Para//elChain Lab
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eKYC-Chain

Experience click-free, lightning-fast onboarding.

Blazing fast KYC solution
Face authentication in <1s
Onboard in <10s

No motion tasks
Frictionless user experience

Watertight passport/ID authentication
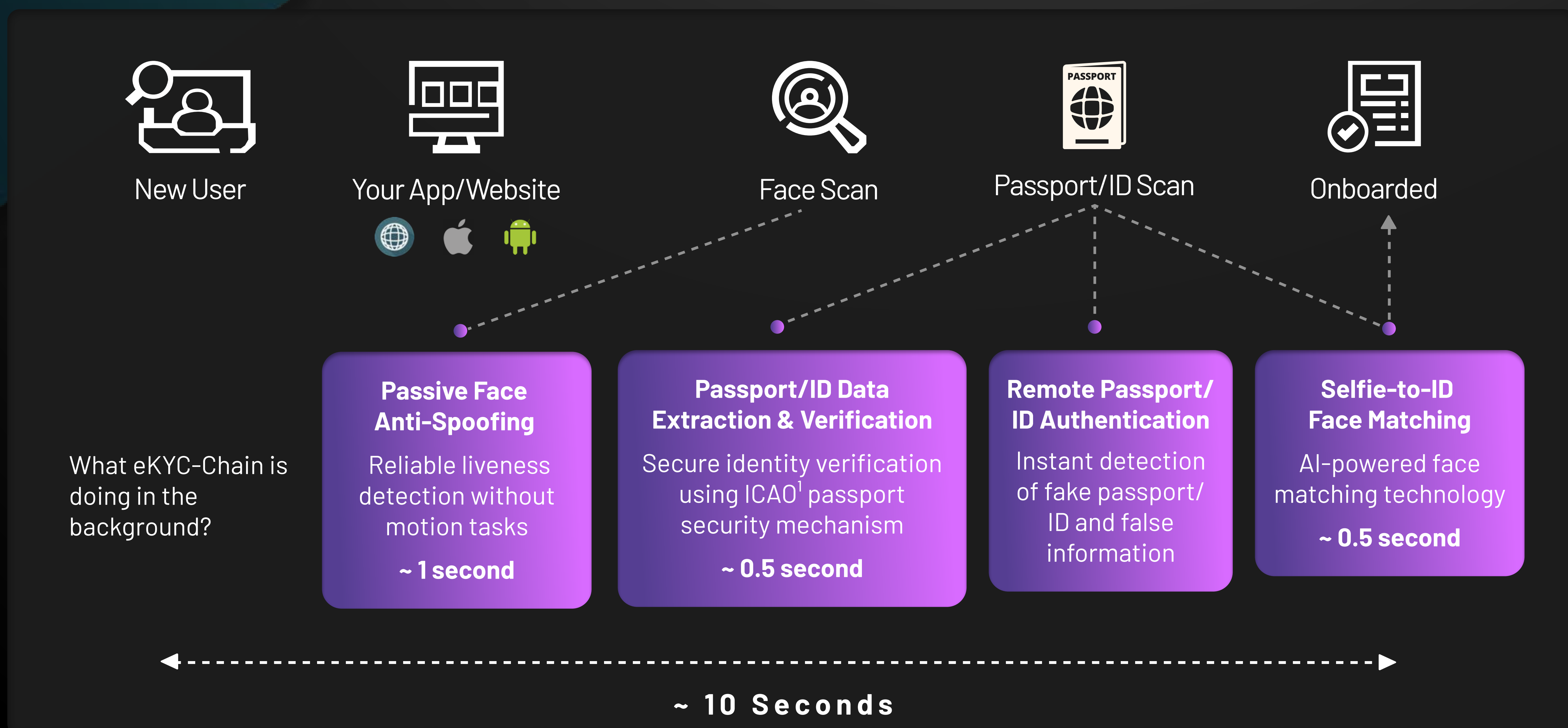With global passport and national ID support

What is eKYC-Chain?

eKYC-Chain is your preferred digital identity solution for user onboarding and authentication, powered by AI and biometric technologies.

Your users are ensured a hassle-free experience:

- No movements required (blink, turn head, etc.)
- Just needs one selfie and one passport/ID photo
- Whole process completes in ~10 seconds

Your business reaps the benefits:

- Increased customer satisfaction and onboarding rate
- Enhanced operational efficiency
- Ensured security and compliance based on sophisticated AI technology and ICAO[1] passport security mechanisms

New User

Your App/Website

Face Scan

Passport/ID Scan

Onboarded

What eKYC-Chain is doing in the background?

Passive Face Anti-Spoofing
Reliable liveness detection without motion tasks
~ 1 second

Passport/ID Data Extraction & Verification
Secure identity verification using ICAO[1] passport security mechanism
~ 0.5 second

Remote Passport/ID Authentication
Instant detection of fake passport/ID and false information

Selfie-to-ID Face Matching
AI-powered face matching technology
~ 0.5 second

~ 10 Seconds

[1] International Civil Aviation Organisation, a specialised United Nations agency established to foster worldwide alignment of air regulations and procedures.

eKYC-Chain

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Contents

1. Introduction

What is eKYC-Chain?

eKYC-Chain is a digital identity solution for **user onboarding and authentication**, powered by AI and biometric technologies.

Who is eKYC-Chain for?

eKYC-Chain is perfect for companies looking to enhance their Know Your Customer (KYC) processes by providing a frictionless **user experience** while ensuring **security and compliance.**

Why choose eKYC-Chain?

Other KYC solutions require users to perform multiple actions (blink, turn left, look up, etc.) to complete active face liveness detection, stretching the onboarding time—and users' patience.

eKYC-Chain completes the face capture including passive anti-spoofing—no user movement required—in **less than one second.** This hassle-free user experience is key to boosting **conversion rates** and **enhancing operational efficiency.**

At the same time, eKYC-Chain's sophisticated **face authentication technology** ensures high levels of security and strengthens Anti-Money Laundering (AML) compliance.

2. Features

The entire onboarding process runs automatically with just one tap.

This might seem too fast, too easy, too good to be true — but trust us, our AI is that good. This is what eKYC-Chain is doing in the background:
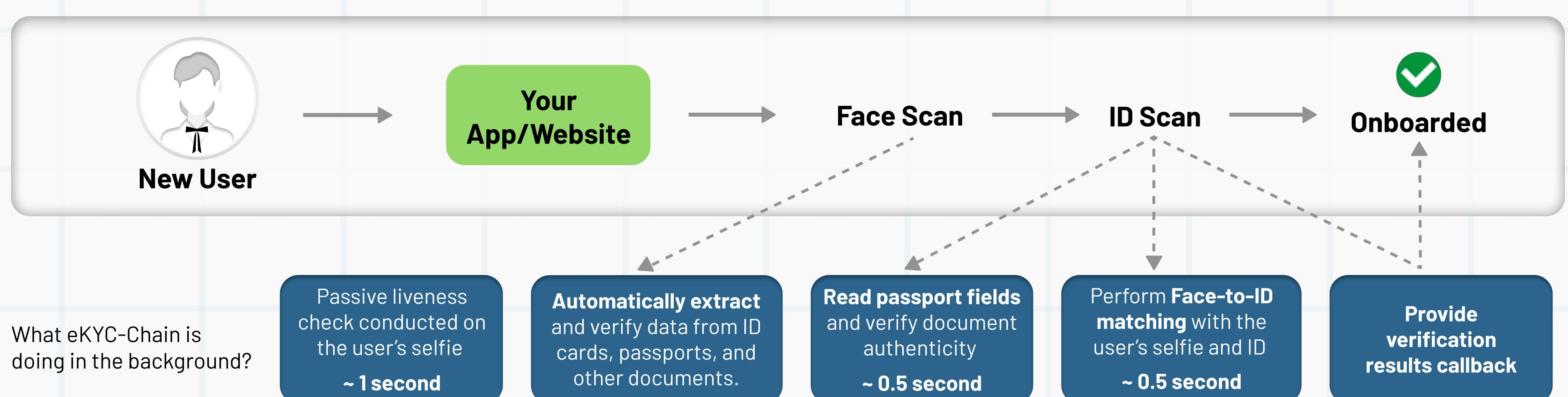

Figure 1: eKYC-Chain performs various functions in the background to enable frictionless authentication.

2.1 Passive Face Anti-Spoofing

eKYC-Chain uses passive face anti-spoofing[1] to conduct liveness detection—no motion tasks (e.g. blinking, turning head) are required. The software does the hard work, not the user.

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[1] Face anti-spoofing detects whether the captured face is a live human being or a fake representation (e.g. deep-fakes).

2.2 Selfie-to-ID Face Matching

With state-of-the-art face matching technology, eKYC-Chain compares the user's live selfie against the photograph on the ID. This is used to prove that the user is the authentic owner of the ID, preventing identity fraud.

2.3 ID Data Extraction and Verification

eKYC-Chain verifies user-input against the extracted ID data. Additionally, it automatically creates and fills customer profiles, so staff do not have to manually enter information.

2.4 Remote Passport Authentication

eKYC-Chain uses cutting-edge capabilities to instantly detect fake IDs, invalid IDs, and false information, strengthening KYC and AML compliances.

The ID documents are authenticated using security mechanisms implemented on passports by the International Civil Aviation Organisation, a specialised United Nations agency established to foster worldwide alignment of air regulations and procedures. This process identifies any discrepancies or anomalies, which provides an additional layer of security and certainty.

eKYC-Chain extracts and verifies multiple data points:

Surname	Document No.	Passport Authenticity
Given Name	Place of Issue	Face Matching
Sex		
Date of Birth	Date of Expiry	Face Anti-Spoofing

3. Customisation and integration

Workflows: eKYC-Chain can be tailored to meet the specific needs of each client, accommodating different industries, regulatory requirements, and integration preferences.

Deployment: The client can choose from four deployment models, each with its own advantages:

1. **Cloud-based:** The client can get up and running quickly without significant upfront investments in hardware and IT resources.

2. **On premises:** The client can keep sensitive data within their own controlled environment and ensure compliance with strict data privacy regulations.

3. **Edge AI:** The fastest and most data-preserving deployment model, as data does not leave users' devices.

4. **Hybrid:** Using a combination of the above deployment models allows the client to combine scalability and speed with security and control.

Supported documents: eKYC-Chain can be customised to support different ID types (e.g. passports, driving licenses, etc.).

Supported platforms: eKYC-Chain can be deployed on web and as mobile apps (iOS, and Android). No special hardware or camera is needed, just a basic smartphone or laptop with a camera is sufficient.

MailCat integration: eKYC-Chain can be integrated with MailCat, our AI-powered customer support and relationship management tool. MailCat automatically categorises and replies to KYC-related queries, allowing compliance teams to prioritise and manage tickets more efficiently, reducing resolution times.

Blockchain integration: eKYC-Chain can be integrated with ParallelChain Enterprise, our high-performance business-native blockchain platform. Blockchain integration provides enhanced accountability and an immutable audit trail of all KYC activities, which simplifies the compliance reporting and auditing processes.

Learn more about MailCat
https://parallelchain-lab.io/vertical-solutions/mailcat

4. Disclaimers

The current document demonstrates the general architecture of eKYC-Chain. Design functionalities, and other details are subject to change after deliberations between ParallelChain Lab and the client or due to the constant efforts to improve our products.

https://parallelchain-lab.io

https://linkedin.com/company/parallelchain-lab

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