

ToBe



BIOMETRIC ID CARD WITHOUT CHIP





TOPPAN Security is a global leader in systems integration and solutions, specializing in mission-critical identity and payment technologies. Being a subsidiary of TOPPAN Next, TOPPAN Security is serving as the international development arm of the TOPPAN Group in the security domain. Founded in 1900, TOPPAN (7911:TYO) is a respected Japanese brand known for exceptional quality. With heart, bold ideas, and a deep understanding of government and banking customers, TOPPAN's mission is to create a meaningful, technology-facing future together.

We harness collaborative intelligence to deliver solutions that meet the highest standards of security, quality, and effectiveness. Focused on delivering advanced solutions for the identity and payment sectors, we provide everything from secure document and card manufacturing to advanced encryption and biometric systems. By partnering with governments and businesses, TOPPAN Security consistently pushes boundaries, exceeds expectations, and sets global standards, delivering cutting-edge solutions that transform citizen experiences and drive innovation worldwide.

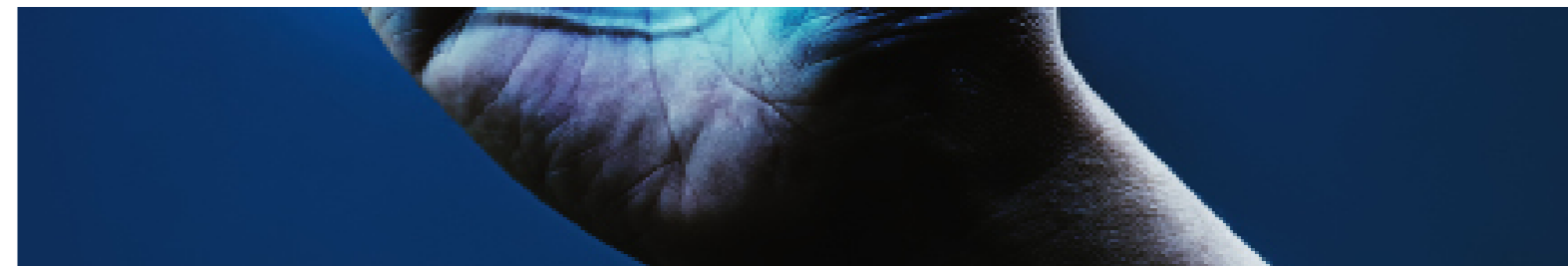


BIOMETRIC CARD WITHOUT A CHIP

Shortages in sourcing semiconductor products are affecting the secure credentials sector as well. Many new projects are delayed or canceled as raw materials, especially the secure IC cannot be sourced or at a much higher price.

Is it possible to launch or modernize an ID project, while making no compromise on security?

We at TOPPAN Security are convinced it is, with the newest generation of secure 2D barcodes.



ID CARD WITH A HIGH-DENSITY SECURE QR CODE

One of the main benefits of a chip is to tie the document to the holder by storing their biometric data. The data can be compared with the document holder, confirming their authenticity.

The TOPPAN Security Biometric ID card carries a high-density secure barcode that contains the biometric data of the document holder (portrait and/or fingerprints).

Our solution supports the most widespread high-density QR code formats: Data Matrix and 2D Doc, following ISO/IEC standards for complete transparency of the solution.

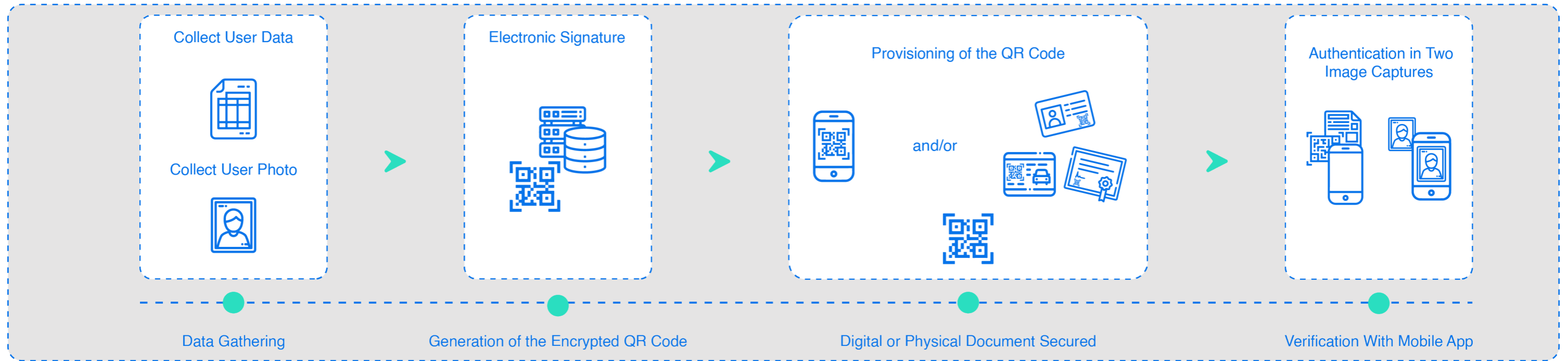


KEY BENEFITS

- ✓ Cost efficient solution
- ✓ Fast implementation
- ✓ Free of charge verification App
- ✓ iOS and Android
- ✓ Security by design
- ✓ Offline authentication
- ✓ Multilingual Support
- ✓ GDPR compliance



SOLUTION PROCESS



VISIBLE DIGITAL SEAL (VDS)

A VDS is a digitally signed barcode based on the same infrastructure already used to support worldwide ePassport issuance and authentication in over 145 countries.



ELECTRONICALLY SIGNED ENCODED DATA SET

On the barcode personal information as well as biometric data of the card holder will be securely stored. For this purpose, the most secure cryptographic algorithms available for securing documents are being used.



QR CODE READABILITY

The code can be read locally without access to a database; person verification and authentication can be done completely offline. Moreover, the QR Code entails redundancy so that scratches, even hiding part of the code will not affect the system.



VERIFICATION VIA AN APP

The verification is done through an App available on iOS and Android stores. Most smartphones available today become valid verification devices. The App will use the phone's camera to compare biometric data stored on the card with the cardholder.

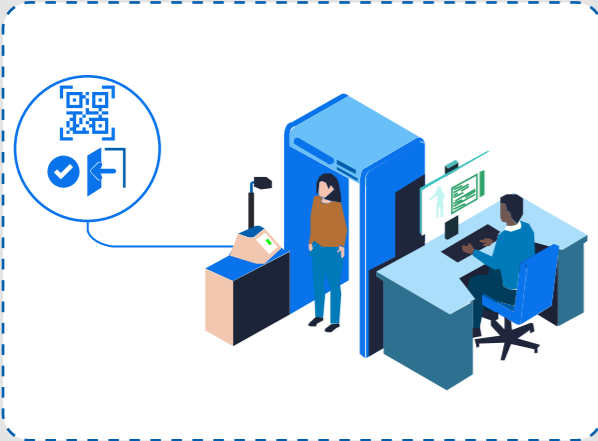


DOCUMENT AUTHENTICATION VALIDATION

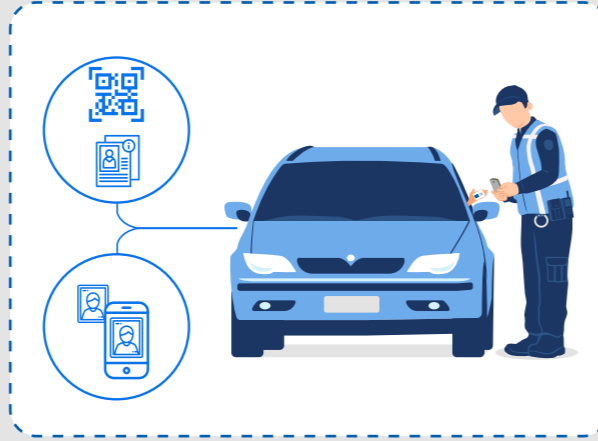
The legitimacy of the document is validated by a trusted third party, that ensures that all steps - from the generation of ID/code to the verification of the document, are genuine and certified. The code itself, visible on the card, is generated via highly secure cryptographic mechanisms. A fraudulent attempt to modify its size or content will result in an alarm or error message.

USE CASES

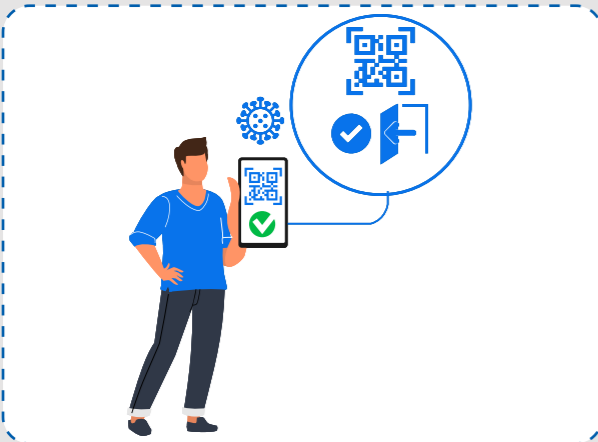
ACCESS CONTROL



IDENTIFY DRIVER



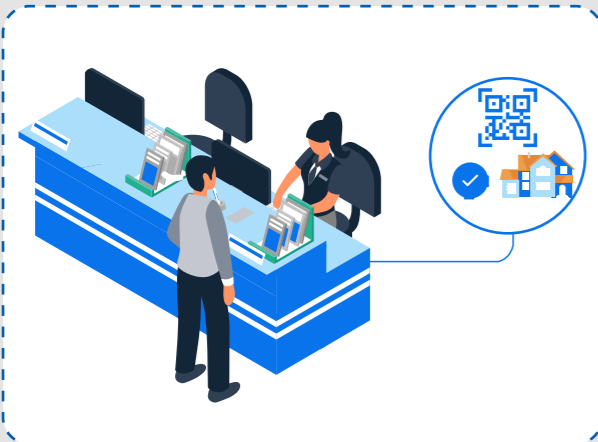
CERTIFICATE AUTHENTICATION



EXAM ACCESS



PROPERTY DEEDS



SECURE IBAN



