between the entities.

## Case Management and Reporting



- Document case management enables efficient management of workflow:
  - alerts and cases,
  - combining multiple alerts in one case,
  - showing scores and reasons,
  - order it by priority.

# For example mobile based onboarding - KYC



# Progress from the last meeting

- Still mostly lurking and learning
- Wanting to assist with performance
  - Azure implementation is up and running
  - Bare Metal Servers up and running
    - Had some issues with helm etc – thanks to everyone for the assist
- Cross Network Work Stream
- Discussing the Payment versus Payment options with Michael
- Actively participating in the FRM Work Stream
  - Researching if we can open source portions of our rules engine, doubtful on case management
  - We already do centralized KYC and SaaS based solutions

# Plans for the next PI

- Become more active
- Work on integrations with
  - our payment hub
  - FRM tools
- Work on Payment versus Payment
- Conclude decision on open source rules engine and case management
  - Begin prototyping if there is a “go” decision