



5 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 GoTo Financial's GTF Liveness Check v2.9 application on a Samsung Galaxy A50 running Android 10. The application was supported on the back end by Vendor's development platform Merlin, using the models designated by hash_id 568e994f5509fb6f6f82498e8649564, and the MLflow process designated by the id 206c91e594c74d208346d57a4fc4a160. Testing of the active liveness detection solution was conducted from 16 August to 5 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 on each device, or until 24 hours had passed. The results were displayed for the tester on the device as "SUCCESS" in blue for a successful attempt or "FAILED" in red for an unsuccessful attempt.

iBeta was not able to gain a liveness classification with the presentation attacks (PAs) on the Galaxy A50 over the course of 750 attempts, resulting in an Attack Presentation Classification Error Rate (APCER) of 0%. The Bona Fide Presentation Classification Error Rate (BPCER) was also calculated and may be found in the final report.

GoTo Financial's GTF Liveness Check v2.9 application, installed on a Galaxy A50 running Android 10 and supported by components provided via the backend development platform Merlin, was tested by iBeta 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".

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