



CASE STUDY

Yasref oil refinery optimises access control, security, and personnel management with Maxxess eFusion

The Yanbu Aramco Sinopec Refining Company (YASREF) is a world-class, full-conversion refinery using 400,000 barrels per day of Arabian heavy crude oil to produce premium transportation fuels, as well as high-value products for international markets. A joint venture between Saudi Aramco and the China Petrochemical Corporation, the refinery has been developed as an advanced facility to make a significant new contribution to the downstream portfolio of Saudi Aramco, with commercial and technical expertise driving additional value along the hydrocarbon chain. YASREF is also vital to the local economy as a key anchor project, providing highly skilled career opportunities.

Challenge

For this complex 5.2km² site, with high-value assets and thousands of staff, contractors, and visitors to protect, a powerful access control solution was needed to replace ageing automation technology. The old system was too slow and had features – including global anti-passback – no longer functioning adequately. So an up-to-date flexible and robust system was needed to secure all 220 access points around and within the perimeter.

Priorities included:

- ✓ A rapid software takeover with intuitive programming to avoid security downtime
- ✓ Migration of 5,000 cardholders without interruption to ongoing refining activities
- ✓ Integration with Vidsys PSIM to ensure complete and situational awareness without downtime

- ✓ Interoperability with SAP to manage core HR functions without interruption
- ✓ Easy-to-use ID badging using secure biometric credentials.

After a thorough market evaluation, Maxxess eFusion was chosen for its rich functionality and the fact that it would both harden security and enhance the user experience for all those working across this risk-critical site.

Solution

The Maxxess eFusion access control solution took less than a month to implement. The project involved transferring the complete database from the old access control system and driving data transformation using integration with SAP. This was a major undertaking that was completed without data loss and with no interruption to operations or site security.

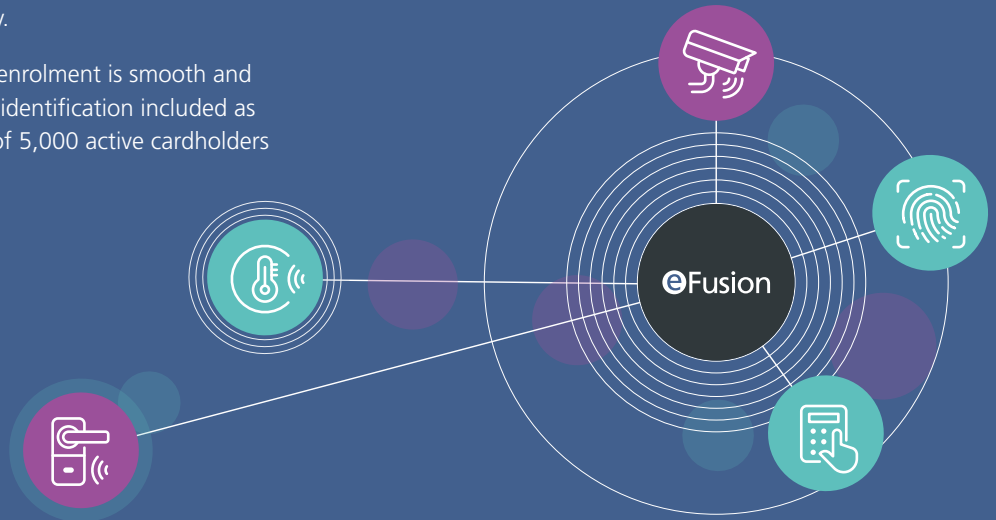
Workforce management: the data flow from YASREF's SAP human capital management system was streamlined through integration with eFusion, ensuring an enhanced employee experience and to allow YASREF's human resources department to manage core functions, as well as checking that employees have the right training and tools to support business growth.

Security and safety management: eFusion's feature-rich access control software integrates seamlessly with Vidsys PSIM to provide control room operators with a single user interface for operating multiple security and life safety systems. It gives operators complete domain awareness allowing access events – from day-to-day attendance timing to access denials and breaches – to trigger alerts. Presenting security teams with standard operating procedures supports them in initiating appropriate responses more quickly.

ID badging: eFusion ensures that enrolment is smooth and quick, with fingerprints and photo identification included as badges are printed. The database of 5,000 active cardholders

includes permanent staff, contractors, and VIP visitors, with more easily added as they are needed. Users are issued specific-coloured badges, allowing security to verify authorisations at-a-glance across the entire site.

Cybersecurity: cards are secured using HID Elite Key technology, to add an extra layer of protection. A custom authentication key protects the card number within the access control application of the card, by only matching cards and readers across the site. Two factor authentication, combining photo ID with fingerprints, further strengthens access security. To make this work, eFusion was seamlessly integrated with a Morpho Fingerprint system, allowing operators to manage readers and handle credentials efficiently through a single interface.



Benefits

As operations at YASREF continue to develop and expand, eFusion will continue to ensure improved data exchange and workflows, that streamline HR and security management operations. eFusion's global anti-backpass feature prevents cardholder credentials from being shared or used for improper access, and flags tailgating attempts.

By choosing eFusion YASREF is also now benefiting from:

- ✓ Strengthened security and rapid verification and response to access events
- ✓ Streamlined HR operations, thanks to seamless interoperability
- ✓ Secure onboarding and offboarding of staff, contractors, and visitors
- ✓ Advanced access tracking, audit functions and reporting
- ✓ Low operating and maintenance costs

With the deployment of Maxxess eFusion YASREF is optimising security and efficiency while demonstrating that the safety and wellbeing of its people, and the security of operations, will not be compromised.

YASREF Project Manager

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To learn more about how eFusion can empower your organisation to transform security, call Maxxess today or email sales@maxxess-systems.com

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