15 October 2021

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 Testing 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 Onfido facial liveness 2.0 detection biometric system (Onfido Android Liveness 2.0 Product application v1.1.0) on the Google Pixel 4 device with the cloud based biometrics-liveness service (4db67244 checksum) from September 27 through 6 October 2021. The active liveness detection testing was on a single smartphone (Google Pixel 4 with Android S).

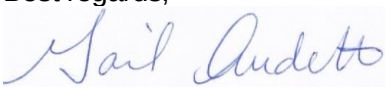
Testing was conducted in accordance with the contract for a level of spoofing technique that only utilized simple, readily available methods to create artefacts of the genuine biometric for use in the presentation attack. The subjects for the test effort were cooperative – meaning that they were willing and able to provide any and all biometric samples, including high quality photos and videos of their likeness. The test time for each PAD test per Presentation Attack Insturment (PAI) was limited to eight hours. This is considered a Level 1 PAD test effort (first of three levels).

The test method was to apply 1 bona fide subject presentation that alternated with 3 artefact presentations during 8 hours of testing per species. The process was to scan a QR code and then provide a video recording to be analyzed by the Onfido server-based application. The results were displayed for the tester on the Android device as either 'Clear' with a green checkmark for a successful attempt or a fail (with a yellow dash) for an unsuccessful attempt for the "Consider" result.

On the Google Pixel 4, iBeta was not able to gain a liveness classification with the presentation attacks (PAs). With an average of 132 PAs for each of 6 species per device, the total number of attacks was 792 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 Onfido Android Liveness 2.0 Product application v1.1.0 with the associated cloud based biometrics-liveness service (4db67244 checksum) was tested by iBeta to the ISO 30107-3 Biometric Presentation Attack Detection Standard and was found to be in compliance with Level 1.

Best regards,



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