



HID® Lumidigm® Fingerprint Readers Fuel Efficiency and Prevent Fraud to Singapore's Driving License Programs

THE CHALLENGE

The Traffic Police is the Traffic Licensing Branch of the Singapore Police Force. This group enforces road traffic rules, investigates traffic violations and accidents, enhances road safety awareness among the public, regulates the education of drivers and administers driving tests. In addition, the division is responsible for issuing driving licenses and interacting with more than 2 million license holders across the country.

Applying for a driving license in Singapore was previously a time-consuming process – both for applicants and the Traffic Police. After passing a Practical Driving Test, applicants were required to submit a hardcopy application form and pay fees at a counter manned by a staff officer of the Traffic Licensing Branch. The officer would scrutinize and verify each applicant's identity against a submitted hardcopy photo and form before collating and batch sealing the items for transport to Traffic Police Headquarters. From there, photos and forms were processed for license production and mailing. It generally took several weeks from the day an application was submitted until the license reached the applicant.

In the performance of its multiple roles, the Traffic Police constantly seeks to leverage advanced technology to increase efficiencies and service standards. As part of a digitalization effort, the Traffic Licensing Branch sought to make the identity validation process more secure while improving enrollment efficiency and reducing manpower stationed at each of the driving schools.

The Traffic Licensing Branch turned to HID's partner, Secur Solutions Group (SSG), a Singapore-based company that provides consulting and solutions for smart card issuance and digital innovation in the financial, government and enterprise markets. SSG has been supporting the Traffic Police since 2002 when it was first awarded a tender to convert all paper-based licenses to highly durable plastic driving licenses secured against counterfeiting. Already familiar with the department's operations and workflow requirements, SSG was uniquely positioned to solve the applicant identity verification challenge for Singapore Traffic Police.

THE SOLUTION

SSG worked with the Traffic Police to deploy an electronic Know-Your-Customer (eKYC) identity verification system at each of the driving schools. The system electronically verifies a person's identity against a presented identification document, namely the national registration identity card or foreign workers permit.

As biometrics deliver the highest level of identity assurance, SSG incorporated HID's Lumidigm V-Series fingerprint readers into the eKYC identity verification system. These devices feature HID-patented multispectral imaging (MSI) technology, which is an advanced technique that captures both surface and sub-surface fingerprint data using multiple colors of light from different angles. This unique feature is what sets HID's Lumidigm MSI readers apart from other technologies.

HID Lumidigm MSI readers provide superior biometric capture performance regardless of the finger or environmental conditions and enables liveness detection that significantly diminishes the risk of the new eKYC system being compromised by fraudsters.

In addition, endpoint security is an important consideration when selecting a high-performing fingerprint reader. This sophisticated technology encrypts data to and from the HID Lumidigm reader using FBI-certified encryption algorithms. Should someone gain access to the fingerprint device, the endpoint security technology uses tamper-detection features to erase on-device encryption keys – preventing bad actors from capturing and decoding protected data and reducing the risk of enterprise-wide cyberattacks.

System rollout was completed in under four months. It took less than two weeks during the implementation process for the HID Lumidigm sensors to be integrated and put into operation at the driving schools.



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Tseng Wun Hsiung
CEO
Secur Solutions Group

RESULTS

The simple press of a finger is all that's required to confirm identities and enable applicants to move more efficiently through Singapore's license-issuing services. Traffic Police now achieves biometric matching of each 'live' thumbprint at its enrollment kiosks within seconds, enabling driving school staff to validate and enroll up to 700 individuals a day. The new workflow has cut approximately 1,440 manhours a month for the Traffic Police while simultaneously lowering the risk of identity fraud during enrollment.

The HID fingerprint readers provide unequaled levels of matching accuracy, security and durability for mission-critical environments. This advanced MSI fingerprint technology not only is backed by rigorous testing and global standards, but also has a proven track record worldwide in handling billions of transactions each year.

"The successful digitalization of identity dictates that all channels of enrollment – whether at a manned counter, a self-service booth or online – must be protected from the risk of identity fraud," said SSG CEO Tseng Wun Hsiung. "We deploy HID's Lumidigm sensors to validate identity at Singapore's driving schools with the highest possible levels of trust by accurately matching the applicant's thumbprint to the identity document. Digital photos of the applicants are captured immediately after eKYC identity validation and digitally secured for network transmission to the Traffic Police."

According to Hsiung, the HID Lumidigm sensors outperformed all alternatives with regard to speed and accuracy of fingerprint image acquisition. HID's Lumidigm readers delivered these capabilities regardless of challenging indoor and outdoor environments, and across a wide variety of skin types. This is a critical factor in ensuring smooth and continuous operations at the driving schools where applicant services are being sustained at the highest levels of performance.

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The ability to capture difficult fingerprints, detect liveness and provide endpoint security is what sets MSI readers apart. Delivering reliable, secure results over and over in busy settings such as Singapore's Traffic Licensing Branch is why HID fingerprint readers are relied upon for vital applications across government settings.

SOLUTION:

- HID Lumidigm Multispectral Imaging (MSI) Fingerprint Readers

BENEFITS:

- Able to read the most difficult finger types (dry, dirty, oily, wrinkled, damaged, etc.) across distinct skin tones and demographic groups
- Operate in challenging environments (bright sunlight, darkness, heat, cold, rain, etc.)
- Able to match with acute accuracy to reject fake or illegitimate users
- Secure endpoints to prevent hacking, protect data and networks, preserve corporate reputation and mitigate financial losses
- Deliver fast capture through a rugged system that's built to last for frequent, high-throughput use
- Contribute to a satisfying customer/employee biometric experience

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