UNITED STATES

IDEMIA's MBIS delivers outstanding results for Michigan State Police

Michigan State Police benefits from the highest biometric matching accuracy
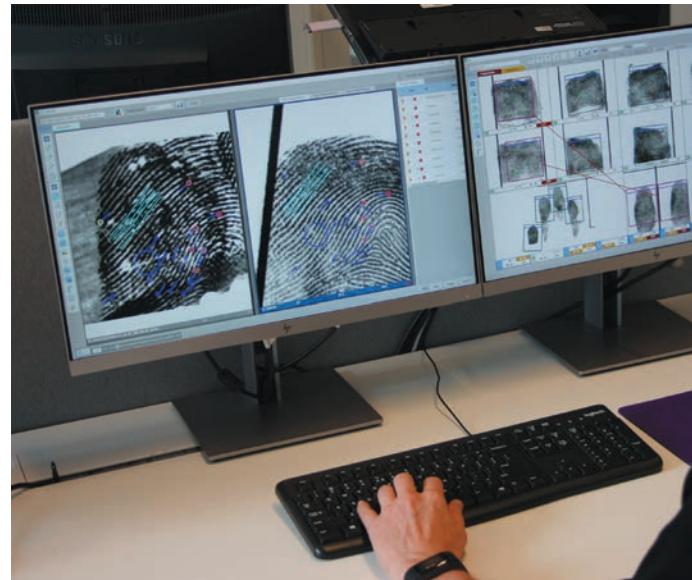
〈〈〉〉 IDEMIA

Needs and challenges

The Michigan State Police (MSP) has a clear vision. It wants a highly trained state police force that is equipped with a biometric matching system with the highest level of accuracy.

In the past, finding a match with lower-quality and partial fingerprints from a crime scene was a challenge. IDEMIA was selected to replace MSP's existing system with MBIS, a cloud-based Multi-Biometric Identification System.

Envisioning a new fingerprint matching system

Like with many law enforcement agencies around the world, collecting fingerprints from a crime scene and matching them against existing ones in a database is a crucial part of MSP's daily tasks. MSP's aim was to have a fingerprint matching system that was easy to use and could find a match with lower-quality and partial fingerprints.

When processing latent prints or preparing them for a search against a database, MSP had to go through several stages to enter print images. Furthermore, MSP had a separate NIST archive subsystem that stored original NIST files submitted from remote LiveScan stations.

Shortening the time to enter print images and having a built-in NIST archive system was part of MSP's vision for the future.

MBIS, a powerful solution for law enforcement agencies

Michigan State Police says it 'has a system that outperforms anything it has been exposed to.'

After a competitive procurement process in 2017, MSP concluded that its future forensic and identity management needs were best met by IDEMIA. MSP signed a five-year contract and worked together with IDEMIA to ensure a successful migration of its data to the new system, MBIS 4.2. IDEMIA's solution also includes a built-in archive system that retains and manages the original transactions as they are submitted to MBIS. The transition process from another vendor went smoothly and the entire process was completed within one year. Thanks to the flawless transfer of the data, IDEMIA delivered the system three months ahead of schedule.

Since 2018, 29 workstations have been deployed throughout Michigan. IDEMIA's technology supports MSP's Computerized Criminal History (CCH) system. The CCH system stores demographic information of Persons of Interest (POI). It keeps track of all the charges against a POI, and every time someone gets arrested it stores the demographic information in its system. MSP uses the CCH system to search for names of POIs, while mugshots of the POI are stored in MBIS.

MBIS sends latent prints to IDEMIA's investigative search engine, MBSS, which provides the operators with a list of potential matches from MSP's tenprint. Once the search is completed, investigators manually identify and decide if a match belongs to a potential suspect or someone who had legal access to the crime scene. Key aspects of MSP's system upgrade include a Record Comparison GUI (a component that allows MSP to have access to image enhancement tools for visual verification of prints) and a Dashboard, a powerful toolset that permits MSP to access and visualize detailed statistical information regarding the data stored within MBIS. The solution also includes a disaster recovery system and the implementation of a cloud-based structure. Easy to deploy, this cloud-based structure complies with stringent security standards for storage, transmission, monitoring, and recovery of digital information issued by the FBI's Criminal Justice Information Services (CJIS).

Outstanding results: MBIS creates new leads for thousands of investigations

Referred to as "a system that outperforms anything that MSP has been exposed to" by MSP itself, IDEMIA's technology was used to rerun 30,000 unknown prints from unsolved crimes against Michigan's print samples database in 2019. From the submitted prints, IDEMIA's technology produced 11,000 new potential hits that resulted in prosecutions. 1,500 of those hits were for high-priority crimes like homicides, rapes, abductions and armed robberies.

The algorithms integrated into IDEMIA's MBIS allow officers to use a tool that has the highest level of accuracy for their investigations. IDEMIA looks forward to seeing this new partnership develop, and will continue to support MSP in its vision to provide the best biometric matching software for its team.

Enhancing law enforcement capabilities
with biometrics

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