



19 September 2024

To whom it may concern,

iBeta Quality Assurance conducted Presentation Attack Detection (PAD) testing in accordance with ISO/IEC 30107-3. iBeta is accredited by NIST/NVLAP (NVLAP Lab Code: 200962) to test and provide results to this PAD standard ([certificate and scope](#) may be downloaded from the NVLAP website).

This testing was conducted with the VNPAY FACE EKYC v1.0 application and its backend cloud component Liveness v4.6.1 on an Apple iPhone 14 Pro Max running iOS 17.5.1. The active liveness application was provided by Vietnam Payment Solution Joint Stock Company – VNPAY, JSC, and testing took place from 6 September to 19 September 2024.

Testing was conducted in accordance with the contract for a level of spoofing technique that only utilized mid-level methods to create an artefact of the genuine biometric for use in the presentation attack. The subjects for the test effort were cooperative – meaning that they were willing and able to provide any and all biometric samples, including high quality biometric facial samples. The test time for each PAD test per Presentation Attack Instrument (PAI) was limited to 24 hours. This is considered a Level 2 PAD test effort (second of three levels).

The test method was to apply 1 bona fide subject presentation that alternated with 3 artefact presentations such that the presentation of each species consisted of 150 Presentation Attacks (PAs) and 50 bona fide presentations, or until 24 hours had passed. The results were displayed for the tester on the device as “Successfully” for a successful attempt or “Failed: The Subject is an Impostor!” for an unsuccessful attempt.

iBeta was not able to gain a liveness classification with the presentation attacks (PAs) on the iPhone 14 Pro Max. With 150 PAs for each of 5 species, the total number of attacks was 750, and the Attack Presentation Classification Error Rate (APCER) was 0%. The Bona Fide Presentation Classification Error Rate (BPCER) was also calculated and may be found in the final report.

The biometric system provided by Vietnam Payment Solution Joint Stock Company – VNPAY JSC, identified as the VNPAY FACE EKYC 1.0 application with its backend cloud component Liveness v4.6.1, was tested by iBeta on an iPhone 14 Pro Max running iOS 17.5.1 to the ISO 30107-3 Biometric Presentation Attack Detection Standard and was found to be in compliance with Level 2.

Best regards,

A handwritten signature in black ink, appearing to read "Ryan Borgstrom", with a stylized flourish at the end.

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