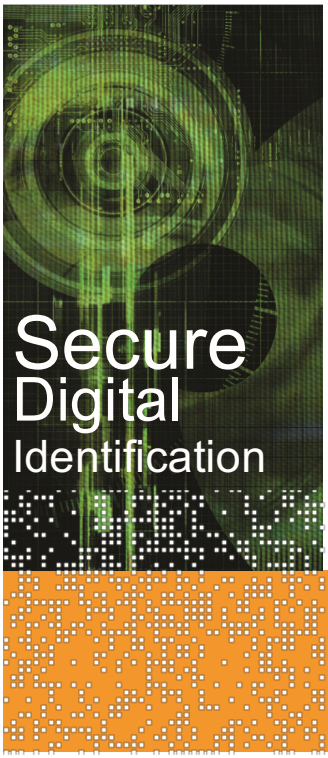
BLUeCODE®

Secure Digital Identification for ID Documents

Reduce Identity Theft • Verify Anytime, Anywhere

BLUeCODE

Secure Digital Identification for ID Documents

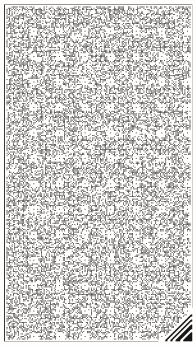


With the increasing risk of document forgery and identity theft in the modern era, traditional security measures are being challenged to improve its reliability and authenticity. To combat the increasing threats, governments and companies around the world are exploring new and effective ways to secure confidential documents.

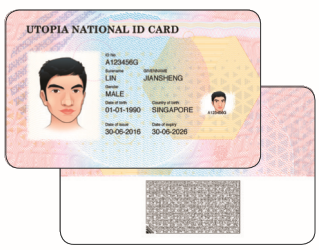
ID document must be able to show that it is genuinely issued by the authority and uniquely identify the document holder. It has to be highly secured and reliable, very difficult to forge, but easy to verify.

Physical security features on the ID document provide the first level of trust. Machine readable digital identity based on sophisticated cryptography provides the next level of security. A machine readable ID can significantly reduce the reliance on subjective judgement during the verification process.

Introducing BLUeCODE – A Secure Machine Readable Identity



By using Public Key Infrastructure (PKI) technology – the cryptography method that is also used in ePassports and eIDs, BLUeCODE provides the means to perform issuer authentication and data integrity check based on the encoded data.



1. BLUeCODE is a machine readable 2D high density matrix that can be printed on the ID document. The document holders' demographic information, photo and other biometric data can be stored in the BLUeCODE.

2. Unlike other commercial codes, BLUeCODE can only be generated by the BLUeCODE Secure Generator based on PKI technology.

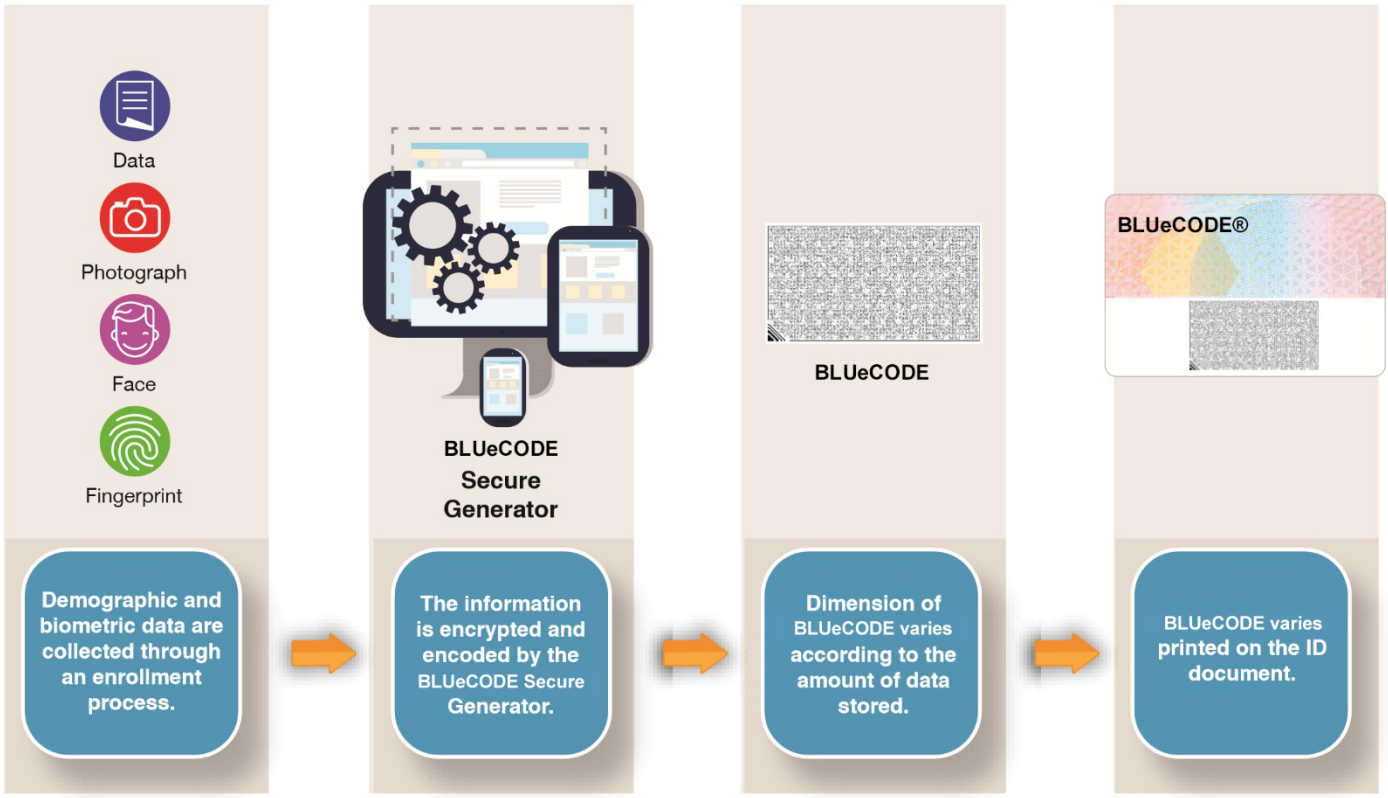
3. BLUeCODE can only be read with the BLUeCODE Verification Mobile App that is downloadable into authorized smartphones.

4. The relevant information of the document holder is encoded into the BLUeCODE and does not rely on backend server to retrieve the data, thus verification of BLUeCODE can be done without the need of an Internet connection.

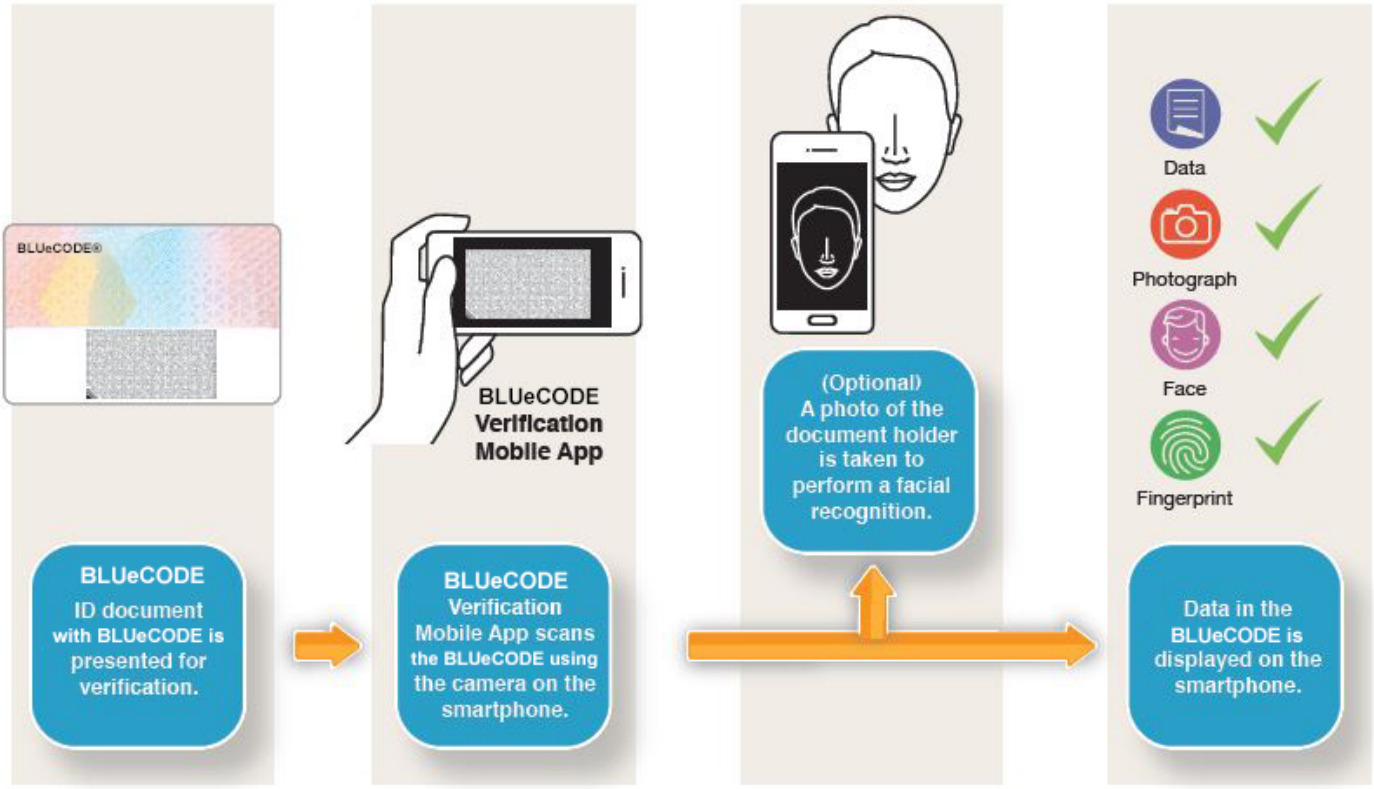
5. BLUeCODE Verification Mobile App runs on smartphones with camera. It does not require dedicated hardware to facilitate authentication and verification.

6. Biometric verification (e.g. facial or fingerprint) can be done using the camera on the smartphone.

Generation of BLUeCODE



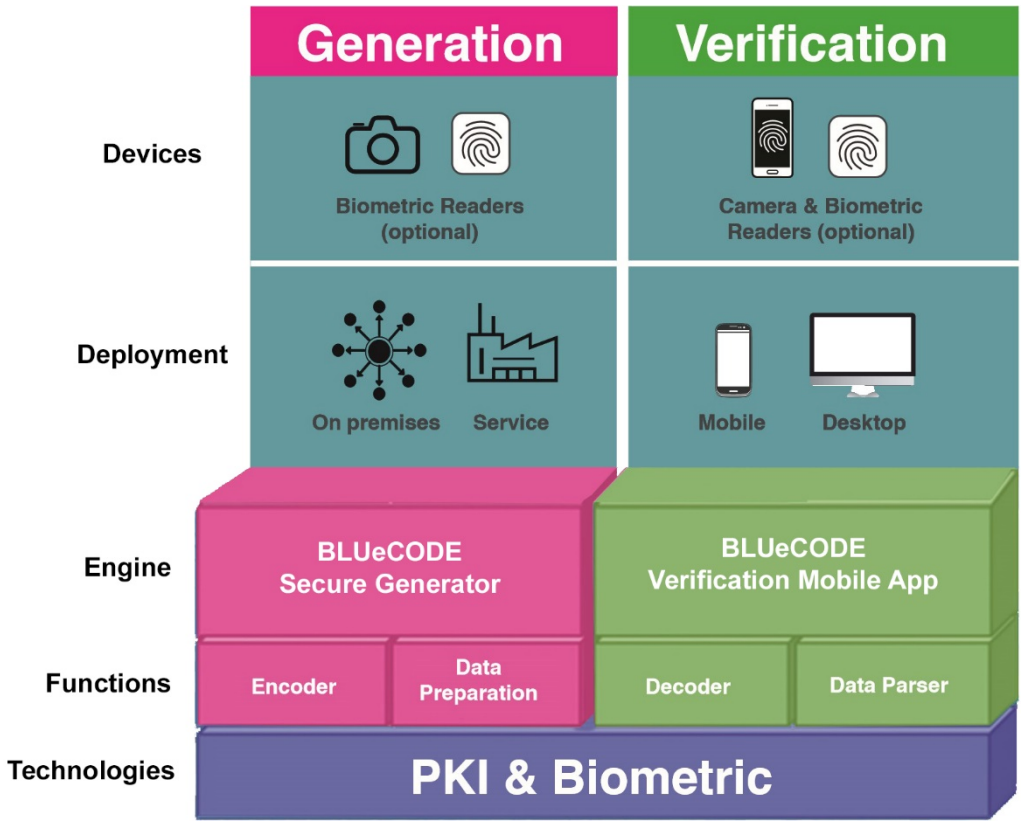
Verification of BLUeCODE



BLUeCODE Technology

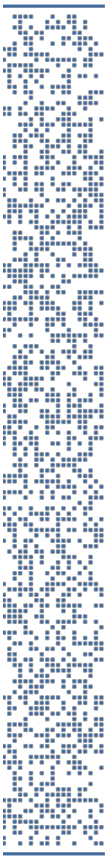
BLUeCODE solution consists of two core engines:

- BLUeCODE Secure Generator
- BLUeCODE Verification Mobile App



ENGINE	DESCRIPTION
BLUeCODE Secure Generator	Document holder information are encoded into the BLUeCODE based on ICAO Doc 9303 ePassport format and technologies such as PKI and Biometric verification. The BLUeCODE Secure Generator performs the following functions: – Data preparation to construct the user information into required format. – Generate a PKI digital signature using the user information. – Encrypt and encode the data into a BLUeCODE for printing.
BLUeCODE Verification Mobile App	BLUeCODE Verification Mobile App verifies the authenticity of the BLUeCODE and assists the verification officers to confirm the identity against the document holder. It performs the following functions: - Scan, decrypt and decode the BLUeCODE on the printed ID document. – Check the authenticity and integrity of the BLUeCODE data using PKI technology. - Display the document holder data on the smartphone for visual verification against the physical document. - Optional: Perform biometric matching.

Benefits



National Identity

Driving License

Voter Identity

Certificate

Reduce identity theft

The most common forms of identity frauds are by altering an existing document or forging a real document. BLUeCODE protects the integrity and authenticity of an ID document by encoding a digital signature onto it. This information can be used by the government or private enterprises to ensure that the ID document has not been tampered with and is issued by the genuine authority.

Easy deployment

With the proliferation of smartphones, enforcement officers and private enterprises (i.e banks and insurance companies) can use the BLUeCODE Verification Mobile App to verify the BLUeCODE. This effectively reduces the cost of setting up sophisticated and expensive IT infrastructure.

Privacy

With the increasing demand for privacy, BLUeCODE ensures data that is encrypted in the code can only be decoded and viewed by authenticated smartphones, revealing only necessary information needed to verify the document holders' identity.

Trust

Biometric identifiers are distinctive, measurable characteristics unique to each individual. BLUeCODE utilizes biometric data verifiers to verify the authenticity of the document holder, reducing the reliance on subjective judgement.

Verify anytime, anywhere

BLUeCODE leverages on the mobility of smartphones and convenience of verification without an Internet connection. This improves the process and effectiveness of the enforcement officers in performing the required checks.

Designing Infinite Possibilities