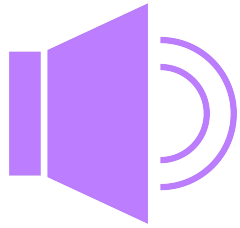


Measures to Combat Fraud: Liveness-Centric IDV

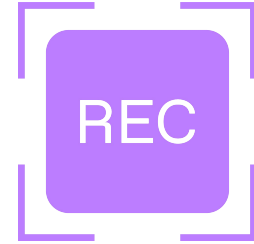
Housekeeping



Trouble with audio?
Try dialing in!



Submit your questions live
for our Q&A at the end



We're recording!
We'll email you the link

Let's get started!

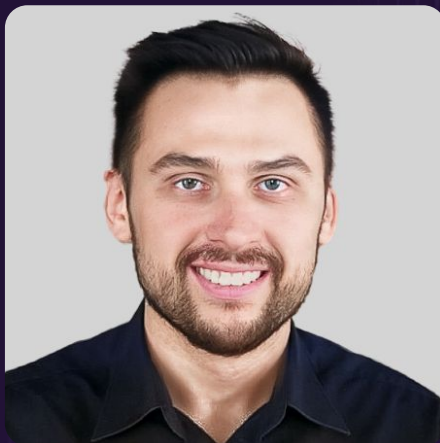


Name/Surname

Kate Volskaya

Business role

Head of Product Marketing



Name/Surname

Dmitry Smolyakov

Business role

Head of Mobile and Web
Development




Name/Surname

Andrew Terekhin

Business role

Head of Product



The emergence of deepfake technology has ushered in a new era of deception and sophistication

\$25 million

deepfake heist targeting a finance professional
at a multinational corporation in Hong Kong

80% of global companies' largest concerns
are associated with the surge in AI-generated
identity fraud

\$300,000

average damage in enterprises

Source: Regula's [identity verification report](#)

Catching identity fraud



Regula Document Reader SDK

- Accept only real documents with document liveness check (hologram, OVI, MLI, etc.)
- Use secure data capture, transfer, and reprocessing
- Embrace “zero-trust-to-mobile” paradigm
- Verify nearly all documents globally



Regula Face SDK

- Perform passive liveness detection
- Match portraits offline on mobile devices
- Embrace the “zero-trust-to-mobile” paradigm



Liveness detection technologies are becoming critical for the identity verification process.

The number of deepfakes detected worldwide in 2023 was 10 times the number detected in 2022.

Source: Gartner

Emerging Tech: The Impact of AI and Deepfakes on Identity Verification

What is liveness detection?

A method of verifying a person's identity by requiring them during the verification process to demonstrate that they are a real live person, and that their identity document really exists.



This is typically done by asking the individual to perform a specific action, such as:

- rotating an ID
- blinking
- smiling
- nodding their head
- etc.

Time for a poll!



Poll

During remote onboarding, do you check whether a real live identity document is presented and if it is a real person in front of the camera?

→ Yes

→ No

Non-liveness process raises risks of fraud

Identity Document Fraud

- Synthetic identity fraud
- Counterfeiting identity documents
- Alteration of personal information
- Identity theft or impersonation

Biometric Fraud

- Face morphing
- Spoofing
- Presentation and replay attacks
- Biometric data theft



Liveness-centric verification + authenticity checks are the only options to prevent identity fraud

Liveness detection is a must-have for remote customer onboarding



Hologram, MLI or OVI
detection help ensure
document authenticity



Passive or Active liveness
ensure the applicant is a
real human being

What measures does Regula provide to combat document and biometric fraud?

- Document liveness with dynamic feature verification (hologram, OVI, MLI, etc.)
- Biometric liveness detection with active and passive approaches
- Printed photo attacks
- Synthetic identity attacks
- Screen replay attacks
- Video replay attacks

Document liveness
checks of multiple
dynamic elements

Hologram animation



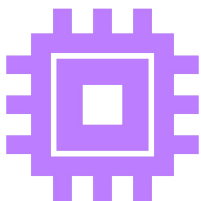
Multiple laser-engraved image (MLI)



Optically variable ink (OVI)



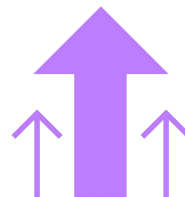
Behind the scenes



Improved NN



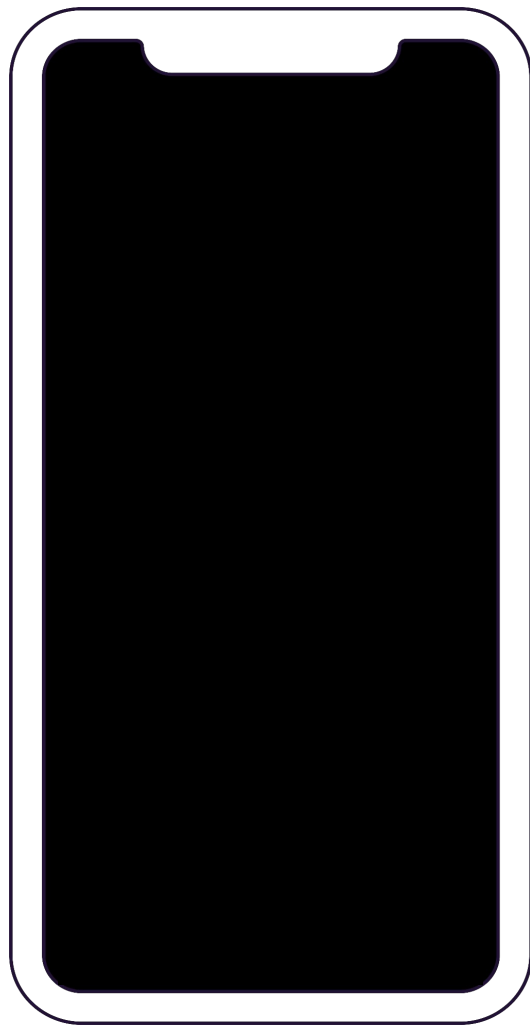
High angle images



2x faster detection

Demo

Document liveness detection demo



What else do you need
to confirm document
authenticity?

NFC verification is the most secure way to verify identity

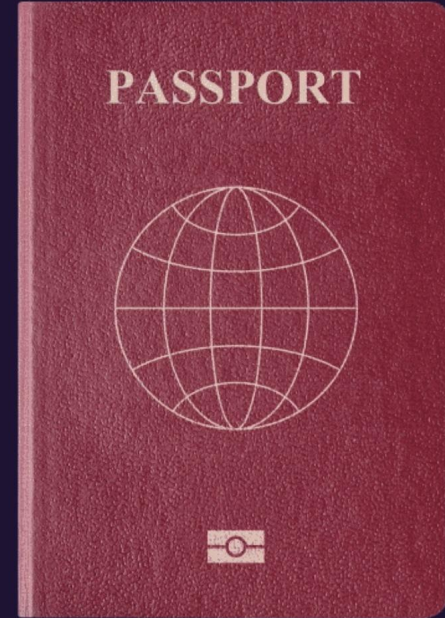


Add greater security for remote customer onboarding.

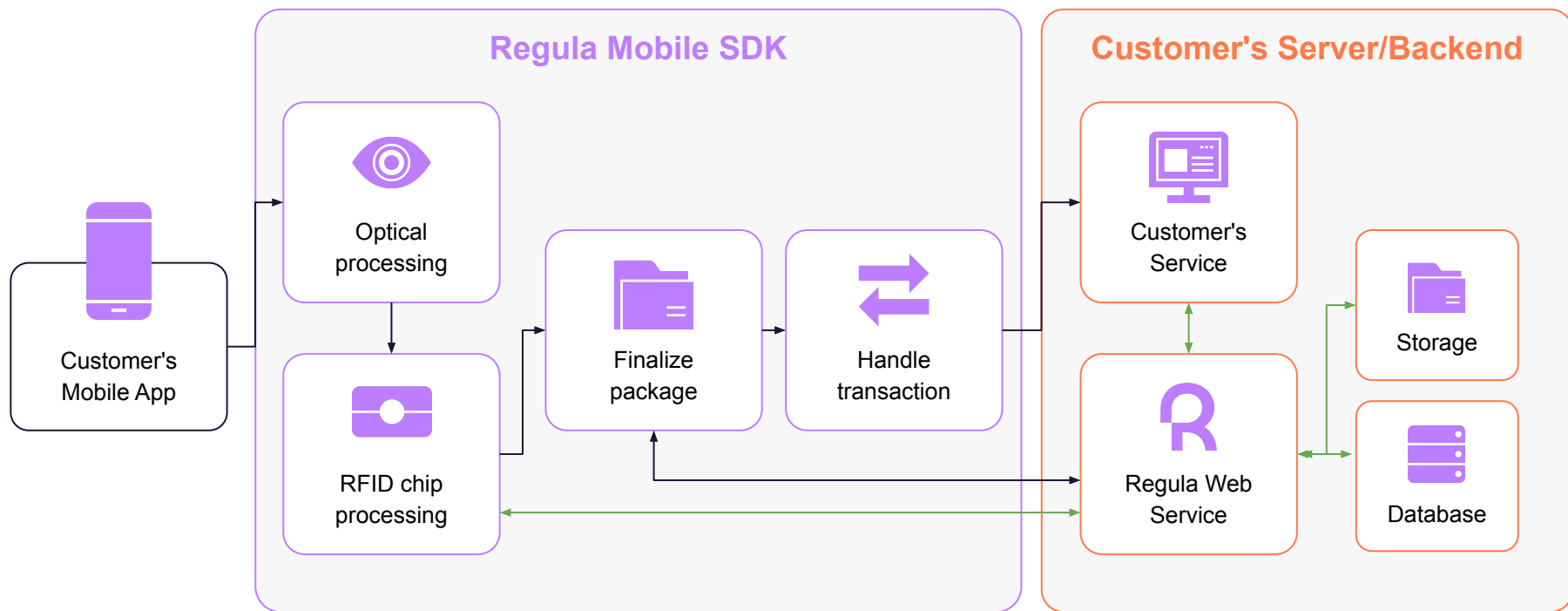
Read and verify electronic documents with RFID chips: e-Passport, e-ID, e-DL.

Server-side verification of RFID

Perform an extra check with complete server-side verification of NFC chips where the session is re-verified on a server for both chip and data authenticity.



Embrace “zero-trust-to-mobile” paradigm



Facial liveness detection

One-shot identification and seamless UX

Compare a live photo and a portrait from
a document within one image **simultaneously**.



Passive liveness detection



Passive Liveness detection technology with simpler user experience enables easier conversion.

Biometric fraud Regula Face SDK detects

Presentation attacks

Live person



Printed photo



Video replay



Digital device



Mask



Active liveness detection

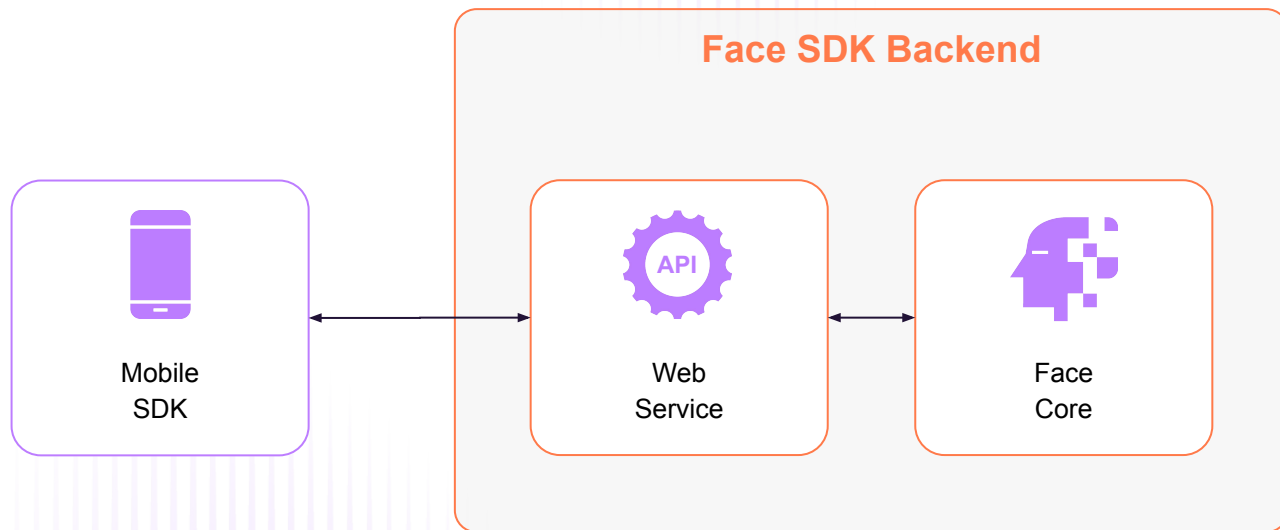


Active Liveness detection adds another layer of security to protect from sophisticated fraud.

Every session has unique parameters so the enrollment process is more accurate and fraud resistant by repelling different kinds of attack vectors.

Demo

Server-side biometric verification



Summary

Challenges

Identity verification fraud

Growing amount of documents

Pressure from regulators

Solutions

- Liveness detection techniques for documents and biometrics
 - NFC-verification of electronic IDs
 - Cross-validation and lexical analysis of the obtained information
 - Server-side verification in zero-trust-to-mobile cases
-
- The most comprehensive identity document library in the world, representing 247 countries and territories
 - Flexible, secure, works cross-platform, and has perfect CX
-
- Data handling with strictly on-premises software deployment
 - Smoothly scalable and customizable solution

Combination of Comprehensive Checks

Face SDK & Document Reader SDK

Pattern

Aztec Code

Main vs other page portrait comparison

Hologram check

...

Cross-checks

Document type detection

Photo size

Main vs RFID portrait comparison

Barcode format check

...

Required text field check

Document liveness check

Main vs ghost portrait comparison

QR code

RFID vs live camera portrait comparison

Screenshot check

MRZ check

Additional Portrait

IPI check

Face identification 1:N

Image quality check result type

Liveness detection

Face matching 1:1

...

...

PDF417

Data Matrix

Main vs live camera portrait comparison

Photo replacement check

Hologram verification

Data integrity check

Age verification

RFID chip reading

Server-side verification

Document front and back sides

Bounds if document is not fully present in the image

Stamp

Image Focus

Barcode image

Image Glares presence

Signature of document holder

...



Questions?



Thank you!

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Regula

Decades of Forensics for Seamless Identity Verification.
Bringing together 30 years experience in forensics, border control
and business, to create industry standards to trust and follow.

