# SHELL OIL

## LAGOS, NIGERIA

Shell Oil was in search for a biometric solution that would help them easily transition from a card-based access control system to one with biometrics. The new solution and pilot project would need to accommodate all the deployment challenges associated with a highly industrial environment of an oil refinery.

# Shell Refinery Deploys Customized Biometric Access Control Solution

As the case for any live deployment of Biometric Access Control System, there were challenges faced at the onset of determining the best biometric product for the oil refinery at Shell Nigeria due to challenges such as harsh environmental conditions, duplicate biometric record validation and a complex integration with their access control panel (ACP), legacy database and a mobile handheld system utilized at access points. Given the three main challenges, it was identified that the project would require extensive customization, so a highly responsive manufacturer support team was needed.

## The Best Biometric Access Control System Built for Your Harshest Environments

Shell Oil selected IXM SENSE with the optional Lumidigm multispectral fingerprint sensor to meet their rugged application's needs. The IXM SENSE devices are used for dual factor authentication of fingerprint plus HID Prox cards configured with Corporate 1000 Wiegand format. In addition to a customized version of firmware and IXM WEB, the deployment required integration with the existing Tyco C-CURE control panel via the Wiegand output lines. During the authentication process, specifically for the event of "User Not Found", the Wiegand output from the IXM SENSE provides the access card data in "Pass through" mode to the Tyco panel without further validation. The panel executes the final decision to open the door for card users that are outside of the local database.

For the enrollment process, a "duplicate checking" feature was added whereby a search is performed on a live fingerprint presented to the IXM SENSE against the master server database to determine if the biometric credential is unique or not. In the case of a "duplicate" match, IXM WEB provides a report with a list of the most relevant matching fingerprints. The site administrator performing the enrollment may select various options when presented with a "duplicate" match alert including (a) Stop enrollment, (b) Re-enroll or (c) Ignore and Save enrollment to database.

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## PROBLEM
Shell Oil had a variety of unique needs in addition to their rugged refinery setting. Between the need to check for dual enrollment in the case of terminated and re-hired employees and a long list of necessary integrations, the refinery's most pressing need was for a security manufacturer who would be responsive to the business's specific requests.

## SOLUTION
Invixium provided IXM SENSE, a rugged fingerprint biometric solution outfitted with the Lumidigm multispectral fingerprint sensor and the ability to read HID prox cards for dual-factor authentication. Invixium engineers also responded to Shell Oil's customization needs by adding a duplicate checking feature to IXM WEB as well as integrations with the refinery's many existing security solutions.

## BENEFITS
- Customization offers businesses a personalized security system that meets each of their needs, along with individualized support from Invixium's team of experts to ensure the solution executes perfectly
- Shell Oil is now able to ensure previously-terminated employees are not re-hired, with the option to override that logic if a manager chooses to
- Rugged biometrics from IXM SENSE with the Lumidigm multispectral fingerprint reader ensure Shell Oil's access control solution will never fail due to environmental conditions

"We found that Invixium was the most flexible with regards to design and flexibility to allow customizations. The best part about the IXM SENSE was the cost and playful design which was great in comparison to fingerprint readers in its class. My client was visibly excited by the attention paid to aesthetics."

Iwuchukwu Clement C, Head of Business Solutions (R&D) Unit at iTECO

"The traditional approach to one-size-fits-all is going obsolete. We take pride in being able to customize our products; an added value that Invixium brings to partners and customers like iTECO and Shell. We are the only biometric manufacturer with an R&D infrastructure designed to engineer solutions to meet the specific needs of any project."

Shiraz Kapadia, CEO & President at Invixium

## YOUR TRUSTED PARTNER IN BIOMETRICS

Headquartered in Toronto, Canada, with presence in India, Middle East, UK, USA, Latin America and Africa, Invixium manufactures touchless biometric security solutions utilizing face recognition for access control, workforce management and smart building automation. Their fully integrated hardware and software solution provides meaningful analytics to enterprises and industries for increased health, safety, productivity and security.

With 1000s of products sold in over 60 countries and deployments at major enterprises and industries across a broad spectrum of verticals, Invixium strives to provide industry-leading biometric solutions that are not only visually stunning, but also intuitive for ease of use and install. Invixium products are proudly Made in Canada.

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