

VERIDIUM 4F-ID verification

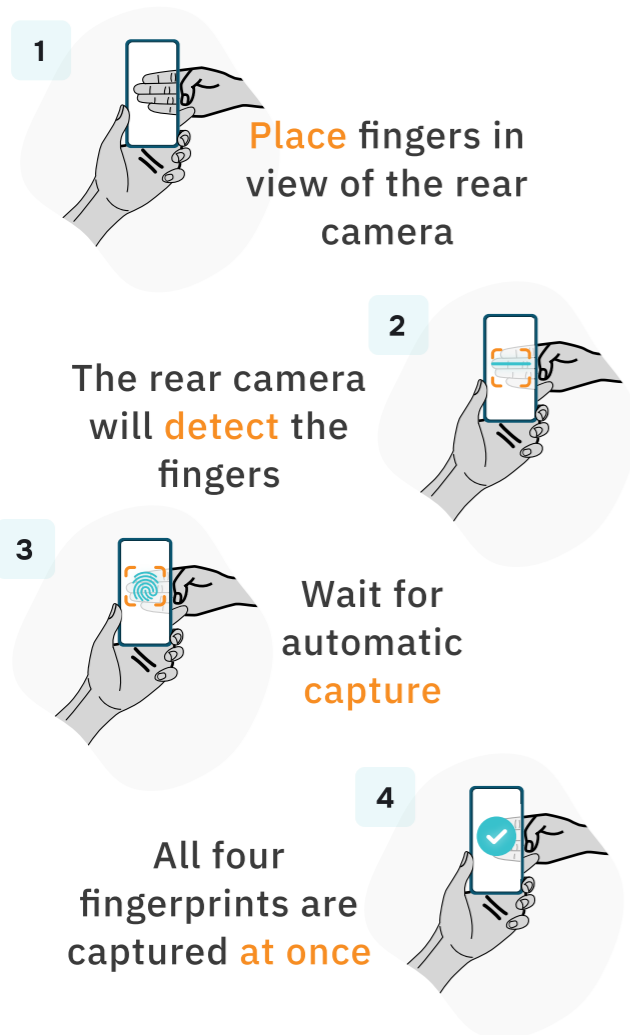
Turn off-the-shelf smartphones and tablets into mobile fingerprint scanners - fast and convenient - for one of the most trusted identification methods.



ANY SMARTPHONE CAN BE A FINGERPRINT READER

Veridium's disruptive technology, 4F-ID, transforms how **government and law enforcement (G/LE) agencies** use fingerprint verification (1:1) and identification (1:n), reducing processing time by as much as 99%. 4F-ID works with most traditional databases and file formats, thus unlocking the full potential of G/LE fingerprint recognition systems. Our patented technology comprises years of R&D, including working jointly with NIST and other standards-setting and research bodies.

IDENTITY CHECK WITH 4F-ID



MOBILE FINGERPRINT READERS

4F-ID is a **mobile app SDK** that transforms off-the-shelf smartphones and tablets into **contactless fingerprint scanners** for fingerprint-based identification and verification, making possible a universal, cost-effective, and accurate way for G/LE agencies to establish and verify identities.

This innovative solution enhances operational efficiency by eliminating the need for specialized hardware, thus enabling seamless integration into existing workflows, and the widespread acceptance of fingerprint identification among users contribute to higher adoption rates and **increased trust in the system's reliability**.

4F-ID USE CASES FOR G/LE AGENCIES

- Voter registration & voting
- Government ID & passport services
- Taxpayer registration, tax return filing
- Border control & immigration
- realtime capture and verify for police
- Department of Defence

Key Features & Benefits

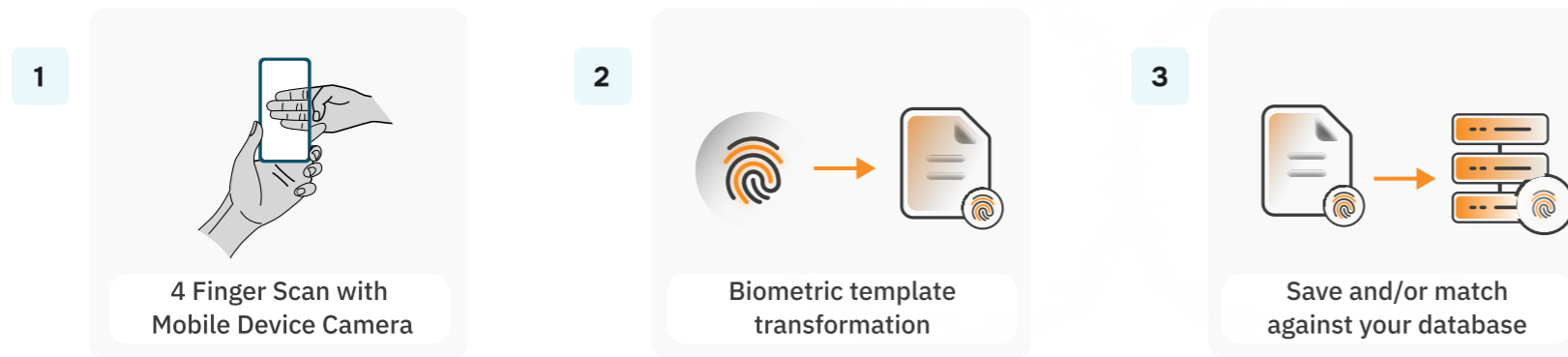
- ✓ Significant time and cost reduction
- ✓ Verification and identification at the point of use
- ✓ Compatible with existing fingerprint databases and file formats
- ✓ Developer friendly SDK and fully customizable UI/UX
- ✓ Mobile App SDK - iOS & Android



ISO/IEC COMPLIANT PERFORMANCE TESTING

4F-ID complies with ISO/IEC 19795 biometric performance testing and reporting and ISO/IEC 30107 biometric presentation attack detection standards to ensure the highest level of conformance to industry recognized standards.

4F-ID - FINGERPRINT CAPTURE AND EXPORT



LEGACY DATABASE MATCHING

4F-ID uses built-in camera and flash features of mobile devices to dynamically capture contactless fingerprint images, converts the optimal images to individual, down-scaled 500 DPI fingerprints, and exports the fingerprints and metadata into standards-based fingerprint data exchange formats - all within seconds.

The exported images and metadata can be used for matching against legacy databases. G/LE agencies around the world collect fingerprints to validate identities against National databases or AFIS systems. G/LE agencies are now able to securely, reliably and remotely identify individuals by simply taking a picture of their fingerprints using a mobile phone.

TECHNICAL SPECIFICATIONS

Minimum Device Specifications:

- CAMERA (8 MP rear camera with LED)
- OPERATING SYSTEM (Android 5.1 (Lollipop) (API Level 22) or later, iOS 9 or later)
- CPU: ARM (64-bit) and x86
- RAM: 4GB
- Enrollment template size is 15-20KB

Capture Specification:

- >500 DPI resolution
- ~3 second image capture time

Performance Specifications: 1-1 Verification

- False Match Rate (FMR) of 0.01%
- False Non Match Rate (FNMR) of 1.2%

Export Formats:

- VeridiumID TouchlessFP
- ANSI/NIST-ITL 1-2007
- ANSI/NIST-ITL – INTERPOL
- ISO/IEC19794-4, 2005
- RAW, PNG & BMP images in greyscale (8-bit)
- WSQ (customizable compression rate)
- NFIQ quality score can be provided
- Other standard formats considered upon customer request

ABOUT VERIDIUM

Veridium is the leading (and original) developer of contactless fingerprint recognition solutions using off-the-shelf smartphones and tablets. Our “4 Fingers” technologies comprise years of R&D, including with NIST and other standards-setting and research bodies, and are bolstered by an unparalleled portfolio of US and international patents. We developed 4F-ID in order to provide innovative fingerprint verification (1:1) and identification (1:n) capabilities to organisations in both the public sector (G/LE) and the private sector, including banks and MNOs. It can also be used for ongoing authentication.

