



10 July 2026

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 Oracle's Automated Biometric Identification Service (ABIS) v0_2 application. Testing was performed through the native browsers installed on an HP laptop running Windows 11 Home 25H2 and an Apple MacBook Neo running macOS Tahoe 26.5.2. iBeta conducted active liveness facial verification testing from 30 June to 10 July 2026.

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 facial images. The test time for each PAD test per PAI was limited to eight hours. This is considered a Level 1 PAD test effort (first of three levels).

The test method involved enrolling subjects and having them authenticate five times successfully. Six species of presentation attacks (PAs) were then attempted ten times each. Results appeared on the device as "Verification Successful" for a successful match or "Verification Failed" for an unsuccessful attempt; a failed to acquire the PA three times for 30 seconds per attempt was also considered unsuccessful. A total of 720 presentation attacks were attempted (360 per device). At the conclusion of the PAD testing, the subject returned and authenticated five times successfully to verify that the application was still able to recognize the genuine subject.

iBeta was not able to gain unauthorized access with the PAs, yielding an overall Presentation Attack (PA) success rate of 0%, which then equates to the overall combined Imposter Attack Presentation Accept Rate (IAPAR) of 0% on both the HP laptop and Apple MacBook Neo. The bona fide False Non-Match Rate (FNMR) was also calculated and may be found in the final report.

Oracle's Automated Biometric Identification Service (ABIS) v0_2 application was tested by iBeta as a biometric facial system to the ISO 30107-3 Biometric Presentation Attack Detection Standard and was found to be in compliance with Level 1.

Best regards,

A handwritten signature in black ink, appearing to read "Ryan Borgstrom".

Ryan Borgstrom
iBeta Quality Assurance Director of Biometrics
rborgstrom@ibeta.com
303.627.1110 extension 182