



PIONEERING TOUCHLESS BIOMETRICS

How Placer County Sheriff's Office and CDI are Revolutionizing Field Identification

In the fast-evolving landscape of law enforcement technology, the Placer County Sheriff's Office (PCSO) in California stands out as a leader in innovation. PCSO has deployed Integrated Biometrics' groundbreaking CamralB fingerprinting solution that transforms standard smartphones into powerful biometric tools. This advancement allows deputies to identify individuals quickly and accurately in the field, enhancing officer safety, saving time, and streamlining operations without the need for additional hardware.

Created through a long-standing collaboration with Computer Deductions Inc. (CDI), led by President Shannon Grosser, and Integrated Biometrics (IB), CamralB uses a smartphone's camera to capture high-quality, 500ppi fingerprint images through innovative software. PCSO's implementation marks a significant milestone: in 2023, the office announced it was spearheading the world's first touchless fingerprinting app for deputies' cell phones, enabling secure, real-time identification directly in the field. This aligns with PCSO's broader reputation for technological prowess, including systems like automated license plate readers, real-time crime centers, and facial recognition tools in use since at least 2011.



Seamless Integration to Accelerated Launch and Uptake

The deployment of touchless technology at PCSO was met with overwhelming demand from deputies. Heather Pence, who oversees IT and technology at PCSO, recalls the easy and rapid adoption: with the app easily installed across the force during morning briefings. The app's integration with county-issued iPhones was a key factor, eliminating the need for a separate device and leveraging existing infrastructure.

Shannon Grosser, with his extensive background in identity and access management (IAM), integration, and software development, played a pivotal role in customizing the solution. CDI handled the backend tuning, ensuring the system interfaced smoothly with PCSO's records management system (RMS) and security protocols, including Okta for multi-factor authentication via facial recognition. This setup not only secures access but also logs user activity, maintaining compliance with Criminal Justice Information Services (CJIS) standards.

Tangible Benefits: Enhancing Safety and Efficiency

The impact on daily operations is evident. Deputies can now perform four-finger slaps for identification, receiving instant results including previous booking photos, arrest counts, warrants, and personal alerts (e.g., violent history, narcotics

involvement, or sex offender status)—all on one screen. This reduces the need for vehicle-based computer searches or trips back to the station, saving hours per incident.

A major win was using Cal-ID RAN Board funds to equip all 200+ deputies with county-issued phones, justified by the fingerprint technology. Previously, only investigators had such devices; now, every patrol officer benefits from this connectivity. In the field, the app has proven invaluable for identifying uncooperative individuals, with officers using it as leverage: "No ID? No problem—we'll fingerprint you right here." This often prompts quick compliance, de-escalating situations and avoiding unnecessary transports.

Safety improvements are evident, too. Knowing a subject's history in real-time—such as outstanding warrants or flags for violence—allows deputies to approach encounters more prepared. The system has also been used creatively, such as identifying decedents shortly after death when fingers are still viable, or during traffic stops and events like special events and holiday celebrations. With no false identifications reported since deployment, accuracy remains flawless, tuned to avoid errors even at the cost of occasional no-hits.

PCSO's broader tech ecosystem, managed by its IT division, includes CAD (Computer-Aided Dispatch), corrections management, and geographic information systems, all of which integrate with CDI's solution for comprehensive data flow.



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Overcoming Challenges and Looking Ahead

While CamralB excels in controlled scenarios, challenges include the need for cooperative subjects like handcuffed individuals who pose positioning issues.

Feedback from deputies points out occasional no-hits on expected matches, potentially due to tuning or image angles, but backend adjustments by CDI have minimized these.

A key desire is expanding database access beyond local records to state DOJ or federal levels, which would enable identification of non-criminals (e.g., licensed professionals) or out-of-county offenders.

Future expansions could include jail applications, such as quick check-ins/outs during transports to prevent wristband swaps, or stationary setups for faster captures. Browser-based versions of CamralB could offer more computing power, potentially addressing latency in high-volume scenarios. PCSO's audit success by state authorities underscores the system's compliance and reliability.

A Model for Modern Law Enforcement

The partnership between PCSO, CDI, and IB exemplifies how targeted innovation can transform public safety. Shannon Grosser's technical expertise, and Heather Pence's hands-on implementation and strategic oversight, have made Placer County a benchmark for biometric adoption in California. As Pence notes, touchless technology is "cutting-edge, readily available, and easy to use," saving time while prioritizing accuracy and security.

This initiative not only keeps officers safer but also positions PCSO as a forward-thinking agency, influencing state-level, and potentially national-level, identification strategies. With ongoing refinements, CamralB promises even greater scalability, proving that in law enforcement, the right technology can make all the difference.

Of Note: A notable hurdle in this project was Apple's developer requirements, which required significant legal and technical navigation. Jerry Silva, Pence's former supervisor and PCSO's IT Manager for 11 years before his recent retirement in August 2025, was instrumental in pushing through these approvals. Silva's 26 years of service to Placer County, including his leadership in IT innovations, helped secure the necessary signatures and county counsel involvement, ensuring the project's success. His contributions deserve recognition for bridging the gap between emerging tech and practical law enforcement needs.





ABOUT INTEGRATED BIOMETRICS

Integrated Biometrics, LLC designs and manufactures FBI-certified fingerprint sensors for law enforcement, military operations, homeland security, national identity, election validation, social services, and a wide range of commercial applications. The company's patented light emitting sensor technology enables lightweight scanners that outperform traditional prism-based devices in size, power consumption, portability, and reliability. Identity management solutions providers, government agencies, and corporations around the world rely on Integrated Biometrics' products to enroll and verify individual identity quickly and accurately, even in remote locations.

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