In 2019, the NIST conducted the Interoperability Assessment test: contactless-to-contact fingerprint capture. Results demonstrate that MorphoWave is fully interoperable with legacy contact databases, using legacy algorithms. Moreover, MorphoWave stands out as the best performing of the contactless devices by far, in terms of matching rate, image capture sample rate, areas of overlap between probe and exemplar fingerprints, finger ridges and minutiae similarity.

The efficiency of MorphoWave has already been proven, with 10,000 units in use around the world within corporate and border control projects. The system is already field-proven, notably in Benin and Egypt. In Benin, our TravelCounter solution, equipped with MorphoWave, has modernized the immigration counters of the Beninese Ministry of Interior, as well as their system for controlling and registering the entry and exit, to and from Cotonou International Airport. In Egypt, MorphoWave is also supporting the Ministry of Interior in deploying a complete, modern border control solution for air, land and sea borders.

IDEMIA, your #1 partner for border control programs

Biometric technology has become fundamental in making travel secure and seamless. Contactless fingerprint acquisition with a wave of the hand speeds up the capture process and mitigates hygiene concerns, resulting in greater efficiency and a better traveler experience.

MorphoWave™ is a unique, field-proven fingerprint solution perfectly suited for frictionless processing at air, land and sea borders. It offers contactless, simultaneous four-fingerprint capture, and on-the-spot identity verification in one device.

The only touchless biometric solution of its kind, MorphoWave scans high-quality fingerprint images and confirms the traveler’s identity in less than one second. All of this is done with a simple hygienic wave of the hand.

Compatible with existing contact databases, it is suitable for various border crossing points where high throughput, security and convenience are key. Typical applications include self-service kiosks, eGates and manual counters, for indoor and outdoor use.
A breakthrough, contactless fingerprint acquisition solution

- Simultaneous four-fingerprint capture in less than 1 second
- Embedded 1:N matching capability (up to 100,000)
- Audio and video player
- Hand presence detection
- Unaffected by external light and dust
- Ingress protection: IP65
- Ethernet, USB
- RoHS, REACh and WEEE compliant
- EMC/Safety standards: CE, CB, FCC

MorphoWave™ benefits

**#1 BIOMETRIC TECHNOLOGY**
- High quality, no composite images: fingerprint texture, shape and curvature are captured for rich fingerprint images
- IQS PIV certified
- NFIQ2 compliant
- Unparalleled matching accuracy thanks to IDEMIA’s deep learning technologies
- Compatible with contact databases (NIST Interoperability Assessment 2019)
- No latent print left on the scanner
- Fake fingerprint detection
- Compatible with IDEMIA’s cloud-based identification services
- Privacy by design: compliant with the European General Data Protection Regulation (GDPR)

**HIGH USABILITY**
- High throughput thanks to fingerprint capture with a wave of the hand
- No regular cleaning required between scans
- Resistant to lighting variations
- No specific skills required to operate and maintain
- Fully configurable settings and operational parameters
- Ethernet or USB interface
- Unaffected by extreme operating conditions: suitable for outdoor use, IP65, temperature -10°C to 55°C, humidity 10% to 80% (non-condensing)

**USER-FRIENDLY**
- Touchless device mitigating hygiene concerns
- Ergonomic: captures either left or right hand, in any direction
- 100% non-intrusive capture
- Guaranteed fingerprint capture for a wide range of traveler profiles
- Compatible with wet, dry, dirty and damaged fingers
- Feedback screen and loudspeaker for traveler guidance