Letter of Confirmation

Issued to Amadeus

for test report issued on the 12th of December 2024 for

ISO/IEC 30107-3 compliant Presentation Attack Detection (PAD) Level 1 evaluation of

Amadeus Mobile Liveness Detection Module v1.0 test application for Amadeus - Item under test (IUT)

To whom it may concern,

BixeLab is a biometric testing laboratory accredited by National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) with testing Lab code: 600301-0 (certificate and scope may be downloaded from the NVLAP website). BixeLab also conforms to the requirements of ISO/IEC 17025:2017 (General Requirements for Competence of Testing and Calibration laboratories). BixeLab shall not be held liable for any interpretations, decisions, or actions based on the information contained in this confirmation letter. BixeLab does not certify or make any claims regarding the performance of the IUT outside of the described context in this letter. It's important to note the time period for testing as attacks are constantly evolving.
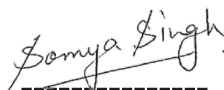
In November 2024, BixeLab evaluated the Item Under Test (IUT) using iPhone 13 (iOS 18). Evaluation was performed in compliance with the applicable specifications of the ISO/IEC 30107-1 and ISO/IEC 30107-3 Presentation Attack Detection (PAD) testing and reporting standards. This evaluation took place at the BixeLab headquarters located in Australian Capital Territory, Australia.

The PAD evaluation was completed to a Level 1 sophistication in a secure laboratory testing environment using 6 Level A Presentation Attack Instrument (PAI) species for face modality. These PAIs were specifically designed for 10 consenting and conformant test subjects. The evaluation focused on assessing the PAD mechanisms within the process flow. A total of 180 presentation attack tests were conducted. Additionally, 50 bona fide presentation transactions were completed for 10 unique subjects. The following metrics were measured based on the completed testing:

1. Attack Presentation Classification Error Rate (APCER)
    a. 0 classification errors across 6 Level A attack types.
2. Bona fide Presentation Classification Error Rate (BPCER)
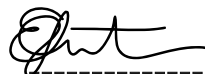   a. 3 classification errors across 50 bona fide presentations.

A detailed test and analysis report was generated to support the findings. For the associated Bona fide Presentation Non-Response Rate (BPNRR), and Attack Presentation Non- Response Rate (APNRR) metrics, as well as details of the supplementary testing performed on Amadeus Mobile Liveness Detection Module software version 1.1 - please refer to the test report [24_BXL040_TR_03 v4.0].

This letter confirms that the IUT - Amadeus Mobile Liveness Detection Module v1.0 test application for - Item under test (IUT) was tested according to the applicable ISO/IEC 30107-3 specifications for Presentation Attack Detection testing and reporting and was tested in compliance with Level 1.

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