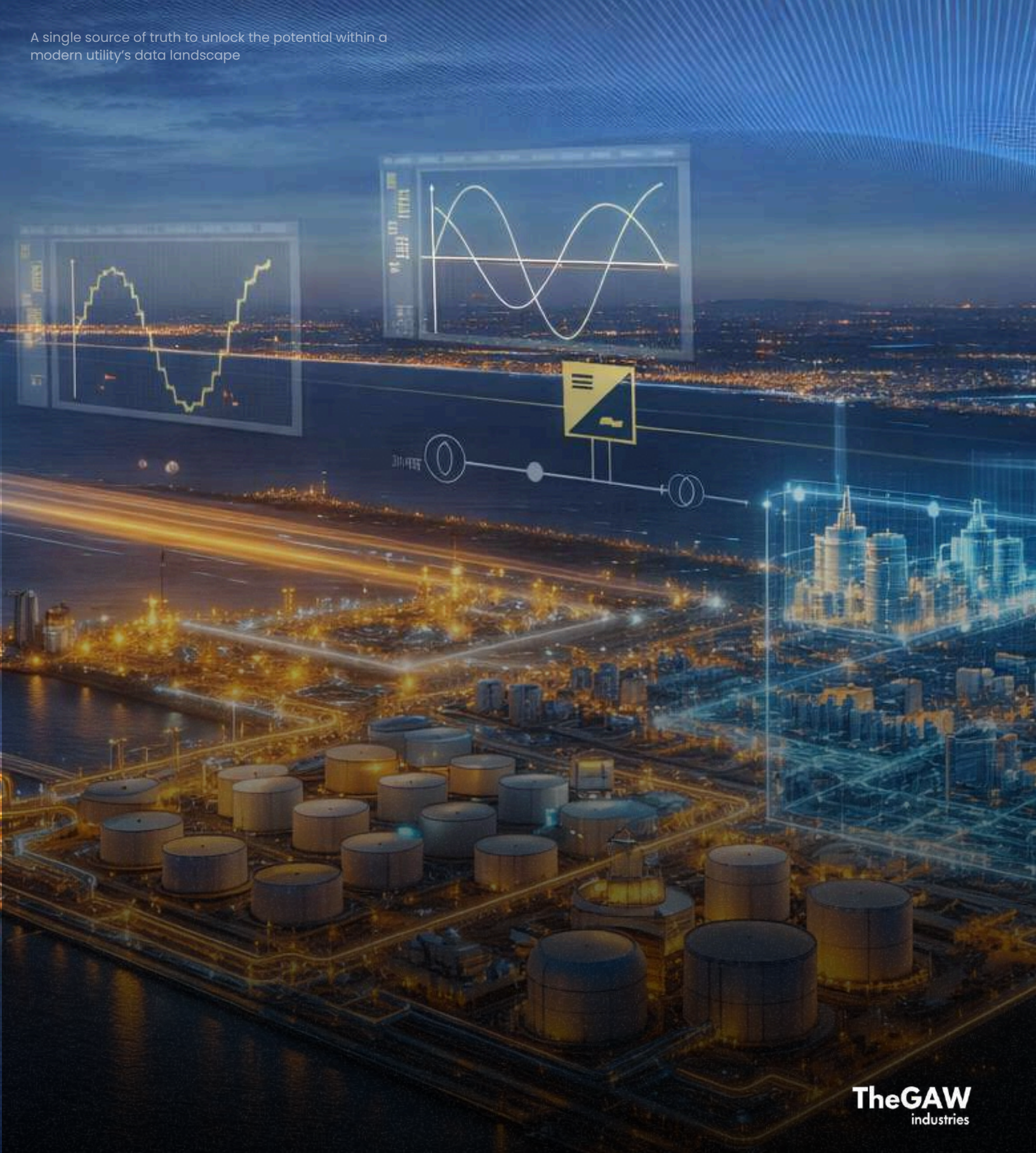
A single source of truth to unlock the potential within a modern utility's data landscape



TheGAW industries

DIGITAL SOLUTION

 # Oil and Gas Terminal Digital Platform

TANK INVENTORY & RECEIPT MANAGEMENT

Real-Time Control of Terminal Inventory

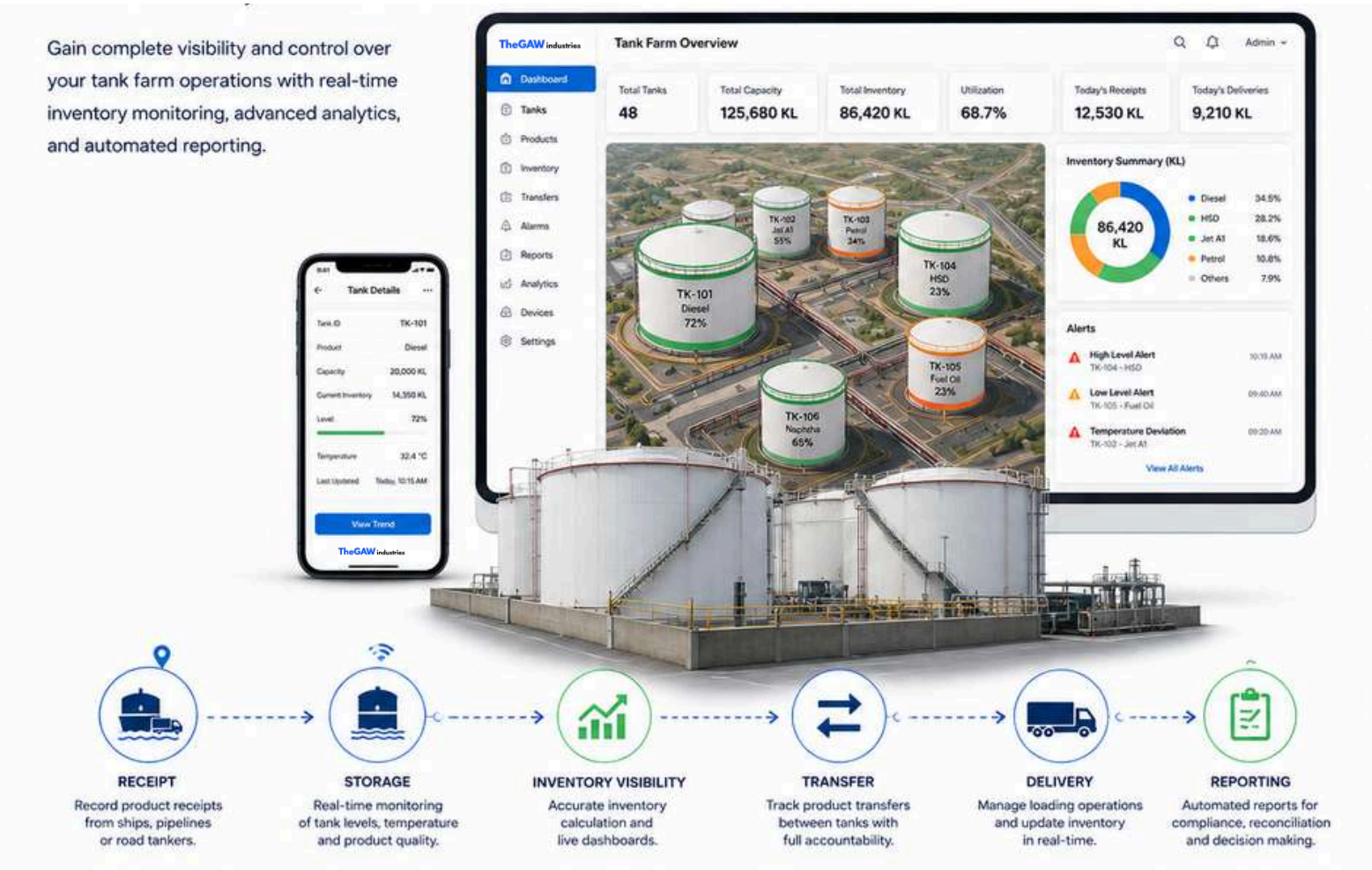
TheGAW Tank Inventory and Receipt Management solution provides centralized, real-time visibility of product levels, tank conditions and incoming product movements across the terminal. By integrating with tank gauging systems, flow meters and other field instruments, the system helps operators maintain accurate inventory records, monitor available storage capacity and track receipts from pipelines, marine facilities or road tankers. It also supports stock reconciliation, variance identification and automated reporting, allowing terminal teams to make faster and more informed operational decisions.

Key Features

- Real-time tank level and volume monitoring
- Product temperature and water-level monitoring
- Available capacity and ullage calculation
- High- and low-level alarm monitoring
- Pipeline, marine and truck receipt tracking
- Planned-versus-actual receipt comparison
- Daily stock reconciliation
- Gain and loss analysis
- Automated inventory and receipt reports

Benefits

- Improved inventory accuracy
- Reduced manual calculations
- Better storage-capacity planning
- Faster identification of stock differences
- Complete receipt and inventory traceability



GANTRY MANAGEMENT SYSTEM

Safe and Efficient Loading Operations

TheGAW Gantry Management System provides safe, accurate and efficient control of truck-loading operations across multiple loading bays. The solution integrates loading orders, batch controllers, flow meters, pumps, valves and safety interlocks into a single operating platform. It verifies the truck, driver, product and assigned quantity before loading begins, while continuously monitoring flow rate, loaded volume and equipment status. The system helps improve loading accuracy, strengthen safety compliance, reduce operational delays and maintain complete transaction records.

Key Features

- Loading order verification
- Driver and truck authorization
- Loading-bay selection and assignment
- Preset quantity and batch control
- Real-time flow and loaded-volume monitoring
- Pump and valve status monitoring
- Grounding and overfill interlocks
- Emergency shutdown integration
- Loading ticket generation
- Bay utilization and throughput reports

Benefits

- Faster truck loading
- Accurate product measurement
- Improved loading-bay utilization
- Reduced operational errors
- Stronger safety control
- Complete transaction records



TRUCK MANAGEMENT SYSTEM

Complete Vehicle Control from Entry to Exit

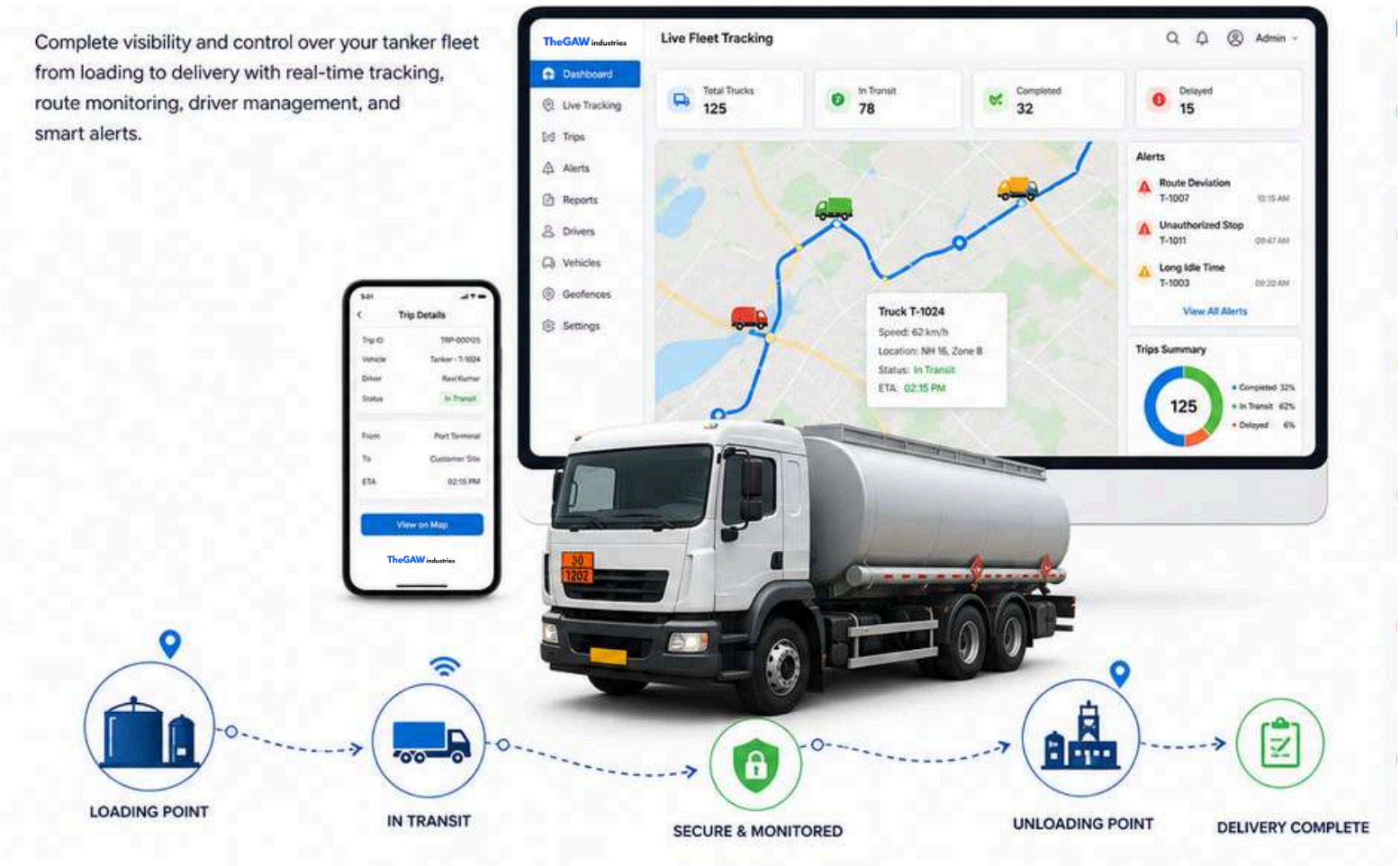
TheGAW Truck Management System manages the complete movement of trucks and drivers from terminal entry to final dispatch. It supports vehicle registration, driver verification, gate authorization, queue management, loading-bay assignment and exit control. The system can also integrate with RFID, QR codes, weighbridges and access-control systems to improve security and vehicle traceability. By recording each stage of the truck journey, the solution helps reduce congestion, improve turnaround time and ensure that only approved vehicles and drivers enter operational areas.

Key Features

- Truck and driver registration
- RFID, QR code or barcode identification
- Gate-entry and exit authorization
- Vehicle and document validation
- Electronic queue management
- Parking and loading-bay allocation
- Truck movement tracking
- Optional weighbridge integration
- Loading and dispatch confirmation
- Truck turnaround-time monitoring

Benefits

- Reduced terminal congestion
- Faster truck turnaround
- Improved gate security
- Better driver and vehicle compliance
- Complete entry-to-exit traceability
- Centralized truck-management records



Terminal HSE Digital Platform (THDP)

FOR GAS STORAGE TERMINALS

Real-Time Gas Monitoring. Faster Risk Detection. Safer Operations.

Gas storage terminals operate with flammable and potentially toxic gases under varying pressure and temperature conditions. Leakage from tanks, vessels, valves, pipelines, compressors or transfer systems can create serious risks to personnel, assets and the surrounding environment.

Gas odour may indicate a loss of containment, but manual observation cannot confirm the gas type, concentration, affected area or severity of the release. Delayed detection can increase the possibility of fire, explosion, toxic exposure, product loss and atmospheric emissions.

TheGAW Industries proposes a Terminal HSE Digital Platform (THDP) that combines gas-detection instrumentation, real-time data integration and an interactive digital representation of the facility. The platform provides continuous visibility of gas conditions across storage areas, process units, pipelines and loading facilities.

Intelligent Multi-Gas Monitoring

The solution can integrate existing detectors and additional hazardous-area-certified sensors to monitor combustible hydrocarbon gases, methane, propane, butane, hydrogen sulphide, ammonia, carbon monoxide and oxygen conditions

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Detector selection and placement are based on process conditions, probable leak sources, wind direction, ventilation, hazardous-area classification and terminal operating requirements.

Interactive Safety Visualisation

The terminal is represented through a 2D or 3D digital model. Each tank, detector, pipeline and operating area can be selected to view live gas concentration, gas type, alarm status, detector condition and historical trends.

Gas readings can also be displayed as a heat map, allowing the HSE team to immediately identify abnormal concentrations and affected areas across the facility.



DIGITAL LEAK INTELLIGENCE & HSE RESPONSE

The Terminal HSE Digital Platform (THDP) continuously analyses detector readings and identifies abnormal gas conditions before they develop into larger safety events.

When gas concentration exceeds a defined threshold, increases continuously or is detected by multiple nearby sensors, the platform generates alerts through the control-room dashboard, mobile application, email or SMS. The system also monitors detector health, communication loss and overdue calibration.

When connected to a weather station, the platform combines gas readings with wind speed and direction to provide better visibility of possible gas movement. This supports faster inspection, isolation, evacuation and emergency-response decisions.

DATA-DRIVEN RISK ASSESSMENT

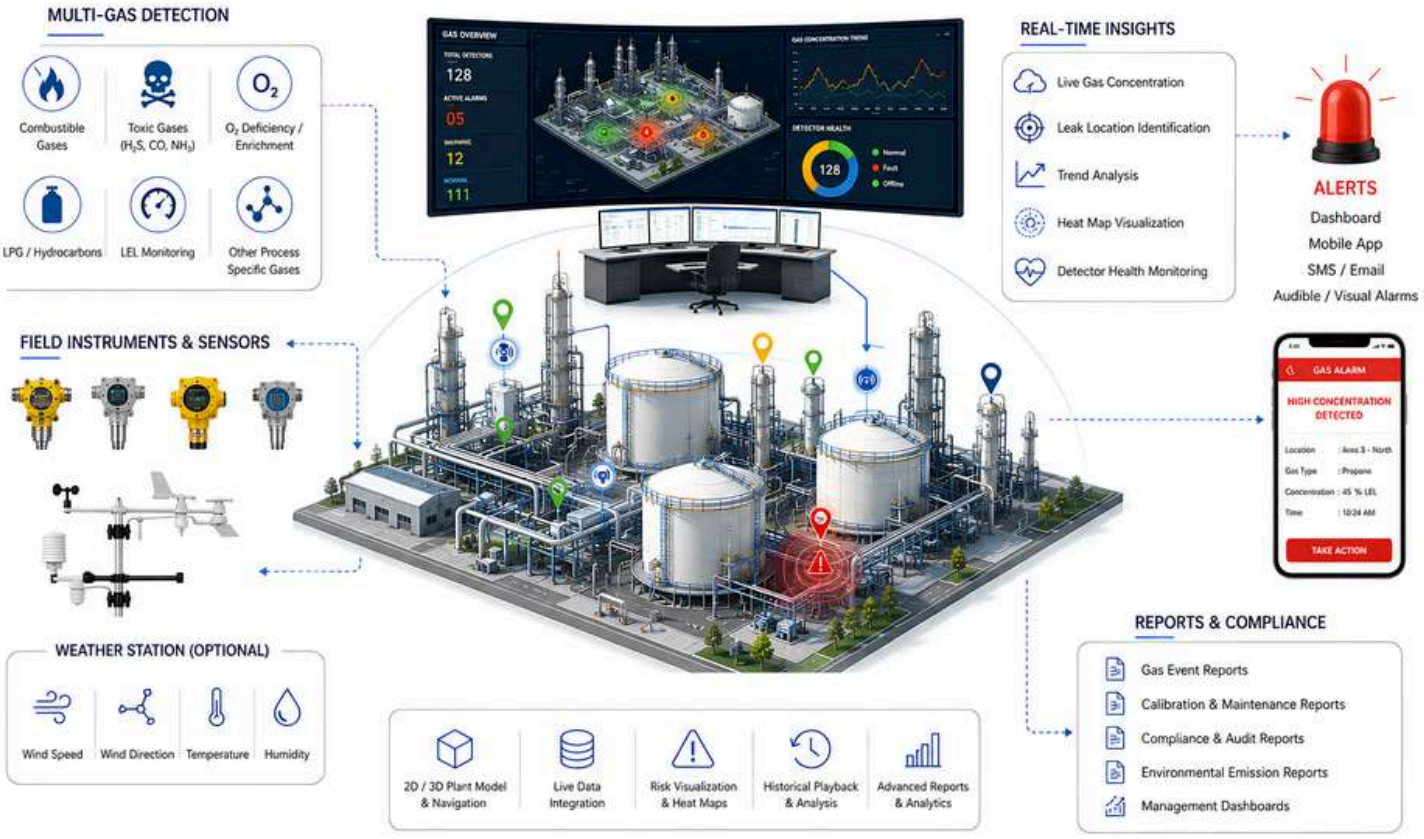
Historical gas readings, alarm records and equipment information are analysed to identify recurring leak locations, increasing concentration patterns and equipment requiring priority inspection.

The solution helps the terminal move from reactive leak response to proactive monitoring and condition-based maintenance. Repeated events can be linked with inspection findings and corrective actions until the source is repaired and verified.

AUTOMATED HSE & ENVIRONMENTAL REPORTING

The software automatically prepares gas-monitoring summaries, alarm-event reports, detector-health records, calibration status, recurring leak analysis and management dashboards.

Where sufficient process data are available, the system can also support the estimation of release duration, product loss and atmospheric emissions. This improves environmental visibility, audit readiness and long-term HSE performance.



TheGAW industries

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“WE SHIP WORLDWIDE”

For more information

www.gawindustries.com

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