

# Applications Case Study

## Refinery Equipment Upgrade

### The Challenge

A large refinery's gas detection safety system consisted of 400+ points, comprised of an uneven mix of different manufacturers' monitors for combustible methane and toxic hydrogen sulfide. Customer's complaints included non-standardization of equipment, lack of support, obsolete or unavailable spare parts and inability to adapt equipment to the needs of the primary plant Distributed Control System (DCS).



### The Solution

After an extensive evaluation process, the customer chose GDS Corp for all future replacement purchases. GDS Corp detectors and controller all feature high resolution displays, clear language-promoted setup and calibration procedures and interface operation, minimizing the need for retraining and "in-hand" documentation.

In addition, GDS Corp GASMAX gas monitors are available as two-wire or three-wire units, with isolated or non-isolated 4-20mA current loop outputs and industry standard MODBUS RS-485 interfaces, allowing new devices to be readily incorporated into existing systems however they may be currently wired. GDS Corp also features a range of loop-powered accessories that include relays, isolators and indicators that often provide the 'glue' necessary to solve a specific monitoring problem.



**GASMAX II  
with  
GDS-IR**

As an example of the flexibility provided by GDS Corp equipment, the customer made a specific request to allow programming the value transmitted by the GASMAX units during local calibration procedures, as the default value of 3.0mA was creating problems with the fault monitoring system in their primary DCS. GDS Corp was able to provide new firmware to the customer within four weeks, and included the new feature in all future shipments.

As a replacement for existing infrared combustible gas detectors, the customer chose the GASMAX II + GDS-IR combination detector. This unit combines our best long-path infrared detector with the local display, calibration, trending and optional alarm relay contacts available in the GASMAX II gas monitor. The GDS-IR is a complete, self-contained IR detector with microprocessor control, diagnostics and integral fault detection that can be programmed for methane, propane and many other hydrocarbon gases.

