toothpic

Everything starts with unclonable identity

ToothPic Solutions for Insurtech

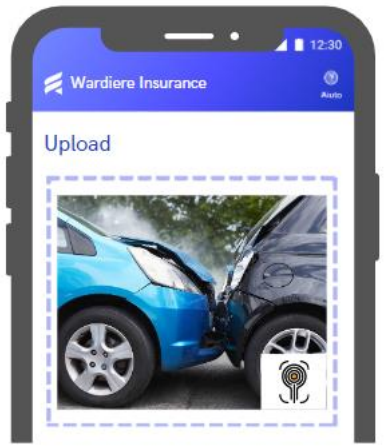
A

Unclonable and **passwordless** smartphone-based authentication for **secure** claim submissions

Benefits

Authorized user access

B

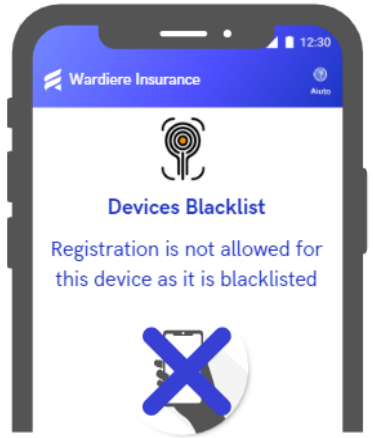


Picture validation to ensure picture **integrity** and **origin**, automating damage inspection from images.

Benefits

Untampered data
Authorized data source

C



Unique ID of the customer's smartphone camera to identify and **prevent fraud**.

Benefits

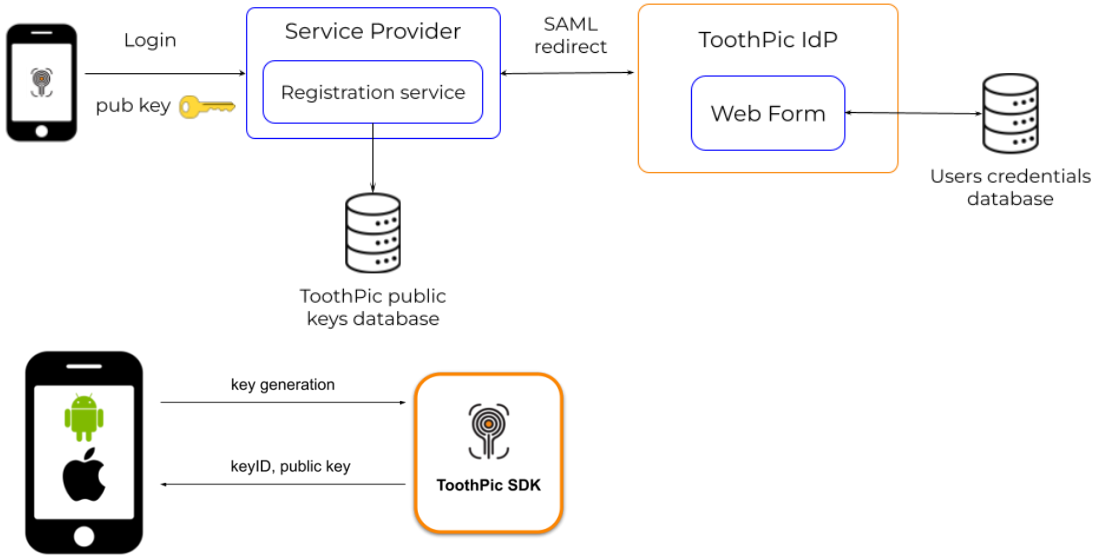
Authorized user enrollment

ToothPic - Unclonable Authentication

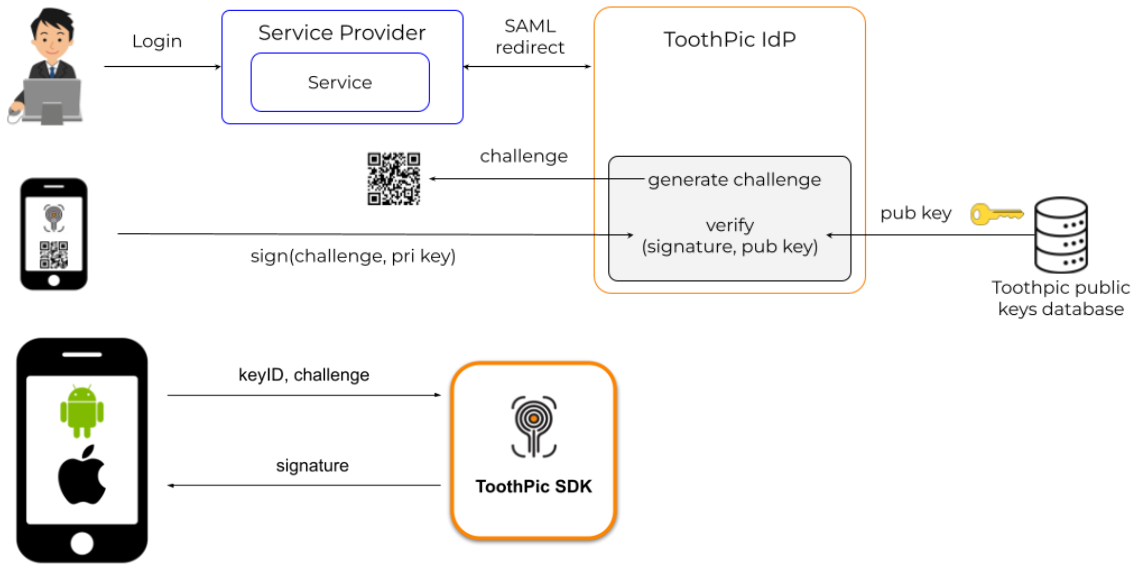
A

- The solution developed by ToothPic allows users to access a web application using their smartphone as a possession factor in a **MFA** or **passwordless** authentication scheme.
- The mobile application integrates the **ToothPic SDK** to generate **unclonable** digital credentials and to sign challenge messages for authentication. ToothPic SDK is available for Android and iOS.
- The backend consists of a Shibboleth-based IdP using SAML and a Shibboleth SP to protect the web application and registration service.

Credential Registration



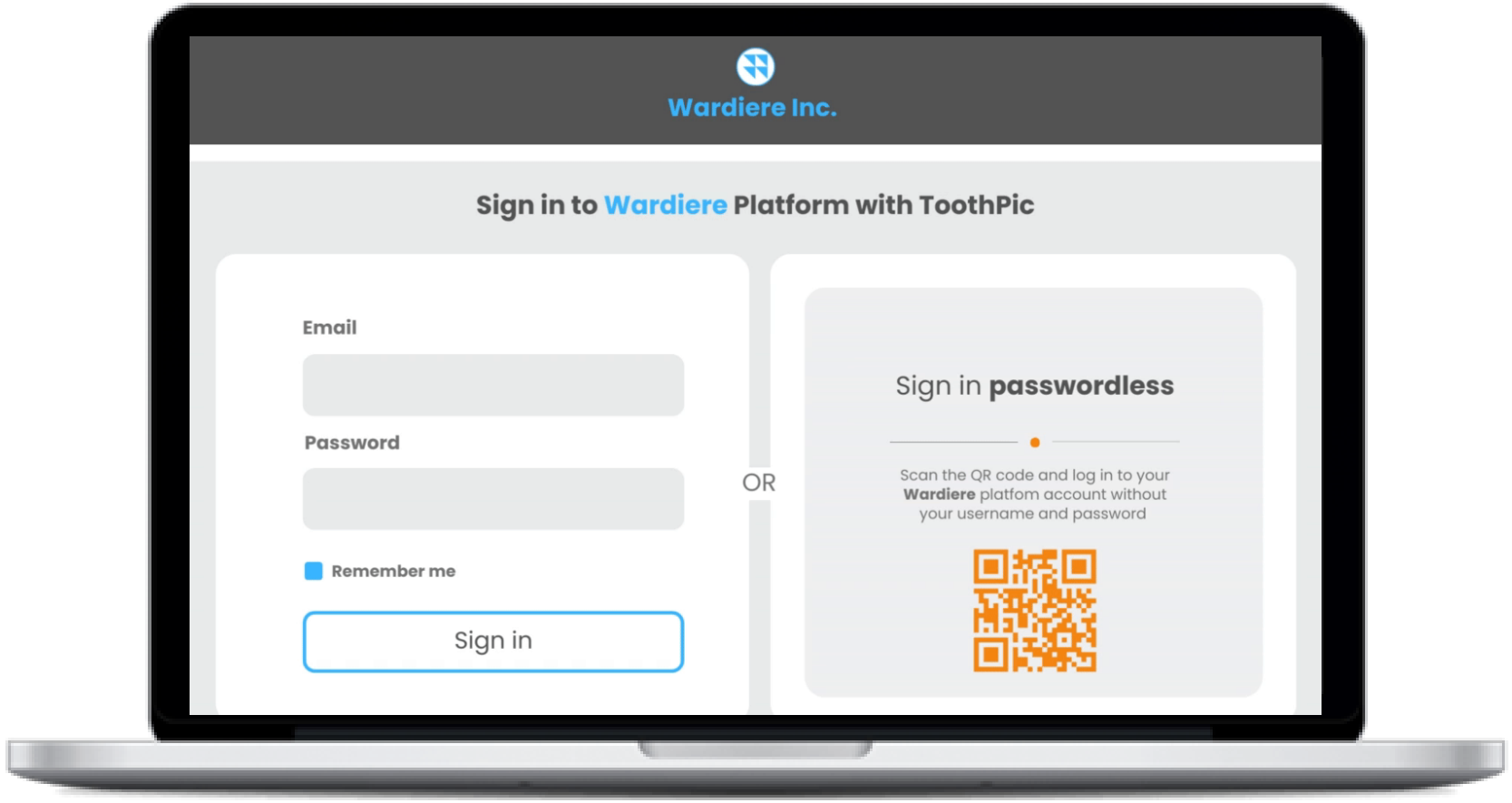
Passwordless Authentication



ToothPic - Passwordless authentication Demo

A

Click on the slide to play the video
or play on YouTube



Claim process authentication and automation

B

18% of insurance claims contain an element of fraud

$309 B Annual cost related to insurance fraud in U.S

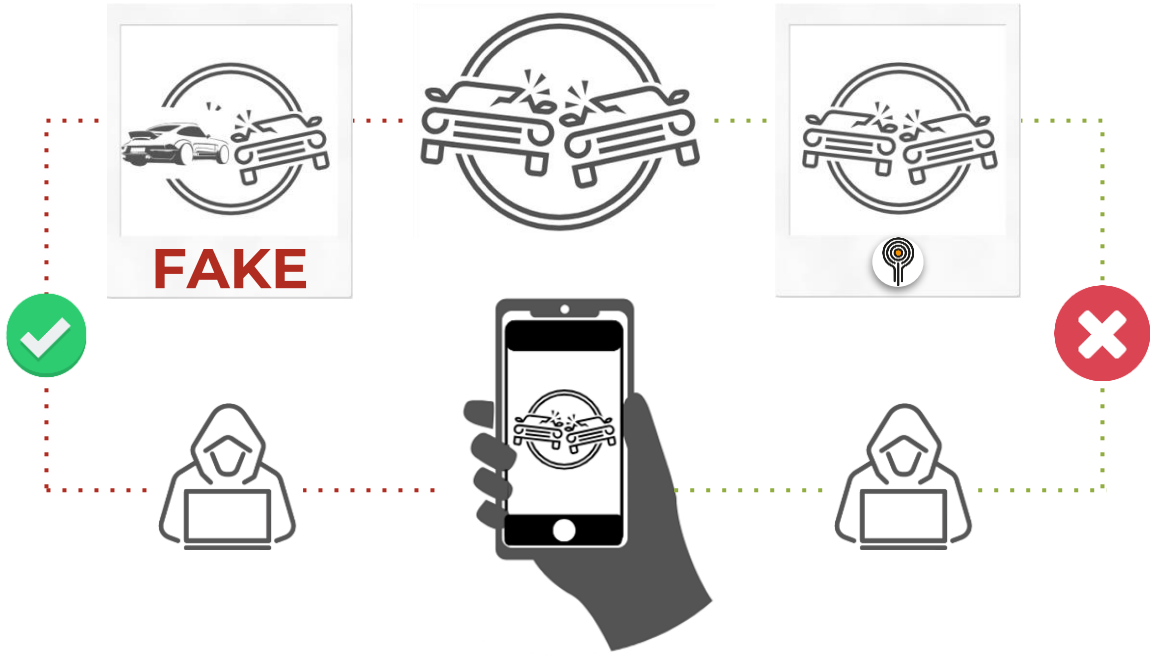
In case of insurance claims, the insurance customer takes pictures as proof of the accident to be submitted to the insurance company.
Those pictures can be potentially manipulated to increase the amount of the refund.

ToothPic is the **only** solution that turns the user's smartphone into a secure signature device

Without ToothPic

The pictures of the accident can be **non-authentic** or **manipulated**.

The insurance cannot be sure about the **origin** or **authenticity** of the pictures.



With ToothPic

ToothPic guarantees the **authentication of the proof.**

By signing the photos the insurance can be sure of the **source** and **authenticity** of the pictures.

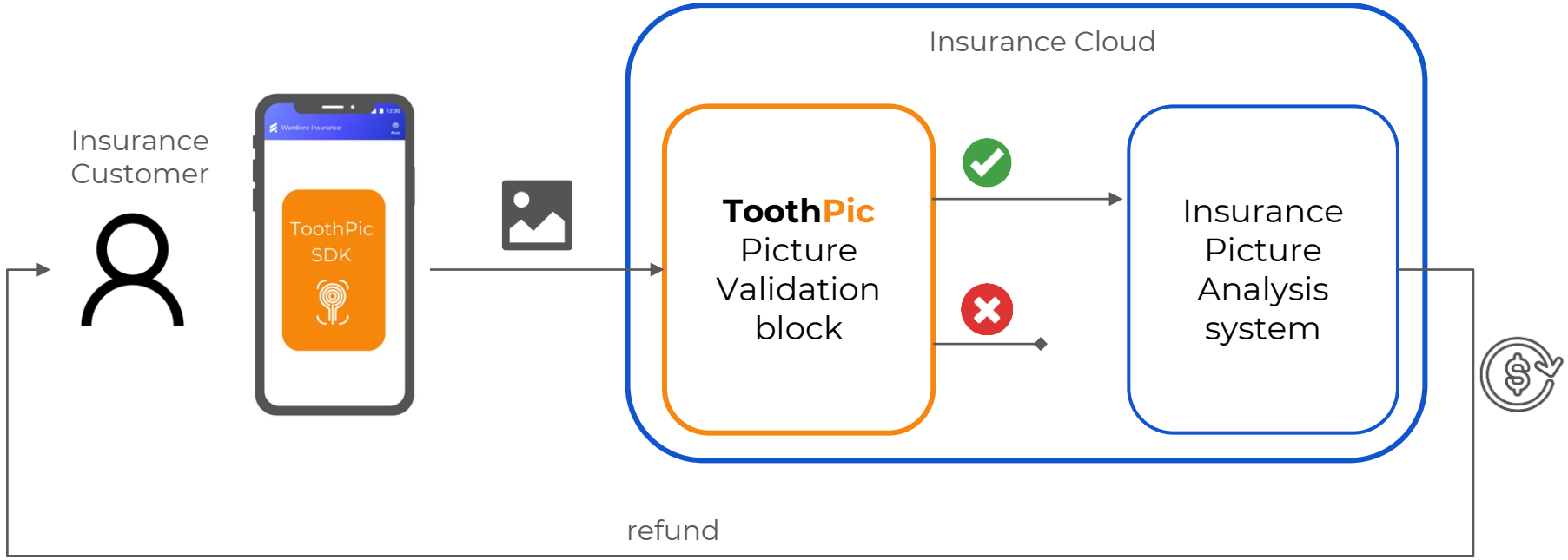
ToothPic - Picture Validation

B

- The solution developed by ToothPic allows to digitally sign the photographs submitted as proofs of an insurance claim before their analysis (either human or AI-based). This ensures that, prior to analysis, the photos are subject to verification to confirm their **authenticity** and **the origin of the device**.

- The pictures are submitted using a mobile application that integrates the ToothPic SDK to sign pictures through unclonable digital signature credentials.

- The picture validation backend collects the photos submitted by the user, verifies the signature of the photo (anti-counterfeiting, device origin), and submits the pictures that passed the verification to the insurance picture analysis system (either human or AI-based).



ToothPic - Picture Validation DEMO

B

Photo submission from authorized device

Backend verification

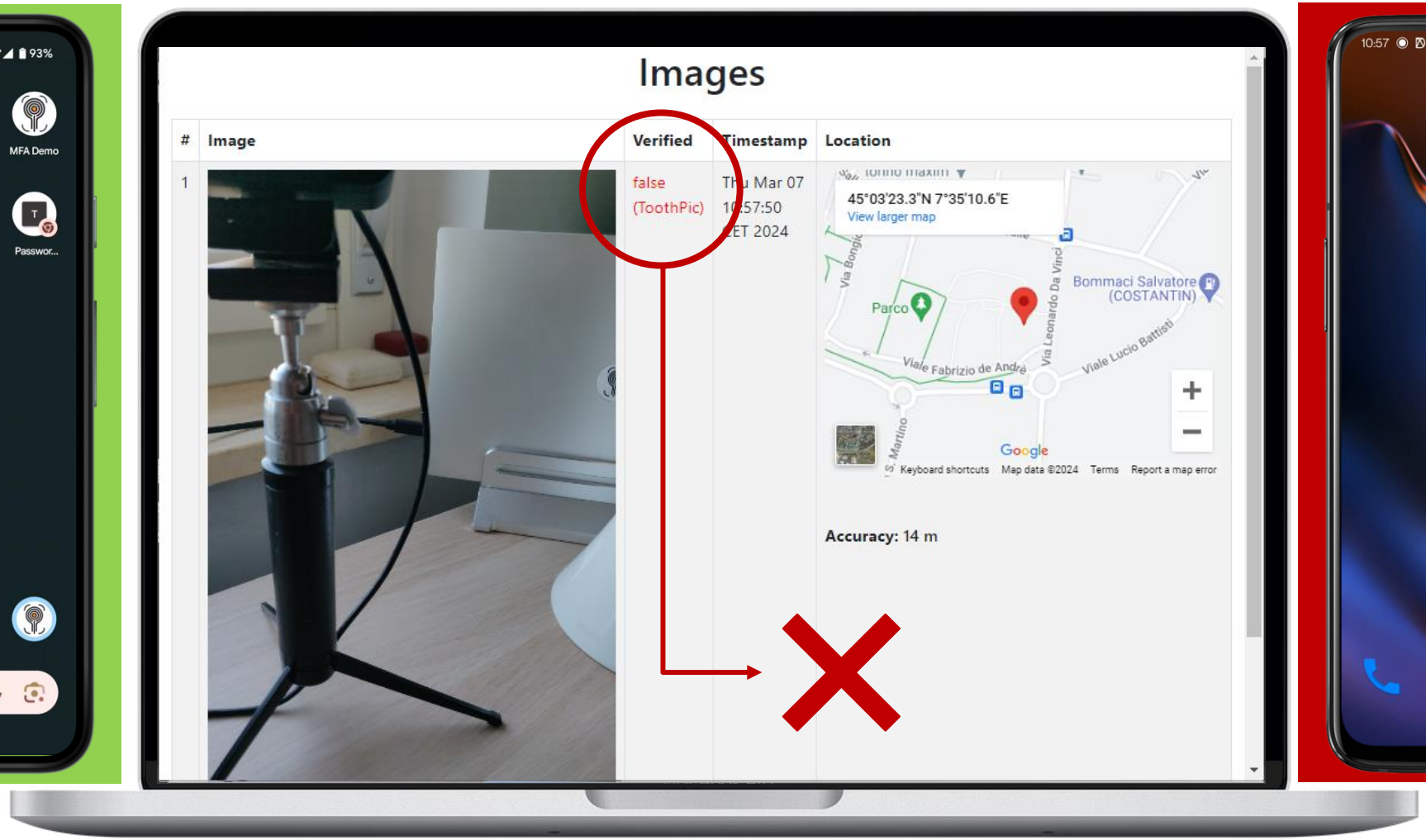


Photo submission from unauthorized device

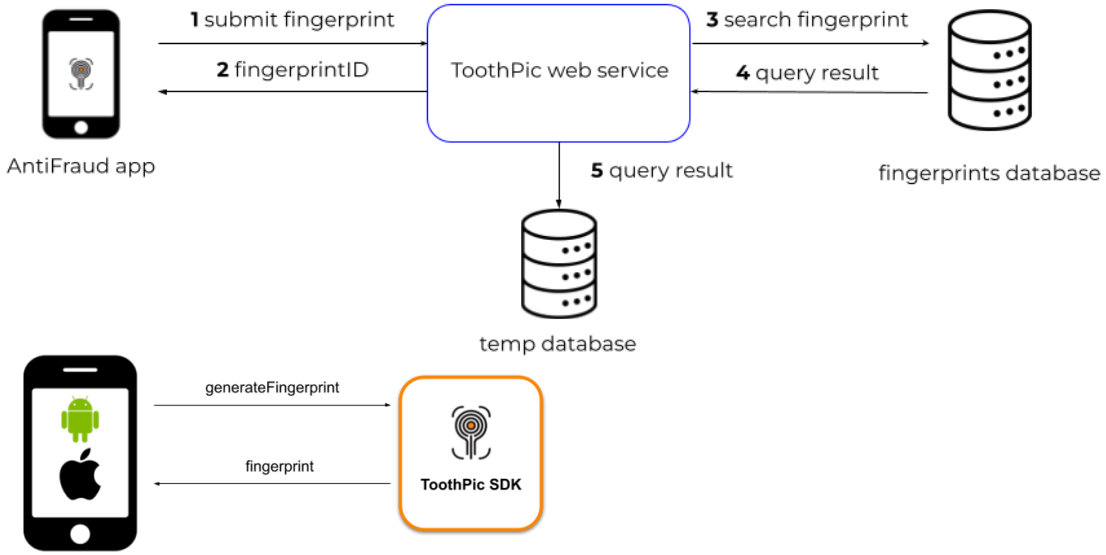
ToothPic - Antifraud System

- The solution developed by ToothPic enables the generation of unique identifiers for mobile devices, to be used during the onboarding process of a new device for identifying multiple fraud attempts using the same device.

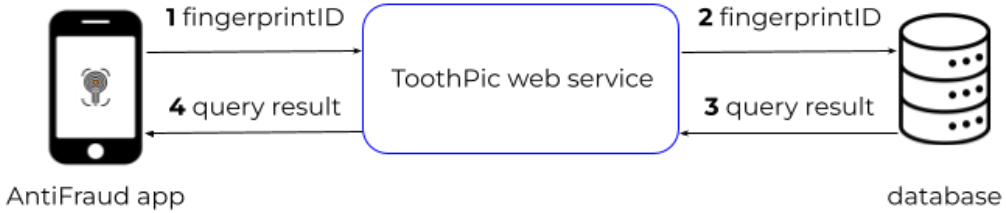
- The mobile application integrates the ToothPic SDK to generate **unclonable, unique and robust identifiers** for mobile devices, which are sent to the backend during the onboarding process.

- The backend stores the identifiers and searches for a specific ID among all previously stored ones and outputs if any match occurs (indicating that the device was known and/or blacklisted).

Fingerprint transmission and search initiation



Query results



Real application of ToothPic in Insurtech

D.A.R.E. | INTESA SANPAOLO ASSICURA | Politecnico di Torino | toothpic

About *DARE* Project

DARE (**D**eveloping **A**I for **R**isk management in the insuranc**E** industry) is a project by **Intesa Sanpaolo Assicura**, the Insurance Group of Intesa Sanpaolo - one of Italy's largest banks - and **Politecnico di Torino** in partnership with **ToothPic**. The project is focused on adopting innovative AI-based technology to increase the digitalization of the insurance industry.

Main objectives

- Submission of claims through customer's **smartphones**
- Automatic damage **inspection** from images
- **Fraud prevention** through the **ID** of the customer's smartphone

Challenges

- Improve the **User Experience**
- Claim process **Automation**
- Reduction on **clearance timing**

ToothPic Contribution

- **Unclonable** and **passwordless** smartphone-based authentication
- **Picture validation** to guarantee the **integrity** and origin of the pictures
- HW fingerprint **identification** for **fraud detection**

Thank you

www.toothpic.eu

Contact us

info@toothpic.eu

+39 340 2905060

Follow us

company/toothpic

toothpic_eu

@toothpic

toothpic.eu